Learning while Earning: Apprentice Experiences and Outcomes from the American Apprenticeship Initiative

Registered apprenticeship is an innovative workforce training opportunity in which apprentices are hired by an employer and start earning their first day on the job. Apprentices receive a combination of classroom instruction (known as “related technical instruction”) and on-the-job learning from a mentor at the employer’s worksite. Apprentices’ earnings increase as they master occupational skills, complete program components, or at specified time intervals. Upon completing their apprenticeship, apprentices earn an industry-recognized credential. Their skills are transferrable across employers.

Although a common training model in other countries, apprenticeship in the U.S. traditionally occurs in the construction sector. The U.S. Department of Labor’s (DOL’s) investment in the American Apprenticeship Initiative (AAI) aimed to increase apprenticeship opportunities in a large array of occupations and to populations that traditionally did not participate in apprenticeship programs. Findings from the Evaluation of the American Apprenticeship Initiative (AAI) illustrate the occupations in which apprentices can work; their earnings before, during and after the registered apprenticeship; and their motivations for pursuing an apprenticeship and their satisfaction with their AAI apprenticeship programs.

What did apprentices earn while in their apprenticeship program?

During their apprenticeships, AAI apprentices’ wages increased 27 percent on average, from about $18 per hour to $23 per hour. Wage growth was higher for longer programs (manufacturing and construction) than shorter programs (computer/IT and healthcare) because shorter programs had fewer wage steps. On average, across occupations, apprentices received 2.4 wage increases in apprenticeships registered under AAI.

What occupations can registered apprentices work in?

AAI apprentices enrolled in and completed apprenticeships in a diverse set of occupations, beyond the construction trades that are most known to have apprenticeships. Overall, three-quarters of AAI apprentices participated in occupations not traditionally associated with registered apprenticeship. Most commonly, AAI apprentices worked in manufacturing, followed by healthcare occupations.

Note: “Other” occupation includes banking, insurance, transportation, and logistics.

Did apprentices who completed apprenticeships increase their earnings?

All AAI apprentices experienced earnings growth. Between the year prior to starting their apprenticeship programs and a year after completing, the average AAI apprentice’s earnings increased by almost 50 percent.

Notes: Pre-program and post-program earnings averages included apprentices with $0 earnings. The period between apprenticeship start date and end date was 2.7 years, on average; it was longest for construction (4.2 years) and shortest for healthcare (1.2 years).

Did earnings growth vary by gender, race, and ethnicity?

Women AAI apprentices had higher earnings growth than men, decreasing the earnings gap from 23 percent one year prior to the apprenticeship to 11 percent one year after. Earnings increased for all races and ethnicities, with other race apprentices experiencing the highest earnings growth.

Notes: Pre-program and post-program earnings averages included apprentices with $0 earnings. The period between apprenticeship start date and end date was 2.7 years, on average; it was longest for construction (4.2 years) and shortest for healthcare (1.2 years).

Did apprentices’ earnings growth vary depending on the occupation of the registered apprenticeship program?

While AAI apprentices in all occupations experienced earnings growth, growth was greater for AAI apprentices in computer/IT and healthcare than in construction, manufacturing, and other occupations. Notably, computer/IT and healthcare were the shortest apprenticeships, on average (1.4 and 1.2 years, respectively).

Notes: Pre-program and post-program earnings averages included apprentices with $0 earnings. The period between apprenticeship start date and end date was 2.7 years, on average; it was longest for construction (4.2 years) and shortest for healthcare (1.2 years).
AAI apprentices who enrolled in nontraditional occupations experienced the highest earnings growth between the year prior to their program and the year following completion.

### Top 3 Occupations for Earnings Growth

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Pre-apprenticeship earnings</th>
<th>Post-apprenticeship earnings</th>
<th>Earnings Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Nurse (healthcare)</td>
<td>$15,056</td>
<td>$82,745</td>
<td>450%</td>
</tr>
<tr>
<td>Computer Network Specialist (IT)</td>
<td>$25,011</td>
<td>$64,296</td>
<td>157%</td>
</tr>
<tr>
<td>Bus Driver (“other”—transportation)</td>
<td>$28,419</td>
<td>$69,204</td>
<td>144%</td>
</tr>
</tbody>
</table>

Note: The period between apprenticeship start date and end date was 2.7 years, on average; it was longest for construction (4.2 years) and shortest for healthcare (1.2 years).


### How did wages of registered apprenticeship completers compare to those of comparable workers?

Apprentices in all occupations had higher earnings growth relative to comparable workers. Between the year prior to starting their apprenticeship programs and 2.5 years after starting, the average quarterly earnings of AAI apprentices grew 43 percent, while those of comparable workers grew 16 percent.

The largest average quarterly earnings growth disparity was in computer/IT.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Pre-apprenticeship earnings</th>
<th>Post-apprenticeship earnings</th>
<th>Earnings Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAI apprentices in healthcare</td>
<td>$15,056</td>
<td>$82,745</td>
<td>450%</td>
</tr>
<tr>
<td>Comparable workers</td>
<td>$15,056</td>
<td>$82,745</td>
<td>16%</td>
</tr>
</tbody>
</table>

AAI apprentices in healthcare also experienced large average quarterly earnings growth relative to comparable workers.

Construction and manufacturing AAI apprentices also had larger earnings gains than their comparable worker counterparts, although the difference was smaller than for other occupations.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Pre-apprenticeship earnings</th>
<th>Post-apprenticeship earnings</th>
<th>Earnings Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAI apprentices in construction</td>
<td>$25,011</td>
<td>$64,296</td>
<td>157%</td>
</tr>
<tr>
<td>Comparable workers</td>
<td>$25,011</td>
<td>$64,296</td>
<td>16%</td>
</tr>
</tbody>
</table>

### Why did apprentices participate in a registered apprenticeship?

AAI apprentices cited skill development and career preparation while earning a wage as primary reasons for pursuing a registered apprenticeship. More than three-quarters of AAI apprentices reported:

- I could train for a career, not just a job.
- I was confident that the skills and credentials I gained would be valued by employers.
- I could train for an occupation.
- I could earn while I learned.
- I would have a concrete job opportunity after completing training.
Did apprentices like their programs enough that they would recommend them to others as a way to train for a job?

The majority reported high levels of satisfaction with their apprenticeship program.

73% reported high levels of satisfaction with their primary on-the-job learning mentor and that their primary mentor was very important or important to their apprenticeship success.

More than 70% reported that the combination of related technical (classroom) instruction and on-the-job learning prepared them well for aspects of their occupations.

86% would recommend their programs to a family member or friend.

See related publications

- Expanding Apprenticeship to New Sectors and Populations: The Experiences and Outcomes of Apprentices in the American Apprenticeship Initiative
- Expanding Registered Apprenticeship Opportunities to Underrepresented Populations
- Did Apprentices Achieve Faster Earnings Growth than Comparable Workers?

For more information

- Apprenticeship.gov
- DOL Employment and Training Administration: AAI Evaluation Page
- DOL Chief Evaluation Office: AAI Evaluation Page