

## Summary of variance estimates for PPI price changes, 2017

### Final Demand-Intermediate Demand System

*Final demand:* The 1-month median absolute percent change for the final demand index in 2017 was 0.21 percent, and the accompanying standard error (SE) was 0.11 percent. (See table A, and table 1 of the 2017 PPI variance data release.) Margins of error are usually expressed as plus and minus two standard errors to provide a 95-percent confidence interval with regard to the true change in a reference statistic. Subtracting two SE values from the 1-month absolute median percent change for the final demand index in 2017 includes zero. Therefore, in a typical 1-month period in 2017, the PPI's final demand index did not significantly change from the prior month. The *relative standard error* (RSE) values for the major components of the final demand index varied in 2017.<sup>1</sup> On a 1-month basis, the confidence interval for the goods component of final demand was somewhat narrower than the services and construction components, based on calculations of RSE. The 12-month data for the final demand index in 2017 indicates that the median absolute percent change was 2.37 percent, and the SE was 0.25 percent. Based on RSE measures for 12-month estimates, the 95-percent confidence interval again was narrower for the final demand goods index than it was for the services and construction indexes; however, each component posted a substantially smaller RSE for its 12-month estimate, compared to its 1-month result.

*Intermediate demand by commodity type:* The 1-month median absolute percent change in the index for processed goods for intermediate demand was 0.35 percent in 2017, and the SE value was 0.13 percent. On a 12-month basis, the corresponding values were 4.69 percent and 0.35 percent. Comparing RSE values for the 1- and 12-month calculations within processed goods for intermediate demand, estimates for the processed foods and feeds index were somewhat larger than those for the energy and core components. Relating to the index for unprocessed goods for intermediate demand, reference statistics and SE values for both the 1-month and 12-month analyses were generally larger in absolute terms, compared with the index for processed goods for intermediate demand; however, the RSE estimates were, for the most part, slightly smaller. Within the services for intermediate demand category, results aligned with those for final demand services. First, the 12-month SE values revealed narrower confidence intervals, on an RSE basis, than did the 1-month values. In addition, the component indexes for transportation and warehousing services and for services other than trade, transportation, and warehousing exhibited smaller RSE values than the trade services component. Lastly, the RSE values for intermediate demand services were somewhat larger than those calculated for processed goods for intermediate demand and unprocessed goods for intermediate demand.

*Intermediate demand by production flow:* The production flow treatment of intermediate demand organizes business-to-business type transactions, excluding transactions relating to capital investment purchases, by production stage, as opposed to type of commodity. The same basket of transactions is used to calculate both treatments of intermediate demand, though weighting differences exist between the two treatments. In 2017, the SE values calculated for the production-flow system closely paralleled those calculated for the commodity-type system. First, the goods

indexes posted relatively narrower 95-percent confidence intervals (i.e., smaller RSE values) than did the services and construction components of intermediate demand by production flow. Second, the RSE measures were generally smaller for 12-month changes compared to the 1-month percent change values.<sup>2</sup>

### **PPI Commodity-Based Index Structure**

The unique-to-PPI, commodity-based index structure comprises the detailed components used to construct the FD-ID aggregation system. Data users commonly use PPI commodity indexes to explain FD-ID index movements and as a measure of price changes for commodities regardless of the industry classification of the producing establishment. Variance data are provided for 2-, 3-, 4-, and 6-digit commodity-based indexes. On a 1-month basis in 2017, about 19 percent of PPI commodity indexes for which SE values were available, 196 of 1,030, posted RSE values of under 50. (See table B, and table 2 of the 2017 PPI variance data release.) Roughly 38.6 percent had RSE values between 50 and 100, while 42.3 percent had RSE values of 100 or more. On a 12-month basis, 644 of 1,502 PPI commodity indexes, 42.9 percent, posted RSE values of under 50. About 29.7 percent of the indexes had RSE values between 50 and 100, and 27.4 percent had RSE values of 100 or more.<sup>3</sup>

### **NAICS-Based Index Structure**

The basic unit for sampling and data collection in the PPI is the 6-digit industry under the North American Industry Classification System (NAICS). For this structure, PPI variance data are available for selected industry sector indexes; 3-, 4-, and 5-digit industry group indexes; and for 6-digit industry indexes. (See table C, and table 3 of the 2017 PPI variance data release.) The NAICS-based indexes are measures of changes in prices received for the industry's output, including primary, secondary and miscellaneous output, sold outside the industry (that is, its net output).

*Industry sector indexes:* On a 1-month basis in 2017, 5 of 13 industry sector indexes had RSE values of under 50, 7 posted values between 50 and 100, and 1 industry sector index had an RSE value of over 100. On a 12-month basis, 10 of the 13 industry sector indexes had an RSE of under 50. The industry sector indexes with consistently smaller RSE values were the groupings for mining industries, manufacturing industries, and transportation industries. The industry groupings for wholesale trade industries, retail trade industries, and information industries exhibited the largest RSE values in 2017, on both a 1-month and 12-month basis.

*3-, 4-, and 5-digit industry group indexes; and 6-digit industry indexes:* On a 1-month basis in 2017, 15.2 percent of indexes, 117 of 771, had RSE values of under 50, 40.5 percent had RSE values between 50 and 100, and 44.4 percent had RSE values of 100 or more. Reviewing these data by level of aggregation, a larger percentage of 3- and 4-digit aggregate indexes had smaller RSE values, while a larger percentage of 5- and 6-digit indexes posted larger RSE estimates. On a 12-month basis, 411 of 1,017 PPI industry and industry group indexes, 40.4 percent, posted an

RSE of under 50. Roughly 30.9 percent of indexes had an RSE between 50 and 100, while 28.7 percent posted an RSE of 100 or more. Reviewing these 12-month data by level of aggregation, once again, a larger percentage of higher level indexes posted smaller estimates of RSE, while a larger percentage of 5- and 6-digit indexes posted larger RSE estimates.

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<sup>1</sup> This summary includes a discussion of Relative Standard Error (RSE). RSE is defined as the SE divided by the reference statistic, multiplied by 100. An RSE of less than 50 reflects an SE that is half as large as the reference statistic, suggesting a relatively narrow confidence interval and 95-percent confidence relative to no change. An RSE of 50 or more but less than 100 represents an intermediate-width confidence interval that does not provide 95-percent confidence relative to no change. An RSE of 100 or more generally identifies an index with a wide 95-percent confidence interval; however, if a reference statistic is close to zero, the usefulness of RSE as an analysis tool diminishes substantially.

<sup>2</sup> Stage 4 producers primarily produce final demand goods, services, and construction, stage 3 producers primarily produce output for stage 4, stage 2 producers primarily produce output for stage 3, and stage 1 producers generally produce output for stage 2. The stage-based indexes measure changes in prices paid by each stage for goods, services, and construction, excluding capital investment.

<sup>3</sup> For the 1- and 12-month RSE distributions discussed here and in the following section, indexes with median absolute percent changes of less than 0.1 percent were excluded (other than the indexes for agricultural products, which are considered to reflect a census of information). As mentioned in note 1, when a reference statistic is close to zero, the usefulness of RSE as an analysis tool diminishes substantially.

**Table A. Variance estimates for selected PPI Final Demand–Intermediate Demand indexes, 2017**

| Index  | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error | 1-month relative standard error | 12-month relative standard error |
|--|--|-------------------------------|---|--------------------------------|---------------------------------|----------------------------------|
| <b>Final Demand</b>                                  |  |                               |   |                                |                                 |                                  |
| Final demand   | 0.21                                   | 0.11                          | 2.37                                    | 0.25                           | 52.4                            | 10.5                             |
| Final demand goods                                   | 0.36                                   | 0.08                          | 3.39                                    | 0.18                           | 22.2                            | 5.3                              |
| Final demand foods                                   | 0.31                                   | 0.21                          | 1.82                                    | 0.37                           | 67.7                            | 20.3                             |
| Final demand energy                                  | 1.51                                   | 0.38                          | 10.43                                   | 0.81                           | 25.2                            | 7.8                              |
| Final demand goods less foods and energy             | 0.15                                   | 0.05                          | 2.15                                    | 0.13                           | 33.3                            | 6.0                              |
| Final demand services                                | 0.17                                   | 0.17                          | 1.91                                    | 0.38                           | 100.0                           | 19.9                             |
| Final demand trade services                          | 0.58                                   | 0.44                          | 1.64                                    | 1.07                           | 75.9                            | 65.2                             |
| Final demand transportation and warehousing services | 0.49                                   | 0.20                          | 1.81                                    | 0.42                           | 40.8                            | 23.2                             |
| Final demand services, other                         | 0.18                                   | 0.11                          | 1.98                                    | 0.25                           | 61.1                            | 12.6                             |
| Final demand construction                            | 0.08                                   | 0.05                          | 2.18                                    | 0.19                           | 62.5                            | 8.7                              |
| <b>Intermediate Demand (ID) by Commodity Type</b>    |  |                               |   |                                |                                 |                                  |
| Processed goods for intermediate demand              | 0.35                                   | 0.13                          | 4.69                                    | 0.35                           | 37.1                            | 7.5                              |
| Processed foods and feeds                            | 0.35                                   | 0.27                          | 0.92                                    | 0.45                           | 77.1                            | 48.9                             |
| Processed energy goods                               | 1.09                                   | 0.44                          | 12.27                                   | 1.54                           | 40.4                            | 12.6                             |
| Processed materials less foods and energy            | 0.35                                   | 0.14                          | 3.51                                    | 0.32                           | 40.0                            | 9.1                              |
| Unprocessed goods for intermediate demand            | 0.91                                   | 0.20                          | 8.47                                    | 0.50                           | 22.0                            | 5.9                              |
| Unprocessed foodstuffs and feedstuffs                | 1.98                                   | 0.00                          | 3.10                                    | 0.00                           | 0.0                             | 0.0                              |
| Unprocessed energy materials                         | 3.74                                   | 0.52                          | 11.42                                   | 1.41                           | 13.9                            | 12.3                             |
| Unprocessed nonfood materials less energy            | 1.05                                   | 0.43                          | 11.90                                   | 1.06                           | 41.0                            | 8.9                              |
| Services for intermediate demand                     | 0.30                                   | 0.20                          | 2.70                                    | 0.39                           | 66.7                            | 14.4                             |
| Trade services for intermediate demand               | 0.38                                   | 0.62                          | 2.80                                    | 1.69                           | 163.2                           | 60.4                             |
| Transportation and warehousing services for ID       | 0.18                                   | 0.09                          | 1.92                                    | 0.44                           | 50.0                            | 22.9                             |
| Services for ID, other                               | 0.33                                   | 0.21                          | 2.65                                    | 0.40                           | 63.6                            | 15.1                             |
| Construction for intermediate demand                 | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           | 81.8                            | 37.8                             |
| <b>Intermediate Demand (ID) by Production Flow</b>   |  |                               |   |                                |                                 |                                  |
| Stage 4 intermediate demand                          | 0.24                                   | 0.13                          | 2.95                                    | 0.25                           | 54.2                            | 8.5                              |
| Total goods inputs to stage 4 intermediate demand    | 0.23                                   | 0.07                          | 2.95                                    | 0.22                           | 30.4                            | 7.5                              |
| Total services inputs to stage 4 intermediate demand | 0.40                                   | 0.24                          | 2.97                                    | 0.49                           | 60.0                            | 16.5                             |
| Total construction inputs to stage 4 ID              | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           | 81.8                            | 37.8                             |
| Stage 3 intermediate demand                          | 0.30                                   | 0.14                          | 4.35                                    | 0.31                           | 46.7                            | 7.1                              |
| Total goods inputs to stage 3 intermediate demand    | 0.47                                   | 0.18                          | 6.17                                    | 0.37                           | 38.3                            | 6.0                              |
| Total services inputs to stage 3 intermediate demand | 0.22                                   | 0.21                          | 2.49                                    | 0.51                           | 95.5                            | 20.5                             |
| Total construction inputs to stage 3 ID              | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           | 81.8                            | 37.8                             |
| Stage 2 intermediate demand                          | 0.49                                   | 0.14                          | 4.55                                    | 0.28                           | 28.6                            | 6.2                              |
| Total goods inputs to stage 2 intermediate demand    | 1.04                                   | 0.17                          | 7.17                                    | 0.43                           | 16.3                            | 6.0                              |
| Total services inputs to stage 2 intermediate demand | 0.13                                   | 0.21                          | 2.68                                    | 0.40                           | 161.5                           | 14.9                             |
| Total construction inputs to stage 2 ID              | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           | 81.8                            | 37.8                             |
| Stage 1 intermediate demand                          | 0.42                                   | 0.23                          | 5.97                                    | 0.55                           | 54.8                            | 9.2                              |
| Total goods inputs to stage 1 intermediate demand    | 0.77                                   | 0.29                          | 9.03                                    | 0.82                           | 37.7                            | 9.1                              |
| Total services inputs to stage 1 intermediate demand | 0.44                                   | 0.30                          | 2.15                                    | 0.72                           | 68.2                            | 33.5                             |
| Total construction inputs to stage 1 ID              | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           | 81.8                            | 37.8                             |

**Table B. Relative standard error (RSE) counts and percentages for selected PPI commodity-based indexes, 2017**

| 1-month RSE counts and percentages |       |         | 12-month RSE counts and percentages |       |         |
|------------------------------------|-------|---------|-------------------------------------|-------|---------|
| Category                           | Count | % total | Category                            | Count | % total |
| RSE < 50                           | 196   | 19.0    | RSE < 50                            | 644   | 42.9    |
| 50 ≤ RSE < 100                     | 398   | 38.6    | 50 ≤ RSE < 100                      | 446   | 29.7    |
| RSE ≥ 100                          | 436   | 42.3    | RSE ≥ 100                           | 412   | 27.4    |
| Total                              | 1,030 | 100.0   | Total                               | 1,502 | 100.0   |

Note: Indexes with median absolute percent changes of less than 0.1 percent were excluded from these counts. When the reference statistic is close to zero, the usefulness of RSE as an analysis tool diminishes substantially. These counts are based on values in table 2 of the 2017 PPI variance estimate release.

**Table C. Relative standard error (RSE) counts and percentages for selected PPI industry-based indexes, 2017**

| 1-month RSE counts and percentages |       |         | 12-month RSE counts and percentages |       |         |
|------------------------------------|-------|---------|-------------------------------------|-------|---------|
| Category                           | Count | % total | Category                            | Count | % total |
| <b>3-digit industry group</b>      |       |         | <b>3-digit industry group</b>       |       |         |
| RSE < 50                           | 13    | 30.2    | RSE < 50                            | 27    | 51.9    |
| 50 ≤ RSE < 100                     | 17    | 39.5    | 50 ≤ RSE < 100                      | 14    | 26.9    |
| RSE ≥ 100                          | 13    | 30.2    | RSE ≥ 100                           | 11    | 21.2    |
| Total                              | 43    | 100.0   | Total                               | 52    | 100.0   |
| <b>4-digit industry group</b>      |       |         | <b>4-digit industry group</b>       |       |         |
| RSE < 50                           | 22    | 17.6    | RSE < 50                            | 70    | 45.8    |
| 50 ≤ RSE < 100                     | 57    | 45.6    | 50 ≤ RSE < 100                      | 49    | 32.0    |
| RSE ≥ 100                          | 46    | 36.8    | RSE ≥ 100                           | 34    | 22.2    |
| Total                              | 125   | 100.0   | Total                               | 153   | 100.0   |
| <b>5-digit industry group</b>      |       |         | <b>5-digit industry group</b>       |       |         |
| RSE < 50                           | 30    | 13.0    | RSE < 50                            | 117   | 39.5    |
| 50 ≤ RSE < 100                     | 96    | 41.6    | 50 ≤ RSE < 100                      | 98    | 33.1    |
| RSE ≥ 100                          | 105   | 45.5    | RSE ≥ 100                           | 81    | 27.4    |
| Total                              | 231   | 100.0   | Total                               | 296   | 100.0   |
| <b>6-digit industry</b>            |       |         | <b>6-digit industry</b>             |       |         |
| RSE < 50                           | 52    | 14.0    | RSE < 50                            | 197   | 38.2    |
| 50 ≤ RSE < 100                     | 142   | 38.2    | 50 ≤ RSE < 100                      | 153   | 29.7    |
| RSE ≥ 100                          | 178   | 47.8    | RSE ≥ 100                           | 166   | 32.2    |
| Total                              | 372   | 100.0   | Total                               | 516   | 100.0   |
| <b>All categories</b>              |       |         | <b>All categories</b>               |       |         |
| RSE < 50                           | 117   | 15.2    | RSE < 50                            | 411   | 40.4    |
| 50 ≤ RSE < 100                     | 312   | 40.5    | 50 ≤ RSE < 100                      | 314   | 30.9    |
| RSE ≥ 100                          | 342   | 44.4    | RSE ≥ 100                           | 292   | 28.7    |
| Total                              | 771   | 100.0   | Total                               | 1,017 | 100.0   |

Note: Indexes with median absolute percent changes of less than 0.1 percent were excluded from these counts. When the reference statistic is close to zero, the usefulness of RSE as an analysis tool diminishes substantially. These counts are based on values in table 3 of the 2017 PPI variance estimate release.

**Table 1. Variance estimates for Producer Price Index Final Demand-Intermediate Demand indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| <b>Final Demand</b>   |            |  |                               |   |                                |
| Final demand  | FD4        | 0.21                                   | 0.11                          | 2.37                                    | 0.25                           |
| Final demand goods  | FD41       | 0.36                                   | 0.08                          | 3.39                                    | 0.18                           |
| Final demand foods  | FD411      | 0.31                                   | 0.21                          | 1.82                                    | 0.37                           |
| Finished consumer foods   | FD4111     | 0.40                                   | 0.22                          | 2.07                                    | 0.39                           |
| Finished consumer foods, processed  | FD41112    | 0.47                                   | 0.24                          | 0.89                                    | 0.42                           |
| Finished consumer foods, crude  | FD41113    | 4.72                                   | 0.00                          | 12.71                                   | 0.00                           |
| Government purchased foods  | FD4112     | 0.76                                   | 0.33                          | 2.50                                    | 0.50                           |
| Foods for export  | FD4113     | 0.52                                   | 0.19                          | 1.82                                    | 0.31                           |
| Final demand energy   | FD412      | 1.51                                   | 0.38                          | 10.43                                   | 0.81                           |
| Finished consumer energy goods  | FD4121     | 1.85                                   | 0.41                          | 9.04                                    | 0.75                           |
| Government purchased energy   | FD4122     | 0.73                                   | 0.56                          | 14.78                                   | 1.58                           |
| Energy for export   | FD4123     | 1.80                                   | 1.18                          | 22.20                                   | 3.52                           |
| Final demand goods less foods and energy  | FD413      | 0.15                                   | 0.05                          | 2.15                                    | 0.13                           |
| Finished goods less foods and energy  | FD4131     | 0.10                                   | 0.06                          | 1.81                                    | 0.17                           |
| Finished consumer goods less foods and energy   | FD41311    | 0.12                                   | 0.08                          | 2.42                                    | 0.26                           |
| Nondurable consumer goods less foods and energy   | FD413111   | 0.17                                   | 0.09                          | 3.30                                    | 0.41                           |
| Durable consumer goods  | FD413112   | 0.13                                   | 0.10                          | 1.18                                    | 0.21                           |
| Private capital equipment   | FD41312    | 0.10                                   | 0.06                          | 0.99                                    | 0.14                           |
| Private capital equipment for manufacturing industries  | FD413121   | 0.09                                   | 0.06                          | 1.07                                    | 0.28                           |
| Private capital equipment for nonmanufacturing industries                                     | FD413122   | 0.10                                   | 0.06                          | 0.90                                    | 0.14                           |
| Government purchased goods, excluding foods and energy  | FD4132     | 0.09                                   | 0.05                          | 1.42                                    | 0.20                           |
| Government purchased goods excluding foods, energy, and capital equipment                     | FD41321    | 0.13                                   | 0.08                          | 1.75                                    | 0.21                           |
| Government purchased capital equipment  | FD41322    | 0.03                                   | 0.04                          | 0.89                                    | 0.27                           |
| Goods for export, excluding foods and energy  | FD4133     | 0.23                                   | 0.09                          | 3.15                                    | 0.18                           |
| Final demand services   | FD42       | 0.17                                   | 0.17                          | 1.91                                    | 0.38                           |
| Final demand services less trade, transportation, and warehousing                             | FD421      | 0.18                                   | 0.11                          | 1.98                                    | 0.25                           |
| Finished services less trade, transportation, and warehousing                                 | FD4211     | 0.19                                   | 0.11                          | 1.98                                    | 0.26                           |
| Finished consumer services less trade, transportation, and warehousing                        | FD42111    | 0.16                                   | 0.12                          | 1.89                                    | 0.27                           |
| Private capital investment services less trade, transportation, and warehousing               | FD42112    | 0.29                                   | 0.14                          | 3.12                                    | 0.67                           |
| Government purchased services less trade, transportation, and warehousing                     | FD4212     | 0.17                                   | 0.14                          | 1.23                                    | 0.38                           |
| Gov. purchased services less trade, transportation, and warehousing, excl. capital investment | FD42121    | 0.16                                   | 0.15                          | 1.24                                    | 0.39                           |
| Government purchased capital investment services less trade, transportation, and warehousing  | FD42122    | 0.39                                   | 0.35                          | 0.59                                    | 0.99                           |
| Services for export less trade, transportation, and warehousing                               | FD4213     | 0.37                                   | 0.33                          | 3.45                                    | 0.60                           |
| Final demand transportation and warehousing services  | FD422      | 0.49                                   | 0.20                          | 1.81                                    | 0.42                           |
| Transportation of passengers for final demand   | FD4221     | 2.16                                   | 0.61                          | 2.48                                    | 0.99                           |
| Transportation of private passengers  | FD42211    | 2.15                                   | 0.61                          | 2.48                                    | 0.99                           |
| Transportation of government passengers   | FD42212    | 2.14                                   | 0.60                          | 2.47                                    | 0.98                           |
| Transportation of passengers for export   | FD42213    | 2.18                                   | 0.62                          | 2.48                                    | 1.00                           |
| Transportation and warehousing of goods for final demand                                      | FD4222     | 0.25                                   | 0.15                          | 2.18                                    | 0.48                           |
| Transportation and warehousing of finished goods  | FD42221    | 0.25                                   | 0.15                          | 2.18                                    | 0.51                           |
| Transportation and warehousing of personal consumption goods                                  | FD422211   | 0.25                                   | 0.15                          | 2.17                                    | 0.50                           |
| Transportation and warehousing of private capital equipment                                   | FD422212   | 0.19                                   | 0.16                          | 2.21                                    | 0.55                           |
| Transportation and warehousing of government purchased goods                                  | FD42222    | 0.29                                   | 0.15                          | 2.19                                    | 0.43                           |
| Transportation and warehousing of exports   | FD42223    | 0.22                                   | 0.12                          | 2.19                                    | 0.51                           |
| Final demand trade services   | FD423      | 0.58                                   | 0.44                          | 1.64                                    | 1.07                           |
| Trade of finished goods   | FD4231     | 0.62                                   | 0.43                          | 1.51                                    | 1.05                           |
| Trade of personal consumption goods   | FD42311    | 0.39                                   | 0.46                          | 1.38                                    | 1.18                           |
| Trade of private capital equipment  | FD42312    | 0.90                                   | 1.08                          | 2.02                                    | 1.85                           |
| Trade of government purchased goods   | FD4232     | 0.53                                   | 0.77                          | 3.10                                    | 1.91                           |
| Trade of government purchased goods, excluding capital equipment                              | FD42321    | 0.47                                   | 0.86                          | 4.46                                    | 2.85                           |
| Trade of government purchased capital equipment   | FD42322    | 0.96                                   | 1.28                          | 2.50                                    | 2.20                           |
| Trade of exports  | FD4233     | 0.55                                   | 0.77                          | 2.30                                    | 1.70                           |
| Final demand construction   | FD43       | 0.08                                   | 0.05                          | 2.18                                    | 0.19                           |
| Construction for private capital investment   | FD431      | 0.08                                   | 0.05                          | 2.22                                    | 0.20                           |
| Construction for government   | FD432      | 0.13                                   | 0.07                          | 2.08                                    | 0.33                           |
| Final demand less exports   | FD49101    | 0.21                                   | 0.11                          | 2.28                                    | 0.26                           |

**Table 1. Variance estimates for Producer Price Index Final Demand-Intermediate Demand indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Final demand less government   | FD49102    | 0.20                                   | 0.11                          | 2.34                                    | 0.26                           |
| Final demand less foods, food and nonalcoholic beverages for immediate consumption, and energy | FD49103    | 0.12                                   | 0.13                          | 1.90                                    | 0.29                           |
| Final demand less foods and energy   | FD49104    | 0.13                                   | 0.12                          | 1.95                                    | 0.28                           |
| Final demand less foods and food and nonalcoholic beverages for immediate consumption          | FD49105    | 0.24                                   | 0.12                          | 2.41                                    | 0.27                           |
| Final demand less foods  | FD49106    | 0.23                                   | 0.12                          | 2.42                                    | 0.26                           |
| Final demand less energy   | FD49107    | 0.12                                   | 0.12                          | 1.92                                    | 0.26                           |
| Final demand less trade services   | FD49108    | 0.23                                   | 0.07                          | 2.57                                    | 0.15                           |
| Final demand less distributive services  | FD49109    | 0.20                                   | 0.07                          | 2.61                                    | 0.16                           |
| Final demand goods less energy   | FD49111    | 0.20                                   | 0.07                          | 2.03                                    | 0.14                           |
| Final demand goods less foods  | FD49112    | 0.34                                   | 0.08                          | 3.81                                    | 0.20                           |
| Final demand services less trade services  | FD49113    | 0.15                                   | 0.10                          | 1.99                                    | 0.23                           |
| Final demand distributive services   | FD49114    | 0.48                                   | 0.38                          | 1.68                                    | 0.90                           |
| Final demand goods plus final demand distributive services                                     | FD49115    | 0.35                                   | 0.16                          | 2.81                                    | 0.39                           |
| Final demand less foods, energy, and trade services  | FD49116    | 0.14                                   | 0.07                          | 2.06                                    | 0.15                           |
| Private and government purchased capital equipment   | FD49117    | 0.09                                   | 0.05                          | 0.98                                    | 0.14                           |
| Private and government purchased capital investment services                                   | FD49118    | 0.53                                   | 0.57                          | 2.03                                    | 1.03                           |
| Total private and government purchased capital investment                                      | FD49119    | 0.30                                   | 0.26                          | 1.58                                    | 0.47                           |
| Total finished   | FD49201    | 0.20                                   | 0.12                          | 2.24                                    | 0.27                           |
| Total finished less foods, food & nonalcoholic beverages for immediate consumption, & energy   | FD49202    | 0.15                                   | 0.13                          | 1.85                                    | 0.30                           |
| Total finished less foods and energy   | FD49203    | 0.15                                   | 0.13                          | 1.86                                    | 0.30                           |
| Total finished less foods and food and nonalcoholic beverages for immediate consumption        | FD49204    | 0.22                                   | 0.13                          | 2.25                                    | 0.28                           |
| Total finished less foods  | FD49205    | 0.22                                   | 0.13                          | 2.25                                    | 0.28                           |
| Total finished less energy   | FD49206    | 0.13                                   | 0.12                          | 1.84                                    | 0.28                           |
| Finished goods   | FD49207    | 0.42                                   | 0.10                          | 3.12                                    | 0.23                           |
| Finished goods less energy   | FD49208    | 0.20                                   | 0.08                          | 1.79                                    | 0.16                           |
| Finished goods, excluding foods  | FD49209    | 0.46                                   | 0.12                          | 3.62                                    | 0.27                           |
| Finished services  | FD49210    | 0.21                                   | 0.17                          | 1.86                                    | 0.38                           |
| Private capital investment services  | FD49211    | 0.50                                   | 0.54                          | 2.08                                    | 1.00                           |
| Finished distributive services   | FD49212    | 0.51                                   | 0.38                          | 1.55                                    | 0.91                           |
| Finished services less trade services  | FD49213    | 0.16                                   | 0.10                          | 1.98                                    | 0.24                           |
| Finished services less distributive services   | FD49214    | 0.18                                   | 0.11                          | 1.94                                    | 0.25                           |
| Total private capital investment (goods, services, and construction)                           | FD49215    | 0.31                                   | 0.27                          | 1.62                                    | 0.48                           |
| Finished goods plus finished distributive services   | FD49216    | 0.43                                   | 0.19                          | 2.53                                    | 0.44                           |
| Total exports  | FD49301    | 0.29                                   | 0.15                          | 3.16                                    | 0.28                           |
| Goods for export   | FD49302    | 0.27                                   | 0.08                          | 3.61                                    | 0.17                           |
| Services for export  | FD49303    | 0.26                                   | 0.37                          | 2.64                                    | 0.73                           |
| Total government purchases   | FD49401    | 0.25                                   | 0.11                          | 2.88                                    | 0.28                           |
| Government purchased goods   | FD49402    | 0.29                                   | 0.14                          | 4.33                                    | 0.37                           |
| Government purchased services  | FD49403    | 0.16                                   | 0.19                          | 1.64                                    | 0.45                           |
| Total government purchased capital investment (goods, services, and construction)              | FD49404    | 0.26                                   | 0.21                          | 1.31                                    | 0.38                           |
| Personal consumption   | FD49501    | 0.22                                   | 0.13                          | 2.31                                    | 0.30                           |
| Personal consumption goods (finished consumer goods)   | FD49502    | 0.57                                   | 0.14                          | 3.87                                    | 0.31                           |
| Personal consumption goods less energy   | FD49503    | 0.24                                   | 0.10                          | 2.24                                    | 0.22                           |
| Personal consumption goods less foods  | FD49504    | 0.62                                   | 0.16                          | 4.86                                    | 0.38                           |
| Personal consumption services  | FD49505    | 0.23                                   | 0.16                          | 1.67                                    | 0.40                           |
| Personal consumption less trade services   | FD49506    | 0.21                                   | 0.09                          | 2.54                                    | 0.19                           |
| Personal consumption less distributive services  | FD49507    | 0.22                                   | 0.09                          | 2.54                                    | 0.20                           |
| Personal consumption nondurable goods less foods   | FD49508    | 0.89                                   | 0.22                          | 6.10                                    | 0.48                           |
| Personal consumption goods plus personal consumption distributive services                     | FD49509    | 0.42                                   | 0.20                          | 2.87                                    | 0.50                           |
| Personal consumption less foods and energy   | FD49510    | 0.19                                   | 0.14                          | 1.80                                    | 0.34                           |
| Personal consumption less foods, energy, and trade services                                    | FD49511    | 0.14                                   | 0.10                          | 1.98                                    | 0.22                           |
| Personal consumption less foods, energy, and distributive services                             | FD49512    | 0.15                                   | 0.10                          | 1.99                                    | 0.23                           |
|  |            |  |                               |   |                                |
|  |            |  |                               |   |                                |
| <b>Intermediate Demand by Commodity Type</b>   |            |  |                               |   |                                |
| Processed goods for intermediate demand  | ID61       | 0.35                                   | 0.13                          | 4.69                                    | 0.35                           |
| Materials and components for manufacturing   | ID611      | 0.35                                   | 0.22                          | 4.21                                    | 0.47                           |
| Materials for manufacturing  | ID6111     | 0.52                                   | 0.35                          | 6.50                                    | 0.75                           |

**Table 1. Variance estimates for Producer Price Index Final Demand-Intermediate Demand indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Materials for food manufacturing   | ID61111    | 0.55                                   | 0.34                          | 2.70                                    | 0.60                           |
| Materials for nondurable manufacturing   | ID61112    | 0.81                                   | 0.66                          | 7.34                                    | 1.48                           |
| Materials for durable manufacturing  | ID61113    | 0.32                                   | 0.14                          | 6.66                                    | 0.61                           |
| Components for manufacturing   | ID6112     | 0.11                                   | 0.06                          | 0.80                                    | 0.17                           |
| Components for nondurable manufacturing  | ID61121    | 0.24                                   | 0.16                          | 1.89                                    | 0.67                           |
| Components for durable manufacturing   | ID61122    | 0.10                                   | 0.06                          | 0.74                                    | 0.17                           |
| Materials and components for construction  | ID612      | 0.25                                   | 0.12                          | 2.53                                    | 0.25                           |
| Materials for construction   | ID6121     | 0.22                                   | 0.11                          | 2.90                                    | 0.32                           |
| Components for construction  | ID6122     | 0.27                                   | 0.11                          | 2.15                                    | 0.36                           |
| Processed fuels and lubricants for intermediate demand                               | ID613      | 1.09                                   | 0.44                          | 12.27                                   | 1.52                           |
| Processed fuels and lubricants to manufacturing industries                           | ID6131     | 1.38                                   | 0.92                          | 15.18                                   | 3.18                           |
| Processed fuels and lubricants to nonmanufacturing industries                        | ID6132     | 1.24                                   | 0.46                          | 11.53                                   | 1.41                           |
| Containers for intermediate demand   | ID614      | 0.20                                   | 0.19                          | 3.97                                    | 0.58                           |
| Supplies for intermediate demand   | ID615      | 0.19                                   | 0.07                          | 1.70                                    | 0.19                           |
| Supplies to manufacturing industries   | ID6151     | 0.30                                   | 0.11                          | 2.62                                    | 0.42                           |
| Supplies to nonmanufacturing industries  | ID6152     | 0.20                                   | 0.08                          | 1.62                                    | 0.18                           |
| Supplies to nonmanufacturing industries, feeds                                       | ID61521    | 1.22                                   | 0.31                          | 4.34                                    | 1.08                           |
| Supplies to nonmanufacturing industries, other than feeds                            | ID61522    | 0.20                                   | 0.07                          | 1.85                                    | 0.18                           |
| Unprocessed goods for intermediate demand  | ID62       | 0.91                                   | 0.20                          | 8.47                                    | 0.50                           |
| Unprocessed foodstuffs and feedstuffs  | ID621      | 1.98                                   | 0.00                          | 3.10                                    | 0.00                           |
| Unprocessed nonfood materials  | ID622      | 2.21                                   | 0.34                          | 11.78                                   | 0.93                           |
| Unprocessed nonfood materials except fuel  | ID6221     | 2.03                                   | 0.33                          | 13.04                                   | 0.85                           |
| Unprocessed nonfood materials except fuel to manufacturing industries                | ID62211    | 2.14                                   | 0.35                          | 13.64                                   | 0.90                           |
| Unprocessed nonfood materials except fuel to nonmanufacturing industries             | ID62212    | 0.27                                   | 0.19                          | 3.04                                    | 1.73                           |
| Unprocessed fuel   | ID6222     | 1.93                                   | 0.66                          | 13.59                                   | 2.41                           |
| Unprocessed fuel to manufacturing industries   | ID62221    | 1.08                                   | 0.50                          | 6.54                                    | 2.79                           |
| Unprocessed fuel to nonmanufacturing industries                                      | ID62222    | 1.98                                   | 0.66                          | 13.98                                   | 2.42                           |
| Services for intermediate demand   | ID63       | 0.30                                   | 0.20                          | 2.70                                    | 0.39                           |
| Services less trade, transportation, and warehousing for intermediate demand         | ID631      | 0.33                                   | 0.21                          | 2.65                                    | 0.40                           |
| Services less trade, transportation, and warehousing for manufacturing industries    | ID6311     | 0.14                                   | 0.10                          | 1.71                                    | 0.29                           |
| Services less trade, transportation, and warehousing for nonmanufacturing industries | ID6312     | 0.34                                   | 0.21                          | 2.68                                    | 0.41                           |
| Transportation and warehousing services for intermediate demand                      | ID632      | 0.18                                   | 0.09                          | 1.92                                    | 0.44                           |
| Transportation of passengers for intermediate demand                                 | ID6321     | 2.13                                   | 0.60                          | 2.47                                    | 0.98                           |
| Transportation of passengers for manufacturing industries                            | ID63211    | 2.18                                   | 0.62                          | 2.48                                    | 1.00                           |
| Transportation of passengers for nonmanufacturing industries                         | ID63212    | 2.12                                   | 0.60                          | 2.47                                    | 0.97                           |
| Transportation and warehousing of goods for intermediate demand                      | ID6322     | 0.18                                   | 0.09                          | 1.94                                    | 0.46                           |
| Transportation of goods for manufacturing industries                                 | ID63221    | 0.22                                   | 0.12                          | 2.25                                    | 0.42                           |
| Transportation of goods for nonmanufacturing industries                              | ID63222    | 0.19                                   | 0.08                          | 1.91                                    | 0.53                           |
| Trade services for intermediate demand   | ID633      | 0.38                                   | 0.62                          | 2.80                                    | 1.69                           |
| Trade services for manufacturing industries  | ID6331     | 0.20                                   | 0.80                          | 2.55                                    | 1.88                           |
| Trade services for nonmanufacturing industries                                       | ID6332     | 0.50                                   | 0.59                          | 3.03                                    | 1.66                           |
| Construction for intermediate demand   | ID64       | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |
| Processed materials less foods and feeds   | ID69111    | 0.40                                   | 0.14                          | 5.00                                    | 0.39                           |
| Processed foods and feeds  | ID69112    | 0.35                                   | 0.27                          | 0.92                                    | 0.45                           |
| Processed energy goods   | ID69113    | 1.09                                   | 0.44                          | 12.27                                   | 1.54                           |
| Processed materials less foods and energy  | ID69115    | 0.35                                   | 0.14                          | 3.51                                    | 0.32                           |
| Intermediate distributive services   | ID69116    | 0.28                                   | 0.38                          | 2.41                                    | 1.02                           |
| Processed goods plus intermediate distributive services                              | ID69117    | 0.33                                   | 0.15                          | 4.27                                    | 0.34                           |
| Processed materials less energy  | ID69118    | 0.29                                   | 0.13                          | 3.22                                    | 0.29                           |
| Unprocessed materials less agricultural products                                     | ID69211    | 2.48                                   | 0.36                          | 12.12                                   | 1.01                           |
| Unprocessed energy materials   | ID69212    | 3.74                                   | 0.52                          | 11.42                                   | 1.41                           |
| Unprocessed materials less energy  | ID69213    | 1.62                                   | 0.16                          | 5.83                                    | 0.39                           |
| Nonfood materials ex. fuel for mfg, ex. selected items                               | ID69215    | 2.16                                   | 0.36                          | 13.86                                   | 0.92                           |
| Unprocessed nonfood materials less energy  | ID69216    | 1.05                                   | 0.43                          | 11.90                                   | 1.06                           |
|  |            |  |                               |   |                                |



**Table 1. Variance estimates for Producer Price Index Final Demand-Intermediate Demand indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| <b>Intermediate Demand by Production Flow</b>  |            |  |                               |   |                                |
| Stage 4 intermediate demand  | ID54       | 0.24                                   | 0.13                          | 2.95                                    | 0.25                           |
| Inputs to stage 4 goods producers  | ID541      | 0.18                                   | 0.15                          | 2.67                                    | 0.38                           |
| Inputs to stage 4 goods producers, goods   | ID5411     | 0.24                                   | 0.08                          | 2.59                                    | 0.29                           |
| Inputs to stage 4 goods producers, foods   | ID54111    | 0.71                                   | 0.17                          | 2.34                                    | 0.36                           |
| Inputs to stage 4 goods producers, energy  | ID54112    | 0.66                                   | 0.63                          | 12.91                                   | 3.66                           |
| Inputs to stage 4 goods producers, goods excluding foods and energy                            | ID54113    | 0.15                                   | 0.07                          | 1.98                                    | 0.21                           |
| Inputs to stage 4 goods producers, services  | ID5412     | 0.21                                   | 0.62                          | 3.13                                    | 1.57                           |
| Inputs to stage 4 goods producers, services less trade, transportation, and warehousing        | ID54121    | 0.10                                   | 0.13                          | 1.95                                    | 0.41                           |
| Inputs to stage 4 goods producers, transportation and warehousing services                     | ID54122    | 0.70                                   | 0.24                          | 1.48                                    | 0.47                           |
| Inputs to stage 4 goods producers, transportation of passengers                                | ID541221   | 2.18                                   | 0.62                          | 2.48                                    | 1.00                           |
| Inputs to stage 4 goods producers, transportation and warehousing of goods                     | ID541222   | 0.21                                   | 0.17                          | 1.87                                    | 0.57                           |
| Inputs to stage 4 goods producers, trade services  | ID54123    | 0.33                                   | 0.78                          | 3.47                                    | 1.99                           |
| Inputs to stage 4 services producers   | ID542      | 0.20                                   | 0.16                          | 2.90                                    | 0.31                           |
| Inputs to stage 4 services producers, goods  | ID5421     | 0.34                                   | 0.11                          | 2.50                                    | 0.27                           |
| Inputs to stage 4 services producers, foods  | ID54211    | 0.65                                   | 0.36                          | 1.49                                    | 0.61                           |
| Inputs to stage 4 services producers, energy   | ID54212    | 1.02                                   | 0.34                          | 5.78                                    | 1.05                           |
| Inputs to stage 4 services producers, goods excluding foods and energy                         | ID54213    | 0.14                                   | 0.06                          | 1.80                                    | 0.25                           |
| Inputs to stage 4 services producers, services   | ID5422     | 0.41                                   | 0.22                          | 3.12                                    | 0.43                           |
| Inputs to stage 4 services producers, services less trade, transportation, and warehousing     | ID54221    | 0.34                                   | 0.21                          | 3.05                                    | 0.45                           |
| Inputs to stage 4 services producers, transportation and warehousing services                  | ID54222    | 0.41                                   | 0.15                          | 1.85                                    | 0.43                           |
| Inputs to stage 4 services producers, transportation of passengers                             | ID542221   | 2.18                                   | 0.62                          | 2.48                                    | 1.00                           |
| Inputs to stage 4 services producers, transportation and warehousing of goods                  | ID542222   | 0.27                                   | 0.15                          | 2.14                                    | 0.47                           |
| Inputs to stage 4 services producers, trade services   | ID54223    | 0.40                                   | 0.83                          | 3.21                                    | 2.49                           |
| Inputs to stage 4 services producers, construction   | ID5423     | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |
| Inputs to stage 4 construction producers   | ID543      | 0.44                                   | 0.13                          | 3.59                                    | 0.35                           |
| Inputs to stage 4 construction producers, goods  | ID5431     | 0.49                                   | 0.13                          | 4.25                                    | 0.39                           |
| Inputs to stage 4 construction producers, energy   | ID54312    | 1.89                                   | 0.83                          | 24.92                                   | 4.30                           |
| Inputs to stage 4 construction producers, goods excluding foods and energy                     | ID54313    | 0.24                                   | 0.11                          | 2.56                                    | 0.23                           |
| Inputs to stage 4 construction producers, services   | ID5432     | 0.28                                   | 0.32                          | 2.03                                    | 0.80                           |
| Inputs to stage 4 construction producers, services less trade, transportation, and warehousing | ID54321    | 0.28                                   | 0.26                          | 2.58                                    | 0.57                           |
| Inputs to stage 4 construction producers, transportation and warehousing services              | ID54322    | 0.21                                   | 0.16                          | 1.96                                    | 0.54                           |
| Inputs to stage 4 construction producers, transportation of passengers                         | ID543221   | 1.89                                   | 0.53                          | 2.32                                    | 0.87                           |
| Inputs to stage 4 construction producers, transportation and warehousing of goods              | ID543222   | 0.21                                   | 0.17                          | 2.02                                    | 0.56                           |
| Inputs to stage 4 construction producers, trade services                                       | ID54323    | 0.38                                   | 0.57                          | 2.03                                    | 1.44                           |
| Stage 3 intermediate demand  | ID53       | 0.30                                   | 0.14                          | 4.35                                    | 0.31                           |
| Inputs to stage 3 goods producers  | ID531      | 0.89                                   | 0.20                          | 4.23                                    | 0.42                           |
| Inputs to stage 3 goods producers, goods   | ID5311     | 1.08                                   | 0.18                          | 4.58                                    | 0.41                           |
| Inputs to stage 3 goods producers, foods   | ID53111    | 2.23                                   | 0.03                          | 3.63                                    | 0.06                           |
| Inputs to stage 3 goods producers, energy  | ID53112    | 1.30                                   | 0.96                          | 14.37                                   | 2.54                           |
| Inputs to stage 3 goods producers, goods excluding foods and energy                            | ID53113    | 0.40                                   | 0.26                          | 4.57                                    | 0.58                           |
| Inputs to stage 3 goods producers, services  | ID5312     | 0.17                                   | 0.67                          | 2.07                                    | 1.59                           |
| Inputs to stage 3 goods producers, services less trade, transportation, and warehousing        | ID53121    | 0.15                                   | 0.14                          | 1.71                                    | 0.37                           |
| Inputs to stage 3 goods producers, transportation and warehousing services                     | ID53122    | 0.23                                   | 0.10                          | 3.65                                    | 0.85                           |
| Inputs to stage 3 goods producers, transportation of passengers                                | ID531221   | 1.79                                   | 0.51                          | 2.19                                    | 0.83                           |
| Inputs to stage 3 goods producers, transportation and warehousing of goods                     | ID531222   | 0.35                                   | 0.10                          | 3.68                                    | 0.89                           |
| Inputs to stage 3 goods producers, trade services  | ID53123    | 0.21                                   | 0.83                          | 1.97                                    | 1.95                           |
| Inputs to stage 3 goods producers, construction  | ID5313     | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |
| Inputs to stage 3 services producers   | ID532      | 0.39                                   | 0.17                          | 4.51                                    | 0.40                           |
| Inputs to stage 3 services producers, goods  | ID5321     | 1.42                                   | 0.45                          | 10.98                                   | 0.80                           |
| Inputs to stage 3 services producers, foods  | ID53211    | 1.11                                   | 0.32                          | 1.94                                    | 0.79                           |
| Inputs to stage 3 services producers, energy   | ID53212    | 2.06                                   | 0.68                          | 16.63                                   | 1.25                           |
| Inputs to stage 3 services producers, goods excluding foods and energy                         | ID53213    | 0.10                                   | 0.06                          | 1.05                                    | 0.25                           |
| Inputs to stage 3 services producers, services   | ID5322     | 0.24                                   | 0.18                          | 2.66                                    | 0.45                           |
| Inputs to stage 3 services producers, services less trade, transportation, and warehousing     | ID53221    | 0.23                                   | 0.25                          | 2.46                                    | 0.41                           |
| Inputs to stage 3 services producers, transportation and warehousing services                  | ID53222    | 0.16                                   | 0.10                          | 1.99                                    | 0.66                           |
| Inputs to stage 3 services producers, transportation of passengers                             | ID532221   | 1.92                                   | 0.54                          | 2.37                                    | 0.88                           |

**Table 1. Variance estimates for Producer Price Index Final Demand-Intermediate Demand indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Inputs to stage 3 services producers, transportation and warehousing of goods                  | ID532222   | 0.16                                   | 0.10                          | 1.98                                    | 0.66                           |
| Inputs to stage 3 services producers, trade services   | ID53223    | 0.52                                   | 0.91                          | 5.89                                    | 3.75                           |
| Inputs to stage 3 services producers, construction   | ID5323     | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |
| Inputs to stage 3 construction producers   | ID533      | 1.19                                   | 0.41                          | 11.24                                   | 2.36                           |
| Inputs to stage 3 construction producers, goods  | ID5331     | 1.57                                   | 0.50                          | 14.35                                   | 3.10                           |
| Inputs to stage 3 construction producers, energy   | ID53312    | 2.77                                   | 1.07                          | 31.42                                   | 7.63                           |
| Inputs to stage 3 construction producers, goods excluding foods and energy                     | ID53313    | 0.31                                   | 0.09                          | 3.02                                    | 0.27                           |
| Inputs to stage 3 construction producers, services   | ID5332     | 0.34                                   | 0.47                          | 2.36                                    | 1.19                           |
| Inputs to stage 3 construction producers, services less trade, transportation, and warehousing | ID53321    | 0.20                                   | 0.23                          | 0.97                                    | 0.73                           |
| Inputs to stage 3 construction producers, transportation and warehousing services              | ID53322    | 2.18                                   | 0.62                          | 2.48                                    | 1.00                           |
| Inputs to stage 3 construction producers, transportation of passengers                         | ID533221   | 2.18                                   | 0.62                          | 2.48                                    | 1.00                           |
| Inputs to stage 3 construction producers, trade services                                       | ID53323    | 0.36                                   | 0.51                          | 2.51                                    | 1.30                           |
| Stage 2 intermediate demand  | ID52       | 0.49                                   | 0.14                          | 4.55                                    | 0.28                           |
| Inputs to stage 2 goods producers  | ID521      | 0.99                                   | 0.16                          | 7.00                                    | 0.41                           |
| Inputs to stage 2 goods producers, goods   | ID5211     | 1.18                                   | 0.19                          | 7.86                                    | 0.48                           |
| Inputs to stage 2 goods producers, foods   | ID52111    | 1.40                                   | 0.13                          | 2.88                                    | 0.42                           |
| Inputs to stage 2 goods producers, energy  | ID52112    | 3.80                                   | 0.50                          | 14.02                                   | 1.25                           |
| Inputs to stage 2 goods producers, goods excluding foods and energy                            | ID52113    | 0.41                                   | 0.16                          | 6.54                                    | 0.46                           |
| Inputs to stage 2 goods producers, services  | ID5212     | 0.13                                   | 0.12                          | 2.05                                    | 0.25                           |
| Inputs to stage 2 goods producers, services less trade, transportation, and warehousing        | ID52121    | 0.19                                   | 0.21                          | 2.84                                    | 0.44                           |
| Inputs to stage 2 goods producers, transportation and warehousing services                     | ID52122    | 0.11                                   | 0.09                          | 1.51                                    | 0.30                           |
| Inputs to stage 2 goods producers, transportation of passengers                                | ID521221   | 2.04                                   | 0.58                          | 2.46                                    | 0.94                           |
| Inputs to stage 2 goods producers, transportation and warehousing of goods                     | ID521222   | 0.19                                   | 0.09                          | 1.57                                    | 0.31                           |
| Inputs to stage 2 goods producers, trade services  | ID52123    | 0.74                                   | 0.74                          | 2.74                                    | 1.71                           |
| Inputs to stage 2 goods producers, construction  | ID5213     | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |
| Inputs to stage 2 services producers   | ID522      | 0.13                                   | 0.20                          | 2.73                                    | 0.39                           |
| Inputs to stage 2 services producers, goods  | ID5221     | 0.27                                   | 0.08                          | 2.80                                    | 0.24                           |
| Inputs to stage 2 services producers, foods  | ID52211    | 1.70                                   | 0.04                          | 3.94                                    | 0.16                           |
| Inputs to stage 2 services producers, energy   | ID52212    | 1.35                                   | 0.57                          | 15.45                                   | 2.85                           |
| Inputs to stage 2 services producers, goods excluding foods and energy                         | ID52213    | 0.12                                   | 0.06                          | 2.13                                    | 0.17                           |
| Inputs to stage 2 services producers, services   | ID5222     | 0.13                                   | 0.22                          | 2.72                                    | 0.44                           |
| Inputs to stage 2 services producers, services less trade, transportation, and warehousing     | ID52221    | 0.11                                   | 0.27                          | 2.74                                    | 0.49                           |
| Inputs to stage 2 services producers, transportation and warehousing services                  | ID52222    | 0.33                                   | 0.13                          | 2.00                                    | 0.63                           |
| Inputs to stage 2 services producers, transportation of passengers                             | ID522221   | 2.14                                   | 0.60                          | 2.47                                    | 0.98                           |
| Inputs to stage 2 services producers, transportation and warehousing of goods                  | ID522222   | 0.19                                   | 0.11                          | 2.03                                    | 0.70                           |
| Inputs to stage 2 services producers, trade services   | ID52223    | 0.63                                   | 0.68                          | 1.69                                    | 1.48                           |
| Inputs to stage 2 services producers, construction   | ID5223     | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |
| Stage 1 intermediate demand  | ID51       | 0.42                                   | 0.23                          | 5.97                                    | 0.55                           |
| Inputs to stage 1 goods producers  | ID511      | 0.64                                   | 0.36                          | 8.78                                    | 0.78                           |
| Inputs to stage 1 goods producers, goods   | ID5111     | 0.92                                   | 0.37                          | 10.14                                   | 0.89                           |
| Inputs to stage 1 goods producers, foods   | ID51111    | 1.15                                   | 0.15                          | 2.40                                    | 0.39                           |
| Inputs to stage 1 goods producers, energy  | ID51112    | 1.91                                   | 0.57                          | 15.33                                   | 2.09                           |
| Inputs to stage 1 goods producers, goods excluding foods and energy                            | ID51113    | 0.89                                   | 0.45                          | 10.29                                   | 1.01                           |
| Inputs to stage 1 goods producers, services  | ID5112     | 0.48                                   | 0.82                          | 1.27                                    | 2.14                           |
| Inputs to stage 1 goods producers, services less trade, transportation, and warehousing        | ID51121    | 0.17                                   | 0.17                          | 1.39                                    | 0.71                           |
| Inputs to stage 1 goods producers, transportation and warehousing services                     | ID51122    | 0.44                                   | 0.18                          | 1.10                                    | 0.55                           |
| Inputs to stage 1 goods producers, transportation of passengers                                | ID511221   | 2.18                                   | 0.62                          | 2.48                                    | 1.00                           |
| Inputs to stage 1 goods producers, transportation and warehousing of goods                     | ID511222   | 0.19                                   | 0.17                          | 1.15                                    | 0.64                           |
| Inputs to stage 1 goods producers, trade services  | ID51123    | 0.57                                   | 1.08                          | 1.41                                    | 2.80                           |
| Inputs to stage 1 goods producers, construction  | ID5113     | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |
| Inputs to stage 1 services producers   | ID512      | 0.43                                   | 0.21                          | 3.50                                    | 0.57                           |
| Inputs to stage 1 services producers, goods  | ID5121     | 0.66                                   | 0.22                          | 6.70                                    | 1.12                           |
| Inputs to stage 1 services producers, foods  | ID51211    | 1.93                                   | 1.33                          | 20.12                                   | 4.92                           |
| Inputs to stage 1 services producers, energy   | ID51212    | 1.20                                   | 0.50                          | 15.02                                   | 2.80                           |
| Inputs to stage 1 services producers, goods excluding foods and energy                         | ID51213    | 0.19                                   | 0.08                          | 2.04                                    | 0.26                           |
| Inputs to stage 1 services producers, services   | ID5122     | 0.50                                   | 0.27                          | 2.58                                    | 0.59                           |
| Inputs to stage 1 services producers, services less trade, transportation, and warehousing     | ID51221    | 0.40                                   | 0.32                          | 2.42                                    | 0.59                           |

**Table 1. Variance estimates for Producer Price Index Final Demand-Intermediate Demand indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Inputs to stage 1 services producers, transportation and warehousing services                  | ID51222    | 1.28                                   | 0.40                          | 1.61                                    | 0.67                           |
| Inputs to stage 1 services producers, transportation of passengers                             | ID512221   | 2.18                                   | 0.62                          | 2.48                                    | 1.00                           |
| Inputs to stage 1 services producers, transportation and warehousing of goods                  | ID512222   | 0.26                                   | 0.34                          | 0.82                                    | 0.60                           |
| Inputs to stage 1 services producers, trade services   | ID51223    | 0.54                                   | 0.76                          | 4.55                                    | 2.74                           |
| Inputs to stage 1 services producers, construction   | ID5123     | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |
| Inputs to stage 1 construction producers   | ID513      | 0.36                                   | 0.16                          | 3.36                                    | 0.38                           |
| Inputs to stage 1 construction producers, goods  | ID5131     | 0.37                                   | 0.15                          | 3.91                                    | 0.33                           |
| Inputs to stage 1 construction producers, energy   | ID51312    | 2.17                                   | 0.97                          | 19.61                                   | 3.01                           |
| Inputs to stage 1 construction producers, goods excluding foods and energy                     | ID51313    | 0.22                                   | 0.11                          | 2.42                                    | 0.26                           |
| Inputs to stage 1 construction producers, services   | ID5132     | 0.34                                   | 0.39                          | 2.18                                    | 0.99                           |
| Inputs to stage 1 construction producers, services less trade, transportation, and warehousing | ID51321    | 0.24                                   | 0.13                          | 2.24                                    | 0.62                           |
| Inputs to stage 1 construction producers, transportation and warehousing services              | ID51322    | 0.78                                   | 0.30                          | 0.74                                    | 1.07                           |
| Inputs to stage 1 construction producers, transportation of passengers                         | ID513221   | 2.18                                   | 0.62                          | 2.48                                    | 1.00                           |
| Inputs to stage 1 construction producers, transportation and warehousing of goods              | ID513222   | 0.37                                   | 0.35                          | 0.55                                    | 1.40                           |
| Inputs to stage 1 construction producers, trade services                                       | ID51323    | 0.49                                   | 0.53                          | 2.39                                    | 1.32                           |
| Total goods inputs to stage 4 intermediate demand  | ID59411    | 0.23                                   | 0.07                          | 2.95                                    | 0.22                           |
| Total services inputs to stage 4 intermediate demand   | ID59412    | 0.40                                   | 0.24                          | 2.97                                    | 0.49                           |
| Total construction inputs to stage 4 intermediate demand                                       | ID59413    | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |
| Total foods inputs to stage 4 intermediate demand  | ID59414    | 0.59                                   | 0.25                          | 1.66                                    | 0.41                           |
| Total energy goods inputs to stage 4 intermediate demand                                       | ID59415    | 1.22                                   | 0.38                          | 11.66                                   | 1.86                           |
| Total goods less foods and energy inputs to stage 4 intermediate demand                        | ID59416    | 0.22                                   | 0.07                          | 2.13                                    | 0.16                           |
| Total goods inputs to stage 3 intermediate demand  | ID59311    | 0.47                                   | 0.18                          | 6.17                                    | 0.37                           |
| Total services inputs to stage 3 intermediate demand   | ID59312    | 0.22                                   | 0.21                          | 2.49                                    | 0.51                           |
| Total construction inputs to stage 3 intermediate demand                                       | ID59313    | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |
| Total foods inputs to stage 3 intermediate demand  | ID59314    | 2.23                                   | 0.03                          | 3.62                                    | 0.06                           |
| Total energy goods inputs to stage 3 intermediate demand                                       | ID59315    | 1.44                                   | 0.62                          | 17.57                                   | 1.58                           |
| Total goods less foods and energy inputs to stage 3 intermediate demand                        | ID59316    | 0.40                                   | 0.22                          | 4.13                                    | 0.50                           |
| Total goods inputs to stage 2 intermediate demand  | ID59211    | 1.04                                   | 0.17                          | 7.17                                    | 0.43                           |
| Total services inputs to stage 2 intermediate demand   | ID59212    | 0.13                                   | 0.21                          | 2.68                                    | 0.40                           |
| Total construction inputs to stage 2 intermediate demand                                       | ID59213    | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |
| Total foods inputs to stage 2 intermediate demand  | ID59214    | 1.39                                   | 0.13                          | 2.72                                    | 0.41                           |
| Total energy goods inputs to stage 2 intermediate demand                                       | ID59215    | 3.68                                   | 0.51                          | 14.01                                   | 1.23                           |
| Total goods less foods and energy inputs to stage 2 intermediate demand                        | ID59216    | 0.36                                   | 0.14                          | 5.67                                    | 0.37                           |
| Total goods inputs to stage 1 intermediate demand  | ID59111    | 0.77                                   | 0.29                          | 9.03                                    | 0.82                           |
| Total services inputs to stage 1 intermediate demand   | ID59112    | 0.44                                   | 0.30                          | 2.15                                    | 0.72                           |
| Total construction inputs to stage 1 intermediate demand                                       | ID59117    | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |
| Total foods inputs to stage 1 intermediate demand  | ID59114    | 1.01                                   | 0.16                          | 2.65                                    | 0.45                           |
| Total energy goods inputs to stage 1 intermediate demand                                       | ID59115    | 1.48                                   | 0.44                          | 15.63                                   | 2.22                           |
| Total goods less foods and energy inputs to stage 1 intermediate demand                        | ID59116    | 0.61                                   | 0.32                          | 7.75                                    | 0.71                           |

NOTE: Some indexes in this table, primarily PPIs that include data for agricultural products, to varying degrees are constructed using price information not directly sampled by PPI. Secondary source data, mainly from the U.S. Department of Agriculture, but also other sources, are considered a census of available price information. No sampling variability exists in those percent change estimates, so the standard error values are zero. The FD-ID index for Unprocessed Foodstuffs and Feedstuffs is constructed almost exclusively from non-sampled price data, and at certain levels of aggregation, other FD-ID indexes include both sampled and non-sampled data. For more information, refer to the section titled "PPI Sampling" in the methodology paper that accompanies this year's PPI variance publication.

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index                                    | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| <b>Goods</b>                             |            |  |                               |   |                                |
| Farm products                            | 01         | 1.45                                   | 0.00                          | 4.40                                    | 0.00                           |
| Fruits & melons, fresh/dry vegs. & nuts  | 011        | 4.76                                   | 0.00                          | 8.28                                    | 0.00                           |
| Fresh fruits and melons                  | 0111       | 4.28                                   | 0.00                          | 6.86                                    | 0.00                           |
| Citrus fruits                            | 011101     | 5.79                                   | 0.00                          | 27.43                                   | 0.00                           |
| Other fruits and berries                 | 011102     | 6.03                                   | 0.00                          | 5.12                                    | 0.00                           |
| Fresh and dry vegetables                 | 0113       | 7.42                                   | 0.00                          | 10.43                                   | 0.00                           |
| Dry vegetables                           | 011301     | 2.54                                   | 0.00                          | 6.45                                    | 0.00                           |
| Fresh vegetables, except potatoes        | 011302     | 12.88                                  | 0.00                          | 13.58                                   | 0.00                           |
| Sweet potatoes                           | 011303     | 1.82                                   | 0.00                          | 2.66                                    | 0.00                           |
| Potatoes                                 | 011306     | 6.08                                   | 0.00                          | 15.32                                   | 0.00                           |
| Tree nuts                                | 0119       | 1.16                                   | 0.00                          | 12.70                                   | 0.00                           |
| Tree nuts                                | 011901     | 1.16                                   | 0.00                          | 12.70                                   | 0.00                           |
| Grains                                   | 012        | 1.86                                   | 0.00                          | 5.01                                    | 0.00                           |
| Wheat                                    | 0121       | 3.24                                   | 0.00                          | 12.02                                   | 0.00                           |
| Wheat                                    | 012101     | 3.24                                   | 0.00                          | 12.02                                   | 0.00                           |
| Other grains                             | 0122       | 1.85                                   | 0.00                          | 3.43                                    | 0.00                           |
| Barley                                   | 012201     | 1.87                                   | 0.00                          | 13.24                                   | 0.00                           |
| Corn                                     | 012202     | 1.70                                   | 0.00                          | 3.13                                    | 0.00                           |
| Oats                                     | 012203     | 3.85                                   | 0.00                          | 12.82                                   | 0.00                           |
| Sorghum                                  | 012205     | 3.18                                   | 0.00                          | 10.85                                   | 0.00                           |
| Rough rice                               | 0123       | 1.99                                   | 0.00                          | 12.73                                   | 0.00                           |
| Rough rice                               | 012301     | 1.99                                   | 0.00                          | 12.73                                   | 0.00                           |
| Slaughter livestock                      | 013        | 4.79                                   | 0.00                          | 6.01                                    | 0.00                           |
| Slaughter cattle                         | 0131       | 4.47                                   | 0.00                          | 6.54                                    | 0.00                           |
| Slaughter steers and heifers             | 013101     | 5.76                                   | 0.00                          | 7.24                                    | 0.00                           |
| Slaughter cows and bulls                 | 013102     | 4.28                                   | 0.00                          | 8.00                                    | 0.00                           |
| Slaughter vealers                        | 013103     | 0.74                                   | 0.00                          | 6.84                                    | 0.00                           |
| Slaughter hogs                           | 0132       | 11.45                                  | 0.00                          | 9.92                                    | 0.00                           |
| Slaughter barrows and gilts              | 013201     | 11.47                                  | 0.00                          | 10.24                                   | 0.00                           |
| Slaughter sows                           | 013202     | 21.06                                  | 0.00                          | 13.44                                   | 0.00                           |
| Slaughter lambs                          | 0133       | 7.65                                   | 0.00                          | 5.79                                    | 0.00                           |
| Slaughter lambs                          | 013301     | 7.65                                   | 0.00                          | 5.79                                    | 0.00                           |
| Slaughter poultry                        | 014        | 2.65                                   | 0.00                          | 7.78                                    | 0.00                           |
| Slaughter chickens                       | 0141       | 3.96                                   | 0.00                          | 12.99                                   | 0.00                           |
| Broilers and other meat type chickens    | 014102     | 3.96                                   | 0.00                          | 12.99                                   | 0.00                           |
| Slaughter turkeys                        | 0142       | 1.41                                   | 0.00                          | 16.00                                   | 0.00                           |
| Slaughter turkeys                        | 014201     | 1.41                                   | 0.00                          | 16.00                                   | 0.00                           |
| Slaughter ducks                          | 0143       | 0.00                                   | 0.00                          | 1.79                                    | 0.00                           |
| Slaughter ducks                          | 014301     | 0.00                                   | 0.00                          | 1.79                                    | 0.00                           |
| Raw cotton                               | 015        | 2.95                                   | 0.00                          | 10.15                                   | 0.00                           |
| Raw cotton                               | 0151       | 2.95                                   | 0.00                          | 10.15                                   | 0.00                           |
| Raw cotton                               | 015101     | 2.95                                   | 0.00                          | 10.15                                   | 0.00                           |
| Raw milk                                 | 016        | 1.66                                   | 0.00                          | 9.26                                    | 0.00                           |
| Raw milk                                 | 0161       | 1.66                                   | 0.00                          | 9.26                                    | 0.00                           |
| Raw milk                                 | 016101     | 1.66                                   | 0.00                          | 9.26                                    | 0.00                           |
| Chicken eggs                             | 017        | 13.49                                  | 0.00                          | 45.86                                   | 0.00                           |
| Chicken eggs                             | 0171       | 13.49                                  | 0.00                          | 45.86                                   | 0.00                           |
| Eggs for fresh use                       | 017107     | 13.30                                  | 0.00                          | 32.03                                   | 0.00                           |
| Breaker stock and checks and undergrades | 017108     | 11.79                                  | 0.00                          | 81.87                                   | 0.00                           |
| Hay, hayseeds, and oilseeds              | 018        | 2.01                                   | 0.00                          | 3.64                                    | 0.00                           |
| Hay and hayseeds                         | 0181       | 5.30                                   | 0.00                          | 18.00                                   | 0.00                           |
| Hay and hayseeds                         | 018101     | 5.30                                   | 0.00                          | 18.00                                   | 0.00                           |
| Oilseeds                                 | 0183       | 2.65                                   | 0.00                          | 7.88                                    | 0.00                           |
| Oilseeds                                 | 018301     | 2.65                                   | 0.00                          | 7.88                                    | 0.00                           |
|  |            |  |                               |   |                                |
| Processed foods and feeds                | 02         | 0.38                                   | 0.22                          | 0.97                                    | 0.37                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Cereal and bakery products   | 021        | 0.28                                   | 0.17                          | 1.03                                    | 0.37                           |
| Bakery products  | 0211       | 0.17                                   | 0.25                          | 0.46                                    | 0.45                           |
| Bread (white, wheat, rye, etc.), including frozen  | 021102     | 0.34                                   | 0.72                          | 0.83                                    | 1.13                           |
| Rolls (bread-type), muffins, bagels, and croissants  | 021105     | 0.31                                   | 0.33                          | 0.54                                    | 0.66                           |
| Other sweet goods, excluding frozen  | 021107     | 0.42                                   | 0.39                          | 1.20                                    | 1.11                           |
| Soft cakes, excluding frozen   | 021108     | 0.30                                   | 0.30                          | 0.75                                    | 0.96                           |
| Pies (fruit, cream, and custard), excluding frozen   | 021109     | 0.77                                   | 0.53                          | 4.43                                    | 2.96                           |
| Cookies, crackers, and related products  | 021121     | 0.03                                   | 0.03                          | 0.09                                    | 0.18                           |
| Retail bakery products   | 021130     | 0.32                                   | 0.54                          | 3.05                                    | 2.03                           |
| Flour and flour base mixes and doughs  | 0212       | 1.00                                   | 0.29                          | 2.16                                    | 1.05                           |
| Wheat flour  | 021203     | 2.08                                   | 0.62                          | 4.34                                    | 2.26                           |
| Flour base mixes and doughs  | 021204     | 0.10                                   | 0.08                          | 0.27                                    | 0.18                           |
| Milled rice and byproducts   | 0213       | 1.09                                   | 0.43                          | 6.80                                    | 1.70                           |
| Head rice  | 021301     | 0.95                                   | 0.41                          | 6.76                                    | 1.86                           |
| Milled rice (incl second heads, screenings, brewers, bran, sharps, rice flour, and byproducts) | 021302     | 2.07                                   | 1.63                          | 8.67                                    | 2.66                           |
| Cereal and pasta products  | 0214       | 0.34                                   | 0.20                          | 1.04                                    | 0.71                           |
| Dry macaroni, spaghetti, and egg noodle products, made from purchased flour                    | 021402     | 0.39                                   | 0.56                          | 3.32                                    | 1.74                           |
| Cereal and mill products, other than flour   | 021409     | 0.42                                   | 0.21                          | 0.74                                    | 0.72                           |
| Meats, poultry, and fish   | 022        | 2.05                                   | 0.77                          | 1.64                                    | 1.23                           |
| Meats  | 0221       | 2.47                                   | 1.10                          | 3.17                                    | 1.40                           |
| Beef and veal products, fresh or frozen  | 022101     | 3.71                                   | 2.27                          | 4.85                                    | 2.48                           |
| Lamb/mutton, fresh or frozen, not canned or made into sausage, made in slaughtering plants     | 022103     | 3.53                                   | 2.25                          | 2.23                                    | 4.99                           |
| Pork products, fresh, frozen, or processed, except sausage                                     | 022104     | 2.25                                   | 1.62                          | 3.98                                    | 1.97                           |
| Other meats, fresh, frozen, or canned  | 022105     | 1.13                                   | 0.79                          | 2.18                                    | 1.90                           |
| Processed poultry  | 0222       | 1.35                                   | 1.01                          | 3.64                                    | 2.32                           |
| Young chickens, including bulk, chilled, frozen, whole, and in parts                           | 022203     | 1.56                                   | 1.31                          | 6.46                                    | 3.26                           |
| Turkeys, including frozen, whole, and in parts   | 022206     | 0.83                                   | 2.05                          | 5.89                                    | 4.28                           |
| Canned, cooked, smoked or prepared poultry   | 022208     | 1.36                                   | 1.78                          | 2.96                                    | 4.86                           |
| Unprocessed and prepared seafood   | 0223       | 1.81                                   | 0.36                          | 3.02                                    | 1.21                           |
| Unprocessed finfish  | 022301     | 10.75                                  | 0.00                          | 7.35                                    | 0.00                           |
| Canned seafood (including soups, stews, and chowders)  | 022304     | 0.82                                   | 1.21                          | 20.89                                   | 10.80                          |
| Unprocessed shellfish  | 022305     | 3.65                                   | 0.00                          | 3.76                                    | 0.00                           |
| Prepared fresh and frozen seafood  | 022306     | 0.46                                   | 0.47                          | 2.42                                    | 1.83                           |
| Dairy products   | 023        | 0.88                                   | 0.23                          | 4.08                                    | 0.48                           |
| Fluid milk products  | 0231       | 0.85                                   | 0.30                          | 5.07                                    | 0.54                           |
| Packaged fluid milk and related products   | 023103     | 0.74                                   | 0.24                          | 5.05                                    | 0.60                           |
| Cottage cheese   | 023104     | 0.49                                   | 0.56                          | 3.84                                    | 1.47                           |
| Other milk products  | 023105     | 0.17                                   | 0.09                          | 1.14                                    | 0.27                           |
| Bulk fluid milk and cream  | 023106     | 3.22                                   | 1.02                          | 8.11                                    | 1.87                           |
| Butter   | 0232       | 4.29                                   | 0.93                          | 10.03                                   | 1.37                           |
| Butter   | 023201     | 4.29                                   | 0.93                          | 10.03                                   | 1.37                           |
| Natural, processed, and imitation cheese   | 0233       | 1.74                                   | 0.45                          | 3.68                                    | 0.92                           |
| Natural cheese, except cottage cheese  | 023302     | 1.50                                   | 0.52                          | 3.79                                    | 0.95                           |
| Process cheese and related products  | 023303     | 1.29                                   | 1.17                          | 3.09                                    | 2.57                           |
| Raw liquid whey  | 023307     | 2.48                                   | 2.10                          | 75.76                                   | 15.99                          |
| Ice cream and frozen desserts  | 0234       | 0.33                                   | 0.28                          | 2.10                                    | 0.53                           |
| Ice cream and frozen desserts  | 023402     | 0.33                                   | 0.28                          | 2.10                                    | 0.53                           |
| Dry, condensed, and evaporated milk products   | 0235       | 0.75                                   | 0.51                          | 6.35                                    | 1.96                           |
| Dry milk products, including feed grade  | 023502     | 1.15                                   | 0.73                          | 10.49                                   | 2.70                           |
| Liquid milk products   | 023503     | 0.67                                   | 0.69                          | 2.66                                    | 2.64                           |
| Ice cream mixes and related products   | 023505     | 1.34                                   | 1.03                          | 4.76                                    | 2.38                           |
| Processed fruits and vegetables  | 024        | 0.12                                   | 0.25                          | 2.04                                    | 1.24                           |
| Canned fruits and juices   | 0241       | 0.27                                   | 0.47                          | 3.50                                    | 3.71                           |
| Canned fruits, excluding baby foods  | 024101     | 0.44                                   | 0.43                          | 1.74                                    | 2.34                           |
| Canned and fresh fruit juices, nectars, and concentrates                                       | 024102     | 0.44                                   | 0.64                          | 5.57                                    | 5.48                           |
| Frozen fruits, juices and ades   | 0242       | 0.43                                   | 0.84                          | 4.19                                    | 4.92                           |
| Frozen fruits  | 024202     | 0.21                                   | 0.29                          | 5.44                                    | 3.59                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Frozen juices, ades, drinks, and cocktails   | 024203     | 0.53                                   | 1.40                          | 12.00                                   | 8.81                           |
| Canned vegetables and juices   | 0244       | 0.52                                   | 0.51                          | 0.60                                    | 0.85                           |
| Canned vegetables and juices   | 024401     | 0.52                                   | 0.51                          | 0.60                                    | 0.85                           |
| Frozen vegetables  | 0245       | 0.26                                   | 0.14                          | 2.99                                    | 1.64                           |
| Frozen potato products (French-fried, patties, puffs, etc.)                                    | 024502     | 0.15                                   | 0.20                          | 3.48                                    | 2.27                           |
| Frozen vegetables, other than potato products  | 024505     | 0.03                                   | 0.08                          | 2.15                                    | 1.73                           |
| Dried and dehydrated food  | 0248       | 0.35                                   | 0.31                          | 1.74                                    | 1.32                           |
| Dried and dehydrated food  | 024801     | 0.35                                   | 0.31                          | 1.74                                    | 1.32                           |
| Sugar and confectionery  | 025        | 0.18                                   | 0.22                          | 1.13                                    | 0.91                           |
| Raw cane sugar and sugar cane mill products and by-products                                    | 0252       | 1.31                                   | 0.90                          | 3.31                                    | 3.45                           |
| Raw cane sugar and sugar cane mill products and by-products                                    | 025201     | 1.31                                   | 0.90                          | 3.31                                    | 3.45                           |
| Refined sugar products and by-products   | 0253       | 0.43                                   | 0.26                          | 2.67                                    | 1.41                           |
| Refined sugar products and by-products   | 025307     | 0.43                                   | 0.26                          | 2.67                                    | 1.41                           |
| Confectionery materials  | 0254       | 1.08                                   | 0.83                          | 1.72                                    | 1.57                           |
| Confectionery materials  | 025401     | 1.08                                   | 0.83                          | 1.72                                    | 1.57                           |
| Confectionery end products   | 0255       | 0.14                                   | 0.23                          | 1.23                                    | 1.25                           |
| Chewing gum, bubble gum, and chewing gum base  | 025502     | 0.00                                   | 0.00                          | 0.18                                    | 0.34                           |
| Candy and nuts   | 025503     | 0.15                                   | 0.24                          | 1.29                                    | 1.33                           |
| Beverages and beverage materials   | 026        | 0.11                                   | 0.22                          | 0.61                                    | 0.58                           |
| Alcoholic beverages  | 0261       | 0.12                                   | 0.12                          | 1.17                                    | 1.00                           |
| Malt beverages   | 026101     | 0.01                                   | 0.01                          | 1.01                                    | 0.82                           |
| Distilled and bottled liquor, excluding brandy   | 026102     | 0.35                                   | 0.44                          | 1.14                                    | 1.27                           |
| Wines, brandy, and brandy spirits  | 026104     | 0.05                                   | 0.18                          | 2.33                                    | 3.08                           |
| Soft drinks  | 0262       | 0.12                                   | 0.41                          | 1.00                                    | 0.94                           |
| Soft drinks, non-carbonated and bottled water  | 026206     | 0.27                                   | 0.61                          | 0.98                                    | 0.83                           |
| Soft drinks, bottle/can, carbonated, all types   | 026210     | 0.25                                   | 0.59                          | 1.38                                    | 1.58                           |
| Packaged beverage materials  | 0263       | 0.21                                   | 0.26                          | 1.10                                    | 1.16                           |
| Coffee (whole bean, ground, & instant)   | 026301     | 0.23                                   | 0.30                          | 1.20                                    | 1.34                           |
| Tea in consumer packages, exc. canned ice tea  | 026303     | 0.11                                   | 0.20                          | 0.67                                    | 0.59                           |
| Other beverage materials   | 0264       | 0.01                                   | 0.01                          | 0.53                                    | 0.75                           |
| Other beverage materials   | 026401     | 0.01                                   | 0.01                          | 0.53                                    | 0.75                           |
| Fats and oils  | 027        | 0.59                                   | 0.61                          | 3.79                                    | 1.21                           |
| Shortening, cooking oil, and margarine   | 0278       | 0.78                                   | 0.71                          | 5.93                                    | 1.37                           |
| Shortening, cooking oil, and margarine   | 027801     | 0.78                                   | 0.71                          | 5.93                                    | 1.37                           |
| Other oilseed processing   | 027A       | 0.68                                   | 0.77                          | 5.39                                    | 3.54                           |
| Other oilseed processing   | 027A01     | 0.68                                   | 0.77                          | 5.39                                    | 3.54                           |
| Corn oil, made by wet milling  | 027B01     | 2.10                                   | 1.79                          |   |                                |
| Miscellaneous processed foods  | 028        | 0.26                                   | 0.26                          | 1.44                                    | 1.03                           |
| Canned jams, jellies, and preserves  | 0281       | 0.02                                   | 0.02                          | 6.43                                    | 1.52                           |
| Canned jams, jellies, and preserves  | 028101     | 0.02                                   | 0.02                          | 6.43                                    | 1.52                           |
| Pickles and other pickled products, including horseradish                                      | 0282       | 0.12                                   | 0.12                          | 1.16                                    | 0.50                           |
| Pickles and other pickled products   | 028201     | 0.12                                   | 0.12                          | 1.16                                    | 0.50                           |
| Processed eggs, liquid, dried, or frozen   | 0283       | 6.31                                   | 4.42                          | 49.94                                   | 9.08                           |
| Processed eggs, liquid, dried, or frozen   | 028301     | 6.31                                   | 4.42                          | 49.94                                   | 9.08                           |
| Specialty canning  | 0284       | 0.47                                   | 0.53                          | 0.58                                    | 0.87                           |
| Specialty canning  | 028401     | 0.47                                   | 0.53                          | 0.58                                    | 0.87                           |
| Frozen specialty food  | 0285       | 0.12                                   | 0.14                          | 0.52                                    | 0.65                           |
| Frozen specialty food  | 028501     | 0.12                                   | 0.14                          | 0.52                                    | 0.65                           |
| Prepared sauces, except tomato   | 0286       | 0.03                                   | 0.04                          | 1.07                                    | 0.68                           |
| Prepared sauces, excluding tomato-based sauces and sauces comprised of 20 percent or more meat | 028601     | 0.03                                   | 0.04                          | 1.07                                    | 0.68                           |
| Other miscellaneous processed foods  | 0289       | 0.11                                   | 0.14                          | 2.46                                    | 1.21                           |
| Other miscellaneous processed foods  | 028901     | 0.11                                   | 0.14                          | 2.46                                    | 1.21                           |
| Prepared animal feeds  | 029        | 0.96                                   | 0.26                          | 3.70                                    | 0.85                           |
| Soybean cake, meal, and other byproducts   | 0292       | 2.35                                   | 0.55                          | 9.97                                    | 1.36                           |
| Soybean cake, meal, and other byproducts   | 029201     | 2.35                                   | 0.55                          | 9.97                                    | 1.36                           |
| Formula feeds  | 0293       | 0.40                                   | 0.22                          | 1.25                                    | 0.81                           |
| Formula feeds  | 029301     | 0.40                                   | 0.22                          | 1.25                                    | 0.81                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Miscellaneous feedstuffs  | 0294       | 0.28                                   | 0.33                          | 1.72                                    | 1.39                           |
| Pet food  | 029402     | 0.07                                   | 0.11                          | 0.89                                    | 0.76                           |
| Miscellaneous feedstuffs other than pet food  | 029403     | 0.80                                   | 0.91                          | 4.05                                    | 3.41                           |
|   |            |  |                               |   |                                |
| Textile products and apparel  | 03         | 0.10                                   | 0.09                          | 1.31                                    | 0.33                           |
| Synthetic fibers  | 031        | 0.24                                   | 0.22                          | 2.67                                    | 0.74                           |
| Unprocessed filament yarns  | 0315       | 0.24                                   | 0.22                          | 2.67                                    | 0.74                           |
| Noncellulosic fibers  | 031502     | 0.30                                   | 0.27                          | 3.29                                    | 0.91                           |
| Processed yarns and threads   | 032        | 0.19                                   | 0.15                          | 2.56                                    | 0.59                           |
| Yarns   | 0326       | 0.20                                   | 0.16                          | 2.62                                    | 0.60                           |
| Spun cotton yarns   | 032601     | 0.48                                   | 0.24                          | 6.11                                    | 1.56                           |
| Spun synthetic yarns  | 032603     | 0.53                                   | 0.17                          | 6.59                                    | 1.70                           |
| Textured and twisted yarns  | 032604     | 0.00                                   | 0.01                          | 0.25                                    | 0.34                           |
| Other spun noncellulosic and natural fiber (excluding cotton and wool) yarns                    | 032607     | 0.08                                   | 0.10                          | 1.73                                    | 1.00                           |
| Thread  | 0327       | 0.00                                   | 0.00                          | 0.43                                    | 0.09                           |
| Thread  | 032705     | 0.00                                   | 0.00                          | 0.43                                    | 0.09                           |
| Greige fabrics  | 033        | 0.26                                   | 0.12                          | 0.38                                    | 0.50                           |
| Greige broadwoven fabrics   | 0337       | 0.23                                   | 0.18                          | 0.91                                    | 0.56                           |
| Greige cotton broadwoven fabrics  | 033701     | 0.00                                   | 0.00                          | 3.54                                    | 1.14                           |
| Greige manmade fiber broadwoven fabrics   | 033703     | 0.08                                   | 0.19                          | 0.49                                    | 0.67                           |
| Greige knit fabrics   | 0338       | 0.00                                   | 0.01                          | 0.99                                    | 1.21                           |
| Weft (circular) knit fabrics, greige goods (excluding hosiery)                                  | 033803     | 0.00                                   | 0.00                          | 2.36                                    | 2.47                           |
| Warp knit fabrics, greige goods   | 033804     | 0.00                                   | 0.01                          | 0.18                                    | 0.14                           |
| Tire cord and tire fabric   | 0339       | 0.12                                   | 0.07                          | 2.71                                    | 1.32                           |
| Tire cord and tire fabrics  | 033901     | 0.12                                   | 0.07                          | 2.71                                    | 1.32                           |
| Finished fabrics  | 034        | 0.07                                   | 0.12                          | 0.46                                    | 0.73                           |
| Finished broadwoven fabrics   | 0342       | 0.05                                   | 0.06                          | 0.35                                    | 0.92                           |
| Finished cotton broadwoven fabrics  | 034201     | 0.06                                   | 0.16                          | 0.14                                    | 0.48                           |
| Finished wool broadwoven fabrics and felts  | 034202     | 0.00                                   | 0.00                          | 2.25                                    | 0.84                           |
| Finished manmade fiber, silk and other natural fiber (excl. cotton and wool) broadwoven fabrics | 034203     | 0.05                                   | 0.05                          | 0.75                                    | 1.36                           |
| Woven and braided narrow fabrics  | 0344       | 0.31                                   | 0.22                          | 4.75                                    | 2.31                           |
| Woven and braided narrow fabrics  | 034402     | 0.31                                   | 0.22                          | 4.75                                    | 2.31                           |
| Nonwoven fabrics and felts  | 0345       | 0.13                                   | 0.19                          | 0.91                                    | 2.16                           |
| Nonwoven fabrics and felts  | 034503     | 0.13                                   | 0.19                          | 0.91                                    | 2.16                           |
| Coated fabrics, not rubberized  | 0346       | 0.10                                   | 0.18                          | 0.53                                    | 0.67                           |
| Coated fabrics, not rubberized  | 034601     | 0.10                                   | 0.18                          | 0.53                                    | 0.67                           |
| Screen printed textile materials, embroideries, and lace goods                                  | 0347       | 0.00                                   | 0.00                          | 1.11                                    | 0.45                           |
| Screen printed textile and apparel materials and embroideries                                   | 034701     | 0.00                                   | 0.00                          | 1.13                                    | 0.46                           |
| Knit fabrics, finished in knitting mills  | 0348       | 0.00                                   | 0.00                          | 2.50                                    | 3.25                           |
| Warp knit goods, knit and finished in the same establishment                                    | 034802     | 0.00                                   | 0.00                          | 5.93                                    | 7.72                           |
| Apparel & other fabricated textile prods  | 038        | 0.08                                   | 0.10                          | 1.14                                    | 0.44                           |
| Apparel   | 0381       | 0.09                                   | 0.14                          | 1.64                                    | 0.69                           |
| Miscellaneous apparel and accessories   | 038104     | 0.11                                   | 0.25                          | 2.06                                    | 0.77                           |
| Women's, girls', and infants' cut and sew apparel   | 038106     | 0.13                                   | 0.17                          | 1.87                                    | 1.49                           |
| Men's and boys' cut and sew apparel   | 038107     | 0.05                                   | 0.04                          | 0.96                                    | 0.54                           |
| Apparel made in knitting mills  | 038108     | 0.01                                   | 0.01                          | 0.53                                    | 0.58                           |
| Textile house furnishings   | 0382       | 0.12                                   | 0.22                          | 1.61                                    | 0.57                           |
| Textile house furnishings   | 038203     | 0.12                                   | 0.22                          | 1.61                                    | 0.57                           |
| Industrial and other fabricated products  | 0383       | 0.16                                   | 0.12                          | 0.24                                    | 0.58                           |
| Industrial and other fabricated products  | 038303     | 0.16                                   | 0.12                          | 0.24                                    | 0.58                           |
| Miscellaneous textile products/services   | 039        | 0.24                                   | 0.36                          | 2.71                                    | 1.99                           |
| Textile materials n.e.c. and processed textile waste  | 0391       | 0.66                                   | 0.79                          | 1.72                                    | 2.13                           |
| Textile and fabric finishing, except broadwoven   | 0393       | 0.02                                   | 0.02                          | 5.03                                    | 2.77                           |
| Textile and fabric finishing, except broadwoven   | 039301     | 0.02                                   | 0.02                          | 5.03                                    | 2.77                           |
|   |            |  |                               |   |                                |
| Hides, skins, leather, and related products   | 04         | 0.63                                   | 0.36                          | 2.40                                    | 1.44                           |
| Hides and skins, incl. cattle   | 041        | 1.45                                   | 1.31                          | 5.92                                    | 4.86                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Hides and skins, incl. cattle                               | 0419       | 1.45                                   | 1.31                          | 5.92                                    | 4.86                           |
| Hides, skins, and pelts, made in slaughtering plants        | 041901     | 1.45                                   | 1.31                          | 5.92                                    | 4.86                           |
| Leather   | 042        | 1.25                                   | 0.50                          | 5.61                                    | 1.62                           |
| Finished and unfinished leather                             | 0427       | 1.25                                   | 0.50                          | 5.61                                    | 1.62                           |
| Finished and unfinished leather                             | 042701     | 1.25                                   | 0.50                          | 5.61                                    | 1.62                           |
| Footwear  | 043        | 0.14                                   | 0.07                          | 1.01                                    | 0.84                           |
| Men's nonathletic footwear                                  | 0431       | 0.08                                   | 0.06                          | 1.10                                    | 0.22                           |
| Men's footwear (size 6 and larger), excluding athletic      | 043105     | 0.08                                   | 0.06                          | 1.10                                    | 0.22                           |
| Women's nonathletic footwear                                | 0432       | 0.00                                   | 0.00                          | 0.56                                    | 3.01                           |
| Women's footwear (size 4 and larger), excluding athletic    | 043205     | 0.00                                   | 0.00                          | 0.56                                    | 3.01                           |
| Other footwear including slippers                           | 0439       | 0.18                                   | 0.10                          | 1.82                                    | 0.32                           |
| Other footwear, excluding rubber and plastic soled footwear | 043901     | 0.18                                   | 0.10                          | 1.82                                    | 0.32                           |
| Other leather and related products                          | 044        | 0.09                                   | 0.11                          | 1.08                                    | 1.16                           |
| Luggage and small leather goods                             | 0441       | 0.11                                   | 0.11                          | 1.63                                    | 1.88                           |
| Luggage and small leather goods                             | 044101     | 0.11                                   | 0.11                          | 1.63                                    | 1.88                           |
| Leather and leather-like goods, n.e.c.                      | 0445       | 0.04                                   | 0.09                          | 0.30                                    | 0.68                           |
| Leather and leather-like goods, n.e.c.                      | 044501     | 0.04                                   | 0.09                          | 0.30                                    | 0.68                           |
|   |            |  |                               |   |                                |
| Fuels and related products and power                        | 05         | 1.30                                   | 0.32                          | 10.67                                   | 0.95                           |
| Coal  | 051        | 0.45                                   | 0.70                          | 3.39                                    | 3.07                           |
| Anthracite  | 0511       | 0.59                                   | 0.41                          | 1.38                                    | 2.32                           |
| Prepared anthracite shipped                                 | 051101     | 0.57                                   | 0.33                          | 3.70                                    | 2.57                           |
| Unprepared anthracite shipped                               | 051102     | 0.00                                   | 0.00                          | 8.26                                    | 1.64                           |
| Bituminous coal and lignite                                 | 0512       | 0.45                                   | 0.71                          | 3.40                                    | 3.09                           |
| Unprepared bituminous coal and lignite                      | 051208     | 2.89                                   | 3.51                          | 3.64                                    | 6.28                           |
| Prepared bituminous coal and lignite                        | 051209     | 0.37                                   | 0.32                          | 3.93                                    | 3.46                           |
| Gas fuels   | 053        | 2.23                                   | 0.93                          | 26.08                                   | 3.04                           |
| Natural gas   | 0531       | 3.59                                   | 0.99                          | 29.08                                   | 3.45                           |
| Natural gas   | 053101     | 3.59                                   | 0.99                          | 29.08                                   | 3.45                           |
| Liquefied petroleum gas                                     | 0532       | 9.09                                   | 1.58                          | 43.12                                   | 4.87                           |
| Liquefied petroleum gas                                     | 053201     | 9.09                                   | 1.58                          | 43.12                                   | 4.87                           |
| Electric power  | 054        | 0.95                                   | 0.24                          | 4.59                                    | 1.01                           |
| Residential electric power                                  | 0541       | 0.59                                   | 0.24                          | 2.79                                    | 0.52                           |
| Residential electric power                                  | 054121     | 0.59                                   | 0.24                          | 2.79                                    | 0.52                           |
| Commercial electric power                                   | 0542       | 0.89                                   | 0.35                          | 2.95                                    | 0.93                           |
| Commercial electric power                                   | 054221     | 0.89                                   | 0.35                          | 2.95                                    | 0.93                           |
| Industrial electric power                                   | 0543       | 0.87                                   | 0.71                          | 12.50                                   | 4.39                           |
| Industrial electric power                                   | 054321     | 0.87                                   | 0.71                          | 12.50                                   | 4.39                           |
| Transportation electric power                               | 0546       | 0.55                                   | 0.55                          | 1.91                                    | 2.79                           |
| Transportation electric power                               | 054621     | 0.55                                   | 0.55                          | 1.91                                    | 2.79                           |
| Utility natural gas   | 055        | 1.81                                   | 0.64                          | 8.21                                    | 1.13                           |
| Residential natural gas                                     | 0551       | 0.47                                   | 0.36                          | 8.38                                    | 0.95                           |
| Residential natural gas                                     | 055121     | 0.47                                   | 0.36                          | 8.38                                    | 0.95                           |
| Commercial natural gas                                      | 0552       | 0.96                                   | 0.46                          | 10.52                                   | 1.74                           |
| Commercial natural gas                                      | 055221     | 0.96                                   | 0.46                          | 10.52                                   | 1.74                           |
| Industrial natural gas                                      | 0553       | 2.25                                   | 0.95                          | 7.94                                    | 2.19                           |
| Industrial natural gas                                      | 055321     | 2.25                                   | 0.95                          | 7.94                                    | 2.19                           |
| Natural gas to electric power                               | 0554       | 3.82                                   | 1.63                          | 5.60                                    | 2.82                           |
| Natural gas to electric power                               | 055421     | 3.82                                   | 1.63                          | 5.60                                    | 2.82                           |
| Crude petroleum (domestic production)                       | 056        | 4.36                                   | 0.52                          | 15.95                                   | 1.11                           |
| Crude petroleum (domestic production)                       | 0561       | 4.36                                   | 0.52                          | 15.95                                   | 1.11                           |
| Crude petroleum (domestic production)                       | 056101     | 4.36                                   | 0.52                          | 15.95                                   | 1.11                           |
| Petroleum products, refined                                 | 057        | 2.14                                   | 0.80                          | 22.46                                   | 2.55                           |
| Gasoline  | 0571       | 5.89                                   | 1.18                          | 19.40                                   | 1.87                           |
| Unleaded premium gasoline                                   | 057103     | 4.61                                   | 1.60                          | 15.33                                   | 2.58                           |
| Unleaded regular gasoline                                   | 057104     | 6.14                                   | 1.47                          | 20.60                                   | 2.34                           |
| Unleaded mid-premium gasoline                               | 057105     | 4.26                                   | 1.57                          | 16.58                                   | 3.35                           |



**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Kerosene and jet fuels  | 0572       | 3.25                                   | 1.51                          | 24.11                                   | 3.29                           |
| Kerosene  | 057202     | 3.55                                   | 2.93                          | 19.84                                   | 6.42                           |
| Jet fuel  | 057203     | 3.30                                   | 1.54                          | 24.35                                   | 3.42                           |
| Light fuel oils   | 0573       | 3.36                                   | 1.09                          | 33.71                                   | 7.39                           |
| Home heating oil and distillates  | 057302     | 4.65                                   | 2.66                          | 21.70                                   | 5.25                           |
| No. 2 diesel fuel   | 057303     | 3.02                                   | 1.19                          | 32.73                                   | 8.36                           |
| Residual fuels (heavy fuel oils, incl. #5, #6, & other residual fuels)                          | 0574       | 4.35                                   | 3.66                          | 39.26                                   | 12.62                          |
| Residual fuels (heavy fuel oils, incl. #5, #6, & other residual fuels)                          | 057407     | 4.35                                   | 3.66                          | 39.26                                   | 12.62                          |
| Finished lubricants   | 0576       | 0.41                                   | 0.25                          | 2.77                                    | 0.84                           |
| Lubricating grease  | 057603     | 0.30                                   | 0.24                          | 3.36                                    | 2.22                           |
| Lubricating and similar oils  | 057604     | 0.45                                   | 0.27                          | 2.71                                    | 0.91                           |
| Lubricating oil base stocks   | 0578       | 3.32                                   | 3.96                          | 18.04                                   | 5.58                           |
| Lubricating oil base stocks   | 057801     | 3.32                                   | 3.96                          | 18.04                                   | 5.58                           |
| Asphalt and other petroleum and coal products, n.e.c.   | 058        | 1.71                                   | 2.46                          | 5.50                                    | 8.20                           |
| Asphalt and other petroleum and coal products, n.e.c.   | 0581       | 1.71                                   | 2.46                          | 5.50                                    | 8.20                           |
| Asphalt   | 058102     | 3.57                                   | 3.64                          | 28.94                                   | 9.78                           |
| Other petroleum and coal products, including coke oven products, n.e.c.                         | 058103     | 2.67                                   | 2.58                          | 5.77                                    | 10.28                          |
|   |            |  |                               |   |                                |
| Chemicals and allied products   | 06         | 0.66                                   | 0.44                          | 6.01                                    | 0.95                           |
| Industrial chemicals  | 061        | 1.24                                   | 1.23                          | 11.17                                   | 2.84                           |
| Basic inorganic chemicals   | 0613       | 0.47                                   | 0.48                          | 2.54                                    | 1.64                           |
| Inorganic chemicals, other than alkalis and chlorine  | 061302     | 0.43                                   | 0.52                          | 3.26                                    | 1.85                           |
| Alkalis and chlorine, including natural sodium carbonate and sulfate                            | 061303     | 0.59                                   | 0.99                          | 6.78                                    | 4.66                           |
| Basic organic chemicals   | 0614       | 1.41                                   | 1.48                          | 12.60                                   | 3.48                           |
| Primary basic organic chemicals   | 061401     | 3.18                                   | 3.36                          | 22.60                                   | 9.29                           |
| Cyclic intermediate chemicals and dyes  | 061402     | 1.03                                   | 0.96                          | 3.86                                    | 2.09                           |
| Other basic organics  | 061403     | 1.10                                   | 0.79                          | 7.65                                    | 1.78                           |
| Paints and allied products  | 062        | 0.33                                   | 0.29                          | 1.64                                    | 0.77                           |
| Prepared paint  | 0621       | 0.21                                   | 0.19                          | 0.98                                    | 0.54                           |
| Architectural coatings  | 062101     | 0.16                                   | 0.11                          | 1.01                                    | 0.86                           |
| OEM finishes excluding marine coatings  | 062102     | 0.32                                   | 0.43                          | 0.79                                    | 0.67                           |
| Special purpose coatings, incl. marine, industrial & construction coatings                      | 062103     | 0.06                                   | 0.15                          | 1.91                                    | 0.95                           |
| Paint materials   | 0622       | 0.79                                   | 1.20                          | 2.73                                    | 2.62                           |
| Paint colors  | 062202     | 0.93                                   | 1.41                          | 3.10                                    | 2.98                           |
| Kaolin and ball clay  | 062204     | 0.30                                   | 0.08                          | 1.96                                    | 1.59                           |
| Allied and miscellaneous paint products   | 0623       | 0.05                                   | 0.10                          | 2.80                                    | 1.45                           |
| Allied and miscellaneous paint products   | 062301     | 0.05                                   | 0.10                          | 2.80                                    | 1.45                           |
| Drugs and pharmaceuticals   | 063        | 0.10                                   | 0.10                          | 5.04                                    | 0.98                           |
| Medicinal and botanical chemicals, drugs, and other products                                    | 0631       | 0.02                                   | 0.08                          | 0.78                                    | 0.86                           |
| Medicinal and botanical chemicals, drugs, and other products                                    | 063102     | 0.02                                   | 0.08                          | 0.78                                    | 0.86                           |
| Veterinary pharmaceutical preparations  | 0634       | 0.00                                   | 0.00                          | 0.08                                    | 2.70                           |
| Pharmaceuticals for veterinary use  | 063403     | 0.00                                   | 0.00                          | 0.08                                    | 2.70                           |
| Biological products, including diagnostics  | 0637       | 0.12                                   | 0.18                          | 1.52                                    | 2.54                           |
| Biological products, excluding diagnostic, for veterinary, industrial, and all other misc. uses | 063717     | 0.00                                   | 0.00                          | 0.97                                    | 1.55                           |
| Diagnostics   | 063718     | 0.28                                   | 0.34                          | 0.39                                    | 0.64                           |
| Biological products, excluding diagnostic, for human use  | 063719     | 0.00                                   | 0.00                          | 2.20                                    | 4.64                           |
| Pharmaceutical preparations   | 0638       | 0.11                                   | 0.08                          | 6.63                                    | 1.06                           |
| Pharmaceuticals affecting neoplasms, the endocrine system, & metabolic diseases                 | 063801     | 0.06                                   | 0.06                          | 7.07                                    | 1.65                           |
| Pharmaceuticals acting on the central nervous system and the sense organs                       | 063802     | 0.00                                   | 0.00                          | 6.91                                    | 2.00                           |
| Pharmaceuticals acting on the cardiovascular system   | 063803     | 0.00                                   | 0.00                          | 11.38                                   | 3.30                           |
| Pharmaceuticals acting on the respiratory system  | 063804     | 0.29                                   | 0.23                          | 3.50                                    | 2.61                           |
| Pharmaceuticals acting on the digestive or the genito-urinary systems                           | 063805     | 0.00                                   | 0.00                          | 6.49                                    | 1.70                           |
| Pharmaceuticals acting on the skin  | 063806     | 0.00                                   | 0.00                          | 4.23                                    | 3.48                           |
| Vitamin, nutrient, and hematinic preparations   | 063807     | 0.13                                   | 0.15                          | 0.77                                    | 0.57                           |
| Pharmaceuticals affecting parasitic and infective diseases                                      | 063808     | 0.00                                   | 0.00                          | 6.21                                    | 1.29                           |
| Fats and oils, inedible   | 064        | 1.82                                   | 1.29                          | 5.96                                    | 2.57                           |
| Fats and oils, inedible   | 0641       | 1.82                                   | 1.29                          | 5.96                                    | 2.57                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Fats and oils, inedible  | 064101     | 1.82                                   | 1.29                          | 5.96                                    | 2.57                           |
| Agricultural chemicals and chemical products                                 | 065        | 1.34                                   | 0.76                          | 3.34                                    | 1.67                           |
| Mixed fertilizers  | 0651       | 0.70                                   | 0.60                          | 3.10                                    | 1.37                           |
| Mixed fertilizers  | 065105     | 0.70                                   | 0.60                          | 3.10                                    | 1.37                           |
| Fertilizer materials   | 0652       | 2.98                                   | 0.98                          | 5.31                                    | 3.52                           |
| Nitrogenates   | 065201     | 3.47                                   | 1.71                          | 5.20                                    | 6.44                           |
| Phosphates   | 065202     | 1.38                                   | 0.80                          | 4.78                                    | 1.35                           |
| Other agricultural chemicals   | 0653       | 1.25                                   | 1.23                          | 1.51                                    | 1.64                           |
| Other agricultural chemicals   | 065301     | 1.25                                   | 1.23                          | 1.51                                    | 1.64                           |
| Plastic resins and materials   | 066        | 1.00                                   | 0.49                          | 5.74                                    | 1.31                           |
| Thermoplastic resins and plastics materials                                  | 0662       | 1.15                                   | 0.57                          | 6.34                                    | 1.57                           |
| Thermoplastic resins and plastics materials                                  | 066212     | 1.15                                   | 0.57                          | 6.34                                    | 1.57                           |
| Thermosetting resins and plastics materials                                  | 0663       | 0.27                                   | 0.32                          | 2.49                                    | 1.13                           |
| Thermosetting resins and plastics materials                                  | 066306     | 0.27                                   | 0.32                          | 2.49                                    | 1.13                           |
| Other chemicals and allied products  | 067        | 0.18                                   | 0.16                          | 1.65                                    | 0.58                           |
| Soaps and detergents   | 0671       | 0.01                                   | 0.01                          | 0.40                                    | 0.43                           |
| Soaps and other detergents   | 067104     | 0.01                                   | 0.01                          | 0.40                                    | 0.43                           |
| Polish and other sanitation goods  | 0672       | 0.27                                   | 0.24                          | 1.48                                    | 0.99                           |
| Polish and other sanitation goods  | 067201     | 0.27                                   | 0.24                          | 1.48                                    | 0.99                           |
| Cosmetics and other toilet preparations                                      | 0675       | 0.01                                   | 0.01                          | 0.25                                    | 0.25                           |
| Shaving preparations   | 067502     | 0.00                                   | 0.00                          | 7.09                                    | 3.86                           |
| Perfumes, toilet waters, and colognes  | 067503     | 0.00                                   | 0.00                          | 0.05                                    | 0.05                           |
| Hair preparations (including shampoos)                                       | 067504     | 0.00                                   | 0.00                          | 0.26                                    | 0.95                           |
| Dentifrices  | 067505     | 0.00                                   | 0.00                          | 0.58                                    | 0.38                           |
| Creams, lotions and oils, excluding shaving, hair, and deodorant             | 067514     | 0.00                                   | 0.00                          | 0.28                                    | 0.30                           |
| Other cosmetics and toilet preparations                                      | 067515     | 0.00                                   | 0.00                          | 0.14                                    | 0.19                           |
| Misc. chemical prod. and preparations  | 0679       | 0.31                                   | 0.33                          | 2.91                                    | 1.25                           |
| Explosives, propellants, and blasting accessories                            | 067902     | 0.33                                   | 0.38                          | 1.29                                    | 1.64                           |
| Industrial gases   | 067903     | 0.12                                   | 1.59                          | 5.52                                    | 6.18                           |
| Adhesives and sealants   | 067904     | 0.15                                   | 0.20                          | 1.46                                    | 0.53                           |
| Surface active agents  | 067905     | 0.65                                   | 0.67                          | 7.15                                    | 4.01                           |
| Gum and wood chemicals, including wood distillation products                 | 067906     | 0.17                                   | 0.21                          | 0.41                                    | 0.45                           |
| Other miscellaneous chemical products  | 067909     | 0.23                                   | 0.26                          | 1.35                                    | 0.86                           |
|  |            |  |                               |   |                                |
| Rubber and plastic products  | 07         | 0.29                                   | 0.11                          | 2.52                                    | 0.46                           |
| Rubber and rubber products   | 071        | 0.52                                   | 0.20                          | 1.99                                    | 0.37                           |
| Synthetic rubber, inc. styrene-butadiene rubber (SBR) and ethylene propylene | 0711       | 2.50                                   | 0.47                          | 6.31                                    | 1.43                           |
| Synthetic rubber   | 071102     | 2.50                                   | 0.47                          | 6.31                                    | 1.43                           |
| Tires, tubes, tread, & repair materials                                      | 0712       | 0.38                                   | 0.34                          | 1.67                                    | 0.56                           |
| Tires  | 071201     | 0.45                                   | 0.36                          | 1.70                                    | 0.58                           |
| Tread rubber, tire sundries, and repair materials                            | 071203     | 0.00                                   | 0.00                          | 1.05                                    | 0.62                           |
| Miscellaneous rubber products  | 0713       | 0.08                                   | 0.09                          | 1.58                                    | 0.46                           |
| Rubber and plastics footwear, including athletic footwear                    | 071301     | 0.00                                   | 0.00                          | 0.00                                    | 0.00                           |
| Rubber and plastic belts and belting   | 071303     | 0.09                                   | 0.13                          | 6.13                                    | 3.26                           |
| Rubber and plastics hose   | 071304     | 0.01                                   | 0.01                          | 0.74                                    | 0.65                           |
| Miscellaneous rubber products, n.e.c.  | 071306     | 0.11                                   | 0.09                          | 1.10                                    | 0.37                           |
| Plastic products   | 072        | 0.26                                   | 0.13                          | 2.35                                    | 0.63                           |
| Plastic construction products  | 0721       | 0.28                                   | 0.31                          | 2.29                                    | 0.78                           |
| Plastic construction products  | 072106     | 0.28                                   | 0.31                          | 2.29                                    | 0.78                           |
| Unsupported plastic film, sheet and other shapes                             | 0722       | 0.48                                   | 0.33                          | 4.26                                    | 1.44                           |
| Unsupported plastic film, sheet and other shapes                             | 072205     | 0.48                                   | 0.33                          | 4.26                                    | 1.44                           |
| Laminated plastic sheets, rods, and tubes                                    | 0723       | 0.15                                   | 0.16                          | 1.21                                    | 0.49                           |
| Laminated plastics plates, sheet (excluding packaging), and shapes           | 072304     | 0.15                                   | 0.16                          | 1.21                                    | 0.49                           |
| Parts for manufacturing from plastics  | 0726       | 0.12                                   | 0.20                          | 0.61                                    | 1.76                           |
| Parts for transportation equipment   | 072601     | 0.03                                   | 0.03                          | 0.79                                    | 2.69                           |
| Other parts and components for manufacturing                                 | 072602     | 0.08                                   | 0.14                          | 0.43                                    | 2.20                           |
| Foam components for furniture  | 072603     | 0.00                                   | 0.00                          | 1.52                                    | 3.31                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Other plastic products   | 0729       | 0.30                                   | 0.29                          | 0.73                                    | 0.80                           |
| Other plastic products   | 072901     | 0.30                                   | 0.29                          | 0.73                                    | 0.80                           |
| Plastic packaging products   | 072A       | 0.16                                   | 0.29                          | 3.15                                    | 0.80                           |
| Plastic packaging products   | 072A01     | 0.16                                   | 0.29                          | 3.15                                    | 0.80                           |
| Consumer, institutional, and commercial products, n.e.c.                             | 072B       | 0.20                                   | 0.22                          | 4.92                                    | 1.97                           |
| Consumer, institutional, and commercial products, n.e.c.                             | 072B01     | 0.20                                   | 0.22                          | 4.92                                    | 1.97                           |
| Recyclable plastics  | 072C       | 1.18                                   | 1.11                          | 2.41                                    | 8.36                           |
| Recyclable plastics  | 072C01     | 1.18                                   | 1.11                          | 2.41                                    | 8.36                           |
|  |            |  |                               |   |                                |
| Lumber and wood products   | 08         | 0.28                                   | 0.17                          | 3.16                                    | 0.44                           |
| Lumber   | 081        | 0.89                                   | 0.45                          | 7.53                                    | 1.26                           |
| Softwood lumber  | 0811       | 1.44                                   | 0.51                          | 12.74                                   | 1.73                           |
| Softwood cut stock and dimension   | 081105     | 1.02                                   | 0.88                          | 7.42                                    | 2.78                           |
| Softwood lumber, not edge worked   | 081106     | 1.55                                   | 0.60                          | 12.77                                   | 1.90                           |
| Softwood lumber, made from purchased lumber  | 081107     | 0.74                                   | 0.76                          | 19.50                                   | 6.18                           |
| Hardwood lumber  | 0812       | 0.94                                   | 0.86                          | 1.19                                    | 1.65                           |
| Hardwood cut stock and dimension   | 081203     | 0.48                                   | 0.46                          | 6.22                                    | 2.98                           |
| Hardwood flooring  | 081204     | 0.07                                   | 0.08                          | 5.11                                    | 3.45                           |
| Hardwood lumber, not edge worked   | 081205     | 1.48                                   | 1.74                          | 2.54                                    | 2.86                           |
| Hardwood lumber, made from purchased lumber  | 081206     | 0.13                                   | 0.15                          | 2.77                                    | 2.59                           |
| Millwork   | 082        | 0.31                                   | 0.15                          | 3.04                                    | 0.57                           |
| General millwork   | 0821       | 0.21                                   | 0.16                          | 2.06                                    | 0.57                           |
| General millwork   | 082101     | 0.21                                   | 0.16                          | 2.06                                    | 0.57                           |
| Prefabricated structural members   | 0822       | 0.94                                   | 0.44                          | 7.27                                    | 1.83                           |
| Prefabricated structural members   | 082201     | 0.94                                   | 0.44                          | 7.27                                    | 1.83                           |
| Plywood  | 083        | 1.26                                   | 0.56                          | 4.66                                    | 1.33                           |
| Softwood veneer and plywood  | 0831       | 2.63                                   | 0.64                          | 6.28                                    | 1.84                           |
| Softwood veneer and plywood  | 083103     | 2.63                                   | 0.64                          | 6.28                                    | 1.84                           |
| Hardwood veneer and plywood  | 0835       | 0.50                                   | 0.56                          | 2.37                                    | 1.81                           |
| Hardwood veneer and plywood  | 083501     | 0.50                                   | 0.56                          | 2.37                                    | 1.81                           |
| Other wood products  | 084        | 0.16                                   | 0.17                          | 0.78                                    | 0.68                           |
| Wood pallets and pallet containers, wood and metal combination                       | 0841       | 0.20                                   | 0.18                          | 1.26                                    | 0.81                           |
| Wood pallets and pallet containers   | 084101     | 0.20                                   | 0.18                          | 1.26                                    | 0.81                           |
| Wood boxes   | 0842       | 0.00                                   | 0.02                          | 0.73                                    | 0.57                           |
| Wood boxes   | 084201     | 0.00                                   | 0.02                          | 0.73                                    | 0.57                           |
| Miscellaneous wood products  | 0849       | 0.06                                   | 0.23                          | 0.69                                    | 1.23                           |
| Wood ties, siding, shingles, and shakes, and contract sawing of logs owned by others | 084903     | 0.05                                   | 0.24                          | 2.33                                    | 1.27                           |
| Sawn wood fence stock, wood lath, and contract resawing and planing                  | 084904     | 0.00                                   | 0.00                          | 14.81                                   | 10.29                          |
| All other miscellaneous wood products  | 084909     | 0.06                                   | 0.10                          | 0.52                                    | 1.34                           |
| Logs, bolts, timber, pulpwood and wood chips   | 085        | 0.42                                   | 0.33                          | 0.64                                    | 1.99                           |
| Logs, bolts, timber, pulpwood and wood chips   | 0851       | 0.42                                   | 0.33                          | 0.64                                    | 1.99                           |
| Logs, bolts, timber, pulpwood and wood chips   | 085105     | 0.42                                   | 0.33                          | 0.64                                    | 1.99                           |
| Prefabricated wood buildings & components  | 086        | 0.25                                   | 0.24                          | 4.03                                    | 1.78                           |
| Prefabricated wood buildings & components  | 0861       | 0.25                                   | 0.24                          | 4.03                                    | 1.78                           |
| Prefabricated wood buildings and components  | 086101     | 0.25                                   | 0.24                          | 4.03                                    | 1.78                           |
| Treated wood and contract wood preserving  | 087        | 0.47                                   | 0.43                          | 1.43                                    | 1.15                           |
| Treated wood and contract wood preserving  | 0871       | 0.47                                   | 0.43                          | 1.43                                    | 1.15                           |
| Treated wood   | 087101     | 0.48                                   | 0.46                          | 1.55                                    | 1.23                           |
| Contract wood preservation   | 087102     | 0.11                                   | 0.15                          | 0.52                                    | 0.60                           |
|  |            |  |                               |   |                                |
| Pulp, paper, and allied products   | 09         | 0.19                                   | 0.13                          | 2.78                                    | 0.28                           |
| Pulp, paper, and prod., ex. bldg. paper  | 091        | 0.38                                   | 0.17                          | 3.37                                    | 0.38                           |
| Woodpulp   | 0911       | 1.35                                   | 1.25                          | 5.35                                    | 3.54                           |
| Woodpulp   | 091105     | 1.35                                   | 1.25                          | 5.35                                    | 3.54                           |
| Wastepaper   | 0912       | 6.26                                   | 2.34                          | 39.07                                   | 6.75                           |
| News and other low grade wastepaper  | 091201     | 4.62                                   | 2.89                          | 25.48                                   | 8.63                           |
| Corrugated wastepaper  | 091203     | 6.10                                   | 3.16                          | 58.07                                   | 6.94                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| High grade wastepaper (including pulp substitutes and deinking)                      | 091207     | 4.43                                   | 2.77                          | 22.95                                   | 9.60                           |
| Paper  | 0913       | 0.35                                   | 0.25                          | 0.35                                    | 0.46                           |
| Writing and printing papers  | 091301     | 0.27                                   | 0.31                          | 2.07                                    | 0.63                           |
| Newsprint  | 091302     | 0.40                                   | 0.60                          | 3.15                                    | 1.51                           |
| Packaging and industrial converting paper  | 091303     | 0.53                                   | 0.30                          | 2.62                                    | 0.91                           |
| All other coated and processed papers  | 091305     | 0.40                                   | 0.42                          | 1.22                                    | 0.85                           |
| Paperboard   | 0914       | 0.34                                   | 0.20                          | 11.72                                   | 0.88                           |
| Corrugated paperboard in sheets and rolls, lined and unlined                         | 091405     | 0.03                                   | 0.05                          | 15.50                                   | 4.84                           |
| Paperboard, excluding corrugated paperboard  | 091411     | 0.37                                   | 0.22                          | 11.44                                   | 0.73                           |
| Converted paper and paperboard products  | 0915       | 0.23                                   | 0.21                          | 2.14                                    | 0.49                           |
| Sanitary paper products, including stock   | 091501     | 0.69                                   | 0.57                          | 0.70                                    | 0.75                           |
| Paper, plastic, and foil bags  | 091502     | 0.18                                   | 0.21                          | 1.08                                    | 0.47                           |
| Paper boxes and containers   | 091503     | 0.26                                   | 0.24                          | 4.39                                    | 0.99                           |
| Other corrugated and solid fiber products, including containers, pallets, pads, etc. | 091504     | 0.20                                   | 0.31                          | 8.36                                    | 1.42                           |
| Office supplies and accessories  | 091506     | 0.18                                   | 0.33                          | 0.71                                    | 0.56                           |
| Fiber cans, tubes, and similar fiber products  | 091507     | 0.07                                   | 0.18                          | 9.23                                    | 1.46                           |
| Miscellaneous converted paper and paperboard products                                | 091509     | 0.25                                   | 0.20                          | 0.46                                    | 1.33                           |
| Pressure-sensitive products  | 0916       | 0.27                                   | 0.33                          | 0.65                                    | 0.75                           |
| Pressure-sensitive products  | 091601     | 0.27                                   | 0.33                          | 0.65                                    | 0.75                           |
| Building paper & building board mill prods.  | 092        | 2.00                                   | 0.56                          | 10.14                                   | 1.12                           |
| Hardboard, particleboard & fiberboard prods.   | 0922       | 2.06                                   | 0.58                          | 10.40                                   | 1.15                           |
| Particleboard and fiberboard   | 092201     | 2.28                                   | 0.64                          | 11.53                                   | 1.27                           |
| Hardboard products   | 092202     | 0.00                                   | 0.00                          | 0.36                                    | 0.35                           |
| Publications, printed matter and printing material                                   | 094        | 0.06                                   | 0.07                          | 0.46                                    | 0.26                           |
| Books printing   | 0944       | 0.01                                   | 0.01                          | 0.80                                    | 0.55                           |
| Books printing   | 094401     | 0.01                                   | 0.01                          | 0.80                                    | 0.55                           |
| Manifold business forms  | 0945       | 0.05                                   | 0.10                          | 2.36                                    | 1.11                           |
| Manifold business forms printing   | 094501     | 0.05                                   | 0.10                          | 2.36                                    | 1.11                           |
| Commercial printing  | 0947       | 0.06                                   | 0.07                          | 0.10                                    | 0.20                           |
| Magazine and periodical printing   | 094701     | 0.06                                   | 0.05                          | 0.64                                    | 0.85                           |
| Label and wrapper printing for packaging   | 094702     | 0.05                                   | 0.04                          | 0.40                                    | 0.23                           |
| Catalog and directory printing   | 094703     | 0.00                                   | 0.00                          | 0.30                                    | 0.35                           |
| Advertising printing   | 094705     | 0.11                                   | 0.06                          | 0.14                                    | 0.23                           |
| Other general job printing   | 094706     | 0.14                                   | 0.17                          | 1.08                                    | 0.64                           |
| Commercial printing, n.e.c.  | 094711     | 0.04                                   | 0.06                          | 1.04                                    | 0.64                           |
| Blankbooks, binders, and bookbinding work  | 0948       | 0.04                                   | 0.03                          | 5.47                                    | 3.17                           |
| Checkbooks, blankbooks, looseleaf binders, and devices                               | 094801     | 0.00                                   | 0.00                          | 8.97                                    | 5.79                           |
| Tradebinding and related work  | 094802     | 0.01                                   | 0.01                          | 1.20                                    | 0.70                           |
|  |            |  |                               |   |                                |
| Metals and metal products  | 10         | 0.43                                   | 0.15                          | 7.11                                    | 0.48                           |
| Iron and steel   | 101        | 1.08                                   | 0.37                          | 12.19                                   | 1.30                           |
| Iron ores  | 1011       | 1.10                                   | 1.27                          | 6.57                                    | 7.10                           |
| Iron ores  | 101105     | 1.10                                   | 1.27                          | 6.57                                    | 7.10                           |
| Iron and steel scrap   | 1012       | 3.90                                   | 1.08                          | 29.03                                   | 2.00                           |
| Carbon steel scrap   | 101211     | 3.96                                   | 1.12                          | 29.46                                   | 2.12                           |
| Stainless and other alloy steel scrap  | 101212     | 3.10                                   | 2.49                          | 22.02                                   | 4.58                           |
| Cast iron scrap  | 101213     | 3.61                                   | 1.77                          | 12.15                                   | 10.10                          |
| Other ferrous scrap  | 101215     | 2.79                                   | 3.94                          | 34.69                                   | 11.75                          |
| Foundry and forge shop products  | 1015       | 0.21                                   | 0.24                          | 0.50                                    | 0.76                           |
| Pressure and soil pipe & fittings, cast iron   | 101502     | 0.96                                   | 1.08                          | 3.71                                    | 1.50                           |
| Other gray and ductile iron castings   | 101504     | 0.26                                   | 0.17                          | 0.82                                    | 1.64                           |
| Standard and pearlitic malleable iron castings                                       | 101505     | 0.00                                   | 0.00                          | 1.95                                    | 1.07                           |
| Steel investment castings  | 101506     | 0.18                                   | 0.21                          | 0.99                                    | 1.44                           |
| Carbon steel castings, except investment   | 101507     | 0.03                                   | 0.02                          | 1.27                                    | 1.15                           |
| High alloy steel castings, excluding investment                                      | 101508     | 0.29                                   | 0.44                          | 2.70                                    | 3.15                           |
| Other alloy steel castings, except investment  | 101509     | 0.04                                   | 0.06                          | 2.17                                    | 1.91                           |
| Other forge shop products  | 101513     | 0.14                                   | 0.38                          | 1.31                                    | 1.19                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Steel mill products   | 1017       | 1.15                                   | 0.40                          | 11.81                                   | 1.98                           |
| Semifinished steel mill products                                    | 101702     | 0.80                                   | 1.11                          | 5.88                                    | 2.31                           |
| Hot rolled steel sheet and strip, including tin mill products       | 101703     | 2.39                                   | 0.61                          | 16.21                                   | 2.79                           |
| Hot rolled steel bars, plates, and structural shapes                | 101704     | 0.86                                   | 0.61                          | 8.55                                    | 1.83                           |
| Steel wire  | 101705     | 0.50                                   | 0.42                          | 4.17                                    | 2.29                           |
| Steel pipe and tube   | 101706     | 0.61                                   | 0.70                          | 11.65                                   | 2.89                           |
| Cold rolled steel sheet and strip                                   | 101707     | 1.17                                   | 0.94                          | 20.01                                   | 6.33                           |
| Cold finished steel bars and bar shapes                             | 101708     | 0.64                                   | 0.70                          | 5.86                                    | 2.20                           |
| Nonferrous metals   | 102        | 0.56                                   | 0.35                          | 9.91                                    | 0.91                           |
| Nonferrous metal ores   | 1021       | 1.27                                   | 1.96                          | 17.47                                   | 5.62                           |
| Copper ores   | 102102     | 2.33                                   | 5.36                          | 26.09                                   | 5.83                           |
| Gold ores   | 102105     | 1.73                                   | 0.64                          | 3.00                                    | 1.12                           |
| Other metal ores  | 102112     | 4.12                                   | 2.34                          | 32.85                                   | 20.03                          |
| Primary nonferrous metals   | 1022       | 1.33                                   | 0.60                          | 11.01                                   | 4.32                           |
| Primary nonferrous metals   | 102201     | 1.33                                   | 0.60                          | 11.01                                   | 4.32                           |
| Nonferrous scrap  | 1023       | 0.96                                   | 0.70                          | 15.56                                   | 3.68                           |
| Copper base scrap   | 102301     | 0.60                                   | 0.75                          | 15.11                                   | 5.28                           |
| Aluminum base scrap   | 102302     | 1.37                                   | 0.80                          | 13.24                                   | 2.07                           |
| Other nonferrous scrap (including lead, zinc and precious metals)   | 102303     | 2.21                                   | 1.68                          | 21.34                                   | 9.06                           |
| Secondary nonferrous metals   | 1024       | 0.90                                   | 0.44                          | 8.49                                    | 1.18                           |
| Secondary aluminum  | 102402     | 0.70                                   | 0.21                          | 6.19                                    | 0.83                           |
| Secondary copper, alloyed and unalloyed                             | 102403     | 0.37                                   | 0.37                          | 10.90                                   | 1.73                           |
| Secondary precious metals   | 102406     | 3.11                                   | 1.27                          | 3.51                                    | 2.90                           |
| All other miscellaneous secondary nonferrous metals, including lead | 102408     | 1.06                                   | 0.65                          | 14.32                                   | 3.58                           |
| Nonferrous mill shapes  | 1025       | 0.67                                   | 0.21                          | 10.41                                   | 0.78                           |
| Aluminum mill shapes  | 102501     | 1.17                                   | 0.20                          | 10.02                                   | 0.83                           |
| Copper and brass mill shapes  | 102502     | 2.43                                   | 0.23                          | 17.87                                   | 1.79                           |
| Nickel and nickel-base alloy mill shapes                            | 102504     | 0.75                                   | 0.74                          | 0.61                                    | 2.40                           |
| Titanium and titanium-base alloy mill shapes                        | 102505     | 0.65                                   | 0.58                          | 3.16                                    | 2.18                           |
| Other nonferrous mill shapes  | 102519     | 1.73                                   | 1.85                          | 1.40                                    | 3.43                           |
| Nonferrous wire and cable   | 1026       | 0.95                                   | 0.74                          | 4.80                                    | 1.64                           |
| Nonferrous wire and cable   | 102603     | 0.95                                   | 0.74                          | 4.80                                    | 1.64                           |
| Nonferrous forge shop products                                      | 1027       | 0.00                                   | 0.00                          | 1.17                                    | 3.28                           |
| Nonferrous forge shop products                                      | 102701     | 0.00                                   | 0.00                          | 1.17                                    | 3.28                           |
| Nonferrous foundry shop products                                    | 1028       | 0.18                                   | 0.14                          | 2.47                                    | 0.54                           |
| Castings, aluminum and aluminum-base alloy                          | 102802     | 0.21                                   | 0.11                          | 2.39                                    | 0.56                           |
| Castings, nonferrous (except aluminum)                              | 102807     | 0.29                                   | 0.27                          | 2.99                                    | 1.11                           |
| Metal containers  | 103        | 0.12                                   | 0.17                          | 2.88                                    | 0.86                           |
| Metal cans and can components                                       | 1031       | 0.10                                   | 0.19                          | 2.78                                    | 0.84                           |
| Steel cans and tinware end products                                 | 103102     | 0.12                                   | 0.17                          | 3.71                                    | 0.61                           |
| Aluminum cans and can components                                    | 103103     | 0.06                                   | 0.08                          | 2.13                                    | 1.35                           |
| Barrels, drums, pails and other metal containers                    | 1032       | 0.19                                   | 0.23                          | 3.62                                    | 1.13                           |
| Barrels, drums, pails and other metal containers                    | 103201     | 0.19                                   | 0.23                          | 3.62                                    | 1.13                           |
| Hardware  | 104        | 0.31                                   | 0.18                          | 1.46                                    | 0.47                           |
| Hardware, n.e.c.  | 1041       | 0.45                                   | 0.29                          | 1.82                                    | 0.75                           |
| Builders' hardware  | 104101     | 0.30                                   | 0.15                          | 1.84                                    | 0.79                           |
| Transportation equipment hardware                                   | 104103     | 0.05                                   | 0.04                          | 1.19                                    | 0.60                           |
| Other miscellaneous hardware  | 104105     | 1.97                                   | 1.23                          | 6.43                                    | 5.96                           |
| Hand and edge tools   | 1042       | 0.10                                   | 0.07                          | 1.23                                    | 0.47                           |
| Hand and edge tools   | 104201     | 0.10                                   | 0.07                          | 1.23                                    | 0.47                           |
| Plumbing fixtures and fittings                                      | 105        | 0.07                                   | 0.09                          | 2.00                                    | 0.29                           |
| Plumbing fixture fittings and trim                                  | 1054       | 0.02                                   | 0.05                          | 2.30                                    | 0.39                           |
| Plumbing fixtures, fittings, and trim                               | 105402     | 0.02                                   | 0.05                          | 2.30                                    | 0.39                           |
| Enameled iron & metal sanitary ware                                 | 1056       | 0.00                                   | 0.00                          | 1.54                                    | 0.30                           |
| Enameled iron and metal sanitary ware                               | 105601     | 0.00                                   | 0.00                          | 1.54                                    | 0.30                           |
| Heating equipment   | 106        | 0.16                                   | 0.20                          | 1.29                                    | 0.74                           |
| Steam and hot water equipment                                       | 1061       | 0.07                                   | 0.09                          | 0.82                                    | 0.35                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Steam and hot water equipment   | 106101     | 0.07                                   | 0.09                          | 0.82                                    | 0.35                           |
| Furnaces and heaters, including parts   | 1062       | 0.42                                   | 0.57                          | 0.67                                    | 2.14                           |
| Furnaces and heaters, including parts   | 106201     | 0.42                                   | 0.57                          | 0.67                                    | 2.14                           |
| Other heating equipment, non-electric, including parts  | 1063       | 0.08                                   | 0.09                          | 1.07                                    | 0.60                           |
| Other heating equipment, non-electric, including parts  | 106301     | 0.08                                   | 0.09                          | 1.07                                    | 0.60                           |
| Domestic heating stoves   | 1064       | 0.00                                   | 0.00                          | 0.34                                    | 0.39                           |
| Domestic heating stoves   | 106401     | 0.00                                   | 0.00                          | 0.34                                    | 0.39                           |
| Domestic water heaters  | 1066       | 0.12                                   | 0.13                          | 3.13                                    | 1.31                           |
| Domestic water heaters  | 106601     | 0.12                                   | 0.13                          | 3.13                                    | 1.31                           |
| Fabricated structural metal products  | 107        | 0.28                                   | 0.18                          | 2.44                                    | 0.79                           |
| Metal doors, sash, and trim   | 1071       | 0.19                                   | 0.18                          | 3.20                                    | 0.53                           |
| Metal doors and frames (except storm)   | 107102     | 0.15                                   | 0.20                          | 3.10                                    | 0.54                           |
| Metal windows (except storm sash)   | 107103     | 0.14                                   | 0.22                          |   |                                |
| Metal molding and trim and store fronts   | 107104     | 0.00                                   | 0.00                          |   |                                |
| Metal combination screen, storm sash, and storm doors   | 107105     | 0.00                                   | 0.00                          |   |                                |
| Metal window and door screens (except combination screens) and metal weather strip            | 107107     | 0.01                                   | 0.18                          |   |                                |
| Metal tanks   | 1072       | 0.15                                   | 0.17                          | 8.48                                    | 6.81                           |
| Metal tanks   | 107201     | 0.15                                   | 0.17                          | 8.48                                    | 6.81                           |
| Sheet metal products  | 1073       | 0.08                                   | 0.07                          | 2.59                                    | 0.94                           |
| Sheet metal products  | 107301     | 0.08                                   | 0.07                          | 2.59                                    | 0.94                           |
| Structural, architectural, and pre-engineered metal products                                  | 1074       | 0.46                                   | 0.37                          | 3.22                                    | 1.30                           |
| Fabricated structural metal   | 107405     | 0.65                                   | 0.68                          | 4.05                                    | 2.10                           |
| Custom roll form products   | 107407     | 0.37                                   | 0.15                          | 2.85                                    | 2.79                           |
| Ornamental and architectural metal work   | 107408     | 0.11                                   | 0.13                          | 3.16                                    | 0.63                           |
| Fabricated metal pipe, tube, and fittings   | 107411     | 0.16                                   | 0.20                          | 1.13                                    | 1.07                           |
| Heat exchangers and steam condensers  | 1075       | 0.00                                   | 0.00                          | 0.83                                    | 0.52                           |
| Heat exchangers and steam condensers  | 107501     | 0.00                                   | 0.00                          | 0.77                                    | 0.53                           |
| Fabricated steel plate  | 1076       | 0.19                                   | 0.17                          | 1.30                                    | 0.87                           |
| Fabricated steel plate  | 107601     | 0.19                                   | 0.17                          | 1.30                                    | 0.87                           |
| Stationary and marine power boilers   | 1077       | 0.00                                   | 0.00                          | 0.63                                    | 0.45                           |
| Stationary and marine power boilers   | 107701     | 0.00                                   | 0.00                          | 0.63                                    | 0.45                           |
| Prefabricated metal buildings   | 1079       | 0.39                                   | 0.51                          | 3.60                                    | 1.68                           |
| Prefabricated metal building systems (excl. farm service bldgs, residential bldgs, and parts) | 107901     | 0.52                                   | 0.37                          |   |                                |
| Farm service buildings and other prefabricated and portable buildings, steel and aluminum     | 107902     | 0.11                                   | 0.37                          |   |                                |
| Panels, parts, and sections for prefabricated buildings, steel and aluminum                   | 107903     | 1.06                                   | 1.96                          | 4.07                                    | 3.26                           |
| Miscellaneous metal products  | 108        | 0.13                                   | 0.09                          | 0.96                                    | 0.60                           |
| Bolts, nuts, screws, rivets, and washers  | 1081       | 0.02                                   | 0.03                          | 0.25                                    | 0.33                           |
| Externally threaded fasteners, except aircraft types  | 108102     | 0.06                                   | 0.06                          | 0.78                                    | 0.78                           |
| Internally threaded fasteners, except aircraft types  | 108103     | 0.00                                   | 0.00                          | 0.36                                    | 0.79                           |
| Nonthreaded metal fasteners, except aircraft types  | 108104     | 0.00                                   | 0.00                          | 0.01                                    | 0.01                           |
| Aircraft fasteners, except plastics (including aerospace)                                     | 108105     | 0.00                                   | 0.00                          | 0.00                                    | 0.00                           |
| Lighting fixtures   | 1083       | 0.15                                   | 0.12                          | 1.14                                    | 0.52                           |
| Residential electric lighting fixtures, except portable                                       | 108302     | 0.05                                   | 0.06                          | 1.11                                    | 0.63                           |
| Commercial, institutional and industrial electric lighting fixtures                           | 108303     | 0.04                                   | 0.04                          | 1.57                                    | 0.81                           |
| Other lighting equipment  | 108305     | 0.14                                   | 0.14                          | 1.38                                    | 0.98                           |
| Ammunition, except for small arms   | 1085       | 0.00                                   | 0.00                          | 0.78                                    | 0.65                           |
| Ammunition, except for small arms   | 108501     | 0.00                                   | 0.00                          | 0.78                                    | 0.65                           |
| Ordnance and ordnance accessories, n.e.c.   | 1086       | 0.00                                   | 0.00                          | 2.77                                    | 1.36                           |
| Ordnance and ordnance accessories, n.e.c.   | 108601     | 0.00                                   | 0.00                          | 2.77                                    | 1.36                           |
| Fabricated ferrous wire products  | 1088       | 0.11                                   | 0.18                          | 0.70                                    | 1.01                           |
| Ferrous wire rope, cable, forms and strand  | 108801     | 0.10                                   | 0.09                          | 1.22                                    | 3.62                           |
| Ferrous wire cloth, other woven wire products   | 108807     | 0.03                                   | 0.11                          | 1.30                                    | 1.51                           |
| Other fabricated ferrous wire products  | 108809     | 0.14                                   | 0.17                          | 0.40                                    | 0.58                           |
| Steel nails, staples, tacks, spikes and brads   | 108812     | 0.63                                   | 0.37                          | 1.69                                    | 0.98                           |
| Other miscellaneous metal products  | 1089       | 0.20                                   | 0.12                          | 0.98                                    | 0.84                           |
| Wire springs  | 108904     | 0.11                                   | 0.16                          | 0.41                                    | 1.82                           |
| Other metal products  | 108905     | 0.13                                   | 0.13                          | 0.80                                    | 1.09                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Metal stampings n.e.c.  | 108907     | 0.10                                   | 0.11                          | 3.16                                    | 1.11                           |
| Metal foil and leaf   | 108908     | 0.18                                   | 0.18                          | 1.35                                    | 0.93                           |
| Heavy gauge springs   | 108909     | 0.02                                   | 0.09                          | 0.52                                    | 0.74                           |
|   |            |  |                               |   |                                |
| Machinery and equipment   | 11         | 0.08                                   | 0.05                          | 0.77                                    | 0.14                           |
| Agricultural machinery and equipment  | 111        | 0.07                                   | 0.10                          | 1.08                                    | 0.40                           |
| Agricultural machinery and equipment  | 1114       | 0.07                                   | 0.10                          | 1.08                                    | 0.40                           |
| Commercial turf and grounds care equipment, including parts and attachments                     | 111401     | 0.12                                   | 0.29                          | 0.24                                    | 1.01                           |
| Farm plows, harrows, rollers, pulverizers, etc., and attachments                                | 111402     | 0.00                                   | 0.00                          | 0.54                                    | 0.66                           |
| Farm-type (power take-off hp) wheel tractors (2/4-wheel drive)(with or without attachments)     | 111403     | 0.00                                   | 0.00                          | 1.21                                    | 0.39                           |
| Farm dairy equipment, sprayers and dusters, farm blowers, and attachments                       | 111404     | 0.04                                   | 0.02                          | 2.40                                    | 1.78                           |
| Planting, seeding, and fertilizing machinery and attachments                                    | 111405     | 0.06                                   | 0.14                          | 1.24                                    | 0.68                           |
| Harvesting machinery (except hay and straw) and attachments                                     | 111406     | 0.04                                   | 0.12                          | 0.78                                    | 1.18                           |
| Haying machinery and attachments  | 111407     | 0.05                                   | 0.04                          | 0.46                                    | 0.68                           |
| All other farm machinery and equipment, excluding parts, including attachments                  | 111408     | 0.00                                   | 0.00                          | 0.39                                    | 0.36                           |
| Parts for farm machinery, for sale separately   | 111409     | 0.03                                   | 0.07                          | 1.17                                    | 1.41                           |
| Construction machinery and equipment  | 112        | 0.05                                   | 0.06                          | 0.87                                    | 0.24                           |
| Tractors and attachments, ex. parts   | 112A       | 0.01                                   | 0.04                          | 0.55                                    | 0.68                           |
| Construction machinery for mounting (excluding parts, winches, snow clearing attachments)       | 112A03     | 0.00                                   | 0.00                          | 2.42                                    | 2.17                           |
| Tractor shovel loaders (skid steer, wheel, crawler, and integral design backhoes)               | 112A04     | 0.00                                   | 0.00                          | 0.78                                    | 0.66                           |
| Construction wheel and crawler tractors, dozers, self-propelled log skidders, etc.              | 112A05     | 0.07                                   | 0.09                          | 0.40                                    | 1.59                           |
| Power cranes, draglines, & shovels (excavators) (incl. surface mining equipment) (excl. parts)  | 112B       | 0.00                                   | 0.00                          | 1.19                                    | 0.33                           |
| Power cranes, draglines, & shovels (excavators) (incl. surface mining equip.) (excluding parts) | 112B05     | 0.00                                   | 0.00                          | 1.19                                    | 0.33                           |
| Mixers, pavers, and related equipment (excluding parts)   | 112C       | 0.00                                   | 0.00                          | 1.47                                    | 0.62                           |
| Mixers, pavers, and related equipment (excluding parts)   | 112C01     | 0.00                                   | 0.00                          | 1.47                                    | 0.62                           |
| Off-highway, equipment, ex. parts   | 112D       | 0.02                                   | 0.09                          | 0.46                                    | 0.81                           |
| Off-highway trucks, haulers, truck-type tractor chassis, trailers, etc. (excluding parts)       | 112D02     | 0.00                                   | 0.00                          | 0.95                                    | 1.87                           |
| Graders, rollers & compactors, rough-terrain forklifts, scrapers, trenchers, etc. (excl. parts) | 112D03     | 0.00                                   | 0.00                          | 0.16                                    | 0.58                           |
| Misc. construction machinery and equipment  | 112J       | 0.00                                   | 0.00                          | 0.70                                    | 0.53                           |
| Winches, aerial work platforms, and automotive wrecker hoists                                   | 112J01     | 0.00                                   | 0.00                          | 0.99                                    | 0.21                           |
| Other construction machinery and equipment (excluding parts)                                    | 112J03     | 0.00                                   | 0.00                          | 0.53                                    | 1.30                           |
| Parts for construction machinery and equipment, sold separately                                 | 112K       | 0.19                                   | 0.18                          | 1.41                                    | 0.61                           |
| Parts for construction machinery and equipment, sold separately                                 | 112K01     | 0.19                                   | 0.18                          | 1.41                                    | 0.61                           |
| Metalworking machinery and equipment  | 113        | 0.09                                   | 0.08                          | 0.75                                    | 0.28                           |
| Power-driven handtools, including parts and attachments   | 1132       | 0.00                                   | 0.00                          | 0.78                                    | 0.72                           |
| Power-driven handtools, including parts and attachments   | 113211     | 0.00                                   | 0.00                          | 0.78                                    | 0.72                           |
| Welding machines and equipment  | 1133       | 0.09                                   | 0.10                          | 2.78                                    | 0.72                           |
| Arc welding machines, components, and accessories, excluding electrodes and stud welding equip  | 113301     | 0.12                                   | 0.16                          | 2.97                                    | 0.92                           |
| Resistance welders, components, accessories, and electrodes                                     | 113302     | 0.00                                   | 0.00                          | 0.46                                    | 0.47                           |
| Gas welding and cutting equipment, parts, attachments, and accessories                          | 113304     | 0.00                                   | 0.00                          | 1.30                                    | 0.46                           |
| Other welding equipment, components, and accessories (excluding arc, resistance, and gas)       | 113306     | 0.00                                   | 0.00                          | 1.06                                    | 0.66                           |
| Industrial process furnaces and ovens   | 1134       | 0.00                                   | 0.00                          | 0.57                                    | 0.56                           |
| Industrial process furnaces and ovens, except parts and attachments                             | 113407     | 0.00                                   | 0.00                          | 1.02                                    | 0.66                           |
| Parts and attachments for industrial process furnaces and ovens                                 | 113409     | 0.00                                   | 0.00                          | 1.19                                    | 0.43                           |
| Cutting tools and accessories   | 1135       | 0.09                                   | 0.09                          | 0.39                                    | 0.28                           |
| Small cutting tools   | 113501     | 0.07                                   | 0.14                          | 0.29                                    | 0.31                           |
| Precision measuring tools   | 113502     | 0.00                                   | 0.00                          | 0.15                                    | 0.42                           |
| Other machine tool attachments and accessories  | 113505     | 0.00                                   | 0.00                          | 1.23                                    | 0.81                           |
| Abrasive products   | 1136       | 0.31                                   | 0.38                          | 1.47                                    | 0.72                           |
| Nonmetallic sized grains, powders, and flour abrasives (incl. graded only)                      | 113601     | 0.49                                   | 1.56                          | 0.97                                    | 2.02                           |
| Nonmetallic abrasive products (including diamond abrasives)                                     | 113603     | 0.26                                   | 0.19                          | 0.66                                    | 0.58                           |
| Nonmetallic coated abrasive products and buffing wheels, polishing wheels, and laps             | 113605     | 0.05                                   | 0.05                          | 0.56                                    | 0.33                           |
| Metal cutting machine tools   | 1137       | 0.08                                   | 0.16                          | 0.48                                    | 0.63                           |
| Metal grinding, polishing, buffing, honing, and lapping machines                                | 113713     | 0.00                                   | 0.00                          | 2.86                                    | 1.52                           |
| Other metal-cutting machine tools   | 113720     | 0.12                                   | 0.29                          | 0.35                                    | 1.09                           |
| Metal machining centers   | 113721     | 0.00                                   | 0.00                          | 0.49                                    | 1.14                           |
| Rebuilt metal-cutting machine tools and parts for metal-cutting machine tools                   | 113753     | 0.00                                   | 0.01                          | 0.16                                    | 0.36                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Metal forming machine tools   | 1138       | 0.10                                   | 0.12                          | 0.96                                    | 0.70                           |
| Metal-forming machine tools (except rebuilt and parts)                        | 113826     | 0.04                                   | 0.09                          | 0.46                                    | 0.69                           |
| Rebuilt metal-forming machine tools and parts for metal-forming machine tools | 113852     | 0.00                                   | 0.00                          | 3.81                                    | 2.08                           |
| Tools, dies, jigs, fixtures & ind. molds                                      | 1139       | 0.02                                   | 0.14                          | 0.49                                    | 0.77                           |
| Special tools, dies, jigs, and fixtures                                       | 113901     | 0.01                                   | 0.01                          | 0.79                                    | 0.70                           |
| Industrial molds and mold boxes   | 113903     | 0.05                                   | 0.26                          | 0.13                                    | 1.69                           |
| Metalworking machinery n. e. c.   | 113A       | 0.06                                   | 0.14                          | 1.08                                    | 0.48                           |
| Metalworking assembly machines  | 113A01     | 0.08                                   | 0.13                          | 0.29                                    | 0.43                           |
| Other metalworking machinery  | 113A02     | 0.01                                   | 0.03                          | 2.62                                    | 1.03                           |
| Rolling mill machinery  | 113B       | 0.02                                   | 0.02                          | 5.98                                    | 3.12                           |
| Rolling mill machinery  | 113B01     | 0.02                                   | 0.02                          | 5.98                                    | 3.12                           |
| General purpose machinery and equipment                                       | 114        | 0.13                                   | 0.08                          | 1.54                                    | 0.24                           |
| Pumps, compressors, and equipment   | 1141       | 0.22                                   | 0.14                          | 1.78                                    | 0.39                           |
| Industrial pumps, except hydraulic fluid power pumps                          | 114102     | 0.08                                   | 0.06                          | 1.95                                    | 0.69                           |
| Parts and attachments for air and gas compressors and vacuum pumps            | 114107     | 0.00                                   | 0.00                          | 1.51                                    | 1.25                           |
| Industrial spraying equipment   | 114108     | 0.00                                   | 0.00                          | 1.73                                    | 1.74                           |
| Measuring and dispensing pumps  | 114109     | 0.17                                   | 0.06                          | 1.62                                    | 0.42                           |
| Other pumps, including parts  | 114112     | 0.10                                   | 0.15                          | 1.75                                    | 1.06                           |
| Domestic water systems  | 114113     | 0.07                                   | 0.10                          | 2.95                                    | 0.68                           |
| Air and gas compressors and vacuum pumps                                      | 114115     | 0.00                                   | 0.00                          | 1.67                                    | 0.65                           |
| Elevators, escalators, and other lifts  | 1142       | 0.14                                   | 0.08                          | 2.97                                    | 1.05                           |
| Elevators and moving stairways  | 114201     | 0.15                                   | 0.09                          | 3.16                                    | 1.17                           |
| Parts and attachments for elevators and moving stairs (sold separately)       | 114202     | 0.00                                   | 0.00                          | 1.58                                    | 1.49                           |
| Fluid power equipment   | 1143       | 0.14                                   | 0.10                          | 1.39                                    | 0.45                           |
| Fluid power pumps and parts   | 114301     | 0.06                                   | 0.09                          | 1.01                                    | 0.65                           |
| Fluid power valves  | 114302     | 0.03                                   | 0.04                          | 1.14                                    | 1.14                           |
| Fluid power cylinders, actuators, accumulators, cushions, & parts             | 114303     | 0.09                                   | 0.11                          | 1.95                                    | 0.73                           |
| Fluid power hose and tube fittings  | 114304     | 0.03                                   | 0.03                          | 1.08                                    | 0.84                           |
| Parts for fluid power valves  | 114305     | 0.01                                   | 0.02                          | 8.94                                    | 7.06                           |
| Industrial material handling equipment  | 1144       | 0.10                                   | 0.09                          | 1.65                                    | 0.26                           |
| Conveying equipment   | 114402     | 0.16                                   | 0.16                          | 1.33                                    | 0.45                           |
| Industrial trucks, trailers, and stackers                                     | 114403     | 0.08                                   | 0.06                          | 1.99                                    | 0.34                           |
| Hoists, overhead cranes, and monorail systems                                 | 114404     | 0.00                                   | 0.03                          | 0.89                                    | 1.15                           |
| Mechanical power transmission equipment                                       | 1145       | 0.13                                   | 0.08                          | 0.99                                    | 0.35                           |
| Speed changers, drives, gears   | 114501     | 0.09                                   | 0.08                          | 0.92                                    | 0.59                           |
| Other power transmission equipment  | 114502     | 0.04                                   | 0.07                          | 1.05                                    | 0.40                           |
| Scales and balances   | 1146       | 0.00                                   | 0.00                          | 1.57                                    | 0.42                           |
| Vehicle and industrial scales   | 114611     | 0.00                                   | 0.00                          | 0.71                                    | 0.38                           |
| Retail, commercial, household, and mailing scales                             | 114612     | 0.00                                   | 0.00                          | 1.77                                    | 0.73                           |
| Parts, attachments, and accessories for scales                                | 114613     | 0.00                                   | 0.00                          | 2.95                                    | 1.50                           |
| Air purification equipment and industrial and commercial fans and blowers     | 1147       | 0.11                                   | 0.25                          | 1.21                                    | 0.48                           |
| Fan, blower, air purification equipment                                       | 114701     | 0.11                                   | 0.25                          | 1.21                                    | 0.48                           |
| Air conditioning and refrigeration equip                                      | 1148       | 0.12                                   | 0.31                          | 1.98                                    | 0.83                           |
| Unitary air-conditioners, except air source heat pumps                        | 114802     | 0.48                                   | 0.90                          | 2.43                                    | 2.49                           |
| Commercial refrigeration equipment  | 114803     | 0.00                                   | 0.00                          | 3.01                                    | 3.93                           |
| Refrigeration condensing units  | 114805     | 0.00                                   | 0.00                          | 5.20                                    | 1.77                           |
| All other miscellaneous refrigeration and air-conditioning equipment          | 114806     | 0.00                                   | 0.00                          | 1.42                                    | 0.49                           |
| Heat transfer equipment, including heat pumps                                 | 114807     | 0.22                                   | 0.29                          | 0.32                                    | 0.75                           |
| Refrigerant compressors, except automotive                                    | 114808     | 0.00                                   | 0.00                          | 4.20                                    | 0.54                           |
| Parts and accessories for air conditioning and heat transfer equipment        | 114809     | 0.16                                   | 0.28                          | 1.32                                    | 0.84                           |
| Miscellaneous general purpose equipment                                       | 1149       | 0.19                                   | 0.12                          | 0.87                                    | 0.42                           |
| Metal valves, except fluid power  | 114902     | 0.13                                   | 0.15                          | 2.24                                    | 0.52                           |
| Metal pipe fittings, flanges, and unions                                      | 114903     | 1.02                                   | 0.98                          | 1.11                                    | 2.38                           |
| Ball and roller bearings  | 114905     | 0.05                                   | 0.06                          | 1.07                                    | 0.27                           |
| Filters and strainers   | 114908     | 0.03                                   | 0.04                          | 2.03                                    | 1.90                           |
| Other miscellaneous general purpose equipment                                 | 114911     | 0.16                                   | 0.16                          | 0.44                                    | 0.70                           |
| Electronic computers and computer equipment                                   | 115        | 0.26                                   | 0.25                          | 0.98                                    | 0.94                           |



**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Electronic computers   | 1151       | 0.44                                   | 0.42                          | 5.61                                    | 1.31                           |
| Electronic computers   | 115101     | 0.44                                   | 0.42                          | 5.61                                    | 1.31                           |
| Computer storage devices   | 1152       | 0.00                                   | 0.00                          | 1.45                                    | 0.70                           |
| Computer storage devices (excluding parts, attachments and accessories)                      | 115201     | 0.00                                   | 0.00                          | 1.42                                    | 0.70                           |
| Computer peripheral equipment and parts  | 1154       | 0.02                                   | 0.02                          | 5.92                                    | 2.38                           |
| Parts, attachments & accessories for computer and POS terminals and computer peripherals     | 115405     | 0.00                                   | 0.00                          | 12.23                                   | 4.55                           |
| POS terminals, funds-transfer devices, computer terminals & other computer peripheral equip. | 115406     | 0.03                                   | 0.03                          | 0.63                                    | 0.70                           |
| Special industry machinery and equipment   | 116        | 0.10                                   | 0.08                          | 1.09                                    | 0.27                           |
| Food products machinery  | 1161       | 0.14                                   | 0.09                          | 1.25                                    | 0.55                           |
| Dairy and milk products plant machinery and equipment  | 116101     | 0.00                                   | 0.00                          | 1.42                                    | 0.65                           |
| Commercial food products machinery (except packaging and cooking equipment)                  | 116104     | 0.04                                   | 0.04                          | 0.27                                    | 0.81                           |
| Industrial food products machinery for processing foods, beverages, & animal & fowl feed     | 116105     | 0.09                                   | 0.11                          | 2.23                                    | 0.79                           |
| Textile machinery and equipment  | 1162       | 0.00                                   | 0.00                          | 0.46                                    | 0.88                           |
| Textile machinery (except parts, attachments, and accessories)                               | 116212     | 0.00                                   | 0.00                          | 0.02                                    | 0.19                           |
| Textile machinery parts and attachments  | 116277     | 0.00                                   | 0.00                          | 1.47                                    | 1.85                           |
| Sawmill and woodworking machinery  | 1163       | 0.00                                   | 0.00                          | 4.16                                    | 1.32                           |
| Sawmill and woodworking machinery  | 116306     | 0.00                                   | 0.00                          | 4.16                                    | 1.32                           |
| Paper industries machinery   | 1164       | 0.02                                   | 0.02                          | 0.38                                    | 0.49                           |
| Paper industries machinery   | 116401     | 0.02                                   | 0.02                          | 0.38                                    | 0.49                           |
| Printing trades machinery and equipment  | 1165       | 0.21                                   | 0.29                          | 0.57                                    | 0.67                           |
| Printing presses   | 116508     | 0.00                                   | 0.00                          | 0.58                                    | 0.77                           |
| Other printing machinery and equipment   | 116509     | 0.31                                   | 0.42                          | 0.45                                    | 0.92                           |
| Other special industry machinery   | 1166       | 0.19                                   | 0.14                          | 1.00                                    | 0.45                           |
| Plastics and rubber working machinery  | 116603     | 0.09                                   | 0.10                          | 0.37                                    | 0.52                           |
| Miscellaneous special industry machinery   | 116606     | 0.23                                   | 0.16                          | 1.17                                    | 0.50                           |
| Packing, packaging, and bottling machinery and parts   | 1167       | 0.40                                   | 0.34                          | 1.45                                    | 1.57                           |
| Packing, packaging, and bottling machinery and parts   | 116705     | 0.40                                   | 0.34                          | 1.45                                    | 1.57                           |
| Service industry machinery and parts   | 1168       | 0.15                                   | 0.12                          | 1.72                                    | 0.42                           |
| Service industry machinery and parts   | 116801     | 0.15                                   | 0.12                          | 1.72                                    | 0.42                           |
| Commercial laundry and drycleaning machinery products  | 1169       | 0.00                                   | 0.00                          | 1.60                                    | 0.59                           |
| Commercial laundry and drycleaning machinery products  | 116909     | 0.00                                   | 0.00                          | 1.60                                    | 0.59                           |
| Electrical machinery and equipment   | 117        | 0.06                                   | 0.07                          | 0.50                                    | 0.31                           |
| Wiring devices   | 1171       | 0.13                                   | 0.13                          | 0.80                                    | 0.51                           |
| Current-carrying wiring devices  | 117101     | 0.14                                   | 0.15                          | 0.49                                    | 0.66                           |
| Noncurrent-carrying wiring devices   | 117102     | 0.14                                   | 0.18                          | 1.18                                    | 0.87                           |
| Integrating and measuring instruments  | 1172       | 0.08                                   | 0.08                          | 0.55                                    | 0.55                           |
| Test equipment for electrical, radio, & communication circuits & motors                      | 117205     | 0.09                                   | 0.10                          | 1.15                                    | 0.46                           |
| Electrical integrating instruments and other instruments to measure electricity              | 117209     | 0.00                                   | 0.00                          | 3.05                                    | 3.18                           |
| Motors, generators, motor generator sets   | 1173       | 0.02                                   | 0.03                          | 0.81                                    | 0.38                           |
| Fractional horsepower motors and generators  | 117303     | 0.05                                   | 0.07                          | 0.84                                    | 0.34                           |
| Integral horsepower motors and generators (excluding land transportation types)              | 117304     | 0.04                                   | 0.04                          | 2.41                                    | 0.43                           |
| Parts and supplies for motors and generators   | 117309     | 0.00                                   | 0.00                          | 2.86                                    | 1.75                           |
| Other motors and generators  | 117311     | 0.00                                   | 0.00                          | 1.18                                    | 0.50                           |
| Transformers and power regulators  | 1174       | 0.33                                   | 0.07                          | 2.95                                    | 0.80                           |
| Power and distribution transformers, except parts  | 117409     | 0.44                                   | 0.08                          | 3.60                                    | 0.41                           |
| Other transformers and parts for transformers  | 117411     | 0.03                                   | 0.04                          | 1.56                                    | 3.05                           |
| Switchgear, switchboard, industrial controls equipment                                       | 1175       | 0.14                                   | 0.19                          | 0.58                                    | 0.53                           |
| Industrial controls and related parts and accessories  | 117507     | 0.12                                   | 0.08                          | 1.17                                    | 0.40                           |
| Switchgear and switchboard apparatus   | 117522     | 0.20                                   | 0.33                          | 0.46                                    | 1.00                           |
| Communications and related equipment and miscellaneous electronic systems & equipment        | 1176       | 0.04                                   | 0.05                          | 0.92                                    | 0.65                           |
| Telephone and wireline data networking equipment   | 117601     | 0.00                                   | 0.00                          | 0.89                                    | 1.01                           |
| Other communications and related equipment, including broadcast and wireless                 | 117603     | 0.08                                   | 0.07                          | 1.03                                    | 0.70                           |
| Electronic systems and equipment, n.e.c.   | 117605     | 0.21                                   | 0.26                          | 2.95                                    | 1.81                           |
| Search, detection, navigation & guidance systems and equipment                               | 117606     | 0.03                                   | 0.03                          | 3.28                                    | 1.40                           |
| Electric lamp bulbs and tubes  | 1177       | 1.79                                   | 2.60                          | 8.15                                    | 2.97                           |
| Electric lamp bulbs and tubes  | 117704     | 1.79                                   | 2.60                          | 8.30                                    | 3.00                           |
| Electronic components and accessories  | 1178       | 0.18                                   | 0.17                          | 0.76                                    | 0.66                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Capacitors for electronic circuitry   | 117811     | 0.02                                   | 0.02                          | 0.76                                    | 1.17                           |
| Resistors for electronic circuitry  | 117812     | 0.00                                   | 0.00                          | 0.61                                    | 2.53                           |
| Relays for electronic circuitry, industrial control overload, and switchgear type               | 117821     | 0.68                                   | 0.98                          | 1.35                                    | 1.52                           |
| Switches, mechanical (electronic applications)  | 117822     | 0.00                                   | 0.00                          | 1.73                                    | 0.70                           |
| Connectors for electronic circuitry   | 117824     | 0.31                                   | 0.20                          | 1.84                                    | 1.14                           |
| Filters, crystals, and transducers  | 117828     | 0.00                                   | 0.00                          | 0.83                                    | 1.59                           |
| Integrated microcircuits  | 117839     | 0.18                                   | 0.18                          | 1.94                                    | 1.79                           |
| Other semiconductor and related devices   | 117847     | 0.17                                   | 0.18                          | 2.74                                    | 2.16                           |
| Bare printed circuit boards   | 117849     | 0.00                                   | 0.00                          | 0.47                                    | 0.49                           |
| Electronic coils, transformers, and other inductors   | 117853     | 0.11                                   | 0.09                          | 1.38                                    | 0.67                           |
| Other electronic components, n.e.c.   | 117856     | 0.03                                   | 0.03                          | 0.03                                    | 0.26                           |
| Printed circuit assemblies, loaded boards, modules and consumer external modems                 | 117861     | 0.02                                   | 0.04                          | 0.73                                    | 1.14                           |
| Miscellaneous electrical machinery and equipment  | 1179       | 0.25                                   | 0.14                          | 1.45                                    | 0.68                           |
| Storage batteries   | 117901     | 0.36                                   | 0.09                          | 5.69                                    | 0.58                           |
| Primary batteries   | 117902     | 1.06                                   | 1.19                          | 1.37                                    | 2.64                           |
| Carbon and graphite products  | 117903     | 0.06                                   | 0.09                          | 13.08                                   | 8.96                           |
| X-ray and electromedical equipment  | 117905     | 0.14                                   | 0.11                          | 0.41                                    | 0.48                           |
| Miscellaneous electrical industrial apparatus   | 117929     | 0.03                                   | 0.03                          | 1.10                                    | 0.48                           |
| All other electrical equipment and components, except industrial                                | 117939     | 0.00                                   | 0.00                          | 0.30                                    | 1.76                           |
| Miscellaneous instruments   | 118        | 0.09                                   | 0.07                          | 1.90                                    | 0.23                           |
| Automatic environmental controls for monitoring residential, commercial, and appliance use      | 1181       | 0.01                                   | 0.01                          | 1.88                                    | 0.59                           |
| Automatic environmental controls for monitoring residential, commercial, and appliance use      | 118105     | 0.01                                   | 0.01                          | 1.88                                    | 0.59                           |
| Industrial process control instruments  | 1182       | 0.25                                   | 0.19                          | 0.90                                    | 0.47                           |
| Industrial process control instruments  | 118201     | 0.25                                   | 0.19                          | 0.90                                    | 0.47                           |
| Fluid meters and counting devices   | 1184       | 0.01                                   | 0.02                          | 2.31                                    | 0.62                           |
| Fluid meters and counting devices   | 118401     | 0.01                                   | 0.02                          | 2.31                                    | 0.62                           |
| Engineering and scientific instruments  | 1185       | 0.02                                   | 0.08                          | 2.78                                    | 0.96                           |
| Aeronautical, nautical, and navigational instruments  | 118501     | 0.01                                   | 0.02                          | 4.11                                    | 1.55                           |
| Hospital beds and specialized hospital furniture  | 118504     | 0.00                                   | 0.00                          | 0.93                                    | 0.57                           |
| Measuring instruments and lenses  | 1186       | 0.05                                   | 0.04                          | 2.01                                    | 0.37                           |
| Sighting, tracking, and fire-control equipment, optical type                                    | 118601     | 0.00                                   | 0.00                          | 0.00                                    | 0.00                           |
| All other miscellaneous optical instruments and lenses  | 118602     | 0.07                                   | 0.08                          | 0.65                                    | 0.55                           |
| Laboratory analytical instruments   | 118603     | 0.01                                   | 0.01                          | 2.75                                    | 0.48                           |
| Measuring & controlling devices, n.e.c.   | 1189       | 0.11                                   | 0.10                          | 1.36                                    | 0.37                           |
| Aircraft engine instruments   | 118901     | 0.00                                   | 0.00                          | 0.03                                    | 1.29                           |
| Nuclear radiation detection & monitoring instruments  | 118904     | 0.17                                   | 0.21                          | 2.69                                    | 0.46                           |
| Physical properties and kinematic testing equipment   | 118905     | 0.00                                   | 0.00                          | 1.02                                    | 0.58                           |
| Commercial, geophysical, meteorological & general-purpose instruments                           | 118906     | 0.15                                   | 0.18                          | 1.71                                    | 0.49                           |
| Miscellaneous machinery   | 119        | 0.10                                   | 0.14                          | 0.15                                    | 0.37                           |
| Oil field and gas field machinery   | 1191       | 0.02                                   | 0.08                          | 0.36                                    | 0.41                           |
| Oil field and gas field drilling machinery (except parts sold separately)                       | 119102     | 0.02                                   | 0.02                          | 0.55                                    | 0.80                           |
| Oil field and gas field production machinery (except pumps and parts sold separately)           | 119104     | 0.00                                   | 0.00                          | 0.44                                    | 0.80                           |
| Parts and attachments for oil and gas field machinery and equipment                             | 119106     | 0.00                                   | 0.00                          | 0.01                                    | 0.67                           |
| Mining machinery and equipment  | 1192       | 0.03                                   | 0.02                          | 0.95                                    | 0.36                           |
| Underground mining machinery (except parts sold separately)                                     | 119201     | 0.00                                   | 0.00                          | 0.03                                    | 0.03                           |
| Crushing, pulverizing, & screening machinery (except parts sold separately)                     | 119202     | 0.00                                   | 0.00                          | 4.70                                    | 2.42                           |
| Drills and other mining machinery (except parts sold separately)                                | 119203     | 0.00                                   | 0.00                          | 1.85                                    | 0.50                           |
| Mineral processing & beneficiation machinery (except parts sold separately)                     | 119206     | 0.00                                   | 0.00                          | 0.41                                    | 0.51                           |
| Parts and attachments for mining machinery and equipment (sold separately)                      | 119253     | 0.03                                   | 0.04                          | 0.20                                    | 0.40                           |
| Office and store machines and equipment   | 1193       | 0.01                                   | 0.02                          | 0.63                                    | 1.00                           |
| Coin-operated automatic merchandising machines  | 119306     | 0.00                                   | 0.00                          | 1.20                                    | 0.43                           |
| Office machinery, including mailing, letter handling, and addressing machines and parts         | 119307     | 0.00                                   | 0.00                          | 2.68                                    | 2.93                           |
| Coin-operated amusement machines  | 119308     | 0.00                                   | 0.00                          | 0.00                                    | 0.00                           |
| Internal combustion engines   | 1194       | 0.04                                   | 0.06                          | 1.10                                    | 0.53                           |
| Diesel, semidiesel, and dual-fuel engines for automobiles, trucks, and buses                    | 119408     | 0.00                                   | 0.00                          | 1.14                                    | 0.91                           |
| Parts & accessories for internal combustion engines, ex. aircraft & gasoline automotive engines | 119413     | 0.07                                   | 0.07                          | 2.54                                    | 1.05                           |
| Other machine shop products   | 1195       | 0.00                                   | 0.00                          | 0.31                                    | 0.30                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Machine shop products   | 119505     | 0.00                                   | 0.00                          | 0.31                                    | 0.30                           |
| Parts & accessories for turbines, turbine generators, and turbine generator sets                | 1198       | 0.21                                   | 0.14                          | 0.32                                    | 0.62                           |
| Parts & accessories for turbines, turbine generators, and turbine generator sets                | 119801     | 0.21                                   | 0.14                          | 0.32                                    | 0.62                           |
|   |            |  |                               |   |                                |
| Furniture and household durables  | 12         | 0.15                                   | 0.10                          | 1.18                                    | 0.29                           |
| Household furniture   | 121        | 0.12                                   | 0.12                          | 1.87                                    | 0.75                           |
| Metal household furniture   | 1211       | 0.83                                   | 0.84                          | 1.21                                    | 2.41                           |
| Metal household furniture   | 121101     | 0.83                                   | 0.84                          | 1.21                                    | 2.41                           |
| Wood household furniture  | 1212       | 0.15                                   | 0.11                          | 1.59                                    | 0.39                           |
| Living room furniture (nonupholstered), wood  | 121201     | 0.16                                   | 0.16                          | 2.80                                    | 1.14                           |
| Dining room furniture (nonupholstered), wood  | 121202     | 0.00                                   | 0.00                          | 1.36                                    | 0.80                           |
| Bedroom furniture (nonupholstered), wood  | 121203     | 0.10                                   | 0.13                          | 1.58                                    | 0.57                           |
| Other wood household furniture  | 121204     | 0.01                                   | 0.02                          | 0.74                                    | 0.40                           |
| Custom nonupholstered wood household furniture sold direct, excl. kitchen cabinets and vanities | 121205     | 0.00                                   | 0.00                          | 0.00                                    | 0.00                           |
| Upholstered household furniture   | 1213       | 0.16                                   | 0.10                          | 1.32                                    | 0.36                           |
| Upholstered household furniture   | 121301     | 0.16                                   | 0.10                          | 1.32                                    | 0.36                           |
| Bedding   | 1214       | 0.35                                   | 0.18                          | 4.26                                    | 2.65                           |
| Bedding   | 121401     | 0.35                                   | 0.18                          | 4.26                                    | 2.65                           |
| Metal porch, lawn, outdoor & casual furniture   | 1215       | 0.00                                   | 0.00                          | 1.68                                    | 0.83                           |
| Porch and lawn furniture  | 121501     | 0.00                                   | 0.00                          | 1.68                                    | 0.83                           |
| Nonupholstered household furniture, except wood and metal                                       | 1216       | 0.00                                   | 0.00                          | 0.31                                    | 2.11                           |
| Nonupholstered household furniture, except wood and metal                                       | 121601     | 0.00                                   | 0.00                          | 0.31                                    | 2.11                           |
| Commercial furniture  | 122        | 0.35                                   | 0.25                          | 1.53                                    | 0.53                           |
| Wood office furniture and store fixtures  | 1221       | 0.16                                   | 0.20                          | 1.79                                    | 0.52                           |
| Wood office furniture and store fixtures  | 122101     | 0.16                                   | 0.20                          | 1.79                                    | 0.52                           |
| Nonwood furniture and store fixtures  | 1222       | 0.41                                   | 0.55                          | 1.21                                    | 1.27                           |
| Nonwood commercial storage units, files, and tables   | 122202     | 1.35                                   | 1.28                          | 2.68                                    | 1.21                           |
| Nonwood commercial furniture  | 122203     | 0.78                                   | 0.81                          | 1.21                                    | 2.31                           |
| Nonwood partitions and fixtures   | 122204     | 0.45                                   | 0.68                          | 1.23                                    | 1.80                           |
| Public building furniture   | 1223       | 0.34                                   | 0.27                          | 1.91                                    | 0.51                           |
| Public building furniture   | 122301     | 0.34                                   | 0.27                          | 1.91                                    | 0.51                           |
| Commercial furniture and fixtures, n.e.c.   | 1224       | 0.17                                   | 0.17                          | 1.09                                    | 0.36                           |
| Commercial furniture and fixtures, n.e.c.   | 122401     | 0.17                                   | 0.17                          | 1.09                                    | 0.36                           |
| Floor coverings   | 123        | 0.22                                   | 0.40                          | 1.22                                    | 1.28                           |
| Carpets and rugs  | 1231       | 0.28                                   | 0.45                          | 1.38                                    | 1.46                           |
| Carpet and rugs   | 123101     | 0.28                                   | 0.45                          | 1.38                                    | 1.46                           |
| Resilient floor coverings   | 1232       | 0.00                                   | 0.00                          |   |                                |
| Household appliances  | 124        | 0.21                                   | 0.17                          | 0.41                                    | 0.42                           |
| Major appliances  | 1241       | 0.23                                   | 0.21                          | 0.35                                    | 0.50                           |
| Household cooking appliances  | 124101     | 0.46                                   | 0.45                          | 1.11                                    | 0.64                           |
| Household refrigeration equipment   | 124103     | 0.29                                   | 0.27                          | 0.76                                    | 0.55                           |
| Other major household appliances including room air-conditioners                                | 124104     | 0.74                                   | 0.64                          | 1.34                                    | 1.53                           |
| Household vacuum cleaners, including parts and attachments                                      | 1243       | 0.02                                   | 0.04                          | 0.71                                    | 0.59                           |
| Household vacuum cleaners, including parts and attachments                                      | 124301     | 0.02                                   | 0.04                          | 0.71                                    | 0.59                           |
| Electric housewares and fans  | 1244       | 0.19                                   | 0.21                          | 1.23                                    | 0.89                           |
| Small electric household appliances, except fans and wall and baseboard heating units           | 124401     | 0.33                                   | 0.35                          | 0.47                                    | 0.41                           |
| Electric fans, except industrial-type   | 124402     | 0.00                                   | 0.00                          | 2.54                                    | 2.14                           |
| Parts and attachments for small household electric appliances                                   | 124403     | 0.27                                   | 0.50                          | 2.46                                    | 1.57                           |
| Portable residential lighting fixtures, including parts and accessories                         | 1245       | 0.06                                   | 0.11                          | 0.88                                    | 0.58                           |
| Portable residential lighting fixtures, including parts and accessories                         | 124501     | 0.06                                   | 0.11                          | 0.88                                    | 0.58                           |
| Home electronic equipment   | 125        | 0.10                                   | 0.27                          | 0.31                                    | 0.64                           |
| Speakers and commercial sound equipment   | 1257       | 0.23                                   | 0.18                          | 1.04                                    | 0.92                           |
| Speakers and commercial sound equipment   | 125707     | 0.23                                   | 0.18                          | 1.04                                    | 0.92                           |
| Other home electronic equipment   | 1258       | 0.22                                   | 0.38                          | 0.66                                    | 0.61                           |
| Other household durable goods   | 126        | 0.07                                   | 0.14                          | 0.85                                    | 0.51                           |
| Vitreous china, fine earthenware, and other pottery products                                    | 1261       | 0.00                                   | 0.01                          | 1.24                                    | 0.47                           |
| Vitreous china, porcelain, and earthenware table and kitchenware and other pottery products     | 126101     | 0.00                                   | 0.01                          | 1.24                                    | 0.47                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Mirrors (decorated and undecorated)   | 1265       | 0.00                                   | 0.00                          | 4.97                                    | 2.72                           |
| Mirrors (decorated and undecorated), made from purchased glass                                | 126501     | 0.00                                   | 0.00                          | 4.97                                    | 2.72                           |
| Lawn/garden equipment   | 1266       | 0.00                                   | 0.18                          | 0.25                                    | 0.81                           |
| Consumer riding lawn, garden, and snow equipment  | 126604     | 0.00                                   | 0.36                          | 0.34                                    | 1.62                           |
| Parts and attachments for consumer lawn, garden, and snow equipment                           | 126605     | 0.01                                   | 0.02                          | 1.25                                    | 0.47                           |
| Consumer nonriding lawn, garden, and snow equipment   | 126606     | 0.00                                   | 0.00                          | 0.36                                    | 0.22                           |
| Cutlery, flatware (except precious), razors and razor blades                                  | 1267       | 0.00                                   | 0.00                          | 1.20                                    | 1.10                           |
| Cutlery, flatware (except precious), razors and razor blades                                  | 126701     | 0.00                                   | 0.00                          | 1.20                                    | 1.10                           |
| Metal kitchen utensil, pots, and pans   | 1268       | 0.00                                   | 0.00                          | 1.68                                    | 0.36                           |
| Metal kitchen utensil, pots, and pans   | 126801     | 0.00                                   | 0.00                          | 1.68                                    | 0.36                           |
| Window shades, blinds, and accessories  | 1269       | 0.31                                   | 0.16                          | 1.98                                    | 1.04                           |
| Window shades, blinds, and accessories  | 126901     | 0.31                                   | 0.16                          | 1.98                                    | 1.04                           |
| Silverware and hollowware   | 126A       | 0.00                                   | 0.00                          | 2.28                                    | 1.05                           |
|   |            |  |                               |   |                                |
| Nonmetallic mineral products  | 13         | 0.12                                   | 0.11                          | 2.26                                    | 0.46                           |
| Glass   | 131        | 0.10                                   | 0.07                          | 1.09                                    | 0.34                           |
| Flat glass  | 1311       | 0.08                                   | 0.09                          | 0.59                                    | 0.42                           |
| Flat glass (float, sheet, and plate process)  | 131105     | 0.14                                   | 0.22                          | 1.03                                    | 0.65                           |
| Specialty glass   | 131107     | 0.05                                   | 0.09                          | 0.45                                    | 0.50                           |
| Other finished glassware  | 1313       | 0.03                                   | 0.05                          | 1.43                                    | 0.34                           |
| Pressed and blown glassware   | 131301     | 0.03                                   | 0.05                          | 1.43                                    | 0.34                           |
| Concrete ingredients and related products   | 132        | 0.20                                   | 0.19                          | 3.66                                    | 1.44                           |
| Construction sand, gravel, and crushed stone  | 1321       | 0.28                                   | 0.21                          | 3.16                                    | 1.86                           |
| Construction sand, gravel and crushed stone   | 132101     | 0.28                                   | 0.21                          | 3.16                                    | 1.86                           |
| Cement, hydraulic   | 1322       | 0.09                                   | 0.24                          | 4.47                                    | 1.23                           |
| Cement, hydraulic   | 132201     | 0.09                                   | 0.24                          | 4.47                                    | 1.23                           |
| Concrete products   | 133        | 0.22                                   | 0.17                          | 2.86                                    | 0.59                           |
| Concrete block and brick  | 1331       | 0.22                                   | 0.17                          | 2.19                                    | 0.55                           |
| Structural concrete block   | 133111     | 0.15                                   | 0.26                          | 1.56                                    | 0.86                           |
| Decorative concrete block   | 133121     | 0.25                                   | 0.32                          | 1.02                                    | 1.77                           |
| Concrete brick  | 133131     | 0.00                                   | 0.00                          | 1.65                                    | 1.86                           |
| Concrete pavers   | 133141     | 0.10                                   | 0.17                          | 4.14                                    | 0.87                           |
| Concrete pipe   | 1332       | 0.43                                   | 0.64                          | 1.75                                    | 0.92                           |
| Concrete pipe   | 133201     | 0.43                                   | 0.64                          | 1.75                                    | 0.92                           |
| Ready-mix concrete  | 1333       | 0.21                                   | 0.22                          | 3.23                                    | 0.67                           |
| Ready-mix concrete  | 133301     | 0.21                                   | 0.22                          | 3.23                                    | 0.67                           |
| Precast concrete products   | 1334       | 0.23                                   | 0.39                          | 2.77                                    | 1.90                           |
| Precast concrete products   | 133401     | 0.23                                   | 0.39                          | 2.77                                    | 1.90                           |
| Prestressed concrete products   | 1335       | 0.17                                   | 0.28                          | 2.24                                    | 1.90                           |
| Prestressed concrete products   | 133501     | 0.17                                   | 0.28                          | 2.24                                    | 1.90                           |
| Clay construction products ex. refractories   | 134        | 0.13                                   | 0.11                          | 0.38                                    | 0.69                           |
| Brick and structural clay tile  | 1342       | 0.16                                   | 0.15                          | 1.47                                    | 0.58                           |
| Building or common brick  | 134201     | 0.13                                   | 0.16                          | 1.35                                    | 0.60                           |
| Glazed brick and other brick (paving, floor, and sewer)                                       | 134202     | 0.44                                   | 0.64                          | 3.21                                    | 1.40                           |
| Clay floor and wall tile, glazed and unglazed   | 1344       | 0.17                                   | 0.16                          | 3.17                                    | 1.64                           |
| Clay floor and wall tile, glazed and unglazed (including quarry tile and ceramic mosaic tile) | 134401     | 0.17                                   | 0.16                          | 3.17                                    | 1.64                           |
| Structural clay products, n.e.c.  | 1345       | 0.00                                   | 0.00                          | 2.33                                    | 0.57                           |
| Structural clay products, n.e.c.  | 134501     | 0.00                                   | 0.00                          | 2.33                                    | 0.57                           |
| Refractories  | 135        | 0.10                                   | 0.28                          | 0.88                                    | 0.75                           |
| Clay refractories   | 1352       | 0.34                                   | 0.45                          | 1.68                                    | 1.07                           |
| Clay refractories   | 135201     | 0.34                                   | 0.45                          | 1.68                                    | 1.07                           |
| Nonclay refractories  | 1353       | 0.23                                   | 0.35                          | 0.40                                    | 1.21                           |
| Nonclay refractories (excluding dead-burned magnesia)   | 135301     | 0.23                                   | 0.35                          | 0.40                                    | 1.21                           |
| Asphalt felts and coatings  | 136        | 0.55                                   | 0.68                          | 0.66                                    | 2.10                           |
| Prepared asphalt and tar roofing and siding products  | 1361       | 0.72                                   | 0.75                          | 1.24                                    | 2.41                           |
| Prepared asphalt and tar roofing and siding products  | 136101     | 0.72                                   | 0.75                          | 1.24                                    | 2.41                           |
| Roofing asphalts, pitches, coatings, and cement   | 1362       | 0.38                                   | 0.36                          | 5.05                                    | 3.13                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Roofing asphalts, pitches, coatings, and cement   | 136201     | 0.38                                   | 0.36                          | 5.05                                    | 3.13                           |
| Gypsum products   | 137        | 0.30                                   | 0.28                          | 8.58                                    | 2.59                           |
| Gypsum products   | 1371       | 0.30                                   | 0.28                          | 8.58                                    | 2.59                           |
| Gypsum products   | 137101     | 0.30                                   | 0.28                          | 8.58                                    | 2.59                           |
| Glass containers  | 138        | 0.02                                   | 0.02                          | 0.77                                    | 0.75                           |
| Glass containers  | 1381       | 0.02                                   | 0.02                          | 0.77                                    | 0.75                           |
| Glass containers (including value of packaging)   | 138101     | 0.02                                   | 0.02                          | 0.77                                    | 0.75                           |
| Other nonmetallic minerals  | 139        | 0.35                                   | 0.22                          | 0.75                                    | 0.58                           |
| Insulation materials  | 1392       | 0.08                                   | 0.13                          | 1.15                                    | 0.77                           |
| Mineral wool for thermal and acoustical envelope insulation                             | 139201     | 0.03                                   | 0.08                          | 1.67                                    | 1.12                           |
| Mineral wool for industrial, equipment, and appliance insulation                        | 139202     | 0.14                                   | 0.17                          | 0.42                                    | 0.36                           |
| Paving mixtures and blocks  | 1394       | 1.18                                   | 0.58                          | 1.25                                    | 1.42                           |
| Paving mixtures and blocks  | 139401     | 1.18                                   | 0.58                          | 1.25                                    | 1.42                           |
| Cut stone and stone products  | 1395       | 0.34                                   | 0.46                          | 1.16                                    | 1.10                           |
| Cut stone and stone products  | 139501     | 0.34                                   | 0.46                          | 1.16                                    | 1.10                           |
| Gaskets, packing, and sealing devices   | 1398       | 0.05                                   | 0.07                          | 0.72                                    | 0.45                           |
| Gaskets and gasketing material  | 139801     | 0.07                                   | 0.09                          | 0.69                                    | 0.60                           |
| Packing and sealing   | 139802     | 0.08                                   | 0.08                          | 0.89                                    | 0.33                           |
| Nonmetallic minerals and products, n.e.c.   | 1399       | 0.12                                   | 0.17                          | 1.01                                    | 0.52                           |
| Industrial sand   | 139901     | 0.17                                   | 0.44                          | 2.07                                    | 2.68                           |
| Clay and stone mining and quarrying   | 139902     | 0.11                                   | 0.17                          | 0.99                                    | 0.51                           |
| All other miscellaneous nonmetallic mineral products                                    | 139903     | 0.05                                   | 0.05                          | 0.60                                    | 1.17                           |
|   |            |  |                               |   |                                |
| Transportation equipment  | 14         | 0.11                                   | 0.09                          | 0.87                                    | 0.18                           |
| Motor vehicles and equipment  | 141        | 0.12                                   | 0.12                          | 0.92                                    | 0.25                           |
| Motor vehicles  | 1411       | 0.26                                   | 0.21                          | 1.33                                    | 0.38                           |
| Passenger cars and chassis  | 141101     | 0.17                                   | 0.29                          | 0.43                                    | 0.68                           |
| Motorcycles, including three-wheel motorbikes, motorscooters, mopeds, and parts         | 141104     | 0.00                                   | 0.00                          | 0.67                                    | 0.51                           |
| Trucks, truck tractors, & bus chassis 14,000 lb or less, incl. minivans & suvs          | 141105     | 0.31                                   | 0.24                          | 1.69                                    | 0.52                           |
| Trucks, over 14,000 lbs. GVW  | 141106     | 0.24                                   | 0.33                          | 2.20                                    | 0.69                           |
| Motor vehicles parts  | 1412       | 0.07                                   | 0.08                          | 0.35                                    | 0.41                           |
| Motor vehicles parts  | 141205     | 0.07                                   | 0.08                          | 0.35                                    | 0.41                           |
| Truck and bus bodies  | 1413       | 0.09                                   | 0.11                          | 1.02                                    | 0.54                           |
| Truck and bus bodies sold separately  | 141301     | 0.05                                   | 0.08                          | 1.08                                    | 0.38                           |
| Complete vehicles on purchased chassis  | 141302     | 0.14                                   | 0.14                          | 0.95                                    | 0.86                           |
| Truck trailers  | 1414       | 0.11                                   | 0.07                          | 0.61                                    | 0.36                           |
| Truck trailers  | 141406     | 0.11                                   | 0.07                          | 0.61                                    | 0.36                           |
| Motor homes, built on purchased chassis   | 1415       | 0.12                                   | 0.06                          | 2.26                                    | 0.34                           |
| Motor homes, built on purchased chassis   | 141501     | 0.12                                   | 0.06                          | 2.26                                    | 0.34                           |
| Travel trailers and campers   | 1416       | 0.18                                   | 0.10                          | 3.06                                    | 0.74                           |
| Travel trailers   | 141601     | 0.21                                   | 0.12                          | 2.26                                    | 0.66                           |
| Camping trailers, campers, pick-up covers, and parts                                    | 141602     | 0.34                                   | 0.17                          | 6.21                                    | 3.16                           |
| Aircraft and aircraft equipment   | 142        | 0.06                                   | 0.04                          | 0.66                                    | 0.18                           |
| Aircraft  | 1421       | 0.13                                   | 0.02                          | 1.26                                    | 0.14                           |
| Civilian aircraft   | 142102     | 0.20                                   | 0.03                          | 1.89                                    | 0.19                           |
| Military aircraft   | 142104     | 0.00                                   | 0.00                          | 0.02                                    | 0.04                           |
| Aircraft engine and engine parts  | 1423       | 0.03                                   | 0.07                          | 0.07                                    | 0.60                           |
| Aircraft engine and engine parts  | 142301     | 0.03                                   | 0.07                          | 0.07                                    | 0.60                           |
| Other aircraft parts and equipment  | 1425       | 0.03                                   | 0.05                          | 0.13                                    | 0.34                           |
| Other aircraft parts and equipment  | 142501     | 0.03                                   | 0.05                          | 0.13                                    | 0.34                           |
| Ships and boats   | 143        | 0.16                                   | 0.11                          | 1.16                                    | 0.36                           |
| Ships   | 1431       | 0.12                                   | 0.11                          | 0.21                                    | 0.41                           |
| Military self-propelled ships, new construction   | 143102     | 0.19                                   | 0.16                          | 0.23                                    | 0.25                           |
| Nonmilitary self-propelled ships, new construction                                      | 143103     | 0.00                                   | 0.00                          | 1.25                                    | 1.31                           |
| Nonpropelled ships, new construction  | 143104     | 0.00                                   | 0.00                          | 0.23                                    | 0.23                           |
| Boats   | 1432       | 0.15                                   | 0.08                          | 2.59                                    | 0.61                           |
| Outboard motorboats, including commercial and military (except sailboats and lifeboats) | 143201     | 0.19                                   | 0.11                          | 2.15                                    | 0.44                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Inboard motorboats, including commercial and military (except sailboats and lifeboats)       | 143202     | 0.04                                   | 0.04                          | 2.68                                    | 0.36                           |
| Inboard-outdrive boats, including commercial and military (except sailboats and lifeboats)   | 143203     | 0.00                                   | 0.00                          | 3.00                                    | 2.69                           |
| All other boats (excluding military and commercial)  | 143204     | 0.10                                   | 0.08                          | 1.42                                    | 0.85                           |
| Railroad equipment   | 144        | 0.40                                   | 0.43                          | 0.08                                    | 0.74                           |
| Locomotives, new and rebuilt, including parts  | 1441       | 0.20                                   | 0.55                          |   |                                |
| Locomotives, new and rebuilt, including parts  | 144104     | 0.20                                   | 0.55                          |   |                                |
| Railroad cars and car parts  | 1442       | 0.05                                   | 0.03                          | 1.24                                    | 0.71                           |
| Railway maintenance of way equipment & parts, railcar parts, & other railway vehicles        | 144203     | 0.02                                   | 0.02                          | 1.69                                    | 0.84                           |
| Railroad cars  | 144204     | 0.00                                   | 0.00                          | 2.16                                    | 0.93                           |
| Transportation equipment, n.e.c.   | 149        | 0.20                                   | 0.12                          | 2.91                                    | 1.57                           |
| Transportation equipment, n.e.c.   | 1491       | 0.20                                   | 0.12                          | 2.91                                    | 1.57                           |
| Other transportation equipment, incl. golf carts, vehicle trailers, and all-terrain vehicles | 149111     | 0.20                                   | 0.12                          | 2.91                                    | 1.57                           |
|  |            |  |                               |   |                                |
| Miscellaneous products   | 15         | 0.09                                   | 0.08                          | 2.08                                    | 0.31                           |
| Toys, sporting goods, small arms, etc.   | 151        | 0.10                                   | 0.15                          | 1.38                                    | 0.86                           |
| Toys, games, and children's vehicles   | 1511       | 0.12                                   | 0.13                          | 0.74                                    | 1.37                           |
| Toys, games, and children's vehicles   | 151101     | 0.12                                   | 0.13                          | 0.74                                    | 1.37                           |
| Sporting and athletic goods  | 1512       | 0.18                                   | 0.17                          | 2.47                                    | 1.32                           |
| Sporting and athletic goods  | 151201     | 0.18                                   | 0.17                          | 2.47                                    | 1.32                           |
| Small arms and ammunition  | 1513       | 0.11                                   | 0.14                          | 0.83                                    | 1.03                           |
| Small arms   | 151301     | 0.10                                   | 0.09                          | 2.17                                    | 2.01                           |
| Small arms ammunition  | 151302     | 0.00                                   | 0.00                          | 0.42                                    | 0.66                           |
| Other small arms ammunition products   | 151303     | 0.09                                   | 0.14                          | 1.69                                    | 1.36                           |
| Tobacco products, incl. stemmed & redried  | 152        | 0.01                                   | 0.01                          | 5.00                                    | 0.58                           |
| Cigarettes, including nontobacco   | 1521       | 0.00                                   | 0.00                          | 5.32                                    | 0.66                           |
| Cigarettes, including nontobacco   | 152101     | 0.00                                   | 0.00                          | 5.32                                    | 0.66                           |
| Stemmed and redried tobacco  | 1524       | 0.19                                   | 0.09                          | 2.71                                    | 1.43                           |
| Stemmed and redried tobacco  | 152402     | 0.19                                   | 0.09                          | 2.71                                    | 1.43                           |
| Other tobacco products   | 1525       | 0.02                                   | 0.01                          | 3.34                                    | 0.36                           |
| Other tobacco products   | 152501     | 0.02                                   | 0.01                          | 3.34                                    | 0.36                           |
| Notions  | 153        | 0.29                                   | 0.43                          | 3.89                                    | 0.87                           |
| Needles, pins, and fasteners   | 1532       | 0.33                                   | 0.47                          | 2.25                                    | 0.59                           |
| Needles, pins, and fasteners   | 153201     | 0.33                                   | 0.47                          | 2.25                                    | 0.59                           |
| Buttons, button blanks, and parts  | 153301     | 0.00                                   | 0.00                          |   |                                |
| Photographic equipment and supplies  | 154        | 0.06                                   | 0.10                          | 2.15                                    | 0.94                           |
| Photographic and photocopying equipment  | 1541       | 0.00                                   | 0.00                          | 1.85                                    | 2.99                           |
| Photographic and photocopying equipment  | 154107     | 0.00                                   | 0.00                          | 1.85                                    | 2.99                           |
| Photographic supplies  | 1542       | 0.07                                   | 0.10                          | 2.88                                    | 1.06                           |
| Photographic supplies  | 154206     | 0.07                                   | 0.10                          | 2.88                                    | 1.06                           |
| Mobile homes   | 155        | 0.43                                   | 0.23                          | 3.35                                    | 0.86                           |
| Manufactured homes (mobile homes), all sizes (incl. multisection)                            | 1553       | 0.43                                   | 0.23                          | 3.35                                    | 0.86                           |
| Manufactured mobile homes and nonresidential mobile buildings                                | 155303     | 0.43                                   | 0.23                          | 3.35                                    | 0.86                           |
| Medical, surgical & personal aid devices   | 156        | 0.11                                   | 0.14                          | 0.65                                    | 0.43                           |
| Surgical and medical instruments   | 1562       | 0.12                                   | 0.15                          | 0.25                                    | 0.55                           |
| Surgical and medical instruments   | 156201     | 0.12                                   | 0.15                          | 0.25                                    | 0.55                           |
| Medical and surgical appliances and supplies   | 1563       | 0.09                                   | 0.21                          | 0.42                                    | 0.76                           |
| Medical and surgical appliances and supplies   | 156301     | 0.09                                   | 0.21                          | 0.42                                    | 0.76                           |
| Ophthalmic goods   | 1564       | 0.68                                   | 0.54                          | 0.83                                    | 1.17                           |
| Ophthalmic goods   | 156401     | 0.68                                   | 0.54                          | 0.83                                    | 1.17                           |
| Dental equipment and supplies  | 1565       | 0.48                                   | 0.34                          | 5.42                                    | 1.79                           |
| Dental equipment and supplies  | 156501     | 0.48                                   | 0.34                          | 5.42                                    | 1.79                           |
| Other industrial safety equipment  | 157        | 0.00                                   | 0.00                          | 3.18                                    | 2.14                           |
| Personal safety equipment and clothing   | 1571       | 0.00                                   | 0.00                          | 3.18                                    | 2.14                           |
| Personal safety equipment and clothing   | 157108     | 0.00                                   | 0.00                          | 3.18                                    | 2.14                           |
| Other miscellaneous products   | 159        | 0.12                                   | 0.15                          | 2.46                                    | 0.96                           |
| Burial caskets   | 1591       | 0.00                                   | 0.00                          | 2.59                                    | 0.42                           |
| Burial caskets   | 159101     | 0.00                                   | 0.00                          | 2.59                                    | 0.42                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Musical instruments  | 1593       | 0.27                                   | 0.10                          | 1.34                                    | 0.33                           |
| Musical instruments  | 159301     | 0.27                                   | 0.10                          | 1.34                                    | 0.33                           |
| Jewelry and jewelry products   | 1594       | 0.54                                   | 0.30                          | 2.76                                    | 1.59                           |
| Jewelry (gold and platinum) and silverware   | 159402     | 0.84                                   | 0.44                          | 3.72                                    | 2.37                           |
| Costume jewelry and novelties  | 159404     | 0.11                                   | 0.14                          | 0.95                                    | 0.35                           |
| All other jewelry and personal goods (excluding costume)                             | 159407     | 0.05                                   | 0.09                          | 1.36                                    | 0.88                           |
| Jewelers' material and lapidary work   | 159408     | 0.02                                   | 0.35                          | 1.82                                    | 2.76                           |
| Pens, pencils, and marking devices   | 1595       | 0.07                                   | 0.09                          | 0.68                                    | 0.33                           |
| Pens, markers, mechanical pencils, and associated parts                              | 159502     | 0.11                                   | 0.14                          | 0.36                                    | 0.31                           |
| Lead pencils, art goods, office supplies and small office equipment, excluding paper | 159503     | 0.00                                   | 0.00                          | 1.04                                    | 0.49                           |
| Marking devices  | 159504     | 0.00                                   | 0.00                          | 0.06                                    | 0.07                           |
| Watches, clocks, watchcases, and parts   | 1596       | 0.00                                   | 0.00                          | 0.88                                    | 0.99                           |
| Watches, clocks, watchcases, and parts   | 159603     | 0.00                                   | 0.00                          | 0.88                                    | 0.99                           |
| Brooms and brushes   | 1597       | 0.09                                   | 0.07                          | 0.79                                    | 0.31                           |
| Brooms, brushes and mops   | 159705     | 0.09                                   | 0.07                          | 0.79                                    | 0.31                           |
| Miscellaneous products, n.e.c.   | 159A       | 0.30                                   | 0.27                          | 2.76                                    | 1.99                           |
| Candles  | 159A01     | 0.00                                   | 0.00                          | 0.82                                    | 0.51                           |
| Signs and advertising displays   | 159A04     | 0.18                                   | 0.16                          | 4.51                                    | 3.54                           |
| Other miscellaneous fabricated products and recyclable materials, n.e.c.             | 159A09     | 0.24                                   | 0.54                          | 1.93                                    | 1.46                           |
| Prerecorded audio and video media reproduction                                       | 159C       | 0.00                                   | 0.00                          | 0.16                                    | 0.16                           |
| Prerecorded audio and video media reproduction                                       | 159C01     | 0.00                                   | 0.00                          | 0.16                                    | 0.16                           |
|  |            |  |                               |   |                                |
|  |            |  |                               |   |                                |
|  |            |  |                               |   |                                |
| <b>Services</b>  |            |  |                               |   |                                |
| Transportation services  | 30         | 0.40                                   | 0.15                          | 1.97                                    | 0.40                           |
| Transportation of freight and mail   | 301        | 0.29                                   | 0.12                          | 2.12                                    | 0.45                           |
| Rail transportation of freight and mail  | 3011       | 0.35                                   | 0.11                          | 3.86                                    | 0.95                           |
| Rail transportation of freight and mail  | 301101     | 0.35                                   | 0.11                          | 3.86                                    | 0.95                           |
| Truck transportation of freight  | 3012       | 0.23                                   | 0.19                          | 2.15                                    | 0.62                           |
| Local motor carrying   | 301201     | 0.24                                   | 0.19                          | 1.25                                    | 0.89                           |
| Long-distance motor carrying   | 301202     | 0.32                                   | 0.23                          | 2.55                                    | 0.65                           |
| Water transportation of freight  | 3013       | 0.42                                   | 0.36                          | 0.53                                    | 1.42                           |
| Deep sea water transportation of freight   | 301301     | 0.68                                   | 0.46                          | 9.41                                    | 3.31                           |
| Coastal and intercoastal water transportation of freight                             | 301302     | 1.46                                   | 0.59                          | 9.45                                    | 1.95                           |
| Great Lakes-St Lawrence Seaway water transportation of freight                       | 301303     | 0.29                                   | 0.32                          |   |                                |
| Inland waterways transportation of freight   | 301304     | 0.42                                   | 0.25                          | 4.70                                    | 2.11                           |
| Air transportation of freight  | 3014       | 0.95                                   | 1.26                          | 2.82                                    | 2.23                           |
| Air transportation of freight  | 301401     | 0.95                                   | 1.26                          | 2.82                                    | 2.23                           |
| Pipeline transportation (partial)  | 3015       | 0.06                                   | 0.01                          | 0.20                                    | 0.36                           |
| Pipeline transportation of petroleum products  | 301501     | 0.06                                   | 0.01                          | 0.20                                    | 0.36                           |
| Courier, messenger, and U.S. postal services   | 3016       | 0.12                                   | 0.01                          | 2.43                                    | 1.03                           |
| U.S. Postal Service  | 301601     | 0.00                                   | 0.00                          | 1.87                                    | 0.77                           |
| Courier and messenger services, except air   | 301602     | 0.03                                   | 0.01                          | 0.60                                    | 2.76                           |
| Air mail and package delivery services, excluding by USPS                            | 301603     | 0.43                                   | 0.02                          | 6.70                                    | 0.40                           |
| Transportation of passengers (partial)   | 302        | 2.15                                   | 0.61                          | 2.48                                    | 0.99                           |
| Rail transportation of passengers  | 3021       | 0.00                                   | 0.00                          | 2.21                                    | 0.30                           |
| Rail transportation of passengers  | 302101     | 0.00                                   | 0.00                          | 2.21                                    | 0.30                           |
| Airline passenger services   | 3022       | 2.18                                   | 0.62                          | 2.48                                    | 1.00                           |
| Airline passenger services   | 302201     | 2.18                                   | 0.62                          | 2.48                                    | 1.00                           |
|  |            |  |                               |   |                                |
| Services related to transportation activities  | 31         | 0.16                                   | 0.19                          | 1.11                                    | 0.48                           |
| Services related to water transportation   | 311        | 0.48                                   | 0.61                          | 1.16                                    | 1.45                           |
| Towing, tugging, docking, and related services                                       | 3111       | 1.18                                   | 1.23                          | 1.90                                    | 2.54                           |
| Towing, tugging, docking and related services  | 311101     | 1.18                                   | 1.23                          | 1.90                                    | 2.54                           |
| Operation of port waterfront terminals   | 3112       | 0.00                                   | 0.00                          | 3.71                                    | 0.49                           |
| Operation of port waterfront terminals   | 311201     | 0.00                                   | 0.00                          | 3.71                                    | 0.49                           |
| Marine cargo handling  | 3113       | 0.35                                   | 0.32                          | 3.19                                    | 1.93                           |
| Marine cargo handling  | 311301     | 0.35                                   | 0.32                          | 3.19                                    | 1.93                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Services related to air transportation  | 312        | 0.31                                   | 0.44                          | 1.86                                    | 1.01                           |
| Other airport operations, excluding aircraft maintenance and repair                         | 3121       | 0.31                                   | 0.44                          | 1.86                                    | 1.01                           |
| Other airport operations, excluding aircraft maintenance and repair                         | 312101     | 0.31                                   | 0.44                          | 1.86                                    | 1.01                           |
| Other services related to transportation activities (partial)                               | 313        | 0.16                                   | 0.15                          | 0.56                                    | 0.66                           |
| Arrangement of freight and cargo  | 3131       | 0.20                                   | 0.14                          | 1.19                                    | 0.83                           |
| Arrangement of freight and cargo  | 313101     | 0.20                                   | 0.14                          | 1.19                                    | 0.83                           |
| Freight forwarding  | 3132       | 0.00                                   | 0.00                          | 0.53                                    | 1.02                           |
| Freight forwarding  | 313201     | 0.00                                   | 0.00                          | 0.53                                    | 1.02                           |
|   |            |  |                               |   |                                |
| Warehousing, storage, and related services  | 32         | 0.84                                   | 0.77                          | 3.59                                    | 1.97                           |
| Warehousing, storage, and related services  | 321        | 0.84                                   | 0.77                          | 3.59                                    | 1.97                           |
| Warehousing, storage, and related services  | 3211       | 0.84                                   | 0.77                          | 3.59                                    | 1.97                           |
| Warehousing, storage, and related services  | 321101     | 0.84                                   | 0.77                          | 3.59                                    | 1.97                           |
|   |            |  |                               |   |                                |
| Publishing sales, excluding software  | 33         | 0.33                                   | 0.32                          | 1.77                                    | 0.66                           |
| Book, periodical, and newspaper publishing sales and subscriptions                          | 331        | 0.44                                   | 0.43                          | 1.90                                    | 0.86                           |
| Sales of books  | 3311       | 0.31                                   | 0.80                          | 1.77                                    | 1.52                           |
| Sales of textbooks  | 331101     | 0.97                                   | 1.66                          | 2.02                                    | 4.43                           |
| Sales of technical, scientific, and professional books                                      | 331102     | 0.28                                   | 0.57                          | 7.77                                    | 2.91                           |
| Sales of religious books  | 331103     | 0.67                                   | 0.66                          | 1.26                                    | 1.11                           |
| Sales of general adult and juvenile books   | 331104     | 1.07                                   | 1.07                          | 1.27                                    | 1.24                           |
| Sales of general reference books  | 331105     | 0.54                                   | 0.98                          | 2.03                                    | 2.77                           |
| Sales of digital books  | 331106     | 1.10                                   | 1.83                          | 1.12                                    | 2.30                           |
| Sales and subscriptions of periodicals and newspapers                                       | 3312       | 0.27                                   | 0.28                          | 2.18                                    | 0.85                           |
| Sales and subscriptions of periodicals  | 331201     | 0.37                                   | 0.36                          | 1.36                                    | 0.56                           |
| Newspaper subscription and single copy sales  | 331202     | 0.19                                   | 0.51                          | 4.27                                    | 1.94                           |
| Directory, mailing list, and related compilations publishing sales                          | 332        | 0.15                                   | 0.28                          | 0.37                                    | 0.52                           |
| Directory, mailing list, and related compilations publishing sales                          | 3321       | 0.15                                   | 0.28                          | 0.37                                    | 0.52                           |
| Directory, mailing list, and related compilations publishing sales                          | 332101     | 0.15                                   | 0.28                          | 0.37                                    | 0.52                           |
| Greeting card publishing sales  | 333        | 0.00                                   | 0.01                          | 0.13                                    | 0.12                           |
| Greeting card publishing sales  | 3331       | 0.00                                   | 0.01                          | 0.13                                    | 0.12                           |
| Greeting card publishing sales  | 333101     | 0.00                                   | 0.01                          | 0.13                                    | 0.12                           |
| Calendars, yearbooks, and other miscellaneous publishing sales                              | 334        | 0.08                                   | 0.19                          | 0.82                                    | 1.56                           |
| Calendars, yearbooks, and other miscellaneous publishing sales                              | 3341       | 0.08                                   | 0.19                          | 0.82                                    | 1.56                           |
| Calendars, yearbooks, and other miscellaneous publishing sales                              | 334101     | 0.08                                   | 0.19                          | 0.82                                    | 1.56                           |
| Internet publishing and broadcasting subscription, content access, and licensing sales      | 335        | 0.06                                   | 0.07                          | 1.82                                    | 1.18                           |
| Internet publishing and broadcasting subscription, content access, and licensing sales      | 3351       | 0.06                                   | 0.07                          | 1.82                                    | 1.18                           |
| Internet publishing and broadcasting subscription, content access, and licensing sales      | 335101     | 0.06                                   | 0.07                          | 1.82                                    | 1.18                           |
|   |            |  |                               |   |                                |
| Software publishing   | 34         | 0.64                                   | 0.55                          | 0.81                                    | 1.07                           |
| Application software publishing   | 342        | 0.76                                   | 1.05                          | 0.81                                    | 1.26                           |
| Application software publishing   | 3421       | 0.76                                   | 1.05                          | 0.81                                    | 1.26                           |
| Desktop and portable device application software publishing                                 | 342101     | 0.77                                   | 0.94                          | 0.51                                    | 1.68                           |
| Application software publishing, cross-industry, vertical market, utilities, and other      | 342103     | 0.50                                   | 0.76                          | 0.52                                    | 1.06                           |
| Application software publishing, game software  | 342104     | 2.86                                   | 5.55                          | 5.14                                    | 11.47                          |
|   |            |  |                               |   |                                |
| Network compensation from broadcast and cable television and radio                          | 35         | 0.11                                   | 0.10                          | 6.03                                    | 0.99                           |
| Affiliate agreements, programming sales, and retransmission fees for cable and broadcast tv | 351        | 0.03                                   | 0.03                          | 5.43                                    | 0.88                           |
| Affiliate agreements, programming sales, and retransmission fees for cable and broadcast tv | 3511       | 0.03                                   | 0.03                          | 5.43                                    | 0.88                           |
| Affiliate agreements, programming sales, and retransmission fees for cable and broadcast tv | 351101     | 0.03                                   | 0.03                          | 5.43                                    | 0.88                           |
| Affiliate agreements, programming sales, and retransmission fees for radio                  | 352        | 0.00                                   | 0.00                          | 54.28                                   | 33.01                          |
| Affiliate agreements, programming sales, and retransmission fees for radio                  | 3521       | 0.00                                   | 0.00                          | 54.28                                   | 33.01                          |
| Affiliate agreements, programming sales, and retransmission fees for radio                  | 352101     | 0.00                                   | 0.00                          | 54.28                                   | 33.01                          |
|   |            |  |                               |   |                                |
| Advertising space and time sales  | 36         | 0.62                                   | 0.49                          | 1.65                                    | 1.40                           |
| Advertising space sales in periodicals, newspapers, directories, and mailing lists          | 361        | 0.29                                   | 0.43                          | 1.28                                    | 1.20                           |
| Advertising space sales in periodicals and newspapers                                       | 3611       | 0.28                                   | 0.44                          | 0.50                                    | 1.28                           |



**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Advertising space sales in periodicals  | 361101     | 0.29                                   | 0.38                          | 2.32                                    | 1.09                           |
| Advertising space sales in newspapers   | 361102     | 0.52                                   | 0.70                          | 1.54                                    | 2.01                           |
| Advertising space sales in directories and mailing lists                            | 3612       | 0.00                                   | 0.00                          | 6.34                                    | 3.25                           |
| Advertising space sales in directories and mailing lists                            | 361201     | 0.00                                   | 0.00                          | 6.34                                    | 3.25                           |
| Television advertising time sales   | 362        | 1.37                                   | 0.91                          | 4.19                                    | 2.91                           |
| Television advertising time sales   | 3621       | 1.37                                   | 0.91                          | 4.19                                    | 2.91                           |
| Broadcast and network television advertising time sales                             | 362101     | 2.56                                   | 1.08                          | 5.25                                    | 5.01                           |
| Cable network advertising time sales  | 362102     | 1.00                                   | 1.13                          | 4.57                                    | 3.37                           |
| Local cable system advertising time sales   | 362103     | 0.00                                   | 0.00                          | 1.88                                    | 1.88                           |
| Radio advertising time sales  | 363        | 1.15                                   | 1.76                          | 4.69                                    | 3.99                           |
| Radio advertising time sales  | 3631       | 1.15                                   | 1.76                          | 4.69                                    | 3.99                           |
| Radio advertising time sales  | 363101     | 1.15                                   | 1.76                          | 4.69                                    | 3.99                           |
| Internet advertising sales, excluding Internet advertising sold by print publishers | 365        | 1.40                                   | 1.75                          | 6.76                                    | 8.56                           |
| Internet advertising sales, excluding Internet advertising sold by print publishers | 3651       | 1.40                                   | 1.75                          | 6.76                                    | 8.56                           |
| Internet advertising sales, excluding Internet advertising sold by print publishers | 365101     | 1.40                                   | 1.75                          | 6.76                                    | 8.56                           |
|   |            |  |                               |   |                                |
| Telecommunication, cable, and internet user services                                | 37         | 0.22                                   | 0.17                          | 1.47                                    | 0.79                           |
| Wired telephone services  | 371        | 0.11                                   | 0.12                          | 0.75                                    | 0.60                           |
| Residential wired telephone services  | 3711       | 0.14                                   | 0.12                          | 3.27                                    | 0.68                           |
| Local residential wired telephone service   | 371101     | 0.08                                   | 0.05                          | 4.33                                    | 0.36                           |
| Long distance residential wired telephone service                                   | 371102     | 0.32                                   | 0.29                          | 1.73                                    | 2.08                           |
| All-distance residential wired telephone service                                    | 371103     | 0.13                                   | 0.10                          | 3.65                                    | 0.24                           |
| Business wired telephone services   | 3712       | 0.16                                   | 0.18                          | 1.13                                    | 1.06                           |
| Local business wired telephone service  | 371201     | 0.24                                   | 0.36                          | 1.19                                    | 0.82                           |
| Long distance business wired telephone service                                      | 371202     | 0.79                                   | 0.89                          | 6.39                                    | 6.21                           |
| Private line wired telephone service  | 371204     | 0.00                                   | 0.00                          | 1.18                                    | 1.17                           |
| Other wired telephone services  | 3713       | 0.25                                   | 0.18                          | 0.51                                    | 0.47                           |
| Other wired telephone services  | 371301     | 0.25                                   | 0.18                          | 0.51                                    | 0.47                           |
| Wireless telecommunication services   | 372        | 0.23                                   | 0.33                          | 7.55                                    | 2.37                           |
| Cellular phone and other wireless telecommunication services                        | 3721       | 0.23                                   | 0.33                          | 7.55                                    | 2.37                           |
| Cellular phone and other wireless telecommunication services                        | 372101     | 0.23                                   | 0.33                          | 7.55                                    | 2.37                           |
| Cable and satellite subscriber services   | 373        | 0.00                                   | 0.00                          | 3.35                                    | 1.11                           |
| Cable and satellite subscriber services   | 3731       | 0.00                                   | 0.00                          | 3.35                                    | 1.11                           |
| Cable and satellite subscriber services   | 373101     | 0.00                                   | 0.00                          | 3.35                                    | 1.11                           |
| Internet access services  | 374        | 0.00                                   | 0.00                          | 2.81                                    | 1.33                           |
| Internet access services  | 3741       | 0.00                                   | 0.00                          | 2.81                                    | 1.33                           |
| Residential Internet access services  | 374102     | 0.00                                   | 0.00                          | 5.78                                    | 2.62                           |
| Business Internet access services   | 374103     | 0.00                                   | 0.00                          | 0.11                                    | 0.14                           |
| Bundled wired telecommunications access services                                    | 375        | 0.41                                   | 0.32                          | 1.54                                    | 1.47                           |
| Bundled wired telecommunications access services                                    | 3751       | 0.41                                   | 0.32                          | 1.54                                    | 1.47                           |
| Bundled wired telecommunications access services                                    | 375101     | 0.41                                   | 0.32                          | 1.54                                    | 1.47                           |
|   |            |  |                               |   |                                |
| Data processing and related services  | 38         | 0.04                                   | 0.05                          | 0.31                                    | 0.31                           |
| Data processing and related services  | 381        | 0.04                                   | 0.05                          | 0.31                                    | 0.31                           |
| Data processing and related services  | 3811       | 0.04                                   | 0.05                          | 0.31                                    | 0.31                           |
| Hosting, ASP and other IT infrastructure provisioning services                      | 381101     | 0.08                                   | 0.11                          | 0.99                                    | 0.73                           |
| Business process management services  | 381102     | 0.01                                   | 0.01                          | 0.19                                    | 0.16                           |
| Data management, information transformation and other services                      | 381103     | 0.00                                   | 0.00                          | 0.63                                    | 0.35                           |
|   |            |  |                               |   |                                |
| Credit intermediation services (partial)  | 39         | 1.82                                   | 0.52                          | 2.61                                    | 1.05                           |
| Loan services (partial)   | 391        | 2.79                                   | 0.60                          | 4.46                                    | 1.39                           |
| Business loans (partial)  | 3911       | 3.24                                   | 0.97                          | 7.06                                    | 2.59                           |
| Business loans (partial)  | 391101     | 3.24                                   | 0.97                          | 7.06                                    | 2.59                           |
| Consumer loans (partial)  | 3912       | 1.68                                   | 0.73                          | 2.33                                    | 1.29                           |
| Residential real estate loans (partial)   | 391201     | 1.75                                   | 0.84                          | 2.52                                    | 1.44                           |
| Vehicle loans (partial)   | 391202     | 2.83                                   | 1.45                          | 1.13                                    | 3.24                           |
| Credit cards, overdraft credit, and related plans (partial)                         | 391203     | 2.61                                   | 1.36                          | 3.65                                    | 3.27                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Other loans and loan services (partial)   | 3913       | 2.68                                   | 1.32                          | 3.40                                    | 2.28                           |
| Other loans and loan services (partial)   | 391301     | 2.68                                   | 1.32                          | 3.40                                    | 2.28                           |
| Deposit services (partial)  | 392        | 0.69                                   | 0.67                          | 2.14                                    | 1.70                           |
| Deposit services (partial)  | 3921       | 0.69                                   | 0.67                          | 2.14                                    | 1.70                           |
| Deposit services (partial)  | 392101     | 0.69                                   | 0.67                          | 2.14                                    | 1.70                           |
| Other credit intermediation services, including trust services (partial)                | 393        | 0.15                                   | 0.35                          | 3.41                                    | 3.53                           |
| Other credit intermediation services, including trust services (partial)                | 3931       | 0.15                                   | 0.35                          | 3.41                                    | 3.53                           |
| Other credit intermediation services, including trust services (partial)                | 393101     | 0.15                                   | 0.35                          | 3.41                                    | 3.53                           |
|   |            |  |                               |   |                                |
| Investment services   | 40         | 0.66                                   | 1.01                          | 7.82                                    | 2.11                           |
| Securities brokerage, dealing, investment advice, and related services                  | 401        | 0.69                                   | 1.86                          | 8.46                                    | 3.54                           |
| Securities brokerage, dealing, investment advice, and related services                  | 4011       | 0.69                                   | 1.86                          | 8.46                                    | 3.54                           |
| Securities brokerage, dealing, and investment advice                                    | 401101     | 1.14                                   | 2.67                          | 4.26                                    | 3.99                           |
| Securities brokerage and dealing related services (Partial)                             | 401102     | 3.07                                   | 0.60                          | 38.75                                   | 6.21                           |
| Portfolio management  | 402        | 1.08                                   | 0.38                          | 7.00                                    | 2.21                           |
| Portfolio management  | 4021       | 1.08                                   | 0.38                          | 7.00                                    | 2.21                           |
| Portfolio management  | 402101     | 1.08                                   | 0.38                          | 7.00                                    | 2.21                           |
| Investment banking  | 403        | 0.70                                   | 0.42                          | 9.28                                    | 1.60                           |
| Investment banking  | 4031       | 0.70                                   | 0.42                          | 9.28                                    | 1.60                           |
| Investment banking  | 403101     | 0.70                                   | 0.42                          | 9.28                                    | 1.60                           |
|   |            |  |                               |   |                                |
| Insurance and annuities   | 41         | 0.19                                   | 0.13                          | 2.87                                    | 0.48                           |
| Insurance   | 411        | 0.12                                   | 0.07                          | 2.90                                    | 0.42                           |
| Insurance   | 4111       | 0.12                                   | 0.07                          | 2.90                                    | 0.42                           |
| Life insurance  | 411101     | 0.01                                   | 0.01                          | 0.17                                    | 0.34                           |
| Disability insurance, including accidental death  | 411102     | 0.00                                   | 0.00                          | 0.83                                    | 1.11                           |
| Health and medical insurance  | 411103     | 0.07                                   | 0.07                          | 4.39                                    | 0.93                           |
| Property and casualty insurance   | 411104     | 0.05                                   | 0.12                          | 2.91                                    | 0.63                           |
| Annuities   | 412        | 0.50                                   | 0.54                          | 2.88                                    | 2.19                           |
| Annuities   | 4121       | 0.50                                   | 0.54                          | 2.88                                    | 2.19                           |
| Annuities   | 412101     | 0.50                                   | 0.54                          | 2.88                                    | 2.19                           |
|   |            |  |                               |   |                                |
| Commissions and fees from sales and administration of insurance policies (partial)      | 42         | 0.08                                   | 0.05                          | 1.25                                    | 0.24                           |
| Commissions from sales of insurance   | 421        | 0.08                                   | 0.05                          | 1.25                                    | 0.24                           |
| Commissions from sales of insurance   | 4211       | 0.08                                   | 0.05                          | 1.25                                    | 0.24                           |
| Commissions from sales of life insurance and annuities                                  | 421101     | 0.00                                   | 0.00                          | 0.05                                    | 0.16                           |
| Commissions from sales of health and medical insurance                                  | 421102     | 0.13                                   | 0.10                          | 1.03                                    | 0.41                           |
| Commissions from sales of property and casualty insurance                               | 421103     | 0.09                                   | 0.07                          | 1.63                                    | 0.33                           |
| Commissions from sales of other insurance   | 421104     | 0.00                                   | 0.00                          | 0.94                                    | 0.42                           |
|   |            |  |                               |   |                                |
| Real estate services (partial)  | 43         | 0.28                                   | 0.19                          | 3.03                                    | 0.65                           |
| Nonresidential real estate services   | 431        | 0.35                                   | 0.32                          | 1.34                                    | 0.94                           |
| Nonresidential real estate rents  | 4311       | 0.18                                   | 0.36                          | 2.34                                    | 1.04                           |
| Office buildings, gross rents   | 431101     | 0.42                                   | 0.41                          | 2.12                                    | 2.06                           |
| Retail properties, gross rents  | 431102     | 0.41                                   | 0.38                          | 1.90                                    | 0.90                           |
| Industrial buildings, gross rents   | 431103     | 0.24                                   | 0.43                          | 3.51                                    | 1.11                           |
| Self-service storage and miniwarehouses, gross rents                                    | 431104     | 0.19                                   | 0.21                          | 2.88                                    | 1.09                           |
| Other nonresidential buildings, gross rents   | 431105     | 1.85                                   | 1.52                          | 3.74                                    | 2.95                           |
| Nonresidential property sales and leases including land, brokerage fees and commissions | 4312       | 0.30                                   | 0.11                          | 1.09                                    | 2.80                           |
| Nonresidential property sales and leases including land, brokerage fees and commissions | 431201     | 0.30                                   | 0.11                          | 1.09                                    | 2.80                           |
| Nonresidential property management fees   | 4313       | 1.10                                   | 0.85                          | 4.79                                    | 4.93                           |
| Nonresidential property management fees   | 431301     | 1.10                                   | 0.85                          | 4.79                                    | 4.93                           |
| Residential real estate services (partial)  | 432        | 0.42                                   | 0.17                          | 5.07                                    | 0.88                           |
| Residential property sales and rental, brokerage fees and commissions                   | 4321       | 0.47                                   | 0.15                          | 6.09                                    | 1.05                           |
| Residential property sales and rental, brokerage fees and commissions                   | 432101     | 0.47                                   | 0.15                          | 6.09                                    | 1.05                           |
| Residential property management fees  | 4322       | 0.38                                   | 0.42                          | 2.05                                    | 1.41                           |
| Residential property management fees  | 432201     | 0.38                                   | 0.42                          | 2.05                                    | 1.41                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Real estate appraisal fees  | 433        | 0.00                                   | 0.00                          | 1.95                                    | 2.20                           |
| Real estate appraisal fees  | 4331       | 0.00                                   | 0.00                          | 1.95                                    | 2.20                           |
| Real estate appraisal fees  | 433101     | 0.00                                   | 0.00                          | 1.95                                    | 2.20                           |
|   |            |  |                               |   |                                |
| Rental and leasing of goods (partial)   | 44         | 0.93                                   | 1.23                          | 2.95                                    | 2.27                           |
| Passenger car rental  | 441        | 2.24                                   | 2.70                          | 3.02                                    | 5.30                           |
| Passenger car rental  | 4411       | 2.24                                   | 2.70                          | 3.02                                    | 5.30                           |
| Passenger car rental  | 441101     | 2.24                                   | 2.70                          | 3.02                                    | 5.30                           |
| Truck, utility trailer, and RV rental and leasing                               | 442        | 1.35                                   | 0.80                          | 3.93                                    | 1.62                           |
| Truck rental and leasing  | 4421       | 1.20                                   | 0.64                          | 1.33                                    | 0.98                           |
| Truck, truck trailer and bus rental   | 442101     | 1.63                                   | 1.36                          | 4.16                                    | 1.53                           |
| Truck, truck trailer and bus leasing  | 442102     | 0.75                                   | 0.52                          | 0.75                                    | 0.88                           |
| Construction, mining, and forestry machinery and equipment rental and leasing   | 443        | 0.51                                   | 0.66                          | 1.72                                    | 2.08                           |
| Construction, mining, and forestry machinery and equipment rental and leasing   | 4431       | 0.51                                   | 0.66                          | 1.72                                    | 2.08                           |
| Construction, mining, and forestry machinery and equipment rental and leasing   | 443101     | 0.51                                   | 0.66                          | 1.72                                    | 2.08                           |
|   |            |  |                               |   |                                |
| Professional services (partial)   | 45         | 0.25                                   | 0.18                          | 2.24                                    | 0.52                           |
| Legal services  | 451        | 0.32                                   | 0.31                          | 3.69                                    | 0.82                           |
| Legal services  | 4511       | 0.32                                   | 0.31                          | 3.69                                    | 0.82                           |
| Legal services  | 451101     | 0.32                                   | 0.31                          | 3.69                                    | 0.82                           |
| Accounting services (partial)   | 452        | 0.21                                   | 0.22                          | 1.66                                    | 1.40                           |
| Accounting services, excluding payroll  | 4521       | 0.21                                   | 0.22                          | 1.66                                    | 1.40                           |
| Financial auditing  | 452101     | 0.27                                   | 0.24                          | 1.30                                    | 0.89                           |
| Tax preparation and planning  | 452102     | 0.68                                   | 0.47                          | 0.96                                    | 1.75                           |
| Bookkeeping and compilation   | 452103     | 0.64                                   | 0.63                          | 5.51                                    | 3.01                           |
| Other accounting services, including billing and review                         | 452104     | 0.55                                   | 0.65                          | 3.40                                    | 4.89                           |
| Architectural and engineering services  | 453        | 0.22                                   | 0.15                          | 2.50                                    | 0.76                           |
| Architectural services  | 4531       | 0.15                                   | 0.19                          | 1.89                                    | 0.69                           |
| Architectural services  | 453101     | 0.15                                   | 0.19                          | 1.89                                    | 0.69                           |
| Engineering services  | 4532       | 0.22                                   | 0.18                          | 2.62                                    | 0.91                           |
| Engineering services  | 453201     | 0.22                                   | 0.18                          | 2.62                                    | 0.91                           |
| Management, scientific, and technical consulting services                       | 454        | 0.37                                   | 0.46                          | 0.47                                    | 1.65                           |
| Management consulting services  | 4541       | 0.37                                   | 0.46                          | 0.47                                    | 1.65                           |
| Administrative and general management consulting services                       | 454101     | 0.21                                   | 0.46                          | 0.64                                    | 1.17                           |
| Human resources consulting services   | 454102     | 0.15                                   | 0.12                          | 2.18                                    | 4.88                           |
| Marketing consulting services   | 454103     | 1.64                                   | 1.09                          | 8.75                                    | 5.94                           |
| Process, physical distribution, and logistics consulting services               | 454104     | 0.75                                   | 0.98                          | 11.59                                   | 7.11                           |
| Other management consulting services  | 454105     | 0.05                                   | 0.04                          | 0.85                                    | 0.53                           |
| Advertising and related services (partial)                                      | 455        | 0.08                                   | 0.09                          | 0.94                                    | 0.58                           |
| Advertising agency services   | 4551       | 0.08                                   | 0.09                          | 0.94                                    | 0.58                           |
| Advertising agency services   | 455101     | 0.08                                   | 0.09                          | 0.94                                    | 0.58                           |
| Information technology (IT) technical support and consulting services (partial) | 456        | 0.03                                   | 0.03                          | 0.65                                    | 1.16                           |
| Information technology (IT) technical support and consulting services (partial) | 4561       | 0.03                                   | 0.03                          | 0.65                                    | 1.16                           |
| Information technology (IT) technical support and consulting services (partial) | 456101     | 0.03                                   | 0.03                          | 0.65                                    | 1.16                           |
|   |            |  |                               |   |                                |
| Employment services   | 46         | 0.17                                   | 0.18                          | 1.59                                    | 0.71                           |
| Permanent placement services  | 461        | 0.51                                   | 0.51                          | 2.37                                    | 1.55                           |
| Permanent placement services  | 4611       | 0.51                                   | 0.51                          | 2.37                                    | 1.55                           |
| Permanent placement services  | 461101     | 0.51                                   | 0.51                          | 2.37                                    | 1.55                           |
| Executive search services   | 462        | 1.28                                   | 1.51                          | 1.17                                    | 3.05                           |
| Executive search services   | 4621       | 1.28                                   | 1.51                          | 1.17                                    | 3.05                           |
| Executive search services   | 462101     | 1.28                                   | 1.51                          | 1.17                                    | 3.05                           |
| Staffing services   | 463        | 0.17                                   | 0.19                          | 1.63                                    | 0.79                           |
| Temporary help services   | 4631       | 0.13                                   | 0.31                          | 1.51                                    | 1.10                           |
| Temporary help services   | 463101     | 0.13                                   | 0.31                          | 1.51                                    | 1.10                           |
| Co-employment staffing services   | 4632       | 0.18                                   | 0.24                          | 1.09                                    | 1.32                           |
| Co-employment staffing services   | 463201     | 0.18                                   | 0.24                          | 1.09                                    | 1.32                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Travel arrangement services (partial)                          | 47         | 0.93                                   | 0.72                          | 0.97                                    | 1.53                           |
| Arrangement of flights (partial)                               | 471        | 0.47                                   | 0.51                          | 3.80                                    | 2.39                           |
| Arrangement of international flights                           | 4711       | 0.49                                   | 0.49                          | 0.64                                    | 0.63                           |
| Arrangement of international flights                           | 471101     | 0.49                                   | 0.49                          | 0.64                                    | 0.63                           |
| Arrangement of domestic flights                                | 4712       | 0.34                                   | 0.64                          | 6.06                                    | 3.80                           |
| Arrangement of domestic flights (partial)                      | 471201     | 0.34                                   | 0.64                          | 6.06                                    | 3.80                           |
| Arrangement of vehicle rentals and lodging                     | 472        | 0.89                                   | 1.78                          | 2.00                                    | 3.58                           |
| Arrangement of vehicle rentals and lodging                     | 4721       | 0.89                                   | 1.78                          | 2.00                                    | 3.58                           |
| Arrangement of vehicle rentals and lodging (partial)           | 472101     | 0.89                                   | 1.78                          | 2.00                                    | 3.58                           |
| Arrangement of cruises and tours                               | 473        | 1.57                                   | 1.15                          | 2.19                                    | 2.21                           |
| Arrangement of cruises and tours                               | 4731       | 1.57                                   | 1.15                          | 2.19                                    | 2.21                           |
| Arrangement of cruises and tours                               | 473101     | 1.57                                   | 1.15                          | 2.19                                    | 2.21                           |
| Other travel arrangements (partial)                            | 474        | 0.00                                   | 0.00                          | 0.47                                    | 0.55                           |
| Other travel arrangements (partial)                            | 4741       | 0.00                                   | 0.00                          | 0.47                                    | 0.55                           |
| Other travel arrangements (partial)                            | 474101     | 0.00                                   | 0.00                          | 0.47                                    | 0.55                           |
| Selected security services (partial)                           | 48         | 0.13                                   | 0.26                          | 2.16                                    | 0.71                           |
| Security guard services  | 481        | 0.13                                   | 0.26                          | 2.16                                    | 0.71                           |
| Security guard services  | 4811       | 0.13                                   | 0.26                          | 2.16                                    | 0.71                           |
| Security guard services  | 481101     | 0.13                                   | 0.26                          | 2.16                                    | 0.71                           |
| Cleaning and building maintenance services (partial)           | 49         | 0.05                                   | 0.07                          | 0.52                                    | 0.50                           |
| Janitorial services  | 491        | 0.05                                   | 0.07                          | 0.52                                    | 0.50                           |
| Janitorial services  | 4911       | 0.05                                   | 0.07                          | 0.52                                    | 0.50                           |
| Janitorial services  | 491101     | 0.05                                   | 0.07                          | 0.52                                    | 0.50                           |
| Waste collection and remediation services (partial)            | 50         | 0.31                                   | 0.23                          | 2.40                                    | 0.66                           |
| Waste collection   | 501        | 0.31                                   | 0.23                          | 2.40                                    | 0.66                           |
| Solid waste collection   | 5011       | 0.31                                   | 0.23                          | 2.40                                    | 0.66                           |
| Solid waste collection   | 501101     | 0.31                                   | 0.23                          | 2.40                                    | 0.66                           |
| Health care services   | 51         | 0.09                                   | 0.07                          | 1.51                                    | 0.41                           |
| Outpatient care (partial)                                      | 511        | 0.07                                   | 0.07                          | 1.39                                    | 0.59                           |
| Outpatient care (partial)                                      | 5111       | 0.07                                   | 0.07                          | 1.39                                    | 0.59                           |
| Physician care   | 511101     | 0.06                                   | 0.06                          | 0.65                                    | 0.51                           |
| Medical laboratory and diagnostic imaging center care          | 511102     | 0.05                                   | 0.07                          | 0.07                                    | 0.40                           |
| Home health and hospice care                                   | 511103     | 0.03                                   | 0.03                          | 0.94                                    | 0.51                           |
| Hospital outpatient care                                       | 511104     | 0.09                                   | 0.10                          | 2.05                                    | 1.43                           |
| Dental care  | 511105     | 0.03                                   | 0.03                          | 2.54                                    | 1.34                           |
| Inpatient care   | 512        | 0.14                                   | 0.12                          | 1.83                                    | 0.55                           |
| Inpatient care   | 5121       | 0.14                                   | 0.12                          | 1.83                                    | 0.55                           |
| Hospital inpatient care  | 512101     | 0.14                                   | 0.16                          | 1.49                                    | 0.71                           |
| Nursing home care  | 512102     | 0.18                                   | 0.17                          | 2.68                                    | 0.53                           |
| Intellectual and developmental disability center care          | 512103     | 0.30                                   | 0.28                          | 3.87                                    | 2.31                           |
| Sales of blood and blood products, organs, and tissues         | 513        | 0.06                                   | 0.08                          | 0.50                                    | 0.51                           |
| Sales of blood and blood products, organs, and tissues         | 5131       | 0.06                                   | 0.08                          | 0.50                                    | 0.51                           |
| Sales of blood and blood products, organs, and tissues         | 513101     | 0.06                                   | 0.08                          | 0.50                                    | 0.51                           |
| Accommodation services   | 53         | 3.26                                   | 1.73                          | 1.39                                    | 2.09                           |
| Traveler accommodation services                                | 531        | 3.26                                   | 1.73                          | 1.39                                    | 2.09                           |
| Traveler accommodation services                                | 5311       | 3.26                                   | 1.73                          | 1.39                                    | 2.09                           |
| Guestroom or unit rental                                       | 531101     | 3.57                                   | 1.89                          | 1.34                                    | 2.29                           |
| Other traveler accommodation services                          | 531102     | 0.14                                   | 0.17                          | 1.90                                    | 0.74                           |
| Food and beverage for immediate consumption services (partial) | 54         | 0.18                                   | 0.36                          | 3.28                                    | 1.08                           |
| Food and beverage for immediate consumption services (partial) | 541        | 0.18                                   | 0.36                          | 3.28                                    | 1.08                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Food and nonalcoholic beverages for immediate consumption (partial)       | 5411       | 0.24                                   | 0.31                          | 3.06                                    | 1.01                           |
| Food and nonalcoholic beverages for immediate consumption (partial)       | 541101     | 0.24                                   | 0.31                          | 3.06                                    | 1.01                           |
| Alcoholic beverages for immediate consumption (partial)                   | 5412       | 0.15                                   | 0.17                          | 5.34                                    | 4.58                           |
| Alcoholic beverages for immediate consumption (partial)                   | 541201     | 0.15                                   | 0.17                          | 5.34                                    | 4.58                           |
|   |            |  |                               |   |                                |
| Repair and maintenance services (partial)                                 | 55         | 0.27                                   | 0.07                          | 2.48                                    | 0.38                           |
| Commercial and industrial machinery and equipment repair and maintenance  | 551        | 0.01                                   | 0.01                          | 1.40                                    | 0.69                           |
| Commercial and industrial machinery and equipment repair and maintenance  | 5511       | 0.01                                   | 0.01                          | 1.40                                    | 0.69                           |
| Commercial machinery repair and maintenance                               | 551101     | 0.01                                   | 0.01                          | 1.40                                    | 0.69                           |
| Motor vehicle repair and maintenance (partial)                            | 552        | 0.37                                   | 0.12                          | 2.62                                    | 0.40                           |
| Motor vehicle repair and maintenance (partial)                            | 5521       | 0.37                                   | 0.12                          | 2.62                                    | 0.40                           |
| Motor vehicle repair and maintenance (partial)                            | 552101     | 0.37                                   | 0.12                          | 2.62                                    | 0.40                           |
| Ship repair and maintenance   | 553        | 0.00                                   | 0.00                          | 1.91                                    | 1.64                           |
| Ship repair and maintenance   | 5531       | 0.00                                   | 0.00                          | 1.91                                    | 1.64                           |
| Ship repair, military   | 553101     | 0.00                                   | 0.00                          | 2.52                                    | 2.20                           |
| Ship repair, nonmilitary  | 553102     | 0.00                                   | 0.00                          | 0.43                                    | 0.57                           |
| Aircraft repair and maintenance   | 554        | 0.11                                   | 0.12                          | 3.12                                    | 1.12                           |
| Aircraft repair and maintenance   | 5541       | 0.11                                   | 0.12                          | 3.12                                    | 1.12                           |
| Aircraft repair and maintenance   | 554101     | 0.11                                   | 0.12                          | 3.12                                    | 1.12                           |
|   |            |  |                               |   |                                |
| Entertainment services (partial)  | 56         | 0.99                                   | 0.73                          | 0.64                                    | 0.99                           |
| Membership dues and admissions and recreation facility use fees (partial) | 561        | 0.41                                   | 0.36                          | 1.11                                    | 1.12                           |
| Membership dues and admissions and recreation facility use fees (partial) | 5611       | 0.41                                   | 0.36                          | 1.11                                    | 1.12                           |
| Membership dues   | 561101     | 0.35                                   | 0.41                          | 0.79                                    | 0.75                           |
| Admissions and recreational facilities use fees (partial)                 | 561102     | 0.79                                   | 0.59                          | 1.90                                    | 1.66                           |
| Recreational activity instruction fees (partial)                          | 562        | 0.00                                   | 0.00                          | 0.10                                    | 0.27                           |
| Recreational activity instruction fees (partial)                          | 5621       | 0.00                                   | 0.00                          | 0.10                                    | 0.27                           |
| Recreational activity instruction fees (partial)                          | 562101     | 0.00                                   | 0.00                          | 0.10                                    | 0.27                           |
| Gaming receipts (partial)   | 563        | 1.75                                   | 1.61                          | 0.26                                    | 1.54                           |
| Gaming receipts (partial)   | 5631       | 1.75                                   | 1.61                          | 0.26                                    | 1.54                           |
| Gaming receipts (partial)   | 563101     | 1.75                                   | 1.61                          | 0.26                                    | 1.54                           |
|   |            |  |                               |   |                                |
| Wholesale trade services  | 57         | 0.31                                   | 0.65                          | 2.82                                    | 1.75                           |
| Machinery and equipment and parts and supplies wholesaling                | 571        | 0.94                                   | 1.00                          | 2.15                                    | 1.85                           |
| Machinery and equipment and parts and supplies wholesaling                | 5711       | 0.94                                   | 1.00                          | 2.15                                    | 1.85                           |
| Machinery and equipment wholesaling                                       | 571101     | 0.99                                   | 1.36                          | 2.59                                    | 2.33                           |
| Parts and supplies for machinery and equipment wholesaling                | 571102     | 0.98                                   | 1.35                          | 3.93                                    | 3.26                           |
| Furnishings wholesaling   | 572        | 1.61                                   | 1.85                          | 2.25                                    | 3.31                           |
| Furnishings wholesaling   | 5721       | 1.61                                   | 1.85                          | 2.25                                    | 3.31                           |
| Furnishings wholesaling   | 572101     | 1.61                                   | 1.85                          | 2.25                                    | 3.31                           |
| Building materials, paint, and hardware wholesaling                       | 573        | 1.53                                   | 1.33                          | 1.30                                    | 2.92                           |
| Building materials, paint, and hardware wholesaling                       | 5731       | 1.53                                   | 1.33                          | 1.30                                    | 2.92                           |
| Building materials, paint, and hardware wholesaling                       | 573101     | 1.53                                   | 1.33                          | 1.30                                    | 2.92                           |
| Metals, minerals, and ores wholesaling                                    | 574        | 1.85                                   | 2.61                          | 4.25                                    | 5.81                           |
| Metals, minerals, and ores wholesaling                                    | 5741       | 1.85                                   | 2.61                          | 4.25                                    | 5.81                           |
| Metals, minerals, and ores wholesaling                                    | 574101     | 1.85                                   | 2.61                          | 4.25                                    | 5.81                           |
| Chemicals and allied products wholesaling                                 | 575        | 2.15                                   | 2.83                          | 2.70                                    | 7.96                           |
| Chemicals and allied products wholesaling                                 | 5751       | 2.15                                   | 2.83                          | 2.70                                    | 7.96                           |
| Chemicals and allied products wholesaling                                 | 575101     | 2.15                                   | 2.83                          | 2.70                                    | 7.96                           |
| Paper and plastics products wholesaling                                   | 576        | 1.36                                   | 1.45                          | 6.08                                    | 4.87                           |
| Paper and plastics products wholesaling                                   | 5761       | 1.36                                   | 1.45                          | 6.08                                    | 4.87                           |
| Paper and plastics products wholesaling                                   | 576101     | 1.36                                   | 1.45                          | 6.08                                    | 4.87                           |
| Apparel wholesaling   | 577        | 1.82                                   | 1.31                          | 1.92                                    | 2.97                           |
| Apparel wholesaling   | 5771       | 1.82                                   | 1.31                          | 1.92                                    | 2.97                           |
| Apparel wholesaling   | 577101     | 1.82                                   | 1.31                          | 1.92                                    | 2.97                           |
| Food and alcohol wholesaling  | 578        | 0.64                                   | 1.08                          | 0.65                                    | 1.79                           |
| Food and alcohol wholesaling  | 5781       | 0.64                                   | 1.08                          | 0.65                                    | 1.79                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Food wholesaling   | 578101     | 0.69                                   | 1.17                          | 0.66                                    | 1.92                           |
| Alcohol wholesaling  | 578102     | 0.47                                   | 0.75                          | 2.58                                    | 2.04                           |
| Other commodities wholesaling                                | 579        | 0.79                                   | 1.60                          | 7.71                                    | 7.67                           |
| Other commodities wholesaling                                | 5791       | 0.79                                   | 1.60                          | 7.71                                    | 7.67                           |
| Other commodities wholesaling                                | 579101     | 0.79                                   | 1.60                          | 7.71                                    | 7.67                           |
|  |            |  |                               |   |                                |
| Retail trade services  | 58         | 0.72                                   | 0.51                          | 0.66                                    | 0.93                           |
| Food and alcohol retailing                                   | 581        | 0.59                                   | 0.88                          | 0.49                                    | 2.03                           |
| Food and alcohol retailing                                   | 5811       | 0.59                                   | 0.88                          | 0.49                                    | 2.03                           |
| Food retailing   | 581102     | 0.65                                   | 0.95                          | 0.42                                    | 2.22                           |
| Alcohol retailing  | 581103     | 0.58                                   | 1.29                          | 3.42                                    | 2.07                           |
| Health and beauty care retailing, including optical goods    | 582        | 1.36                                   | 1.12                          | 2.04                                    | 2.07                           |
| Health and beauty care retailing, including optical goods    | 5821       | 1.36                                   | 1.12                          | 2.04                                    | 2.07                           |
| Health and beauty care retailing, including optical goods    | 582101     | 1.36                                   | 1.12                          | 2.04                                    | 2.07                           |
| Apparel, jewelry, footwear, and accessories retailing        | 583        | 2.06                                   | 1.54                          | 1.72                                    | 2.11                           |
| Apparel, jewelry, footwear, and accessories retailing        | 5831       | 2.06                                   | 1.54                          | 1.72                                    | 2.11                           |
| Apparel, footwear, and accessories retailing                 | 583101     | 2.84                                   | 1.76                          | 1.76                                    | 2.50                           |
| Jewelry retailing  | 583102     | 2.24                                   | 2.45                          | 1.72                                    | 3.78                           |
| Computer hardware, software, and supplies retailing          | 584        | 1.48                                   | 2.46                          | 3.56                                    | 3.78                           |
| Computer hardware, software, and supplies retailing          | 5841       | 1.48                                   | 2.46                          | 3.56                                    | 3.78                           |
| Computer hardware, software, and supplies retailing          | 584101     | 1.48                                   | 2.46                          | 3.56                                    | 3.78                           |
| TV, video, and photographic equipment and supplies retailing | 585        | 6.23                                   | 7.23                          | 36.93                                   | 24.29                          |
| TV, video, and photographic equipment and supplies retailing | 5851       | 6.23                                   | 7.23                          | 36.93                                   | 24.29                          |
| TV, video, and photographic equipment and supplies retailing | 585101     | 6.23                                   | 7.23                          | 36.93                                   | 24.29                          |
| Automobiles and automobile parts retailing                   | 586        | 1.52                                   | 0.93                          | 1.82                                    | 1.91                           |
| Automobiles and automobile parts retailing                   | 5861       | 1.52                                   | 0.93                          | 1.82                                    | 1.91                           |
| Automobile retailing (Partial)                               | 586101     | 1.73                                   | 1.75                          | 5.60                                    | 3.39                           |
| Automotive parts, including tires, retailing                 | 586102     | 1.57                                   | 1.08                          | 1.15                                    | 2.15                           |
| Manufactured (mobile) homes retailing                        | 587        | 0.00                                   | 0.00                          | 3.66                                    | 3.88                           |
| Manufactured (mobile) homes retailing                        | 5871       | 0.00                                   | 0.00                          | 3.66                                    | 3.88                           |
| Manufactured (mobile) homes retailing                        | 587101     | 0.00                                   | 0.00                          | 3.66                                    | 3.88                           |
| RVs, trailers, and campers retailing                         | 588        | 1.31                                   | 1.23                          | 6.77                                    | 7.43                           |
| RVs, trailers, and campers retailing                         | 5881       | 1.31                                   | 1.23                          | 6.77                                    | 7.43                           |
| RVs, trailers, and campers retailing                         | 588101     | 1.31                                   | 1.23                          | 6.77                                    | 7.43                           |
| Sporting goods, including boats, retailing                   | 589        | 1.51                                   | 1.66                          | 2.45                                    | 2.93                           |
| Sporting goods, including boats, retailing                   | 5891       | 1.51                                   | 1.66                          | 2.45                                    | 2.93                           |
| Sporting goods, including boats, retailing                   | 589101     | 1.51                                   | 1.66                          | 2.45                                    | 2.93                           |
| Lawn, garden, and farm equipment and supplies retailing      | 58A        | 0.22                                   | 0.51                          | 0.71                                    | 1.29                           |
| Lawn, garden, and farm equipment and supplies retailing      | 58A1       | 0.22                                   | 0.51                          | 0.71                                    | 1.29                           |
| Lawn, garden, and farm equipment and supplies retailing      | 58A101     | 0.22                                   | 0.51                          | 0.71                                    | 1.29                           |
| Furniture retailing  | 58B        | 1.05                                   | 0.81                          | 2.60                                    | 1.73                           |
| Furniture retailing  | 58B1       | 1.05                                   | 0.81                          | 2.60                                    | 1.73                           |
| Furniture retailing  | 58B101     | 1.05                                   | 0.81                          | 2.60                                    | 1.73                           |
| Flooring and floor coverings retailing                       | 58C        | 0.70                                   | 3.00                          | 4.54                                    | 6.88                           |
| Flooring and floor coverings retailing                       | 58C1       | 0.70                                   | 3.00                          | 4.54                                    | 6.88                           |
| Flooring and floor coverings retailing                       | 58C101     | 0.70                                   | 3.00                          | 4.54                                    | 6.88                           |
| Hardware and building materials and supplies retailing       | 58D        | 0.78                                   | 0.89                          | 2.22                                    | 2.21                           |
| Hardware and building materials and supplies retailing       | 58D1       | 0.78                                   | 0.89                          | 2.22                                    | 2.21                           |
| Hardware and building materials and supplies retailing       | 58D101     | 0.78                                   | 0.89                          | 2.22                                    | 2.21                           |
| Major household appliance retailing                          | 58E        | 1.71                                   | 2.96                          | 4.64                                    | 6.43                           |
| Major household appliance retailing                          | 58E1       | 1.71                                   | 2.96                          | 4.64                                    | 6.43                           |
| Major household appliance retailing                          | 58E101     | 1.71                                   | 2.96                          | 4.64                                    | 6.43                           |
| Fuels and lubricants retailing                               | 58F        | 8.67                                   | 4.33                          | 4.85                                    | 6.56                           |
| Fuels and lubricants retailing                               | 58F1       | 8.67                                   | 4.33                          | 4.85                                    | 6.56                           |
| Automotive fuels and lubricants retailing                    | 58F101     | 9.63                                   | 5.43                          | 6.02                                    | 8.29                           |
| Household fuels retailing                                    | 58F102     | 3.89                                   | 3.44                          | 4.00                                    | 4.38                           |
| Cleaning supplies and paper products retailing               | 58G        | 0.29                                   | 1.61                          | 7.34                                    | 5.83                           |

**Table 2. Variance estimates for selected Producer Price Index commodity-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Cleaning supplies and paper products retailing                                    | 58G1       | 0.29                                   | 1.61                          | 7.34                                    | 5.83                           |
| Cleaning supplies and paper products retailing                                    | 58G101     | 0.29                                   | 1.61                          | 7.34                                    | 5.83                           |
| Book retailing  | 58H        | 3.52                                   | 3.79                          | 3.92                                    | 7.70                           |
| Book retailing  | 58H1       | 3.52                                   | 3.79                          | 3.92                                    | 7.70                           |
| Book retailing  | 58H101     | 3.52                                   | 3.79                          | 3.92                                    | 7.70                           |
| Other merchandise retailing (partial)   | 58I        | 0.92                                   | 1.30                          | 1.60                                    | 2.27                           |
| Other merchandise retailing (partial)   | 58I1       | 0.92                                   | 1.30                          | 1.60                                    | 2.27                           |
| Other merchandise retailing (partial)   | 58I101     | 0.92                                   | 1.30                          | 1.60                                    | 2.27                           |
|   |            |  |                               |   |                                |
| Metal treatment services  | 59         | 0.09                                   | 0.13                          | 1.25                                    | 0.58                           |
| Metal treatment services  | 591        | 0.09                                   | 0.13                          | 1.25                                    | 0.58                           |
| Metal treatment services  | 5911       | 0.09                                   | 0.13                          | 1.25                                    | 0.58                           |
| Metal plating and polishing   | 591101     | 0.17                                   | 0.24                          | 1.78                                    | 1.09                           |
| Metal coating and allied services   | 591102     | 0.06                                   | 0.16                          | 1.11                                    | 0.88                           |
| Metal heat treating   | 591103     | 0.00                                   | 0.00                          | 0.61                                    | 0.54                           |
|   |            |  |                               |   |                                |
| Mining services   | 60         | 0.16                                   | 0.27                          | 1.89                                    | 1.15                           |
| Mining services   | 601        | 0.16                                   | 0.27                          | 1.89                                    | 1.15                           |
| Mining services   | 6011       | 0.16                                   | 0.27                          | 1.89                                    | 1.15                           |
| Metal mining services   | 601101     | 0.03                                   | 0.11                          | 2.25                                    | 2.63                           |
| Support activities for coal mining  | 601102     | 0.10                                   | 0.11                          | 0.76                                    | 1.07                           |
| Drilling oil and gas wells services   | 601103     | 0.41                                   | 0.50                          | 4.82                                    | 3.08                           |
| Support activities for oil and gas operations                                     | 601104     | 0.18                                   | 0.20                          | 1.15                                    | 0.99                           |
| Nonmetallic minerals mining services  | 601105     | 0.00                                   | 0.00                          | 0.00                                    | 0.00                           |
|   |            |  |                               |   |                                |
| Contract work on textile products, apparel, and leather                           | 61         | 0.03                                   | 0.04                          | 0.70                                    | 0.37                           |
| Contract work on textile products and apparel                                     | 611        | 0.03                                   | 0.05                          | 0.67                                    | 0.37                           |
| Contract work on textile products and apparel                                     | 6111       | 0.03                                   | 0.05                          | 0.67                                    | 0.37                           |
| Commission receipts for throwing, texturing, or winding filament yarns            | 611101     | 0.00                                   | 0.00                          | 0.40                                    | 0.37                           |
| Contract work on textile products   | 611102     | 0.03                                   | 0.05                          | 2.69                                    | 1.06                           |
| Contract work on apparel  | 611103     | 0.00                                   | 0.03                          | 0.24                                    | 0.25                           |
| Contract & commission receipts for tanning or finishing leather owned by others   | 612        | 0.00                                   | 0.00                          | 2.95                                    | 1.30                           |
| Contract & commission receipts for tanning or finishing leather owned by others   | 6121       | 0.00                                   | 0.00                          | 2.95                                    | 1.30                           |
| Contract and commission receipts for tanning or finishing leather owned by others | 612101     | 0.00                                   | 0.00                          | 2.95                                    | 1.30                           |
|   |            |  |                               |   |                                |
|   |            |  |                               |   |                                |
| <b>Construction</b>   |            |  |                               |   |                                |
| Construction (partial)  | 80         | 0.08                                   | 0.04                          | 2.16                                    | 0.25                           |
| New nonresidential building construction  | 801        | 0.08                                   | 0.05                          | 2.19                                    | 0.20                           |
| New nonresidential building construction  | 8011       | 0.08                                   | 0.05                          | 2.19                                    | 0.20                           |
| New warehouse building construction   | 801101     | 0.21                                   | 0.09                          | 2.77                                    | 0.34                           |
| New school building construction  | 801102     | 0.17                                   | 0.11                          | 2.07                                    | 0.48                           |
| New office building construction  | 801103     | 0.09                                   | 0.09                          | 2.40                                    | 0.39                           |
| New industrial building construction  | 801104     | 0.09                                   | 0.06                          | 2.64                                    | 0.22                           |
| New health care building construction   | 801105     | 0.08                                   | 0.08                          | 1.50                                    | 0.43                           |
| Maintenance and repair of nonresidential buildings (partial)                      | 802        | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |
| Maintenance and repair of nonresidential buildings (partial)                      | 8021       | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |
| Maintenance and repair of nonresidential buildings (partial)                      | 802101     | 0.11                                   | 0.09                          | 2.41                                    | 0.91                           |

NOTE: Some indexes in this table, primarily PPIs for agricultural products, are constructed using price information not directly sampled by PPI. These secondary source data, mainly from the U.S. Department of Agriculture, but also other sources, are considered a census of available price information. No sampling variability exists in these percent change estimates, so their standard error values are zero. For more information, refer to the section titled "PPI Sampling" in the methodology paper that accompanies this year's PPI variance publication.

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| <b>Selected industry sector groupings</b>                                      |            |  |                               |   |                                |
| Total mining, utilities, and manufacturing industries                          | AMUM       | 0.29                                   | 0.10                          | 3.62                                    | 0.27                           |
| Total mining industries  | OMIN       | 1.79                                   | 0.35                          | 9.72                                    | 0.89                           |
| Total manufacturing industries   | OMFG       | 0.33                                   | 0.11                          | 3.58                                    | 0.30                           |
| Total trade industries   | ATRADE     | 0.40                                   | 0.35                          | 1.85                                    | 0.79                           |
| Total wholesale trade industries   | AWHLTR     | 0.39                                   | 0.53                          | 2.38                                    | 1.34                           |
| Total retail trade industries  | ARETTR     | 0.54                                   | 0.42                          | 1.07                                    | 0.78                           |
| Transportation and warehousing industries                                      | ATRNWR     | 0.46                                   | 0.15                          | 1.80                                    | 0.33                           |
| Transportation industries  | ATRANS     | 0.45                                   | 0.18                          | 1.73                                    | 0.35                           |
| Delivery and warehouse industries  | ADLVWR     | 0.13                                   | 0.09                          | 2.25                                    | 0.96                           |
| Services less trade, transportation, and warehousing                           | ATTDSV     | 0.14                                   | 0.10                          | 2.13                                    | 0.23                           |
| Information  | AINFO      | 0.16                                   | 0.14                          | 0.54                                    | 0.50                           |
| Selected health care industries  | ASHC       | 0.08                                   | 0.06                          | 1.47                                    | 0.30                           |
| Other selected services less trade, transportation, and warehousing industries | ASTDSV     | 0.25                                   | 0.15                          | 3.03                                    | 0.36                           |
| <b>Logging</b>   |            |  |                               |   |                                |
| Logging  | 1133       | 0.52                                   | 0.39                          | 0.92                                    | 2.39                           |
| Logging  | 11331      | 0.52                                   | 0.39                          | 0.92                                    | 2.39                           |
| Logging  | 113310     | 0.52                                   | 0.39                          | 0.92                                    | 2.39                           |
| <b>Mining</b>  |            |  |                               |   |                                |
| Oil and gas extraction   | 211        | 3.69                                   | 0.62                          | 17.49                                   | 1.53                           |
| Oil and gas extraction   | 2111       | 3.69                                   | 0.62                          | 17.49                                   | 1.53                           |
| Crude petroleum and natural gas extraction                                     | 211111     | 4.11                                   | 0.68                          | 15.44                                   | 1.80                           |
| Natural gas liquids extraction   | 211112     | 4.38                                   | 1.11                          | 34.17                                   | 3.21                           |
| Mining (except oil & gas)  | 212        | 0.22                                   | 0.54                          | 5.65                                    | 1.61                           |
| Coal mining  | 2121       | 0.46                                   | 0.51                          | 3.52                                    | 3.10                           |
| Coal mining  | 21211      | 0.46                                   | 0.51                          | 3.52                                    | 3.10                           |
| Bituminous coal and lignite surface mining                                     | 212111     | 0.76                                   | 0.96                          | 2.23                                    | 2.92                           |
| Bituminous coal underground mining   | 212112     | 0.46                                   | 0.43                          | 7.79                                    | 5.99                           |
| Anthracite mining  | 212113     | 0.57                                   | 0.33                          | 1.95                                    | 2.10                           |
| Metal ore mining   | 2122       | 0.96                                   | 1.80                          | 14.82                                   | 3.78                           |
| Iron ore mining  | 21221      | 1.10                                   | 1.27                          | 6.57                                    | 7.10                           |
| Iron ore mining  | 212210     | 1.10                                   | 1.27                          | 6.57                                    | 7.10                           |
| Gold ore & silver ore mining   | 21222      | 1.73                                   | 0.64                          | 3.00                                    | 1.12                           |
| Gold ore mining  | 212221     | 1.73                                   | 0.64                          | 3.00                                    | 1.12                           |
| Copper, nickel, lead & zinc mining   | 21223      | 1.91                                   | 4.15                          | 25.04                                   | 5.09                           |
| Copper, nickel, lead and zinc mining   | 212230     | 1.91                                   | 4.15                          | 25.04                                   | 5.09                           |
| Other metal ore mining   | 21229      | 4.07                                   | 2.30                          | 32.29                                   | 19.71                          |
| Other metal ore mining   | 212290     | 4.07                                   | 2.30                          | 32.30                                   | 19.71                          |
| Nonmetallic mineral mining & quarrying   | 2123       | 0.25                                   | 0.17                          | 1.82                                    | 1.46                           |
| Stone mining & quarrying   | 21231      | 0.24                                   | 0.27                          | 2.89                                    | 2.74                           |
| Dimension stone mining and quarrying   | 212311     | 0.00                                   | 0.00                          | 1.67                                    | 1.14                           |
| Crushed and broken limestone mining  | 212312     | 0.16                                   | 0.21                          | 2.69                                    | 3.95                           |
| Crushed and broken granite mining  | 212313     | 0.56                                   | 0.57                          | 3.91                                    | 1.86                           |
| Other crushed and broken stone mining  | 212319     | 0.79                                   | 1.44                          | 1.69                                    | 1.94                           |
| Sand/gravel/clay/refractory minerals mining                                    | 21232      | 0.15                                   | 0.16                          | 3.16                                    | 0.64                           |
| Construction sand and gravel mining  | 212321     | 0.15                                   | 0.18                          | 3.78                                    | 0.63                           |
| Industrial sand mining   | 212322     | 0.13                                   | 0.41                          | 1.93                                    | 2.54                           |
| Kaolin and ball clay mining  | 212324     | 0.30                                   | 0.08                          | 1.96                                    | 1.59                           |
| Clay, ceramic, and refractory minerals mining                                  | 212325     | 0.50                                   | 0.98                          | 0.77                                    | 1.06                           |
| Other nonmetallic mineral mining & quarrying                                   | 21239      | 0.28                                   | 0.36                          | 4.31                                    | 1.20                           |
| Potash, soda, and borate mineral mining  | 212391     | 0.69                                   | 0.59                          | 7.13                                    | 1.85                           |
| Other chemical and fertilizer mineral mining                                   | 212393     | 0.37                                   | 0.51                          | 0.70                                    | 3.03                           |
| All other nonmetallic mineral mining   | 212399     | 0.13                                   | 0.17                          | 2.13                                    | 0.71                           |



**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Mining support activities  | 213        | 0.16                                   | 0.25                          | 1.85                                    | 1.06                           |
| Mining support activities  | 2131       | 0.16                                   | 0.25                          | 1.85                                    | 1.06                           |
| Mining support activities  | 21311      | 0.16                                   | 0.25                          | 1.85                                    | 1.06                           |
| Drilling oil and gas wells   | 213111     | 0.39                                   | 0.48                          | 4.61                                    | 2.92                           |
| Support activities for oil and gas operations                                    | 213112     | 0.19                                   | 0.24                          | 0.98                                    | 0.98                           |
| Support activities for coal mining   | 213113     | 0.10                                   | 0.12                          | 0.76                                    | 1.06                           |
| Support activities for metal mining  | 213114     | 0.03                                   | 0.11                          | 2.23                                    | 2.64                           |
| Support activities for nonmetallic minerals (except fuels) mining                | 213115     | 0.00                                   | 0.00                          | 0.00                                    | 0.00                           |
| <b>Utilities</b>   |            |  |                               |   |                                |
| Utilities  | 221        | 0.81                                   | 0.31                          | 5.00                                    | 1.00                           |
| Electric power generation, transmission, and distribution                        | 2211       | 0.50                                   | 0.36                          | 3.95                                    | 1.22                           |
| Electric power generation  | 22111      | 2.46                                   | 1.30                          | 2.81                                    | 3.89                           |
| Electric power generation  | 221110     | 2.45                                   | 1.31                          | 2.79                                    | 3.91                           |
| Electric power transmission, control, and distribution                           | 22112      | 0.91                                   | 0.28                          | 4.03                                    | 1.08                           |
| Electric bulk power transmission and control                                     | 221121     | 0.66                                   | 0.25                          | 2.78                                    | 2.21                           |
| Electric power distribution  | 221122     | 0.94                                   | 0.29                          | 4.06                                    | 1.09                           |
| Natural gas distribution   | 2212       | 1.59                                   | 0.55                          | 7.81                                    | 0.99                           |
| Natural gas distribution   | 22121      | 1.59                                   | 0.55                          | 7.81                                    | 0.99                           |
| Natural gas distribution   | 221210     | 1.59                                   | 0.55                          | 7.81                                    | 0.99                           |
| <b>Construction</b>  |            |  |                               |   |                                |
| New industrial building construction   | 236211     | 0.08                                   | 0.06                          | 2.64                                    | 0.22                           |
| New warehouse building construction  | 236221     | 0.21                                   | 0.09                          | 2.76                                    | 0.34                           |
| New school building construction   | 236222     | 0.17                                   | 0.11                          | 2.07                                    | 0.48                           |
| New office building construction   | 236223     | 0.09                                   | 0.09                          | 2.40                                    | 0.39                           |
| New health care building construction  | 236224     | 0.08                                   | 0.08                          | 1.50                                    | 0.43                           |
| Concrete contractors, nonresidential building work                               | 23811X     | 0.11                                   | 0.07                          | 3.39                                    | 0.36                           |
| Roofing contractors, nonresidential building work                                | 23816X     | 0.14                                   | 0.06                          | 2.38                                    | 0.62                           |
| Electrical contractors, nonresidential building work                             | 23821X     | 0.14                                   | 0.05                          | 1.88                                    | 0.22                           |
| Plumbing, heating and air-conditioning contractors, nonresidential building work | 23822X     | 0.10                                   | 0.09                          | 1.91                                    | 0.65                           |
| Nonresidential building maintenance & repair                                     | 2381MR     | 0.11                                   | 0.09                          | 2.41                                    | 0.93                           |
| <b>Manufacturing</b>   |            |  |                               |   |                                |
| Food mfg   | 311        | 0.42                                   | 0.22                          | 1.44                                    | 0.40                           |
| Animal food mfg  | 3111       | 0.25                                   | 0.15                          | 1.01                                    | 0.55                           |
| Animal food mfg  | 31111      | 0.22                                   | 0.14                          | 1.02                                    | 0.53                           |
| Dog and cat food manufacturing   | 311111     | 0.01                                   | 0.10                          | 0.85                                    | 0.75                           |
| Other animal food manufacturing  | 311119     | 0.37                                   | 0.22                          | 1.32                                    | 0.72                           |
| Grain & oilseed milling  | 3112       | 0.21                                   | 0.29                          | 1.17                                    | 0.63                           |
| Flour milling & malt mfg   | 31121      | 1.14                                   | 0.40                          | 3.87                                    | 1.12                           |
| Flour milling  | 311211     | 1.50                                   | 0.52                          | 3.49                                    | 1.51                           |
| Rice milling   | 311212     | 1.03                                   | 0.41                          | 6.36                                    | 1.58                           |
| Malt manufacturing   | 311213     | 0.00                                   | 0.00                          | 3.44                                    | 1.08                           |
| Starch & vegetable fats & oils mfg   | 31122      | 0.67                                   | 0.45                          | 2.72                                    | 0.89                           |
| Wet corn milling   | 311221     | 0.56                                   | 0.77                          | 1.95                                    | 1.72                           |
| Soybean and other oilseed processing   | 311224     | 1.62                                   | 0.65                          | 7.15                                    | 1.60                           |
| Fats and oils refining and blending  | 311225     | 0.66                                   | 0.62                          | 4.98                                    | 1.19                           |
| Breakfast cereal manufacturing   | 31123      | 0.00                                   | 0.01                          | 0.34                                    | 0.58                           |
| Breakfast cereal manufacturing   | 311230     | 0.00                                   | 0.01                          | 0.34                                    | 0.58                           |
| Sugar & confectionery product mfg  | 3113       | 0.19                                   | 0.18                          | 1.82                                    | 1.08                           |
| Sugar mfg  | 31131      | 0.64                                   | 0.45                          | 1.05                                    | 1.31                           |
| Beet sugar manufacturing   | 311313     | 0.75                                   | 0.51                          | 5.30                                    | 2.82                           |
| Sugar cane mills and cane sugar refining   | 311314     | 0.79                                   | 0.32                          | 2.33                                    | 1.19                           |
| Nonchocolate confectionery mfg   | 31134      | 0.12                                   | 0.15                          | 2.33                                    | 0.83                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Nonchocolate confectionery manufacturing                             | 311340     | 0.12                                   | 0.15                          | 2.33                                    | 0.83                           |
| Chocolate and confectionery manufacturing                            | 31135      | 0.33                                   | 0.16                          | 2.00                                    | 1.69                           |
| Chocolate and confectionery mfg. from cacao                          | 311351     | 1.01                                   | 0.35                          | 1.16                                    | 3.63                           |
| Confectionery mfg. from purchased chocolate                          | 311352     | 0.01                                   | 0.03                          | 2.71                                    | 1.74                           |
| Fruit & vegetable preserving & specialty food mfg                    | 3114       | 0.20                                   | 0.21                          | 1.37                                    | 0.85                           |
| Frozen food manufacturing  | 31141      | 0.22                                   | 0.23                          | 1.53                                    | 1.04                           |
| Frozen fruit and vegetable manufacturing                             | 311411     | 0.28                                   | 0.45                          | 3.76                                    | 1.70                           |
| Frozen specialty food manufacturing                                  | 311412     | 0.17                                   | 0.13                          | 0.62                                    | 0.84                           |
| Fruit & vegetable canning, pickling & drying                         | 31142      | 0.18                                   | 0.25                          | 1.18                                    | 1.18                           |
| Fruit and vegetable canning  | 311421     | 0.17                                   | 0.33                          | 1.77                                    | 1.98                           |
| Specialty canning  | 311422     | 0.31                                   | 0.46                          | 0.27                                    | 0.77                           |
| Dried and dehydrated food manufacturing                              | 311423     | 0.06                                   | 0.18                          | 1.50                                    | 0.68                           |
| Dairy product mfg  | 3115       | 0.77                                   | 0.22                          | 4.56                                    | 0.47                           |
| Dairy product (except frozen) mfg                                    | 31151      | 0.89                                   | 0.23                          | 4.90                                    | 0.54                           |
| Fluid milk manufacturing   | 311511     | 0.78                                   | 0.26                          | 3.80                                    | 0.60                           |
| Creamery butter manufacturing  | 311512     | 3.57                                   | 1.14                          | 13.45                                   | 1.13                           |
| Cheese manufacturing   | 311513     | 1.27                                   | 0.39                          | 4.54                                    | 1.10                           |
| Dry, condensed, and evaporated dairy products                        | 311514     | 1.31                                   | 0.46                          | 4.86                                    | 1.51                           |
| Ice cream and frozen dessert mfg                                     | 31152      | 0.15                                   | 0.27                          | 2.51                                    | 0.56                           |
| Ice cream and frozen dessert manufacturing                           | 311520     | 0.15                                   | 0.27                          | 2.51                                    | 0.56                           |
| Animal slaughtering & processing                                     | 31161      | 2.24                                   | 0.78                          | 1.17                                    | 1.17                           |
| Animal, except poultry, slaughtering                                 | 311611     | 2.34                                   | 1.41                          | 2.54                                    | 1.77                           |
| Meat processed from carcasses  | 311612     | 1.03                                   | 0.66                          | 2.13                                    | 1.74                           |
| Rendering and meat byproduct processing                              | 311613     | 1.86                                   | 1.26                          | 7.46                                    | 4.64                           |
| Poultry processing   | 311615     | 1.35                                   | 0.98                          | 3.65                                    | 2.28                           |
| Seafood product preparation & packaging                              | 3117       | 0.45                                   | 0.47                          | 3.54                                    | 1.64                           |
| Seafood product preparation and packaging                            | 31171      | 0.45                                   | 0.47                          | 3.54                                    | 1.64                           |
| Seafood product preparation and packaging                            | 311710     | 0.45                                   | 0.47                          | 3.54                                    | 1.64                           |
| Bakeries & tortilla mfg  | 3118       | 0.18                                   | 0.18                          | 0.24                                    | 0.32                           |
| Bread & bakery product mfg   | 31181      | 0.20                                   | 0.27                          | 0.56                                    | 0.49                           |
| Retail bakeries  | 311811     | 0.28                                   | 0.48                          | 3.40                                    | 2.00                           |
| Commercial bakeries  | 311812     | 0.16                                   | 0.35                          | 0.40                                    | 0.54                           |
| Frozen cakes and other pastries manufacturing                        | 311813     | 0.07                                   | 0.07                          | 0.26                                    | 0.40                           |
| Cookie, cracker & pasta mfg  | 31182      | 0.04                                   | 0.08                          | 0.26                                    | 0.26                           |
| Cookie and cracker manufacturing                                     | 311821     | 0.02                                   | 0.02                          | 0.07                                    | 0.17                           |
| Dry pasta, dough, and flour mixes manufacturing from purchased flour | 311824     | 0.11                                   | 0.17                          | 0.95                                    | 0.51                           |
| Tortilla mfg   | 31183      | 0.06                                   | 0.08                          | 2.64                                    | 1.32                           |
| Tortilla manufacturing   | 311830     | 0.06                                   | 0.08                          | 2.64                                    | 1.32                           |
| Other food manufacturing   | 3119       | 0.33                                   | 0.32                          | 1.48                                    | 1.28                           |
| Snack food mfg   | 31191      | 0.12                                   | 0.19                          | 0.73                                    | 0.76                           |
| Roasted nuts and peanut butter manufacturing                         | 311911     | 0.31                                   | 0.65                          | 2.10                                    | 2.21                           |
| Other snack food manufacturing                                       | 311919     | 0.04                                   | 0.04                          | 0.26                                    | 0.47                           |
| Coffee & tea mfg   | 31192      | 0.18                                   | 0.26                          | 1.44                                    | 1.20                           |
| Coffee and tea manufacturing   | 311920     | 0.18                                   | 0.26                          | 1.44                                    | 1.20                           |
| Flavoring syrup & concentrate mfg                                    | 31193      | 0.03                                   | 0.04                          | 1.60                                    | 0.48                           |
| Flavoring syrup and concentrate manufacturing                        | 311930     | 0.03                                   | 0.04                          | 1.60                                    | 0.48                           |
| Seasoning & dressing mfg   | 31194      | 0.28                                   | 0.26                          | 8.12                                    | 4.57                           |
| Mayonnaise, dressing, and sauce manufacturing                        | 311941     | 0.04                                   | 0.04                          | 0.37                                    | 0.57                           |
| Spice and extract manufacturing                                      | 311942     | 0.38                                   | 0.35                          | 14.87                                   | 8.01                           |
| All other food mfg   | 31199      | 1.08                                   | 0.51                          | 7.72                                    | 2.02                           |
| Perishable prepared food manufacturing                               | 311991     | 0.17                                   | 0.17                          | 0.72                                    | 0.87                           |
| All other miscellaneous food manufacturing                           | 311999     | 2.24                                   | 0.92                          | 13.83                                   | 3.22                           |
|  |            |  |                               |   |                                |
| Beverage & tobacco mfg   | 312        | 0.09                                   | 0.19                          | 1.63                                    | 0.56                           |
| Beverage mfg   | 3121       | 0.13                                   | 0.30                          | 0.23                                    | 0.79                           |
| Soft drink & ice mfg   | 31211      | 0.25                                   | 0.56                          | 1.40                                    | 1.23                           |
| Soft drink manufacturing   | 312111     | 0.36                                   | 0.56                          | 1.17                                    | 1.37                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Bottled water manufacturing                                     | 312112     | 0.60                                   | 1.14                          | 5.31                                    | 2.18                           |
| Ice manufacturing   | 312113     | 0.00                                   | 0.00                          | 0.42                                    | 0.48                           |
| Breweries   | 31212      | 0.01                                   | 0.04                          | 1.37                                    | 1.50                           |
| Breweries   | 312120     | 0.01                                   | 0.04                          | 1.37                                    | 1.50                           |
| Wineries  | 31213      | 0.05                                   | 0.20                          | 2.00                                    | 2.89                           |
| Wineries  | 312130     | 0.05                                   | 0.20                          | 2.00                                    | 2.89                           |
| Distilleries  | 31214      | 0.03                                   | 0.04                          | 0.51                                    | 0.54                           |
| Distilleries  | 312140     | 0.03                                   | 0.04                          | 0.51                                    | 0.54                           |
| Tobacco mfg   | 3122       | 0.03                                   | 0.02                          | 4.74                                    | 0.57                           |
| Tobacco manufacturing   | 31223      | 0.03                                   | 0.02                          | 4.74                                    | 0.57                           |
| Tobacco manufacturing   | 312230     | 0.03                                   | 0.02                          | 4.74                                    | 0.57                           |
|   |            |  |                               |   |                                |
| Textile mills   | 313        | 0.10                                   | 0.11                          | 0.79                                    | 0.58                           |
| Fiber, yarn, and thread mills                                   | 3131       | 0.20                                   | 0.15                          | 2.48                                    | 0.50                           |
| Fiber, yarn, and thread mills                                   | 31311      | 0.20                                   | 0.15                          | 2.48                                    | 0.50                           |
| Fiber, yarn, and thread mills                                   | 313110     | 0.20                                   | 0.15                          | 2.48                                    | 0.50                           |
| Fabric mills  | 3132       | 0.21                                   | 0.15                          | 0.39                                    | 0.97                           |
| Broadwoven fabric mills   | 31321      | 0.24                                   | 0.11                          | 0.66                                    | 0.57                           |
| Broadwoven fabric mills   | 313210     | 0.24                                   | 0.11                          | 0.66                                    | 0.58                           |
| Narrow fabric mills and schiffli embroidery                     | 31322      | 0.25                                   | 0.14                          | 4.12                                    | 1.44                           |
| Narrow fabric mills and schiffli machine embroidery             | 313220     | 0.25                                   | 0.14                          | 4.12                                    | 1.44                           |
| Nonwoven fabric mills   | 31323      | 0.17                                   | 0.23                          | 2.18                                    | 2.20                           |
| Nonwoven fabric mills   | 313230     | 0.17                                   | 0.23                          | 2.20                                    | 2.20                           |
| Knit fabric mills   | 31324      | 0.00                                   | 0.00                          | 1.04                                    | 1.83                           |
| Knit fabric mills   | 313240     | 0.00                                   | 0.00                          | 1.04                                    | 1.83                           |
| Textile and fabric finishing mills                              | 3133       | 0.04                                   | 0.08                          | 1.51                                    | 0.85                           |
| Textile and fabric finishing mills                              | 31331      | 0.03                                   | 0.04                          | 2.04                                    | 1.16                           |
| Textile and fabric finishing mills                              | 313310     | 0.03                                   | 0.04                          | 2.04                                    | 1.16                           |
| Fabric coating mills  | 31332      | 0.07                                   | 0.19                          | 0.30                                    | 0.52                           |
| Fabric coating mills  | 313320     | 0.07                                   | 0.19                          | 0.30                                    | 0.52                           |
|   |            |  |                               |   |                                |
| Textile product mills   | 314        | 0.16                                   | 0.21                          | 1.22                                    | 0.73                           |
| Textile furnishings mills                                       | 3141       | 0.22                                   | 0.31                          | 1.61                                    | 1.07                           |
| Carpet and rug mills  | 31411      | 0.28                                   | 0.44                          | 1.19                                    | 1.44                           |
| Carpet and rug mills  | 314110     | 0.28                                   | 0.44                          | 1.19                                    | 1.44                           |
| Curtain and linen mills   | 31412      | 0.19                                   | 0.22                          | 2.53                                    | 0.85                           |
| Curtain and linen mills   | 314120     | 0.19                                   | 0.22                          | 2.54                                    | 0.85                           |
| Other textile product mills                                     | 3149       | 0.08                                   | 0.07                          | 0.36                                    | 0.48                           |
| Textile bag and canvas mills                                    | 31491      | 0.09                                   | 0.09                          | 1.15                                    | 0.48                           |
| Textile bag and canvas mills                                    | 314910     | 0.09                                   | 0.09                          | 1.15                                    | 0.47                           |
| All other textile product mills                                 | 31499      | 0.10                                   | 0.09                          | 0.22                                    | 0.69                           |
| Rope, twine, tire cord, and tire fabric mills                   | 314994     | 0.28                                   | 0.22                          | 0.65                                    | 0.72                           |
| All other miscellaneous textile product mills                   | 314999     | 0.13                                   | 0.08                          | 0.33                                    | 0.91                           |
|   |            |  |                               |   |                                |
| Apparel manufacturing   | 315        | 0.05                                   | 0.08                          | 1.02                                    | 0.43                           |
| Apparel knitting mills  | 3151       | 0.00                                   | 0.01                          | 0.48                                    | 0.66                           |
| Hosiery and sock mills  | 31511      | 0.00                                   | 0.00                          | 0.16                                    | 0.80                           |
| Hosiery and sock mills  | 315110     | 0.00                                   | 0.00                          | 0.16                                    | 0.78                           |
| Other apparel knitting mills                                    | 31519      | 0.00                                   | 0.00                          | 1.03                                    | 1.02                           |
| Other apparel knitting mills                                    | 315190     | 0.00                                   | 0.00                          | 1.02                                    | 1.01                           |
| Cut and sew apparel manufacturing                               | 3152       | 0.04                                   | 0.08                          | 1.00                                    | 0.52                           |
| Cut and sew apparel contractors                                 | 31521      | 0.01                                   | 0.08                          | 0.06                                    | 0.39                           |
| Cut and sew apparel contractors                                 | 315210     | 0.01                                   | 0.08                          | 0.05                                    | 0.39                           |
| Men's and boys' cut and sew apparel mfg                         | 31522      | 0.06                                   | 0.05                          | 0.91                                    | 0.28                           |
| Men's and boys' cut and sew apparel manufacturing               | 315220     | 0.06                                   | 0.05                          | 0.90                                    | 0.28                           |
| Women's & girls' cut & sew apparel mfg.                         | 31524      | 0.07                                   | 0.08                          | 1.50                                    | 0.99                           |
| Women's, girls', and infants' cut and sew apparel manufacturing | 315240     | 0.06                                   | 0.08                          | 1.34                                    | 0.88                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Other cut and sew apparel manufacturing            | 31528      | 0.05                                   | 0.08                          | 1.13                                    | 0.52                           |
| Other cut and sew apparel manufacturing            | 315280     | 0.05                                   | 0.08                          | 1.13                                    | 0.51                           |
| Accessories and other apparel manufacturing        | 3159       | 0.18                                   | 0.16                          | 1.95                                    | 0.82                           |
| Accessories and other apparel manufacturing        | 31599      | 0.18                                   | 0.16                          | 1.95                                    | 0.83                           |
| Accessories and other apparel manufacturing        | 315990     | 0.18                                   | 0.15                          | 1.97                                    | 0.84                           |
|  |            |  |                               |   |                                |
| Leather and allied product manufacturing           | 316        | 0.28                                   | 0.11                          | 0.78                                    | 0.46                           |
| Leather and hide tanning and finishing             | 3161       | 1.14                                   | 0.46                          | 4.52                                    | 1.36                           |
| Leather and hide tanning and finishing             | 31611      | 1.14                                   | 0.46                          | 4.52                                    | 1.36                           |
| Leather and hide tanning and finishing             | 316110     | 1.14                                   | 0.46                          | 4.52                                    | 1.36                           |
| Footwear manufacturing                             | 3162       | 0.09                                   | 0.04                          | 0.81                                    | 0.59                           |
| Footwear manufacturing                             | 31621      | 0.09                                   | 0.04                          | 0.81                                    | 0.59                           |
| Footwear manufacturing                             | 316210     | 0.09                                   | 0.04                          | 0.80                                    | 0.59                           |
| Other leather product manufacturing                | 3169       | 0.07                                   | 0.06                          | 1.05                                    | 0.80                           |
| Other leather product manufacturing                | 31699      | 0.07                                   | 0.06                          | 1.05                                    | 0.80                           |
| Women's handbag and purse manufacturing            | 316992     | 0.03                                   | 0.05                          | 0.98                                    | 0.95                           |
| All other leather and allied good mfg.             | 316998     | 0.09                                   | 0.09                          | 1.18                                    | 1.10                           |
|  |            |  |                               |   |                                |
| Wood product manufacturing                         | 321        | 0.54                                   | 0.15                          | 3.94                                    | 0.42                           |
| Sawmills and wood preservation                     | 3211       | 0.75                                   | 0.45                          | 4.71                                    | 1.09                           |
| Sawmills and wood preservation                     | 32111      | 0.75                                   | 0.45                          | 4.71                                    | 1.09                           |
| Sawmills   | 321113     | 0.91                                   | 0.56                          | 6.58                                    | 1.42                           |
| Wood preservation                                  | 321114     | 0.44                                   | 0.42                          | 1.75                                    | 1.27                           |
| Plywood and engineered wood product mfg            | 3212       | 1.13                                   | 0.29                          | 7.21                                    | 0.81                           |
| Plywood and engineered wood product mfg            | 32121      | 1.13                                   | 0.29                          | 7.21                                    | 0.81                           |
| Hardwood veneer and plywood manufacturing          | 321211     | 0.48                                   | 0.54                          | 2.27                                    | 1.78                           |
| Softwood veneer and plywood manufacturing          | 321212     | 2.46                                   | 0.61                          | 5.22                                    | 2.03                           |
| Engineered wood member manufacturing               | 321213     | 0.59                                   | 0.44                          | 3.89                                    | 1.21                           |
| Truss manufacturing                                | 321214     | 0.86                                   | 0.51                          | 8.34                                    | 2.35                           |
| Reconstituted wood product manufacturing           | 321219     | 1.94                                   | 0.56                          | 9.84                                    | 1.12                           |
| Other wood product manufacturing                   | 3219       | 0.32                                   | 0.15                          | 2.94                                    | 0.49                           |
| Millwork   | 32191      | 0.45                                   | 0.19                          | 3.42                                    | 0.72                           |
| Wood window and door manufacturing                 | 321911     | 0.28                                   | 0.15                          | 2.94                                    | 0.64                           |
| Cut stock, resawing lumber, and planing            | 321912     | 0.43                                   | 0.45                          | 8.32                                    | 2.44                           |
| Other millwork, including flooring                 | 321918     | 0.20                                   | 0.37                          | 0.61                                    | 1.57                           |
| Wood container and pallet manufacturing            | 32192      | 0.16                                   | 0.17                          | 1.11                                    | 0.75                           |
| Wood container and pallet manufacturing            | 321920     | 0.16                                   | 0.17                          | 1.11                                    | 0.75                           |
| All other wood product manufacturing               | 32199      | 0.37                                   | 0.14                          | 2.70                                    | 0.77                           |
| Manufactured home, mobile home, manufacturing      | 321991     | 0.43                                   | 0.23                          | 3.28                                    | 0.85                           |
| Prefabricated wood building manufacturing          | 321992     | 0.31                                   | 0.21                          | 4.67                                    | 1.53                           |
| All other miscellaneous wood product manufacturing | 321999     | 0.06                                   | 0.10                          | 0.61                                    | 1.29                           |
|  |            |  |                               |   |                                |
| Paper manufacturing                                | 322        | 0.09                                   | 0.17                          | 2.71                                    | 0.46                           |
| Pulp, paper & paperboard mills                     | 3221       | 0.42                                   | 0.36                          | 3.17                                    | 0.51                           |
| Pulp mills   | 32211      | 1.96                                   | 1.53                          | 8.10                                    | 3.60                           |
| Pulp mills   | 322110     | 1.96                                   | 1.53                          | 8.10                                    | 3.60                           |
| Paper mills  | 32212      | 0.53                                   | 0.55                          | 0.91                                    | 0.70                           |
| Paper, except newsprint, mills                     | 322121     | 0.57                                   | 0.59                          | 0.98                                    | 0.74                           |
| Newsprint mills                                    | 322122     | 0.57                                   | 0.57                          | 2.85                                    | 0.82                           |
| Paperboard mills                                   | 32213      | 0.36                                   | 0.23                          | 11.26                                   | 0.64                           |
| Paperboard mills                                   | 322130     | 0.36                                   | 0.23                          | 11.26                                   | 0.64                           |
| Converted paper product mfg                        | 3222       | 0.18                                   | 0.18                          | 2.83                                    | 0.60                           |
| Paper container mfg                                | 32221      | 0.36                                   | 0.28                          | 5.25                                    | 1.02                           |
| Corrugated and solid fiber box manufacturing       | 322211     | 0.21                                   | 0.23                          | 7.88                                    | 1.34                           |
| Folding paperboard box manufacturing               | 322212     | 0.18                                   | 0.17                          | 1.33                                    | 1.41                           |
| Other paperboard container manufacturing           | 322219     | 0.19                                   | 0.10                          | 2.18                                    | 1.13                           |
| Paper bag and coated and treated paper mfg         | 32222      | 0.09                                   | 0.22                          | 0.44                                    | 0.50                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Paper bag and coated and treated paper manufacturing                  | 322220     | 0.09                                   | 0.22                          | 0.44                                    | 0.51                           |
| Stationery product mfg  | 32223      | 0.15                                   | 0.32                          | 0.91                                    | 0.59                           |
| Stationery product manufacturing                                      | 322230     | 0.15                                   | 0.32                          | 0.91                                    | 0.58                           |
| Other converted paper product mfg                                     | 32229      | 0.07                                   | 0.20                          | 0.72                                    | 0.72                           |
| Sanitary paper product manufacturing                                  | 322291     | 0.11                                   | 0.28                          | 0.98                                    | 0.99                           |
| All other converted paper product manufacturing                       | 322299     | 0.05                                   | 0.15                          | 0.30                                    | 0.81                           |
|   |            |  |                               |   |                                |
| Printing and related support activities                               | 323        | 0.07                                   | 0.08                          | 0.67                                    | 0.26                           |
| Printing and related support activities                               | 3231       | 0.07                                   | 0.08                          | 0.67                                    | 0.26                           |
| Printing  | 32311      | 0.07                                   | 0.08                          | 0.61                                    | 0.26                           |
| Commercial screen printing  | 323113     | 0.20                                   | 0.21                          | 0.44                                    | 0.85                           |
| Books printing  | 323117     | 0.11                                   | 0.14                          | 0.51                                    | 0.55                           |
| Commercial printing, except screen and books                          | 32311K     | 0.09                                   | 0.07                          | 0.78                                    | 0.30                           |
| Support activities for printing                                       | 32312      | 0.37                                   | 0.28                          | 2.13                                    | 1.07                           |
| Support activities for printing                                       | 323120     | 0.43                                   | 0.31                          | 2.35                                    | 1.20                           |
|   |            |  |                               |   |                                |
| Petroleum and coal products manufacturing                             | 324        | -                                      | -                             | -                                       | -                              |
| Petroleum and coal products mfg                                       | 3241       | -                                      | -                             | -                                       | -                              |
| Petroleum refineries  | 32411      | 2.11                                   | 1.05                          | 25.96                                   | 3.48                           |
| Petroleum refineries  | 324110     | 2.11                                   | 1.05                          | 25.96                                   | 3.48                           |
| Asphalt paving and roofing materials mfg                              | 32412      | 0.47                                   | 0.49                          | 0.57                                    | 1.12                           |
| Asphalt paving mixture & block manufacturing                          | 324121     | 1.14                                   | 0.55                          | 1.10                                    | 1.36                           |
| Asphalt shingle and coating materials manufacturing                   | 324122     | 0.59                                   | 0.57                          | 1.08                                    | 1.88                           |
| Other petroleum and coal products mfg                                 | 32419      | 0.54                                   | 0.32                          | 3.21                                    | 1.39                           |
| Petroleum lubricating oil and grease mfg.                             | 324191     | 0.40                                   | 0.24                          | 2.71                                    | 0.81                           |
| All other petroleum and coal products mfg.                            | 324199     | 1.02                                   | 0.57                          | 4.12                                    | 4.39                           |
|   |            |  |                               |   |                                |
| Chemical mfg  | 325        | 0.37                                   | 0.17                          | 3.94                                    | 0.47                           |
| Basic chemical mfg  | 3251       | 0.74                                   | 0.64                          | 6.89                                    | 1.41                           |
| Petrochemical mfg   | 32511      | 1.87                                   | 2.98                          | 10.55                                   | 7.81                           |
| Petrochemical manufacturing   | 325110     | 1.84                                   | 2.97                          | 10.40                                   | 7.84                           |
| Industrial gas mfg  | 32512      | 0.10                                   | 1.51                          | 4.56                                    | 6.07                           |
| Industrial gas manufacturing  | 325120     | 0.10                                   | 1.52                          | 4.61                                    | 6.09                           |
| Synthetic dye and pigment mfg   | 32513      | 0.81                                   | 1.22                          | 2.90                                    | 2.52                           |
| Synthetic dye and pigment manufacturing                               | 325130     | 0.82                                   | 1.24                          | 2.93                                    | 2.55                           |
| Other basic inorganic chemical manufacturing                          | 32518      | 0.74                                   | 0.58                          | 3.08                                    | 2.21                           |
| Other basic inorganic chemical manufacturing                          | 325180     | 0.74                                   | 0.58                          | 3.09                                    | 2.28                           |
| Other basic organic chemical mfg                                      | 32519      | 1.02                                   | 0.58                          | 6.23                                    | 1.79                           |
| Ethyl alcohol manufacturing   | 325193     | 1.92                                   | 1.74                          | 2.05                                    | 3.95                           |
| Cyclic crude, intermediate, and gum and wood chemical mfg             | 325194     | 0.92                                   | 0.78                          | 3.34                                    | 1.94                           |
| All other basic organic chemical manufacturing                        | 325199     | 1.16                                   | 0.67                          | 7.13                                    | 2.05                           |
| Resin, synthetic rubber, and artificial/synthetic fiber/filaments mfg | 3252       | 0.86                                   | 0.43                          | 4.95                                    | 1.09                           |
| Resin and synthetic rubber mfg  | 32521      | 0.92                                   | 0.46                          | 5.29                                    | 1.19                           |
| Plastics material and resins mfg                                      | 325211     | 0.85                                   | 0.49                          | 5.10                                    | 1.25                           |
| Synthetic rubber manufacturing  | 325212     | 2.16                                   | 0.45                          | 5.62                                    | 1.60                           |
| Artificial fibers and filaments manufacturing                         | 32522      | 0.29                                   | 0.27                          | 1.66                                    | 0.83                           |
| Artificial fibers and filaments manufacturing                         | 325220     | 0.29                                   | 0.27                          | 1.66                                    | 0.83                           |
| Pesticide, fertilizer, and other agricultural chemical mfg            | 3253       | 1.29                                   | 0.70                          | 2.90                                    | 1.30                           |
| Fertilizer mfg  | 32531      | 1.81                                   | 0.67                          | 4.69                                    | 1.98                           |
| Nitrogenous fertilizer manufacturing                                  | 325311     | 2.83                                   | 1.60                          | 4.96                                    | 5.51                           |
| Phosphatic fertilizer manufacturing                                   | 325312     | 1.36                                   | 0.81                          | 5.67                                    | 1.58                           |
| Fertilizer, mixing only, manufacturing                                | 325314     | 0.19                                   | 0.19                          | 0.75                                    | 0.97                           |
| Pesticide and other agricultural chemical mfg                         | 32532      | 1.21                                   | 1.18                          | 1.54                                    | 1.57                           |
| Pesticide and other agricultural chemical manufacturing               | 325320     | 1.21                                   | 1.18                          | 1.54                                    | 1.57                           |
| Pharmaceutical and medicine mfg                                       | 3254       | 0.16                                   | 0.14                          | 5.21                                    | 0.90                           |
| Pharmaceutical and medicine mfg                                       | 32541      | 0.16                                   | 0.14                          | 5.21                                    | 0.90                           |
| Medicinal and botanical manufacturing                                 | 325411     | 0.00                                   | 0.01                          | 0.40                                    | 0.66                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Pharmaceutical preparation manufacturing                                    | 325412     | 0.17                                   | 0.15                          | 5.99                                    | 0.97                           |
| In-vitro diagnostic substance manufacturing                                 | 325413     | 0.28                                   | 0.49                          | 0.36                                    | 0.73                           |
| Other biological product manufacturing                                      | 325414     | 0.05                                   | 0.07                          | 1.44                                    | 3.25                           |
| Paint, coating & adhesive mfg   | 3255       | 0.24                                   | 0.14                          | 1.25                                    | 0.38                           |
| Paint and coating mfg   | 32551      | 0.26                                   | 0.19                          | 1.06                                    | 0.52                           |
| Paint and coating manufacturing   | 325510     | 0.26                                   | 0.19                          | 1.06                                    | 0.52                           |
| Adhesive mfg  | 32552      | 0.25                                   | 0.25                          | 1.91                                    | 0.60                           |
| Adhesive manufacturing  | 325520     | 0.25                                   | 0.25                          | 1.91                                    | 0.60                           |
| Soap, cleaners, and toilet preparation mfg                                  | 3256       | 0.05                                   | 0.09                          | 0.77                                    | 0.30                           |
| Soap & cleaning compound mfg  | 32561      | 0.11                                   | 0.15                          | 1.30                                    | 0.47                           |
| Soap and other detergent manufacturing                                      | 325611     | 0.02                                   | 0.03                          | 0.57                                    | 0.49                           |
| Polish and other sanitation good mfg.                                       | 325612     | 0.14                                   | 0.13                          | 0.77                                    | 0.38                           |
| Surface active agent manufacturing  | 325613     | 0.55                                   | 0.64                          | 4.09                                    | 1.85                           |
| Toilet preparation mfg  | 32562      | 0.01                                   | 0.01                          | 0.14                                    | 0.32                           |
| Toilet preparation manufacturing  | 325620     | 0.01                                   | 0.01                          | 0.14                                    | 0.32                           |
| Other chemical product & preparation mfg                                    | 3259       | 0.18                                   | 0.16                          | 1.08                                    | 0.66                           |
| Printing ink mfg  | 32591      | 0.03                                   | 0.08                          | 0.77                                    | 0.59                           |
| Printing ink manufacturing  | 325910     | 0.03                                   | 0.08                          | 0.77                                    | 0.59                           |
| Explosives mfg  | 32592      | 0.33                                   | 0.35                          | 1.49                                    | 1.57                           |
| Explosives manufacturing  | 325920     | 0.33                                   | 0.34                          | 1.48                                    | 1.57                           |
| All other chemical product & preparation mfg                                | 32599      | 0.21                                   | 0.19                          | 1.12                                    | 0.75                           |
| Custom compounding of purchased resins                                      | 325991     | 0.29                                   | 0.41                          | 1.47                                    | 1.15                           |
| Photographic film and chemical manufacturing                                | 325992     | 0.02                                   | 0.05                          | 1.79                                    | 1.29                           |
| Other miscellaneous chemical product manufacturing                          | 325998     | 0.35                                   | 0.31                          | 0.67                                    | 1.09                           |
|   |            |  |                               |   |                                |
| Plastics and rubber products mfg  | 326        | 0.23                                   | 0.11                          | 2.06                                    | 0.46                           |
| Plastics product mfg  | 3261       | 0.28                                   | 0.12                          | 2.20                                    | 0.57                           |
| Unsupported plastics film, sheet, and bag mfg                               | 32611      | 0.28                                   | 0.20                          | 3.25                                    | 0.77                           |
| Plastics bag and pouch manufacturing  | 326111     | 0.24                                   | 0.21                          | 1.61                                    | 0.55                           |
| Plastics packaging film and sheet mfg.                                      | 326112     | 0.65                                   | 0.33                          | 3.04                                    | 0.97                           |
| Nonpackaging plastics film and sheet mfg.                                   | 326113     | 0.47                                   | 0.35                          | 4.45                                    | 1.65                           |
| Plastics pipe/fitting/unsupported shapes mfg                                | 32612      | 0.56                                   | 0.54                          | 2.72                                    | 1.39                           |
| Unlaminated plastics profile shape manufacturing                            | 326121     | 0.52                                   | 0.53                          | 0.46                                    | 1.45                           |
| Plastics pipe and pipe fitting manufacturing                                | 326122     | 0.67                                   | 0.73                          | 3.74                                    | 1.99                           |
| Laminated plastics plate, sheet, and shape mfg                              | 32613      | 0.14                                   | 0.15                          | 1.14                                    | 0.47                           |
| Laminated plastics plate, sheet (except packaging), and shape manufacturing | 326130     | 0.14                                   | 0.15                          | 1.14                                    | 0.47                           |
| Polystyrene foam product mfg  | 32614      | 0.22                                   | 0.21                          | 9.47                                    | 1.09                           |
| Polystyrene foam product manufacturing                                      | 326140     | 0.22                                   | 0.21                          | 9.48                                    | 1.09                           |
| Foam product (ex polystyrene) mfg   | 32615      | 0.26                                   | 0.22                          | 1.12                                    | 1.20                           |
| Urethane and other foam product mfg.  | 326150     | 0.26                                   | 0.22                          | 1.12                                    | 1.20                           |
| Plastics bottle mfg   | 32616      | 0.33                                   | 0.21                          | 2.62                                    | 1.12                           |
| Plastics bottle manufacturing   | 326160     | 0.33                                   | 0.21                          | 2.62                                    | 1.12                           |
| Other plastics product mfg  | 32619      | 0.17                                   | 0.13                          | 1.25                                    | 0.90                           |
| Plastics plumbing fixture manufacturing                                     | 326191     | 0.07                                   | 0.08                          | 1.39                                    | 0.40                           |
| All other plastics product manufacturing                                    | 326199     | 0.16                                   | 0.13                          | 1.25                                    | 0.94                           |
| Rubber product mfg  | 3262       | 0.21                                   | 0.16                          | 1.48                                    | 0.35                           |
| Tire mfg  | 32621      | 0.33                                   | 0.30                          | 1.50                                    | 0.46                           |
| Tire manufacturing, except retreading                                       | 326211     | 0.33                                   | 0.30                          | 1.50                                    | 0.46                           |
| Rubber and plastics hose and belting  | 32622      | 0.06                                   | 0.10                          | 3.24                                    | 1.59                           |
| Rubber and plastics hose and belting mfg.                                   | 326220     | 0.06                                   | 0.10                          | 3.24                                    | 1.59                           |
| Other rubber product mfg  | 32629      | 0.07                                   | 0.06                          | 0.73                                    | 0.32                           |
| Rubber product mfg. for mechanical use                                      | 326291     | 0.04                                   | 0.04                          | 0.19                                    | 0.45                           |
| All other rubber product manufacturing                                      | 326299     | 0.14                                   | 0.09                          | 1.10                                    | 0.48                           |
|   |            |  |                               |   |                                |
| Nonmetallic mineral product manufacturing                                   | 327        | 0.19                                   | 0.10                          | 2.36                                    | 0.34                           |
| Clay product and refractory manufacturing                                   | 3271       | 0.07                                   | 0.15                          | 0.61                                    | 0.45                           |
| Pottery, ceramics, and plumbing fixture mfg                                 | 32711      | 0.12                                   | 0.14                          | 0.92                                    | 0.82                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Pottery, ceramics, and plumbing fixture mfg.  | 327110     | 0.13                                   | 0.14                          | 0.91                                    | 0.82                           |
| Clay building material and refractories mfg   | 32712      | 0.12                                   | 0.19                          | 0.40                                    | 0.51                           |
| Clay building material and refractories mfg.  | 327120     | 0.12                                   | 0.19                          | 0.40                                    | 0.51                           |
| Glass and glass product manufacturing   | 3272       | 0.08                                   | 0.06                          | 1.78                                    | 0.37                           |
| Glass and glass product manufacturing   | 32721      | 0.08                                   | 0.06                          | 1.78                                    | 0.37                           |
| Flat glass manufacturing  | 327211     | 0.23                                   | 0.28                          | 2.14                                    | 0.68                           |
| Other pressed and blown glass and glassware   | 327212     | 0.00                                   | 0.00                          | 3.94                                    | 1.14                           |
| Glass container manufacturing   | 327213     | 0.05                                   | 0.04                          | 1.08                                    | 0.72                           |
| Glass product mfg. made of purchased glass  | 327215     | 0.03                                   | 0.03                          | 0.94                                    | 0.60                           |
| Cement and concrete product manufacturing   | 3273       | 0.21                                   | 0.16                          | 2.82                                    | 0.54                           |
| Cement manufacturing  | 32731      | 0.14                                   | 0.25                          | 4.27                                    | 1.22                           |
| Cement manufacturing  | 327310     | 0.14                                   | 0.25                          | 4.27                                    | 1.22                           |
| Ready-mix concrete manufacturing  | 32732      | 0.20                                   | 0.20                          | 3.03                                    | 0.65                           |
| Ready-mix concrete manufacturing  | 327320     | 0.20                                   | 0.20                          | 3.03                                    | 0.65                           |
| Concrete pipe, brick, and block manufacturing   | 32733      | 0.23                                   | 0.31                          | 2.14                                    | 0.54                           |
| Concrete block and brick manufacturing  | 327331     | 0.19                                   | 0.14                          | 2.43                                    | 0.72                           |
| Concrete pipe manufacturing   | 327332     | 0.41                                   | 0.68                          | 1.88                                    | 1.04                           |
| Other concrete product manufacturing  | 32739      | 0.23                                   | 0.33                          | 2.90                                    | 1.43                           |
| Other concrete product manufacturing  | 327390     | 0.23                                   | 0.33                          | 2.90                                    | 1.42                           |
| Lime and gypsum product manufacturing   | 3274       | 0.24                                   | 0.23                          | 5.58                                    | 1.74                           |
| Lime manufacturing  | 32741      | 0.10                                   | 0.18                          | 1.46                                    | 0.56                           |
| Lime manufacturing  | 327410     | 0.10                                   | 0.18                          | 1.46                                    | 0.56                           |
| Gypsum product manufacturing  | 32742      | 0.37                                   | 0.31                          | 7.32                                    | 2.38                           |
| Gypsum product manufacturing  | 327420     | 0.37                                   | 0.32                          | 7.30                                    | 2.39                           |
| Other nonmetallic mineral products  | 3279       | 0.11                                   | 0.17                          | 0.98                                    | 0.42                           |
| Abrasive product manufacturing  | 32791      | 0.30                                   | 0.34                          | 1.26                                    | 0.62                           |
| Abrasive product manufacturing  | 327910     | 0.30                                   | 0.34                          | 1.27                                    | 0.63                           |
| All other nonmetallic mineral product mfg   | 32799      | 0.14                                   | 0.18                          | 0.89                                    | 0.54                           |
| Cut stone and stone product manufacturing   | 327991     | 0.38                                   | 0.41                          | 1.09                                    | 0.95                           |
| Ground or treated minerals and earths mfg.  | 327992     | 0.11                                   | 0.15                          | 0.39                                    | 0.67                           |
| Mineral wool manufacturing  | 327993     | 0.05                                   | 0.12                          | 1.25                                    | 0.85                           |
| All other miscellaneous nonmetallic mineral product manufacturing                           | 327999     | 0.12                                   | 0.09                          | 0.11                                    | 0.75                           |
|   |            |  |                               |   |                                |
| Primary metal mfg   | 331        | 0.76                                   | 0.23                          | 9.19                                    | 1.03                           |
| Iron & steel mills & ferroalloy mfg   | 3311       | 1.53                                   | 0.57                          | 13.22                                   | 2.62                           |
| Iron & steel mills & ferroalloy mfg   | 33111      | 1.53                                   | 0.57                          | 13.22                                   | 2.62                           |
| Iron and steel mills and ferroalloy mfg   | 331110     | 1.53                                   | 0.57                          | 13.23                                   | 2.62                           |
| Steel product mfg from purchased steel  | 3312       | 0.51                                   | 0.37                          | 8.52                                    | 1.27                           |
| Iron & steel pipe and tube mfg from purchased steel   | 33121      | 0.88                                   | 0.73                          | 12.22                                   | 2.80                           |
| Iron and steel pipe and tube manufacturing from purchased steel                             | 331210     | 0.88                                   | 0.73                          | 12.22                                   | 2.80                           |
| Rolling & drawing of purchased steel  | 33122      | 0.49                                   | 0.34                          | 6.67                                    | 1.31                           |
| Rolled steel shape mfg  | 331221     | 0.75                                   | 0.59                          | 11.70                                   | 2.43                           |
| Steel wire drawing  | 331222     | 0.06                                   | 0.11                          | 1.14                                    | 1.70                           |
| Alumina & aluminum production & processing  | 3313       | 1.11                                   | 0.14                          | 9.27                                    | 0.57                           |
| Alumina & aluminum production & processing  | 33131      | 1.11                                   | 0.14                          | 9.27                                    | 0.57                           |
| Secondary smelting and alloying of aluminum   | 331314     | 0.63                                   | 0.21                          | 7.04                                    | 1.14                           |
| Aluminum sheet, plate, and foil mfg   | 331315     | 1.19                                   | 0.23                          | 8.70                                    | 0.94                           |
| Other aluminum rolling, drawing, and extruding  | 331318     | 1.00                                   | 0.16                          | 9.82                                    | 1.11                           |
| Nonferrous (exc alum) production & processing   | 3314       | 1.05                                   | 0.35                          | 10.59                                   | 1.50                           |
| Nonferrous metal (except aluminum) smelting and refining                                    | 33141      | 1.02                                   | 0.74                          | 10.24                                   | 5.97                           |
| Nonferrous metal (except aluminum) smelting and refining                                    | 331410     | 0.87                                   | 0.68                          | 8.66                                    | 5.69                           |
| Copper rolling/drawing/extruding & alloying   | 33142      | 1.53                                   | 0.52                          | 15.41                                   | 1.70                           |
| Copper rolling, drawing, extruding, and alloying  | 331420     | 1.52                                   | 0.52                          | 15.33                                   | 1.69                           |
| Other nonferrous roll/draw/extruding/alloying   | 33149      | 0.82                                   | 0.48                          | 4.69                                    | 2.38                           |
| Nonferrous metal (except copper and aluminum) rolling, drawing, and extruding               | 331491     | 0.28                                   | 0.68                          | 1.36                                    | 1.66                           |
| Secondary smelting, refining, and alloying of nonferrous metal (except copper and aluminum) | 331492     | 1.81                                   | 0.72                          | 9.01                                    | 4.38                           |
| Foundries   | 3315       | 0.18                                   | 0.21                          | 0.63                                    | 0.58                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Ferrous metal foundries                              | 33151      | 0.25                                   | 0.26                          | 0.42                                    | 0.89                           |
| Iron foundries                                       | 331511     | 0.25                                   | 0.36                          | 1.20                                    | 1.06                           |
| Steel investment foundries                           | 331512     | 0.17                                   | 0.23                          | 1.02                                    | 1.35                           |
| Steel foundries, except investment                   | 331513     | 0.20                                   | 0.16                          | 1.96                                    | 1.99                           |
| Nonferrous metal foundries                           | 33152      | 0.19                                   | 0.15                          | 2.42                                    | 0.49                           |
| Nonferrous metal die-casting foundries               | 331523     | 0.33                                   | 0.16                          | 2.79                                    | 0.67                           |
| Aluminum foundries, except die-casting               | 331524     | 0.06                                   | 0.07                          | 1.42                                    | 0.64                           |
| Other nonferrous metal foundries, except die-casting | 331529     | 0.40                                   | 0.38                          | 3.17                                    | 1.39                           |
|  |            |  |                               |   |                                |
| Fabricated metal product mfg                         | 332        | 0.16                                   | 0.08                          | 1.54                                    | 0.32                           |
| Forging & stamping                                   | 3321       | 0.14                                   | 0.15                          | 1.90                                    | 0.97                           |
| Forging & stamping                                   | 33211      | 0.14                                   | 0.15                          | 1.90                                    | 0.97                           |
| Iron and steel forging                               | 332111     | 0.19                                   | 0.36                          | 0.58                                    | 1.03                           |
| Nonferrous forging                                   | 332112     | 0.02                                   | 0.04                          | 1.74                                    | 3.01                           |
| Custom roll forming                                  | 332114     | 0.40                                   | 0.17                          | 2.64                                    | 2.62                           |
| Powder metallurgy part mfg                           | 332117     | 0.08                                   | 0.09                          | 1.25                                    | 1.14                           |
| Other metal stamping, except automotive              | 332119     | 0.16                                   | 0.16                          | 3.28                                    | 1.13                           |
| Cutlery & handtool mfg                               | 3322       | 0.11                                   | 0.05                          | 0.75                                    | 0.25                           |
| Cutlery & handtool mfg                               | 33221      | 0.11                                   | 0.05                          | 0.75                                    | 0.25                           |
| Metal cookware, cutlery, and flatware mfg            | 332215     | 0.02                                   | 0.06                          | 0.40                                    | 0.55                           |
| Saw blade, handsaw, and hand and edge tool mfg       | 332216     | 0.06                                   | 0.05                          | 0.85                                    | 0.28                           |
| Architectural & structural metals mfg                | 3323       | 0.33                                   | 0.23                          | 3.08                                    | 0.83                           |
| Plate work & fabricated structural prod mfg          | 33231      | 0.48                                   | 0.46                          | 3.90                                    | 1.58                           |
| Prefabricated metal buildings and components mfg     | 332311     | 0.57                                   | 0.35                          | 3.75                                    | 2.10                           |
| Fabricated structural metal mfg                      | 332312     | 0.59                                   | 0.67                          | 3.77                                    | 2.13                           |
| Plate work mfg                                       | 332313     | 0.16                                   | 0.16                          | 1.44                                    | 0.85                           |
| Ornamental & architectural metal prod mfg            | 33232      | 0.19                                   | 0.10                          | 2.29                                    | 0.34                           |
| Metal window and door mfg                            | 332321     | 0.17                                   | 0.16                          | 3.16                                    | 0.51                           |
| Sheet metal work mfg                                 | 332322     | 0.05                                   | 0.05                          | 1.31                                    | 0.59                           |
| Ornamental and architectural metal work mfg          | 332323     | 0.13                                   | 0.11                          | 3.06                                    | 0.58                           |
| Boiler, tank & shipping container mfg                | 3324       | 0.25                                   | 0.19                          | 0.45                                    | 1.74                           |
| Power boiler & heat exchanger mfg                    | 33241      | 0.00                                   | 0.00                          | 1.09                                    | 0.40                           |
| Power boiler and heat exchanger mfg                  | 332410     | 0.00                                   | 0.00                          | 1.09                                    | 0.40                           |
| Metal tank (heavy gauge) mfg                         | 33242      | 0.14                                   | 0.22                          | 6.62                                    | 5.87                           |
| Metal tank, heavy gauge, mfg                         | 332420     | 0.14                                   | 0.22                          | 6.63                                    | 5.87                           |
| Light gauge metal container mfg                      | 33243      | 0.21                                   | 0.25                          | 3.10                                    | 0.93                           |
| Metal can mfg  | 332431     | 0.17                                   | 0.31                          | 3.09                                    | 1.08                           |
| Other metal container mfg                            | 332439     | 0.25                                   | 0.22                          | 4.07                                    | 1.05                           |
| Hardware mfg   | 3325       | 0.31                                   | 0.30                          | 1.86                                    | 0.67                           |
| Hardware mfg   | 33251      | 0.31                                   | 0.30                          | 1.86                                    | 0.67                           |
| Hardware mfg   | 332510     | 0.31                                   | 0.30                          | 1.86                                    | 0.67                           |
| Spring & wire product mfg                            | 3326       | 0.15                                   | 0.15                          | 0.26                                    | 0.47                           |
| Spring & wire product mfg                            | 33261      | 0.15                                   | 0.15                          | 0.26                                    | 0.47                           |
| Spring mfg   | 332613     | 0.07                                   | 0.16                          | 0.29                                    | 0.97                           |
| Other fabricated wire product mfg                    | 332618     | 0.16                                   | 0.20                          | 0.47                                    | 0.56                           |
| Mach shops, turn prod, screw, nut, bolt mfg          | 3327       | 0.03                                   | 0.05                          | 0.24                                    | 0.28                           |
| Machine shops  | 33271      | 0.00                                   | 0.00                          | 0.22                                    | 0.36                           |
| Machine shops  | 332710     | 0.00                                   | 0.00                          | 0.22                                    | 0.36                           |
| Turned product & screw, nut & bolt mfg               | 33272      | 0.07                                   | 0.12                          | 0.35                                    | 0.50                           |
| Precision turned product mfg                         | 332721     | 0.10                                   | 0.17                          | 0.35                                    | 0.61                           |
| Bolt, nut, screw, rivet, and washer mfg              | 332722     | 0.03                                   | 0.04                          | 0.20                                    | 0.24                           |
| Coating/engrave/heat treating & other activity       | 3328       | 0.13                                   | 0.17                          | 1.70                                    | 0.65                           |
| Coating/engrave/heat treating & other activity       | 33281      | 0.13                                   | 0.17                          | 1.70                                    | 0.65                           |
| Metal heat treating                                  | 332811     | 0.00                                   | 0.00                          | 1.72                                    | 1.13                           |
| Metal coating and nonprecious engraving              | 332812     | 0.06                                   | 0.15                          | 1.09                                    | 0.86                           |
| Electroplating, anodizing and coloring metal         | 332813     | 0.21                                   | 0.28                          | 1.85                                    | 1.06                           |
| Other fabricated metal product mfg                   | 3329       | 0.15                                   | 0.08                          | 1.35                                    | 0.31                           |



**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Metal valve mfg   | 33291      | 0.26                                   | 0.13                          | 1.63                                    | 0.39                           |
| Industrial valve mfg  | 332911     | 0.17                                   | 0.13                          | 1.85                                    | 0.49                           |
| Fluid power valve and hose fitting mfg                                | 332912     | 0.10                                   | 0.12                          | 1.12                                    | 0.53                           |
| Plumbing fixture fitting and trim mfg                                 | 332913     | 0.06                                   | 0.07                          | 2.35                                    | 0.36                           |
| Other metal valve and pipe fitting mfg                                | 332919     | 0.70                                   | 0.63                          | 2.14                                    | 1.70                           |
| All other fabricated metal product mfg                                | 33299      | 0.13                                   | 0.10                          | 1.24                                    | 0.43                           |
| Ball and roller bearing mfg   | 332991     | 0.06                                   | 0.06                          | 1.07                                    | 0.26                           |
| Small arms ammunition mfg   | 332992     | 0.05                                   | 0.08                          | 0.16                                    | 0.40                           |
| Ammunition, except small arms, manufacturing                          | 332993     | 0.00                                   | 0.00                          | 0.55                                    | 0.54                           |
| Fabricated pipe and pipe fitting mfg                                  | 332996     | 0.14                                   | 0.20                          | 1.21                                    | 1.19                           |
| Miscellaneous fabricated metal product mfg                            | 332999     | 0.17                                   | 0.11                          | 1.56                                    | 0.68                           |
| Small arms, ordnance, and ordnance accessories mfg                    | 33299T     | 0.05                                   | 0.04                          | 1.95                                    | 1.21                           |
|   |            |  |                               |   |                                |
| Machinery manufacturing   | 333        | 0.08                                   | 0.06                          | 0.95                                    | 0.15                           |
| Agricultural, construction, and mining machinery mfg                  | 3331       | 0.05                                   | 0.06                          | 0.48                                    | 0.20                           |
| Agricultural implement manufacturing                                  | 33311      | 0.04                                   | 0.09                          | 0.75                                    | 0.32                           |
| Farm machinery and equipment mfg                                      | 333111     | 0.06                                   | 0.12                          | 0.94                                    | 0.40                           |
| Lawn and garden equipment mfg   | 333112     | 0.00                                   | 0.01                          | 0.15                                    | 0.09                           |
| Construction machinery manufacturing                                  | 33312      | 0.12                                   | 0.10                          | 0.52                                    | 0.37                           |
| Construction machinery mfg  | 333120     | 0.12                                   | 0.10                          | 0.52                                    | 0.37                           |
| Mining and oil and gas field machinery mfg                            | 33313      | 0.08                                   | 0.11                          | 0.17                                    | 0.31                           |
| Mining machinery and equipment mfg                                    | 333131     | 0.05                                   | 0.03                          | 0.42                                    | 0.37                           |
| Oil and gas field machinery and equipment mfg                         | 333132     | 0.02                                   | 0.08                          | 0.34                                    | 0.38                           |
| Industrial machinery manufacturing                                    | 3332       | 0.12                                   | 0.10                          | 0.95                                    | 0.29                           |
| Other industrial machinery manufacturing                              | 33324      | 0.12                                   | 0.10                          | 0.95                                    | 0.29                           |
| Food product machinery mfg  | 333241     | 0.17                                   | 0.11                          | 1.55                                    | 0.52                           |
| Semiconductor machinery mfg   | 333242     | 0.00                                   | 0.00                          | 0.15                                    | 0.18                           |
| Sawmill, woodworking and paper machinery mfg                          | 333243     | 0.04                                   | 0.05                          | 1.17                                    | 0.43                           |
| Printing machinery and equipment mfg                                  | 333244     | 0.17                                   | 0.23                          | 0.32                                    | 0.53                           |
| Other industrial machinery mfg  | 333249     | 0.29                                   | 0.24                          | 1.66                                    | 0.69                           |
| Commercial and service industry machinery                             | 3333       | 0.10                                   | 0.08                          | 0.72                                    | 0.41                           |
| Commercial and service industry machinery                             | 33331      | 0.10                                   | 0.08                          | 0.72                                    | 0.41                           |
| Optical instrument and lens mfg                                       | 333314     | 0.00                                   | 0.00                          | 0.10                                    | 0.32                           |
| Photographic and photocopying equipment mfg                           | 333316     | 0.00                                   | 0.00                          | 1.47                                    | 1.74                           |
| Other commercial and service industry machinery mfg                   | 333318     | 0.14                                   | 0.10                          | 1.08                                    | 0.48                           |
| HVAC and commercial refrigeration equipment                           | 3334       | 0.16                                   | 0.24                          | 1.79                                    | 0.62                           |
| HVAC and commercial refrigeration equipment                           | 33341      | 0.16                                   | 0.24                          | 1.79                                    | 0.62                           |
| Fan, blower, air purification equipment mfg                           | 333413     | 0.12                                   | 0.30                          | 1.28                                    | 0.42                           |
| Heating equipment (except warm air furnaces) mfg                      | 333414     | 0.13                                   | 0.08                          | 1.61                                    | 0.60                           |
| Air-conditioning, refrigeration, and forced air heating equipment mfg | 333415     | 0.14                                   | 0.30                          | 1.90                                    | 0.86                           |
| Metalworking machinery manufacturing                                  | 3335       | 0.08                                   | 0.17                          | 0.65                                    | 0.62                           |
| Metalworking machinery manufacturing                                  | 33351      | 0.07                                   | 0.11                          | 0.38                                    | 0.45                           |
| Industrial mold mfg   | 333511     | 0.14                                   | 0.43                          | 0.20                                    | 2.15                           |
| Special tool, die, jig, and fixture mfg                               | 333514     | 0.01                                   | 0.01                          | 0.76                                    | 0.74                           |
| Cutting tool and machine tool accessory mfg                           | 333515     | 0.13                                   | 0.12                          | 0.54                                    | 0.39                           |
| Machine tool mfg  | 333517     | 0.10                                   | 0.12                          | 0.56                                    | 0.49                           |
| Rolling mill and other metalworking machinery mfg                     | 333519     | 0.11                                   | 0.14                          | 0.62                                    | 0.83                           |
| Turbine and power transmission equipment mfg                          | 3336       | 0.16                                   | 0.24                          | 0.17                                    | 0.72                           |
| Turbine and power transmission equipment mfg                          | 33361      | 0.16                                   | 0.24                          | 0.17                                    | 0.72                           |
| Turbine and turbine generator set units mfg                           | 333611     | 0.46                                   | 0.76                          | 3.08                                    | 2.84                           |
| Speed changer, drive, and gear mfg                                    | 333612     | 0.07                                   | 0.06                          | 0.97                                    | 0.48                           |
| Mechanical power transmission equipment mfg                           | 333613     | 0.00                                   | 0.00                          | 1.08                                    | 0.41                           |
| Other engine equipment mfg  | 333618     | 0.04                                   | 0.07                          | 0.93                                    | 0.51                           |
| Other general purpose machinery manufacturing                         | 3339       | 0.19                                   | 0.07                          | 1.62                                    | 0.21                           |
| Pump and compressor manufacturing                                     | 33391      | 0.19                                   | 0.12                          | 1.77                                    | 0.36                           |
| Pump and pumping equipment manufacturing                              | 333911     | 0.25                                   | 0.19                          | 1.98                                    | 0.54                           |
| Air and gas compressor mfg  | 333912     | 0.02                                   | 0.03                          | 1.62                                    | 0.55                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Measuring and dispensing pump manufacturing                               | 333913     | 0.15                                   | 0.06                          | 1.42                                    | 0.38                           |
| Material handling equipment manufacturing                                 | 33392      | 0.18                                   | 0.08                          | 1.96                                    | 0.29                           |
| Elevator and moving stairway mfg  | 333921     | 0.12                                   | 0.07                          | 3.49                                    | 1.35                           |
| Conveyor and conveying equipment mfg                                      | 333922     | 0.18                                   | 0.18                          | 1.79                                    | 0.80                           |
| Overhead cranes, hoists and monorail systems mfg                          | 333923     | 0.01                                   | 0.00                          | 1.51                                    | 0.52                           |
| Industrial truck, trailer, and stacker mfg                                | 333924     | 0.07                                   | 0.06                          | 1.99                                    | 0.31                           |
| All other general purpose machinery mfg                                   | 33399      | 0.10                                   | 0.09                          | 1.28                                    | 0.37                           |
| Power-driven handtool mfg   | 333991     | 0.00                                   | 0.00                          | 1.32                                    | 0.94                           |
| Welding and soldering equipment mfg                                       | 333992     | 0.09                                   | 0.09                          | 2.64                                    | 0.64                           |
| Packaging machinery mfg   | 333993     | 0.50                                   | 0.36                          | 1.33                                    | 1.89                           |
| Industrial process furnace and oven mfg                                   | 333994     | 0.00                                   | 0.00                          | 0.72                                    | 0.60                           |
| Fluid power cylinder and actuator mfg                                     | 333995     | 0.12                                   | 0.13                          | 2.50                                    | 0.91                           |
| Fluid power pump and motor mfg  | 333996     | 0.07                                   | 0.10                          | 0.45                                    | 0.63                           |
| Scale and balance mfg   | 333997     | 0.00                                   | 0.00                          | 1.37                                    | 0.59                           |
| All other miscellaneous general purpose machinery mfg                     | 333999     | 0.11                                   | 0.11                          | 0.13                                    | 0.62                           |
|   |            |  |                               |   |                                |
| Computer & electronic product mfg   | 334        | 0.09                                   | 0.07                          | 0.18                                    | 0.37                           |
| Computer & peripheral equipment mfg                                       | 3341       | 0.20                                   | 0.24                          | 0.95                                    | 0.89                           |
| Computer & peripheral equipment mfg                                       | 33411      | 0.20                                   | 0.24                          | 0.95                                    | 0.89                           |
| Electronic computer manufacturing   | 334111     | 0.30                                   | 0.33                          | 4.01                                    | 1.22                           |
| Computer storage device mfg   | 334112     | 0.00                                   | 0.00                          | 1.36                                    | 0.69                           |
| Computer terminal and other computer peripheral equipment mfg             | 334118     | 0.01                                   | 0.01                          | 4.73                                    | 1.88                           |
| Communications equipment mfg  | 3342       | 0.19                                   | 0.15                          | 1.57                                    | 0.72                           |
| Telephone apparatus mfg   | 33421      | 0.01                                   | 0.01                          | 0.84                                    | 0.95                           |
| Telephone apparatus mfg   | 334210     | 0.01                                   | 0.01                          | 0.84                                    | 0.95                           |
| Radio/TV broadcast & wireless comm equip mfg                              | 33422      | 0.31                                   | 0.24                          | 2.32                                    | 1.08                           |
| Broadcast and wireless communications equipment mfg                       | 334220     | 0.30                                   | 0.24                          | 2.32                                    | 1.08                           |
| Other communications equipment mfg  | 33429      | 0.00                                   | 0.00                          | 0.47                                    | 0.40                           |
| Other communications equipment mfg  | 334290     | 0.00                                   | 0.00                          | 0.47                                    | 0.40                           |
| Audio & video equipment mfg   | 3343       | 0.07                                   | 0.11                          | 0.27                                    | 0.36                           |
| Audio and video equipment mfg   | 33431      | 0.07                                   | 0.11                          | 0.27                                    | 0.36                           |
| Audio and video equipment mfg   | 334310     | 0.07                                   | 0.12                          | 0.28                                    | 0.36                           |
| Semiconductor & oth electronic component mfg                              | 3344       | 0.17                                   | 0.17                          | 1.03                                    | 0.85                           |
| Semiconductor & oth electronic component mfg                              | 33441      | 0.17                                   | 0.17                          | 1.03                                    | 0.85                           |
| Bare printed circuit board mfg  | 334412     | 0.00                                   | 0.00                          | 0.35                                    | 0.45                           |
| Semiconductors and related device mfg                                     | 334413     | 0.22                                   | 0.21                          | 1.44                                    | 1.37                           |
| Electronic connector mfg  | 334417     | 0.30                                   | 0.19                          | 1.75                                    | 1.09                           |
| Printed circuit assembly mfg  | 334418     | 0.01                                   | 0.04                          | 1.40                                    | 1.76                           |
| Other electronic component mfg  | 334419     | 0.03                                   | 0.07                          | 0.07                                    | 0.48                           |
| Capacitor, resistor, coil, transformer, and other inductor mfg            | 33441K     | 0.13                                   | 0.11                          | 0.55                                    | 0.55                           |
| Nav/measuring/medical/control instruments mfg                             | 3345       | 0.03                                   | 0.05                          | 1.47                                    | 0.66                           |
| Nav/measuring/medical/control instruments mfg                             | 33451      | 0.03                                   | 0.05                          | 1.47                                    | 0.66                           |
| Electromedical apparatus mfg  | 334510     | 0.16                                   | 0.13                          | 0.29                                    | 0.43                           |
| Search, detection, and navigation instruments                             | 334511     | 0.01                                   | 0.02                          | 2.15                                    | 1.69                           |
| Automatic environmental control mfg                                       | 334512     | 0.00                                   | 0.00                          | 2.57                                    | 0.83                           |
| Industrial process variable instruments                                   | 334513     | 0.14                                   | 0.16                          | 0.79                                    | 0.52                           |
| Totalizing fluid meters and counting devices                              | 334514     | 0.02                                   | 0.03                          | 2.14                                    | 0.57                           |
| Electricity and signal testing instruments mfg                            | 334515     | 0.07                                   | 0.11                          | 1.08                                    | 0.47                           |
| Analytical laboratory instrument mfg                                      | 334516     | 0.07                                   | 0.07                          | 2.70                                    | 0.67                           |
| Irradiation apparatus mfg   | 334517     | 0.01                                   | 0.04                          | 0.58                                    | 0.79                           |
| Other measuring and controlling device mfg                                | 334519     | 0.12                                   | 0.09                          | 1.19                                    | 0.42                           |
| Mfg & reproducing magnetic & optical media                                | 3346       | 0.00                                   | 0.00                          | 0.61                                    | 0.60                           |
| Mfg & reproducing magnetic & optical media                                | 33461      | 0.00                                   | 0.00                          | 0.61                                    | 0.60                           |
| Software and other prerecorded compact disc, tape, and record reproducing | 334614     | 0.00                                   | 0.00                          | 1.11                                    | 0.86                           |
|   |            |  |                               |   |                                |
| Electrical equipment and appliance mfg                                    | 335        | 0.19                                   | 0.10                          | 1.03                                    | 0.31                           |
| Electric lighting equipment mfg   | 3351       | 0.25                                   | 0.27                          | 0.46                                    | 0.54                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Electric lamp bulb & part mfg  | 33511      | 1.38                                   | 2.07                          | 6.57                                    | 2.59                           |
| Electric lamp bulb and part mfg  | 335110     | 1.38                                   | 2.07                          | 6.57                                    | 2.59                           |
| Lighting fixture mfg   | 33512      | 0.12                                   | 0.11                          | 0.86                                    | 0.43                           |
| Residential electric lighting fixture mfg                                      | 335121     | 0.07                                   | 0.12                          | 0.68                                    | 0.49                           |
| Nonresidential electric lighting fixture mfg                                   | 335122     | 0.00                                   | 0.02                          | 1.56                                    | 0.75                           |
| Other lighting equipment mfg   | 335129     | 0.13                                   | 0.13                          | 0.96                                    | 0.74                           |
| Household appliance mfg  | 3352       | 0.20                                   | 0.17                          | 0.54                                    | 0.39                           |
| Small electrical appliance mfg   | 33521      | 0.08                                   | 0.11                          | 0.90                                    | 0.45                           |
| Small electrical appliance mfg   | 335210     | 0.08                                   | 0.11                          | 0.90                                    | 0.45                           |
| Major household appliance mfg  | 33522      | 0.22                                   | 0.20                          | 0.48                                    | 0.46                           |
| Major household appliance mfg  | 335220     | 0.21                                   | 0.20                          |   |                                |
| Electrical equipment mfg   | 3353       | 0.12                                   | 0.11                          | 1.30                                    | 0.28                           |
| Electrical equipment mfg   | 33531      | 0.12                                   | 0.11                          | 1.30                                    | 0.28                           |
| Electric power and specialty transformer mfg                                   | 335311     | 0.30                                   | 0.06                          | 2.74                                    | 0.65                           |
| Motor and generator mfg  | 335312     | 0.02                                   | 0.03                          | 0.94                                    | 0.32                           |
| Switchgear and switchboard apparatus mfg                                       | 335313     | 0.15                                   | 0.29                          | 0.51                                    | 0.82                           |
| Relay and industrial control mfg   | 335314     | 0.04                                   | 0.11                          | 1.55                                    | 0.42                           |
| Other electrical equipment & component mfg                                     | 3359       | 0.32                                   | 0.20                          | 1.29                                    | 0.69                           |
| Battery mfg  | 33591      | 0.56                                   | 0.36                          | 3.17                                    | 0.94                           |
| Storage battery mfg  | 335911     | 0.38                                   | 0.09                          | 5.35                                    | 0.57                           |
| Primary battery mfg  | 335912     | 1.06                                   | 1.19                          | 1.37                                    | 2.64                           |
| Communication & energy wire & cable mfg  | 33592      | 0.50                                   | 0.55                          | 1.40                                    | 1.79                           |
| Fiber optic cable mfg  | 335921     | 0.03                                   | 0.04                          | 0.26                                    | 0.44                           |
| Other communication and energy wire mfg  | 335929     | 0.56                                   | 0.61                          | 1.53                                    | 1.99                           |
| Wiring device mfg  | 33593      | 0.11                                   | 0.12                          | 0.70                                    | 0.48                           |
| Current-carrying wiring device mfg   | 335931     | 0.13                                   | 0.13                          | 0.34                                    | 0.64                           |
| Noncurrent-carrying wiring device mfg  | 335932     | 0.17                                   | 0.18                          | 1.28                                    | 0.79                           |
| All other electrical equipment & component mfg                                 | 33599      | 0.13                                   | 0.12                          | 3.10                                    | 1.73                           |
| Carbon and graphite product mfg  | 335991     | 0.11                                   | 0.17                          | 10.95                                   | 8.03                           |
| Miscellaneous electrical equipment mfg   | 335999     | 0.09                                   | 0.10                          | 1.25                                    | 0.69                           |
|  |            |  |                               |   |                                |
| Transportation equipment manufacturing   | 336        | 0.09                                   | 0.09                          | 1.10                                    | 0.20                           |
| Motor vehicle manufacturing  | 3361       | 0.25                                   | 0.21                          | 1.35                                    | 0.38                           |
| Automobile and light truck manufacturing                                       | 33611      | 0.29                                   | 0.22                          | 1.32                                    | 0.40                           |
| Automobile, light truck and utility vehicle mfg                                | 336110     | 0.29                                   | 0.22                          | 1.32                                    | 0.40                           |
| Heavy duty truck manufacturing   | 33612      | 0.22                                   | 0.31                          | 2.04                                    | 0.65                           |
| Heavy duty truck mfg   | 336120     | 0.22                                   | 0.31                          | 2.04                                    | 0.65                           |
| Motor vehicle body and trailer manufacturing                                   | 3362       | 0.16                                   | 0.06                          | 1.56                                    | 0.31                           |
| Motor vehicle body and trailer manufacturing                                   | 33621      | 0.16                                   | 0.06                          | 1.56                                    | 0.31                           |
| Motor vehicle body mfg   | 336211     | 0.08                                   | 0.09                          | 0.99                                    | 0.80                           |
| Truck trailer mfg  | 336212     | 0.09                                   | 0.08                          | 0.55                                    | 0.33                           |
| Motor home mfg   | 336213     | 0.10                                   | 0.06                          | 2.31                                    | 0.41                           |
| Travel trailer and camper mfg  | 336214     | 0.21                                   | 0.08                          | 2.54                                    | 0.38                           |
| Motor vehicle parts manufacturing  | 3363       | 0.05                                   | 0.08                          | 0.19                                    | 0.41                           |
| Motor vehicle gasoline engine and parts mfg                                    | 33631      | 0.10                                   | 0.13                          | 1.44                                    | 0.69                           |
| Motor vehicle gasoline engine and engine parts mfg                             | 336310     | 0.10                                   | 0.13                          | 1.44                                    | 0.69                           |
| Motor vehicle electric equipment   | 33632      | 0.17                                   | 0.18                          | 0.42                                    | 0.54                           |
| Motor vehicle electrical and electronic equipment mfg                          | 336320     | 0.17                                   | 0.18                          | 0.42                                    | 0.53                           |
| Motor vehicle steering and suspension parts                                    | 33633      | 0.10                                   | 0.09                          | 0.60                                    | 1.07                           |
| Motor vehicle steering and suspension components (except spring) manufacturing | 336330     | 0.10                                   | 0.09                          | 0.60                                    | 1.07                           |
| Motor vehicle brake system manufacturing                                       | 33634      | 0.12                                   | 0.10                          | 0.34                                    | 0.86                           |
| Motor vehicle brake system mfg   | 336340     | 0.12                                   | 0.10                          | 0.34                                    | 0.86                           |
| Motor vehicle power train components mfg                                       | 33635      | 0.15                                   | 0.14                          | 1.22                                    | 1.47                           |
| Motor vehicle transmission and power train parts manufacturing                 | 336350     | 0.15                                   | 0.14                          | 1.22                                    | 1.46                           |
| Motor vehicle seating and interior trim mfg                                    | 33636      | 0.05                                   | 0.07                          | 0.19                                    | 0.29                           |
| Motor vehicle seating and interior trim mfg                                    | 336360     | 0.05                                   | 0.07                          | 0.19                                    | 0.29                           |
| Motor vehicle metal stamping   | 33637      | 0.16                                   | 0.25                          | 0.74                                    | 1.96                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index  | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|--|------------|--|-------------------------------|---|--------------------------------|
| Motor vehicle metal stamping                       | 336370     | 0.16                                   | 0.25                          | 0.74                                    | 1.96                           |
| Other motor vehicle parts manufacturing            | 33639      | 0.12                                   | 0.12                          | 0.53                                    | 0.63                           |
| Other motor vehicle parts mfg                      | 336390     | 0.12                                   | 0.12                          | 0.53                                    | 0.63                           |
| Aerospace product and parts manufacturing          | 3364       | 0.09                                   | 0.07                          | 1.03                                    | 0.23                           |
| Aerospace product and parts manufacturing          | 33641      | 0.09                                   | 0.07                          | 1.03                                    | 0.23                           |
| Aircraft mfg                                       | 336411     | 0.11                                   | 0.05                          | 1.51                                    | 0.24                           |
| Aircraft engine and engine parts mfg               | 336412     | 0.06                                   | 0.14                          | 0.69                                    | 0.79                           |
| Other aircraft parts and equipment mfg             | 336413     | 0.04                                   | 0.06                          | 0.21                                    | 0.37                           |
| Railroad rolling stock manufacturing               | 3365       | 0.36                                   | 0.37                          | 0.08                                    | 0.67                           |
| Railroad rolling stock manufacturing               | 33651      | 0.36                                   | 0.37                          | 0.08                                    | 0.67                           |
| Railroad rolling stock mfg                         | 336510     | 0.36                                   | 0.37                          | 0.08                                    | 0.67                           |
| Ship and boat building                             | 3366       | 0.11                                   | 0.08                          | 1.18                                    | 0.39                           |
| Ship and boat building                             | 33661      | 0.11                                   | 0.08                          | 1.18                                    | 0.39                           |
| Ship building and repairing                        | 336611     | 0.10                                   | 0.09                          | 0.44                                    | 0.47                           |
| Boat building                                      | 336612     | 0.15                                   | 0.07                          | 2.15                                    | 0.60                           |
| Other transportation equipment manufacturing       | 3369       | 0.10                                   | 0.10                          | 2.20                                    | 1.12                           |
| Other transportation equipment manufacturing       | 33699      | 0.10                                   | 0.10                          | 2.20                                    | 1.12                           |
| Motorcycle, bicycle, and parts mfg                 | 336991     | 0.05                                   | 0.05                          | 0.32                                    | 0.63                           |
| All other transportation equipment mfg             | 336999     | 0.06                                   | 0.07                          | 3.85                                    | 2.10                           |
|  |            |  |                               |   |                                |
| Furniture & related product mfg                    | 337        | 0.16                                   | 0.14                          | 1.58                                    | 0.33                           |
| HH & institutional furniture & kitchen cabinet mfg | 3371       | 0.10                                   | 0.12                          | 1.11                                    | 0.36                           |
| Wood kitchen cabinet & countertop mfg              | 33711      | 0.16                                   | 0.18                          | 0.94                                    | 0.71                           |
| Wood kitchen cabinet and countertop mfg            | 337110     | 0.16                                   | 0.18                          | 0.94                                    | 0.71                           |
| Household & institutional furniture mfg            | 33712      | 0.12                                   | 0.14                          | 1.24                                    | 0.33                           |
| Upholstered household furniture mfg                | 337121     | 0.15                                   | 0.12                          | 1.40                                    | 0.38                           |
| Nonupholstered wood household furniture mfg        | 337122     | 0.13                                   | 0.17                          | 1.33                                    | 0.40                           |
| Metal household furniture mfg                      | 337124     | 0.41                                   | 0.46                          | 0.83                                    | 1.17                           |
| Institutional furniture mfg                        | 337127     | 0.15                                   | 0.17                          | 1.59                                    | 0.31                           |
| Office furniture (including fixtures) mfg          | 3372       | 0.37                                   | 0.29                          | 1.75                                    | 0.60                           |
| Office furniture (including fixtures) mfg          | 33721      | 0.37                                   | 0.29                          | 1.75                                    | 0.60                           |
| Wood office furniture mfg                          | 337211     | 0.16                                   | 0.15                          | 1.39                                    | 0.60                           |
| Custom architectural woodwork and millwork         | 337212     | 0.16                                   | 0.25                          | 2.30                                    | 0.72                           |
| Office furniture, except wood, mfg                 | 337214     | 0.67                                   | 0.59                          | 1.91                                    | 1.26                           |
| Showcases, partitions, shelving, and lockers mfg   | 337215     | 0.51                                   | 0.52                          | 1.22                                    | 1.18                           |
| Other furniture related product mfg                | 3379       | 0.41                                   | 0.23                          | 3.07                                    | 1.63                           |
| Mattress mfg                                       | 33791      | 0.36                                   | 0.18                          | 3.85                                    | 2.17                           |
| Mattress mfg                                       | 337910     | 0.36                                   | 0.18                          | 3.84                                    | 2.16                           |
| Blind & shade mfg                                  | 33792      | 0.15                                   | 0.16                          | 1.68                                    | 1.29                           |
| Blind and shade mfg                                | 337920     | 0.15                                   | 0.16                          | 1.69                                    | 1.28                           |
|  |            |  |                               |   |                                |
| Miscellaneous mfg                                  | 339        | 0.09                                   | 0.09                          | 0.62                                    | 0.98                           |
| Medical equipment & supplies mfg                   | 3391       | 0.09                                   | 0.12                          | 0.25                                    | 1.79                           |
| Medical equipment & supplies mfg                   | 33911      | 0.09                                   | 0.12                          | 0.25                                    | 1.79                           |
| Surgical and medical instrument mfg                | 339112     | 0.10                                   | 0.15                          | 0.27                                    | 0.58                           |
| Surgical appliance and supplies mfg                | 339113     | 0.11                                   | 0.19                          | 0.33                                    | 0.65                           |
| Dental equipment and supplies mfg                  | 339114     | 0.45                                   | 0.32                          | 5.04                                    | 20.80                          |
| Ophthalmic goods mfg                               | 339115     | 0.66                                   | 0.50                          | 0.66                                    | 1.11                           |
| Other miscellaneous mfg                            | 3399       | 0.10                                   | 0.09                          | 1.01                                    | 0.54                           |
| Jewelry & silverware mfg                           | 33991      | 0.49                                   | 0.29                          | 2.57                                    | 1.43                           |
| Jewelry and silverware mfg                         | 339910     | 0.49                                   | 0.29                          | 2.57                                    | 1.42                           |
| Sporting & athletic goods mfg                      | 33992      | 0.08                                   | 0.10                          | 1.72                                    | 1.32                           |
| Sporting and athletic goods mfg                    | 339920     | 0.08                                   | 0.11                          | 1.70                                    | 1.29                           |
| Doll, toy & game mfg                               | 33993      | 0.16                                   | 0.27                          | 0.78                                    | 1.23                           |
| Doll, toy, and game mfg                            | 339930     | 0.15                                   | 0.27                          | 0.79                                    | 1.23                           |
| Office supplies (exc paper) mfg                    | 33994      | 0.06                                   | 0.08                          | 0.37                                    | 0.31                           |
| Office supplies, except paper, mfg                 | 339940     | 0.06                                   | 0.08                          | 0.38                                    | 0.30                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Sign mfg  | 33995      | 0.14                                   | 0.16                          | 3.25                                    | 2.52                           |
| Sign mfg  | 339950     | 0.14                                   | 0.17                          | 3.25                                    | 2.51                           |
| All other misc mfg  | 33999      | 0.09                                   | 0.06                          | 0.79                                    | 0.19                           |
| Gasket, packing, and sealing device mfg                   | 339991     | 0.05                                   | 0.06                          | 0.71                                    | 0.40                           |
| Musical instrument mfg                                    | 339992     | 0.26                                   | 0.09                          | 1.33                                    | 0.33                           |
| Fastener, button, needle, and pin mfg                     | 339993     | 0.24                                   | 0.34                          | 3.61                                    | 0.74                           |
| Broom, brush, and mop mfg                                 | 339994     | 0.11                                   | 0.09                          | 1.07                                    | 0.35                           |
| Burial casket mfg   | 339995     | 0.00                                   | 0.00                          | 2.48                                    | 0.38                           |
| All other miscellaneous manufacturing                     | 339999     | 0.06                                   | 0.08                          | 0.35                                    | 0.31                           |
|   |            |  |                               |   |                                |
| <b>Services</b>   |            |  |                               |   |                                |
| Merchant wholesalers, durable goods                       | 423        | 0.52                                   | 0.61                          | 2.37                                    | 1.30                           |
| Merchant wholesalers, durable goods                       | 423000     | 0.53                                   | 0.61                          | 2.36                                    | 1.30                           |
|   |            |  |                               |   |                                |
| Merchant wholesalers, nondurable goods                    | 424        | 0.35                                   | 0.77                          | 2.62                                    | 2.55                           |
| Merchant wholesalers, nondurable goods                    | 424000     | 0.35                                   | 0.77                          | 2.62                                    | 2.55                           |
|   |            |  |                               |   |                                |
| Material recyclers  | 429930     | 2.00                                   | 0.71                          | 22.65                                   | 1.85                           |
|   |            |  |                               |   |                                |
| Motor vehicle and parts dealers                           | 441        | 0.21                                   | 0.30                          | 0.90                                    | 0.74                           |
| Automobile dealers  | 4411       | 0.35                                   | 0.38                          | 0.92                                    | 0.79                           |
| New car dealers   | 44111      | 0.34                                   | 0.38                          | 0.92                                    | 0.79                           |
| New car dealers   | 441110     | 0.35                                   | 0.38                          | 0.92                                    | 0.79                           |
| Recreational vehicle dealers                              | 44121      | 1.33                                   | 1.08                          | 4.89                                    | 5.83                           |
| Recreational vehicle dealers                              | 441210     | 1.33                                   | 1.08                          | 4.89                                    | 5.83                           |
| Boat dealers  | 441222     | 0.10                                   | 0.31                          | 3.15                                    | 4.41                           |
| Automotive parts, accessories and tire stores             | 4413       | 0.42                                   | 0.38                          | 3.47                                    | 1.60                           |
| Automotive parts and accessories stores                   | 44131      | 0.59                                   | 0.48                          | 4.62                                    | 2.13                           |
| Automotive parts and accessories stores                   | 441310     | 0.59                                   | 0.48                          | 4.62                                    | 2.13                           |
| Tire dealers  | 44132      | 0.43                                   | 0.48                          | 1.37                                    | 1.59                           |
| Tire dealers  | 441320     | 0.43                                   | 0.48                          | 1.37                                    | 1.59                           |
|   |            |  |                               |   |                                |
| Furniture and home furnishings stores                     | 442        | 0.96                                   | 0.81                          | 3.03                                    | 1.90                           |
| Furniture stores  | 4421       | 0.88                                   | 0.67                          | 3.08                                    | 2.54                           |
| Furniture stores  | 44211      | 0.88                                   | 0.67                          | 3.08                                    | 2.54                           |
| Furniture stores  | 442110     | 0.88                                   | 0.67                          | 3.08                                    | 2.54                           |
| Floor covering stores                                     | 44221      | 1.50                                   | 1.35                          | 2.82                                    | 2.55                           |
| Floor covering stores                                     | 442210     | 1.50                                   | 1.35                          | 2.82                                    | 2.55                           |
|   |            |  |                               |   |                                |
| Electronics and appliance stores                          | 443        | 2.98                                   | 3.80                          | 15.16                                   | 8.89                           |
| Electronics and appliance stores                          | 4431       | 2.97                                   | 3.78                          | 15.08                                   | 8.84                           |
| Electronics and appliance stores                          | 44314      | 2.97                                   | 3.78                          | 15.08                                   | 8.84                           |
| Household appliance stores                                | 443141     | 1.89                                   | 2.41                          | 12.50                                   | 7.50                           |
| Electronics stores  | 443142     | 3.52                                   | 4.29                          | 13.89                                   | 10.22                          |
|   |            |  |                               |   |                                |
| Building material and garden equipment and supply dealers | 444        | 0.62                                   | 0.76                          | 2.53                                    | 3.35                           |
| Building material and supplies dealers                    | 4441       | 0.67                                   | 0.81                          | 2.71                                    | 3.75                           |
| Home centers  | 44411      | 0.63                                   | 1.06                          | 2.33                                    | 3.31                           |
| Home centers  | 444110     | 0.63                                   | 1.06                          | 2.33                                    | 3.31                           |
| Paint and wallpaper stores                                | 44412      | 1.14                                   | 1.64                          | 1.06                                    | 1.67                           |
| Paint and wallpaper stores                                | 444120     | 1.14                                   | 1.64                          | 1.06                                    | 1.67                           |
| Hardware stores   | 44413      | 1.11                                   | 1.10                          | 1.34                                    | 4.16                           |
| Hardware stores   | 444130     | 1.11                                   | 1.10                          | 1.34                                    | 4.16                           |
| Other building material dealers                           | 44419      | 0.89                                   | 1.30                          | 4.06                                    | 7.63                           |
| Other building material dealers                           | 444190     | 0.89                                   | 1.30                          | 4.06                                    | 7.63                           |
| Lawn and garden equip and supplies stores                 | 4442       | 0.36                                   | 0.66                          | 0.55                                    | 1.78                           |
| Nursery, garden and farm supply stores                    | 44422      | 0.36                                   | 0.66                          | 0.55                                    | 1.78                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index                                       | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Nursery, garden, and farm supply stores     | 444220     | 0.36                                   | 0.66                          | 0.55                                    | 1.78                           |
| Food and beverage stores                    | 445        | 0.56                                   | 0.89                          | 0.77                                    | 2.04                           |
| Grocery stores                              | 4451       | 0.70                                   | 0.98                          | 0.91                                    | 2.33                           |
| Grocery (except convenience) stores         | 44511      | 0.70                                   | 0.98                          | 0.91                                    | 2.33                           |
| Supermarkets and other grocery stores       | 445110     | 0.70                                   | 0.98                          | 0.91                                    | 2.33                           |
| Specialty food stores                       | 4452       | 0.55                                   | 0.97                          | 1.43                                    | 2.15                           |
| Specialty food stores                       | 445200     | 0.55                                   | 0.97                          | 1.43                                    | 2.15                           |
| Beer, wine, and liquor stores               | 4453       | 0.95                                   | 1.06                          | 1.61                                    | 1.62                           |
| Beer, wine, and liquor stores               | 44531      | 0.95                                   | 1.06                          | 1.61                                    | 1.62                           |
| Beer, wine, and liquor stores               | 445310     | 0.95                                   | 1.06                          | 1.61                                    | 1.62                           |
| Health and personal care stores             | 446        | 0.83                                   | 0.76                          | 2.18                                    | 2.38                           |
| Health and personal care stores             | 4461       | 0.83                                   | 0.76                          | 2.18                                    | 2.38                           |
| Pharmacies and drug stores                  | 44611      | 1.11                                   | 0.99                          | 3.25                                    | 2.79                           |
| Pharmacies and drug stores                  | 446110     | 1.11                                   | 0.99                          | 3.25                                    | 2.79                           |
| Optical goods stores                        | 44613      | 2.44                                   | 1.24                          | 4.34                                    | 2.37                           |
| Optical goods stores                        | 446130     | 2.44                                   | 1.24                          | 4.34                                    | 2.37                           |
| Food (health) supplement stores             | 446191     | 0.82                                   | 0.87                          | 2.64                                    | 5.03                           |
| Gasoline stations                           | 447        | 5.32                                   | 2.62                          | 4.06                                    | 4.12                           |
| Gasoline stations                           | 4471       | 5.32                                   | 2.62                          | 4.06                                    | 4.12                           |
| Gasoline stations with convenience stores   | 44711      | 5.29                                   | 2.99                          | 5.06                                    | 4.97                           |
| Gasoline stations with convenience stores   | 447110     | 5.29                                   | 2.99                          | 5.06                                    | 4.97                           |
| Other gasoline stations                     | 44719      | 3.94                                   | 4.45                          | 2.97                                    | 5.41                           |
| Other gasoline stations                     | 447190     | 3.94                                   | 4.45                          | 2.97                                    | 5.41                           |
| Clothing and clothing accessories stores    | 448        | 2.52                                   | 1.72                          | 1.13                                    | 1.70                           |
| Clothing stores                             | 4481       | 3.20                                   | 2.35                          | 2.77                                    | 2.33                           |
| Clothing stores                             | 44810      | 3.20                                   | 2.35                          | 2.77                                    | 2.33                           |
| Clothing stores                             | 448100     | 3.20                                   | 2.35                          | 2.77                                    | 2.33                           |
| Shoe stores                                 | 4482       | 2.47                                   | 1.31                          | 3.83                                    | 3.02                           |
| Shoe stores                                 | 44821      | 2.47                                   | 1.31                          | 3.83                                    | 3.02                           |
| Shoe stores                                 | 448210     | 2.47                                   | 1.31                          | 3.83                                    | 3.02                           |
| Jewelry, luggage and leather goods stores   | 4483       | 1.17                                   | 1.00                          | 0.75                                    | 2.06                           |
| Jewelry stores                              | 44831      | 1.22                                   | 1.05                          | 0.75                                    | 2.16                           |
| Jewelry stores                              | 448310     | 1.22                                   | 1.05                          | 0.75                                    | 2.16                           |
| Sporting goods, hobby, and book stores      | 451        | 1.51                                   | 1.19                          | 2.38                                    | 1.79                           |
| Sporting goods and hobby stores             | 4511       | 1.79                                   | 1.34                          | 2.37                                    | 2.12                           |
| Sporting goods stores                       | 45111      | 2.24                                   | 1.89                          | 3.63                                    | 2.79                           |
| Sporting goods stores                       | 451110     | 2.24                                   | 1.89                          | 3.63                                    | 2.79                           |
| Hobby, toy and game stores                  | 45112      | 0.40                                   | 0.47                          | 1.72                                    | 2.99                           |
| Hobby, toy, and game stores                 | 451120     | 0.40                                   | 0.47                          | 1.72                                    | 2.99                           |
| Book, periodical and music stores           | 4512       | 0.88                                   | 0.79                          | 3.39                                    | 2.26                           |
| Book stores and news dealers                | 45121      | 0.88                                   | 0.79                          | 3.39                                    | 2.26                           |
| Book stores                                 | 451211     | 0.88                                   | 0.79                          | 3.39                                    | 2.26                           |
| General merchandise stores                  | 452        | 2.74                                   | 1.22                          | 1.23                                    | 2.24                           |
| Department stores                           | 4521       | 6.48                                   | 2.19                          | 3.66                                    | 3.86                           |
| Department stores                           | 45211      | 6.48                                   | 2.19                          | 3.66                                    | 3.86                           |
| Department stores, except discount          | 452111     | 15.72                                  | 4.25                          | 4.52                                    | 4.92                           |
| Discount department stores                  | 452112     | 2.86                                   | 2.36                          | 2.93                                    | 5.94                           |
| Other general merchandise stores            | 4529       | 0.72                                   | 0.79                          | 1.79                                    | 2.52                           |
| Other general merchandise stores            | 452900     | 0.71                                   | 0.78                          | 1.77                                    | 2.52                           |
| Office supplies, stationery and gift stores | 4532       | 0.98                                   | 1.77                          | 1.17                                    | 3.96                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Office supplies and stationery stores                     | 45321      | 1.60                                   | 3.05                          | 1.80                                    | 6.67                           |
| Office supplies and stationery stores                     | 453210     | 1.60                                   | 3.05                          | 1.80                                    | 6.67                           |
| Gift, novelty and souvenir stores                         | 45322      | 0.60                                   | 0.95                          | 2.28                                    | 3.46                           |
| Gift, novelty, and souvenir stores                        | 453220     | 0.60                                   | 0.95                          | 2.28                                    | 3.46                           |
| Manufactured (mobile) home dealers                        | 45393      | 0.00                                   | 0.00                          | 3.66                                    | 3.88                           |
| Manufactured (mobile) home dealers                        | 453930     | 0.00                                   | 0.00                          | 3.66                                    | 3.88                           |
|   |            |  |                               |   |                                |
| Nonstore retailers  | 454        | 1.24                                   | 1.26                          | 1.26                                    | 1.71                           |
| Electronic and mail-order shopping                        | 454110     | 1.09                                   | 1.01                          | 0.47                                    | 1.67                           |
| Vending machine operators                                 | 4542       | 0.33                                   | 0.32                          | 2.08                                    | 1.91                           |
| Vending machine operators                                 | 45421      | 0.33                                   | 0.32                          | 2.08                                    | 1.91                           |
| Vending machine operators                                 | 454210     | 0.33                                   | 0.32                          | 2.08                                    | 1.91                           |
| Fuel dealers  | 45431      | 4.41                                   | 3.19                          | 3.34                                    | 4.36                           |
| Fuel dealers  | 454310     | 4.41                                   | 3.19                          | 3.34                                    | 4.36                           |
|   |            |  |                               |   |                                |
| Air transportation  | 481        | 1.97                                   | 0.56                          | 2.18                                    | 0.92                           |
| Scheduled air transportation                              | 4811       | 2.13                                   | 0.61                          | 2.23                                    | 1.00                           |
| Scheduled air transportation                              | 48111      | 2.13                                   | 0.61                          | 2.23                                    | 1.00                           |
| Scheduled passenger air transportation                    | 481111     | 2.31                                   | 0.65                          | 2.54                                    | 1.04                           |
| Scheduled freight air transportation                      | 481112     | 0.57                                   | 1.19                          | 1.71                                    | 2.77                           |
| Nonscheduled air transportation                           | 4812       | 0.68                                   | 0.67                          | 1.64                                    | 1.39                           |
| Nonscheduled air transportation                           | 48121      | 0.68                                   | 0.67                          | 1.64                                    | 1.39                           |
| Nonscheduled air passenger chartering                     | 481211     | 0.75                                   | 0.76                          | 1.52                                    | 1.59                           |
| Nonscheduled air freight chartering                       | 481212     | 0.94                                   | 1.49                          | 2.29                                    | 2.96                           |
|   |            |  |                               |   |                                |
| Rail transportation                                       | 482        | 0.34                                   | 0.11                          | 3.83                                    | 0.92                           |
| Rail transportation                                       | 4821       | 0.34                                   | 0.11                          | 3.83                                    | 0.92                           |
| Rail transportation                                       | 48211      | 0.34                                   | 0.11                          | 3.83                                    | 0.92                           |
| Line-haul railroads                                       | 482111     | 0.34                                   | 0.11                          | 3.83                                    | 0.92                           |
|   |            |  |                               |   |                                |
| Water transportation                                      | 483        | 0.28                                   | 0.59                          | 1.15                                    | 2.09                           |
| Deep sea freight transportation                           | 483111     | 0.68                                   | 0.46                          | 9.39                                    | 3.29                           |
| Coastal and Great Lakes freight transport.                | 483113     | 0.89                                   | 1.38                          | 9.78                                    | 3.31                           |
| Inland water transportation                               | 4832       | 0.32                                   | 0.42                          | 3.19                                    | 2.53                           |
| Inland water transportation                               | 48321      | 0.32                                   | 0.42                          | 3.19                                    | 2.53                           |
| Inland water freight transportation                       | 483211     | 0.32                                   | 0.42                          | 3.20                                    | 2.53                           |
|   |            |  |                               |   |                                |
| Truck transportation                                      | 484        | 0.26                                   | 0.19                          | 1.77                                    | 0.46                           |
| General freight trucking                                  | 4841       | 0.23                                   | 0.22                          | 2.27                                    | 0.60                           |
| General freight trucking, local                           | 48411      | 0.04                                   | 0.12                          | 2.55                                    | 1.43                           |
| General freight trucking, local                           | 484110     | 0.04                                   | 0.12                          | 2.55                                    | 1.43                           |
| General freight trucking, long-distance                   | 48412      | 0.28                                   | 0.27                          | 2.49                                    | 0.58                           |
| General freight trucking, long-distance TL                | 484121     | 0.21                                   | 0.25                          | 1.12                                    | 0.71                           |
| General freight trucking, long-distance LTL               | 484122     | 0.26                                   | 0.42                          | 5.41                                    | 0.88                           |
| Specialized freight trucking                              | 4842       | 0.30                                   | 0.29                          | 1.25                                    | 0.89                           |
| Used household and office goods moving                    | 48421      | 0.18                                   | 0.37                          | 3.03                                    | 1.92                           |
| Used household and office goods moving                    | 484210     | 0.18                                   | 0.38                          | 3.03                                    | 1.92                           |
| Specialized freight (except used) trucking, local         | 48422      | 0.03                                   | 0.04                          | 0.89                                    | 0.75                           |
| Other specialized trucking, local                         | 484220     | 0.03                                   | 0.04                          | 0.89                                    | 0.75                           |
| Specialized freight (except used) trucking, long-distance | 48423      | 0.55                                   | 0.47                          | 1.97                                    | 1.46                           |
| Other specialized trucking, long-distance                 | 484230     | 0.55                                   | 0.47                          | 1.97                                    | 1.46                           |
|   |            |  |                               |   |                                |
| Pipeline transportation of crude oil                      | 4861       | 0.04                                   | 0.00                          | 1.76                                    | 0.69                           |
| Pipeline transportation of crude oil                      | 48611      | 0.04                                   | 0.00                          | 1.76                                    | 0.69                           |
| Pipeline transportation of crude oil                      | 486110     | 0.04                                   | 0.00                          | 1.76                                    | 0.69                           |
| Other pipeline transportation                             | 4869       | 0.01                                   | 0.01                          | 0.74                                    | 0.23                           |
| Pipeline transportation of refined petroleum products     | 48691      | 0.01                                   | 0.01                          | 0.74                                    | 0.23                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Refined petroleum product pipeline transport. | 486910     | 0.01                                   | 0.01                          | 0.74                                    | 0.23                           |
| Transportation support activities             | 488        | 0.19                                   | 0.16                          | 1.60                                    | 0.46                           |
| Air transportation support activities         | 4881       | 0.30                                   | 0.28                          | 2.42                                    | 0.85                           |
| Airport operations                            | 48811      | 0.31                                   | 0.43                          | 1.66                                    | 1.06                           |
| Other airport operations                      | 488119     | 0.31                                   | 0.43                          | 1.66                                    | 1.06                           |
| Other air transportation support activities   | 48819      | 0.14                                   | 0.13                          | 3.87                                    | 1.62                           |
| Other support activities for air transport.   | 488190     | 0.14                                   | 0.13                          | 3.87                                    | 1.62                           |
| Water transportation support activities       | 4883       | 0.64                                   | 0.52                          | 2.56                                    | 1.17                           |
| Port and harbor operations                    | 48831      | 0.00                                   | 0.00                          | 3.72                                    | 0.49                           |
| Port and harbor operations                    | 488310     | 0.00                                   | 0.00                          | 3.72                                    | 0.49                           |
| Marine cargo handling                         | 48832      | 0.30                                   | 0.32                          | 3.08                                    | 1.71                           |
| Marine cargo handling                         | 488320     | 0.30                                   | 0.32                          | 3.08                                    | 1.71                           |
| Navigational services to shipping             | 48833      | 1.84                                   | 1.57                          | 1.60                                    | 2.32                           |
| Navigational services to shipping             | 488330     | 1.84                                   | 1.57                          | 1.60                                    | 2.32                           |
| Freight transportation arrangement            | 4885       | 0.11                                   | 0.12                          | 0.59                                    | 0.67                           |
| Freight transportation arrangement            | 48851      | 0.11                                   | 0.12                          | 0.59                                    | 0.67                           |
| Freight transportation arrangement            | 488510     | 0.11                                   | 0.12                          | 0.59                                    | 0.67                           |
| U.S. Postal Service                           | 491        | 0.00                                   | 0.00                          | 1.88                                    | 0.77                           |
| U.S. Postal Service                           | 4911       | 0.00                                   | 0.00                          | 1.88                                    | 0.77                           |
| U.S. Postal Service                           | 49111      | 0.00                                   | 0.00                          | 1.88                                    | 0.77                           |
| U.S. Postal Service                           | 491110     | 0.00                                   | 0.00                          | 1.88                                    | 0.77                           |
| Couriers and messengers                       | 492        | 0.19                                   | 0.01                          | 3.13                                    | 1.78                           |
| Couriers and express delivery services        | 4921       | 0.19                                   | 0.01                          | 3.10                                    | 1.84                           |
| Couriers and express delivery services        | 49211      | 0.19                                   | 0.01                          | 3.10                                    | 1.84                           |
| Couriers and express delivery services        | 492110     | 0.19                                   | 0.01                          | 3.10                                    | 1.84                           |
| Local messengers and local delivery           | 4922       | 0.15                                   | 0.16                          | 4.79                                    | 2.06                           |
| Local messengers and local delivery           | 49221      | 0.15                                   | 0.16                          | 4.76                                    | 2.01                           |
| Local messengers and local delivery           | 492210     | 0.15                                   | 0.16                          | 4.76                                    | 2.01                           |
| Warehousing and storage                       | 493        | 0.93                                   | 0.89                          | 2.74                                    | 1.92                           |
| Warehousing and storage                       | 4931       | 0.93                                   | 0.89                          | 2.74                                    | 1.92                           |
| General warehousing and storage               | 49311      | 0.95                                   | 1.15                          | 2.95                                    | 2.32                           |
| General warehousing and storage               | 493110     | 0.95                                   | 1.15                          | 2.95                                    | 2.32                           |
| Refrigerated warehousing and storage          | 49312      | 0.67                                   | 1.02                          | 2.38                                    | 2.09                           |
| Refrigerated warehousing and storage          | 493120     | 0.67                                   | 1.02                          | 2.38                                    | 2.09                           |
| Farm product warehousing and storage          | 49313      | 0.00                                   | 0.00                          | 1.93                                    | 1.44                           |
| Farm product warehousing and storage          | 493130     | 0.00                                   | 0.00                          | 1.93                                    | 1.44                           |
| Publishing industries, except Internet        | 511        | 0.24                                   | 0.32                          | 0.77                                    | 0.63                           |
| Newspaper, book, and directory publishers     | 5111       | 0.25                                   | 0.32                          | 0.68                                    | 0.72                           |
| Newspaper publishers                          | 51111      | 0.43                                   | 0.60                          | 0.65                                    | 1.63                           |
| Newspaper publishers                          | 511110     | 0.42                                   | 0.56                          | 0.49                                    | 1.61                           |
| Periodical publishers                         | 51112      | 0.30                                   | 0.33                          | 2.68                                    | 0.70                           |
| Periodical publishers                         | 511120     | 0.30                                   | 0.33                          | 2.68                                    | 0.70                           |
| Book publishers                               | 51113      | 0.33                                   | 0.71                          | 1.55                                    | 1.35                           |
| Book publishers                               | 511130     | 0.33                                   | 0.71                          | 1.56                                    | 1.35                           |
| Directory and mailing list publishers         | 51114      | 0.04                                   | 0.06                          | 4.59                                    | 2.69                           |
| Directory and mailing list publishers         | 511140     | 0.04                                   | 0.06                          | 4.59                                    | 2.69                           |
| Other publishers                              | 51119      | 0.01                                   | 0.05                          | 0.13                                    | 0.27                           |
| Greeting card publishers                      | 511191     | 0.02                                   | 0.04                          | 0.17                                    | 0.13                           |
| All other publishers                          | 511199     | 0.04                                   | 0.10                          | 0.12                                    | 0.58                           |
| Software publishers                           | 5112       | 0.58                                   | 0.68                          | 0.99                                    | 1.15                           |
| Software publishers                           | 51121      | 0.58                                   | 0.68                          | 0.99                                    | 1.15                           |
| Software publishers                           | 511210     | 0.58                                   | 0.68                          | 0.99                                    | 1.15                           |



**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Broadcasting, except Internet                                   | 515        | 0.70                                   | 0.58                          | 3.29                                    | 1.99                           |
| Radio and television broadcasting                               | 5151       | 1.75                                   | 0.86                          | 2.79                                    | 3.51                           |
| Radio broadcasting  | 51511      | 1.54                                   | 1.64                          | 1.07                                    | 4.24                           |
| Radio broadcasting  | 515110     | 1.54                                   | 1.64                          | 1.07                                    | 4.24                           |
| Television broadcasting   | 51512      | 2.19                                   | 0.94                          | 4.48                                    | 4.41                           |
| Television broadcasting   | 515120     | 2.28                                   | 0.97                          | 4.06                                    | 4.43                           |
| Cable and other subscription programming                        | 5152       | 0.51                                   | 0.61                          | 3.65                                    | 1.98                           |
| Cable and other subscription programming                        | 51521      | 0.51                                   | 0.61                          | 3.65                                    | 1.98                           |
| Cable and other subscription programming                        | 515210     | 0.51                                   | 0.61                          | 3.65                                    | 1.98                           |
| Telecommunications  | 517        | 0.24                                   | 0.18                          | 1.89                                    | 0.87                           |
| Wired telecommunications carriers                               | 5171       | 0.22                                   | 0.16                          | 0.28                                    | 0.71                           |
| Wired telecommunications carriers                               | 51711      | 0.22                                   | 0.16                          | 0.28                                    | 0.71                           |
| Wired telecommunications carriers                               | 517110     | 0.22                                   | 0.16                          | 0.28                                    | 0.71                           |
| Wireless telecommunications carriers                            | 5172       | 0.23                                   | 0.33                          | 7.55                                    | 2.37                           |
| Wireless telecommunications carriers                            | 51721      | 0.23                                   | 0.33                          | 7.55                                    | 2.37                           |
| Wireless telecommunications carriers                            | 517210     | 0.23                                   | 0.33                          | 7.55                                    | 2.37                           |
| Data processing and related services                            | 5182       | 0.03                                   | 0.04                          | 1.10                                    | 0.60                           |
| Data processing and related services                            | 51821      | 0.03                                   | 0.04                          | 1.10                                    | 0.60                           |
| Data processing, hosting and related services                   | 518210     | 0.03                                   | 0.04                          | 1.10                                    | 0.60                           |
| Internet publishing and web search portals                      | 519130     | 0.73                                   | 0.87                          | 2.76                                    | 4.56                           |
| Depository credit intermediation                                | 5221       | 1.84                                   | 0.54                          | 2.57                                    | 1.13                           |
| Commercial banking  | 52211      | 1.90                                   | 0.60                          | 2.72                                    | 1.29                           |
| Commercial banking  | 522110     | 1.90                                   | 0.60                          | 2.72                                    | 1.29                           |
| Savings institutions  | 52212      | 1.18                                   | 0.68                          | 2.34                                    | 1.17                           |
| Savings institutions  | 522120     | 1.18                                   | 0.68                          | 2.34                                    | 1.17                           |
| Security, commodity contracts and like activity                 | 523        | 0.92                                   | 0.73                          | 6.51                                    | 1.80                           |
| Securities and commodity contracts intermediation and brokerage | 5231       | 0.81                                   | 1.53                          | 5.71                                    | 2.99                           |
| Investment banking and securities dealing                       | 52311      | 1.01                                   | 2.32                          | 14.05                                   | 4.39                           |
| Investment banking and securities dealing                       | 523110     | 1.01                                   | 2.32                          | 14.05                                   | 4.39                           |
| Securities brokerage  | 52312      | 0.78                                   | 0.91                          | 5.25                                    | 4.08                           |
| Securities brokerage  | 523120     | 0.78                                   | 0.91                          | 5.25                                    | 4.08                           |
| Portfolio management  | 52392      | 1.08                                   | 0.38                          | 7.00                                    | 2.21                           |
| Portfolio management  | 523920     | 1.08                                   | 0.38                          | 7.00                                    | 2.21                           |
| Investment advice   | 52393      | 1.00                                   | 0.21                          | 10.52                                   | 6.33                           |
| Investment advice   | 523930     | 1.00                                   | 0.21                          | 10.52                                   | 6.33                           |
| Insurance carriers and related activities                       | 524        | 0.14                                   | 0.06                          | 3.05                                    | 0.45                           |
| Insurance carriers  | 5241       | 0.14                                   | 0.06                          | 3.07                                    | 0.46                           |
| Direct life/health/medical insurance carriers                   | 52411      | 0.11                                   | 0.07                          | 3.11                                    | 0.61                           |
| Direct life insurance carriers                                  | 524113     | 0.12                                   | 0.12                          | 0.57                                    | 0.52                           |
| Direct health and medical insurance carriers                    | 524114     | 0.07                                   | 0.08                          | 4.07                                    | 0.81                           |
| Other direct insurance carriers                                 | 52412      | 0.05                                   | 0.12                          | 2.90                                    | 0.62                           |
| Direct property and casualty insurers                           | 524126     | 0.05                                   | 0.12                          | 2.90                                    | 0.62                           |
| Insurance agencies and brokerages                               | 52421      | 0.08                                   | 0.05                          | 1.19                                    | 0.23                           |
| Insurance agencies and brokerages                               | 524210     | 0.08                                   | 0.05                          | 1.19                                    | 0.23                           |
| Lessors of nonresidential buildings (except miniwarehouses)     | 53112      | 0.23                                   | 0.37                          | 2.08                                    | 1.17                           |
| Lessors of nonresidential buildings                             | 531120     | 0.23                                   | 0.37                          | 2.08                                    | 1.17                           |
| Lessors of miniwarehouse and self storage units                 | 53113      | 0.19                                   | 0.21                          | 2.91                                    | 1.09                           |
| Miniwarehouse and self-storage unit operators                   | 531130     | 0.19                                   | 0.21                          | 2.91                                    | 1.09                           |
| Offices of real estate agents and brokers                       | 5312       | 0.55                                   | 0.11                          | 4.76                                    | 1.13                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index   | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Offices of real estate agents and brokers         | 53121      | 0.55                                   | 0.11                          | 4.76                                    | 1.13                           |
| Offices of real estate agents and brokers         | 531210     | 0.55                                   | 0.11                          | 4.76                                    | 1.13                           |
| Real estate property managers                     | 53131      | 0.62                                   | 0.43                          | 0.72                                    | 1.85                           |
| Residential property managers                     | 531311     | 0.38                                   | 0.42                          | 2.05                                    | 1.41                           |
| Nonresidential property managers                  | 531312     | 1.10                                   | 0.85                          | 4.82                                    | 4.94                           |
| Offices of real estate appraisers                 | 531320     | 0.00                                   | 0.00                          | 2.05                                    | 2.29                           |
|   |            |  |                               |   |                                |
| Automotive equipment rental and leasing           | 5321       | 1.67                                   | 1.80                          | 3.15                                    | 3.35                           |
| Passenger car rental and leasing                  | 53211      | 2.28                                   | 2.73                          | 3.09                                    | 5.27                           |
| Passenger car rental                              | 532111     | 2.28                                   | 2.73                          | 3.09                                    | 5.27                           |
| Truck, utility trailer and RV rental and leasing  | 53212      | 1.42                                   | 0.76                          | 3.02                                    | 1.42                           |
| Truck, utility trailer, and RV rental and leasing | 532120     | 1.42                                   | 0.75                          | 3.01                                    | 1.42                           |
| Other heavy machinery rental and leasing          | 532412     | 0.37                                   | 0.58                          | 1.23                                    | 1.96                           |
|   |            |  |                               |   |                                |
| Legal services                                    | 5411       | 0.32                                   | 0.31                          | 3.69                                    | 0.82                           |
| Offices of lawyers                                | 54111      | 0.32                                   | 0.31                          | 3.69                                    | 0.82                           |
| Offices of lawyers                                | 541110     | 0.32                                   | 0.31                          | 3.69                                    | 0.82                           |
| Offices of certified public accountants           | 541211     | 0.22                                   | 0.20                          | 1.64                                    | 1.23                           |
| Other accounting services                         | 541219     | 0.35                                   | 0.85                          | 6.00                                    | 3.76                           |
| Architectural, engineering and related services   | 5413       | 0.20                                   | 0.14                          | 2.51                                    | 0.72                           |
| Architectural services                            | 54131      | 0.14                                   | 0.17                          | 2.00                                    | 0.81                           |
| Architectural services                            | 541310     | 0.14                                   | 0.17                          | 2.00                                    | 0.81                           |
| Engineering services                              | 54133      | 0.21                                   | 0.16                          | 2.53                                    | 0.86                           |
| Engineering services                              | 541330     | 0.21                                   | 0.16                          | 2.53                                    | 0.86                           |
| Management and technical consulting services      | 5416       | 0.38                                   | 0.43                          | 0.53                                    | 1.54                           |
| Management consulting services                    | 54161      | 0.38                                   | 0.43                          | 0.53                                    | 1.54                           |
| Management consulting services                    | 541610     | 0.38                                   | 0.43                          | 0.53                                    | 1.54                           |
| Advertising agencies                              | 54181      | 0.07                                   | 0.08                          | 0.85                                    | 0.52                           |
| Advertising agencies                              | 541810     | 0.07                                   | 0.08                          | 0.85                                    | 0.52                           |
|   |            |  |                               |   |                                |
| Employment services                               | 5613       | 0.17                                   | 0.18                          | 1.57                                    | 0.70                           |
| Employee leasing services                         | 56133      | 0.17                                   | 0.24                          | 1.08                                    | 1.30                           |
| Professional employer organizations               | 561330     | 0.17                                   | 0.24                          | 1.08                                    | 1.30                           |
| Staffing services (except PEOs)                   | 56138      | 0.18                                   | 0.26                          | 1.47                                    | 0.97                           |
| Staffing services (except PEOs)                   | 561380     | 0.18                                   | 0.26                          | 1.47                                    | 0.97                           |
| Travel agencies                                   | 56151      | 0.74                                   | 0.60                          | 0.59                                    | 1.18                           |
| Travel agencies                                   | 561510     | 0.74                                   | 0.60                          | 0.58                                    | 1.18                           |
| Security guards and patrol services               | 561612     | 0.13                                   | 0.26                          | 2.16                                    | 0.71                           |
| Janitorial services                               | 56172      | 0.05                                   | 0.06                          | 0.44                                    | 0.49                           |
| Janitorial services                               | 561720     | 0.05                                   | 0.06                          | 0.44                                    | 0.49                           |
|   |            |  |                               |   |                                |
| Waste collection                                  | 5621       | 0.30                                   | 0.22                          | 2.01                                    | 0.62                           |
| Waste collection                                  | 56211      | 0.30                                   | 0.22                          | 2.01                                    | 0.62                           |
| Solid waste collection                            | 562111     | 0.30                                   | 0.22                          | 2.01                                    | 0.62                           |
|   |            |  |                               |   |                                |
| Offices of physicians                             | 6211       | 0.03                                   | 0.04                          | 0.53                                    | 0.32                           |
| Offices of physicians                             | 62111      | 0.03                                   | 0.04                          | 0.53                                    | 0.32                           |
| Offices of physicians, except mental health       | 621111     | 0.03                                   | 0.04                          | 0.53                                    | 0.32                           |
| Offices of dentists                               | 6212       | 0.03                                   | 0.03                          | 2.50                                    | 1.33                           |
| Offices of dentists                               | 62121      | 0.03                                   | 0.03                          | 2.50                                    | 1.33                           |
| Offices of dentists                               | 621210     | 0.03                                   | 0.03                          | 2.50                                    | 1.33                           |
| Medical and diagnostic laboratories               | 6215       | 0.05                                   | 0.07                          | 0.07                                    | 0.39                           |
| Medical and diagnostic laboratories               | 62151      | 0.05                                   | 0.07                          | 0.07                                    | 0.39                           |
| Medical laboratories                              | 621511     | 0.07                                   | 0.12                          | 0.14                                    | 0.59                           |
| Diagnostic imaging centers                        | 621512     | 0.00                                   | 0.00                          | 0.32                                    | 0.43                           |
| Home health care services                         | 6216       | 0.03                                   | 0.03                          | 0.96                                    | 0.50                           |
| Home health care services                         | 62161      | 0.03                                   | 0.03                          | 0.96                                    | 0.50                           |

**Table 3. Variance estimates for selected Producer Price Index industry-based indexes, 1-month and 12-month median absolute percent changes and median 1-month and 12-month standard errors of the percent change, 2017**

| Index                                       | Index code | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|---|------------|--|-------------------------------|---|--------------------------------|
| Home health care services                   | 621610     | 0.03                                   | 0.03                          | 0.96                                    | 0.50                           |
| All other ambulatory health care services   | 62199      | 0.06                                   | 0.07                          | 0.62                                    | 0.53                           |
| Blood and organ banks                       | 621991     | 0.06                                   | 0.07                          | 0.62                                    | 0.53                           |
|   |            |  |                               |   |                                |
| Hospitals                                   | 622        | 0.11                                   | 0.10                          | 1.64                                    | 0.46                           |
| General medical and surgical hospitals      | 6221       | 0.11                                   | 0.10                          | 1.70                                    | 0.47                           |
| General medical and surgical hospitals      | 62211      | 0.11                                   | 0.10                          | 1.70                                    | 0.47                           |
| General medical and surgical hospitals      | 622110     | 0.11                                   | 0.10                          | 1.70                                    | 0.48                           |
| Psychiatric and substance abuse hospitals   | 6222       | 0.09                                   | 0.12                          | 2.51                                    | 1.80                           |
| Psychiatric and substance abuse hospitals   | 62221      | 0.09                                   | 0.12                          | 2.51                                    | 1.80                           |
| Psychiatric and substance abuse hospitals   | 622210     | 0.09                                   | 0.12                          | 2.51                                    | 1.80                           |
| Other specialty hospitals                   | 6223       | 0.12                                   | 0.14                          | 0.19                                    | 1.95                           |
| Other specialty hospitals                   | 62231      | 0.12                                   | 0.14                          | 0.19                                    | 1.95                           |
| Other specialty hospitals                   | 622310     | 0.12                                   | 0.14                          | 0.19                                    | 1.95                           |
|   |            |  |                               |   |                                |
| Nursing care facilities                     | 6231       | 0.17                                   | 0.17                          | 2.57                                    | 0.52                           |
| Nursing care facilities                     | 62311      | 0.17                                   | 0.17                          | 2.57                                    | 0.52                           |
| Nursing care facilities                     | 623110     | 0.17                                   | 0.17                          | 2.58                                    | 0.52                           |
| Residential developmental disability homes  | 62321      | 0.28                                   | 0.27                          | 3.70                                    | 2.17                           |
| Residential developmental disability homes  | 623210     | 0.28                                   | 0.27                          | 3.70                                    | 2.17                           |
|   |            |  |                               |   |                                |
| Amusement and theme parks                   | 7131       | 0.57                                   | 0.84                          | 4.79                                    | 2.42                           |
| Amusement and theme parks                   | 71311      | 0.57                                   | 0.84                          | 4.79                                    | 2.42                           |
| Amusement and theme parks                   | 713110     | 0.57                                   | 0.81                          | 4.79                                    | 2.31                           |
| Golf courses and country clubs              | 71391      | 0.34                                   | 0.21                          | 1.07                                    | 2.54                           |
| Golf courses and country clubs              | 713910     | 0.34                                   | 0.21                          | 1.07                                    | 2.54                           |
| Fitness and recreational sports centers     | 71394      | 0.40                                   | 0.43                          | 0.71                                    | 0.74                           |
| Fitness and recreational sports centers     | 713940     | 0.40                                   | 0.43                          | 0.71                                    | 0.74                           |
|   |            |  |                               |   |                                |
| Accommodation                               | 721        | 1.87                                   | 1.12                          | 1.27                                    | 1.39                           |
| Accommodation                               | 7211       | 1.87                                   | 1.12                          | 1.27                                    | 1.39                           |
| Hotels (exc casino hotels) and motels       | 72111      | 2.82                                   | 1.48                          | 1.71                                    | 1.85                           |
| Hotels and motels, except casino hotels     | 721110     | 2.82                                   | 1.48                          | 1.71                                    | 1.85                           |
| Casino hotels                               | 72112      | 1.66                                   | 1.14                          | 0.83                                    | 1.10                           |
| Casino hotels                               | 721120     | 1.66                                   | 1.14                          | 0.83                                    | 1.10                           |
|   |            |  |                               |   |                                |
| Commercial machinery repair and maintenance | 8113       | 0.01                                   | 0.01                          | 1.69                                    | 0.93                           |
| Commercial machinery repair and maintenance | 81131      | 0.01                                   | 0.01                          | 1.69                                    | 0.93                           |
| Commercial machinery repair and maintenance | 811310     | 0.01                                   | 0.01                          | 1.69                                    | 0.93                           |

## Variance estimates for price changes in the Producer Price Index

The Producer Price Index (PPI) program at the Bureau of Labor Statistics (BLS) began publishing variance estimates in 2016 based on data for 2015. PPI intends to publish variance estimates on an annual basis. This document outlines the uses for variance statistics and provides a description of PPI variance estimation methodology.

### Survey error

Survey error can be classified into sampling error and nonsampling error. Sampling error results when a parameter is calculated on the basis of a sample instead of the full population. The PPI program collects price information for a sample of more than 100,000 goods and services on a monthly basis. These transaction prices are used to construct the broad range of PPIs. PPI variance estimates measure the sampling error in the estimate of the percent change in an index. Sampling error reflects the difference between a sample estimate of change and the true population value. Variance statistics measure the precision of a sample estimate.

Nonsampling error occurs in many forms, but whatever the form, nonsampling error does not affect the spread of the sample estimates. Nonsampling error can, however, cause the estimate to be consistently higher (or lower) than the true population estimate. When this occurs, it is called the *bias of a sample estimate*. One example of sample estimate bias is nonresponse error. Each month, there are establishments in the PPI sample for which no price data are received. If the subset of the sample that fails to provide price update information differs consistently in some way from the subset that does respond, bias is created in the estimate. Another type of nonsampling error occurs when the frame from which the sample was drawn does not properly represent the population. Still other nonsampling errors occur during the collection of data. For example, if instructions do not provide clear directions regarding what is to be collected, BLS economists may fail to communicate their requests clearly or may make errors in recording the data they collect. If any of these errors appear on a consistent basis, a bias is created in the estimate. The PPI program, along with other programs at BLS, analyzes estimates for the presence of bias and mitigates nonsampling error by conducting dedicated research into the population of interest, by clearly documenting data collection procedures, and by performing quality checks throughout the collection process.

A sample estimate with high variability, but no bias, is less precise, but has an expected value equal to that of the true population value. By contrast, a sample estimate with low variability, but a large bias, may prove consistent with other sample estimates from the population sampled, but does not have an expected value equal to the population value. An ideal sample estimate has a small variance and no bias.

### Description of data

Each month, the PPI program calculates 1-month and 12-month percent changes and their associated variance estimates. The values that constitute the annual PPI publication of variance statistics include the *median of the absolute values of the percent change* as a reference statistic, as well as the corresponding *median standard error* as the measure of variance, both based on 1-month and 12-month percent changes for the calendar year.

A commonly used measure of sampling variability is the standard error (SE), which is the square root of the variance estimate. The SE estimates the sample distribution, or spread of the sample estimates, for comparison with the true population value. The SE is used to calculate a confidence interval around the sample percent change estimate. To calculate a 95-percent confidence interval, data users commonly add and subtract 2 times the SE value from its corresponding percent change estimate to obtain a range of values that likely contains the true population percent change. If this range includes zero, then the percent change is not significantly different from zero.

In analyzing variance in the PPI, the median of the absolute value of the percent change is the reference statistic that best represents the magnitude of the percent change in an index. If, instead, the median value of the signed percent changes over a calendar year were used for an index that exhibits bidirectional volatility, then the resulting median value might be small while the discrete values themselves would include a number of large increases and decreases. The median value of 12 months of signed percent changes would then fail to correspond with the median standard error for the calendar year, because the individual, larger index percent changes likely have larger standard errors associated with them and standard errors are always positive. For example, an index that increased by 5 percent 6 months of the year and decreased by 5 percent the other 6 months of the year could have an SE of 1 percent for each month. The median percent change would then be zero, but the median SE would be 1 percent. The linkage between these two values would break down because of the bidirectional volatility of the index. In contrast, employing the median of the absolute values of the percent change provides a reference statistic of 5 percent, which is a more appropriate reference value when paired with the median SE value of 1 percent.

PPI variance estimates include data for the North American Industry Classification System (NAICS), the Final Demand-Intermediate Demand (FD-ID) system, and the unique-to-PPI, commodity-based index structure. For the NAICS-based industry structure, variance data are available for industry sector indexes; 3-, 4-, and 5-digit industry group indexes; and for 6-digit industry indexes. Six-digit industries are the basic unit for sampling and data collection in PPI. The FD-ID system is the main PPI structure for analyzing producer inflation at the aggregate level. Variance data are provided for the entire FD-ID aggregation system. Within the PPI commodity-based index structure, 6-digit commodity indexes are the detailed components of the FD-ID system. Data users commonly use 4-digit and 6-digit PPI commodity indexes to explain FD-ID index movements. Variance data are provided for 2-, 3-, 4-, and 6-digit commodity-based indexes.

### **Analyzing the data**

Sampling error can be affected by a number of factors, such as the size and design of the sample, as well as the variability of the population of interest. The larger the sample size, the more accurate is the representation of the population and the smaller is the deviation from the true population value. If every item in the population were selected into the sample, the sample mean and the population mean would be equal and the sample estimate would have a standard error of zero. This tendency toward equality of the sample mean and the population mean and toward a standard error of zero can be observed in the PPI: typically, the standard errors of index percent changes for more highly aggregated indexes tend to be smaller than the standard errors of percent change estimates of more detailed indexes. This is not always the case, however, because other factors also affect the standard error. In addition, standard errors typically decrease, on a relative basis, compared with their accompanying reference measures, when the analysis shifts to a 12-month basis rather than a 1-month basis.

For example, the 1-month median absolute percent change in the final demand goods index for 2016 was 0.46 percent and the accompanying SE value was 0.10 percent. Thus, two standard error values, plus and minus, provide 95-percent confidence that the true change in the median absolute 1-month change in the final demand goods index was between 0.26 percent and 0.66 percent in 2016. Looking at 12-month data for the final demand services index in 2016 reveals that the median absolute change was 1.32 percent, the SE was 0.47 percent, and the 95-percent confidence interval was between 0.38 percent and 2.26 percent. The confidence intervals for the major components of the final demand index varied in 2016, with the relative size of the confidence band for the goods component being somewhat narrower compared to the relative size of the confidence interval for the services component of final demand, which exhibited somewhat wider banding. (See table A.)

**Table A. Variance estimates for selected PPI Final Demand–Intermediate Demand indexes, 2016**

| Index                      | 1-month median absolute percent change | 1-month median standard error | 12-month median absolute percent change | 12-month median standard error |
|----------------------------|--|-------------------------------|---|--------------------------------|
| Final demand               | .20                                    | .11                           | .14                                     | .33                            |
| Final demand, goods        | .46                                    | .10                           | 2.09                                    | .19                            |
| Final demand, services     | .14                                    | .16                           | 1.32                                    | .47                            |
| Final demand, construction | .05                                    | .06                           | .92                                     | .21                            |

When the calculated 95-percent confidence interval contains a value of zero, the interpretation is that there is not a significant percent change for the given statistic. For example, in 2016 the 1-month median absolute percent change for the final demand index was 0.20 percent, while the SE value was 0.11 percent. Subtracting two SE values from the 0.20 median absolute percent change results in a range of values that contains zero. This means that, at the two SE confidence level, zero is a possible outcome of the percent change, and the statement that the percent change differs from zero cannot be made. For this particular example, seven months in 2016 had a 1-month rate of change in the PPI for final demand that ranged from -0.2 percent to +0.2 percent, resulting in the median absolute percent change of 0.2. In contrast, while the 2015 SE for the final demand index also was 0.11 percent, the 1-month median absolute percent change was larger, 0.30 percent. Those results provided directional confidence at the two SE level in 2015. The SE for the aggregate index (in this case final demand) is contributed to by the various components by which it is comprised (final demand for goods, services and construction). If a component is more volatile, it will be reflected in the SE of its aggregate.

### **PPI sampling**

Three times each year, the PPI program updates its samples for approximately 25 to 30 industries. Industries are defined according to the North American Industry Classification System (NAICS). PPI industry samples last, on average, about 7 years, and updating samples in this manner distributes the burden of data collection over time. The decision when to select a new sample for an industry is based on a number of factors, including the age of the current sample, its level or rate of attrition, the rate at which producers enter and exit the industry, and the degree that product and service lines undergo dynamic change. Once an industry is chosen for sampling, an industry study is undertaken to identify unique characteristics of that industry and to determine whether special considerations need to be taken into account in designing the sample, initiating data collection, and requesting monthly price updates. The PPI program typically conducts initial data collection via interviews with producers that are sampled. The number of units allocated to an industry’s new sample depends on a variety of

factors, including number of producers in the industry, original size of the current sample, deterioration rate, and current variance estimate.

The drawing of an industry sample takes place in two stages. The first stage is the selection of establishments, using probability-proportional-to-size sampling. The PPI program typically selects industry-based samples of establishments from the Unemployment Insurance (UI) frame—a file that lists all businesses that pay unemployment insurance. This file provides size measure data in terms of either employment or wages. However, for some industries—particularly services industries—the PPI program makes use of alternative frame sources that have more suitable size measures. The size measure of a frame serves as a proxy for establishment revenue and is used to calculate an establishment’s weight in the PPI survey. The best sampling size measure is determined on an industry-by-industry basis. At this stage, some establishments are selected with certainty, because they have a large size measure, whereas others have a probability of selection. These establishments are known as certainty and probability establishments, respectively. Although each industry is itself an explicit *stratum* (a nonoverlapping subgroup), information obtained during the industry study process, as well as the data available from the frame, determine whether further stratification is necessary. Examples of additional stratification variables are the industry’s geographic dispersion and size category of its producers.

The second-stage sample is drawn when BLS economists conduct initiation interviews with officials at the establishments selected in stage 1. In stage 2, the economist obtains a more accurate measure of establishment size by obtaining actual revenue information from the sample unit. Then, using a probability-based disaggregation method that identifies unique characteristics of products and transactions, the economist selects a sample of transactions of goods or services whose prices will be tracked over time. Information collected during initiation is entered into the PPI database. Price update requests are then sent to respondents on a monthly basis for the life of the sample.

Two industries with the same sample size can have very different standard errors because of the variability, or spread, of the population from which the sample is drawn. Industry samples are designed to account for diverse types of establishments that experience different kinds of price movements in a population. For example, the industry designated “offices of real estate agents and brokers” (NAICS 531210) has proportional representation of both residential and nonresidential offices and transactions. Proportionally allocating a portion of the sample to each stratum of a population, rather than relying on a random draw of the entire population, ensures better representation of the population. As mentioned previously, another key factor in the standard error of an estimate is the variability of the population itself: some industries experience very small price movements while others exhibit volatile pricing.

In certain cases, primarily PPIs for agricultural products, price data are not directly sampled by PPI staff. Instead, the data are collected from secondary sources, mainly the U.S. Department of Agriculture, but also other sources. For PPI purposes, these data are considered a census of available information, and as a result, no sampling variability exists in the percent change estimates based on them, and their standard error values are zero. These standard error values contribute to higher level aggregations, and at some point, aggregate indexes include both sampled and nonsampled data. In particular, all commodity codes under PPI group 01, Farm Products, are calculated from nonsampled data, as is the FD–ID index for Unprocessed Foodstuffs and Feedstuffs. Furthermore, the latter index constitutes a substantial portion of the aggregate index for Unprocessed Goods for Intermediate Demand.

## Calculating percent change estimates

The PPI calculates variance statistics for 1-month and 12-month percent change estimates. To understand the specific calculations, it is important to have a general understanding of how PPIs are calculated. The rest of this section provides an explanation of those calculations.

*Calculating the long-term relative for items in a lowest level cell index:*

The PPI calculates the long-term price relative for each item with a price that is considered *good*. Essentially, a *good price* is an item price that does not require imputation because a valid price was collected from the respondent during a given period. To calculate the long-term price relative, the PPI divides the current-period price of an item by the base-period price of that item:

$$\text{LTR}_{k,c,t} = \frac{P_{k,c,t}}{P_{k,c,0}},$$

where  $\text{LTR}_{k,c,t}$  is the long-term price relative of item  $k$  with a good price in cell  $c$  at time  $t$ ,  $P_{k,c,t}$  is the price of item  $k$  in cell  $c$  at time  $t$ , and  $P_{k,c,0}$  is the price of item  $k$  in cell  $c$  in base period 0.

*Calculating the cell aggregate for a lowest level cell index:*

To calculate the cell aggregate, the PPI multiplies the long-term price relative of each item by the weight of the item and sums across the items in the cell:

$$\text{CA}_{c,t} = \sum_{i=1}^{n_c} w_{i,c} \text{LTR}_{i,c,t}$$

Here,  $\text{CA}_{c,t}$  is the cell aggregate for cell  $c$  at time  $t$ ,  $w_{i,c}$  is the weight of item  $i$  in cell  $c$ ,  $\text{LTR}_{i,c,t}$  is the long-term price relative of item  $i$  in cell  $c$  at time  $t$ , and  $n_c$  is the total number of items in cell  $c$ .

*Calculating the cell-level index:*

To calculate the cell-level index, the PPI divides the cell aggregate for the current period by the cell aggregate for the previous period and multiplies by the cell-level index for the previous period:

$$I_{c,t} = \frac{\text{CA}_{c,t}}{\text{CA}_{c,t-1}} I_{c,t-1},$$

In this equation,  $I_{c,t}$  is the index for cell  $c$  at time  $t$ ,  $I_{c,t-1}$  is the index for cell  $c$  at time  $t - 1$ ,  $\text{CA}_{c,t}$  is the cell aggregate for cell  $c$  at time  $t$ , and  $\text{CA}_{c,t-1}$  is the cell aggregate for cell  $c$  at time  $t - 1$ .



Lower level indexes are then aggregated in the industry, commodity, and FD-ID index structures, with the use of a system of weights derived from U.S. Census Bureau data and other sources.

*Calculating 1-month and 12-month percent changes for an index:*

To calculate these changes, use the formula

$$PC_{c,t,t-m} = \left( \frac{I_{c,t}}{I_{c,t-m}} - 1 \right) \times 100,$$

where  $PC_{c,t,t-m}$  is the percent change in the index for cell  $c$  from time  $t - m$  to time  $t$ , in which  $m$  is equal to 1 month or 12 months previously,  $I_{c,t}$  is the index for cell  $c$  at time  $t$ , and  $I_{c,t-m}$  is the index for cell  $c$  at time  $t - m$ .

### **Variance estimation**

Variance estimates reflect the sample distribution of the population. Basically, variance estimation answers the question, “If a survey were conducted many times, with multiple independent samples drawn from the population, what would be the spread of the sample estimates?” If the sample estimates are tightly grouped about the sample mean, the variance is small. If they are widely distributed, the variance is larger. Because conducting the survey several times is not possible, the PPI program uses a simulation method of variance estimation called *bootstrapping*, which involves drawing 150 replicate samples, with replacement, from the original sample and then calculating the percent change estimates for each replicate sample.

*Selecting replicates:*

First, within each industry, variance strata are formed, in accordance with the following criteria:

- For probability establishments, each sampling stratum is set to be a variance stratum with each establishment serving as a primary sampling unit (PSU). If there are no additional sampling strata within an industry, then all probability establishments are placed into a single variance stratum.
- Certainty establishments with more than one item become their own variance stratum. Within this variance stratum, each item is a variance PSU.
- Certainty establishments from which only one item is collected are paired with similar units, with each item being its own variance PSU. As many as three of these units can be collapsed into a single variance stratum. If no like unit exists, this single-item unit is paired with a multi-item certainty unit to form a variance stratum. Again, each item is a variance PSU. Finally, if there are no other certainty units in the sample, this single-item certainty unit is included in every replicate.

After the variance strata are defined, 150 bootstrap replicates are selected from the sample. Each replicate is selected in the following manner:

- Of the  $n_h$  PSUs in each variance stratum, a replicate sample is of size  $n_h - 1$ . One exception is when there is a certainty unit containing a single item and there are no like establishments with which to pair that unit. In this circumstance, the unit/item is the only variance PSU in its variance stratum, and it is included in every replicate. Another exception occurs when there is only one probability unit in a sample; in that case, that unit also is included in all replicates.
- Using the sample as a frame, the PPI selects each replicate by means of random sampling with replacement. This strategy gives each PSU an equal probability of selection and allows a PSU to be selected more than once.

*Reweighting:*

Item weights are rescaled in each replicate with the use of the formula

$$w_{hik}^* = w_{hik} \left[ \left( \frac{n_h}{n_h - 1} \right) m_{hi}^* \right],$$

where  $h$  is the variance stratum,  $i$  is the variance PSU,  $k$  is the item,  $w_{hik}^*$  is the bootstrap weight,  $w_{hik}$  is the weight of the original item,  $n_h$  is the number of original sample units in the variance stratum, and  $m_{hi}^*$  is the number of times variance PSU  $i$  in stratum  $h$  is selected in a given replicate.

*Calculating variance estimates:*

Variance estimates are calculated for each percent change estimate calculated by the PPI program. The variance replicates that are selected at the detailed industry level are aggregated by using PPI aggregation structures to produce estimates for all 1-month and 12-month percent changes for each replicate. Variance estimates are then calculated with the formula

$$v_{PC_{c,t,t-m}} = \frac{1}{B} \sum_{b=1}^B (\hat{\theta}_b - \hat{\theta}_{full})^2,$$

where  $B$  is the number of bootstrap replicates (in the current implementation,  $B = 150$ ),  $\hat{\theta}_b$  is the percent change estimate for a given replicate, and  $\hat{\theta}_{full}$  is the percent change estimate of the original sample.

The standard error is the square root of the variance estimate:

$$SE = \sqrt{v_{PC_{c,t,t-m}}}$$

For more information, email the Producer Price Index Section of Index Analysis and Public Information at [ppi-info@bls.gov](mailto:ppi-info@bls.gov), or call (202) 691-7705.

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