

# Skills Development Fund: 2008-2009 Exit Cohort



## The Skills Development Fund supports high-quality, customized job training projects across the state.

Texas's business-friendly economic development strategy seeks to lower the costs of doing business in order to attract companies and jobs to the state. Apart from a favorable tax climate, low energy costs and advantageous logistics, Texas supports customized training programs to help ensure that our state's workforce will be ready with the skills employers need. The State of Texas' main vehicle to provide customized training is the Skills Development Fund (Skills/SDF), funded by a special employment and training investment assessment on employers of 0.1 percent of total wages paid along with any appropriations added by the Legislature (Texas Labor Code §204.123).

The Skills process begins with a business, local non-profit or trade union identifying an unmet training need. The business then partners with a training provider. The grantee submits the Skills grant proposal, develops the curriculum and conducts training. Skills pays for the training, the college administers the grant, workers improve their skills, gaining human capital, and employers gain a more competitive workforce. Local Workforce Development Boards and economic development entities build relationships with area businesses to facilitate partnerships. TWC provides technical assistance to help streamline the development and implementation of projects and proposals.

In fiscal year 2008-2009, the Skills Development Fund spent \$24,942,017 on these projects. The program awarded \$23,612,149 of this amount in 45 grants (Skills Annual Report 2009). For additional qualitative data and details such as what companies used Skills grants to train their workers, see the Skills Development Fund Annual Legislative Reports or the Skills Development Fund website, <http://www.twc.state.tx.us/svcs/funds/sdfintro.html>.

Multiple studies have shown that employer involvement in training projects improves earnings and employment outcomes for trainees (see, e.g. Grubb 1996; Kane and Rouse 1999; Duane and Gill 1997, Mathur et. al. 2004; Holzer and Martinson 2005; Maguire et. al. 2009; Martinson 2010). The type of training provider also matters: sub-baccalaureate training providers like those involved in Skills grants “can be nimble allies of employers and other workforce partners in providing training that is specific to the needs of a particular employer or industry...and allow ‘ownership’ at the company level in order to foster a greater tie-in with local economic development authorities” (Romer 2009). Programs like Skills are a strategy the literature highlights as particularly effective at improving outcomes for low-skill workers, who might not receive training otherwise (Martinson 2010).<sup>1</sup> The primary challenge facing these programs is continuing to strengthen connections between businesses, training providers and local workforce and economic development entities (Holzer and Nightingale 2009).

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<sup>1</sup> Skills also provides training for new/prospective hires in addition to incumbent workers.

## **PURPOSE OF THE REPORT**

Senate Bill 281 (2003) requires the Texas Workforce Commission (TWC) to, at least annually, issue an analysis of the job placement performance of each workforce development program by occupation and by training provider (possibly including other relevant data), for the previous one-year, three-year, and five-year periods. TWC's Labor Market and Career Information (LMCI) department fulfills this mandate. We provide these data in the spirit of continuous improvement and do not seek to single out or punish any program, grantee or geography. LMCI's mission is to improve the way Texans make career and educational decisions by providing useful and reliable information about careers, educational training options and jobs. For more information, visit [www.lmci.state.tx.us](http://www.lmci.state.tx.us).

## **STRUCTURE OF THE REPORT**

This report addresses the set of individuals (cohort) that exited Skills Development Fund projects in 2008-2009. The report examines a snapshot of the cohort's outcomes, i.e. their employment and median earnings, in the fourth quarter of 2009 (Q42009). Three-year and five-year snapshots of this cohort's outcomes in Q42012 and Q42014 will be added to the report as the data become available. The report's body provides a high-level overview and analysis of the data. Detailed tables of all measures discussed here can be found in the appendix.

## **METHODOLOGY**

LMCI received 28,634 Skills seed records from the Policy and Service Delivery Department of TWC's Workforce Development Division for participants exiting in 2008-2009. Each seed record represents a unique combination of a participant's Social Security Number (SSN) and a program service. Because participants often receive more than one service, the input file includes many duplicate records, which LMCI condenses into one unique record per participant. After removing duplicates, 9,671 unique records remained for analysis. LMCI also links the seed record to Texas Bureau of Vital Statistics data to identify and exclude deceased participants.

LMCI then links the seed record files to several government databases to determine outcomes. The primary database we used for this report is the TWC Unemployment Insurance (UI) database, which contains information on employment status and earnings. We also performed linkages to the Texas Higher Education Coordinating Board (THECB) master enrollment file to identify participants enrolled in post-secondary education, and the Federal Employment Data Exchange System (FEDES) to locate any participants employed in federal civil service or the military. If these linkages result in a match, LMCI retains the participant's earnings and the North American Industry Classification System (NAICS) code of the employer of record for analysis. If a participant has multiple employers, LMCI adds that participant's wages across NAICS codes and uses the NAICS of the employer paying the most wages for analysis. If a participant has the same earnings across multiple employers, LMCI retains the NAICS of the employer with the most employees.

For the one-year analyses, LMCI defines "performance" as laid out in Senate Bill 281 using two basic metrics: 1) employment and 2) median quarterly earnings in a given period after exit (Q42009 in this case). We report median quarterly earnings rather than mean quarterly

earnings due to the wide range of earnings reported. Median quarterly earnings are a more robust measure of central tendency and prevent extreme observations from skewing the results. LMCI always reports outcomes by training provider and variables capturing occupation to comply with our mandate under SB 281, but we include demographic or other characteristics when available. All earnings reported are median quarterly earnings unless otherwise noted.

In 2010, LMCI made a slight alteration in the way we report services provided by the Skills Development Fund. On average, most participants take multiple courses in multiple programs. However, to effectively calculate participant outcomes, the data must be unduplicated. In this process, valuable information regarding courses taken is lost. As a result, starting from the 2010 report on the 2008-2009 exit cohort, we report the total number of times each course was taken rather than assigning one course to each participant. This allows the reader to determine which classes were taken overall, but the sum totals for programs are not comparable with other totals.

#### **CAVEATS ABOUT THE DATA AND ANALYSIS**

To our knowledge, there is no better source of data on labor market outcomes than UI wage records, but these data have some limitations. UI wage records do not cover individuals engaged in certain types of employment ranging from domestic workers to railroads. The collection of UI wage data involves editing to clean incoming data. However, inaccurate wage records may remain in the system unless and until a claim for UI benefits is filed. SSNs are not validated against a national database, so fraudulent SSNs may be present in the data as well as multiple individuals using one SSN (leading to outlandishly high earnings in some cases). Neither occupational title nor hours worked per quarter are reported, preventing us from calculating hourly wage and determining relatedness of training to employment or part-time/full-time status. This characteristic sometimes leads to very low earnings for individuals who worked for only part of a quarter we sampled. Despite these limitations, data from UI wage records provide an invaluable glimpse of post-exit achievements of workforce training participants.

The Texas economy proved robust during the Great Recession, continuing to grow through most of 2008 and maintaining an unemployment rate 1-2 percent lower than the national average. Employment peaked in October of 2008, after which Texas joined the nation in losing jobs. Texas unemployment in Q42009 was 8.1 percent, 2.4 percent higher than Q42008. At the same time, the U.S. national unemployment rate was 10.0 percent, rising 3.1 percent on the year. In this report, we frequently cite Q42009 median earnings for participants. For reference, the Texas median worker's 2009 quarterly earnings were \$6,663.<sup>2</sup>

Many factors, particularly the dynamics of the local economy and interplay with national and international trends all drive the metrics we use. The metrics tell part of the story about performance, but should not be used alone to make judgments about the quality (or lack thereof) of a single grantee, Workforce Development Area or program.

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<sup>2</sup>Texas median quarterly worker earnings were derived by dividing estimates of annual median worker earnings from the US Census Bureau's American Community Survey (2009 one-year estimates) by four.

## Results

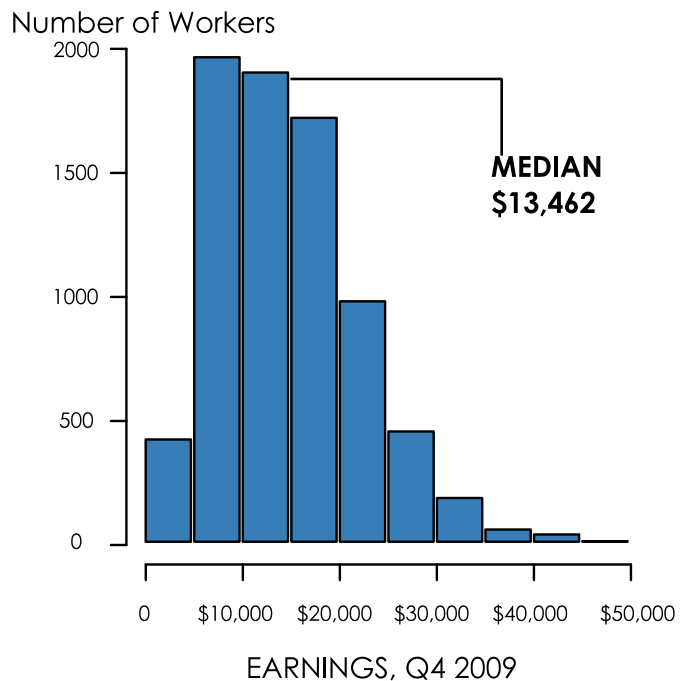
In total, 9,671 Skills participants exited the program in 2008-2009. After linking data to the Texas Bureau of Vital Statistics' database to identify and exclude deceased participants, 9,636 participants remained for analysis. Our snapshot of cohort outcomes for the fourth quarter of 2009 (Q42009) found 84.6 percent of the exit cohort employed (Figure 1). Most participants, 88.2 percent, successfully completed their Skills training. Successful completers were employed at a much higher rate in Q4 2009 than non-completers: 87 percent compared to 65 percent. Linkages with Texas Higher Education Coordinating Board data found 6.2 percent of the 2009 Skills exit cohort enrolled in post-secondary education (including both participants enrolled in higher education but not working, and participants simultaneously working and enrolled in higher education).

The median quarterly earnings for the cohort were \$13,462, almost twice as high as the Texas median worker's 2009 quarterly earnings of \$6,663 (Figure 2).<sup>3</sup> Grantees recover their Skills-related costs only if participants are placed in jobs that pay the same or more than the prevailing wage in their service area. Many Skills employers are in manufacturing industries, so Skills participants tend to be high earners (Texas Labor Code §303.002(b)(2)). The first quartile of earnings was \$8,298 and the third quartile was \$19,210. Successful completers had almost twice the median earnings of those who did not complete training (\$14,138 for successful completers; \$7,485 for others).

**FIGURE 1**  
**OVERALL OUTCOMES**



**FIGURE 2**  
**DISTRIBUTION OF (NONZERO) EARNINGS**

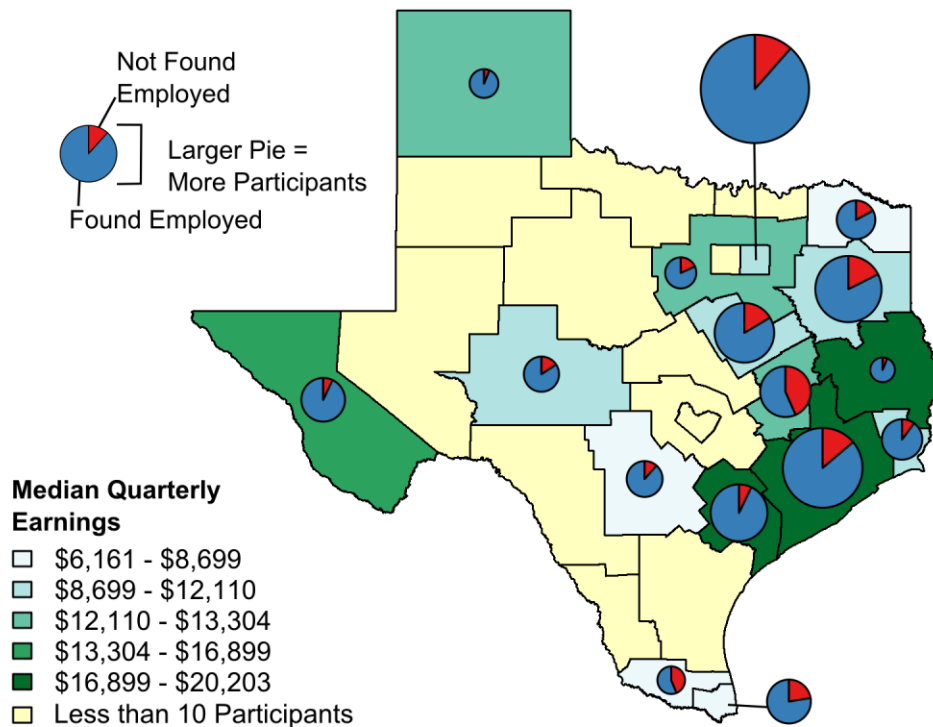


<sup>3</sup> Texas median quarterly worker earnings were derived by dividing estimates of annual median worker earnings from the US Census Bureau's American Community Survey (2009 one-year estimates) by four.

## Geography

In terms of geography (Workforce Development Area/WDA), the Dallas WDA (Dallas County) had the most Skills participants. Deep East Texas WDA (Lufkin/Nacogdoches area) had the highest post-exit employment rate at 93.9 percent. Golden Crescent WDA (Victoria area) had the highest median earnings (\$20,203). Figure 3 shows employment and earnings by WDA. The blue areas of the pie charts on each WDA represent the percent of each WDA's share of the cohort found employed in Q42009; their area is proportional to the number of participants in the WDA. The shading shows WDA median quarterly earnings (darker is higher).

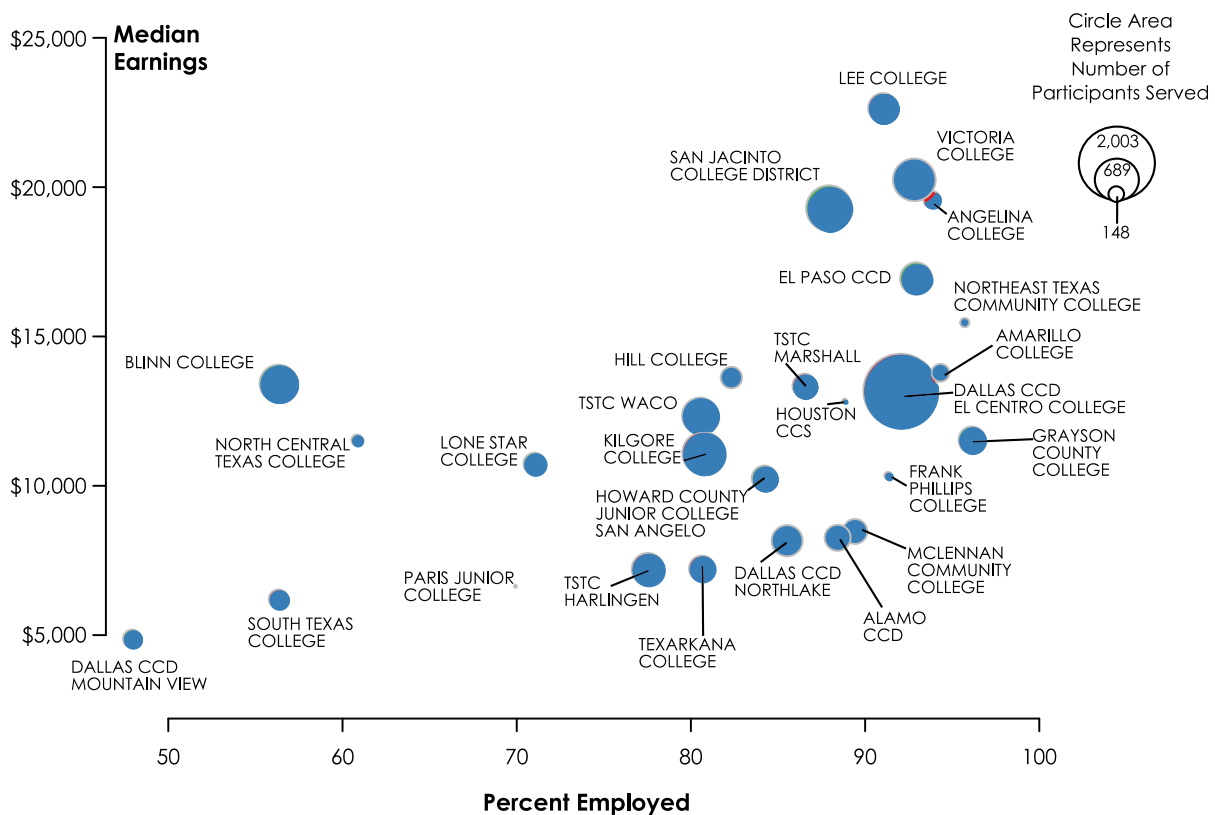
**FIGURE 3**  
**OUTCOMES BY GEOGRAPHY (LWDA)**



## Provider

Training providers included Community Colleges and Community College Districts (CCDs), the Texas Engineering Extension Service and Texas State Technical College (TSTC). Dallas County Community College District's El Centro College had the most participants (2,003). Of the providers serving over ten participants, Grayson County College had the highest employment rate, 96.1 percent. Lee College had the highest median quarterly earnings of \$22,611. The average number of participants per provider was 311. Figure 4 compares outcomes across all training providers: the percent of participants employed during the study period is shown on the horizontal axis, median earnings on the vertical axis and number of participants by the area of the circle. TSTC West Texas, TEEX, Paris Junior College and DCCD Richland College operated programs with fewer than ten participants and are not pictured.

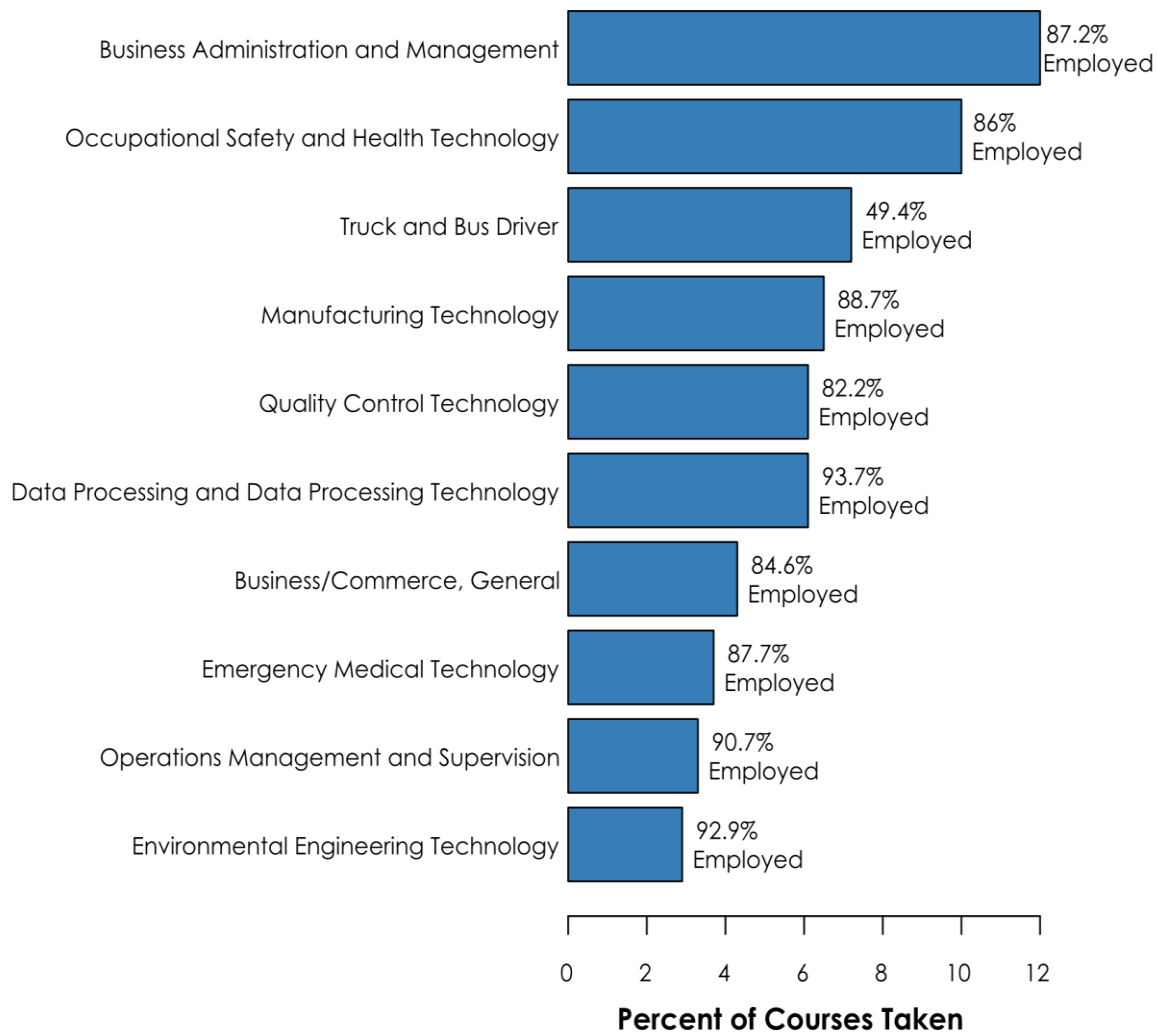
**FIGURE 4**  
**OUTCOMES BY TRAINING PROVIDER**



## Program of Study

Classification of Instructional Programs (CIP) codes are a taxonomy to organize and describe academic programs and fields of study. Since Skills participants take courses from community colleges, CIP codes provide an effective way to compare actual services the Skills program provided. Skills participants took courses in a variety of CIP codes, and most participants took multiple courses (four on average). As a result, we have presented courses by CIP in Figure 5 as a percent of all courses taken rather than as a percent of the cohort. Figure 5 also displays the percent employment of individuals who took these courses. For example, 12 percent of all courses taken were in the Business Administration and Management CIP/program area, and 87.2 percent of individuals who took a course in Business Administration and Management were found employed in Q42009.

**FIGURE 5**  
**TOP TEN COURSES AREAS (CIP)**



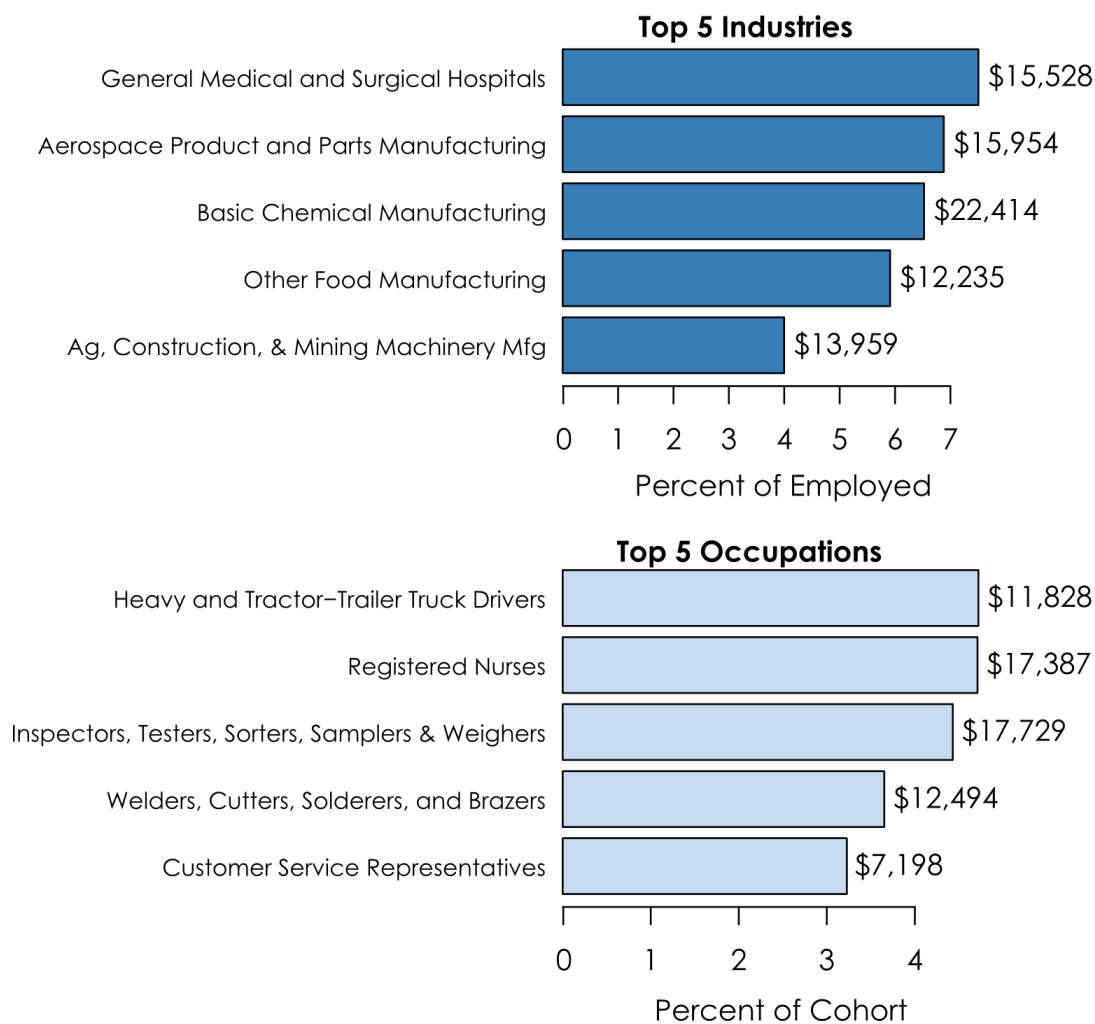


## Occupation/Industry

Skills participants were employed in diverse industries (North American Industrial Classification System or NAICS codes). General Medical/Surgical Hospitals and Aerospace Product/Parts Manufacturing, employed the most participants, almost 15 percent of the cohort. Basic Chemical Manufacturing had the highest median quarterly earnings, \$22,414. Figure 5 shows the top five NAICS by employment, the percent of the cohort they employed and median quarterly earnings (Figure 6).

In terms of occupations reported for Skills participants, Heavy and Tractor-Trailer Truck Drivers and Registered Nurses were the two largest, each employing close to 5 percent of the cohort. However, Registered Nurses had higher earnings and much higher employment (94.5 vs. 67.3 percent). See Appendix A for detailed data tables (Figure 6).

**FIGURE 6**  
**TOP FIVE OCCUPATIONS AND INDUSTRIES WITH MEDIAN QUARTERLY EARNINGS**



## Appendix: Detailed Tables

**Table 1**

### Outcomes by Completion Status

Exit Status	N	% Working	Median Earnings
Completed, Successfully	8,506	87.2	\$14,138
Other	357	75.4	\$8,505
Completed, Not Successfully	354	69.8	\$5,565
Dropped Out	419	53.5	\$8,385
Total	9,636	84.6	\$13,462

**Table 2**

### Outcomes by Geography (LWDA)

LWDA	N	% Working	Median Earnings
West Central	6	100.0	\$7,180
Deep East Texas	132	93.9	\$19,545
Panhandle	179	93.9	\$13,304
Upper Rio Grande	413	93.0	\$16,899
Golden Crescent	700	92.9	\$20,203
Texoma	354	89.8	\$11,494
Dallas	2,542	88.5	\$12,110
Alamo	279	88.5	\$8,216
Gulf Coast	1,378	86.2	\$20,052
Concho Valley	268	84.3	\$10,210
Heart of Texas	768	83.6	\$11,423
North East Texas	322	82.9	\$8,699
East Texas	950	82.4	\$11,654
North Central	209	81.8	\$13,254
Cameron County	416	77.6	\$7,165
Brazos Valley	555	56.6	\$13,231
Lower Rio Grande Valley	165	56.4	\$6,161

**Table 3**  
**Outcomes by Industry of Employment**

NAICS Title	N Working	% of Cohort	Median Earnings
General Medical and Surgical Hospitals	612	7.5	\$15,528
Aerospace Product and Parts Manufacturing	561	6.9	\$15,954
Basic Chemical Manufacturing	532	6.5	\$22,414
Other Food Manufacturing	482	5.9	\$12,235
Agriculture, Construction, and Mining Machinery Manufacturing	326	4.0	\$13,959
Support Activities for Mining	319	3.9	\$14,843
Employment Services	275	3.4	\$5,993
Building Equipment Contractors	255	3.1	\$7,612
Plastics Product Manufacturing	240	2.9	\$9,863
Alumina and Aluminum Production and Processing	204	2.5	\$14,806

**Table 4**  
**Top Ten Courses Taken (CIP)**

CIP	N	% of Courses Taken	% Working	Median Earnings
Data Processing and Data Processing Technology	1,741	6.1%	93.7	\$14,546
Environmental Engineering Technology	816	2.9%	92.9	\$18,549
Operations Management and Supervision	933	3.3%	90.7	\$9,954
Manufacturing Technology	1,847	6.5%	88.7	\$12,418
Emergency Medical Technology	1,059	3.7%	87.7	\$12,012
Business Administration and Management	3,420	12.0%	87.2	\$10,682
Occupational Safety and Health Technology	2,870	10.0%	86.0	\$10,514
Business/Commerce, General	1,224	4.3%	84.6	\$8,792
Quality Control Technology	1,747	6.1%	82.2	\$12,400
Truck and Bus Driver	2,056	7.2%	49.4	\$4,969
Total	28,580		83.2	\$11,172

**Table 5**  
**Top Ten Occupations**

Occupation	N	% of Cohort	% Working	Median Earnings
Registered Nurses	454	9.4%	94.5	\$17,387
Hand Packers and Packagers	240	4.0%	92.5	\$9,386
First-Line Supervisors of Production and Operating Workers	286	6.1%	90.6	\$18,585
All Other Installation, Maintenance, and Repair Workers	285	4.3%	90.5	\$14,213
Hand Laborers and Freight, Stock, and Material Movers	258	4.1%	89.9	\$10,220
General Office Clerks	230	3.6%	83.5	\$7,110
Inspectors, Testers, Sorters, Samplers, and Weighers	427	8.2%	81.7	\$17,729
Customer Service Representatives	311	6.3%	79.7	\$7,198
Welders, Cutters, Solderers, and Brazers	352	6.5%	73.6	\$12,494
Heavy and Tractor-Trailer Truck Drivers	455	10.5%	67.3	\$11,828

**Table 6****Outcomes by Training Provider**

<b>Provider</b>	<b>N</b>	<b>% Working</b>	<b>Median Earnings</b>
Texas State Technical College - West Texas	6	100.0	\$7,180
Grayson County College	290	96.2	\$11,497
Northeast Texas Community College	48	95.8	\$15,421
Amarillo College	144	94.4	\$13,742
Angelina College	132	93.9	\$19,545
El Paso Community College District	413	93.0	\$16,899
Victoria College	700	92.9	\$20,203
Dallas County Community College District -El Centro College	2,003	92.1	\$13,136
Frank Phillips College	35	91.4	\$10,297
Lee College	350	91.1	\$22,611
Mclennan Community College	257	89.5	\$8,424
Houston Community College System	18	88.9	\$12,796
Alamo Community College District	279	88.5	\$8,216
San Jacinto College District	799	88.0	\$19,250
Tyler Junior College	15	86.7	\$10,820
Texas State Technical College - Marshall	246	86.6	\$13,303
Dallas County Community College District -Northlake College	389	85.6	\$8,121
Howard County Junior College- San Angelo	268	84.3	\$10,210
Hill College	199	82.4	\$13,579
Kilgore College	689	80.8	\$11,049
Texarkana College	274	80.7	\$7,189
Texas State Technical College - Waco	511	80.6	\$12,309
Texas State Technical College - Harlingen	416	77.6	\$7,165
Lone Star College	211	71.1	\$10,696
Paris Junior College	10	70.0	\$6,593
North Central Texas College	64	60.9	\$11,490
Blinn College	553	56.4	\$13,385
South Texas College	165	56.4	\$6,161
Dallas County Community College District -Mountain View	148	48.0	\$4,838
Texas Engineering Extension Service	.	.	.
Dallas County Community College District -Richland College	.	.	.
"." indicates providers with fewer than five participants, withheld to protect personal information			

**Table 7**  
**Higher Education Dashboard**

Summary of Linkage	N	% of Cohort	Median Earnings
Working Only	7,626	79.1	\$13,538
Pursuing Higher Ed Only	67	0.7	NA
Working & Pursuing Higher Ed.	528	5.5	\$12,280
All Enrolled	595	6.2	\$11,119
Not Verified*	1,415	14.7	NA
Total	9,671	100.0	\$11,390

Higher Education Enrollment By Institution Type	N	%
Community/Technical Colleges and Career Schools	468	78.6
Public/Private Universities & Health Science Centers	127	21.3
Total Found Enrolled	595	100.0

Top LWDAs by Enrollment	N	N Enrolled	% of All Enrolled
East Texas	950	138	14.5
Dallas	2,542	97	3.8
Gulf Coast	1,378	67	4.9
Texoma	354	59	16.7
North East Texas	322	42	13.0
Concho Valley	268	38	14.2
Upper Rio Grande	413	37	9.0
Panhandle	179	34	19.0

Top Public Postsecondary Institutions	N Enrolled	% of All Enrolled	Program of Study (4-digit CIP)	N Enrolled	% of Enrolled
Kilgore College	120	20.2	Quality Control and Safety Tech.	100	17.3
Grayson County College	54	9.1	Liberal Arts & Sciences	78	13.5
Amarillo College	32	5.4	Nursing	67	11.6
Texarkana College	31	5.2	Business Admin/Mgmt/Operations	57	9.9
Howard College	22	3.7	Health & Medical Admin	29	5.0
El Paso CCD	17	2.9	Allied Health Professions	22	3.8
U. Of Houston-Clear Lake	15	2.5	Data Processing	17	3.0
Dallas CCD El Centro College	14	2.4	Undeclared	16	2.8

\*"Not Verified" indicates participants not located through the administrative databases used to document outcomes.

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