

The characteristics of small-business employees

Small businesses employ slightly more than half of the private-sector workforce; in many ways, such as education, race, origin, age, and part-time status, the small-business workforce differs from the large-business workforce

Brian Headd

One characterization of the U.S. economy is that it begins with the formation of small businesses, some of which then grow into large businesses, with both kinds ultimately perishing in a process referred to as “creative destruction” that necessitates a reallocation of resources.¹ Be that as it may, certainly small firms are a dynamic force in the economy, bringing new ideas, processes, and vigor to the marketplace. They fill niche markets and locations not served by large businesses. (Consider, for example, the rural “general store.”) Large firms, on the other hand, generally provide stability to the economy.

The differences in the small- and large-business workforces are, at least in part, a result of the inherent differences in small and large firms. Small firms are often younger (indeed, they are sometimes recent startups), more likely to be in rural areas, and more apt to be in industries with lower economies of scale, such as services.² Small firms can represent a life stage before economies of scale are reached (or hoped-for future growth is attained), or they can be a stable anchor in the marketplace. These age, location, and industry effects constitute the basic differences between small and large firms and can lead to different workforce needs and different resources to attract workers of various education levels and occupations.

This article builds upon an earlier *Monthly Labor Review* article by William J. Wiatrowski

that called for demographic information on the small-business workforce.³ A reading of that article raises two points. First, with regard to small businesses, establishment data, which Wiatrowski’s article is primarily based on, can result in incomplete figures, because many small establishments are parts of large businesses. By contrast, the current article uses the Current Population Survey (CPS) and concentrates on firm-size data. The CPS affords one of the few opportunities to understand the differences in the economy by firm size (not just establishment size).

Second, most analyses of employees combine small- and large-business employees, but it is worthwhile to understand the differences in their workforces. Disaggregating the private workforce into small- and large-firm workforces allows researchers to examine issues such as recruiting, compensation, and benefits with more precision and to evaluate the contributions of small and large businesses to society and the economy. (Note, however, that the article does not create a model that seeks the *reasons* for the differences in the two workforces.⁴)

Defining small business

For the purpose of this article, a small business is defined as a firm with fewer than 500 employees in all of the industries or business locations in which the firm operates (all of the firm’s

Brian Headd is an economist with the Office of Advocacy, U.S. Small Business Administration, Washington, DC. The information presented in this article does not necessarily represent the views of the Office of Advocacy.

establishments combined).⁵ To show how firm size classes differ and to offer alternative viewpoints on the definition of a small business, table 1 decomposes employment in private firms into the six size classes of under 10, 10 to 24, 25 to 99, 100 to 499, 500 to 999, and 1,000 or more employees. According to the table, small firms employ about 58.1 percent of private-sector workers.⁶

Although information on part-time status (working 34 or fewer hours a week) was not specifically available for the longest job during the year for employees, it is available for the current job.⁷ While this situation is not ideal, because employees could have switched positions from the time they held their longest job in the previous year to the following March, it can give an indication of where part-time employment is centralized. In 1998, there were 23.3 million part-time and 91.8 million full-time workers; thus, part-timers accounted for 20.2 percent of private employment. Small firms' share of part-time workers (22.0 percent) was almost 25 percent greater than large firms' share (17.8 percent). In addition, the part-time share of very small firms (those with fewer than 25 employees), at 28.4 percent, was more than 50 percent greater than the share for very large firms (those with more than 1,000 employees), namely, 18.3 percent.

Source of data

With the use of FERRET,⁸ figures were extracted from the March 1999 CPS for employees whose longest job during the year was with a private firm. (Government employees and the self-employed were excluded.) The CPS had 54,760 observations for workers of private firms in a weighted sample to create population estimates. The figures in this article represent 1998 per-

Table 1. Number of employees in private firms, by size of firm, 1998

Size of firm	Thousands of employees	Percent distribution
All firms	115,063.7	100.0
Under 10	19,351.7	16.8
10-24	12,753.1	11.1
25-99	17,260.6	15.0
100-499	17,534.1	15.2
500-999	6,722.6	5.8
1,000 or more	41,441.6	36.0
Fewer than 500	66,899.5	58.1
500 or more	48,164.2	41.9

NOTE: Firm size is based on the NOEMP variable, and private status is based on the CLWK = 1 variable, in the CPS. Both measures focus on the longest job during the year (CLWK includes incorporated self-employed individuals) and are weighted at the person level. The 58.1-percent distribution for small firms has a 95-percent confidence interval of ±0.4 percent.

Table 2. Selected gender, racial, and ethnic characteristics of employees in private firms, by size of firm, 1998

[In percent]

Size of firm	Women	Asian	Black	White	Hispanic
All firms	46.5	4.7	11.3	84.0	10.9
Under 10	46.8	5.3	7.9	86.8	12.8
10-24	44.1	4.2	8.7	87.1	12.4
25-99	43.7	4.3	10.7	85.0	12.2
100-499	46.2	4.2	11.8	84.0	11.5
500-999	48.8	5.0	13.8	81.2	9.6
1,000 or more	48.0	5.0	13.2	81.8	8.9
Fewer than 500	45.3	4.5	9.8	85.7	12.2
500 or more	48.1	5.0	13.3	81.7	9.0

NOTE: Based on the NOEMP, A_SEX, A_RACE, A_REORGN, and CLWK = 1 CPS variables. "Asian" includes Asian, Pacific Islander, American Indian, and Aleut Eskimo. "Don't know" and inapplicable responses to the question about Hispanic origin (about 1 percent) were deemed non-Hispanic.

son (as opposed to household or family) variables.⁹

The CPS asks a question about employer size, but the responses to this query may be inconsistent. The question is, "Counting all locations where this employer operates, what is the total number of persons who work for — 's employer?"¹⁰ Unfortunately, respondents may not know the number of locations of the employer, may not know the total number of employees, or may mistakenly give figures for just the one location at which they or the employee works (establishment data as opposed to firm data). Franchising may also cause data problems, because respondents may consider the entire franchise their (or the employee's) employer, as opposed to just the franchisee's location. However, while respondents may not be able to pinpoint the exact size of the company they work for, they are likely to know the size within a reasonable range.¹¹

The employee firm-size distribution from the CPS seems reasonably close to the distribution from Statistics of U.S. Businesses (SUSB).¹² These two sources have slightly different universes (CPS figures represent workers with any private-sector job during the year, and SUSB counts nonfarm jobs in March of the year), but large differences still could indicate reporting flaws.¹³ In 1996, the CPS reported 114.1 million private-sector employees working during the year, of which 59.9 percent were in small firms; SUSB reported 102.2 million private jobs, of which 52.5 percent were in small firms. The differences indicate that CPS respondents may be slightly underestimating the size of their employer. Even with the potential reporting problems, the CPS data provide an invaluable, timely view of the characteristics of employees by firm size.

The results that follow in this article are based on March 1999 data, covering 1998 private-sector employment. The accompanying tables show the share of workers in a firm, by

size, for a specific variable (for example, the percent of the workforce that is female in a given size of firm).

Female and minority employees

Table 2 shows that, overall, whites and Hispanics were somewhat more likely to work in smaller firms, while women, Asians, and blacks were somewhat less likely. The industries, occupations, and geographic distribution of these minority, ethnic, and racial groups may contribute to these differences. Of the small-firm workforce (fewer than 500 employees), 45.3 percent were women, and of the large-firm workforce (500 or more employees), 48.1 percent were women.¹⁴ Overall, small firms employed more women because small firms employed more of the private workforce than did large firms (30.3 million versus 23.2 million).

The percent of Hispanic workers in a firm decreases as the employment size of the firm increases. The workforce of small firms was 12.2 percent Hispanic, while that of large firms was 9.0 percent Hispanic. As a whole, Hispanic individuals constituted 8.2 million of the 66.9 million small-firm employees and 4.3 million of the 48.2 million large-firm employees. Put another way, about twice as many Hispanics were working for small firms than for large firms.

Large firms employed a slightly higher percentage of blacks than did small firms (13.3 percent, compared with 9.8 percent). The percentage difference is considerably smaller than that found by Harry Holzer in an earlier study.¹⁵ The gap between large and small firms in the percentage of blacks employed could be due to the greater resources large firms can muster when implementing affirmative action efforts. However, as stated earlier, definitive reasons for differences were not sought in this article. About 12.9 million of the 115.1 million private-sector workers (11.3 percent) were black, about equally split among small and large firms (6.6 million in small firms, 6.4 million in large firms).

Asian¹⁶ workers were a larger share of the large-firm

workforce than of the small-firm workforce, although the difference was slight (5.0 percent, compared with 4.5 percent). Overall, 3.0 million and 2.4 million Asian workers were in small and large firms, respectively.

Age

Small firms employ more workers under age 25 and workers aged 65 or older. In 1998, small firms employed about 12.8 million workers under 25, while large firms employed about 9.4 million. Small firms also employed about 2.4 million employees aged 65 or older, and large firms employed about 1.0 million.

Most of the differences in the share of firm size classes employing age groups occurred at the outermost sizes. Employees under age 25 were 21.4 percent of very small firms (firms with fewer than 25 employees) and 20.1 percent of very large firms (firms with 1,000 or more employees). (This relatively small gap widened when only full-time employees were considered.) Very small firms also had more than twice the share of employees 65 or older than very large firms had (4.8 percent vs. 2.0 percent). Table 3 gives the distribution of ages of workers by firm size.

Educational attainment

Small firms had higher percentages of employees who had less than a high school education and employees whose highest degree was a high school diploma, while large firms had higher percentages of employees who had had some college, employees who had attained a bachelor's degree, and employees who had gone on to receive a master's degree. While small and large firms had similar shares of employees with doctoral or professional degrees, the greatest shares of employees with those degrees showed up in the very small firms (possibly because of individual doctors' and lawyers' offices). For small firms, 52.2 percent of the workforce (34.9 million employees)

Table 3. Age distribution of employees in private firms, by size of firm, 1998

[In percent]						
Size of firm	Under 25 years	25 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	65 years or older
All firms	19.3	24.1	25.9	18.5	9.1	3.0
Under 10	19.7	21.3	24.8	17.8	10.8	5.6
10-24	24.1	24.8	23.3	15.7	8.5	3.7
25-99	19.3	25.3	25.9	17.8	9.0	2.6
100-499	15.0	25.7	28.6	19.1	9.2	2.5
500-999	16.1	26.7	25.7	19.4	9.9	2.1
1,000 or more	20.1	23.7	26.2	19.6	8.5	2.0
Fewer than 500	19.2	24.2	25.8	17.7	9.5	3.6
500 or more	19.5	24.1	26.1	19.6	8.7	2.0

NOTE: Based on the NOEMP, A_AGE, and CLWK = 1 CPS variables. Data include those for individuals aged 15 years, who are often excluded from BLS published figures.

Table 4. Education levels of employees in private firms, by size of firm, 1998

[In percent]

Size of firm	Less than a high school diploma	High school graduate	Some college	Bachelor's degree	Master's degree	Doctoral or professional degree
All firms	16.1	32.9	28.5	16.4	4.0	2.1
Under 10	20.3	33.3	27.0	13.8	2.7	3.0
10–24	20.4	32.8	28.4	13.0	3.0	2.4
25–99	18.0	34.1	27.2	15.6	3.4	1.7
100–499	15.6	34.5	27.7	16.1	4.4	1.8
500–999	12.4	32.3	29.0	19.2	5.0	2.2
1,000 or more	12.8	31.8	30.1	18.6	4.9	1.8
Fewer than 500	18.5	33.7	27.5	14.7	3.4	2.2
500 or more	12.7	31.8	30.0	18.7	4.9	1.9

NOTE: Based on the NOEMP, A_HGA, and CLWK = 1 CPS variables. The category of "some college" includes those who attended, but did not graduate from, college, which in turn includes those who received associate's degrees.

had a high school diploma or less, compared with 44.6 percent (21.5 million employees) of the large-firm workforce, in 1998. (See table 4.) The difference in educational level is most pronounced in the "less than high school" category: slightly more than 20 percent of the workforce of very small firms was in this category, while about 12 percent of the workforce of very large firms was in the category.¹⁷

With a younger, more part-time workforce (22.0 percent for small firms, as opposed to 17.8 percent for large firms),¹⁸ it is not surprising that small firms had a higher percentage of employees with lower education levels.

Public or financial assistance

In 1998, small firms employed more individuals on financial assistance (money, excluding loans, received from friends or relatives not living in the same household) and on public assistance (assistance received from government sources, excluding food stamps and Social Security payments) than did large firms. Small firms employed about 660,000 individuals receiving financial assistance and 730,000 receiving public assistance. Large firms employed about 390,000 receiving financial assistance and 530,000 receiving public assistance.

Table 5 shows that small firms had a slightly higher rate of individuals receiving financial assistance (1.0 percent, compared with 0.8 percent), but the numbers are too low to establish real differences in this 1 year of analysis. However, historical figures reveal that the smallest firms (those with under 10 employees and those with 10 to 24 employees) generally had higher rates of employing individuals on financial assistance and public assistance than firms with more workers had.¹⁹

Occupation

Relative to large firms, small firms have a larger percentage of their workforce concentrating on making the goods and services for the firm. Management, administrative support, and sales

occupations represented 38.8 percent of the workforce in small firms and 44.7 percent in large firms. The difference was the result of a low level of administrative occupations in very small firms and a high level of sales occupations in very large firms. It is not surprising that small firms have fewer workers in administrative occupations, because large firms are more likely to be able to afford specialized positions, whereas small firms are more likely to need employees to fill multiple roles.

While it is not unexpected that small firms had a much larger share of their workforce in the combined category of farming, forestry, and fishing, it is surprising to see that they also had a larger share in manufacturing occupations, especially considering that they had a smaller share of employees in the manufacturing industry. (See next section.) Table 6 shows the occupational distribution of workers by firm size.

Industry

While the cps is not as accurate as the Census Bureau's SUBS in determining the industry workforce by size of firm, it is useful for comparison purposes. The SUBS shows slight differences in the percentages of the small- and large-firm workforces in re-

Table 5. Employees of private firms who are on financial or public assistance, by size of firm, 1998

[In percent]

Size of firm	On financial assistance	On public assistance
All firms	0.9	1.1
Under 10 .....	.9	1.2
10–24	1.1	1.1
25–99	1.2	1.0
100–499 .....	.8	1.1
500–999 .....	.7	1.0
1,000 or more .....	.8	1.1
Fewer than 500	1.0	1.1
500 or more .....	.8	1.1

NOTE: Based on the NOEMP, FIN_YN, PAW_YN, and CLWK = 1 CPS variables.

Table 6. Occupational distribution of employees in private firms, by size of firm, 1998

[In percent]

Size of firm	Management	Administrative support	Sales	Professional specialty	Service	Manufacturing	Farming, forestry, and fishing	Other
All firms	13.6	13.6	14.1	11.2	12.6	18.4	2.1	14.4
Under 10	13.0	12.4	14.6	9.3	12.2	16.2	6.0	16.3
10–24	11.9	11.6	13.2	10.3	18.4	18.3	3.2	13.1
25–99	14.2	13.0	11.8	10.0	14.6	20.4	2.2	13.9
100–499	14.0	14.7	10.0	12.0	10.6	23.0	1.6	14.1
500–999	13.9	14.2	10.7	14.6	11.5	19.9	1.0	14.2
1,000 or more	13.9	14.5	17.3	12.1	11.2	16.3	.5	14.3
Fewer than 500	13.4	13.0	12.4	10.4	13.6	19.5	3.3	14.5
500 or more	13.9	14.5	16.4	12.4	11.2	16.8	.5	14.3

NOTE: Based on the NOEMP, OCCUP, and CLWK = 1 CPS variables. The category of "management" includes executives, administrators, and managers; "manufacturing" includes precision products occupations, craft occupations, repairers, machine operators, assemblers, and inspectors; "other" includes technicians and related support occupations, private household occupations, protective services, transportation and material-moving occupations, handlers, equipment cleaners, and laborers.

Table 7. Industry distribution of employees in private firms, by size of firm, 1998

[In percent]

Size of firm	Agriculture, forestry, and fishing	Mining	Construction	Manufacturing	Transportation, communications, and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services
All firms	2.1	0.5	6.6	18.4	6.9	4.5	21.3	7.3	32.3
Under 10	6.1	.2	13.4	5.1	3.8	3.9	19.3	6.2	42.0
10–24	3.6	.5	11.6	10.4	4.1	5.7	25.1	5.2	33.9
25–99	1.9	.4	9.4	17.0	5.5	6.5	19.4	5.2	34.7
100–499	1.3	.6	5.9	26.9	5.7	5.5	11.7	6.7	35.6
500–999 .....	.8	.6	3.1	26.8	6.3	3.4	13.9	7.6	37.6
1,000 or more .....	.3	.7	1.6	22.8	10.3	3.5	27.2	9.6	24.1
Fewer than 500	3.3	.4	10.1	14.9	4.8	5.3	18.4	5.9	36.9
500 or more .....	.4	.7	1.8	23.4	9.8	3.4	25.3	9.3	26.0

NOTE: Based on the NOEMP, INDUSTRY, and CLWK = 1 CPS variables.

tail, and a much less pronounced difference in services, than the CPS exhibits.²⁰

Both sources show that employees of small firms are more likely to be in construction, in services, and in agriculture, forestry, and fishing, whereas employees of large firms are more likely to be in manufacturing, in retail trade, in transportation, communications, and public utilities, and in finance, insurance, and real estate. Table 7 lists the industry distribution of workers by firm size.

THE SMALL-FIRM WORKFORCE, on aggregate, differs slightly from the large-firm workforce. Most of the differences stem from two size classes of small firms: those with fewer than 10 em-

ployees and those with 10 to 24 employees. Small firms' slightly higher shares of employees working part time, employees with a high school diploma or less education, and employees 65 years or older show that small firms are able to fill some gaps in the opportunities available for these groups. In addition, small firms' number and share of employees on financial or public assistance, along with their higher number and share of employees with lower education levels, suggest that small businesses may play a major role in aiding those making the transition from welfare to work. Finally, differences in the small- and large-firm workforces may make themselves felt in areas such as compensation, pension benefits, and health benefits. □

Notes

ACKNOWLEDGMENT: I thank William J. Wiatrowski, an economist with the Bureau of Labor Statistics, for his helpful comments.

¹ Joseph Schumpeter's *Capitalism, Socialism and Democracy* (1962)

coined the phrase "creative destruction" to characterize the evolution of the economy through technological change leading to the opening, growing, shrinking, and closing of firms. See also *The New American Evolution* (U.S. Small Business Administration, Office of Advocacy, June 1998); *The State of Small*

Business: A Report of the President, 1998 (U.S. Small Business Administration, Office of Advocacy, forthcoming; on the Internet at <http://www.sba.gov/advo/stats/>); W. A. Brock and D. S. Evans, *The Economics of Small Firms* (New York: Holmes and Meier, 1986); and G. S. Becker, "Make the World Safe for 'Creative Destruction,'" *Business Week*, Feb. 23, 1998.

² See *Small Business Growth by Major Industry, 1988–1995* and *Rural and Urban Areas by Firm Size, 1990–1995* (U.S. Small Business Administration, Office of Advocacy, 1998); on the Internet at <http://www.sba.gov/advo/stats/>.

³ William J. Wiatrowski, "Small businesses and their employees," *Monthly Labor Review*, October 1994, pp. 29–35.

⁴ An effort was made, though, to determine whether industry effects were the only, or even the main, factor behind the differences in small- and large-firm workforces. To investigate this issue, the race, origin, and part-time status shares by firm size were developed for two of the largest and, arguably, most dissimilar industries: manufacturing and services. Both of these isolated industries showed the same trends that the overall tabulations for the private sector indicated.

⁵ A firm is an aggregation of all establishments owned by a parent company. The Office of Size Standards within the U.S. Small Business Administration is the Agency that has established the size of small businesses, in general, at fewer than 500 employees. (The exact definition is on the Internet at <http://www.sba.gov/size/Main-What-R-SBSS.html>.)

⁶ Most of the results that follow are listed as percentages. However, estimates can be calculated using employee figures from table 1 and percentages offered by the other tables.

⁷ As the variable HRCHECK.

⁸ On the Internet at <http://ferret.bls.census.gov/cgi-bin/ferret>.

⁹ For an analysis of the characteristics of these workers over time (1992–96), see *Characteristics of Small Business Employees and Owners, 1997* (U.S. Small Business Administration, Office of Advocacy, 1998); on the Internet at <http://www.sba.gov/advo/stats/>.

¹⁰ "Employer" refers to the employer the respondent was with the longest during the year.

¹¹ Figures for the categories of "fewer than 500 employees" and "500 or more employees" are presented in this article. Respondents to the CPS are likely to accurately choose the correct category between these two choices, and the other size classes can be used to evaluate trends.

¹² SUSB is a firm-size data source created by the Bureau of the Census from County Business Patterns (an establishment data source) with funding from the Office of Advocacy. SUSB data, available from 1988 to 1997, are obtained by aggregating establishments owned by parent companies and contain information on the number of firms, number of establishments, employment, annual payroll, and estimated receipts by the size of the firm, by industry and location. (SUSB data are on the Internet at http://www.sba.gov/advo/stats/int_data.html.) In addition, a longitudinal database, called Business Information Tracking Series, or BITS, has been created for researchers from SUSB data.

¹³ See Thomas Amirault, "Characteristics of multiple jobholders, 1995," *Monthly Labor Review*, March 1997, pp. 9–15, which lists the multiple-jobholder rate (including public-sector jobholders) at 6.3 percent for 1995.

¹⁴ The estimate of women working in small firms had a 95-percent confidence interval of ± 0.6 percent, and that for large firms also had an interval of ± 0.6 percent, showing a slight statistical difference in the estimates.

¹⁵ Harry J. Holzer, "Why Do Small Establishments Hire Fewer Blacks than Large Ones?" discussion paper 1119–97, Institute for Research on Poverty, January 1977.

¹⁶ Includes Asian, Pacific Islander, American Indian, and Aleut Eskimo.

¹⁷ Note that the education levels listed in table 4 are those reached by private-sector workers at a point in time. During their lives, many workers (particularly younger ones) will reach higher education levels.

¹⁸ Part-time status was based on an employee's working 1 to 34 hours per week (from the HRCHECK variable in the CPS) and represents the employee's current job, not the job of longest duration.

¹⁹ *Characteristics of Small Business Employees and Owners*.

²⁰ Comparisons are made using 1996 SUSB data; however, the industry shares change little from year to year.