

**Workforce Investment Act  
2004-2005 Exit Cohort  
3-Year Longitudinal Study**

**Methodology**

The Labor Market and Career Information (LMCI) division used 42,243 archived Workforce Investment Act seed records from the 2004-2005 exit cohort. The seed records were linked to TWC Unemployment Insurance (UI) wage records for the 4<sup>th</sup> quarter of 2005 to determine initial employment and earnings and establish the baseline measure against which we compare the longitudinal labor market results. The longitudinal labor market results were obtained by linking the seed records to the UI wage record database for the 4<sup>th</sup> quarter of 2007. 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 Department of Criminal Justice (TDCJ) and Texas Bureau of Vital Statistics (TBVS) to determine incarcerations and deaths, as well as the United States Office of Personnel Management (OPM), the United State Postal Service (USPS), and the Department of Defense (DoD). Cohort members who were found incarcerated or deceased during the study years were excluded from analysis. After all exclusions, there were 41,562 seed records retained for analysis 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.

A supplemental linkage with the Wage Record Interchange System (WRIS) allowed us to determine if any participants were working out of state, as well as capture compatible earnings for them.

It is important to note that many participants received multiple services during their time in the WIA program, explaining the fact that there are more seed records than there are participants in the file that was analyzed for this report. It was not possible to identify which services, individually or in tandem, can most be attributed to any post-exit gains or losses in employment or earnings over the longitudinal period. To provide credit to each service provider, these trainees will be counted separately in our analysis of total exiters, but will only be counted once in quarterly earnings computations.

**Results**

**A. Cohort Analysis**

Cohort analysis looks at the results of the group during the two study periods as two distinct sets of data. In cohort analysis it is possible, even likely, that the same persons identified as working in the baseline study period will not be identical to those found working in the terminal time period. Section B of this report presents data on participants working in both study periods.

When the results are analyzed by gender (Tables 1 and 1a), we see that 72.6 percent of females in the cohort were found employed at 4Q2005. Males in the cohort had median quarterly earnings of \$5,241 at 4Q2005. Overall employment for the cohort was 71.6 percent in 4Q2005, with median earnings of \$4,566. At the longitudinal snapshot in 2007, 73.0 percent of females were found employed, with males employed at 71.3 percent. Male exiters had median earnings of \$7,161 in 4Q2007. Employment for the entire cohort was 72.3 percent and median quarterly earnings were \$6,075.

**Table 1. Employment and Earnings by Gender in 4Q2005**

<b>Gender</b>	<b>N</b>	<b>N Working</b>	<b>% Working</b>	<b>Median Earnings</b>
Unknown	102	74	72.6	\$8,117
Male	17,763	12,480	70.3	\$5,241
Female	23,697	17,193	72.6	\$4,178
<b>Total</b>	<b>41,562</b>	<b>29,747</b>	<b>71.6</b>	<b>\$4,566</b>

**Table 1a. Employment and Earnings by Gender in 4Q2007**

<b>Gender</b>	<b>N</b>	<b>N Working</b>	<b>% Working</b>	<b>Median Earnings</b>
Unknown	102	75	73.5	\$8,751
Male	17,763	12,662	71.3	\$7,161
Female	23,697	17,306	73.0	\$5,415
<b>Total</b>	<b>41,562</b>	<b>30,043</b>	<b>72.3</b>	<b>\$6,075</b>

Excluding those whose ethnicity was unknown, Whites had the highest employment in 4Q2005 with 75.3 percent found working (Table 2). Asians had the highest earnings in 4Q2005 with median earnings of \$6,836 followed by Whites with earnings of \$6,478. In 2007, Asians had the largest percentage of participants employed, 75.9 percent, and also posted the highest median earnings at \$9,314 (Table 2a).

**Table 2. Employment and Earnings by Ethnicity in 4Q2005**

<b>Ethnicity</b>	<b>N</b>	<b>N Working</b>	<b>% Working</b>	<b>Median Earnings</b>
Hawaiian Native or Pacific Islander	62	35	56.5	\$4,668
Native American	201	150	74.6	\$5,281
Asian	630	462	73.3	\$6,836
Unknown	984	800	81.3	\$9,379
White	11,431	8,608	75.3	\$6,478
Black	13,249	9,021	68.1	\$3,663
Hispanic	15,005	10,671	71.1	\$3,968
<b>Total</b>	<b>41,562</b>	<b>29,747</b>	<b>71.6</b>	<b>\$4,566</b>

**Table 2a. Employment and Earnings by Ethnicity in 4Q2007**

<b>Ethnicity</b>	<b>N</b>	<b>N Working</b>	<b>% Working</b>	<b>Median Earnings</b>
Hawaiian Native or Pacific Islander	62	43	69.4	\$7,370
Native American	201	133	66.2	\$6,854
Asian	630	478	75.9	\$9,314
Unknown	984	800	81.3	\$10,685
White	11,431	8,496	74.3	\$8,265
Black	13,249	9,267	69.9	\$4,980
Hispanic	15,005	10,826	72.2	\$5,313
<b>Total</b>	<b>41,562</b>	<b>30,043</b>	<b>72.3</b>	<b>\$6,075</b>

Tables 3 and 3a show labor market results by grant type. In 4Q2005, Dislocated grant recipients had the highest employment at 78.0 percent, and Dislocated grant recipients also had the highest median quarterly earnings in 4Q2005 with \$5,497. In 4Q2007, Dislocated grant recipients again had the highest employment at 74.6 percent, as well as the highest median quarterly earnings in 4Q2007 with \$7,173.

**Table 3. Employment and Earnings by Grant Type in 4Q2005**

<b>Grant Type</b>	<b>N</b>	<b>N Working</b>	<b>% Working</b>	<b>Median Earnings</b>
Unknown	1,277	888	69.5	\$3,633
Dislocated	8,874	6,922	78.0	\$5,497
Youth	9,087	4,793	52.8	\$1,738
Adult	22,324	17,144	76.8	\$5,178
<b>Total</b>	<b>41,562</b>	<b>29,747</b>	<b>71.6</b>	<b>\$4,566</b>

**Table 3a. Employment and Earnings by Grant Type in 4Q2007**

<b>Grant Type</b>	<b>N</b>	<b>N Working</b>	<b>% Working</b>	<b>Median Earnings</b>
Unknown	1,277	956	74.9	\$6,169
Dislocated	8,874	6,616	74.6	\$7,173
Youth	9,087	5,893	64.9	\$3,065
Adult	22,324	16,578	74.3	\$6,974
<b>Total</b>	<b>41,562</b>	<b>30,043</b>	<b>72.3</b>	<b>\$6,075</b>

Tables 4 and 4a show employment and earnings by Training Activity. Participants who received Vocational Training had the highest employment in 4Q2005 with 77.1 percent employed. Those participants also had the highest median quarterly earnings with \$4,762. Three years after exit, Vocational Training recipients again had the highest employment with 75.5 percent employed, and they also had the highest median quarterly earnings with \$6,821.

**Table 4. Employment and Earnings by Training Activity in 4Q2005**

<b>Training Activity</b>	<b>N</b>	<b>N Working</b>	<b>% Working</b>	<b>Median Earnings</b>
Vocational Training	11,462	8,831	77.1	\$4,762
Non-Vocational	30,100	20,916	69.5	\$4,466
<b>Total</b>	<b>41,562</b>	<b>29,747</b>	<b>71.6</b>	<b>\$4,566</b>

**Table 4a. Employment and Earnings by Education Level in 4Q2007**

<b>Training Activity</b>	<b>N</b>	<b>N Working</b>	<b>% Working</b>	<b>Median Earnings</b>
Vocational Training	11,462	8,649	75.5	\$6,821
Non-Vocational	30,100	21,394	71.1	\$5,783
<b>Total</b>	<b>41,562</b>	<b>30,043</b>	<b>72.3</b>	<b>\$6,075</b>

Table 5 shows employment and earnings by Local Workforce Development Area (LWDA). Panhandle LWDA had the highest percentage of program exiters employed during 4Q2005 with 83.5 percent employed, followed by Golden Crescent with 82.7 percent employed. Panhandle LWDA exiters also had the highest median quarterly earnings in 4Q2005 with \$7,633. South Plains LWDA had the highest employment in 4Q2007 with 82.9 percent employed, followed by Panhandle LWDA with 81.3 percent employed. Panhandle LWDA posted the highest median earnings at 4Q2007 with \$9,883.

**Table 5. Employment and Earnings by LWDA**

LWDA	N	All Working in 4Q2005			All Working in 4Q2007			
		N Working	% Working	Median Earnings	N	N Working	% Working	Median Earnings
Alamo	2,222	1,543	69.4	\$4,667	2,222	1,598	71.9	\$5,668
Brazos Valley	217	157	72.4	\$4,661	217	156	71.9	\$5,131
Cameron County	717	537	74.9	\$3,235	717	543	75.7	\$4,913
Capital Area	922	661	71.7	\$5,365	922	654	70.9	\$6,806
Central Texas	720	494	68.6	\$3,369	720	498	69.2	\$5,427
Coastal Bend	675	506	75.0	\$4,382	675	515	76.3	\$6,289
Concho Valley	163	128	78.5	\$3,445	163	124	76.1	\$4,642
Dallas	5,812	4,262	73.3	\$6,733	5,812	4,327	74.5	\$8,236
Deep East Texas	556	441	79.3	\$5,953	556	442	79.5	\$8,119
East Texas	1,639	1,296	79.1	\$5,369	1,639	1,260	76.9	\$6,578
Golden Crescent	486	402	82.7	\$7,077	486	392	80.7	\$8,668
Gulf Coast	12,736	8,806	69.1	\$4,450	12,736	8,984	70.5	\$6,000
Heart of Texas	284	187	65.9	\$3,655	284	193	68.0	\$5,259
Lower Rio Grande Valley	2,388	1,626	68.1	\$2,921	2,388	1,704	71.4	\$4,360
Middle Rio Grande	630	332	52.7	\$2,302	630	449	71.3	\$3,646
North Central	1,899	1,475	77.7	\$7,604	1,899	1,513	79.7	\$8,895
North East Texas	375	256	68.3	\$2,670	375	262	69.9	\$4,901
North Texas	344	255	74.1	\$4,491	344	253	73.6	\$5,866
Panhandle	321	268	83.5	\$7,633	321	261	81.3	\$9,883
Permian Basin	431	333	77.3	\$4,572	431	329	76.3	\$6,000
Rural Capital	314	225	71.7	\$4,515	314	220	70.1	\$5,555
South East Texas	1,016	750	73.8	\$2,930	1,016	746	73.4	\$5,110
South Plains	263	214	81.4	\$5,171	263	218	82.9	\$6,635
South Texas	727	511	70.3	\$3,854	727	543	74.7	\$5,040
Tarrant County	2,032	1,524	75.0	\$4,402	2,032	1,445	71.1	\$6,008
Texoma	222	183	82.4	\$6,759	222	171	77.0	\$8,125
Unknown	1,029	641	62.3	\$3,492	1,029	656	63.8	\$4,467
Upper Rio Grande	2,058	1,474	71.6	\$3,829	2,058	1,330	64.6	\$4,542
West Central	364	260	71.4	\$5,243	364	257	70.6	\$6,057
<b>Total</b>	<b>41,562</b>	<b>29,747</b>	<b>71.6</b>	<b>\$4,566</b>	<b>41,562</b>	<b>30,043</b>	<b>72.3</b>	<b>\$6,075</b>

Employment Services was the most common industry of employment for program exiters working at 4Q2005 (Table 6). Employment Services usually include temporary employment agencies that many employers use to find workers to try out first before hiring permanently. Employers also use Temporary Employment Agencies to augment staff during high demand periods without being saddled with paying benefits for permanent staff. Participants employed in the General Medical and Surgical Hospitals sector had the highest median earnings with \$8,608.

**Table 6. Top 10 Industries of Employment for All Working in 4Q2005**

Industry of Employment	N Working	Median Earnings	NAICS Code
Employment Services	2,572	\$3,348	5613
General Medical and Surgical Hospitals	1,786	\$8,608	6221
Limited-Service Eating Places	1,154	\$1,483	7222
Elementary and Secondary Schools	940	\$3,853	6111
Home Health Care Services	755	\$2,031	6216
Nursing Care Facilities	737	\$4,186	6231
Executive, Legislative, and Other General Government Support	737	\$7,180	9211
Building Equipment Contractors	681	\$8,027	2382
Other General Merchandise Stores	672	\$3,177	4529
Offices of Physicians	600	\$5,096	6211

Table 7 shows the top ten industries of employment for all working in the 4<sup>th</sup> quarter of 2007. Employment Services was still the most common industry sector of employment, followed by General Medical and Surgical Hospitals. Those employed in the General Medical and Surgical Hospitals sector again had the highest median earnings with \$9,926.

**Table 7. Top 10 Industries of Employment for All Working in 4Q2007**

<b>Industry of Employment</b>	<b>N Working</b>	<b>Median Earnings</b>	<b>NAICS Code</b>
Employment Services	2,275	\$3,961	5613
General Medical and Surgical Hospitals	1,768	\$9,926	6221
Elementary and Secondary Schools	1,058	\$4,865	6111
Limited-Service Eating Places	958	\$1,930	7222
Home Health Care Services	863	\$3,322	6216
Executive, Legislative, and Other General Government Support	779	\$8,012	9211
Nursing Care Facilities	655	\$4,837	6231
Other General Merchandise Stores	645	\$3,710	4529
Building Equipment Contractors	636	\$9,698	2382
Offices of Physicians	573	\$6,062	6211



**B. Individuals Found Working in Both Study Periods**

The first part of this study looked at a snapshot of labor market outcomes for WIA participants who exited in PY 2005. This part of the study is designed to more closely examine the outcomes associated with continued employment. Labor market data for participants who were found working in 4Q2005 and also found working in the 4<sup>th</sup> quarter of 2007 were analyzed.

Female participants showed the highest employment retention between study periods at 82.8 percent (Table 8). Male participants had the highest median earnings at 4Q2007 with \$7,749. Males also had the highest earnings gains over the study period, \$2,508. Overall employment retention for the cohort over the study period was 82.0 percent, with median earnings of \$6,525 and earnings gains of \$1,959.

**Table 8. Employment Retention and Earnings Gains by Gender**

Gender	N	Working in 4Q2005			Working in 4Q2005 and 4Q2007			Earnings Gains/ (Losses)
		N Working	% Working	Median Earnings	N Working	% Working	Median Earnings	
Unknown	102	74	72.6	\$8,117	64	86.5	\$8,985	\$868
Male	17,763	12,480	70.3	\$5,241	10,097	80.9	\$7,749	\$2,508
Female	23,697	17,193	72.6	\$4,178	14,234	82.8	\$5,859	\$1,681
<b>Total</b>	<b>41,562</b>	<b>29,747</b>	<b>71.6</b>	<b>\$4,566</b>	<b>24,395</b>	<b>82.0</b>	<b>\$6,525</b>	<b>\$1,959</b>

Table 9 shows that Asian participants had employment retention of 87.2 percent, the highest in the group, followed by Hawaiian Native or Pacific Islanders with 85.7 percent employment retention. Hawaiian Native or Pacific Islander participants had the highest earnings gains over the period at \$4,385. Asians had the second highest earnings gains over the period at \$2,475.

**Table 9. Employment Retention and Earnings Gains by Ethnicity**

Ethnicity	N	Working in 4Q2005			Working in 4Q2005 and 4Q2007			Earnings Gains/ (Losses)
		N Working	% Working	Median Earnings	N Working	% Working	Median Earnings	
Hawaiian Native or Pacific Islander	62	35	56.5	\$4,668	30	85.7	\$9,053	\$4,385
Native American	201	150	74.6	\$5,281	114	76.0	\$7,379	\$2,098
Asian	630	462	73.3	\$6,836	403	87.2	\$9,311	\$2,475
Unknown	984	800	81.3	\$9,379	716	89.5	\$11,089	\$1,710
White	11,431	8,608	75.3	\$6,478	7,172	83.3	\$8,665	\$2,187
Black	13,249	9,021	68.1	\$3,663	7,203	79.8	\$5,540	\$1,877
Hispanic	15,005	10,671	71.1	\$3,968	8,757	82.1	\$5,617	\$1,649
<b>Total</b>	<b>41,562</b>	<b>29,747</b>	<b>71.6</b>	<b>\$4,566</b>	<b>24,395</b>	<b>82.0</b>	<b>\$6,525</b>	<b>\$1,959</b>

Excluding participants whose grant type was unknown, those receiving Dislocated grants had the greatest employment retention over the study period at 84.7 percent (Table 10). Adult grant recipients had the largest median earnings gains, making \$2,048 more in 4Q2007 than in 4Q2005.

**Table 10. Employment Retention and Earnings Gains by Grant Type**

Grant Type	N	Working in 4Q2005			Working in 4Q2005 and 4Q2007			Earnings Gains/ (Losses)
		N Working	% Working	Median Earnings	N Working	% Working	Median Earnings	
Unknown	1,277	888	69.5	\$3,633	730	82.2	\$6,428	\$2,795
Dislocated	8,874	6,922	78.0	\$5,497	5,861	84.7	\$7,191	\$1,694
Youth	9,087	4,793	52.8	\$1,738	3,663	76.4	\$3,482	\$1,744
Adult	22,324	17,144	76.8	\$5,178	14,141	82.5	\$7,226	\$2,048
<b>Total</b>	<b>41,562</b>	<b>29,747</b>	<b>71.6</b>	<b>\$4,566</b>	<b>24,395</b>	<b>82.0</b>	<b>\$6,525</b>	<b>\$1,959</b>

Participants receiving Vocational Training had the highest employment retention over the study period at 82.2 percent (Table 11). They also had the highest earnings gains over the study period at \$2,208.

**Table 11. Employment Retention and Earnings Gains by Training Activity**

Training Activity	N	Working in 4Q2005			Working in 4Q2005 and 4Q2007			Earnings Gains/ (Losses)
		N Working	% Working	Median Earnings	N Working	% Working	Median Earnings	
Vocational Training	11,462	8,831	77.1	\$4,762	7,260	82.2	\$6,970	\$2,208
Non-Vocational	30,100	20,916	69.5	\$4,466	17,135	81.9	\$6,367	\$1,901
<b>Total</b>	<b>41,562</b>	<b>29,747</b>	<b>71.6</b>	<b>\$4,566</b>	<b>24,395</b>	<b>82.0</b>	<b>\$6,525</b>	<b>\$1,959</b>

South Plains LWDA had 88.8 percent of participants employed in 2005 employed in 2007, giving them the highest employment retention among LWDA's (Table 12). Participants from North East Texas LWDA had the highest median earnings gains over the study period with \$3,160. They were followed by Deep East Texas LWDA exiters with earnings gains of \$2,701.

**Table 12. Employment Retention and Earnings Gains by LWDA**

LWDA	N	Working in 4Q2005			Working in 4Q2005 and 4Q2007			Earnings Gains/ (Losses)
		N Working	% Working	Median Earnings	N Working	% Working	Median Earnings	
Alamo	2,222	1,543	69.4	\$4,667	1,300	84.3	\$6,076	\$1,409
Brazos Valley	217	157	72.4	\$4,661	126	80.3	\$5,758	\$1,097
Cameron County	717	537	74.9	\$3,235	443	82.5	\$4,899	\$1,664
Capital Area	922	661	71.7	\$5,365	547	82.8	\$7,245	\$1,880
Central Texas	720	494	68.6	\$3,369	385	77.9	\$5,027	\$1,658
Coastal Bend	675	506	75.0	\$4,382	430	85.0	\$6,388	\$2,006
Concho Valley	163	128	78.5	\$3,445	105	82.0	\$4,914	\$1,469
Dallas	5,812	4,262	73.3	\$6,733	3,568	83.7	\$8,787	\$2,054
Deep East Texas	556	441	79.3	\$5,953	391	88.7	\$8,654	\$2,701
East Texas	1,639	1,296	79.1	\$5,369	1,100	84.9	\$7,001	\$1,632
Golden Crescent	486	402	82.7	\$7,077	347	86.3	\$9,038	\$1,961
Gulf Coast	12,736	8,806	69.1	\$4,450	7,100	80.6	\$6,554	\$2,104
Heart of Texas	284	187	65.9	\$3,655	141	75.4	\$6,138	\$2,483
Lower Rio Grande Valley	2,388	1,626	68.1	\$2,921	1,292	79.5	\$4,278	\$1,357
Middle Rio Grande	630	332	52.7	\$2,302	268	80.7	\$4,467	\$2,165
North Central	1,899	1,475	77.7	\$7,604	1,280	86.8	\$9,588	\$1,984
North East Texas	375	256	68.3	\$2,670	202	78.9	\$5,830	\$3,160
North Texas	344	255	74.1	\$4,491	211	82.7	\$6,237	\$1,746
Panhandle	321	268	83.5	\$7,633	234	87.3	\$9,952	\$2,319
Permian Basin	431	333	77.3	\$4,572	275	82.6	\$7,100	\$2,528
Rural Capital	314	225	71.7	\$4,515	173	76.9	\$6,118	\$1,603
South East Texas	1,016	750	73.8	\$2,930	617	82.3	\$5,259	\$2,329
South Plains	263	214	81.4	\$5,171	190	88.8	\$7,476	\$2,305
South Texas	727	511	70.3	\$3,854	430	84.1	\$5,573	\$1,719
Tarrant County	2,032	1,524	75.0	\$4,402	1,212	79.5	\$6,130	\$1,728
Texoma	222	183	82.4	\$6,759	154	84.2	\$8,393	\$1,634
Unknown	1,029	641	62.3	\$3,492	503	78.5	\$4,728	\$1,236
Upper Rio Grande	2,058	1,474	71.6	\$3,829	1,168	79.2	\$4,449	\$620
West Central	364	260	71.4	\$5,243	203	78.1	\$6,882	\$1,639
<b>Total</b>	<b>41,562</b>	<b>29,747</b>	<b>71.6</b>	<b>\$4,566</b>	<b>24,395</b>	<b>82.0</b>	<b>\$6,525</b>	<b>\$1,959</b>

Table 13 shows the top ten industries of employment for program participants employed at 4Q2005 and in 4Q2007. The Employment Services sector topped the list, followed by the General Medical and Surgical Hospitals sector. Participants working in the Building Equipment Contractors industry had the highest median earnings with \$10,199.

**Table 13. Top 10 Industries of Employment for Participants Working in 4Q2005 and 4Q2007**

<b>Industry of Employment</b>	<b>N Working</b>	<b>Median Earnings</b>	<b>NAICS Code</b>
Employment Services	1,746	\$4,589	5613
General Medical and Surgical Hospitals	1,656	\$9,967	6221
Elementary and Secondary Schools	879	\$5,307	6111
Executive, Legislative, and Other General Government Support	713	\$8,290	9211
Home Health Care Services	678	\$4,118	6216
Building Equipment Contractors	559	\$10,199	2382
Nursing Care Facilities	553	\$5,344	6231
Limited-Service Eating Places	551	\$2,415	7222
Offices of Physicians	514	\$6,187	6211
Other General Merchandise Stores	485	\$4,176	4529

### References

- Holzer, Harry J., and Margy Waller. *The Workforce Investment Act: Reauthorization to Address the Skills Gap*. Research Brief: Center on Urban and Metropolitan Study. The Brookings Institution, 2003.
- Texas Workforce Commission Annual Report 2007. <http://www.twc.state.tx.us/news/ar07.pdf>
- Texas Workforce Commission Workforce Investment Act Annual Report for Program Year 2007. <http://www.twc.state.tx.us/boards/wia/wiaannualrpt07.pdf>
- TRACER. <http://www.tracer2.com>
- Waller, Margy. *Block Grants: Flexibility vs. Stability in Social Services. After Welfare Reform*. Policy Brief: Center on Children and Families #34. The Brookings Institution, 2005.
- Workforce Investment Act Eligibility Guidelines. Texas Workforce Commission. Workforce Development Division. [http://www.twc.state.tx.us/boards/wia/wia\\_guidelines.pdf](http://www.twc.state.tx.us/boards/wia/wia_guidelines.pdf)
- Workforce Investment Act of 1998, Pub. L. no. 105-220, 112 Stat 936 (1998). Print.
- Workforce Investment Act of 1998, Section 111(e).
- Workforce Investment Act of 1998, Section 194(a)(5).
- United States Department of Labor Employment and Training Administration. <http://www.doleta.gov>