



Apprenticeship Related Instruction Cost Study Fiscal Years 2022–2023



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Background

The Texas Workforce Commission (TWC) has an extensive history of supporting employers who adopt the apprenticeship training model and workers who enter employment as an apprentice. The apprenticeship training model allows these workers to “earn while they learn” from experienced workers/mentors, receive instruction while learning practical skills, and move forward in career pathways. It also allows businesses to find, train, and keep talented workers.

Under Texas Education Code (TEC) Chapter 133, TWC is authorized to administer the Apprenticeship Training Program and receives an appropriation from the Texas legislature to support a portion of a program’s costs for related classroom instruction, also referred to as RTI¹.

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 funding and costs of the state’s registered apprenticeship training programs.

This study sources information from the Apprenticeship Training Program Fiscal Years (FY) 2022 and 2023 reports and from historical documents to compile the following:

- Apprenticeship Funding and Expenditure Overview
- Statewide Enrollment by Craft or Trade
- Apprenticeship Contact Hour Rate

¹ Related instruction refers to the technical, workforce, and academic competencies that apply to the apprentice’s job. The instruction can be provided by entities such as community colleges, technical schools, or apprenticeship training schools. It can also be provided by the business itself. Business and education collaborate to develop a curriculum based on the skills and knowledge needed by the apprentice.

- Average Cost per Apprentice
- Apprenticeship Training Completions
- Average Statewide Annual Wage—First Year to Fifth Year

Apprenticeship Funding and Expenditure Overview

Each session, the Texas legislature appropriates General Revenue (GR) for the support of registered apprenticeship training programs. Throughout the history of the TEC Chapter 133 program, TWC has supplemented GR funding with other funds such as Workforce Innovation and Opportunity Act (WIOA) and Temporary Assistance for Needy Families (TANF). With all sources of funding combined, total funding and expenditures for Fiscal Years 2022 and 2023 were as follows:

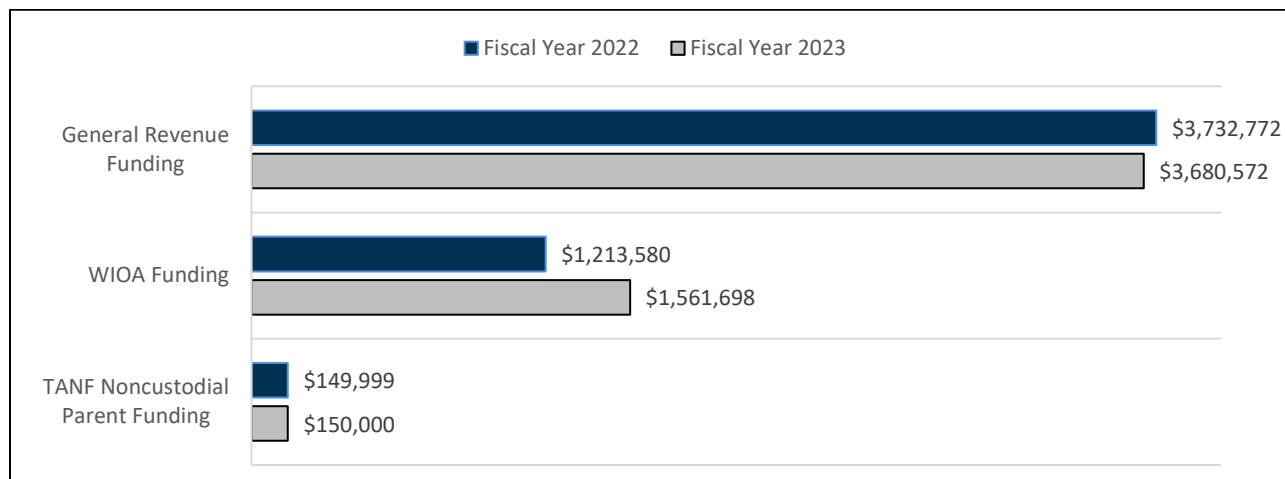
Table 1: TEC Chapter 133 Funding and Expenditures

Total Funding and Expenditures	FY 2022	FY 2023
Total Operating Budget	\$5,532,785	\$5,532,785
Total Contracted Amount	\$5,096,352	\$5,478,848
Actual Expenditures—Contracted Amount	\$4,831,281	\$5,401,578
Remaining Balance—Contracted Amount	\$265,071	\$77,270
Remaining Balance Percentage—Contracted Amount	5.20%	1.4%

Data Source: TEC Chapter 133 Fiscal Reporting, FY 2022 and FY 2023

For FY 2022 and FY 2023, TWC budgeted \$1,650,000 WIOA and \$150,000 TANF Noncustodial Parent to support the increasing number of apprentices receiving training. Figure 1 shows the amounts contracted by funding source.

Figure 1: Contracted Amount by Funding Source, Fiscal Years 2022 and 2023



Data Source: TEC Chapter 133 Fiscal Reporting, FY 2022 and FY 2023

Statewide Enrollment by Craft or Trade

Number of Apprentices by Occupation

TWC funding supported a total of 7,187 apprentices enrolled in craft and trade apprenticeship training

programs during FY 2022 and, 7,624 apprentices in FY 2023. The following table gives detail on the number of apprentices trained by occupation.

Table 2: Apprentices by Occupation, Fiscal Years 2022 and 2023

Occupation	FY 2022 Total Apprentices	FY 2023 Total Apprentices
Electrician	4,336	4,307
Pipefitter	370	427
Plumber and Pipefitter	452	416
Plumber	222	312
Sheet Metal	296	303
Millwright	109	243
Carpenter	232	226
Iron Worker	333	193
Electrical	--	141
Customer Service	--	128
Construction Craft Laborer	98	110
Plumber/Pipefitter/HVAC/Refrig. Mech	86	107
Electric Distribution Lineman	82	101
Ironworker, Structural Steel	--	86
HVAC	61	82
Line Erector	59	78
Early Childhood Educator I	35	76
CDL Driver	--	54
Community Health Worker	--	48
Construction Driver	--	23
Phlebotomist	--	18
Environmental Control System	--	17
Telecommunications Technician	163	17
Welding	--	15
Material Coordinator	--	13
Certified Nursing Assistant	--	10
Building Maintenance	--	8
Film & Videotape Editor	--	7
Career Counselor	--	6
Cook Pastry	--	6

Occupation	FY 2022 Total Apprentices	FY 2023 Total Apprentices
Director Television	--	6
Personnel Systems	--	5
Freight Broker	--	4
Motor Grader Operator	3	4
Pharmacy Technician	--	4
Bricklayer	7	3
Electronic Systems Technician	5	3
Painter	7	3
Cook, incl. Pastry	--	2
Drywall Applicator	2	2
IT Specialist	--	2
Paving, Surfacing, and Tampering Operator	1	2
Wellness Coach	--	2
Chimney Sweep	--	1
Digital Marketer	--	1
Security Guard	--	1
Child Care Development	61	1
Cement Mason/Concrete Finisher	1	--
Glaziers	14	--
Insulation Worker	10	--
Plasterer	1	--
Plumbing, Welding, Pipefitting, HVAC	135	--
Tradeshaw Worker	6	--
Total	7,187	7,624

Data Source: TEC Chapter 133 Reporting, FY 2022 and FY 2023

Historically, electrical, pipefitting, plumbing, sheet metal, and millwright apprenticeship programs report the highest enrollment numbers of all listed occupations. TWC's Labor Market Information department projects that employment totals for electricians will increase by 17,300 from 2020 through 2030. Additionally, the employment levels for these top five apprenticeable occupations are projected to increase by at least 14 percent.

Apprenticeship Contact Hour Rate

The final contact hour rate is determined by dividing the total available funds by the statewide total number of contact hours of RTI. For both fiscal years, the contact hour rate remained at \$4.00 per

hour. This rate was achieved by using GR funds and, as in previous years, supplementing with WIOA and TANF funds.

Table 3: Total Apprentices and Contact Hour Rates, Fiscal Years 2022 and 2023

Apprentices and Contact Hour Rates	FY 2022	FY 2023
Total Contracted Apprentices	7,187	7,624
Total Contact Hours	1,274,088	1,355,290
Final Contact Hour Rate	\$4.00	\$4.00

Data Source: TEC Chapter 133 Reporting, FY 2022 and FY 2023

Contact Hours by Occupation

TWC funding supported a total of 1,274,088 related training instruction hours in craft and trade apprenticeship training programs in FY 2022 and 1,355,290 in FY 2023. The table below provides detail on contact hours by occupation.

Table 4: Contact Hours by Occupation, Fiscal Years 2022 and 2023

Occupation	FY 2022 Total Contact Hours	FY 2023 Total Contact Hours
Electrician	709,993	728,186
Pipefitter	80,588	93,376
Plumber and Pipefitter	99,440	91,520
Plumber	40,729	61,581
Sheet Metal	59,936	61,508
Millwright	21,800	48,600
Iron Worker	69,516	39,596
Carpenter	35,856	36,116
Plumber/Pipefitter/HVAC/Refrig. Mech	18,920	23,540
Electrical	7,840	22,073
Customer Service	--	18,432
Ironworker, Structural Steel	--	17,544
Construction Craft Laborer	14,144	16,096
HVAC	12,334	15,726
Electric Distribution Lineman	11,808	14,544
Line Erector	8,496	11,232
Early Childhood Educator I	5,040	10,944
CDL Driver	--	7,776
Community Health Worker	--	6,912
Environmental Control System	--	3,740

Occupation	FY 2022 Total Contact Hours	FY 2023 Total Contact Hours
Construction Driver	--	3,312
Welding	--	3,300
Telecommunications Technician	26,320	2,992
Phlebotomist	--	2,592
Material Coordinator	--	1,872
Certified Nursing Assistant	--	1,440
Building Maintenance	--	1,152
Film & Videotape Editor	--	1,008
Career Counselor	--	864
Cook Pastry	--	864
Director Television	--	864
Personnel Systems	--	720
Bricklayer	1,008	660
Freight Broker	--	576
Motor Grader Operator	432	576
Pharmacy Technician	--	576
Electronic Systems Technician	720	432
Painter	1,008	432
Cook	--	288
Drywall Applicator	--	288
IT Specialist	--	288
Paving, Surfacing, and Tampering Operator	--	288
Wellness Coach	--	288
Chimney Sweep	--	144
Digital Marketer	--	144
Security Guard	--	144
Youth Development	--	144
Plumbing, Welding, Pipefitting, HVAC	29,700	--
Child Care Development Specialist	13,420	--
Glaziers	2,016	--
Insulation Worker	1,440	--
Tradeshow Worker	864	--

Occupation	FY 2022 Total Contact Hours	FY 2023 Total Contact Hours
Drywall Applicator	288	--
Cement Mason/Concrete Finisher	144	--
Paving, Surfacing, and Tampering Operator	144	--
Plasterer	144	--
Total	1,274,088	1,355,290

Data Source: TEC Chapter 133 Reporting, FY 2022 and FY 2023

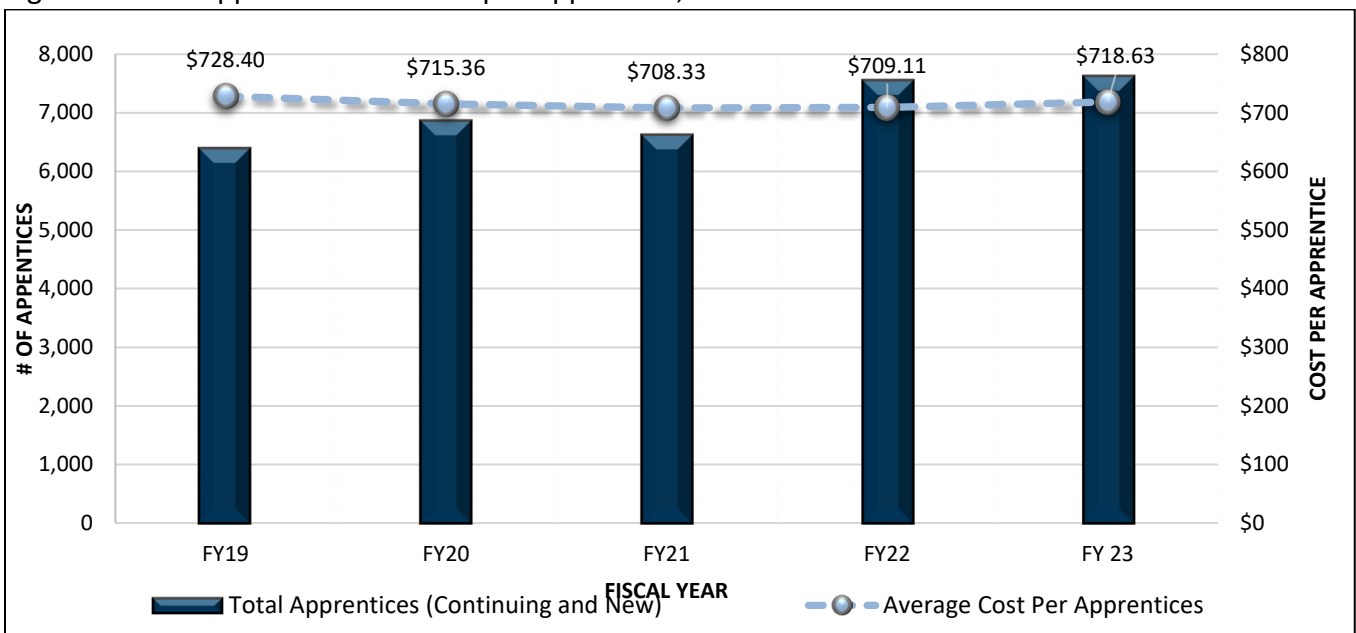
Electrical, plumbing, pipefitting, sheet metal, millwright, and iron worker apprenticeship programs reported the highest numbers of instructional hours of all listed occupations for both FY 2022 and FY 2023. Instructional hours for electrician apprenticeship programs continue to make up over half of the total contact hours for each of the reported fiscal years.

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 2023 totaled \$5,478,848, and the total number of apprentices in FY 2023 was 7,624; therefore, $(\$5,478,848/7,624) =$ average cost per apprentice, or \$718.63, for FY 2023. Using the same formula, the average cost per apprentice for FY 2022 was \$709.11. A comparison of average costs from FY 2019 through FY 2023 follows.

Figure 2: Total Apprentices and Cost per Apprentice, Fiscal Years 2019–2023



Data Source: TEC Chapter 133 Reporting, FYs 2019–2023

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 continues to remain below \$750 per apprentice.

Apprenticeship Training Completions

Each year, TEC Chapter 133 programs report the outcomes of apprentices to TWC. These outcomes include apprentices who:

- completed their apprenticeship training program and graduated;
- completed a year of their apprenticeship training program and will advance in the program for another year; and
- completed a year of the apprenticeship program but, for various reasons, did not advance to the next year.

Apprenticeship Outcomes by Fiscal Year

The percentages of apprentices completing training for FY 2022 and FY 2023 are listed below. The total percentage of apprentices who completed training in FY 2023 (85.27%) rose one percent over FY 2022 (84.23%).

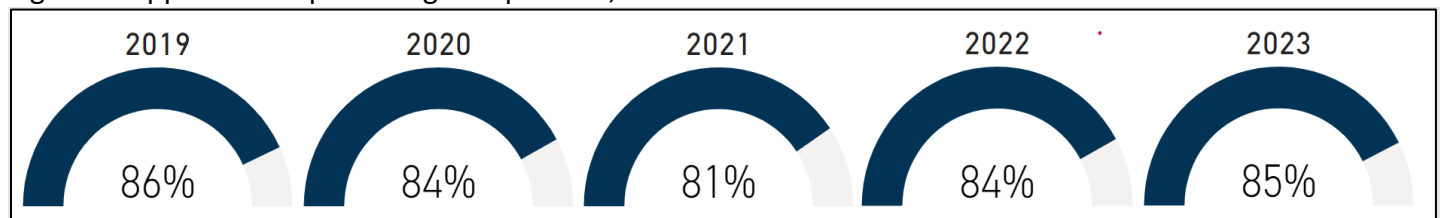
Figure 5: Apprenticeship Training Program Outcomes, Fiscal Years 2022 and 2023

Outcome	FY 2022	FY 2023
Graduated	11.73%	12.95%
Training Completed and Advanced	64.37%	67.76%
Training Completed but Did Not Advance	8.13%	4.56%
Percentage	84.23%	85.27%

Data Source: TEC Chapter 133 Reporting, Fiscal Years 2022 and 2023

A comparison of outcome data for FYs 2019–2023 indicates completions have remained above 80% for the last five years.

Figure 3: Apprenticeship Training Completions, Fiscal Years 2019–2023

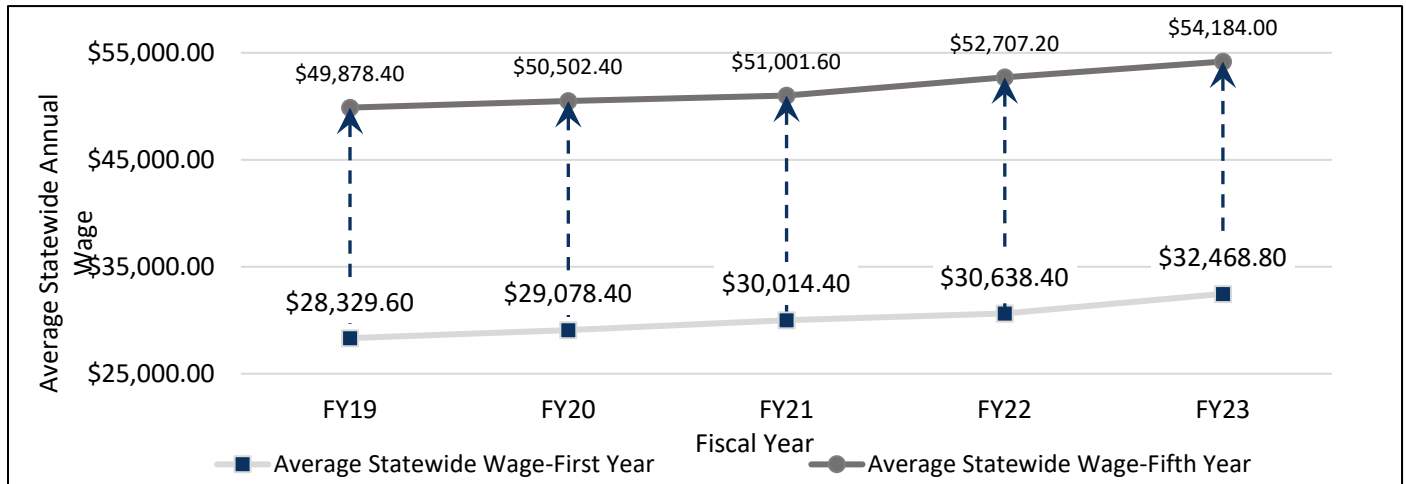


Data Source: TEC Chapter 133 Reporting, Fiscal Years 2019–2023

Average Statewide Annual Wage—First Year to Fifth Year

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 follows.

Figure 4: Average Statewide Annual Wage—First Year to Fifth Year, Fiscal Years 2019-2023



Data Source: TEC Chapter 133 Reporting, FY 2022 and FY 2023

From FY 2012 through FY 2023, the increase from first-year annual average wage to fifth-year annual average wage has consistently remained above 65 percent. Wage increases have ranged from \$20,000 to over \$22,000.

The Occupational Employment and Wage Statistics program reports that the 2023 statewide annual average wage for all Texas occupations is \$61,240. At \$54,184, the annual average wage for fifth year apprentices in FY’23 falls short of the overall annual average wage for the state of Texas.

Conclusion

TWC has a rich history of promoting and supporting the apprenticeship training model. The launch of the Texas Industry Recognized Apprenticeship (TIRA) Grant Program creates more options and opportunities for all stakeholders—most notably, employers and job seekers—who recognize the benefits of apprenticeships.

At the time of the report, TWC has made note of the steady but extraordinary growth of the TEC Chapter 133 Apprenticeship Training Program. FY 2024, for example, marked a sharp increase in the number of participating programs, the number of apprentices to be trained, and the number of contact hours to be funded. TWC’s three-member Commission, in response, approved use of other federal funds to try to maintain a consistent contact hour rate going forward but also recognized that reliance on federal funds is not sustainable. The program’s growth could be further supported through additional state funding.

In preparation for the 89th Texas Legislative Session, TWC included in its [FY 2026–2027 Legislative Appropriations Request](#) an exceptional item for additional GR for the TEC Chapter 133 Apprenticeship Training Program. Given the growth of apprenticeship programs across Texas and the benefits of the apprenticeship training model, TWC recognizes that future investments in apprenticeship programs will go far in meeting the workforce needs of a strong and vital Texas economy.