Small Business Facts

SCIENCE/HIGH-TECH WORKERS AND SMALL FIRMS

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U.S. SMALL BUSINESS ADMINISTRATION
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At A Glance

The bulk of STEM related workers go into the private-sector, and of those, a large share work for small firms.

Many science/high-tech workers work in small firms.

Workers in high-tech occupations make up 6.3% of the total workforce. High-tech workers make up 4% of workers that work at small businesses (firms with fewer than 500 employees) and 9.4% of workers at large businesses. Of high-tech workers, 37% work at small businesses. (Source: U.S. Census Bureau, Current Population Survey, special tabulations using high-tech definitions from "Daniel E. Hecker, *High-technology employment: a NAICS-based update*, Monthly Labor Review, July 2005.")

Educational background affects the employment direction for workers involved in academic projects.

Census' Innovation Measurement Initiative (www.census.gov/programs-surveys/ces/data/restricted-use-data/umetrics-data.html), following the careers of about 100,000 researchers at universities with research grant funding, illustrates worker flows after the university-run project is finished. The IMI is made up of 3 percent faculty, 8 percent post-doctoral, 19 percent graduate students, and 70 percent undergraduates/administrative positions.

Graduate and undergrad/admin workers tended to work in the private sector after the university-run project by large margins. University faculty, and to a lesser extent postdocs, still leaned toward the private sector but were also well represented in educational, government, and non-profit workplaces.

When entering the private sector, about half of the undergrad/admin workers went to work for small firms alongside a slightly smaller percentage of faculty, post doc, and graduate students. Undergrad/admin workers were also more likely to lean towards start-ups (firms younger than two years old) while graduate students leaned towards high-tech firms. Overall, about a third of the database went to work in high-tech firms and 13 percent went to work for start-ups. The IMI database was overrepresented in those going to high-tech and overrepresented in those going to young firms. (Source: U.S. Census Bureau, IMI, special tabulations)

Demographic groups had differing shares of workers in academic projects and their employment outcomes also differed.

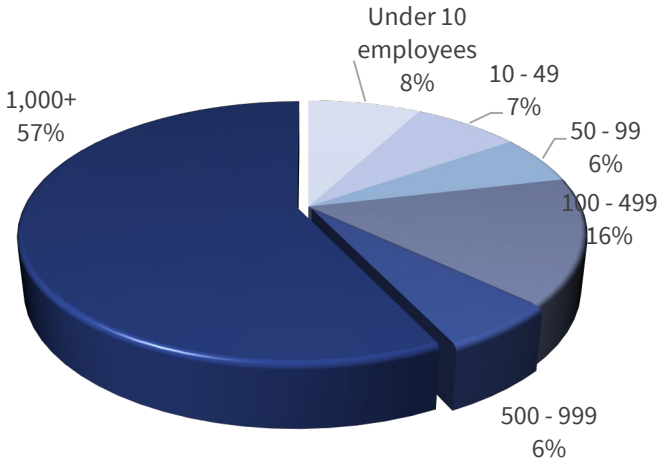
Asians are overrepresented in academic science grant related employment (16 percent), as are women (54 percent). Hispanics are underrepresented (7 percent), and so are African-Americans (7 percent). (Source: U.S. Census Bureau, IMI, special tabulations)

Industry mix for academic innovators on the move differed from the general distribution.

For small firms, professional, scientific, and technical services attracted the most workers (20 percent) and for large firms it was health care/social assistance (20 percent). Compared to the overall distribution, workers in the IMI entering large firms were overrepresented in educational industries. For small firms, workers were overrepresented in professional, scientific, and technical services. (Source: U.S. Census Bureau, IMI, special tabulations)

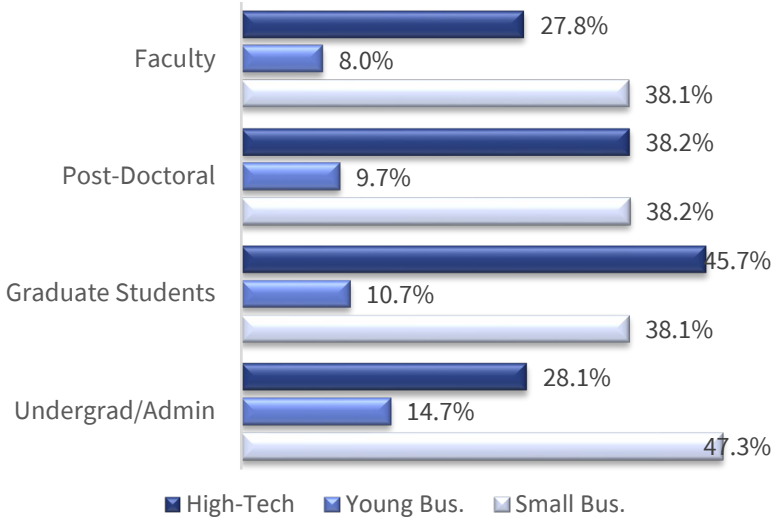
Small Business Facts are produced in the Office of Economic Research of the SBA Office of Advocacy. Questions? Email Advocacy@sba.gov.

Chart 1. High-tech Workers by Firm Size, 2018



Source: U.S. Census Bureau, Current Population Survey, special tabulations.

Chart 2. Worker Destination after Leaving University Employment



Source: U.S. Census Bureau, IMI, special tabulations.