

**Trade Adjustment Assistance Program  
2004-2005 Exit Cohort  
3-Year Longitudinal Study**

**Methodology**

There were 11,825 archived TAA seed records from the 2004-2005 TAA exit cohort (PY2005). There were two distinct groups in the cohort, those who received training (Training) and those who did not receive training but were referred to Employment Services (ES). This report will only analyze the group of participants that received training, first as separate snapshots of employment, and then as cumulative employment. We are only analyzing the Training Group because the data we receive for the TAA group referred to Employment Services do not contain enough information about services received to be useful for analysis, and more importantly, these individuals are part of the broader Employment Services cohort and are included in data we received for ES and the analysis associated with that data.

TAA seed records were linked to TWC Unemployment Insurance (UI) wage records in the 4<sup>th</sup> quarter of 2005 to determine initial employment and earnings and establish the baseline measure. Participant records were also linked to the UI wage record database in the 4<sup>th</sup> quarter of 2007 to determine long-term labor market outcomes. 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 States 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 11,569 seed records retained for analysis in this report; 8,564 for the ES group and 3,005 for the Training group.

In both study periods, earnings were summed across unique Social Security Numbers (SSN). The industry sector, identified 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**

**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. In this study, we are only analyzing the Training group.

When the results are analyzed by gender (Tables 1 and 1a), we see that 76.0 percent of males in the cohort were found employed at 4Q2005. Males in the cohort had median quarterly earnings of \$5,525 at 4Q2005. Overall employment for the Training group cohort was 71.6 percent in 4Q2005, with median earnings of \$4,607. At the longitudinal snapshot in 2007, 76.5 percent of males were found employed, with females employed at 65.3 percent. Male exiters had median earnings of \$7,231 in 4Q2007. Employment for the entire cohort was 70.0 percent and median quarterly earnings were \$5,567.

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

| <b>Gender</b> | <b>N</b>     | <b>N Working</b> | <b>% Working</b> | <b>Median Earnings</b> |
|---------------|--------------|------------------|------------------|------------------------|
| Male          | 1,252        | 951              | 76.0             | \$5,525                |
| Female        | 1,753        | 1,201            | 68.5             | \$4,082                |
| <b>Total</b>  | <b>3,005</b> | <b>2,152</b>     | <b>71.6</b>      | <b>\$4,607</b>         |

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

| <b>Gender</b> | <b>N</b>     | <b>N Working</b> | <b>% Working</b> | <b>Median Earnings</b> |
|---------------|--------------|------------------|------------------|------------------------|
| Male          | 1,252        | 958              | 76.5             | \$7,231                |
| Female        | 1,753        | 1,145            | 65.3             | \$4,556                |
| <b>Total</b>  | <b>3,005</b> | <b>2,103</b>     | <b>70.0</b>      | <b>\$5,567</b>         |

Excluding the Unknown group, Black participants had the highest employment in 4Q2005 with 76.4 percent found working (Table 2). Whites had the highest earnings in 4Q2005 with median earnings of \$7,027. In 2007, Blacks also had the largest percentage of participants employed, 79.1 %, and Whites again posted the highest median earnings at \$8,579 (Table 2a).

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

| <b>Ethnicity</b>                    | <b>N</b>     | <b>N Working</b> | <b>% Working</b> | <b>Median Earnings</b> |
|-------------------------------------|--------------|------------------|------------------|------------------------|
| Hawaiian Native or Pacific Islander | 5            | n/a              | 40.0             | \$4,881                |
| Unknown                             | 7            | 6                | 85.7             | \$4,309                |
| Native American                     | 78           | 59               | 75.6             | \$5,066                |
| Black                               | 148          | 113              | 76.4             | \$6,104                |
| Asian                               | 180          | 135              | 75.0             | \$4,914                |
| White                               | 436          | 311              | 71.3             | \$7,027                |
| Hispanic                            | 2,151        | 1,526            | 70.9             | \$4,194                |
| <b>Total</b>                        | <b>3,005</b> | <b>2,152</b>     | <b>71.6</b>      | <b>\$4,607</b>         |

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

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

| <b>Ethnicity</b>                    | <b>N</b>     | <b>N Working</b> | <b>% Working</b> | <b>Median Earnings</b> |
|-------------------------------------|--------------|------------------|------------------|------------------------|
| Hawaiian Native or Pacific Islander | 5            | n/a              | 60.0             | \$3,322                |
| Unknown                             | 7            | n/a              | 57.1             | \$10,251               |
| Native American                     | 78           | 58               | 74.4             | \$6,410                |
| Black                               | 148          | 117              | 79.1             | \$7,575                |
| Asian                               | 180          | 140              | 77.8             | \$7,431                |
| White                               | 436          | 330              | 75.7             | \$8,579                |
| Hispanic                            | 2,151        | 1,451            | 67.5             | \$4,813                |
| <b>Total</b>                        | <b>3,005</b> | <b>2,103</b>     | <b>70.0</b>      | <b>\$5,567</b>         |

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

Tables 3 and 3a show employment and earnings by service received for 4Q2005 and 4Q2007, respectively. At the baseline measure, participants who had received Occupational/Vocational services had the highest employment with 73.8 percent employed, while participants receiving Job Search services had the highest median quarterly earnings with \$12,660. In 4Q2007, participants receiving Occupational/Vocational services again had the highest employment with 73.6 percent employed, while those receiving Job Search services again had the highest median quarterly earnings with \$14,899.

**Table 3. Employment and Earnings by Service Received for Training Group in 4Q2005**

| <b>Service Received</b> | <b>N</b>     | <b>N Working</b> | <b>% Working</b> | <b>Median Earnings</b> |
|-------------------------|--------------|------------------|------------------|------------------------|
| Job Search              | 16           | 9                | 56.3             | \$12,660               |
| Basic Education Skill   | 109          | 73               | 67.0             | \$4,440                |
| ESL                     | 609          | 394              | 64.7             | \$3,737                |
| Occupational/Vocational | 2,271        | 1,676            | 73.8             | \$4,882                |
| <b>Total</b>            | <b>3,005</b> | <b>2,152</b>     | <b>71.6</b>      | <b>\$4,607</b>         |

**Table 3a. Employment and Earnings by Service Received for Training Group in 4Q2007**

| <b>Service Received</b> | <b>N</b>     | <b>N Working</b> | <b>% Working</b> | <b>Median Earnings</b> |
|-------------------------|--------------|------------------|------------------|------------------------|
| Job Search              | 16           | 11               | 68.8             | \$14,899               |
| Basic Education Skill   | 109          | 66               | 60.6             | \$4,750                |
| ESL                     | 609          | 355              | 58.3             | \$4,082                |
| Occupational/Vocational | 2,271        | 1,671            | 73.6             | \$6,162                |
| <b>Total</b>            | <b>3,005</b> | <b>2,103</b>     | <b>70.0</b>      | <b>\$5,567</b>         |

Vocational Rehabilitation Services was the most common industry of employment for program exiters working at 4Q2005, followed by Employment Services (Table 4). 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. We expect individuals who are continuously employed over the study period to move out of temporary employment and into an industry sector with longer term employment. Participants employed in the Computer Systems Design and Related Services sector had the highest median earnings with \$8,281.

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

| <b>Industry of Employment</b>                | <b>N Working</b> | <b>Median Earnings</b> | <b>NAICS Code</b> |
|--|------------------|------------------------|-------------------|
| Vocational Rehabilitation Services           | 281              | \$4,280                | 6243              |
| Employment Services                          | 248              | \$3,430                | 5613              |
| Offices of Physicians                        | 76               | \$4,933                | 6211              |
| Home Health Care Services                    | 60               | \$2,324                | 6216              |
| Elementary and Secondary Schools             | 57               | \$3,534                | 6111              |
| General Medical and Surgical Hospitals       | 55               | \$6,305                | 6221              |
| Cut and Sew Apparel Manufacturing            | 54               | \$4,058                | 3152              |
| Nursing Care Facilities                      | 49               | \$3,521                | 6231              |
| Other General Merchandise Stores             | 44               | \$3,610                | 4529              |
| Computer Systems Design and Related Services | 43               | \$8,281                | 5415              |

Table 5 shows the top ten industries of employment for all working in 4Q2007. Employment Services was the most common industry sector of employment, followed by Elementary and Secondary Schools. Participants employed in the Computer Systems Design and Related Services sector again had the highest median earnings with \$8,712.

**Table 5. Top 10 Industries of Employment for All Working in Training Group in 4Q2007**

| Industry of Employment                       | N Working | Median Earnings | NAICS Code |
|--|-----------|-----------------|------------|
| Employment Services                          | 175       | \$3,971         | 5613       |
| Elementary and Secondary Schools             | 88        | \$4,318         | 6111       |
| Vocational Rehabilitation Services           | 76        | \$3,549         | 6243       |
| Home Health Care Services                    | 73        | \$3,254         | 6216       |
| Offices of Physicians                        | 66        | \$5,664         | 6211       |
| General Medical and Surgical Hospitals       | 66        | \$6,316         | 6221       |
| Other General Merchandise Stores             | 59        | \$4,475         | 4529       |
| Computer Systems Design and Related Services | 47        | \$8,712         | 5415       |
| Nursing Care Facilities                      | 47        | \$4,075         | 6231       |
| Cut and Sew Apparel Manufacturing            | 42        | \$3,443         | 3152       |

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

The first part of this study looked at a snapshot of labor market outcomes for TAA participants in the Training group 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.

Male participants showed the highest employment retention between study periods at 89.4 percent (Table 6). Male participants had the highest median earnings at 4Q2007 with \$7,355. Males also had the highest earnings gains over the study period, earning \$1,830 more in 4Q2007 than in 4Q2005. Overall employment retention for the cohort over the study period was 86.4 percent, with median earnings of \$5,727 and earnings gains of \$1,120.

**Table 6. Employment Retention and Earnings Gains for Training Group 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 |                          |
| Male         | 1,252        | 951               | 76.0        | \$5,525         | 850                          | 89.4        | \$7,355         | \$1,830                  |
| Female       | 1,753        | 1,201             | 68.5        | \$4,082         | 1,009                        | 84.0        | \$4,689         | \$607                    |
| <b>Total</b> | <b>3,005</b> | <b>2,152</b>      | <b>71.6</b> | <b>\$4,607</b>  | <b>1,859</b>                 | <b>86.4</b> | <b>\$5,727</b>  | <b>\$1,120</b>           |

Table 7 shows that, excluding Unknowns and groups with cell sizes too small to display, Asian participants had the highest employment retention at 92.6 percent. Asians also had the highest earnings gains over the period at \$2,473. Whites had the second highest earnings gains over the period at \$1,856.

**Table 7. 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 | 5            | n/a               | 40.0        | \$4,881         | n/a                          | 100.0       | \$1,702         | (\$3,179)                |
| Unknown                             | 7            | 6                 | 85.7        | \$4,309         | n/a                          | 66.7        | \$10,251        | \$5,942                  |
| Native American                     | 78           | 59                | 75.6        | \$5,066         | 53                           | 89.8        | \$6,432         | \$1,366                  |
| Black                               | 148          | 113               | 76.4        | \$6,104         | 102                          | 90.3        | \$7,842         | \$1,738                  |
| Asian                               | 180          | 135               | 75.0        | \$4,914         | 125                          | 92.6        | \$7,387         | \$2,473                  |
| White                               | 436          | 311               | 71.3        | \$7,027         | 276                          | 88.7        | \$8,883         | \$1,856                  |
| Hispanic                            | 2,151        | 1,526             | 70.9        | \$4,194         | 1,297                        | 85.0        | \$4,917         | \$723                    |
| <b>Total</b>                        | <b>3,005</b> | <b>2,152</b>      | <b>71.6</b> | <b>\$4,607</b>  | <b>1,859</b>                 | <b>86.4</b> | <b>\$5,727</b>  | <b>\$1,120</b>           |

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

Table 8 shows employment retention and earnings gains by service received. Participants receiving Job Search services had the highest employment retention with 100 percent, followed by participants receiving Occupational/Vocational services at 87.8 percent. Participants receiving Job Search services had the highest earnings gains with \$1,801, although that group is small in comparison to the others.

**Table 8. Employment Retention and Earnings Gains by Service Received**

| Service Received        | N            | Working in 4Q2005 |             |                 | Working in 4Q2005 and 4Q2007 |             |                 | Earnings Gains/ (Losses) |
|-------------------------|--------------|-------------------|-------------|-----------------|------------------------------|-------------|-----------------|--------------------------|
|                         |              | N Working         | % Working   | Median Earnings | N Working                    | % Working   | Median Earnings |                          |
| Job Search              | 16           | 9                 | 56.3        | \$12,660        | 9                            | 100.0       | \$14,461        | \$1,801                  |
| Basic Education Skill   | 109          | 73                | 67.0        | \$4,440         | 63                           | 86.3        | \$4,795         | \$355                    |
| ESL                     | 609          | 394               | 64.7        | \$3,737         | 316                          | 80.2        | \$4,188         | \$451                    |
| Occupational/Vocational | 2,271        | 1,676             | 73.8        | \$4,882         | 1,471                        | 87.8        | \$6,347         | \$1,465                  |
| <b>Total</b>            | <b>3,005</b> | <b>2,152</b>      | <b>71.6</b> | <b>\$4,607</b>  | <b>1,859</b>                 | <b>86.4</b> | <b>\$5,727</b>  | <b>\$1,120</b>           |

Table 9 shows the top ten industries of employment for program participants employed at 4Q2005 and in 4Q2007. Employment Services was the most common industry of employment, followed by Vocational Rehabilitation Services. Participants employed in the Computer Systems Design and Related Services sector had the highest median earnings with \$8,695.

**Table 9. Top 10 Industries of Employment for Participants Working in 4Q2005 and 4Q2007**

| Industry of Employment                       | N Working | Median Earnings | NAICS Code |
|--|-----------|-----------------|------------|
| Employment Services                          | 145       | \$4,094         | 5613       |
| Vocational Rehabilitation Services           | 74        | \$3,553         | 6243       |
| Elementary and Secondary Schools             | 73        | \$4,544         | 6111       |
| Offices of Physicians                        | 62        | \$5,697         | 6211       |
| Home Health Care Services                    | 62        | \$3,422         | 6216       |
| General Medical and Surgical Hospitals       | 56        | \$7,095         | 6221       |
| Other General Merchandise Stores             | 52        | \$4,528         | 4529       |
| Computer Systems Design and Related Services | 43        | \$8,695         | 5415       |
| Nursing Care Facilities                      | 42        | \$3,991         | 6231       |
| Cut and Sew Apparel Manufacturing            | 41        | \$3,445         | 3152       |



### References

Texas Workforce Commission Annual Report 2007. <http://www.twc.state.tx.us/news/ar07.pdf>

Texas Workforce Commission Trade Adjustment Assistance 2007 Annual Report.  
<http://www.twc.state.tx.us/svcs/taa/taarpt07.pdf>

TRACER. <http://www.tracer2.com>

United States Department of Labor Employment and Training Administration.  
<http://www.doleta.gov/tradeact/>