2024

Career Pathways Earnings Data Comparison:
Construction Craft Professional and Four-Year College Degree Pathways
The four-year college degree is widely considered to be a pathway to a sustainable economic future for young people. This very often holds true, but a four-year degree is not the only pathway to success. A career in construction, for example, provides an equally viable pathway to a sustainable economic future and often does not require accumulating educational debt. This fact is well-known within the industry but is not universally understood.

To shed some light on the income opportunities of a construction career path, we compared median incomes for individuals who earn a four-year college degree and those who complete a four-year apprenticeship as part of a construction career.

Methodology

For both paths, we examined traditional educational models: the apprenticeship program and the four-year college degree. The data for each path is in aggregate; specific crafts or four-year degrees are not singled out. Earnings data is based on median salary versus average salary because it is less likely to be skewed by outlier data. Comparisons include:

- Earnings/debt during the four-year educational period
- Starting salary
- Annual earnings
- Total earnings over five years and ten years
About Each Path

**Craft Professional Path**

The traditional educational model for a construction craft professional is an apprenticeship or a craft training program. These programs provide formal class instruction and hands-on work experience to learn a specific craft. Apprenticeships are typically employer-funded, which means there are no costs to the individual. Additionally, apprentices “earn as they learn” which means they are generally employed full-time while they are enrolled in the program on their way to becoming a journey-level professional in their craft. As with a four-year college degree, the typical journeyman or craft training program is designed to take four years. The median annual salary after completion of a four-year apprenticeship is $63,456.

**Craft Professional Path Assumptions**

Median annual journeyman salary = $63,456

An individual enters a four-year apprenticeship at age 18. The program pays a progressive percentage of journeyman wages based on years in the program as follows:

- 1st year = 50% of journeyman wage
- 2nd year = 60% of journeyman wage
- 3rd year = 70% of journeyman wage
- 4th year = 80% of journeyman wage

Annual wage inflation 4%

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**Four-Year College Degree Holder Assumptions**

Median starting salary = $47,000

Average debt for four-year public university degree = $25,969

- Average annual earnings while attending college full time = $3,760
- Monthly payment for 10-year education loan payment at 4.66% = $27

Annual wage inflation 4%

**Four-Year College Degree Path**

The four-year college degree path includes both educational debt and earnings. Research shows that 74.8% of undergraduate students accept federal student loans, and a typical undergraduate student at a four-year public university incurs an average of $25,969 in educational debt. Earnings during this period are generally limited. Due to the time requirements of degree programs, only 40% of full-time college students work while pursuing their degree. The analysis reflects this by including an average of $3,760 in annual income for full-time college students. After graduation, the median starting salary of four-year college degree holders is $47,000.
Annual Earnings: 5-Year and 10-Year Comparisons

Figures 1 and 2 compare the annual earnings of two individuals starting education programs at 18 years old: one who enters a construction craft apprenticeship program and one who starts a four-year college degree program. The apprentice begins full-time employment and training immediately, while the student pursuing a four-year college degree typically does not begin full-time employment until after graduation. The individual pursuing a four-year college degree must also begin repaying educational debt upon graduation, which reduces their net annual earnings.

Figures 1 and 2 display the annual earnings and net annual earnings after debt payments for both individuals. The figures illustrate the earnings trajectory from ages 18 to 27, showing the comparative financial outcomes of the two educational paths.
These five- and ten-year comparisons show that while both career paths can provide sustainable annual salaries, the craft professional route provides a higher median annual salary with no educational debt when compared to a four-year college degree holder over the same time periods. The total earnings at four, five and ten years are compared in the table below:

### Comparisons

<table>
<thead>
<tr>
<th>Earnings/debt during the four-year education period:</th>
<th>Four-Year College Degree Path</th>
<th>Construction Craft Professional Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt incurred for education</td>
<td>$25,969</td>
<td>$0</td>
</tr>
<tr>
<td>Earnings during education</td>
<td>$15,040</td>
<td>$164,986</td>
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</table>

<table>
<thead>
<tr>
<th>Starting salary:</th>
<th>Four-Year College Degree Path</th>
<th>Construction Craft Professional Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median starting salary</td>
<td>$47,000</td>
<td>$63,456</td>
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<tr>
<td>Total earnings: 5 years</td>
<td>$62,040</td>
<td>$228,442</td>
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</table>

<table>
<thead>
<tr>
<th>Earnings over ten years:</th>
<th>Four-Year College Degree Path</th>
<th>Construction Craft Professional Path</th>
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</thead>
<tbody>
<tr>
<td>Total earnings: 10 years</td>
<td>$326,790</td>
<td>$585,888</td>
</tr>
<tr>
<td>10-year earnings less loan payments</td>
<td>$307,278</td>
<td>$585,888</td>
</tr>
</tbody>
</table>

### Conclusion

The data presented here support the viability of construction craft professional as a pathway to a sustainable economic future. Comparisons of median earnings among four-year college degree holders and construction craft professionals in aggregate are not meant to promote specific construction career opportunities over specific four-year degree paths. Instead, this analysis is intended to highlight opportunity in a growing industry with a shortage of skilled professionals.

Four-year college degrees remain a requirement for entry into certain careers, but this path doesn’t work for everyone. In a time when students are increasingly looking for options,
the construction industry provides opportunities for rewarding and sustainable careers that don’t require accumulation of educational debt. Further, there are far more job openings than available skilled craft professionals; the valuable skills acquired via a construction craft professional pathway are, and will continue to be, in high demand.

It’s often noted that college graduates are surprised at their starting salaries, having built much higher expectations. The earnings data for craft professionals presented here is also likely to surprise some students, parents and educators, though in a positive and eye-opening way.

**Other Considerations**

**Median vs. Average Salaries**

We use the median salary in our comparisons because it is less affected by outlier data than the average salary. However, the comparison of average salaries yields similar conclusions. The craft professionals and four-year degree paths discussed here have average starting salaries of $65,226 \(^1\) and $58,885 \(^6\), respectively, which is a smaller but still significant difference.

**Promotions and Job Changes**

These growth opportunities are a crucial consideration for career paths, although their impact varies widely based on economic conditions, industry trends, and other factors. Such factors are not relevant for the five-year comparison, which focuses on the four-year education period and the first year starting salary. They become more relevant in the ten-year comparison, as this period extends six years after college or apprenticeship. It’s important to note that promotional and job change opportunities exist in both paths.

**Endnotes**

1. Craft professional annual salary based on NCCER 2022 salary survey results for all trades. Assumes 40-hour work week, no overtime, or per diem.
4. Derived from sources including Assessing the Impact of Student Work During College, Douglas and Attewell, Rutgers Education and Employment Research Center and https://www.kidsmoney.org/college/earning/statistics/#:~:text=A%20working%20college%20student%27s%20average,than%20their%20low%20hour%20counterparts
6. National Association of Colleges and Employers (NACE)
The National Center for Construction Education and Research (NCCER) is the leading provider of construction education for industry and career and technical education programs, with training and assessments in more than 40 crafts and construction disciplines. With flexible workforce development and learning solutions, NCCER’s programs provide consistency and quality to ensure craft professionals and learners receive industry-recognized certifications and credentials.