



Apprenticeship-Related Instruction Cost Study Fiscal Years 2020–2021



Texas Workforce Commission
Apprenticeship Training Program

Apprenticeship-Related Instruction Cost Study, Fiscal Years 2020–2021

Background

The Texas Workforce Commission (TWC) Apprenticeship Training Program serves employers and job seekers by training workers for well-paying jobs with promising futures. Apprentices are full-time, paid employees who “earn while they learn.” Under Texas Education Code Chapter 133, TWC is authorized to administer the Apprenticeship Training Program and receives an appropriation from the Texas legislature to grant funds to support a portion of the costs of related classroom instruction in apprenticeship training programs.

Per Texas Education Code §133.006(b), “At least annually, the commission shall prepare and submit to the Texas Workforce Investment Council (TWIC) or to the Apprenticeship and Training Advisory Committee, as designated by the TWIC, a report that includes an apprenticeship-related instruction cost study for the most recent state fiscal year.” The purpose of the Apprenticeship-Related Instruction Cost Study is to report the current funding and costs of the state’s apprenticeship training programs.

This study will source information from the Apprenticeship Training Program Fiscal Year 2020 (FY’20) and Fiscal Year 2021 (FY’21) summaries and Chapter 133 historical documents to explore the following:

- I. Apprenticeship Funding and Expenditure Overview
- II. State Enrollment by Craft and/or Trade
- III. Apprenticeship Contact Hour Rate
- IV. Average Cost per Apprentice
- V. Apprenticeship Training Completions, Graduations, and Advancements
- VI. Average Statewide Annual Wage—First Year to Fifth Year
- VII. Conclusion

I. Apprenticeship Funding and Expenditure Overview

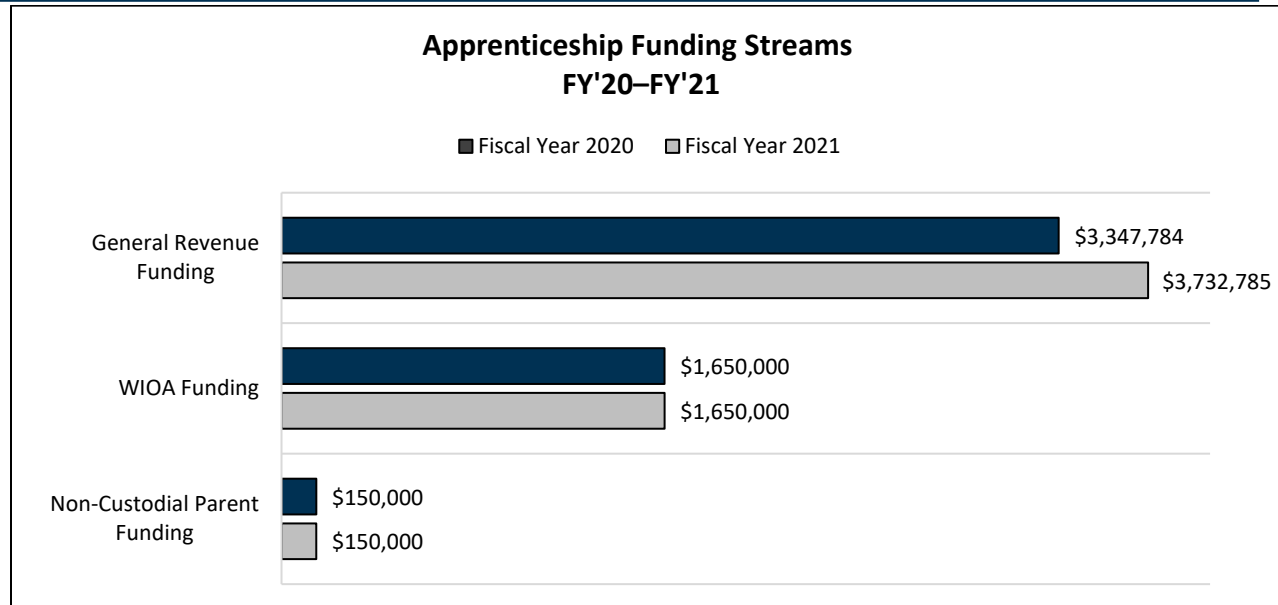
Apprenticeship Program Funding and Expenditures

| Table 1: Total Apprenticeship Funding, Fiscal Years 2020 and 2021 | | |
|---|--------------------|--------------------|
| | FY'20 | FY'21 |
| Total Appropriations¹ | \$5,147,784 | \$5,532,785 |
| Total Contracted Amount | \$4,871,634 | \$4,692,654 |
| Actual Expenditures—Contracted Amount | \$4,687,590 | \$4,496,507 |
| Remaining Balance—Contracted Amount | \$184,044 | \$196,147 |
| Remaining Balance Percentage—Contracted Amount | 3.8% | 4.2% |

Data Source: Apprenticeship Training Program Summaries, FY'20 and FY'21

The Texas legislature appropriates General Revenue state funds for the support of apprenticeship training programs authorized under Texas Education Code Chapter 133. TWC allocates funds to sponsoring local education agencies (LEAs)—public school districts or state postsecondary institutions—and independent apprenticeship committees that operate apprenticeship training programs.

Figure 1: Apprenticeship Funding Streams, Fiscal Years 2020 and 2021



TWC further supports Texas Education Code Chapter 133 General Revenue funding with

¹ Total appropriations include General Revenue and TWC-allocated funds.

Workforce Innovation and Opportunity Act (WIOA) funds and other leveraged funds, as appropriate.

Data Source: Apprenticeship Training Program Chapter 133 History Reporting

Figure 1 shows the funding streams and funding amounts contracted for FY'20 and FY'21. Texas Education Code Chapter 133 General Revenue funding is the largest source of the funding streams supporting Texas apprenticeship training programs.

Since FY'10, TWC has contributed more than \$1 million in WIOA funds each year to support the increasing number of apprentices receiving training. Additionally, TWC leverages other funding, such as Noncustodial Parent Choices funds, to maximize the funds available to support apprentice training.

II. State Enrollment by Craft and/or Trade

Apprentice Count by Occupation

TWC funding supported a total 6,810 apprentices enrolled in craft and trade apprenticeship training programs during FY'20. In FY'21, 6,625 apprentices enrolled in apprenticeship training programs. The table that follows provides detail on the number of apprentices trained by occupation.

| Table 2: Apprentices by Occupation, Fiscal Years 2020 and 2021 | | |
|---|------------------------------------|------------------------------------|
| | Total Apprentices FY'20 | Total Apprentices FY'21 |
| Electrician | 4,273 | 4,254 |
| Iron Worker | 386 | 435 |
| Plumber/Pipefitter | 342 | 374 |
| Pipefitter | 434 | 350 |
| Sheet Metal | 385 | 269 |
| Plumber | 235 | 223 |
| Plumber/Pipefitter/HVAC/Refrig. Mech/Welding | 232 | 216 |
| Carpenter | 123 | 139 |
| Millwright | 85 | 126 |
| Electric Distribution Lineman | 87 | 60 |
| HVAC | 62 | 57 |
| Interior Systems | 9 | 18 |
| Telecom/Installer Tech | 14 | 16 |
| Glaziers | 23 | 14 |
| Insulation Worker | 21 | 14 |
| Child Care Development Specialist | -- | 14 |
| Computer Support Specialist | -- | 12 |
| Bricklayer | 9 | 7 |

| | Total Apprentices FY'20 | Total Apprentices FY'21 |
|---|----------------------------|----------------------------|
| Motor Grader Operator | 7 | 6 |
| Early Childhood Educator I | -- | 5 |
| Drywall Applicator | 1 | 4 |
| Painter | 7 | 3 |
| Electronic Systems Technician | 3 | 3 |
| Taper | 4 | 2 |
| Plasterer | 2 | 2 |
| Cement Mason/Concrete Finisher | 1 | 1 |
| Paving, Surfacing, and Tampering Operator | 1 | 1 |
| Displayer, Merchandise | 40 | -- |
| Tradeshow Worker | 24 | -- |
| Total | 6,810 | 6,625 |

Data Source: Apprenticeship Training Program Summaries, FY'20 and FY'21

Electrician, iron work, plumbing, pipefitting, and sheet metal apprenticeship programs experienced the highest enrollment numbers of all listed occupations during the 2021 fiscal year (Table 2). Enrollment for electrician apprenticeship programs comprised over 60 percent of the total enrollment for both FY'20 and FY'21.

TWC's Labor Market Information department projects that employment totals for electricians will increase by 17,300 from 2020 through 2030.² Additionally, the employment levels for all occupations listed in Table 2 are forecast to grow over the 10-year period by at least 5 percent, with the top five apprenticeship occupations expected to increase by at least 14 percent.

III. Apprenticeship Contact Hour Rate

Total Apprentices and Contact Hour Rates

The final contact hour rate is determined by dividing the total available funds by the statewide total number of contact hours of the related apprenticeship training instruction.

| Table 3: Total Apprentices and Contact Hour Rates, Fiscal Years 2020 and 2021 | | |
|--|--------|--------|
| | FY'20 | FY'21 |
| Number Contracted | 6,810 | 6,625 |
| Final Contact Hour Rate | \$4.00 | \$4.00 |

Data Source: Apprenticeship Training Program Chapter 133 History Reporting

² Source: Labor Market Information, Texas Workforce Commission, <https://texaslmi.com/Home/PopularDownloads>, Projections, statewide projections across all industries

During FY'20, TWC funding supported 6,810 apprentices. The final contact hour rate for FY'20 was \$4.00. In FY'21, TWC funding supported 6,625 apprentices. The final contact hour rate for FY'21 remained at \$4.00.

Contact Hours per Apprenticeable Occupation

TWC funding supported a total of 1,175,036 related instructional hours in craft and trade apprenticeship training programs for FY'21. The table below provides detail on contact hours by occupation.

| Table 4: Contact Hours per Occupation, Fiscal Years 2020 and 2021 | | |
|--|----------------------------|----------------------------|
| | Total Contact Hours | Total Contact Hours |
| | FY'20 | FY'21 |
| Electrician | 707,988 | 698,454 |
| Plumber/Pipefitter | 75,240 | 82,280 |
| Pipefitter | 95,480 | 77,000 |
| Sheet Metal | 78,984 | 53,432 |
| Iron Worker | 57,776 | 47,748 |
| Plumber/Pipefitter/HVAC/Refig. Mech | 51,040 | 47,520 |
| Ironworker | 22,440 | 42,432 |
| Plumber | 42,784 | 39,898 |
| Millwright | 17,000 | 25,200 |
| Carpenter | 18,752 | 21,432 |
| HVAC | 12,384 | 11,664 |
| Line Installer, Repairer | 12,528 | 8,640 |
| Interior Systems | 1,440 | 2,880 |
| Telecommunications Technician | 2,464 | 2,816 |
| Computer Support Specialist | -- | 2,640 |
| Child Care Development Specialist | -- | 2,072 |
| Glaziers | 3,312 | 2,016 |
| Insulation Worker | 3,024 | 2,016 |
| Bricklayer | 1,296 | 1,008 |
| Motor Grader Operator | 1,008 | 864 |
| Early Childhood Educator I | -- | 720 |
| Drywall Applicator | 144 | 576 |
| Electronic Systems Technician | 432 | 432 |
| Painter | 1,008 | 432 |
| Plasterer | 288 | 288 |
| Taper | 576 | 288 |
| Cement Mason/Concrete Finisher | 144 | 144 |
| Paving, Surfacing, and Tampering Operator | 144 | 144 |

| | | |
|-----------------------------|------------------|------------------|
| Display, Merchandise | 5,760 | -- |
| Tradeshow Worker | 3,456 | -- |
| Total | 1,216,892 | 1,175,036 |

Data Source: Apprenticeship Training Program Summaries, FY'20 and FY'21

Electrician, plumbing, pipefitting, sheet metal, iron worker, and HVAC/refrigeration maintenance apprenticeship programs reported the highest numbers of instructional hours of all listed occupations during FY'21. Instructional hours for electrician apprenticeship programs made up almost 60 percent of the total contact hours for each of the reported fiscal years.

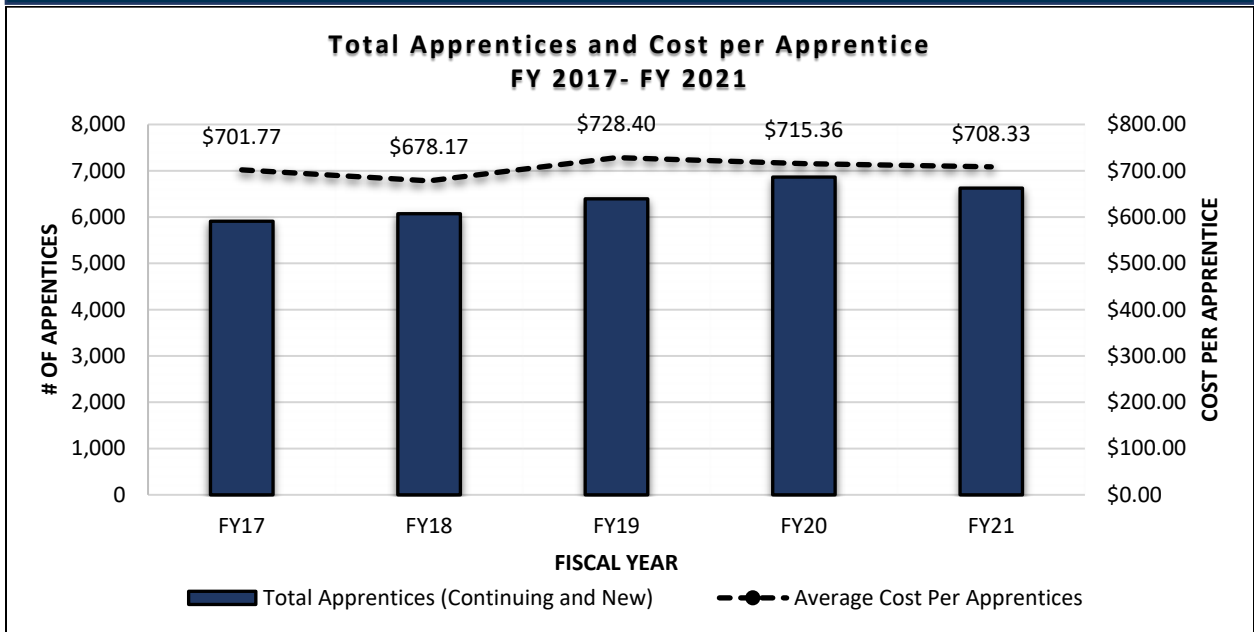
IV. Average Cost per Apprentice

The average cost per apprentice is determined by dividing the contracted apprentice funding amount by the total number of contracted apprentices enrolled in craft and trade apprenticeship training programs. For example, the apprenticeship funding for FY'21 totaled \$4,692,654, and the total number of apprentices in FY'21 was 6,625. Therefore:

$$(\$4,692,654/6,625) = \text{average cost per apprentice, or } \$708.33 \text{ for FY'21}$$

Using data from previous fiscal years, Apprenticeship Texas staff members at TWC can compare average cost per apprentice over multiple years. A comparison of average cost over FY'17 through FY'21 follows.

Figure 2: Total Apprentices and Cost per Apprentice, Fiscal Years 2017–2021



Data Source: Apprenticeship Training Program Chapter 133 History Reporting

Figure 2 shows the average cost per apprentice (dashed line) and the total number of contracted apprentices (bars) for FY'17–FY'21.

Although the average cost per apprentice is a direct correlation to the total available funds and the total contracted apprentice enrollment, the average cost per apprentice has remained below \$750 per apprentice.

V. Apprenticeship Training Completions, Graduations, and Advancements

The annual completion rate includes apprentices who have completed their apprenticeship training programs and graduated, as well as apprentices who have completed a year of their apprenticeship but will continue in the training program for another year or more until graduated.

Apprenticeship Graduations and Advancements

Table 5: Apprenticeship Graduations and Advancements, Fiscal Years 2020 and 2021

| | FY'20 | FY'21 |
|---|--------|--------|
| Graduated | 12.66% | 14.49% |
| Training Completed and Advanced | 61.17% | 65.03% |
| Training Completed and Did Not Advance | 10.34% | 1.90% |
| Total | 84.17% | 81.42% |

Data Source: Apprenticeship Training Program Summaries, FY'20 and FY'21

The total percentage of apprentices completing training for FY'20 and FY'21 is shown above in Table 5. In FY'21, the total number of apprentices completing training and advancing was approximately 3 percent less than in FY'20. This slight decline may be attributed to lower participation numbers resulting from the continuing impacts of the COVID-19 pandemic during 2021.

Figure 3: Apprenticeship Training Completions, Fiscal Years 2017–2021



Data Source: Apprenticeship Training Program Summaries, FY'17–FY'21

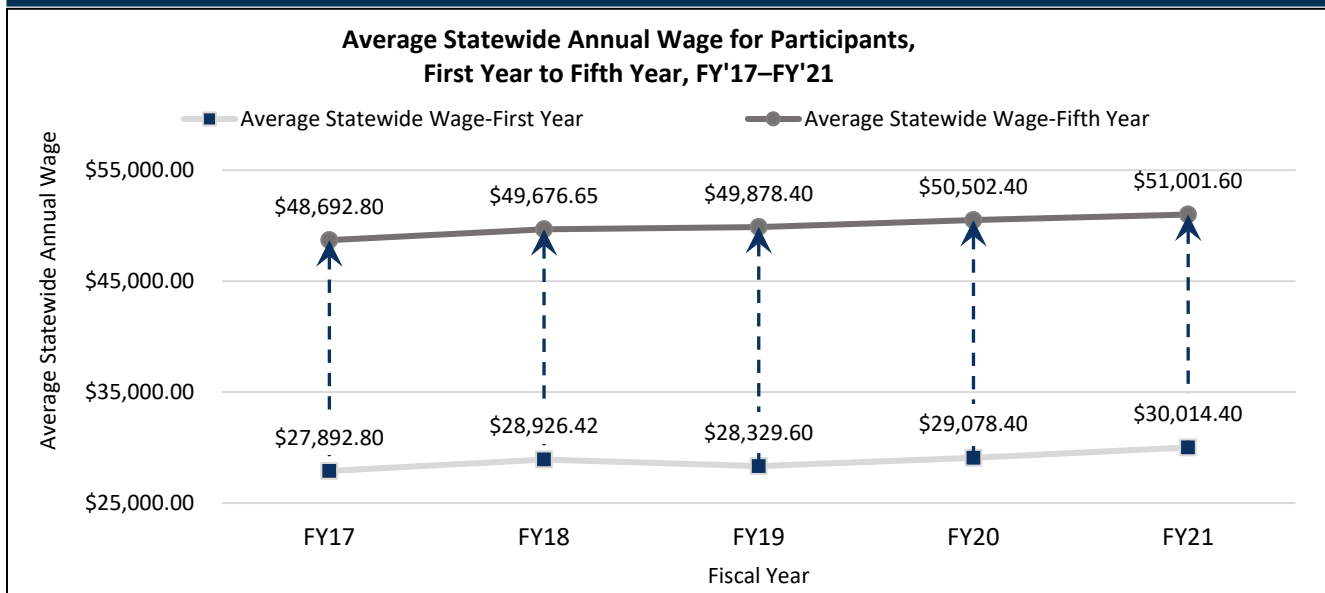
VI. Apprenticeship Average Statewide Wages, First Year to Fifth Year

Apprenticeship Average Statewide Wages, Fiscal Years 2017–2021

The next chart, Figure 4, is a year-to-year comparison of the average annual statewide wage for participants from the first year to the fifth year of an apprenticeship training program.

From FY'17–FY'21, the increase from first-year annual average wage to fifth-year annual average wage has consistently remained at or above 70 percent. The wage increases have ranged from almost \$20,000 to \$21,000 over the last five fiscal years.

Figure 4: Average Statewide Annual Wage—First Year to Fifth Year, Fiscal Years 2017–2021



Data Source: Apprenticeship Training Program Chapter 133 History Reporting

The Occupational Employment Statistics program reports that the 2021 statewide annual average wage for all Texas occupations is \$54,228.³ At \$51,002, the annual average wage for fifth year apprentices in FY'21 falls short of the overall annual average wage for the state of Texas.

VII. Conclusion

This report, which will be submitted to the TWIC as required by Texas Education Code §133.006(b), provides evidence of the continued growth and success of apprenticeship training programs in Texas. Through the state's Chapter 133 program and through federal initiatives, TWC anticipates and welcomes continued support for registered apprenticeship programs throughout Texas.

Apprenticeship Texas staff collaborates extensively with employers and other stakeholders who are exploring the apprenticeship training model. Staff members also work with new and

³ Source: Labor Market Information, Texas Workforce Commission, <https://texaslmi.com/LMIbyCategory/Wages>

existing programs to promote growth and innovation and to ensure strong, sustainable training models that meet the labor market needs of a strong and vital Texas economy.