In academic year 2009-10, over 60,000 individuals earned doctoral degrees. This spring, degrees in hand, most of these individuals began the search for a job... in the worst labor market in the United States in at least a generation (Economic Policy Institute, 2010). The National Bureau of Economic Research (NBER) has not definitively declared the recession ended, but data from the Bureau of Labor Statistics (BLS) indicate some recovery of jobs in 2010 after nearly two years of steady losses (Bureau of Labor Statistics, 2010b). Definitive data will not be available for some time on employment outcomes for this year’s doctorate recipients, but historical data from the Survey of Earned Doctorates (SED) provide some insight about how new doctorate recipients may have fared in the recession.

The latest SED data are for doctorate recipients in 2007-08 (National Science Foundation, 2009). Most of these doctorate recipients entered the job market within a few months of the start of the recession, which began in December 2007. The full impact of the recession had yet to be realized by mid-2008, but the job market had already shed more than 650,000 jobs in the first six months of 2008 alone, just as most of these new doctorate recipients were looking for employment (Bureau of Labor Statistics, 2010b).

Despite the gloomy job market, more than two-thirds (69%) of doctorate recipients in 2007-08 reported definite commitments for employment or postdoctoral study at the time they completed the SED. Doctorate recipients in humanities (64%) and engineering (65%) were least likely to report definite commitments, while those in education (73%) and ‘other fields’ (76%) were most likely to report definite commitments for employment or postdoctoral study.

Men were slightly more likely than women to report definite commitments for employment or postdoctoral study – 70% vs. 68%. U.S. citizens and permanent residents were more likely than temporary visa holders to report definite commitments for employment or postdoctoral study – 70% vs. 66%. And American Indian (74%) and white doctorate recipients (72%) were more likely to have definite commitments than Hispanic (66%), Black (64%), and Asian (62%) doctorate recipients.

Among doctorate recipients with definite commitments, 64% had offers of employment and 36% planned to pursue postdoctoral study. By broad field, doctorate recipients in education (95%), ‘other fields’ (93%), and humanities (86%) were most likely to have commitments for employment, while those in life sciences (66%), physical sciences (53%), and social sciences (33%) were most likely to have commitments for postdoctoral study.

Among doctorate recipients with definite postgraduate employment commitments in the United States (excluding individuals with commitments for postdoctoral study), about half (51%) had commitments from academia, about one-quarter (27%) had commitments from business/industry, 6% from government, 5% from non-profit organizations, and 11% from employers in other/unknown sectors. Humanities doctorate recipients and those in ‘other fields’ were most likely to have commitments to work in academia, while those in engineering and physical sciences were most likely to have employment commitments in business/industry (see Figure 1). In Figure 1, ‘other’ includes government, non-profit, and other/unknown sectors.
Figure 1. Employment Sector of Doctorate Recipients with Definite Postgraduation Employment Commitments in the U.S. by Broad Field of Study and Sector, 2007-08

Figure 2. Postgraduation Plans of Doctorate Recipients with Definite Commitments, 1987-88 to 2007-08

Sectors. Education doctorates recipients were most likely to have commitments to work in ‘other’ fields, which includes elementary and secondary schools.

Doctorate recipients in 2007-08 were only slightly less likely to have definite commitments for employment or postdoctoral study than their counterparts who graduated five and ten years earlier. Sixty-nine percent of doctorate recipients in 2007-08 had definite commitments, compared with 71% in 2002-03 and 70% in 1997-98. The share of new doctorate recipients with employment commitments in academia dropped slightly between 2002-03 and 2007-08, from 54% to 51%, while the share with employment commitments in business/industry rose from 21% to 27% in the same time period.

Over the past two decades, there has been a gradual decline in the share of doctorate recipients with definite commitments for employment, falling from 74% in 1987-88 to 64% in 2007-08 (see Figure 2). Conversely, the share of doctorate recipients with definite commitments for postdoctoral study rose from just over one-quarter in 1987-88 to more than one-third in 2007-08.

While the data on employment trends from the SED provide an interesting historical perspective, doctorate recipients in 2008-09 and 2009-10 undoubtedly faced
a tougher job market, as more jobs were shed in 2008 and 2009 as the recession deepened. Over the past two years, the higher education press has reported numerous cases of hiring freezes at U.S. universities, as well as a dismal employment outlook in some disciplines, particularly the humanities, suggesting that new doctorate recipients are likely finding it more difficult to find jobs today than their counterparts who graduated prior to the recession. One data point, however, suggests that not all the news is bleak.

National unemployment data for 2009 indicate that despite the recession, the average unemployment rate for doctoral degree holders remained low, at 2.5% (Bureau of Labor Statistics, 2010a). While higher than the 2.0% average unemployment rate for individuals with Ph.D.s in 2008, doctoral degree holders remain much less likely to be unemployed than individuals with lower levels of educational attainment. As shown in Figure 3, doctoral degree and first-professional degree holders have levels of unemployment that are about one-fourth that of high school graduates and about one-sixth that of individuals with less than a high school diploma.

What cannot be parsed from the BLS data is what population was most affected by the increase in unemployment among doctoral degree holders in 2009. It is possible that the increase from 2.0% in 2008 to 2.5% in 2009 was due in part to new doctorate recipients, but it is more likely that it is a combination of unemployment among new and experienced workers. Data from the 2009 Survey of Earned Doctorates, to be released in late 2010, will provide more definitive data on the true impact of the recession on doctorate recipients in 2008-09.

By Nathan E. Bell, Director, Research and Policy Analysis

References:

