

**TWC Apprenticeship Program
2003-2004 Exit Cohort
5-Year Longitudinal Study**

Methodology

The Labor Market and Career Information (LMCI) department used 3,301 archived seed records. The usable seed records were linked to TWC Unemployment Insurance (UI) wage records in the 4th quarter of 2004 (4Q2004) to determine initial employment and earnings (baseline measure). The five-year snapshot linked the seed records to wage records to the 4th quarter of 2008 (4Q2008). In the case where participants who were found working had earnings greater than or equal to \$25,000 in any target quarter were identified, these records were excluded from analysis based on the likelihood of inaccurate wage record data and to reduce the possibility of inappropriately skewing the data. Supplemental linkages were conducted with the Texas Bureau of Vital Statistics (TBVS) to determine deaths, as well as the United States Office of Personnel Management (OPM), the United States Postal Service (USPS), and the Department of Defense (DoD). Cohort members who were found to be deceased during the study years were excluded from analysis. After all exclusions, there were 3,220 seed records retained for analysis in this report.

For this report, only post-exit labor market outcomes were compared from the two study periods to ensure that comparable data are being used. For example, the initial snapshot of this cohort (4Q2004) did not include earnings data from the federal agencies to which the records were linked because the earnings data received were not compatible with state measures. For the five-year snapshot, taken at 4Q2008, the earnings data received from federal databases were compatible; however, these data will not be included in this report.

In both study periods, earnings were summed across unique Social Security Numbers (SSN). The industry sector by 4-digit North American Industry Classification System (NAICS) of the employer that paid the most wages during the target quarter was retained for analysis.

Results

Table 1 shows employment and earnings in 4Q2004 by occupation of training for program participants. There was one occupation with 100 percent employment, although the group size is too small to display. The three occupations with the most participants were Electrician, Plumber, and Sheet Metal Workers. Electricians had the highest employment of those three in 4Q2004 with 88.2 percent employed, followed by Plumber with 87.0 percent employed. Employment for the entire cohort in 4Q2004 was 85.2 percent in 4Q2004.

Table 1 also shows median quarterly earnings by occupation. Median quarterly earnings for the cohort were \$7,149 in 4Q2004. Electrician apprentices had the highest median quarterly earnings between the three most common occupations, earning \$7,361.

Table 1. Employment and Earnings for All Working by Occupation in 4Q2004

Occupation	N	N Working	% Working	Median Earnings
Maintenance Mechanic	n/a	n/a	100.0	\$12,951
Glazier	n/a	n/a	50.0	\$2,921
Data Communications	5	n/a	80.0	\$14,828
Painter	5	n/a	60.0	\$5,022
Precision Machinist	6	5	83.3	\$8,906
Machinist	7	5	71.4	\$8,956
Mason/Bricklayer	7	6	85.7	\$6,231
Insulator	8	6	75.0	\$7,021
Electronic Sys Tech	9	8	88.9	\$5,212
Residential Electrical Sp	9	8	88.9	\$6,240
Telecommunications	9	8	88.9	\$7,034
Tool and Die Maker	10	9	90.0	\$10,392
Floor Layer	14	11	78.6	\$5,056
Bricklayer	20	16	80.0	\$6,361
Millwright	23	15	65.2	\$10,402
Mold Maker	25	24	96.0	\$9,835
HVAC	32	29	90.6	\$7,629
Operating Engineer	37	23	62.2	\$7,065
Plumber/Pipefitter	39	34	87.2	\$5,484
Insulation Worker	41	34	82.9	\$7,064
Pipefitter	48	36	75.0	\$5,941
Carpenter	80	62	77.5	\$7,314
Iron Worker	151	112	74.2	\$6,129
Sheet Metal Worker	221	163	73.8	\$5,943
Plumber	414	360	87.0	\$7,092
Electrician	1,966	1,733	88.2	\$7,361
Total	3,193	2,719	85.2	\$7,149

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

As would be expected, Building Equipment Contractors was the industry of employment with the largest number of participants found employed in 4Q2004 (Table 2). Participants found working in the Motor Vehicle Parts Manufacturing industry sector had the highest median quarterly earnings at \$10,965. Five of the ten industries in the top ten were either contracting or construction.

Table 2. Top 10 Industries of Employment for All Working in 4Q2004

Industry of Employment	N Working	Median Earnings	NAICS Code
Building Equipment Contractors	1,962	\$7,355	2382
Employment Services	135	\$6,134	5613
Nonresidential Building Construction	80	\$7,674	2362
Building Finishing Contractors	66	\$5,238	2383
Foundation, Structure, and Building Exterior Contractors	50	\$6,013	2381
Architectural and Structural Metals Manufacturing	29	\$5,994	3323
Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing	26	\$10,411	3334
Motor Vehicle Parts Manufacturing	19	\$10,965	3363
Executive, Legislative, and Other General Government Support	15	\$6,522	9211
Other Specialty Trade Contractors	14	\$8,891	2389

Table 3 shows employment and earnings in 4Q2008 by occupation of training for program participants. Looking at the three occupations with the most apprentices, Electricians had the highest employment of those three in 4Q2008 with 80.6 percent employed, followed by Plumber with 76.6 employment. Employment for the entire cohort in the 4th quarter of 2008 was 77.1 percent. Median quarterly earnings for the cohort were \$11,340 in 4Q2008. Plumber apprentices had the highest median quarterly earnings between the three most common occupations, earning \$12,240.

Table 3. Employment and Earnings for All Working by Occupation in 4Q2008

Occupation	N	N Working	% Working	Median Earnings
Maintenance Mechanic	n/a	n/a	66.7	\$6,923
Glazier	n/a	n/a	50.0	\$7,282
Data Communications	5	n/a	60.0	\$11,616
Painter	5	n/a	40.0	\$5,961
Precision Machinist	6	5	83.3	\$12,875
Machinist	7	5	71.4	\$8,261
Mason/Bricklayer	7	n/a	57.1	\$11,597
Insulator	8	5	62.5	\$8,968
Electronic Sys Tech	9	6	66.7	\$5,906
Residential Electrical Sp	9	5	55.6	\$5,964
Telecommunications	9	8	88.9	\$9,987
Tool and Die Maker	10	9	90.0	\$10,608
Floor Layer	14	7	50.0	\$6,098
Bricklayer	20	14	70.0	\$11,082
Millwright	23	15	65.2	\$6,904
Mold Maker	25	16	64.0	\$9,994
HVAC	32	30	93.8	\$13,198
Operating Engineer	37	23	62.2	\$12,040
Plumber/Pipefitter	39	33	84.6	\$10,932
Insulation Worker	41	29	70.7	\$11,375
Pipefitter	48	33	68.8	\$14,628
Carpenter	80	63	78.8	\$8,816
Iron Worker	151	89	58.9	\$7,557
Sheet Metal Worker	221	152	68.8	\$11,060
Plumber	414	317	76.6	\$12,240
Electrician	1,966	1,585	80.6	\$11,592
Total	3,193	2,462	77.1	\$11,340

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

In Table 4 we see the ten industries of employment with the largest number of participants found employed in 4Q2008. The Building Equipment Contractors sector employed the most apprentices in 4Q2008. The Support Activities for Mining industry had the highest median quarterly earnings at \$15,237. Participants employed in the Nonresidential Building Construction sector had the second-highest median quarterly earnings in 4Q2008 with \$12,781.

Table 4. Top 10 Industries of Employment for All Working in 4Q2008

Industry of Employment	N Working	Median Earnings	NAICS Code
Building Equipment Contractors	1,411	\$12,008	2382
Employment Services	114	\$8,208	5613
Nonresidential Building Construction	75	\$12,781	2362
Foundation, Structure, and Building Exterior Contractors	49	\$11,802	2381
Executive, Legislative, and Other General Government Support	43	\$10,033	9211
Building Finishing Contractors	37	\$10,788	2383
Architectural and Structural Metals Manufacturing	31	\$12,657	3323
Elementary and Secondary Schools	27	\$8,531	6111
Support Activities for Mining	23	\$15,237	2131
Services to Buildings and Dwellings	22	\$8,786	5617

References

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