

The impact of strikes on current employment statistics

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Among the important economic indicators released by the Government each month is the employment estimate from the Current Employment Statistics (CES) program.¹ It is important for users of CES data to understand how strikes affect CES estimates so that they can accurately interpret the economic meaning of the change in the number of employees over the month. Conceptually, the CES survey measures the number of persons *on payrolls*—that is, those actually getting paid for work or for leave that occurred during the reference pay period. Thus, persons on strike for the entire period are not counted as employed, because they are not on the payroll.² The growth in employment over the month is affected by the net change in the number of strikers—the number of persons newly on strike minus the number who returned to work after a settlement. If the net is positive (more new strikers than returning workers), employment growth over the month is reduced; conversely, if the net is negative, employment growth is boosted.

While the reflection of strikers as a reduction in employment may cloud any underlying trend analysis, it is exactly the measure needed for other uses of CES data. For example, CES data are a major input for generating estimates of personal income, part of the Bureau of Economic Analysis' National Income and Product Accounts. Also, besides employment, the CES program produces estimates of average weekly hours and average hourly earnings. The product of employment, weekly hours, and hourly earnings yields aggregate earnings, which form the basis of the wage and salary component of the Commerce

Department's preliminary estimates of personal income. If persons on strike were included in the CES estimates, the aggregate earnings data would be inflated; estimates of the strikers' earnings would have to be "backed out" of the data used to compute personal income. Another major indicator that utilizes CES data is labor productivity, which divides output by the number of hours that went into producing the output. CES data on aggregate hours (employment multiplied by average weekly hours) are used in this computation. If strikers' hours were in the data, analysts would have to eliminate them before computing labor productivity.

Thus, for a variety of reasons, it is important that strikes be identified and accurately reflected in the CES estimates. It also is important that persons using CES data to analyze economic trends be able to discount the effect of strikes in the data. This technical note provides an overview of how strikes can affect CES estimates and of where to find current and historical information on the associated effects.

Strikes and employment

The largest strikes that have affected CES estimates in the past 25 years are listed in table 1. Three major factors determine how, where, and to what extent strikes affect the CES estimates: the reference pay period, the industry code, and the striking company's presence in or absence from the sample.

Reference pay period. The most critical factor in determining whether a strike will be reflected in CES estimates is its timing. The CES reference pay period is the pay period that includes the 12th of the month. However, the length of pay periods varies among establishments. Because persons paid for any part of the reference period are counted as employed, workers must be on strike for their *entire* reference pay period in order to be excluded from CES employment counts. In all of the examples in exhibit

1, we assume that the strikers' January reference pay period is from Sunday the 11th to Saturday the 17th and their February reference pay period is from Sunday the 8th to Saturday the 14th. When the strikes end, all workers are called back the next day. All plants involved in the strike are included in our sample.

In addition, strikes may be rolling, which means that a given strike may start and end at different dates at various establishments. For example, the 1983 strike of 640,000 workers against American Telephone and Telegraph (AT&T) officially started on August 7 and ended on August 28. On August 15, 20,000 workers from Western Electric's City Workers of Oklahoma joined the strike, thus bringing the total number of striking workers to 660,000. However, these additional strikers had worked for part of the reference pay period, so they were counted as being employed.

Industry code. The Standard Industrial Classification (SIC) system is used by the CES program to place all of the establishments in its sample in a specific industry.³ SIC codes range from one to four digits. A four-digit SIC is the most specific classification, a one-digit SIC the most general. For instance, the two-digit SIC 37 stands for transportation equipment, which includes everything from cars and automobiles to guided missiles and space vehicles. To further delineate this industry, it is classified under SIC code 372, "aircraft and parts," which refers to anything dealing with the aircraft industry, from air tubes to fuselage assemblies. The most precise SIC code for aircraft production is the four-digit 3721, "aircraft manufacturing." When a strike occurs, it is reflected in data at the four-digit level and all the higher level aggregates that include the affected four-digit industry.

A company with numerous establishments or work sites can be classified into many four-digit SIC codes. For example, the subsidiary of an integrated

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Exhibit 1. Examples of effects of strikes on employment figures

| Strike begins | Strike ends | Number of workers involved | On strike entire— | | Effect on— | | |
|-----------------------|-------------|----------------------------|--------------------------|---------------------------|--|--|---|
| | | | January reference period | February reference period | January employment | February employment | March employment |
| | | | | | | | |
| Example 1: Jan. 15 | Feb. 5 | 2,000 | No | No | None, because the workers were employed in some part of January's reference week; therefore, they are counted as employed. | None, because the strike did not continue through the end of February's reference week. Workers were back on payrolls and counted as employed. | ... |
| Example 2: Jan. 20 | Feb. 20 | 3,000 | No | Yes | None. Strike began after the January reference pay period. | Employment level and over-the-month change decrease by 3,000. | Employment level and over-the-month change increase by 3,000. |
| Example 3: Jan. 18 | Feb. 6 | 5,000 | No | No | None. Strike began after the January reference pay period. | None. Strike ended before the February reference pay period. | ... |

automobile company that produces the steel for the body of a car may be classified into “blast furnaces” (SIC 3312). However, the subsidiary that turns the steel into auto parts may be classified into “automotive stamping plants” (SIC 3465). Finally, the part of the automobile company that actually assembles the car may be classified into “motor vehicles and passenger car bodies” (SIC 3711). As a result, strikes against a single company can sometimes be distributed across several industries, affecting employment levels in each.

Presence in the sample. The CES program is an establishment-based sample survey of approximately 390,000 establishments. Known strikes are always fully reflected in the estimates. However, analysts who prepare the estimates often will have to make adjustments based on the extent of the representation of

the striking company in the sample. Some companies are completely represented, while others are only partially represented or not represented at all. An example of complete representation is a company with 10 plants on strike, all of which are in the usable sample at the time the estimate is made. Partial representation is signified by a company with 10 plants on strike, but only 5 in the usable sample. No representation is indicated by a company with 10 plants on strike, none of which are present in the sample.

CES industry analysts must assure that a strike is reflected in the CES estimates, regardless of its presence in the sample. Strikes are most easily accounted for if the striking establishments are completely represented in the CES sample. When this is the case, the weight of the striking establishment is adjusted so that the establishment rep-

resents only itself in the CES estimates. If a particular strike is only partially or not at all represented in the sample, analysts will make adjustments to the final estimate in order to reflect all persons in the strike. In this case, the number of workers on strike usually is determined by contacting the public relations office of the strike-affected company or by using a published figure that is consistent across a variety of public sources.

Effect on hours and earnings estimates

Besides having an effect on CES employment counts, strikes also affect estimates of workers' average weekly hours and average hourly earnings. These are hours for which production workers either are paid for work or are on paid leave (including paid vacation, holidays, sick leave, or other paid leave) for the refer-

ence pay period.

When strikers work part, but not all, of the reference pay period, the CES survey counts them as employed, but with reduced hours. The magnitude of the reduction on average weekly hours depends on the proportion of workers in the industry's sample with reduced hours and the number of hours they worked.

When workers are on strike for an entire pay period, their hours and earnings can be affected in two ways: through *within-industry effects* and by *sum-across-industries effects*.

Within-industry effects. For the specific industry involved in the strike, estimates are affected only if the hours or earnings of the persons on strike or layoff differ significantly from the industry's average hours or earnings. The impact is phased in slowly over the months the strike continues. Because of confidentiality requirements, the Bureau of Labor Statistics cannot provide

the precise impact of a particular strike and related shutdowns on average weekly hours or average hourly earnings for a particular industry. However, the change in the industry estimate will include the impact of the strike, as well as developments reported by other members of the sample. One example of the within-industry effect is the AT&T strike of 1983. In late July of that year, AT&T workers went on strike all across the country. They were on strike for the full pay period that includes August 12. Table 2 shows the estimates of employment, average weekly hours, and average hourly earnings within the category of "telephone communications, except radio" (SIC 4813) during the affected months.

The August over-the-month employment decline of nearly 635,000⁴ in the category of "telephone communications, except radio" and an average hourly earnings decline of \$0.30 include the impact of the large strike of 640,000

workers against AT&T, as well as normal monthly fluctuations in other reporting establishments. The impact of the AT&T strike was reversed when the strikers returned to work before the next survey reference period.

Sum-across-industry effects. The absence of persons on strike or layoff from payrolls may affect average weekly hours or average hourly earnings at higher levels of industry aggregation. If workers in the specific industry involved in the strike work shorter hours or earn less than workers in other industries in the aggregation, the hours and earnings estimates for the aggregation will be higher. Conversely, if workers in the specific industry involved in the strike work longer hours or earn more than workers in other industries in the aggregation, the hours and earnings estimates for the aggregation will be lower.

For example, a strike in aircraft manufacturing (SIC 3721), which has higher

Table 1. Strikes affecting CES employment by more than 50,000, 1975–2000

| Year | Month | SIC | Industry | Impact on CES employment ¹ |
|------------|-----------|-----------------|---|---------------------------------------|
| 1975 | May | 15 | General building contractors: residential buildings | 75,000 |
| 1976 | May | 301 | Tires and inner tubes | 59,900 |
| 1977 | December | 12 | Coal mining | 160,000 |
| 1978 | January | 12 | Coal mining | 160,000 |
| 1980 | July | 15 | General building contractors: residential buildings | 105,000 |
| | February | 291 | Petroleum refining | 58,300 |
| | March | 291 | Petroleum refining | 59,200 |
| 1981 | April | 12 | Coal mining | 160,000 |
| | May | 12 | Coal mining | 162,000 |
| | June | 15 | General building contractors: residential buildings | 51,300 |
| 1983 | August | 481 | Telephone communications (AT&T) | 640,000 |
| 1986 | June | 481 | Telephone communications (AT&T) | 86,100 |
| 1987 | September | 82 | Educational services | 52,000 |
| 1989 | August | 481, 5063, 7374 | Telephone communications; electrical apparatus and equipment, wiring supplies, and construction materials; computer processing and data preparation and processing services | 125,000 |
| | September | 481 | Telephone communications (NYNEX) | 53,500 |
| | October | 481 | Telephone communications | 53,500 |
| | November | 481 | Telephone communications | 53,500 |
| 1994 | April | 42 | Motor freight transportation and warehousing | 70,000 |
| 1997 | August | 421 | Trucking and courier services, except air (United Parcel Service) | 185,000 |

¹ The amount by which CES employment levels are lowered due to workers on strike. The figure does not include related layoffs or other secondary effects of the strike.

NOTE: Table does not include strikes that occurred outside the CES reference period.

Table 2. CES estimates of employment and of average hours and earnings of telephone communications (except radio) workers (SIC 4813) during 1983 AT&T strike

| Month and year | All employment (not seasonally adjusted) | Average weekly hours | Average hourly earnings |
|-------------------------|--|----------------------|-------------------------|
| Levels: | | | |
| July 1983 | 985.0 | 40.4 | \$11.36 |
| August 1983 | 350.1 | 40.3 | 11.06 |
| September 1983 | 976.3 | 40.5 | 11.51 |
| Over-the-month changes: | | | |
| July–August | –634.9 | –.1 | –.30 |
| August–September | +626.2 | +2 | +45 |

Table 3. Effect of 1998 strike against General Motors on CES employment in manufacturing

| Category | June | July | Total declines | August returns |
|---|------------------|----------|----------------|----------------|
| Total | –9,400 | –140,600 | –150,000 | +150,000 |
| On strike | –3,400 | –5,800 | –9,200 | +9,200 |
| On layoff | –6,000 | –127,800 | –133,800 | +133,800 |
| Total, on strike and on layoff | –9,400 | –133,600 | –143,000 | +143,000 |
| Help supply industry (secondary effect) | (¹) | –7,000 | –7,000 | +7,000 |

¹ No one on strike or on layoff in help supply industry.

weekly hours and hourly earnings than the other two four-digit industries within the category of “aircraft and parts” (SIC 372), would lower average hours and hourly earnings estimates for the aircraft industry (SIC 372). Estimates for transportation equipment (SIC 37) and the entire manufacturing sector would be similarly affected if hours and earnings in aircraft were higher than in these aggregate-level industries. The magnitude of this effect is directly related to the number of persons on strike.

Secondary effects of a strike

Among the potential secondary effects of a strike is that on establishments which are not on strike, but are dependent on the striking establishment. A good example of this is the General Motors (GM) strike of 1998.

On June 5, 1998, 3,000 employees went on strike at a GM fabricated-metal-stamping plant in Flint, Michigan. One week later, an additional 5,800 workers went on strike at a parts plant in Flint. Both strikes ended on July 29. The strike occurred at only those two plants. However, because the plants were critical to GM’s supply chain, the strike had a disproportionate effect on production. Automobile assembly plants that relied on parts from the striking establishments were forced to shut down. All told, 150,000 employees were out of work, due to the primary and secondary effects of the strike. (See table 3.) Furthermore, many of these workers were not in the same industry as the original plants on strike. The affected industries included gray and ductile iron foundries (SIC 3321), motor vehicles and passenger car bodies (SIC 3711), and even the help supply industry (SIC 7363).

To assess the effect of the strike on CES hours and earnings estimates, the July estimates were recalculated using the manufacturing industry employment weights for June instead of July. The reason for the recalculation was to ignore any possible effects of the lower number of workers in the relatively high-paying auto-related industries because of the strikes and shutdowns. Table 4 shows the effect on the change in average hourly earnings over the June–July and July–August periods.

Average weekly hours were unaffected by the recalculation. While the exercise shows the effect of all shifts in the distribution of employment across manufacturing industries between June and July, the most important shift was the reduced weight of the high-paid auto industry. Thus, the results can be attributed primarily to the auto strike. Average hourly earnings would have been about 5 cents higher in manufacturing, but less than 1 cent higher at the total private-industry level if the workers affected by the strike had remained on payrolls in July.

Another secondary strike effect occurs when competitors of a striking firm add employees to cover additional business foregone by the striking company. This effect may even offset the magnitude of the strike’s primary effect on CES data. A case in point is the strike by 185,000 United Parcel Service (UPS) workers on August 5–20 of 1997 (including the entire reference pay period). The temporary removal of UPS from the delivery services market led to increased business for its competitors. Table 5 shows the impact on air courier services (SIC 4513) owing to the strike against UPS.

Despite the fact that 185,000 UPS workers were on strike, the total loss of employment in the industry was only 166,000. The 19,000-employee difference was determined, in part, to be the result of other air courier services hiring workers to take advantage of their increased business.

Replacement workers

Sometimes the management of establishments on strike hires workers to do the jobs of the workers on strike. The new workers are known as *replacement workers*. The hiring of replacement workers can complicate the estimation of a strike's impact. If replacement workers are hired immediately, then the strike will not be reflected at all in CES data. Furthermore, if replacement workers are hired later during the course of an ongoing strike, their presence may falsely indicate that the strike is over even if it is not. To further complicate matters, replacement workers could permanently displace the strikers, or they could instead be just a temporary solution and be laid off when the strike ends. In dealing with the issue of replacement workers, it usually is not possible to draw conclusions directly from CES data. Instead, one must rely on public reports, company news, and other sources for such information. The Bureau's pledge of confidentiality to its respondents precludes revealing any company-specific information not generally available to the public.

CES strike report

BLS staff prepare a monthly summary of strike activity during the survey reference pay period. This CES strike report contains information about workers directly involved in large strikes (stoppages of 1,000 or more workers) who were idle during the entire reference pay period.⁵ The information comes from *public* sources, and the report itself is prepared and released before *any* survey data are compiled. The numbers in the report indicate the possible direct effect of strikes on CES employment estimates for the current month. Thus, the strike report may be useful to persons who are trying to anticipate the upcoming payroll survey data. Also, after the monthly CES estimates are released, analysts attempting to discern underlying economic trends can use the strike re-

port to exclude movements caused by strikes.

The strike report includes information on the number of workers on strike during the current and previous reference periods, new strikes, strikes settled, and the net change. Information is provided on specific strikes and the industries they affect. There are two ways to use the report:

1. Add the total number of people on strike the current month to the overall level of employment to see the level with the strike effect removed.
2. Add the net change in the number of persons on strike to the current over-the-month employment change to remove the effects of strikes.

While the numbers in the strike report are useful to analysts, it is important to note that the figures should be used with caution, as they are preliminary and possibly incomplete. The Bureau of Labor

Statistics makes every reasonable effort to ensure the accuracy and completeness of the strike report; however, because the report is based on secondary sources, the Bureau cannot guarantee its accuracy or completeness.

Strike-adjusted employment data

Information on strikes that affect CES employment data is available starting with 1975 and is used as input for the seasonal adjustment process. For the study presented in this technical note, the information was used to compute the net effect of those strikes each month. The net strike effect was then added to the official over-the-month change in employment to compute a strike-adjusted series—that is, a series which removes the effect of strikes. This series, presented in table 6, is a better indicator of underlying economic trends than the official series is. The strike-adjusted historical series also is useful if an analyst

Table 4. Effect of 1998 strike against General Motors on CES estimates of over-the-month changes in average hourly earnings

| Sector and months | Over-the-month change | | |
|-------------------|-----------------------|------------------------------------|------------|
| | As published | Recalculated without strike effect | Difference |
| Manufacturing: | | | |
| June–July | \$-0.03 | +\$0.02 | \$0.05 |
| July–August | +11 | +06 | -.04 |
| Total private: | | | |
| June–July | +03 | +04 | +01 |
| July–August | +07 | +06 | -.01 |

Recalculated without

Table 5. CES estimates of employment, average weekly hours, and average hourly earnings of air courier services workers (sic 4513) during 1997 ups strike

| Levels and over-the-month changes | All employment (seasonally adjusted) | Average hourly earnings | Average weekly hours |
|-----------------------------------|--------------------------------------|-------------------------|----------------------|
| Levels: | | | |
| July 1997 | 464,000 | 28.8 | \$14.78 |
| August 1997 | 298,000 | 33 | 15.48 |
| September 1997 | 468,000 | 37.5 | 14.50 |
| Over-the-month changes: | | | |
| July–August | -166,000 | 4.2 | .70 |
| August–September | 170,000 | 4.5 | -.98 |

Table 6. Over-the-month change in employment, excluding the effect of strikes, seasonally adjusted, all employees on total nonagricultural payrolls, 1975–2000

[In thousands]

| Year | January | February | March | April | May | June | July | August | September | October | November | December |
|--------------------------------|---------|----------|-------|-------|------|------|------|--------|-----------|---------|----------|----------|
| 1975: | | | | | | | | | | | | |
| Official series | -420 | -403 | -323 | -121 | 161 | -71 | 238 | 354 | 208 | 311 | 120 | 296 |
| Net strike activity | - | -5 | 3 | 33 | 20 | -12 | 84 | -79 | 15 | -44 | -9 | 14 |
| Series excluding strikes | - | -408 | -320 | -88 | 181 | -83 | 322 | 275 | 223 | 267 | 111 | 310 |
| 1976: | | | | | | | | | | | | |
| Official series | 411 | 280 | 213 | 315 | 58 | 66 | 227 | 96 | 261 | 0 | 299 | 197 |
| Net strike activity | -44 | -4 | 11 | 32 | 93 | -26 | 54 | -55 | -74 | 15 | -25 | -30 |
| Series excluding strikes | 367 | 276 | 224 | 347 | 151 | 40 | 281 | 41 | 187 | 15 | 274 | 167 |
| 1977: | | | | | | | | | | | | |
| Official series | 179 | 277 | 427 | 389 | 367 | 404 | 379 | 214 | 457 | 230 | 370 | 240 |
| Net strike activity | 2 | 15 | 16 | -26 | 39 | -7 | 24 | 24 | -34 | 60 | -9 | 90 |
| Series excluding strikes | 181 | 292 | 443 | 363 | 406 | 397 | 403 | 238 | 423 | 290 | 361 | 330 |
| 1978: | | | | | | | | | | | | |
| Official series | 193 | 344 | 530 | 745 | 321 | 407 | 226 | 287 | 110 | 363 | 452 | 310 |
| Net strike activity | -12 | 0 | -18 | -144 | 5 | 3 | 25 | 11 | 5 | -26 | -19 | -5 |
| Series excluding strikes | 181 | 344 | 512 | 601 | 326 | 410 | 251 | 298 | 115 | 337 | 433 | 305 |
| 1979: | | | | | | | | | | | | |
| Official series | 169 | 257 | 441 | -63 | 318 | 274 | 64 | 140 | -10 | 211 | 106 | 151 |
| Net strike activity | 2 | 10 | -4 | 55 | -14 | -14 | -13 | 2 | 19 | 23 | 29 | -48 |
| Series excluding strikes | 171 | 267 | 437 | -8 | 304 | 260 | 51 | 142 | 9 | 234 | 135 | 103 |
| 1980: | | | | | | | | | | | | |
| Official series | 112 | 147 | 119 | -215 | -464 | -342 | -298 | 288 | 82 | 288 | 216 | 224 |
| Net strike activity | -55 | 59 | -3 | -13 | -19 | -6 | 133 | -49 | -16 | -47 | -24 | -8 |
| Series excluding strikes | 57 | 206 | 116 | -228 | -483 | -348 | -165 | 239 | 66 | 241 | 192 | 216 |
| 1981: | | | | | | | | | | | | |
| Official series | 229 | 92 | 111 | 13 | -77 | 143 | 125 | -90 | -129 | 25 | -202 | -183 |
| Net strike activity | -11 | -3 | 8 | 177 | 21 | -129 | -32 | -23 | 15 | -15 | -21 | 1 |
| Series excluding strikes | 218 | 89 | 119 | 190 | -56 | 14 | 93 | -113 | -114 | 10 | -223 | -183 |
| 1982: | | | | | | | | | | | | |
| Official series | -383 | 26 | -137 | -306 | -66 | -262 | -323 | -203 | -182 | -208 | -138 | 26 |
| Net strike activity | 4 | 0 | 6 | 6 | 5 | 24 | -34 | 21 | 3 | -3 | -5 | -6 |
| Series excluding strikes | -379 | 26 | -131 | -300 | -61 | -238 | -357 | -182 | -179 | -211 | -143 | 20 |
| 1983: | | | | | | | | | | | | |
| Official series | 151 | -68 | 188 | 265 | 286 | 389 | 427 | -340 | 1,115 | 320 | 319 | 383 |
| Net strike activity | 2 | 5 | 0 | -1 | -11 | 0 | 30 | 674 | -678 | 9 | -23 | -5 |
| Series excluding strikes | 153 | -63 | 188 | 264 | 275 | 389 | 457 | 334 | 437 | 329 | 296 | 378 |
| 1984: | | | | | | | | | | | | |
| Official series | 414 | 519 | 269 | 338 | 302 | 373 | 322 | 238 | 301 | 313 | 330 | 168 |
| Net strike activity | -16 | -6 | 6 | 17 | -8 | 13 | -11 | 63 | -77 | 9 | 5 | 26 |
| Series excluding strikes | 398 | 513 | 275 | 355 | 294 | 386 | 311 | 301 | 224 | 322 | 335 | 194 |
| 1985: | | | | | | | | | | | | |
| Official series | 252 | 148 | 337 | 162 | 267 | 117 | 185 | 231 | 182 | 220 | 188 | 214 |
| Net strike activity | -41 | -1 | 28 | -24 | -6 | 12 | -8 | 32 | -5 | -5 | 3 | 1 |
| Series excluding strikes | 211 | 147 | 365 | 138 | 261 | 129 | 177 | 263 | 177 | 215 | 191 | 215 |
| 1986: | | | | | | | | | | | | |
| Official series | 99 | 119 | 78 | 178 | 122 | -123 | 303 | 159 | 312 | 233 | 165 | 249 |
| Net strike activity | -32 | 0 | 11 | -2 | -1 | 167 | -145 | 42 | -31 | 4 | -2 | 0 |
| Series excluding strikes | 67 | 119 | 89 | 176 | 121 | 44 | 158 | 201 | 281 | 237 | 163 | 249 |
| 1987: | | | | | | | | | | | | |
| Official series | 149 | 229 | 233 | 362 | 197 | 149 | 334 | 219 | 164 | 550 | 220 | 344 |
| Net strike activity | 0 | -31 | -6 | -9 | 6 | 0 | 7 | -1 | 55 | -60 | 0 | -5 |
| Series excluding strikes | 149 | 198 | 227 | 353 | 203 | 149 | 341 | 218 | 219 | 490 | 220 | 339 |

Table 6. Continued—Over-the-month change in employment, excluding the effect of strikes, seasonally adjusted, all employees on total nonagricultural payrolls, 1975–2000

[In thousands]

| Year | January | February | March | April | May | June | July | August | September | October | November | December |
|--------------------------------|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|
| 1988: | | | | | | | | | | | | |
| Official series | 79 | 423 | 265 | 226 | 274 | 321 | 268 | 199 | 215 | 277 | 277 | 323 |
| Net strike activity | 0 | 4 | 11 | -8 | 1 | 5 | 16 | -4 | -7 | -6 | -11 | 0 |
| Series excluding strikes | 79 | 427 | 276 | 218 | 275 | 326 | 284 | 195 | 208 | 271 | 266 | 323 |
| 1989: | | | | | | | | | | | | |
| Official series | 302 | 251 | 194 | 199 | 101 | 100 | 95 | 115 | 130 | 112 | 281 | 121 |
| Net strike activity | 2 | 3 | 27 | 4 | 0 | 11 | 10 | 97 | -68 | 4 | -6 | -72 |
| Series excluding strikes | 304 | 254 | 221 | 203 | 101 | 111 | 105 | 212 | 62 | 116 | 275 | 49 |
| 1990: | | | | | | | | | | | | |
| Official series | 254 | 317 | 198 | 38 | 291 | 79 | -162 | -164 | -86 | -183 | -200 | -109 |
| Net strike activity | 0 | -3 | 16 | -5 | -3 | -1 | 0 | 2 | -2 | -1 | 4 | 1 |
| Series excluding strikes | 254 | 314 | 214 | 33 | 288 | 78 | -162 | -162 | -88 | -184 | -196 | -108 |
| 1991: | | | | | | | | | | | | |
| Official series | -206 | -259 | -170 | -185 | -38 | 93 | -69 | 84 | 8 | -14 | -94 | 6 |
| Net strike activity | -3 | -6 | -2 | -2 | 5 | -6 | 4 | -2 | 2 | -1 | 8 | 1 |
| Series excluding strikes | -209 | -265 | -172 | -187 | -33 | 87 | -65 | 82 | 10 | -15 | -86 | 7 |
| 1992: | | | | | | | | | | | | |
| Official series | -37 | -7 | 42 | 182 | 194 | 46 | 54 | 146 | 66 | 134 | 178 | 147 |
| Net strike activity | -3 | 0 | -3 | 1 | -2 | -3 | -9 | 0 | 12 | -8 | -4 | 0 |
| Series excluding strikes | -40 | -7 | 39 | 183 | 192 | 43 | 45 | 146 | 78 | 126 | 174 | 147 |
| 1993: | | | | | | | | | | | | |
| Official series | 236 | 314 | -67 | 306 | 343 | 141 | 205 | 213 | 247 | 321 | 255 | 254 |
| Net strike activity | 0 | 5 | -5 | 4 | 9 | -4 | 3 | 5 | 0 | 2 | -4 | -18 |
| Series excluding strikes | 236 | 319 | -72 | 310 | 352 | 137 | 208 | 218 | 247 | 323 | 251 | 236 |
| 1994: | | | | | | | | | | | | |
| Official series | 268 | 230 | 450 | 368 | 347 | 283 | 353 | 340 | 307 | 255 | 406 | 277 |
| Net strike activity | 0 | 0 | 0 | 74 | -70 | 5 | 9 | 5 | 10 | -1 | -2 | -15 |
| Series excluding strikes | 268 | 230 | 450 | 442 | 277 | 288 | 362 | 345 | 317 | 254 | 404 | 262 |
| 1995: | | | | | | | | | | | | |
| Official series | 317 | 288 | 156 | 185 | -34 | 194 | 114 | 306 | 220 | 125 | 157 | 172 |
| Net strike activity | -1 | 0 | 0 | -1 | 0 | -2 | 0 | 3 | 7 | 23 | 1 | -41 |
| Series excluding strikes | 316 | 288 | 156 | 184 | -34 | 192 | 114 | 309 | 227 | 148 | 158 | 131 |
| 1996: | | | | | | | | | | | | |
| Official series | -69 | 489 | 236 | 175 | 344 | 264 | 196 | 278 | 151 | 248 | 266 | 217 |
| Net strike activity | 30 | -27 | 1 | -3 | 0 | 21 | -9 | 0 | -5 | -3 | 0 | 0 |
| Series excluding strikes | -39 | 462 | 237 | 172 | 344 | 285 | 187 | 278 | 146 | 245 | 266 | 217 |
| 1997: | | | | | | | | | | | | |
| Official series | 203 | 295 | 347 | 294 | 259 | 226 | 296 | 71 | 431 | 318 | 292 | 324 |
| Net strike activity | 0 | 0 | -3 | 4 | 7 | -5 | 0 | 175 | -183 | -1 | 0 | 0 |
| Series excluding strikes | 203 | 295 | 344 | 298 | 266 | 221 | 296 | 246 | 248 | 317 | 292 | 324 |
| 1998: | | | | | | | | | | | | |
| Official series | 290 | 193 | 182 | 244 | 353 | 217 | 99 | 378 | 244 | 208 | 262 | 347 |
| Net strike activity | -1 | 3 | 0 | 0 | 0 | 10 | 0 | -12 | 6 | -2 | 2 | -1 |
| Series excluding strikes | 289 | 196 | 182 | 244 | 353 | 227 | 99 | 366 | 250 | 206 | 264 | 346 |
| 1999: | | | | | | | | | | | | |
| Official series | 177 | 420 | 171 | 228 | 95 | 253 | 268 | 159 | 208 | 258 | 265 | 250 |
| Net strike activity | -1 | -1 | 0 | 7 | 0 | 0 | 0 | -7 | 0 | -1 | 0 | 0 |
| Series excluding strikes | 176 | 419 | 171 | 235 | 95 | 253 | 268 | 152 | 208 | 257 | 265 | 250 |
| 2000: | | | | | | | | | | | | |
| Official series | 349 | 95 | 527 | 414 | 231 | - | - | - | - | - | - | - |
| Net strike activity | 0 | 15 | -15 | 5 | -3 | - | - | - | - | - | - | - |
| Series excluding strikes | 349 | 110 | 512 | 419 | 228 | - | - | - | - | - | - | - |

NOTE: Dash indicates data not available.

wishes to compare estimates of current employment growth with monthly changes in earlier years, because strikes can significantly mask other economic activity and introduce volatility into the data.

AN UNDERSTANDING OF THE TREATMENT OF STRIKES in the CES employment data is necessary for a correct analysis of monthly movements. Depending on its timing compared with the survey reference period, a strike can have various impacts on employment, average weekly hours, and average hourly earnings. Further, if the company affected by the work stoppage has weekly hours or hourly earnings that differ significantly from the industry average, the strike can have a large impact on average weekly hours or hourly earnings for the industry. Similarly, if the industry involved in the strike has hours and earnings that differ significantly from higher level aggregates, the strike can have an impact on the higher level estimates of average hours or hourly earnings.

Large strikes are widely reported in newspapers around the country. Information from such public sources is used to compile a summary of strike activity each month. This report is made available on the Internet. The purpose of the summary is to provide an early indication of the direct impact that strikes involving at least 1,000 workers will have on the employment estimates, which are released the following week.

In addition to their direct impact, large strikes sometimes have secondary effects, as, for example, when they oblige other plants to close because parts are in short supply. When the magnitude of significant secondary strike effects is known, like the direct effects, these secondary effects are discussed in the monthly news release *The Employment Situation*, the periodical *Employment and Earnings*, and other BLS publications. □

Notes

¹ The Bureau of Labor Statistics cooperates with State employment security agencies in the CES survey to collect data each month

on employment, hours, and earnings from a sample of about 380,000 nonfarm establishments (including government). From these data, a large number of employment, hours, and earnings series in considerable industry and geographic detail are prepared and published every month. The employment data include series on all employees, women workers, and production or nonsupervisory workers. Hours and earnings data include average weekly hours, average weekly overtime hours, and average hourly and weekly earnings. The CES is the source of the “payroll,” or “establishment,” data that appear in the *Employment Situation* news release, usually on the first Friday of each month, with data for the previous month.

² This approach differs from that of the Current Population Survey, which counts as employed all civilian workers who have a job during the survey reference period, including those “with a job, but not at work”—the category that strikers are in.

³ The CES program will convert from the SIC system to the North American Industrial Classification System (NAICS) in June 2003.

⁴ The fact that the decline was less than 640,000 indicates that without the strike, the four-digit SIC industry would have gained 5,000 jobs.

⁵ The strike report, which is generally released the Friday before the *Employment Situation* is released, is available on <http://stats.bls.gov/ceshome.htm>, or it may be accessed by calling (202) 691-6555, the general CES information number.