



## Has the required skill level of part-time jobs changed over time?

*By Nicole Dangermond, Kristen Monaco, and Kristin Smyth*

Multiple studies exist that trace the increase in part-time employment in the United States. Some studies attempt to measure the pay gap between full-time and part-time workers, but little research exists that addresses the type of work performed by part-time workers and how the skills required in the job may have changed over time.<sup>1</sup> For example, part-time warehouse workers may be assigned more strenuous jobs than their full-time counterparts. Part-time receptionist jobs may involve only answering phones and routing calls while full-time receptionists may involve more complex interpersonal interactions.

This **Beyond the Numbers** article looks at the level of skill involved in part-time work and how it has changed between 2007 and 2017 using data from the National Compensation Survey (NCS).

The NCS is an establishment survey used as the basis for the Employment Cost Index (ECI) and the Employer Costs for Employee Compensation (ECEC) estimates produced quarterly by the Bureau of Labor Statistics (BLS).<sup>2</sup> The collected data are focused around the job, not the employee(s) in the job.

## Work level determination

A unique aspect of the NCS is a series of questions that help BLS economists determine work levels—that is, the duties and responsibilities of a job are evaluated to give the job an overall work level between 1 and 15. BLS economists who collect the data assess and assign points to four components: knowledge, job controls and complexity, contacts, and physical environment. These points are added and then jobs are assigned levels from 1 to 15, akin to those used in the federal pay setting.<sup>3</sup> Level 1 work is characterized as unskilled labor requiring no previous experience or consisting of routine tasks for which little training is required. Level 2 and 3 work require knowledge of basic operations which typically require some training or experience.

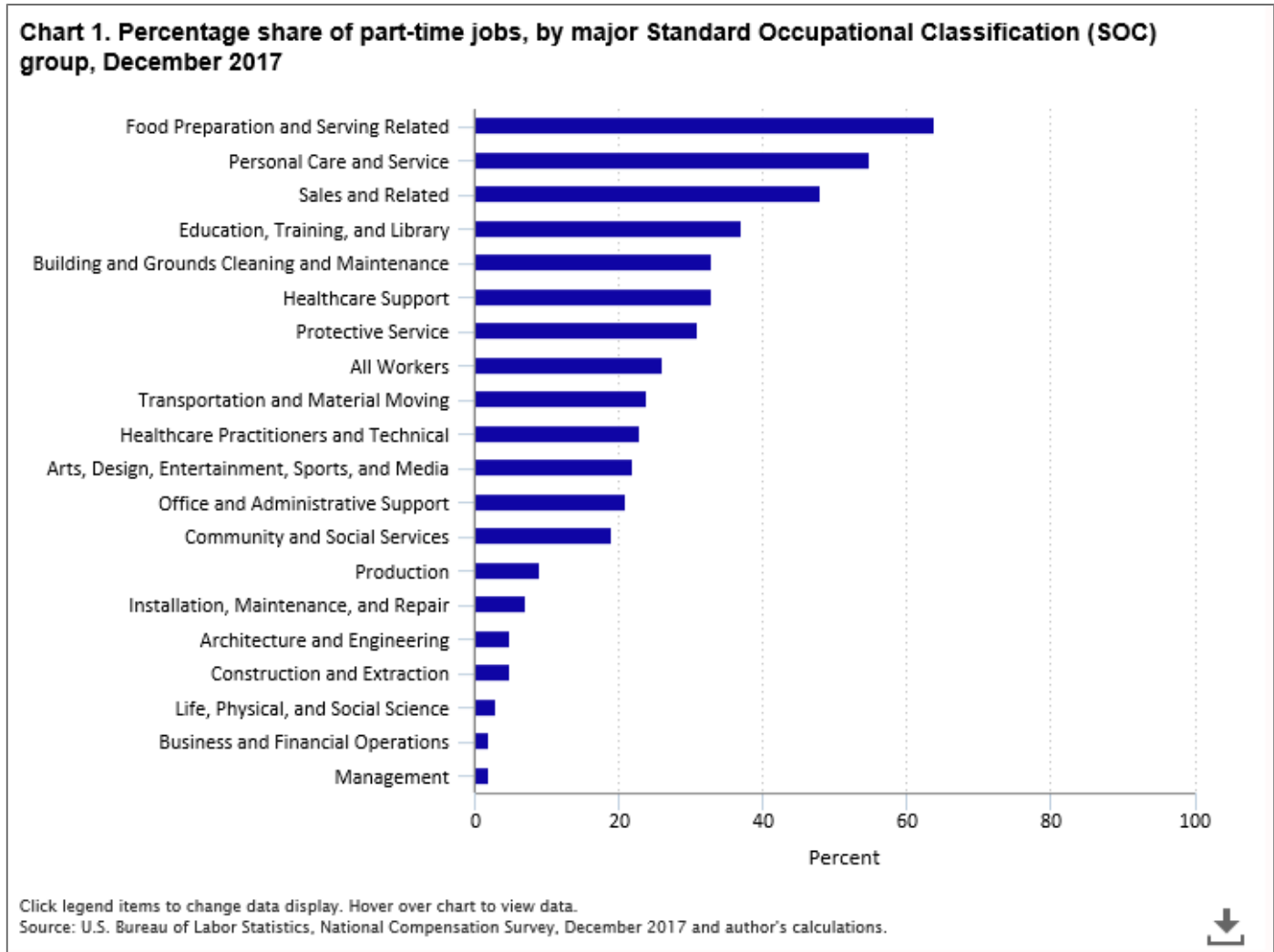
Because the work level is based on the duties and responsibilities of the job and not on the person who holds the job the NCS is a useful source of information on the demands of part-time work. For example, if we find that the work level of part-time work is increasing over time, this would be due to higher levels of duties and responsibilities of the job, and would not be due to part-time workers being overskilled for the jobs they hold.

Although, work level is not synonymous with skill level, we propose it is a suitable proxy. Work level captures dimensions of the job that include subject matter expertise, required experience, task complexity, and degree of supervision.

## Part-time work from 2007 to 2017

As mentioned, the NCS collects information about whether a job is considered to be part time. Field economists record part-time jobs based on the establishment's response—not on a threshold of a fixed number of hours. Using the NCS definition of part-time jobs, we first examine their prevalence by Standard Occupational Classification (SOC) major groups for 2017. Data are from the quarter ending in December of the NCS and include only private sector jobs.

As chart 1 shows, the occupational groups that rely heavily on part-time work are food preparation and serving (64 percent part-time workers), personal care and service (55 percent), and sales and related (48 percent). These occupational groups also contain jobs that are considered relatively low skilled. High-skilled occupational groups, including management, business and financial operations, the sciences, and architecture and engineering have very low prevalence of part-time work.

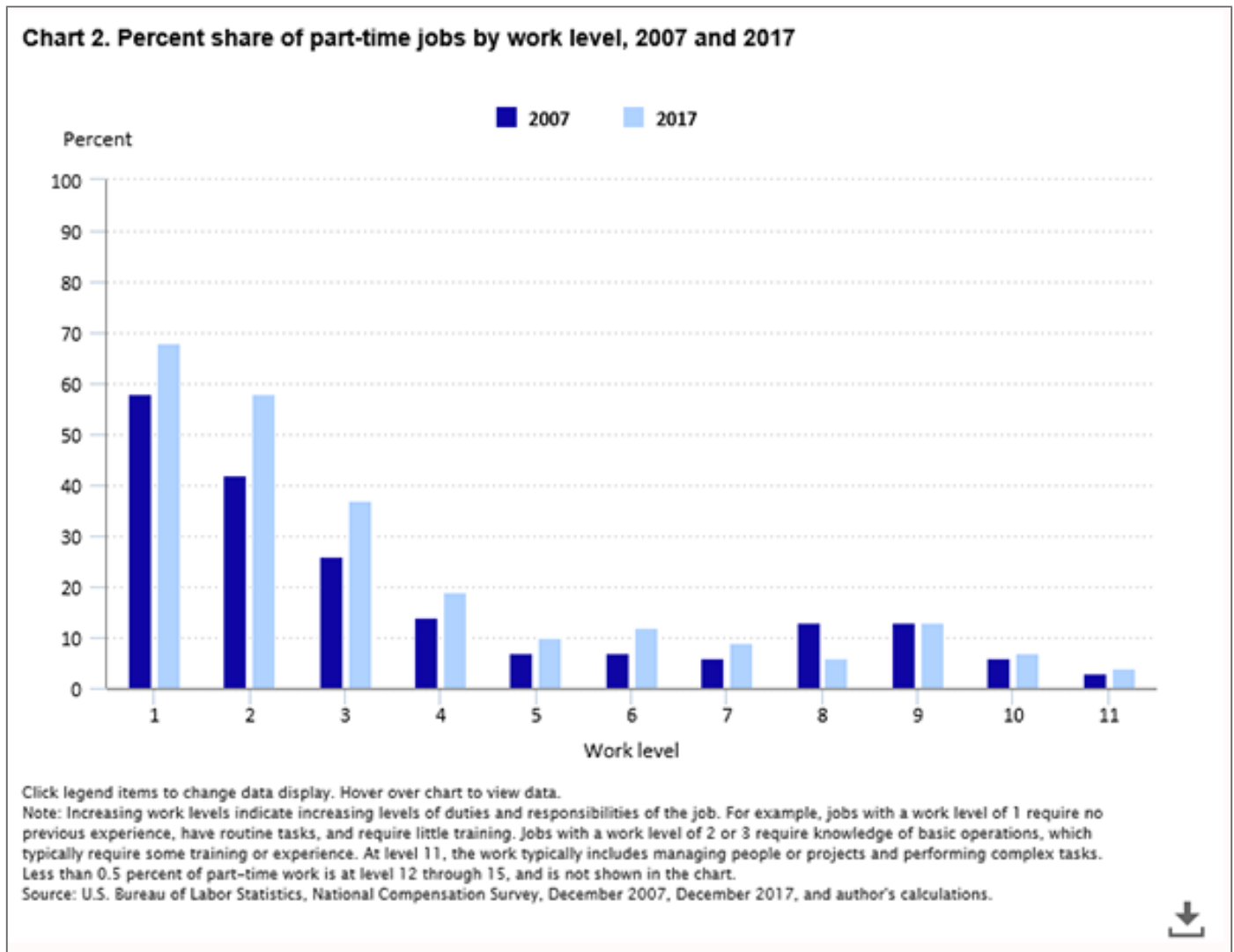


The share of part-time jobs as measured by the NCS was about 23 percent of all jobs in 2007 and about 26 percent in 2017.<sup>4</sup> For office and administrative support occupations the share of part-time jobs increased from 18 percent to 21 percent, production occupations increased from 6 percent to 9 percent, and sales and related occupations increased from 41 percent to 48 percent. The change in part-time work in sales and related occupations represents a 17-percent increase from 2007. These three occupational groups made up almost one-third of jobs in the economy in 2017.

Although the major SOC group that a job is in can give some information about the skill and level of the work being performed, the knowledge and complexity of occupations within a SOC group can vary greatly. This can be addressed by splitting jobs by NCS work level, instead of by major SOC group. While work levels contain various occupations that span different major SOC groups, the level of knowledge and complexity required of jobs within a work level is similar.

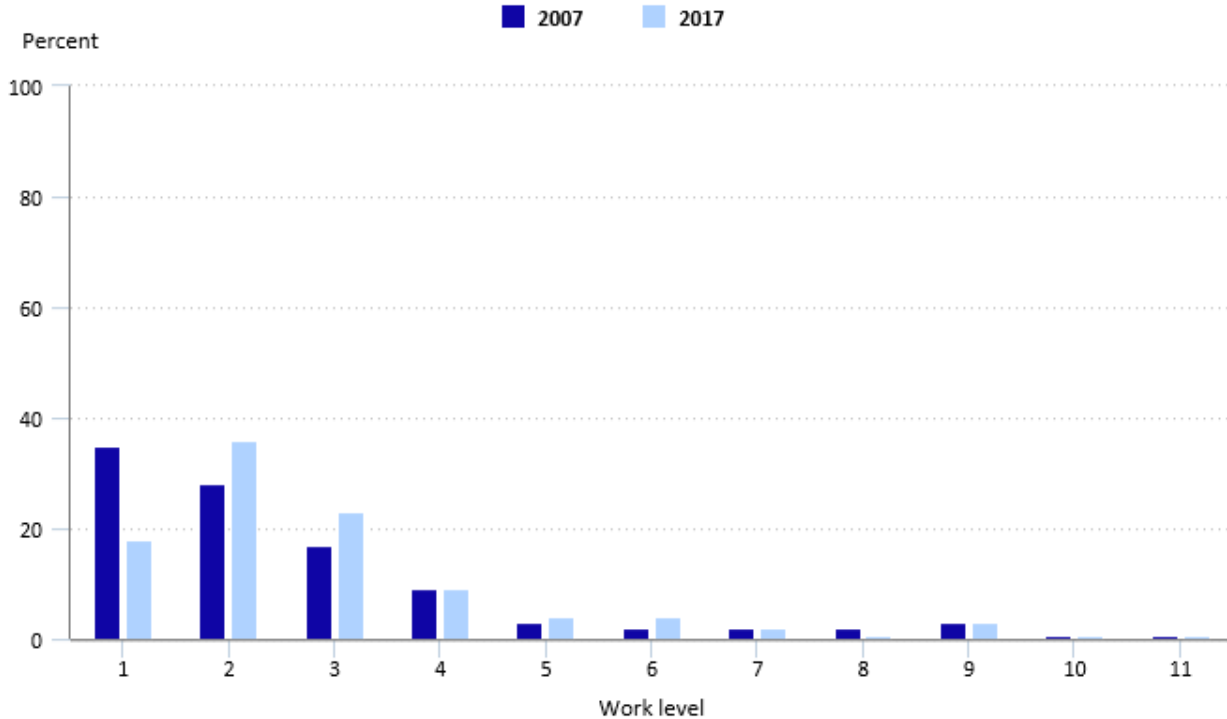
Chart 2 shows the share of part-time jobs in each work level between 2007 and 2017 for levels 1–11. There are no numbers shown for levels 12-15 as there is a very small percentage of part-time jobs at high levels of work. In both 2007 and 2017, the share by level shows a density of part-time work in relatively low-skill jobs—those in levels 1 and 2. Jobs in level 1, for example, would typically be characterized with no education required beyond

a high-school diploma, fairly simple tasks with easy to follow directions, and little interaction with the public, for example, dishwashers. Incrementally increasing either the task complexity or requiring interaction with the public would move the job to level 2. From 2007 to 2017, the share of part-time jobs in levels 1 through 3 increased significantly, with the largest increase in level 2.



A different way to examine part-time work by level is to depict the distribution of work levels across all occupations, as presented in chart 3. The largest share of part-time work was classified as level 1 in 2007, with about 35 percent of all part-time jobs classified as level 1. Slightly more than one-quarter (28 percent) of part-time jobs were level 2 in 2007. In 2017, however, the most common level of part-time work was level 2, with 36 percent of all part-time jobs in this level, while the percentage of level 1 jobs fell to 18 percent.

**Chart 3. Percentage of part-time jobs, by work level, 2007 and 2017**



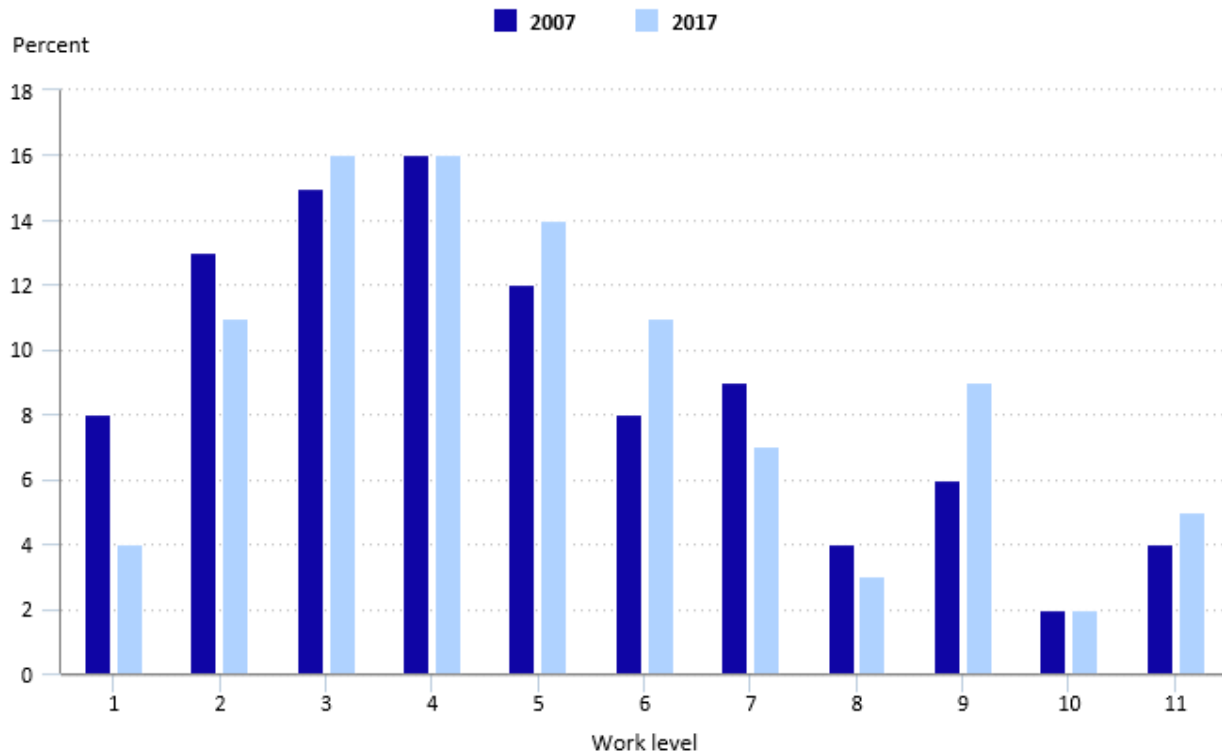
Click legend items to change data display. Hover over chart to view data.  
 Note: Increasing work levels indicate increasing levels of duties and responsibilities of the job. For example, jobs with a work level of 1 require no previous experience, have routine tasks, and require little training. Jobs with a work level of 2 or 3 require knowledge of basic operations, which typically require some training or experience. At level 11, the work typically includes managing people or projects and performing complex tasks. Less than 0.5 percent of part-time work is at level 12 through 15, and is not shown in the chart.  
 Source: U.S. Bureau of Labor Statistics, National Compensation Survey, December 2007, December 2017, and author's calculations.



This shift from level 1 to level 2 is evident within specific occupations. For example, in 2007, 26 percent of janitors were engaged in part-time level 1 work. By 2017, that number dropped to 7 percent. Over the same time period, the share of janitors engaged in part-time level 3 work rose from 2 percent to 12 percent. Stock clerks and order fillers similarly saw a decrease in level 1 work among part-time workers (dropping from 27 percent to 11 percent) and substantial increases in part-time work at level 2 (increased from 6 percent to 32 percent) and level 3 (increased from 3 percent to 10 percent). Stock clerks and order fillers include job titles such as warehouse worker and order picker and, generally workers in this occupation, “receive, store, and issue sales floor merchandise, materials, equipment, and other items from stockroom, warehouse, or storage yard to fill shelves, racks, tables, or customers' orders.”<sup>5</sup> This shift in the work level of part-time stock clerks may reflect changes in the way work is performed due to the implementation of technology in warehouses and related facilities.

The distribution of work levels for full-time jobs did not experience a similar shift between 2007 and 2017, as shown in chart 4. The distribution of full-time jobs is more disperse, with the highest density in levels 3–7 (roughly 60 percent).

**Chart 4. Percentage of full-time jobs, by work level, 2007 and 2017**



Click legend items to change data display. Hover over chart to view data.

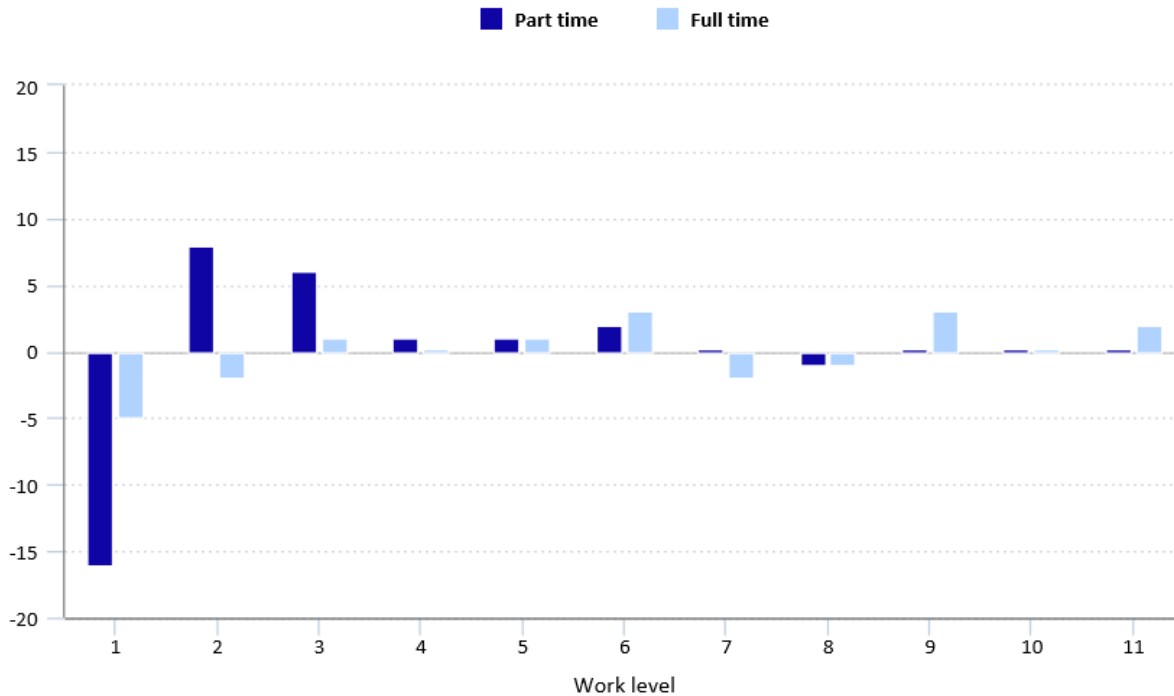
Source: Note: Increasing work levels indicate increasing levels of duties and responsibilities of the job. For example, jobs with a work level of 1 require no previous experience, have routine tasks, and require little training. Jobs with a work level of 2 or 3 require knowledge of basic operations, which typically require some training or experience. At level 11, the work typically includes managing people or projects and performing complex tasks. Less than 0.5 percent of part-time work is at level 12 through 15, and is not shown in the chart.

Source: U.S. Bureau of Labor Statistics, National Compensation Survey, December 2007, December 2017, and author's calculations.



Although the share of level 1 full-time jobs decreased from 8 percent in 2007 to 4 percent in 2017, there was no commensurate increase in the share of jobs in levels 2 and 3, as shown in chart 5. The remaining work levels did not experience a statistically significant change over the 10-year period.

**Chart 5. Percentage point change in part- and full-time jobs, by work level, 2007–17**



Click legend items to change data display. Hover over chart to view data.  
 Note: Increasing work levels indicate increasing levels of duties and responsibilities of the job. For example, jobs with a work level of 1 require no previous experience, have routine tasks, and require little training. Jobs with a work level of 2 or 3 require knowledge of basic operations, which typically require some training or experience. At level 11, the work typically includes managing people or projects and performing complex tasks. Less than 0.5 percent of part-time work is at level 12 through 15, and is not shown in the chart.  
 Source: U.S. Bureau of Labor Statistics, National Compensation Survey, December 2007, December 2017, and author's calculations.



## Summary

The National Compensation Survey data can be used to help explain the changing nature of part-time employment. By using information on work levels from the NCS, we demonstrate that the skills required of part-time workers increased between 2007 and 2017, with the most common skill level increasing from level 1 to level 2.

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**NOTES**

<sup>1</sup> Robert Valletta and Leila Bengali. "What's behind the increase in part-time work?" Federal Reserve Bank of San Francisco Economic Letter 24 (2013): 1–5. <https://www.frbsf.org/economic-research/publications/economic-letter/2013/august/part-time-work-employment-increase-recession/>.

<sup>2</sup> The NCS samples private sector and state and local government establishments with one or more workers. The federal government, military, agriculture, and private household workers are not in scope for the NCS. Jobs within an establishment are sampled through probability selection. Private industry establishments typically sample between four and eight jobs. Information on the job is collected, including whether it is part time or full time, covered by a collective bargaining agreement, paid based on time or incentive, and supervisory or not. Unlike household surveys, the NCS does not collect information on the demographics of the workers in a particular job, such as age, gender, race, or ethnicity.

<sup>3</sup> For additional information on job leveling, see, "National Compensation Survey: Guide for Evaluating Your Firm's Jobs and Pay," at <https://www.bls.gov/ncs/ocs/sp/ncbr0004.pdf>. While there are four factors in the leveling, the points assigned to knowledge and job controls and complexity tend to dominate those assigned to contacts and physical environment.

<sup>4</sup> In most major SOC groupings there was not a statistically significant increase in the share of part-time jobs over this period. However, some of the largest occupational groups in the economy saw small but statistically significant increases in the share of part-time work.

<sup>5</sup> Standard Occupational Classification system, [https://www.bls.gov/soc/2010/2010\\_major\\_groups.htm#43-0000](https://www.bls.gov/soc/2010/2010_major_groups.htm#43-0000).

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