College Is Just the Beginning

Employers' Role in the $1.1 Trillion Postsecondary Education and Training System

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The views expressed in this publication are those of the authors and do not necessarily represent those of Lumina Foundation, the Bill & Melinda Gates Foundation, the Joyce Foundation, their officers, or employees.
The $1.1 trillion U.S. postsecondary education and training system

Employers’ formal training dollars go toward both in-house and outside training.

The majority of formal training is for prime-age college-educated workers.

Some industries, such as manufacturing, invest substantially more in formal training than others, such as wholesale and retail trade.

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Table 1. The services industry spends $91.6 billion on formal training each year, accounting for 52 percent of national spending on formal training.
The $1.1 trillion U.S. postsecondary education and training system

American postsecondary institutions, government agencies, and employers spend $1.1 trillion annually on formal and informal higher education and training.

Of that amount, $649 billion goes for formal postsecondary education and training each year. Colleges and employers spend the most on formal postsecondary programs. Colleges and universities spend $407 billion on formal education annually, while employers spend $177 billion (Figure 1). Employer spending on formal training has increased by 26 percent since 1994, when employers spent $140 billion. By comparison, colleges and universities’ spending on formal education grew by 82 percent, from $224 billion to $407 billion, over the same period. Certifications, apprenticeships, and other workforce training comprise $47 billion of annual spending on formal training and federally funded job training programs comprise $18 billion of spending on formal training.

In addition, employers spend $413 billion on informal, on-the-job training annually. Including both formal and informal training, employers spend $590 billion annually, the largest element of the postsecondary education and training apparatus. Employers spend most on college-educated workers in service industries.

Figure 1. The United States spends $1.1 trillion on formal and informal postsecondary workforce education and training annually.2


1. Formal learning or training features a scheduled, regimented series of learning or training sessions, typically administered by an assigned trainer. Informal learning or training, by contrast, occurs through experience on the job; it is commonly referred to as on-the-job training.

2. Because education and training programs often span across multiple institutions, these spending categories may overlap.

Annual postsecondary education and training spending (2013$) by institutional type

- Employer-provided informal training: $413 billion
- Four-year colleges: $347 billion
- Employer-provided formal training: $177 billion
- Two-year colleges: $60 billion
- Certifications, apprenticeships, and other workforce training: $47 billion
- Federal job training: $18 billion

$100 billion
Employers’ formal training dollars go toward both in-house and outside training.

Employers often hire other businesses, educational institutions, or individuals to train their employees. This contract training accounts for one-third of annual spending on employer-provided formal training (Figure 2), or $60 billion. In-house training accounts for 46 percent of spending, and tuition reimbursements provided to employees who enroll in education and training programs account for an additional 16 percent of annual spending on formal training.

Figure 2. Employers spend one of every three formal training dollars on outside training.

The majority of formal training is spent on prime-age college-educated workers.

Employers spend most of their formal training dollars on college-educated workers (Figure 3). Bachelor’s degree-holders account for 58 percent of annual spending on formal training, while workers with an Associate’s degree or some college credit but no degree account for 25 percent of spending on formal training. The upshot is that formal employer-provided training typically complements, rather than substitutes for, a traditional college education; employer-provided training should not be viewed as a substitute for college or K-12 coursework.

Figure 3. Employers spend 58 percent of their formal training dollars on college-educated workers.³

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s degree or higher</td>
<td>58%</td>
</tr>
<tr>
<td>Some college</td>
<td>25%</td>
</tr>
<tr>
<td>High school diploma or less</td>
<td>17%</td>
</tr>
</tbody>
</table>


Share of formal training spending by educational attainment of trainee, 2013

³. Formal training spending refers to wages and salaries paid to employees for the hours of training. It does not include the cost of the trainers.
Whereas young adults are the primary recipients of college education, prime-age workers\textsuperscript{4} are the primary recipients of formal employer-provided training. Eighty-six percent of employer spending on formal training goes toward training prime-age workers, while only 3 percent goes toward training young adults (Figure 4).

\textbf{Figure 4.} The vast majority of formal training is provided to prime-age workers, those between ages 25 and 54.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Share of Formal Training Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 years or older</td>
<td>11%</td>
</tr>
<tr>
<td>25 to 54 years</td>
<td>86%</td>
</tr>
<tr>
<td>24 years or younger</td>
<td>3%</td>
</tr>
</tbody>
</table>


\textsuperscript{4} The term “prime-age workers” refers to workers between the ages of 25 and 54.
Some industries, such as manufacturing, invest substantially more in formal training than others, such as wholesale and retail trade.

Three industry sectors – finance, insurance, and real estate; transportation, communication, and public utilities; and manufacturing – invest substantially in formal training. For example, the manufacturing industry accounts for 11 percent of workers in the U.S. economy, but 14 percent of spending on formal training. Three other industries – services, construction, and wholesale and retail trade – invest little in formal training relative to their size within the economy. For example, the wholesale and retail trade sector accounts for 14 percent of all workers, but only 9 percent of spending on formal training.

Figure 5. The manufacturing industry accounts for 11 percent of workers, but 14 percent of spending on formal training.

Table 1. The services industry spends $91.6 billion on formal training each year, accounting for 52 percent of national spending on formal training.

<table>
<thead>
<tr>
<th>Industry sector</th>
<th>Employer spending on formal training in 2013 (billions of 2013$)</th>
<th>Share of total spending on formal employer training (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services</td>
<td>91.6</td>
<td>52</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>25.1</td>
<td>14</td>
</tr>
<tr>
<td>Transportation, communication, and utilities</td>
<td>19.2</td>
<td>11</td>
</tr>
<tr>
<td>Finance, insurance, and real estate</td>
<td>16.6</td>
<td>9</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>15.9</td>
<td>9</td>
</tr>
<tr>
<td>Construction</td>
<td>5.8</td>
<td>3</td>
</tr>
<tr>
<td>Mining</td>
<td>2.5</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>177.0</td>
<td>100%</td>
</tr>
</tbody>
</table>


Note: Due to rounding, the column may not sum to the total.
In this report, we utilize two primary data sources: the 1995 *Survey of Employer-Provided Training* and the 2013 *Current Population Survey Annual Social and Economic Supplement*.

The 1995 *Survey of Employer-Provided Training* was administered by the Department of Labor’s Bureau of Labor Statistics. It contains data related to formal training such as hours of training; employer spending on training; and costs of training as measured by the wages and salaries of trainees. This is the most recent data source that examines employer-provided training in the United States. The 2013 *Current Population Survey Annual Social and Economic Supplement* includes data on workers that include education and other demographic characteristics.

We use a fixed-coefficient method to estimate trends in employer-provided training in 2013 based on changes in the size and composition of the workforce reflected in the *Current Population Survey* data. We do not attempt to adjust for changes in employer preferences related to employer-provided training.

All expenditures are reported in 2013 dollars. Inflation adjustments were made using CPI-U-RS (Consumer Price Index for All Urban Consumers Research Series).5

Data on spending at colleges and universities are from the U.S. Department of Education’s *Digest of Education Statistics* advance release of selected tables. Data included in Figure 1 related to spending on federal job training programs are from a Government Accountability Office report published in 2011. Estimated spending on certifications, apprenticeships, and other workforce training is from Carnevale et al. (2010).

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5. For more information on the CPI-U-RS, see http://www.bls.gov/cpi/cpiurs.htm.
References


College Is Just the Beginning can be accessed online at cew.georgetown.edu/report/trilliontrainingsystem