



Apprenticeship Related Instruction Cost Study, Fiscal Years 2019–2020



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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 registered 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the Apprenticeship Training Program Fiscal Year 2019 (FY’19) and Fiscal Year 2020 (FY’20) summaries and Chapter 133 historical documents to explore the following: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

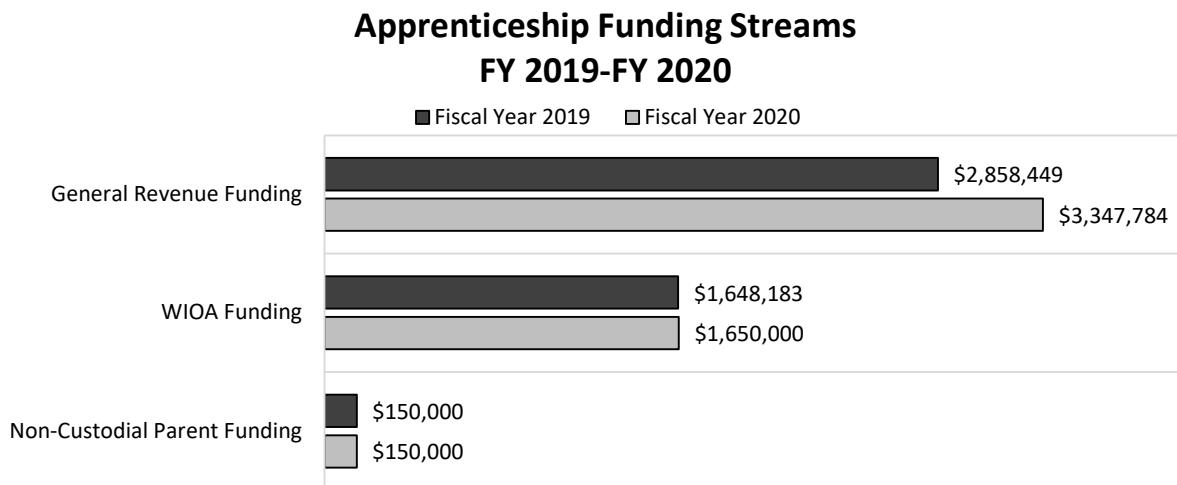
Table 1: Total Apprenticeship Funding, Fiscal Years 2019 and 2020		
Total Appropriations¹	4,454,262	4,665,883
Total Contracted Amount	\$4,656,632	\$4,871,634
Actual Expenditures—Contracted Amount	\$4,525,943	\$4,687,590
Remaining Balance—Contracted Amount	\$130,689	\$184,044
Remaining Balance Percentage Contracted Amount	2.8%	3.7%

Data Source: Apprenticeship Training Program Summaries, FY'19 and FY'20

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.

TWC further supports Texas Education Code Chapter 133 General Revenue funding with Workforce Innovation and Opportunity Act (WIOA) funds and other leveraged funds, as appropriate.

Figure 1: Apprenticeship Funding Streams, Fiscal Years 2019 and 2020



Data Source: Apprenticeship Training Program Chapter 133 History Reporting

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

Figure 1 shows the funding streams and funding amounts contracted for FY'19 and FY'20. 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 6,393 apprentices enrolled in craft and trade apprenticeship training programs during FY'19. In FY'20, that number increased to 6,810 apprentices. The table that follows provides detail on the number of apprentices trained by occupation.

Table 2: Apprentices by Occupation, Fiscal Years 2019 and 2020		
	Total Apprentices	Total Apprentices
	FY'19	FY'20
<i>Electrician</i>	3,817	4,273
<i>Pipefitter</i>	427	434
<i>Sheet Metal</i>	363	385
<i>Plumber & Pipefitter</i>	555	342
<i>Iron Worker</i>	224	276
<i>Plumber</i>	149	235
<i>Plumber/Pipefitter/HVAC/Refrig. Mech/Welding</i>	128	232
<i>Carpenter</i>	161	123
<i>Structural Steel Ironworker</i>	91	110
<i>Electric Distribution Lineman</i>	76	87
<i>Millwright</i>	206	85
<i>HVAC</i>	58	62
<i>Displayer, Merchandise</i>	--	40
<i>Tradeshow Worker</i>	50	24

	<i>Total Apprentices</i>	<i>Total Apprentices</i>
	<i>FY'19</i>	<i>FY'20</i>
<i>Glaziers</i>	19	23
<i>Insulation Worker</i>	18	21
<i>Telecom/Installer Tech</i>	14	14
<i>Bricklayer</i>	20	9
<i>Interior Systems</i>		9
<i>Motor Grader Operator</i>	4	7
<i>Painter</i>	2	7
<i>Taper</i>	4	4
<i>Electronic Systems Technician</i>	4	3
<i>Plasterer</i>	2	2
<i>Cement Mason/Concrete Finisher</i>		1
<i>Drywall Applicator</i>	1	1
<i>Paving, Surfacing, and Tampering Operator</i>		1
Total	6,393	6,810

Data Source: Apprenticeship Training Program Summaries, FY'19 and FY'20

Electrician, plumbing, pipefitting, sheet metal, iron worker, and carpentry apprenticeship programs experienced the highest enrollment numbers of all listed occupations during the 2020 fiscal year (Table 2). Enrollment for electrician apprenticeship programs comprised more than 60 percent of the total enrollment for both FY'19 and FY'20.

TWC's Labor Market Information department projects that employment totals for electricians will increase by 9,569 from 2018 through 2028.² Additionally, the employment levels for all occupations listed in Table 2 are forecast to grow over the 10-year period, with the top five apprenticeship occupations expected to increase by at least 12 percent.

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

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 2019 and 2020		
<i>Apprentices</i>	<i>FY'19</i>	<i>FY'20</i>
<i>Number Contracted</i>	6,393	6,810
<i>Final Contact Hour Rate</i>	\$4.00	\$4.00
<i>Journeyworkers</i>	<i>FY'19</i>	<i>FY'20</i>
<i>Number Contracted</i>	0	0
<i>Final Contact Hour Rate</i>	\$0.00	\$0.00

Data Source: Apprenticeship Training Program Chapter 133 History Reporting

During FY'19, TWC funding supported 6,393 apprentices. The final contact hour rate for FY'19 was \$4.00. In FY'20, 6,810 apprentices were supported by TWC funding. The final contact hour rate for FY'20 remained at \$4.00. Under TWC Chapter 837 Apprenticeship Training Program rule §837.25, funds for apprenticeship training classes are distributed based on the following priorities, unless otherwise determined by TWC's three-member Commission (Commission):

- Related instruction, or apprenticeship
- Supplementary instruction, or journeyworker
- Preparatory instruction, or pre-apprenticeship training

In FY'19 and FY'20, the Commission prioritized funding availability toward apprentices. Therefore, funding was not made available for supplemental training toward journeyworkers.

Contact Hours per Apprenticeable Occupation

TWC funding supported a total of 1,160,702 related instructional hours in craft and trade apprenticeship training programs for FY'19. In FY'20, that number increased to 1,216,892 hours. The table below provides detail on contact hours by occupation.

Table 4: Contact Hours per Occupation, Fiscal Years 2019 and 2020		
	<i>Total Contact Hours</i>	<i>Total Contact Hours</i>
	<i>FY'19</i>	<i>FY'20</i>
<i>Electrician</i>	642,868	707,988
<i>Pipefitter</i>	93,940	95,480

<i>Sheet Metal</i>	74,376	78,984
<i>Plumber & Pipefitter</i>	121,652	75,240
<i>Iron Worker</i>	46,800	57,776
<i>Plumber/Pipefitter/HVAC/Refrig. Mech/Welding</i>	28,160	51,040
<i>Plumber</i>	24,662	42,784
<i>Structural Steel Ironworker</i>	18,564	22,440
<i>Carpenter</i>	25,332	18,752
<i>Millwright</i>	41,200	17,000
<i>Electric Distribution Lineman</i>	10,944	12,528
<i>HVAC</i>	11,884	12,384
<i>Displayer, Merchandise</i>	--	5,760
<i>Tradeshaw Worker</i>	7,200	3,456
<i>Glaziers</i>	2,736	3,312
<i>Insulation Worker</i>	2,592	3,024
<i>TeleCom/Installer Tech</i>	2,464	2,464
<i>Interior Systems</i>	--	1,440
<i>Bricklayer</i>	2,880	1,296
<i>Motor Grader Operator</i>	576	1,008
<i>Painter</i>	288	1,008
<i>Taper</i>	576	576
<i>Electronic Systems Technician</i>	576	432
<i>Plasterer</i>	288	288
<i>Cement Mason/Concrete Finisher</i>	--	144
<i>Drywall Applicator</i>	144	144
<i>Paving, Surfacing, and Tampering Operator</i>	--	144
Total	1,160,702	1,216,892

Data Source: Apprenticeship Training Program Summaries, FY'19 and FY'20

Electrician, plumbing, pipefitting, sheet metal, iron worker, and carpentry apprenticeship programs reported the highest numbers of instructional hours of all listed occupations during FY'20. Instructional hours for electrician apprenticeship programs made up almost 60 percent of the total contact hours for each of the reported fiscal years.

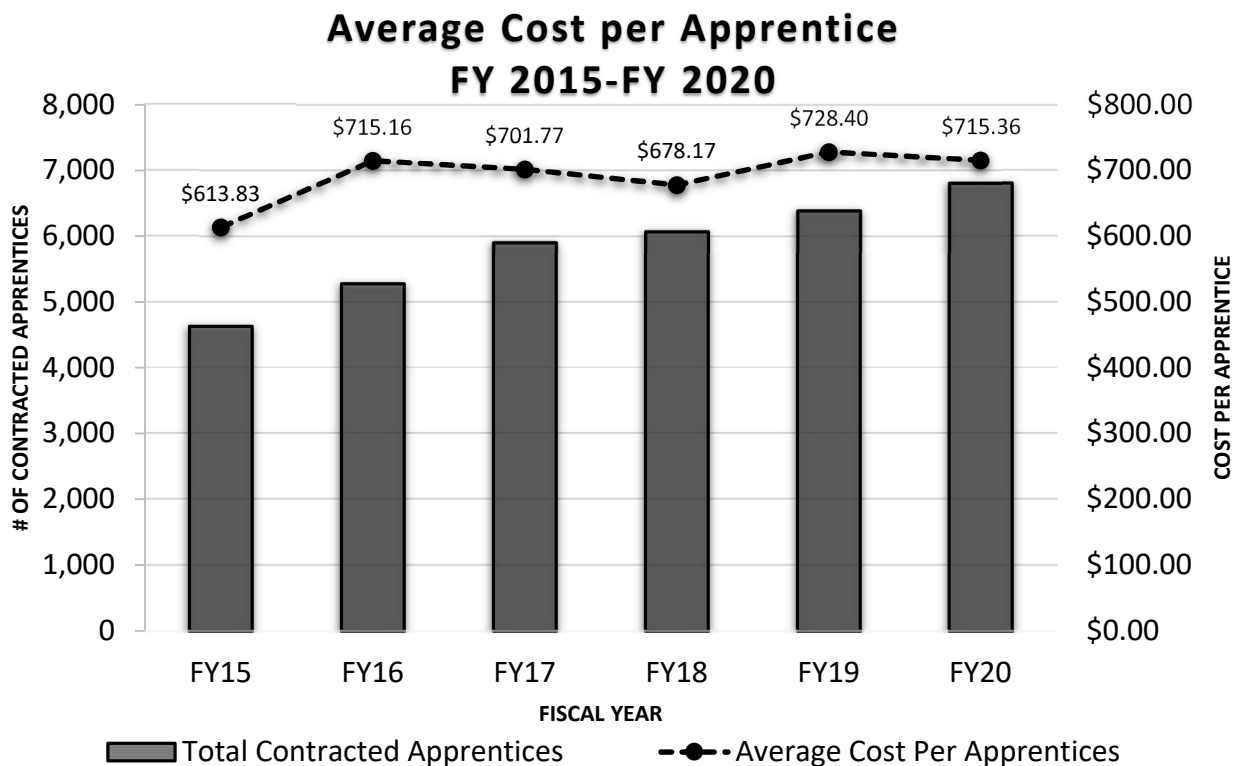
IV. Average Cost per Apprentice

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'20 totaled \$4,871,634, and the total number of apprentices in FY'20 was 6,810. Therefore:

$$(\$4,871,634/6810) = \text{average cost per apprentice, or } \$715.36 \text{ for FY'20}$$

Using data from previous fiscal years, ApprenticeshipTexas staff members at TWC are able to compare average cost per apprentice over multiple years. A comparison of average cost over FY'15 through FY'20 follows.

Figure 2: Total Apprentices and Cost per Apprentice, Fiscal Years 2015 through 2020



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'15 through FY'20.

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 \$800 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 years until graduated.

Apprenticeship Graduations and Advancements

Table 5: Apprenticeship Graduations and Advancements, Fiscal Years 2019 and 2020

	FY'19	FY'20
Graduated	13.17%	12.66%
Training Completed & Advanced	66.89%	61.17%
Training Completed & Did Not Advance	5.85%	10.34%
Total	85.91%	84.17%

The total percentage of apprentices completing training for FY'19 and FY'20 is shown above in Table 5. In FY'20, the total number of apprentices completing training and advancing was approximately 5 percent less than in FY'19. This slight decline may be attributed to lower participation numbers resulting from the COVID-19 pandemic. When compared to previous years' completion rates—as illustrated in Figure 3—it is important to note that completion rates have increased and will most likely continue to grow as programs return to normal operations.

Apprenticeship Training Completions

Figure 3: Apprenticeship Training Completions, Fiscal Years 2015 through 2020



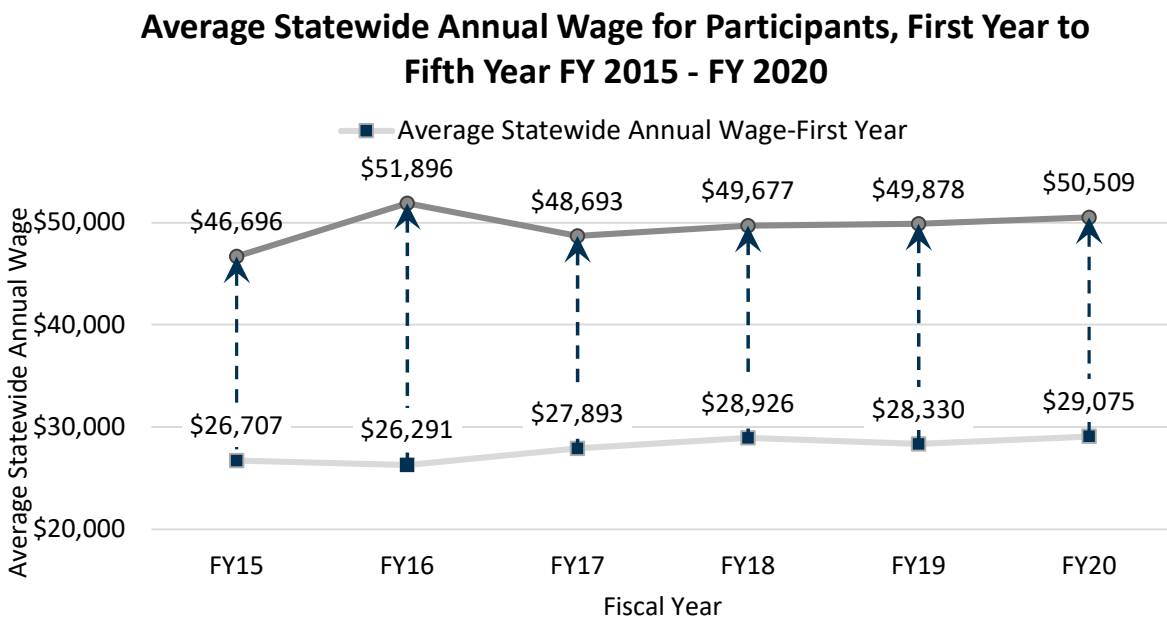
Data Source: Apprenticeship Training Program Summaries, FY'15 through FY'20

VI. Apprenticeship Average Statewide Wages, Fiscal Years 2015 through 2020

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'15 through FY'20, the increase from first-year annual average wage to fifth-year annual average wage has consistently remained above 70 percent. The wage increases have ranged from almost \$20,000 to more than \$25,000 over the last six fiscal years.

Figure 4: Average Statewide Annual Wage First Year to Fifth Year, Fiscal Years 2015 through 2020



Data Source: Apprenticeship Training Program Chapter 133 History Reporting

The Occupational Employment Statistics program reports that the 2020 statewide annual average wage for all Texas occupations is \$52,401.³ At \$50,509, the annual average wage for fifth year apprentices in FY'20 falls shy 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 registered 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.

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

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