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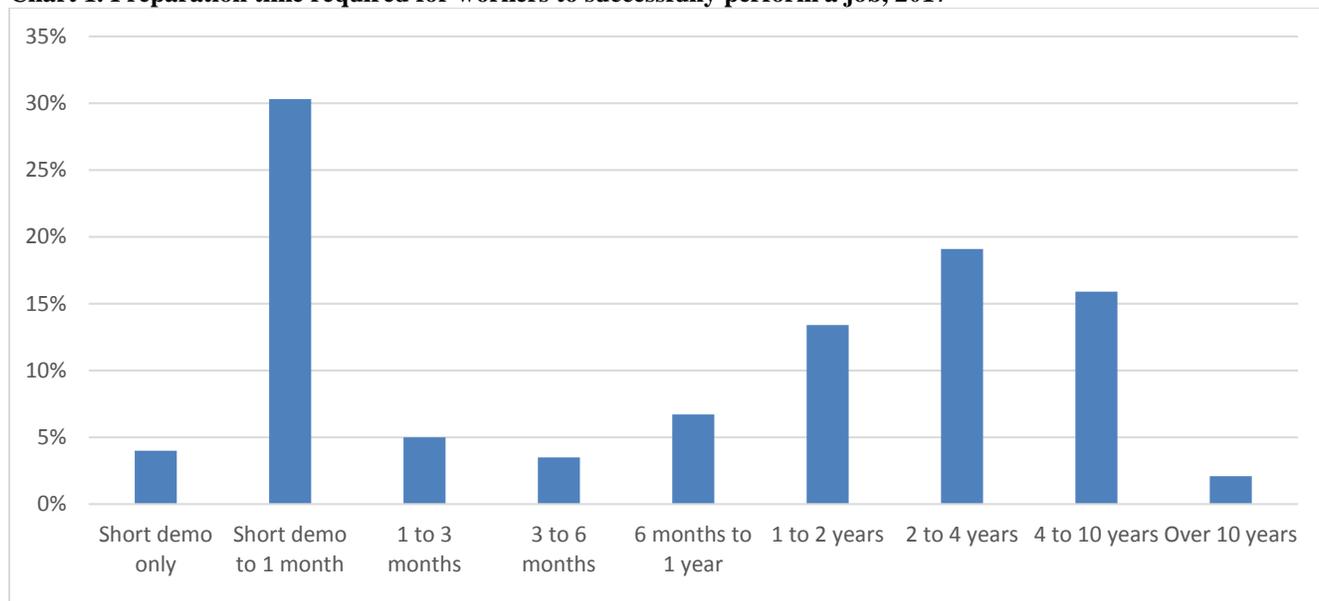
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OCCUPATIONAL REQUIREMENTS IN THE UNITED STATES – 2017

About thirty percent of workers had jobs that required between 4 hours to 1 month of preparation time to successfully perform a job, the U.S. Bureau of Labor Statistics reported today. (See chart 1.) Occupations with this short preparation time requirement include 89.0 percent of fast food cooks and 77.0 percent of amusement and recreation attendants. Preparation time refers to the minimum formal education, training, and work experience required for a typical worker to successfully perform a job.

This release provides data from the Occupational Requirements Survey (ORS). ORS provides job-related information about the physical demands, environmental conditions, education and training, and mental requirements for jobs within the U.S. economy.

Chart 1. Preparation time required for workers to successfully perform a job, 2017



Preparation time

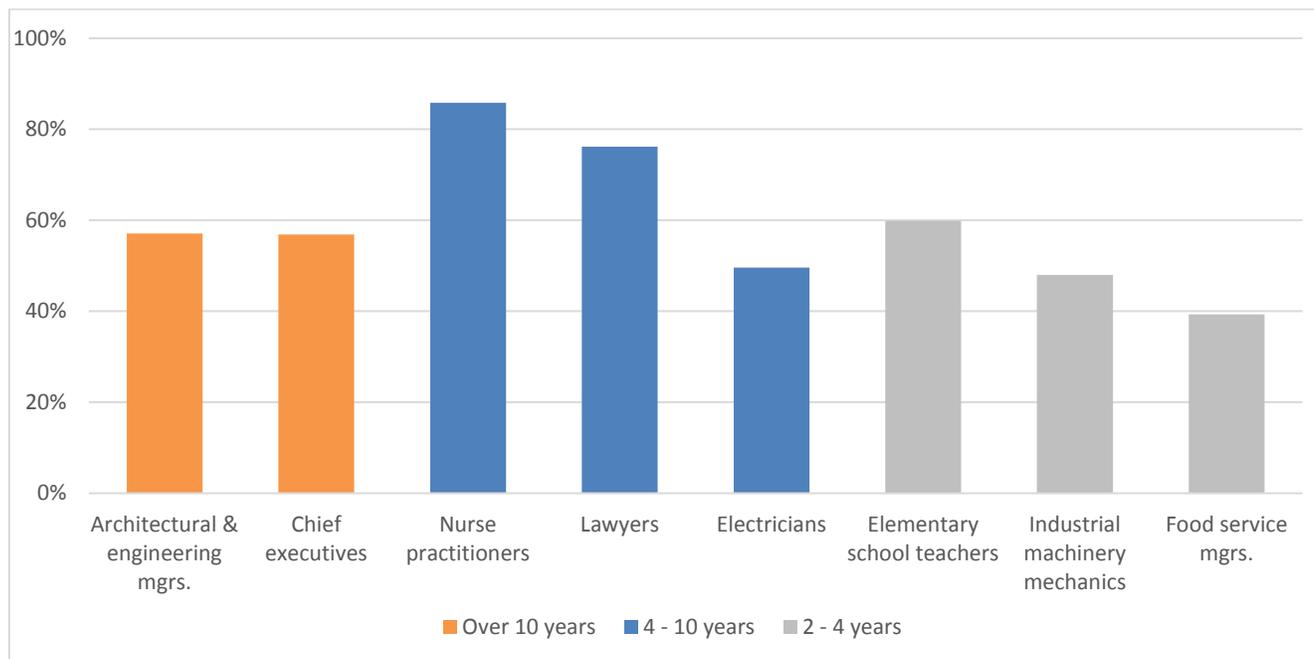
Occupations with a high percentage of jobs that required preparation time of over 10 years include architectural and engineering managers (57.1 percent) and chief executives (56.9 percent). Occupations with a high percentage of jobs that required 4 to 10 years of preparation time are nurse practitioners

Upcoming Changes to the Occupational Requirements Survey

The Occupational Requirements Survey (ORS) procedures are currently being revised. BLS has taken steps to revise procedures to align more closely with a narrower scope of work that pertains to the hiring and pay factors of the job. Beginning with the 2018 release, ORS data will reflect these revised concepts. For more information see www.bls.gov/ors/ors_improvements_09142017.htm.

(85.8 percent), lawyers (76.2 percent), and electricians (49.6 percent), while those occupations that typically required 2 to 4 years are elementary school teachers (59.9 percent), industrial machinery mechanics (48.0 percent), and food service managers (39.3 percent). (See chart 2.)

Chart 2. Percent of jobs in selected occupations that require designated preparation time, 2017



Some occupations in chart 2 required minimum education levels that include more advanced formal degrees. For example, 87.8 percent of lawyers typically required a professional degree, 76.0 percent of nurse practitioners required a master’s degree, and 96.2 percent of elementary school teachers required a bachelor’s degree. This contributes to longer preparation time for these occupations.

Prior work experience, and not necessarily high levels of formal education, may also result in greater preparation time for an occupation. For example, 81.9 percent of industrial machinery mechanics required prior work experience, and 59.0 percent required a high school diploma. The average time of prior work experience for industrial machinery mechanics, when required, is about 2.5 years (998 days). Similarly, 65.8 percent of electricians require an average prior work experience of about 3.5 years (1,247 days).

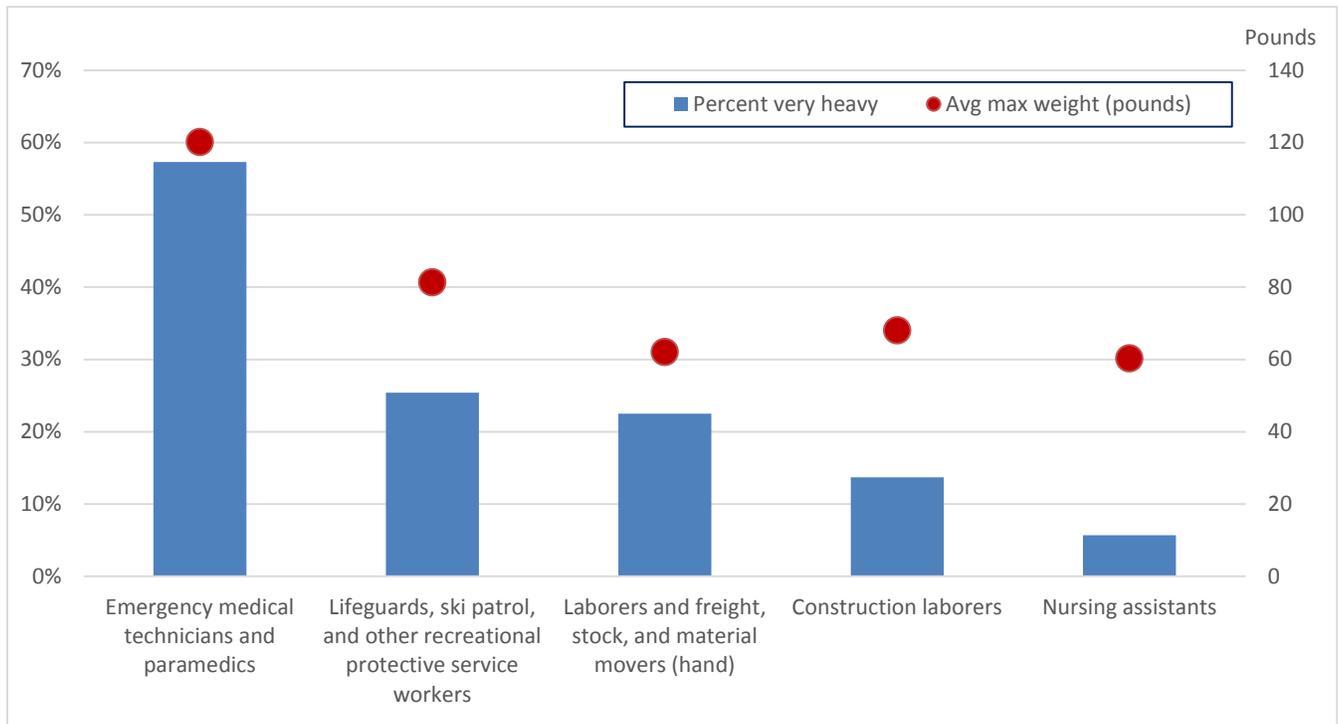
For architectural and engineering managers and chief executives, typically both a bachelor’s degree (78.9 percent and 61.3 percent, respectively) and about 8.5 years of prior work experience were required (3,112 days and 3,183 days, respectively).

Strength and selected physical demands

Physical demands refer to the effort generally required to successfully perform work-related tasks. The strength required for a job is based on how much weight a worker is required to lift or carry, how often they lift this weight, and the amount they stand or walk in some special cases. Strength is measured in five levels, from sedentary to very heavy.

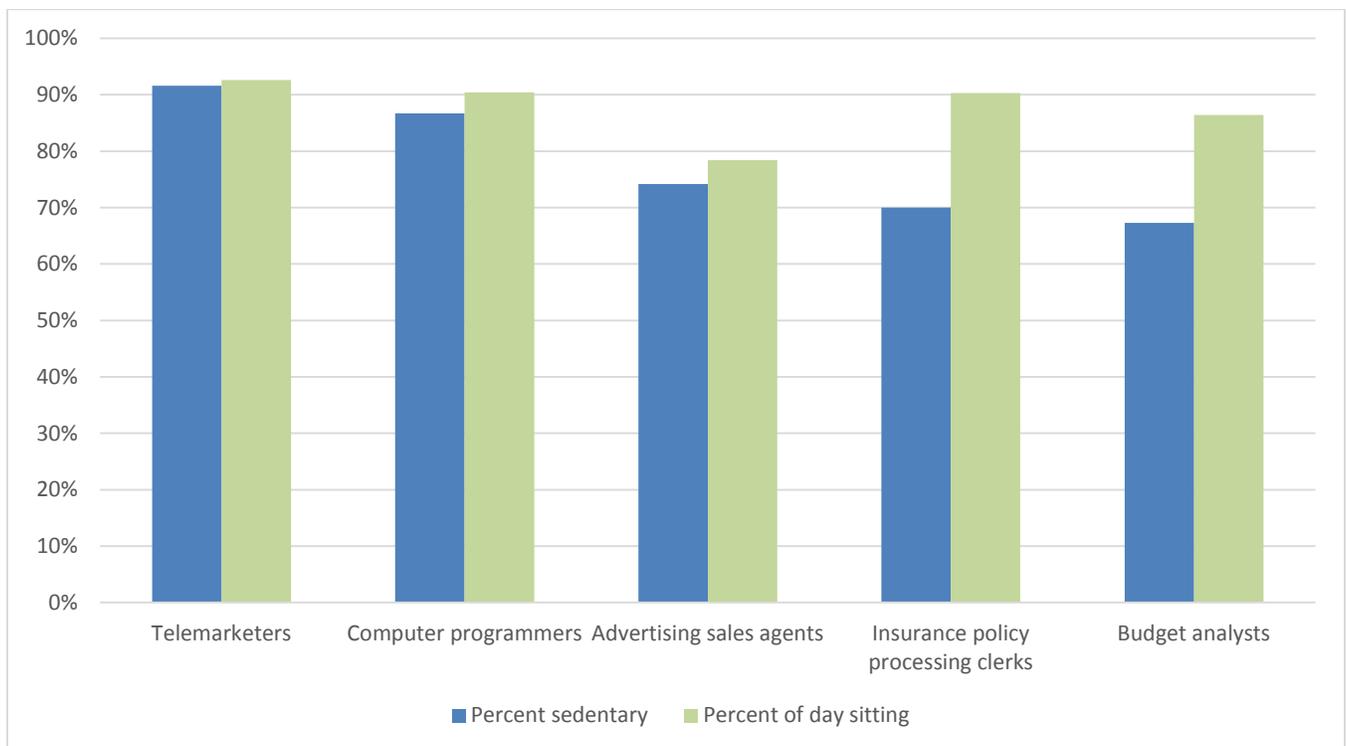
Only 3.4 percent of workers had jobs classified as a very heavy strength level. About half (57.3 percent) of emergency medical technicians and paramedics had jobs considered a very heavy strength level, along with 25.4 percent of lifeguards, ski patrol, and other recreational protective service workers, and 22.5 percent of laborers and freight, stock, and material movers (hand). These occupations required lifting or carrying an average maximum weight of between 60 to 120 pounds. (See chart 3.)

Chart 3. Percent of workers in jobs considered at a very heavy strength level and the average maximum weight lifted, 2017



Occupations with a high percentage of workers in jobs considered sedentary include telemarketers (91.6 percent) and computer programmers (86.7 percent). These two occupations required workers to spend about 90 percent of the workday sitting. Although most advertising sales agents are sedentary, they only spend about 80 percent of their workday sitting. (See chart 4).

Chart 4. Percent of jobs in selected occupations that require a sedentary strength level and percent of day spent sitting, 2017



Technical Note

Data in this release are from the Occupational Requirements Survey (ORS), conducted by the U.S. Department of Labor, Bureau of Labor Statistics (BLS). The ORS is an establishment-based survey and provides job-related information about the physical demands, environmental conditions, education and training, and mental requirements of jobs in the U.S. economy. Excluded are the federal government, the military, agricultural workers, private household workers, and the self-employed.

Additional estimates for detailed occupations and occupational groups are available at www.bls.gov/ors/#data.

Sample size

The 2017 estimates are from two samples of data collected from the Occupational Requirements Survey. The ORS is an establishment-based survey and uses a national sample design. To maximize the amount of publishable information, the BLS is combining data across three annual ORS samples to produce the 2018 estimates. The number of publishable occupations and the level of occupational detail is expected to increase with the addition of each subsequent year's sample until the full ORS sample size of 26,500 sampled establishments is reached in 2018.

Data for the 2017 reference period were collected from 2 samples consisting of 14,000 private industry and 2,000 state and local government establishments. The ORS estimates represent 138,400,000 workers in the United States.

Measures of reliability

To assist users in ascertaining the reliability of ORS estimates, standard errors are made available shortly after publication of the news release. Standard errors provide users a measure of the precision of an estimate to ensure that it is within an acceptable range for their intended purpose. Collected and imputed data are included in the standard error calculation. BLS will continue refining estimation processes including evaluating the impact of sampling and nonsampling errors on the ORS estimates. For further information see: www.bls.gov/ors/se.htm.

Occupational classification

BLS uses the Standard Occupational Classification (SOC) system, www.bls.gov/soc. The ORS classifies occupations by eight-digit codes used by O*NET's detailed occupational taxonomy referred to as "O*NET-SOC 2010 Occupations." See www.onetcenter.org/taxonomy.html for more information regarding O*Net occupation classification. Military specific occupations (55-0000.00) are out of scope for the ORS. Additional information about occupational classification can be found in the ORS Handbook of Methods "Design" section at www.bls.gov/pub/hom/ors/design.htm.

Definitions of major terms

For definitions of major terms used in the ORS, see the glossary beginning on page 108 of the ORS collection manual at www.bls.gov/ncs/ors/occupational_requirements_survey_collection_manual_052016.pdf, or the "Concepts" section of the ORS Handbook of Methods at www.bls.gov/pub/hom/ors/concepts.htm.

Obtaining information

More information can be obtained by calling (202) 691-6199, sending email to orsinfo@bls.gov, or by visiting www.bls.gov/ors.

Information in this release will be made available to sensory impaired individuals upon request—
Telephone: (202) 691-5200; Federal Relay Service: (800) 877-8339.