



Apprenticeship Related Instruction Cost Study, Fiscal Years 2018–2019



Texas Workforce Commission
Apprenticeship Training Program

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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 the costs of related classroom instruction in registered apprenticeship training programs.

Per Texas Education Code §133.006(b), “The commission shall prepare an update to the Apprenticeship Related Instruction Cost Study adopted by the State Board of Education on February 10, 1973, prior to each biennial session of the legislature.” 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 2018 (FY’18) and Fiscal Year 2019 (FY’19) summary along with the Apprenticeship Training Program Chapter 133 History Report to explore:

- I. Apprenticeship Funding and Expenditures
- 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

The Apprenticeship Related Instruction Cost Study for FY’18–’19 also includes a summary of recent impactful legislation and a glimpse at the future of the Texas Apprenticeship Training Program.

I. Apprenticeship Funding and Expenditure Overview

Apprenticeship Program Funding and Expenditures

Table 1: Total Apprenticeship Funding, Fiscal Years 2018 and 2019

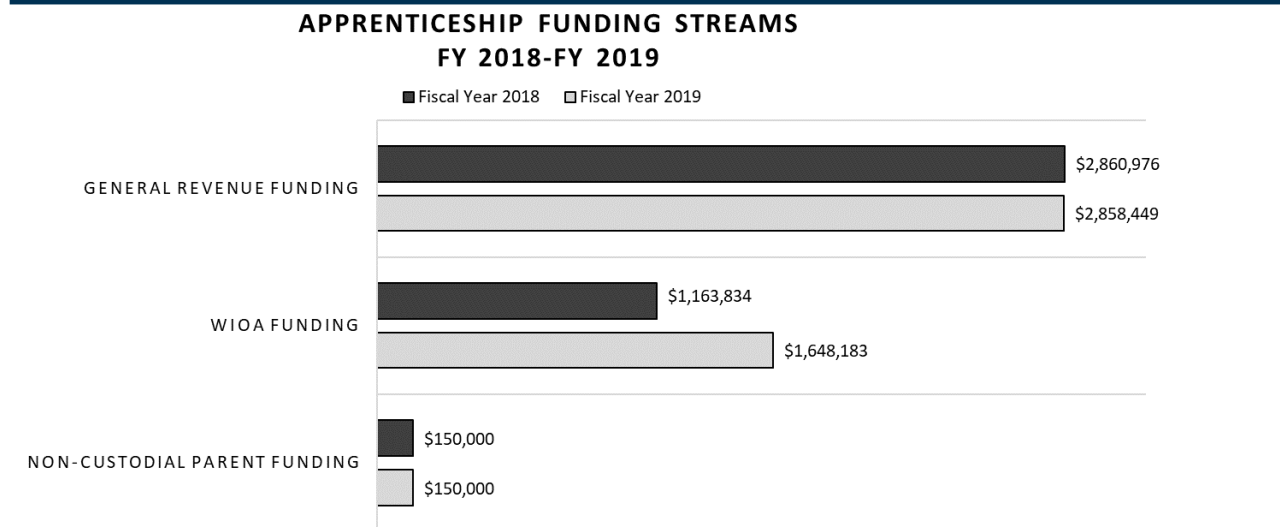
	<i>FY 2018</i>	<i>FY 2019</i>
Total Appropriations¹	\$4,473,787	\$4,454,262
Total Contracted Amount	\$4,174,810	\$4,656,632
Actual Expenditures—Contracted Amount	\$4,127,595	\$4,525,943
Remaining Balance—Contracted Amount	\$47,215	\$130,689
Remaining Balance Percentage—Contracted Amount	1.1%	2.9%

Data Source: Apprenticeship Training Program Summaries, FY’18 and FY’19

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

TWC further supports Chapter 133 general revenue funding with Workforce Innovation and Opportunity Act (WIOA) funds and other leveraged funds, as appropriate. In FY’19, TWC’s three-member Commission (Commission) approved additional WIOA funding to meet the increased need of apprentice training, resulting in a higher contracted amount than that from FY’18

Figure 1: Apprenticeship Funding Streams, Fiscal Years 2018 and 2019



Data Source: Apprenticeship Training Program Chapter 133 History Reporting

¹ Total Appropriations includes general revenue and TWC-allocated funds.

Figure 1 shows the funding streams and funding amounts contracted for FY'18 and FY'19. Chapter 133 general revenue funding is the largest source of the funding streams supporting Texas apprenticeship training programs.

Since Fiscal Year 2010 (FY'10), TWC has contributed over \$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/Trade

Apprentice Count by Occupation

TWC funding supported a total 6,074 apprentices enrolled in craft and trade apprenticeship training programs during FY'18. In FY'19, that number increased to 6,393 apprentices.

Table 2: Apprentices by Occupation, Fiscal Years 2018 and 2019

	<i>Total Apprentices FY 2018</i>	<i>Total Apprentices FY 2019</i>
<i>Electrician</i>	3,751	3,817
<i>Plumber & Pipefitter</i>	527	555
<i>Pipefitter</i>	415	427
<i>Sheet Metal</i>	324	363
<i>Iron Worker</i>	259	315
<i>Millwright</i>	230	206
<i>Plumber/Pipefitter/HVAC</i>	114	128
<i>Carpenter</i>	124	129
<i>Electric Distribution Lineman</i>	72	76
<i>Plumber</i>	62	149
<i>HVAC</i>	43	58
<i>Tradeshow Decorating</i>	33	50
<i>Construction Carpenter</i>	32	32
<i>Bricklayers</i>	--	20
<i>TeleCom/Installer Tech</i>	20	14
<i>Glazier</i>	17	19
<i>Insulation Worker</i>	11	18
<i>Mason</i>	11	--
<i>Motor Grader Operator</i>	8	4
<i>Electronic Systems Technician</i>	5	4
<i>Taper</i>	5	4
<i>Drywall Applicator</i>	4	1
<i>Painter</i>	3	2
<i>Plasterer</i>	3	2
<i>Cement Mason</i>	1	--
Total	6,074	6,393

Data Source: Apprenticeship Training Program Summaries, FY'18 and FY'19

Electrician, plumbing, pipefitting, sheet metal, iron worker, and millwright apprenticeship programs experienced the highest enrollment numbers of all listed occupations during FY'18 and FY'19 (*Table 2*). Enrollment for electrician apprenticeship programs comprised more than 60 percent of the total enrollment for each of the reported fiscal years.

TWC's Labor Market and Career Information department projects that employment totals for electricians will increase by 9,569 jobs from 2018 through 2028.² Additionally, the employment levels for all occupations listed in *Table 2* are forecast to grow over the ten-year period, with the top five apprenticeship occupations expected to increase by at least 12 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 2018 and 2019

<i>Apprentices</i>	<i>FY 2018</i>	<i>FY 2019</i>
<i>Number Contracted</i>	6,074	6,393
<i>Final Contact Hour Rate</i>	\$3.76	\$4.00
<i>Journeyworkers</i>	<i>FY 2018</i>	<i>FY 2019</i>
<i>Number Contracted</i>	541	0
<i>Final Contact Hour Rate</i>	\$3.76	\$0.00

Data Source: Apprenticeship Training Program Summaries, FY'18 and FY'19

TWC has exceeded the Legislative Budget Board (LBB) performance target of 6,111 individuals served since its increase in FY'16. During FY'18, TWC funding supported 6,074 apprentices and 541 journeyworkers, for a total of 6,615 individuals served. The final contact hour rate for FY'18 was \$3.76. For FY'19, 6,393 apprentices were supported by TWC funding. The final contact hour rate for FY'19 was \$4.00.

Under TWC Chapter 837 Apprenticeship Training Programs rule §837.25, funds for apprenticeship training classes are distributed based on the following priorities, unless otherwise determined by the Commission: related instruction, or apprenticeship; supplementary instruction, or journeyworker; and preparatory instruction or pre-apprenticeship training. In FY'19, the Commission prioritized funding availability toward apprentices; funding was not approved for supplemental training toward journeyworkers.

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

Contact Hours per Apprenticeable Occupation

TWC funding supported a total of 1,095,538 related instructional hours in craft and trade apprenticeship training programs for FY'18. In FY'19, that number increased to 1,160,702 hours.

Table 4: Contact Hours per Occupation, Fiscal Years 2018 and 2019

	<i>Total Contact Hours FY 2018</i>	<i>Total Contact Hours FY 2019</i>
<i>Electrician</i>	625,430	642,868
<i>Plumber & Pipefitter</i>	115,464	121,652
<i>Pipefitter</i>	91,300	93,940
<i>Sheet Metal</i>	67,428	74,376
<i>Iron Worker</i>	52,836	65,364
<i>Millwright</i>	46,000	41,200
<i>Plumber/Pipefitters/HVAC</i>	25,080	28,160
<i>Carpenter</i>	19,760	20,724
<i>Electric Distribution Lineman</i>	10,368	10,944
<i>Plumber</i>	10,272	24,662
<i>HVAC</i>	8,928	11,884
<i>Tradeshow Decorating</i>	4,752	7,200
<i>Construction Carpenter</i>	4,608	4,608
<i>TeleCom/Installer Tech</i>	3,520	2,464
<i>Glaziers</i>	2,448	2,736
<i>Insulation Worker</i>	1,584	2,592
<i>Bricklayer</i>	--	2,880
<i>Mason</i>	1,584	--
<i>Motor Grader Operator</i>	1,152	576
<i>Electronic Systems Technician</i>	720	576
<i>Taper</i>	720	576
<i>Drywall Applicator</i>	576	144
<i>Painter</i>	432	288
<i>Plasterer</i>	432	288
<i>Cement Mason</i>	144	--
Total	1,095,538	1,160,702

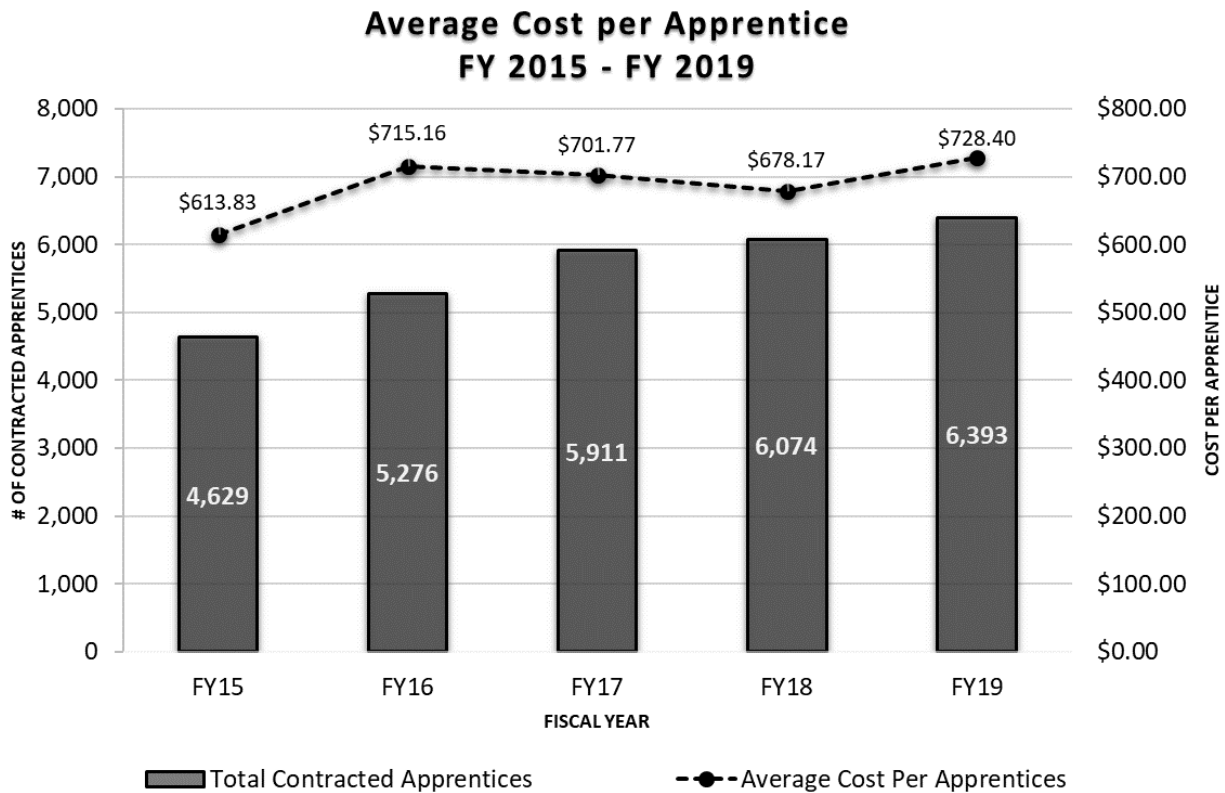
Data Source: Apprenticeship Training Program Summaries, FY'18 and FY'19

Electrician, plumbing, pipefitting, sheet metal, iron worker, and millwright apprenticeship programs experienced the highest number of instructional hours of all listed occupations during FY'18 and FY'19. Instructional hours for electrician apprenticeship programs comprised more than 50 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.

Figure 2: Total Apprentices and Cost per Apprentice, Fiscal Years 2015 through 2019



Data Source: Apprenticeship Training Program Chapter 133 History Reporting

Figure 2 conveys the average cost per apprentice (line) and the total number of contracted apprentices (bars) for FY'15 through FY'19.

While the average cost per apprentice is a direct correlation to the total available funds and the total contracted apprentice enrollment, history has shown that the average cost per apprentice has remained well 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.

Apprenticeship Graduations and Advancements

Table 5: Apprenticeship Graduations and Advancements, Fiscal Years 2018 and 2019

	<i>FY 2018</i>	<i>FY 2019</i>
<i>Graduated</i>	12.90%	13.20%
<i>Training Completed & Advanced</i>	70.60%	66.90%
<i>Training Completed & Did Not Advance</i>	3.70%	5.90%
<i>Total</i>	87.20%	86.0%

Data Source: Apprenticeship Training Program FY’18 and FY’19 Summaries

The total percentage of apprentices completing training for FY’18 and FY’19 is shown above in Table 5. In FY’19, the total number of apprentices completing training and advancing was approximately 3 percent less than in FY’18. However, FY’19 completion rates remained higher than those of FY’15, FY’16, and FY’17 (*Figure 3*).

Apprenticeship Training Completions

Figure 3: Apprenticeship Training Completions, Fiscal Years 2018 and 2019



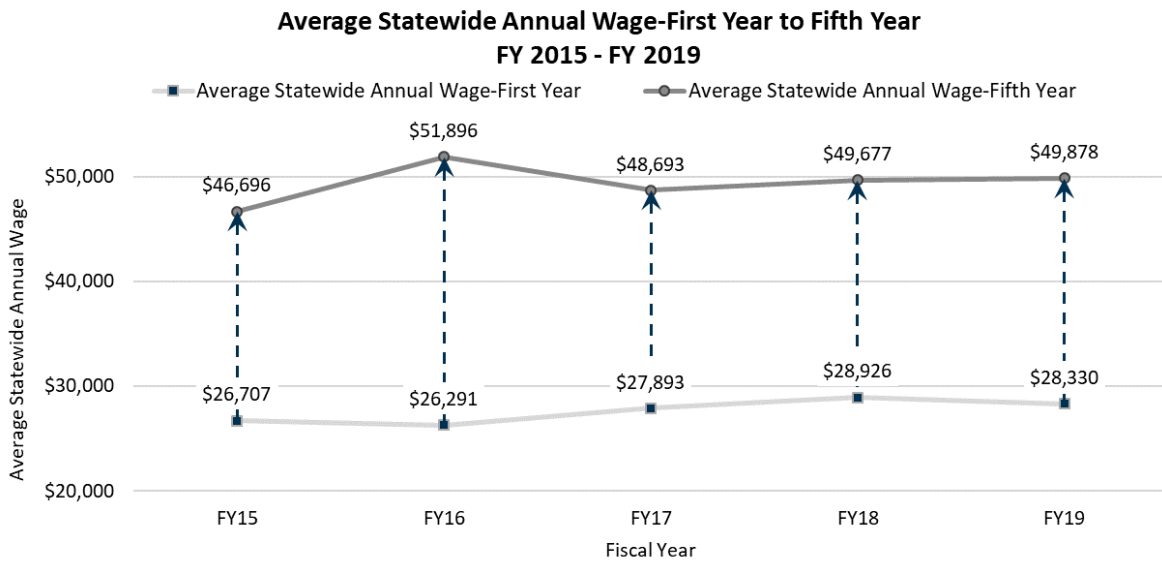
Data Source: Apprenticeship Training Program Summaries, FY’18 and FY’19

Apprenticeship Average Statewide Wages, Fiscal Years 2015 through 2019

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 the apprenticeship training program.

From FY’15 through FY’19, 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 five fiscal years.

Figure 4: Average Statewide Annual Wage-First Year to Fifth Year, Fiscal Years 2015 and 2019



Data Source: Apprenticeship Training Program Chapter 133 History Reporting

The Occupational Employment Statistics program reports the 2019 statewide annual average wage for *all* Texas occupations to be \$50,490.³ At \$49,878, the annual average wage for fifth year apprentices in FY’19 approaches the overall annual average wage for the state of Texas.

VI. Impactful Legislation

During the 85th Texas Legislature, Regular Session (2017), House Bill (HB) 2790 expanded the list of eligible applicants to include sponsors that apply through an independent apprenticeship committee. Before the enactment of HB 2790, Chapter 133 funds were appropriated to LEAs, which acted as fiscal agents for apprenticeship training programs. With the passage of HB 2790, an apprenticeship training program’s apprenticeship committee may apply for Chapter 133 funding directly, without partnering with an LEA.

In FY’19, program changes to TWC’s rules that aligned with the passage of HB 2790 went into effect, allowing an apprenticeship training program’s apprenticeship committee to apply for Chapter 133 funding directly. Of the seven apprenticeship committees that applied, two withdrew from participation because of start-up delays (newly registered apprenticeship programs), and three were apprenticeship committees that had received Chapter 133 funding in the previous fiscal year through an LEA. In total, Chapter 133 funding supported five apprenticeship committees.

VII. A Look Ahead and Recommendations for the Future

2020 Tri-Agency Initiatives and Recommendations

In February 2020, Governor Greg Abbott announced the 2020 Tri-Agency Workforce Initiative. The initiative charges three state agencies—the Texas Education Agency (TEA), the Texas Higher

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

Education Coordinating Board (THECB), and TWC—with bringing resources together to achieve long-term workforce development goals.

The initiative charges the agencies with recommending strategies for improving the capacity within the state to produce credentials of value aligned with the needs of high-wage and high-demand careers.⁴

Through the governor’s Tri-Agency Partnership, TWC works with TEA and THECB, along with collaboration with key stakeholders across the state’s workforce and educational systems, to align current and future industry needs. The strategies implemented through these collaborations equip Texans with the skills, education, and training needed to be competitive for the jobs of today and in the future.

As part of the Tri-Agency’s 2016 charges to create stackable programs, TWC and THECB collaborated in FY’17 on the establishment of articulation agreements and crosswalks between registered apprenticeship training programs in Texas and in-state institutions of higher education, whereby apprentices are able to obtain college credit towards associate’s degrees. The crosswalks provide a more efficient means for community colleges to work with registered apprenticeship training programs in providing college credit or continuing education units once an individual completes the registered apprenticeship training program. The crosswalks also aid in the development of memorandums of understanding between community colleges and registered apprenticeship training programs.

VIII. Conclusion

For FY’20, TWC’s LBB performance measure will increase from 6,111 to 7,150 individuals served, as established with the approval of an exceptional item request of \$1,345,000 for the FY’20–’21 biennium. For FY’21, TWC’s LBB performance measure will increase to 7,685 individuals served.

TWC estimates that a total \$5,382,785 (which includes \$3,732,785 in general revenue and \$1,650,000 in WIOA funds) will be available for apprenticeship training programs, pending approval of the FY’21 operating budget.

⁴ Tri-Agency Workforce Initiative Strategy 4: “The Commissioners should recommend strategies for improving the capacity within the state to produce credentials of value aligned with the needs of high-wage and high-demand careers. 4A) Analysis of Workforce Need - Evaluations of workforce needs in various regions of the state and how these needs align with the credentials currently offered by educational institutions. 4D) Workplace Educational Opportunities - Recommendations to improve access to privately-funded internships and to increase employer sponsored educational opportunities for current employees. 4E) Regulatory Barriers - Recommendations for reducing state regulatory and licensing barriers to the broader creation and adoption of apprenticeships and up-skill/re-skill programs by industry.”

<https://gov.texas.gov/news/post/governor-abbott-charges-tri-agency-workforce-initiative-with-continued-transformation-of-workforce-development>

To maximize awareness of this funding opportunity, TWC will continue to outreach both LEAs and apprenticeship committees of apprenticeship training programs to inform them of the financial support available through TWC.