

TWC Apprenticeship Program 2006-2007 Exit Cohort

As authorized by Texas Education Code, Chapter 133, the Texas Workforce Commission (TWC) receives funds from the Texas Legislature for registered apprenticeship training programs and administers these funds as set forth in the Commission's Apprenticeship Training Program rules (40 TAC, Chapter 837). However, not all registered apprenticeship training programs apply for these Chapter 133 funds.

The U.S. Department of Labor's (DOL) Office of Apprenticeship (OA) continues to encourage the building and strengthening of partnerships between the registered apprenticeship system and the Texas workforce system. Local Workforce Development Boards (Boards) have been encouraged to use their local flexibility to supplement apprenticeship programs with Workforce Investment Act (WIA) funds. Registered apprenticeship training programs have a proven success record. For example, in Fiscal Year 2006 (FY'06) registered apprenticeship training programs, including those funded under Chapter 133, earned an overall:

- Successful completion rate of 71.2 percent;
- First- to second-year average wage increase of 16.7 percent; and
- First- to fourth-year average wage increase of 57 percent.

Chapter 133 funds pay only a small portion of the direct training costs associated with registered apprenticeship training programs, which can leave these programs lacking funds to provide the training needed at other stages of the process. Boards interested in benefiting from the successful completion rates and wage increases proven to result from registered apprenticeship training programs can use WIA funds to supplement them, including those programs funded by Chapter 133.

As Boards develop and update their workforce strategies to target high-growth, high-demand occupations, TWC believes that strengthening partnerships between Boards and registered apprenticeship training programs will maximize the use of available training dollars. Combining a Board's expertise and access to its local workforce development area (workforce area) with registered apprenticeship training programs' success in delivering training is a winning combination for Boards, employers, and job seekers.

WIA extends automatic initial eligibility to registered apprenticeship training programs. Registered apprenticeship training programs must apply to the Board in order to be included on *Texas' Statewide List of Certified Training Providers*. However, they are not required to submit performance information for initial eligibility determination.

Seed Records

TWC’s Labor Market and Career Information department received 3,508 Apprenticeship program seed records from TWC’s Workforce Policy and Service Delivery department in 2008. Apprenticeship programs last between 3 and 5 years, depending on the occupation of training. Even though a program may take years on the whole, each year of the program is a separate component that must be completed, and each year has requirements and benchmarks that must be met before a participant can advance to the next year. It is analogous to high school, where each year has unique curriculum which must be completed before advancement to the next grade.

After removing the duplicates, there remained 3,494 usable, unique records. Those records were then linked to the TWC’s Unemployment Insurance (UI) wage record database for the 4th quarter of 2007 to determine post-program employment and earnings. The seed records were also linked to the Texas Bureau of Vital Statistics, in order to determine if any former participants were deceased. After removing the deceased, there were 3,487 records retained for analysis.

Results

Employment and median quarterly earnings by completion status can be seen on Tables 1 and 2, respectively. As would be expected, participants who successfully completed the year’s training and advanced on to the next had the highest employment (89.2%) and median quarterly earnings (\$8,159). The data do not distinguish those who have completed their entire course of apprenticeship training from those who have completed a particular year of training and are moving on to the next. Since full-time employment is a requirement of the program, and the employment data is from the 4th quarter of 2007, some members of the “Successfully Completed and Advanced” category are participants who have completed their entire course of training, but not all.

Table 1. Employment by Completion Status

Completion Status	N	N Working	% Working
Successfully Completed & Advanced	2,649	2,363	89.2
Total	3,487	2,983	85.5
Successfully Completed & Did Not Advance	132	104	78.8
Gained Skills & Did Not Complete	476	348	73.1
Did Not Complete Training	230	168	73.0

Table 2. Median Quarterly Earnings by Completion Status

Completion Status	N	N Working	Median Earnings
Successfully Completed & Advanced	2,649	2,363	\$8,159
Total	3,487	2,983	\$7,923
Successfully Completed & Did Not Advance	132	104	\$7,347
Gained Skills & Did Not Complete	476	348	\$6,946
Did Not Complete Training	230	168	\$5,488

Tables 3 and 4 show employment and median quarterly earnings, respectively, for program participants by completion year. We can see in Table 3 that participants who completed their fifth year of apprenticeship training had the highest employment at 90.1 percent. There are no apprenticeships lasting longer than five years, so all participants in this category have successfully completed their training. Table 4 shows that participants completing their fifth year also had the highest median quarterly earnings with \$12,444.

Table 3. Employment by Completion Status

Completion Year	N	N Working	% Working
5	142	128	90.1
4	478	417	87.2
2	817	706	86.4
3	698	602	86.2
Total	3,487	2,983	85.5
1	1,352	1,130	83.6

Table 4. Median Quarterly Earnings by Completion Status

Completion Year	N	N Working	Median Earnings
5	142	128	\$12,444
4	478	417	\$9,919
3	698	602	\$8,894
Total	3,487	2,983	\$7,923
2	817	706	\$7,769
1	1,352	1,130	\$6,576

Table 5 shows employment for the top 20 occupations of training for program participants. The three occupations with the most participants were Electrician, Plumber/Pipefitter, and Sheet Metal Worker. Plumber/HVAC had the highest employment during the target quarter at 92.4 percent employed, followed by Insulator. Employment for the entire cohort in the 4th quarter of 2007 was 85.5 percent. Plumber/Pipefitters had the highest employment of the three most numerous programs with 88.8 percent of apprentices employed.

Table 5. Employment by Occupation for Top 20 Occupations

Occupation	N	N Working	% Working
Plumber/HVAC	66	61	92.4
Insulator	20	18	90.0
Plumber/Pipefitter	358	318	88.8
Mold Maker	8	7	87.5
Sprinkler Fitter	8	7	87.5
Electrician	2,108	1,836	87.1
Carpenter	125	108	86.4
Operating Engineer	51	44	86.3
Total	3,487	2,983	85.5
Plumber	187	155	82.9
Sheet Metal Worker	227	187	82.4
Painter	20	16	80.0
Bricklayer	10	8	80.0
HVAC	10	8	80.0
Heavy Equipment Operator	5	n/a	80.0
Pipefitter	70	54	77.1
Ironworker	124	88	71.0
Telecommunications	10	7	70.0
Masonry	24	16	66.7
Millwright	22	14	63.6
Drywall Applicator	5	n/a	60.0
Note: Cells with values less than 5 are marked "n/a" to protect the privacy of cohort members.			

Table 6 shows median quarterly earnings for the top 20 occupations. Overall median quarterly earnings for the cohort were \$7,923 in the 4th quarter of 2007. Operating Engineers had the highest median earnings of all occupations with \$12,409. Plumber/Pipefitter apprentices had the highest median quarterly earnings between the three most common occupations, earning \$8,766. Electricians, the largest group, had median quarterly earnings of \$7,883.

Table 6. Median Quarterly Earnings by Occupation for Top 20 Occupations

Occupation	N	N Working	Median Earnings
Operating Engineer	51	44	\$12,409
Millwright	22	14	\$11,011
Plumber/Pipefitter	358	318	\$8,766
Mold Maker	8	7	\$8,765
Carpenter	125	108	\$8,033
Sheet Metal Worker	227	187	\$7,931
Total	3,487	2,983	\$7,923
Electrician	2,108	1,836	\$7,883
Telecommunications	10	7	\$7,870
Plumber/HVAC	66	61	\$7,696
Heavy Equipment Operator	5	n/a	\$7,694
Ironworker	124	88	\$7,632
Sprinkler Fitter	8	7	\$7,350
Plumber	187	155	\$7,342
Drywall Applicator	5	n/a	\$7,194
Painter	20	16	\$7,056
Insulator	20	18	\$6,468
Pipefitter	70	54	\$5,681
Masonry	24	16	\$5,371
HVAC	10	8	\$5,328
Bricklayer	10	8	\$3,206
Note: Cells with values less than 5 are marked "n/a" to protect the privacy of cohort members.			

Grayson County College was the contractor whose participants had the highest employment during the study period at 95.5 percent (Table 7). Vernon College had the second highest employment at 93.8 percent. Northside ISD had the most participants, and their employment was 89.8 percent.

Table 7. Employment by Contractor

Contractor	N	N Working	% Working
Grayson County College	22	21	95.5
Vernon College	16	15	93.8
College Station ISD	45	42	93.3
Waco ISD	42	39	92.9
South Plains College	51	47	92.2
Manor ISD	258	238	92.2
North East ISD	148	133	89.9
Northside ISD	657	590	89.8
Tyler ISD	19	17	89.5
Region ESC 9	63	56	88.9
Amarillo College	201	177	88.1
South San Antonio ISD	164	144	87.8
Fort Worth ISD	399	346	86.7
Total	3,487	2,983	85.5
Corpus Christi ISD	88	75	85.2
Beaumont ISD	270	222	82.2
Leander ISD	226	183	81.0
Texas State Technical College	257	208	80.9
Dallas ISD	297	240	80.8
Alamo Community College	10	8	80.0
El Paso Community College	218	159	72.9
Hooks ISD	32	21	65.6
Hallsville ISD	n/a	n/a	50.0
Note: Cells with values less than 5 are marked "n/a" to protect the privacy of cohort members.			

Hallsville ISD participants had the highest median quarterly earnings over the study period at \$12,410 (Table 8), although they had the fewest participants. Manor ISD had the second-highest median quarterly earnings at \$9,323. Earnings for exiters from Northside ISD were \$8,133 in the 4th quarter of 2007.

Table 8. Median Quarterly Earnings by Contractor

Contractor	N	N Working	Median Earnings
Hallsville ISD	n/a	n/a	\$12,410
Manor ISD	258	238	\$9,323
Dallas ISD	297	240	\$8,690
Waco ISD	42	39	\$8,661
Fort Worth ISD	399	346	\$8,632
Leander ISD	226	183	\$8,402
Beaumont ISD	270	222	\$8,287
Northside ISD	657	590	\$8,133
Total	3,487	2,983	\$7,923
Grayson County College	22	21	\$7,901
Tyler ISD	19	17	\$7,677
Hooks ISD	32	21	\$7,659
Amarillo College	201	177	\$7,483
College Station ISD	45	42	\$7,387
South San Antonio ISD	164	144	\$7,339
Corpus Christi ISD	88	75	\$7,019
North East ISD	148	133	\$6,944
Region ESC 9	63	56	\$6,906
Vernon College	16	15	\$6,590
El Paso Community College	218	159	\$5,942
Alamo Community College	10	8	\$5,931
South Plains College	51	47	\$5,836
Texas State Technical College	257	208	\$5,582
Note: Cells with values less than 5 are marked "n/a" to protect the privacy of cohort members.			

Table 9 shows employment by sponsor for the top 25 sponsors. San Antonio Plumbers and Pipefitters had the highest employment at 97.0 percent. Texas Panhandle Chapter IEC had the second highest employment during the 4th quarter of 2007 with 94.1 percent of apprentices employed.

Table 9. Employment by Sponsor for Top 25 Sponsors

Sponsor	N	N Working	% Working
San Antonio Plumbers & Pipefitters	132	128	97.0
Texas Panhandle Chapter IEC	51	48	94.1
Northside ISD	150	140	93.3
Austin Electrical JATC	133	123	92.5
Austin Plumbers & Pipefitters JATC	125	115	92.0
Sheet Metal Workers Local #67 JATC	49	45	91.8
Ft Worth Plumbers & Pipefitters JATC	56	51	91.1
Independent Electrical Contractors, Inc	148	133	89.9
Associated Independent Electrical Contractors	212	190	89.6
West Texas JATC	65	58	89.2
Associated Builders & Contractors, Inc-So TX Chap	164	144	87.8
Beaumont Electrical JATC	139	122	87.8
Rio Grande Valley IEC, Inc	74	64	86.5
Texas Gulf Coast JATC	161	138	85.7
Total	3,487	2,983	85.5
Associated General Contractors	88	75	85.2
Austin Sheet Metal JATC	53	45	84.9
Independent Electrical Contractors-Dallas	226	191	84.5
Associated General Contractors-EP	77	64	83.1
Cen-Tex Independent Electrical	226	183	81.0
South Texas Ironworkers JATC	47	38	80.9
Independent Electrical Contractors	48	38	79.2
Beaumont Pipefitters JATC	59	46	78.0
North Texas Carpenters & Millwrights JATC	70	52	74.3
El Paso Electrical JATC	110	81	73.6
Texas Iron Workers-Local #263	54	35	64.8

Austin Plumbers and Pipefitters JATC had the highest median quarterly earnings of the top 25 sponsors with \$10,041 (Table 10). Ft. Worth Plumbers and Pipefitters JATC had the second highest median earnings of the top 25 sponsors with \$9,589.

Table 10. Median Quarterly Earnings by Sponsor for Top 25 Sponsors

Sponsor	N	N Working	Median Earnings
Austin Plumbers & Pipefitters JATC	125	115	\$10,041
Ft Worth Plumbers & Pipefitters JATC	56	51	\$9,589
Austin Electrical JATC	133	123	\$8,898
Northside ISD	150	140	\$8,890
Independent Electrical Contractors-Dallas	226	191	\$8,827
San Antonio Plumbers & Pipefitters	132	128	\$8,800
Texas Iron Workers-Local #263	54	35	\$8,652
Beaumont Electrical JATC	139	122	\$8,408
Cen-Tex Independent Electrical	226	183	\$8,402
Austin Sheet Metal JATC	53	45	\$8,306
Associated Independent Electrical Contractors	212	190	\$8,294
North Texas Carpenters & Millwrights JATC	70	52	\$8,254
Texas Panhandle Chapter IEC	51	48	\$8,237
Total	3,487	2,983	\$7,923
Sheet Metal Workers Local #67 JATC	49	45	\$7,915
West Texas JATC	65	58	\$7,729
Associated Builders & Contractors, Inc-So TX Chap	164	144	\$7,339
Texas Gulf Coast JATC	161	138	\$7,327
Associated General Contractors	88	75	\$7,019
Beaumont Pipefitters JATC	59	46	\$7,000
Associated General Contractors-EP	77	64	\$6,947
Independent Electrical Contractors, Inc	148	133	\$6,944
Independent Electrical Contractors	48	38	\$6,664
South Texas Ironworkers JATC	47	38	\$5,912
El Paso Electrical JATC	110	81	\$5,226
Rio Grande Valley IEC, Inc	74	64	\$5,112

As would be expected, Building Equipment Contractors was the industry of employment with the largest number of Apprenticeship program participants found employed in the 4th quarter of 2007 (Table 11). Participants found working in the Other Specialty Trade Contractors industry had the highest median quarterly earnings at \$12,178. Six of the ten industries in the top ten were either contracting or construction.

Table 11. Top 10 Industries of Employment by 4-Digit NAICS Code

Industry of Employment	N Working	Median Earnings	NAICS Code
Building Equipment Contractors	2,012	\$8,121	2382
Employment Services	168	\$6,216	5613
Nonresidential Building Construction	88	\$8,992	2362
Foundation, Structure, and Building Exterior Contractors	66	\$7,332	2381
Building Finishing Contractors	56	\$8,100	2383
Architectural and Structural Metals Manufacturing	47	\$7,584	3323
Limited-Service Eating Places	26	\$2,063	7222
Other Specialty Trade Contractors	22	\$12,178	2389
Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers	21	\$9,774	4237
Utility System Construction	17	\$8,475	2371

In Table 12 we see that South Plains College was the higher education institution with the most Apprenticeship program participants enrolled in the Fall semester of 2008. Overall, just over 2 percent of the cohort was found enrolled. It is important to note that South Plains College is one of the Apprenticeship program training providers, and that could at least partly explain why we see such a large percentage of those enrolled in school enrolled there.

**Table 12. Top 10 Higher Education Institutions,
All Apprenticeship Program Participants found Enrolled in Fall 2008**

Institution	N	% of All Enrolled	% of Cohort
South Plains College	25	19.5	0.7
Texas State Technical College – Harlingen	11	8.6	0.3
Austin Community College	9	7.0	0.3
Amarillo College	7	5.5	0.2
Houston Community College	6	4.7	0.2
Lamar Institute of Technology	6	4.7	0.2
El Paso Community College District	5	3.9	0.1
St. Philips College	n/a	3.1	0.1
Tarrant County Community College – South Campus	n/a	3.1	0.1
San Antonio College	n/a	3.1	0.1

Note: Cells with values less than 5 are marked "n/a" to protect the privacy of cohort members.

Appendix

Table A1. Employment and Earnings by Occupation

Occupation	N	N Working	% Working	Median Earnings
Electrician	2,108	1,836	87.1	\$7,883
Plumber/Pipefitter	358	318	88.8	\$8,766
Sheet Metal Worker	227	187	82.4	\$7,931
Plumber	187	155	82.9	\$7,342
Carpenter	125	108	86.4	\$8,033
Ironworker	124	88	71.0	\$7,632
Pipefitter	70	54	77.1	\$5,681
Plumber/HVAC	66	61	92.4	\$7,696
Operating Engineer	51	44	86.3	\$12,409
Masonry	24	16	66.7	\$5,371
Millwright	22	14	63.6	\$11,011
Insulator	20	18	90.0	\$6,468
Painter	20	16	80.0	\$7,056
Bricklayer	10	8	80.0	\$3,206
HVAC	10	8	80.0	\$5,328
Telecommunications	10	7	70.0	\$7,870
Mold Maker	8	7	87.5	\$8,765
Sprinkler Fitter	8	7	87.5	\$7,350
Drywall Applicator	5	n/a	60.0	\$7,194
Heavy Equipment Opera	5	n/a	80.0	\$7,694
Electronic Systems Te	n/a	n/a	50.0	\$6,750
Motor Grader Operator	n/a	n/a	100.0	\$9,325
Powerplant Mechanic	n/a	n/a	75.0	\$5,934
Aircraft Mfg	n/a	n/a	66.7	\$8,588
Cement Mason	n/a	n/a	100.0	\$5,710
Floor Layers	n/a	n/a	100.0	\$5,363
Diesel Mechanic	n/a	n/a	100.0	\$4,539
Glazier	n/a	n/a	100.0	\$7,950
Plasterer	n/a	n/a	100.0	\$5,625
Taper	n/a	n/a	50.0	\$8,172
Total	3,487	2,983	85.5	\$7,923
Note: Cells with values less than 5 are marked "n/a" to protect the privacy of cohort members.				

Table A2. Employment and Earnings by Sponsor

Sponsor	N	N Working	% Working	Median Earnings
Cen-Tex Independent Electrical	226	183	81.0	\$8,402
Independent Electrical Contractors-Dallas	226	191	84.5	\$8,827
Associated Independent Electrical Contractors	212	190	89.6	\$8,294
Associated Builders & Contractors, Inc-So TX Chap	164	144	87.8	\$7,339
Texas Gulf Coast JATC	161	138	85.7	\$7,327
Northside ISD	150	140	93.3	\$8,890
Independent Electrical Contractors, Inc	148	133	89.9	\$6,944
Beaumont Electrical JATC	139	122	87.8	\$8,408
Austin Electrical JATC	133	123	92.5	\$8,898
San Antonio Plumbers & Pipefitters	132	128	97.0	\$8,800
Austin Plumbers & Pipefitters JATC	125	115	92.0	\$10,041
El Paso Electrical JATC	110	81	73.6	\$5,226
Associated General Contractors	88	75	85.2	\$7,019
Associated General Contractors-EP	77	64	83.1	\$6,947
Rio Grande Valley IEC, Inc	74	64	86.5	\$5,112
North Texas Carpenters & Millwrights JATC	70	52	74.3	\$8,254
West Texas JATC	65	58	89.2	\$7,729
Beaumont Pipefitters JATC	59	46	78.0	\$7,000
Ft Worth Plumbers & Pipefitters JATC	56	51	91.1	\$9,589
Texas Iron Workers-Local #263	54	35	64.8	\$8,652
Austin Sheet Metal JATC	53	45	84.9	\$8,306
Texas Panhandle Chapter IEC	51	48	94.1	\$8,237
Sheet Metal Workers Local #67 JATC	49	45	91.8	\$7,915
Independent Electrical Contractors	48	38	79.2	\$6,664
South Texas Ironworkers JATC	47	38	80.9	\$5,912
Lubbock Chap IEC, Inc	46	42	91.3	\$5,989
Rio Grande Valley Indep Plumbers Alliance	43	32	74.4	\$4,549
Wichita Falls Electrical JATC	43	41	95.3	\$6,761
UA Local 823 Plumbers & Pipefitters	38	30	78.9	\$4,800
D/FW Sheet Metal Workers Local #068	37	31	83.8	\$8,999
Britt Rice Electric	35	33	94.3	\$7,125
Texas Panhandle Chapter APHCC	33	29	87.9	\$6,599
Dallas Joint Plumber & Pipefitters	32	21	65.6	\$7,659
Hoisting & Portable Engineers JATC	27	22	81.5	\$11,373
Waco Electricians JAC	26	24	92.3	\$8,220
Amarillo Plumbers JATC of Local 196	25	19	76.0	\$5,252

Sponsor	N	N Working	% Working	Median Earnings
International Union of Operating Engineers #178	24	22	91.7	\$12,423
Sabine Area Sheetmetal JATC	22	15	68.2	\$8,130
Specialty Contractors Industry Assn.	22	21	95.5	\$7,901
Mark Miles Assn	20	17	85.0	\$5,156
San Antonio Sheet Metal	20	17	85.0	\$7,701
Carpenters JATC	19	18	94.7	\$6,991
IEC of East Texas, Inc	19	17	89.5	\$7,677
Lubbock Area Plumbers JATC LU 629	19	18	94.7	\$6,470
Asbestos JATC	16	14	87.5	\$6,468
IEC of Texoma	16	15	93.8	\$6,590
Titus Electric	16	12	75.0	\$10,178
Waco Plumbers & Pipefitters JAC	16	15	93.8	\$8,690
Wichita Falls Plumbers Pipefitters JATC	15	11	73.3	\$8,520
DFW Local 53 Painters JATC	13	10	76.9	\$7,034
Pipefitters JATC	11	8	72.7	\$4,387
Plumbers & Pipefitters JATC	10	4	40.0	\$8,620
REC Industries, Inc	10	9	90.0	\$7,592
South Texas Electrical JATC	10	7	70.0	\$7,870
Rio Grande Valley-Laredo Joint Apprenticeship Trng C	9	6	66.7	\$5,177
El Paso/Southern New Mexico Sheet Metal JATC	8	n/a	12.5	\$1,769
Texas Iron Workers Appr & Training	7	n/a	57.1	\$10,705
Bricklayers & Allied Crafts JATC	6	5	83.3	\$2,961
Ironworkers JATC	6	n/a	66.7	\$10,257
New Mexico & West TX Sheet Metal Workers JATC	5	5	100.0	\$5,815
Wichita Falls Sheet Metal Workers JATC	5	n/a	80.0	\$7,039
East Texas JATC	n/a	n/a	50.0	\$12,410
Heat & Frost Insulators Local 21 JATC	n/a	n/a	100.0	\$6,617
Kelly Aviation Center	n/a	n/a	75.0	\$5,934
Quest Contracting	n/a	n/a	100.0	\$9,325
Sound & Signal Systems of Texas	n/a	n/a	50.0	\$6,750
Engineered Plastic Components (EPC)	n/a	n/a	66.7	\$11,656
Intertech Flooring	n/a	n/a	100.0	\$5,363
Millennium Plastics Technologies	n/a	n/a	100.0	\$8,738
Mooney Airplane Company	n/a	n/a	66.7	\$8,588
Tierra Firme Construction	n/a	n/a	100.0	\$5,848
Tom Growney Equipment	n/a	n/a	100.0	\$4,539
Abilene Plumbers & Pipefitters JATC	n/a	n/a	100.0	\$2,914
M & Q Plastics	n/a	n/a	100.0	\$7,548

Sponsor	N	N Working	% Working	Median Earnings
Plainfield Stamping	n/a	n/a	100.0	\$11,206
V & R Drywall	n/a	n/a	n/a	n/a
Vertex Contractors	n/a	n/a	100.0	\$10,721
Total	3,487	2,983	85.5	\$7,923
Note: Cells with values less than 5 are marked "n/a" to protect the privacy of cohort members.				

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