



Safe Occupations Are Growing

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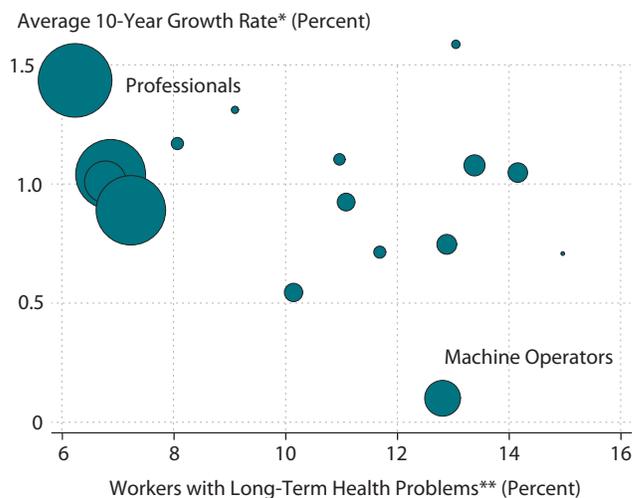
Large, well-known changes are occurring in the structure of the U.S. workforce. Certain occupations are growing, while others are shrinking. And workers in occupations with large growth over the past 35 years have lower rates of serious health problems and fewer collect Social Security Disability Insurance (SSDI). This essay explores the changing workforce structure and the growth of safer occupations—that is, occupations with relatively more physically healthy workers.

Specifically, we look at the growth of occupations from 1980-2014 using data from the Current Population Survey from the U.S. Census Bureau. We start in 1980, which is the period when many researchers began identifying the trend toward polarization in the distribution of occupations.¹ It is also roughly when manufacturing employment peaked before its long decline. For each year and each of 16 occupations, we total the number of full-time workers who report the occupation as their main occupation.² We include only workers 45 to 65 years of age because this working-age population has the greatest risk of health problems. For each occupation, we calculate the percentage difference of the number of workers across 10-year intervals, between 1980 and 1990, 1981 and 1991, and so on. Finally, we calculate the average difference across all intervals for each occupation to avoid problems associated with cyclical or unusual circumstances in a given year.

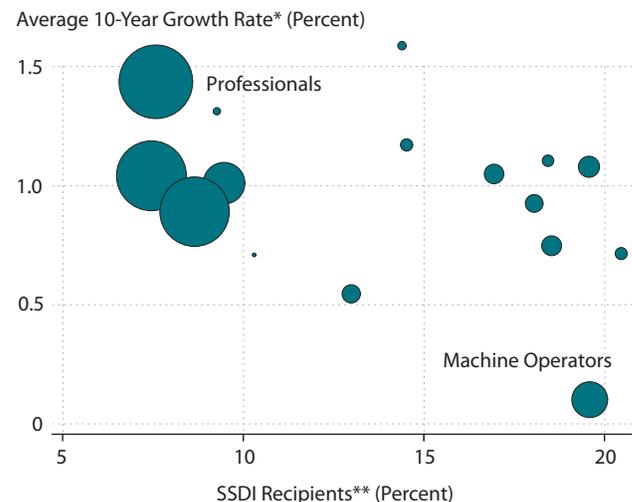
Health problems and disability claims have declined in the fastest-growing occupations.

For each occupation, we also compute the “risk” of a worker having a long-term health problem (see the top figure) or receiving SSDI (see the bottom figure). The health data are from the University of Michigan’s Health and Retirement Survey. This survey, which began in 1992, surveys people in their 50s and gathers the following information: their longest held occupation; whether they receive

Occupation Growth and Percentage of Workers with Health Problems, 1980-2014



Occupation Growth and Percentage of Workers Receiving SSDI, 1980-2014



NOTE: *The average 10-year growth rates are of the number of workers in 16 occupations. See note 2. **Includes workers 45 to 65 years of age only.

SSDI payments; and answers to various questions about their difficulty with certain common, crucial activities, such as walking across a room. We include only those respondents whose health problems started before age 65 (while they were working). We then group these respondents by their longest-held occupation and compute the average rate of (i) those with health problems and (ii) those who receive SSDI.

For each occupation, the figures plot the average 10-year growth rate in the number of workers (vertical axes) and the percentage of workers with long-term health problems (horizontal axis, top figure) and the percentage receiving SSDI (horizontal axis, bottom figure). The dot size reflects the average number of workers in the occupation relative to the other occupations; the larger the dot, the larger the occupation.

As the figures show, machine operators have the slowest-growing occupation; it is shrinking as a proportion of the labor force. It grew at one-tenth the speed of the overall average. This occupation also carries high risk: Nearly 20 percent of machine operators receive SSDI. On the other hand, professional occupations have grown about 40 percent faster than the overall average. Only about 7.5 percent of workers in professional occupations receive SSDI. This inverse relationship is characteristic of the long-term trend.

The fastest-growing occupations (top-left corners of the figures) over the period are high-skill white-collar occupations, such as professionals, whose workers reported very few health problems. But sales and clerical jobs, which often have much lower wages, also grew faster than average, and workers in these occupations reported very low rates of health problems. In other words, not all fast-growing occupations offer high wages, but they are almost all physically safe. On the flip side, shrinking occupations generally have high health risks. ■

NOTES

¹ See Autor, Katz, and Kearney (2006).

² There are actually 17 categories in the Current Population Survey, but we dropped the military occupations category, leaving 16 in our analysis. These categories are constructed as aggregates of the three-digit Census codes to align with the occupations in our data on health outcomes.

REFERENCE

Autor, David H.; Katz, Lawrence F. and Kearney, Melissa S. "The Polarization of the U.S. Labor Market." *American Economic Review*, May 2006, 96(2), pp. 189-94.