

Automated Student and Adult Learning System

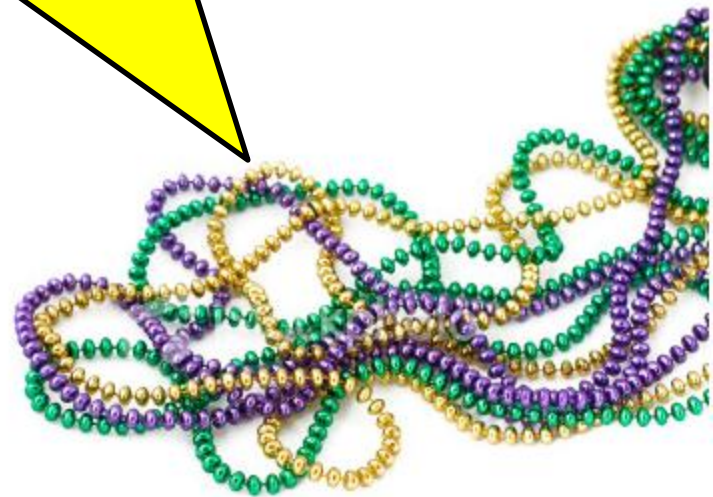
NEW!

Now with 100%
more Dashboard

TALK 2013

Ruben Garcia
Hiwot Berhane
Jesse Sampson

February 12, 2013
Moody Gardens
Galveston, Texas



As mandated by Texas Senate Bill 281 (2003)...

We support **continuous program improvement** by documenting workforce, education and training **outcomes** using **innovative reporting techniques**.





Self-Sufficiency Fund
1,611

Skills Development Fund
15,974

Project RIO
12,246

Apprenticeship
3,861

Workforce Investment Act
48,891

Trade Adjustment Assistance
7,342

Choices (TANF)
31,353

Supplemental Nutrition Asst.
Prgm. Employment & Training
29,387

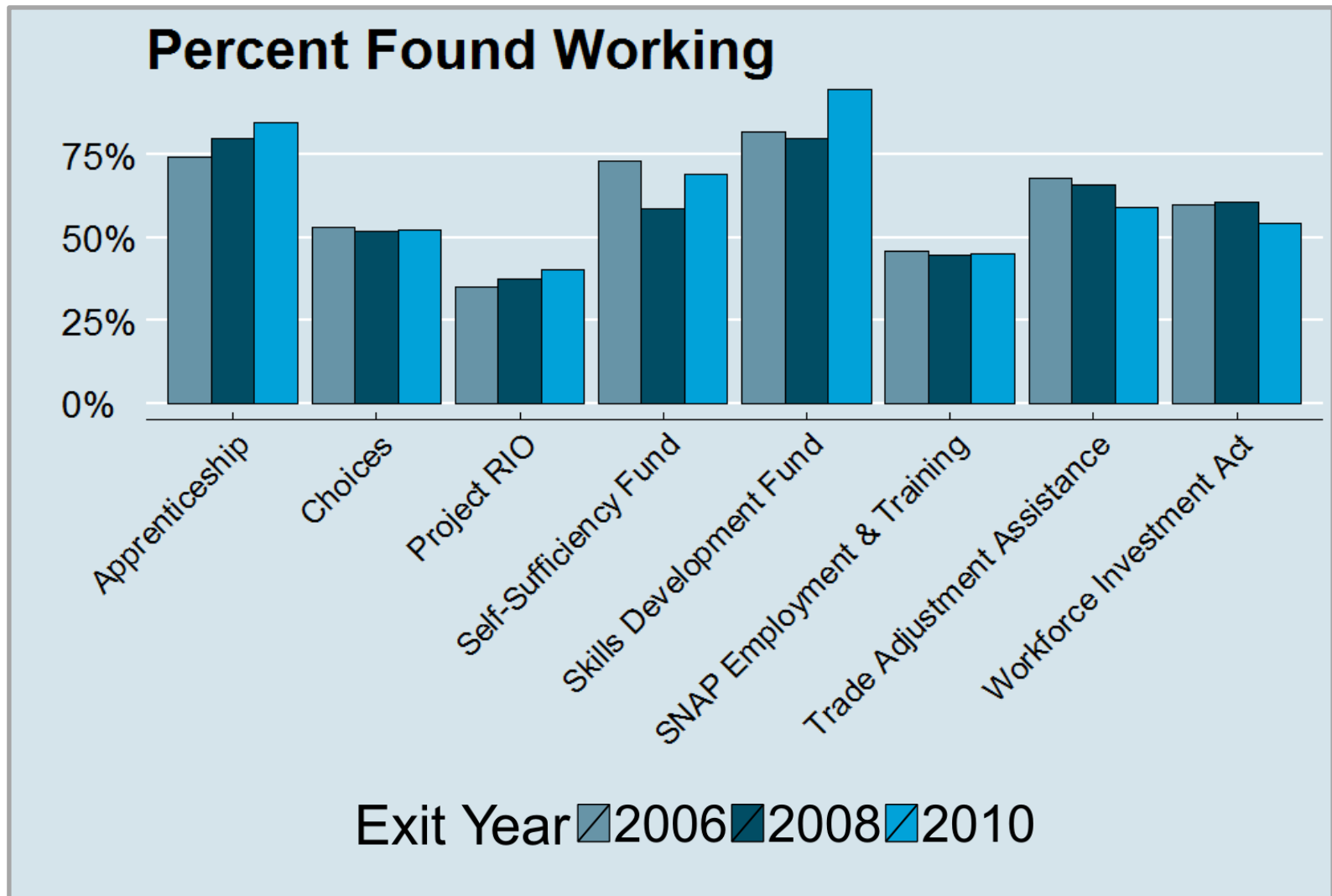
State

Federal

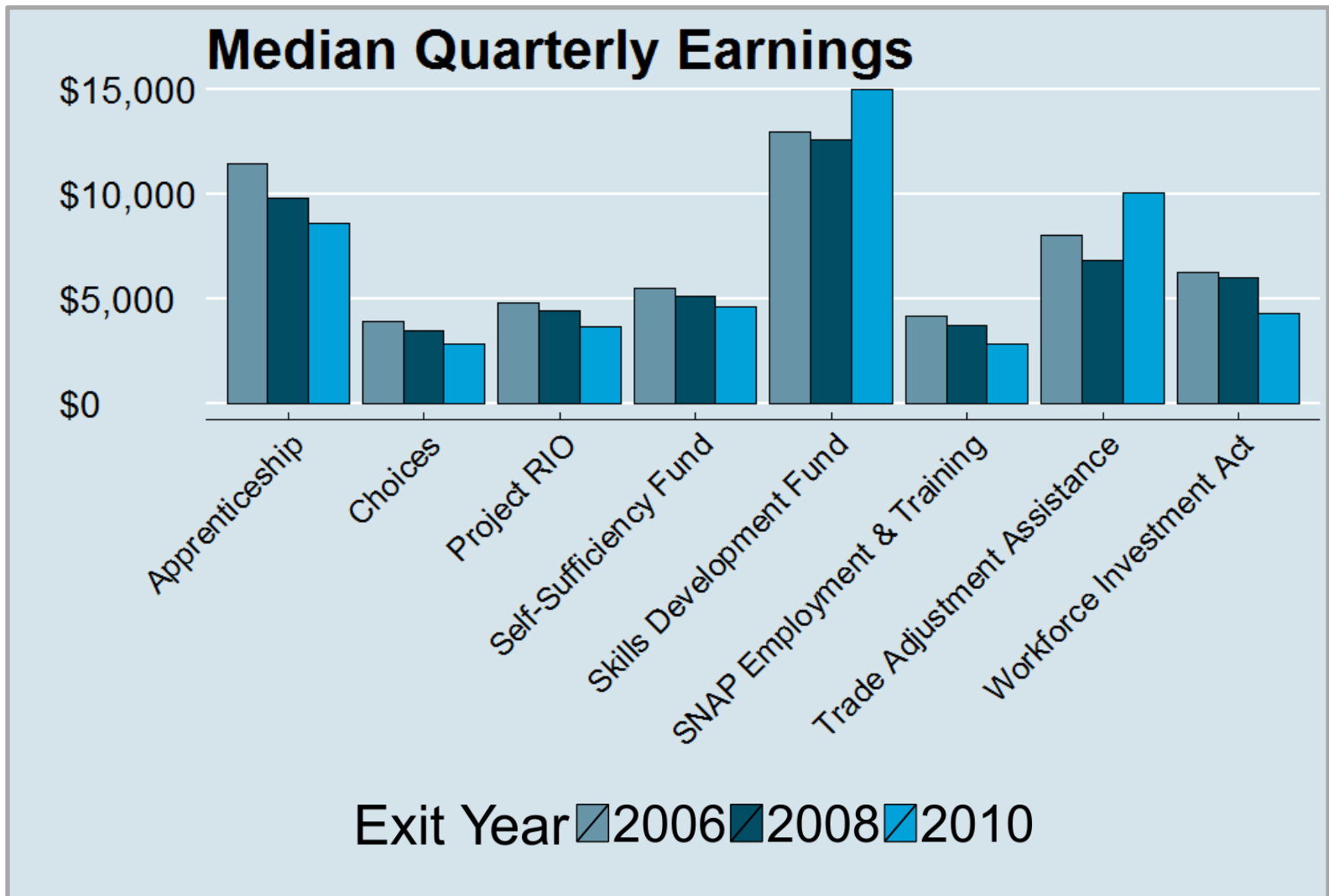
150,655
Customers

8
Programs

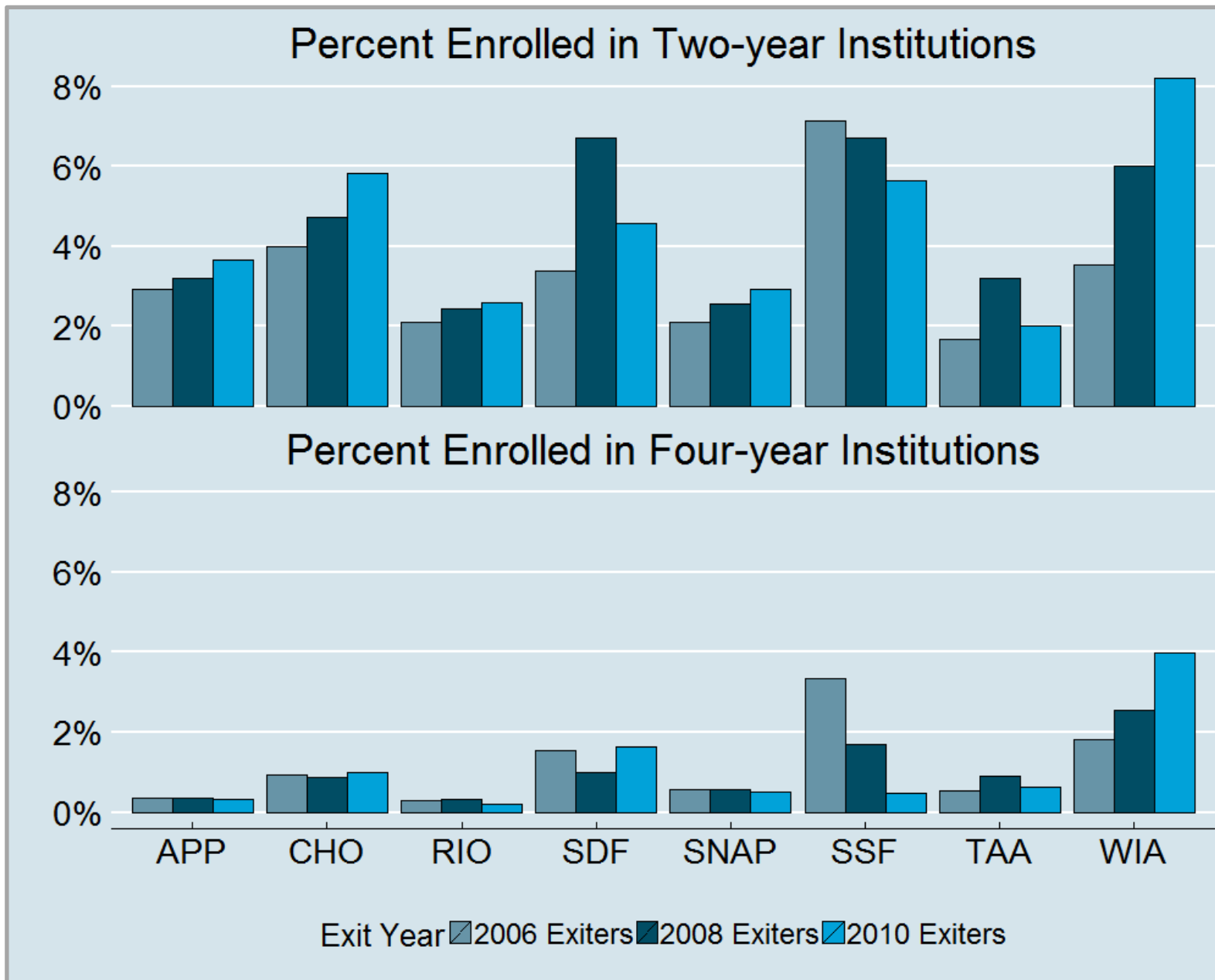
How Are Our Customers Doing?



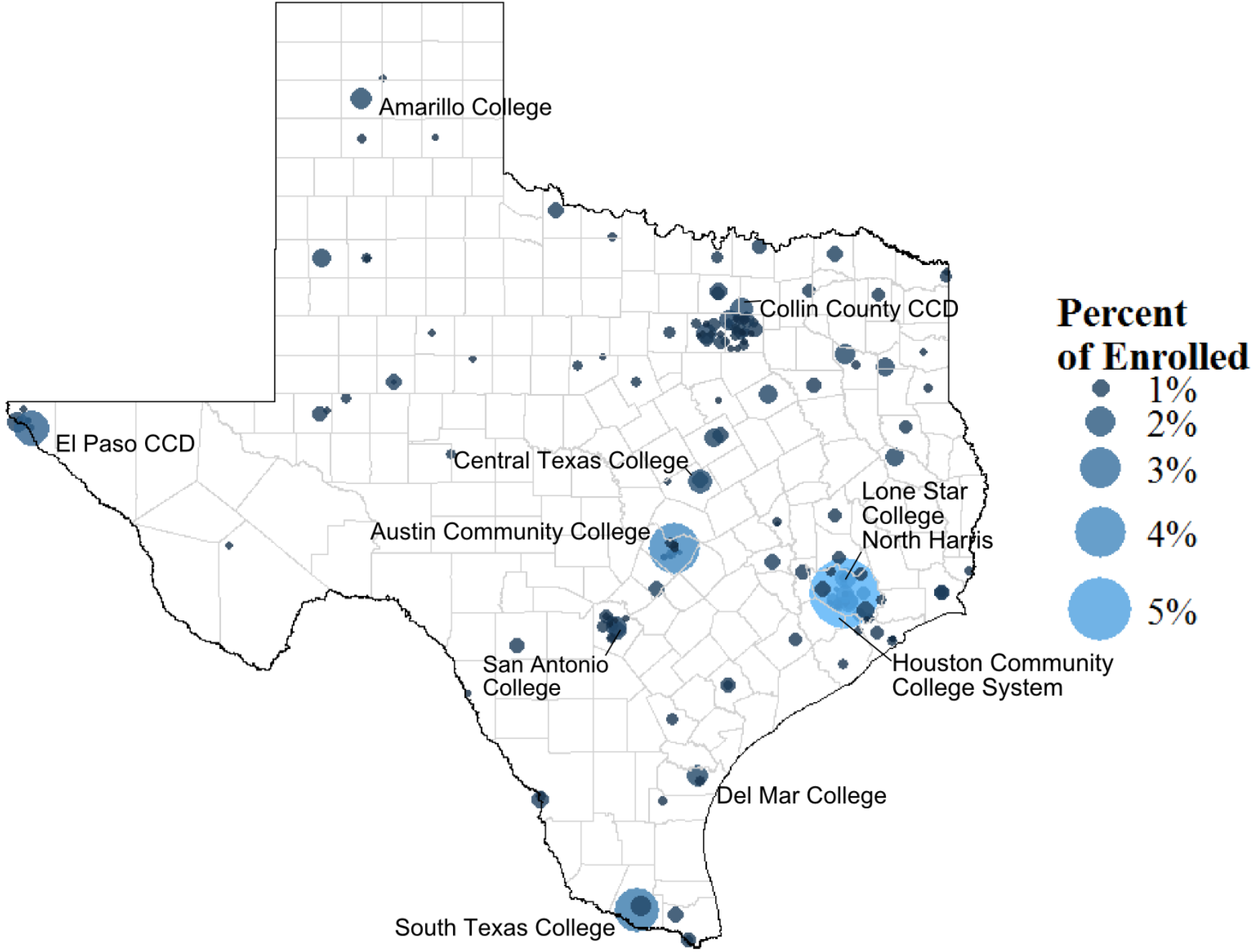
How Are Our Customers Doing?



Do Our Customers Go to College?



If Our Customers Go to College, Where Do They Go?



THEN → NOW



THEN

Data People



Consultants
and Other 3rd
Parties



Customers



DATA



NOW

Data People

Customers



DATA



NOW

ASALFS Dashboard 2011 E x
www.texasindustryprofiles.com/apps/sti/dashboard/dash_2011.html

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Welcome, we're here to help.
Resources, tips and tools to build a stronger Texas workforce.

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2009-2010 Exitters, Exit Cohort Report

First, select a program, then a sub-category for cross-tabulation.

Program: Workforce Investment Act | Category: Fund Group | [Methodology](#)

Then, select a variable to display. Select year if desired.

Working | Median Quarterly Earnings | Pre-Program (Q42009) | Post-Exit (Q42010) | All Years

Program Name: Workforce Investment Act
 Online: [Program Website](#)
 Download Report: [Full Report](#)

Cohort Composition

- Other/Unknown: 14%
- Dislocated: 34.7%
- Adult: 48.4%
- Youth: 14%

Percent Employed by Sub-group

| Sub-group | Pre-Program (%) | Post-Program (%) |
|---------------|-----------------|------------------|
| Other/Unknown | ~65 | ~75 |
| Dislocated | ~55 | ~70 |
| Adult | ~55 | ~65 |
| Youth | ~30 | ~40 |

| Value | N | Pre-Program | Post-Program |
|---------------|--------|-------------|--------------|
| Other/Unknown | 1,795 | 70.1% | 78.3% |
| Dislocated | 8,773 | 49.9% | 72.9% |
| Adult | 21,750 | 56.1% | 67.7% |
| Youth | 30,316 | 28% | 38.2% |

www.texasindustryprofiles.com/apps/sti/dashboard/FUP_Reports/WIA_1YR.html

Workforce Investment Act

2009-2010 Exitters Exit Cohort Report

This report concerns the group of individuals (cohort) who, during the period 2009-2010, exited Workforce Investment Act (WIA) programs administered by the Texas Workforce Commission. More information on WIA in Texas is available at <http://www.twc.state.tx.us/boards/wia/txwia.html>.

WIA participants in this exit cohort saw a 12.5 percent increase in their employment rate along with median earnings that more than doubled. As a proportion of population, the most exitters were found in West Central WDA (Abilene), followed by the Texas-Mexico border regions. In addition to any impacts this program may have had, the outcomes described in this report resulted from a range of individual, economic and social factors and should not be construed as pure program impacts.

Breaking down the results by various demographic and program characteristics yields some interesting results. Individuals who received vocational training saw a nearly 30 percent gain in their employment rate, while those who did not receive vocational training only saw a 9.3 percent gain. Those who received vocational training also had nearly twice the median earnings of those who did not. Hispanic/Latino workers saw a greater gain in employment than others. Rural Capital LWDA (Waco Area) had the highest post-exit employment rate.

WIA customers were primarily found employed in the Employment Services industry (predominately temporary staffing services; 2,284 customers) and Limited-Service Eating Places (quick-serve restaurants; 2,431 customers). An impressive 12.2 percent of this cohort was found enrolled in higher education, about two-thirds in two-year institutions and one-third in four-year institutions.

62,634 Customers Served

54.4% ↑ Percent Employed

\$4,266 ↑ Median Earnings

Where Are Our Customers?

2009-2010 Exitters per 10,000 Population

- < 13.8
- 13.8 - 21.9
- 21.9 - 32.5
- 32.5 - 55.6
- > 55.6

Percent Employed
 4Q2009: ~45% | 4Q2010: ~55%

Median Earnings
 4Q2009: ~\$2,000 | 4Q2010: ~\$4,266

THEN




NOW





THE DASHBOARD



This is the Dashboard.



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[Texas Industry Profiles](#)
[SOCRATES](#)
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[Texas CARES CD version 8](#)
[TexasWorkPrep.com](#)
[State Training Inventory](#)
[AutoCoder](#)
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 Get ADOBE® READER®


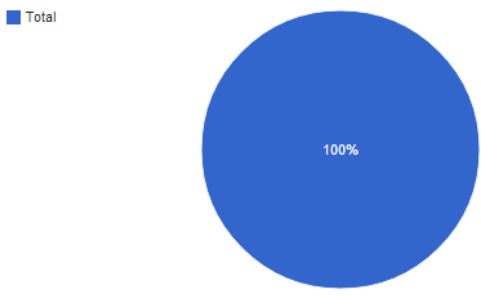
First, Select a program, then a sub-category for cross-tabulation.

Program: Category: [Methodology](#)

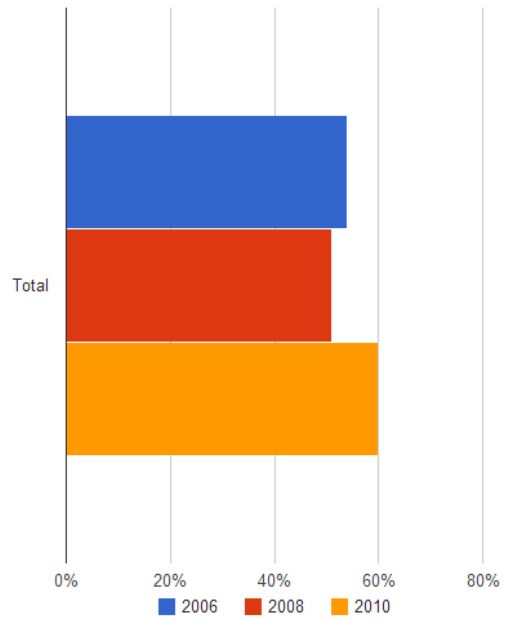
Then, select a variable to display. Select year if desired.

| | |
|------------------|---------------------------------|
| Program Name: | Workforce Investment Act |
| Online: | Program Website |
| Download Report: | Full Report |

Cohort Composition



Percent Employed by Sub-group



| | Value | N | 2006 | 2008 | 2010 |
|-------|-------|--------|------|------|------|
| Total | | 92,117 | 54% | 51% | 60% |



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- ▶ [AutoCoder](#)
- ▶ [SWAP](#)



2005-2006 Exited, 5-year Follow-up Report

This is the group of customers examined

First, Select a program, then a sub-category for cross-tabulation.

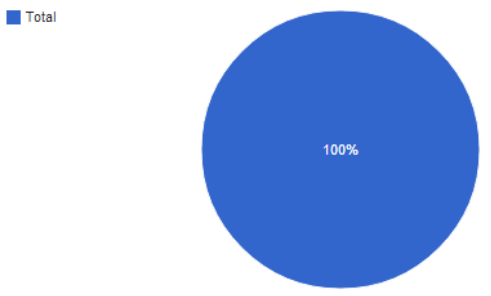
Program: Category:

[Methodology](#)

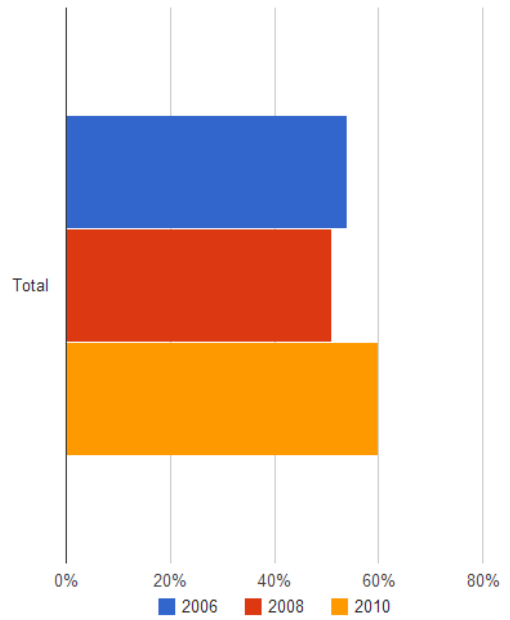
Then, select a variable to display. Select year if desired.

| | |
|------------------|---------------------------------|
| Program Name: | Workforce Investment Act |
| Online: | Program Website |
| Download Report: | Full Report |

Cohort Composition



Percent Employed by Sub-group



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- ▶ [AutoCoder](#)
- ▶ [SWAP](#)



2005-2006 Exiters, 5-year Follow-up Report

First, Select a program, then a sub-category for cross-tabulation.

Program
 Workforce

Then, select a sub-category for cross-tabulation.

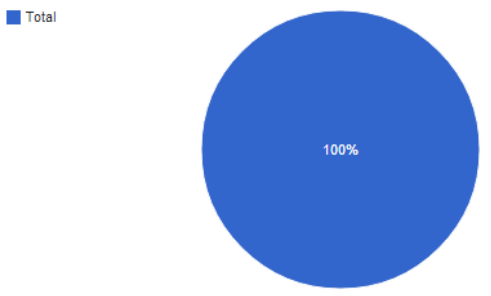
[Methodology](#)

2008 2010 All Years

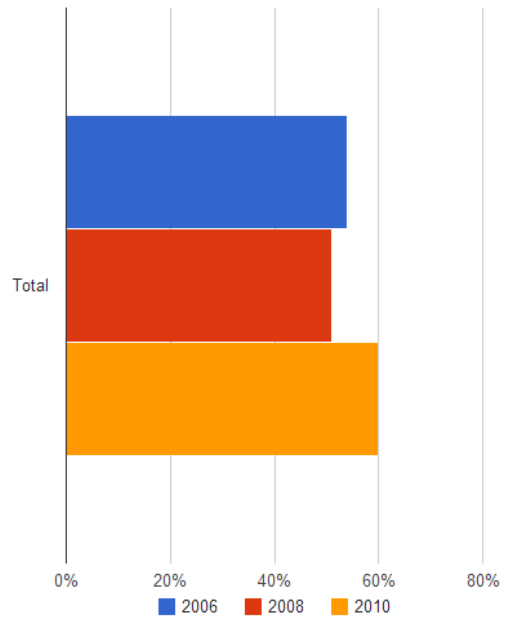
For definitions and other details, check the methodology

| | |
|------------------|---------------------------------|
| Program Name: | Workforce Investment Act |
| Online: | Program Website |
| Download Report: | Full Report |

Cohort Composition



Percent Employed by Sub-group



| Value | N | 2006 | 2008 | 2010 |
|-------|--------|------|------|------|
| Total | 92,117 | 54% | 51% | 60% |



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- ▶ [State Training Inventory](#)
- ▶ [AutoCoder](#)
- ▶ [SWAP](#)



2005-2006 Exitters, 5-year Follow-up Report

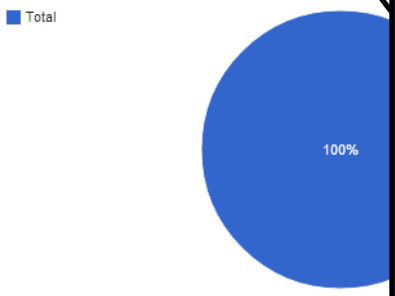
First, Select a program, then a sub-category for cross-tabulation.

Program: Category: [Methodology](#)

Then, select a variable to display. Select year if desired.

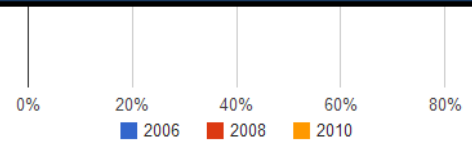
| | |
|------------------|---------------------------------|
| Program Name: | Workforce Investment Act |
| Online: | Program Website |
| Download Report: | Full Report |

Cohort Composition



This box tells you what program you're analyzing, and includes links to the program webpage as well as to a complete report that you can print or share.

Percent Employed by Sub-group



| Value | N | 2006 | 2008 | 2010 |
|-------|--------|------|------|------|
| Total | 92,117 | 54% | 51% | 60% |



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- ▶ TexasWorkPrep.com
- ▶ State Training Inventory
- ▶ AutoCoder
- ▶ SWAP



2005-2006 Exited, 5-year Follow

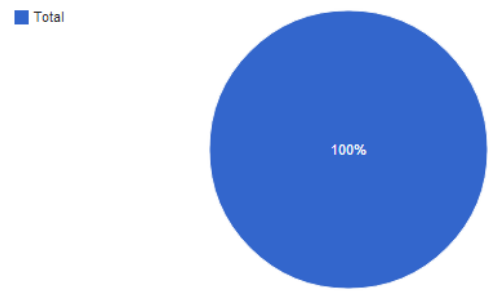
First, Select a program, then a sub-category for cross-tabulation.

Program: Workforce Investment Act
 Category: Total

Then, select a variable to display.

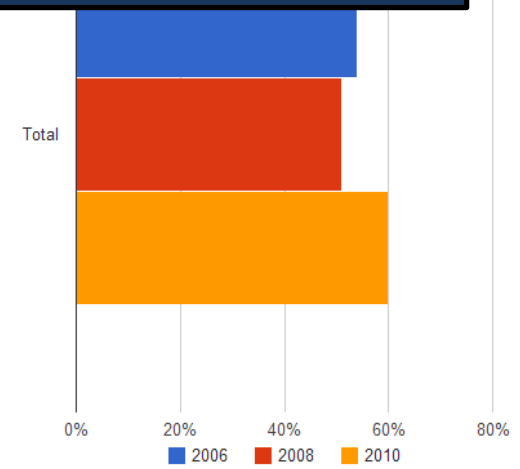
| | |
|------------------|---------------------------------|
| Program Name: | Workforce Investment Act |
| Online: | Program Website |
| Download Report: | Full Report |

Cohort Composition




We measure outcomes by funding stream/program. Pick the program first.

Switch between percent employed and median quarterly earnings with these buttons



| Value | N | 2006 | 2008 | 2010 |
|-------|--------|------|------|------|
| Total | 92,117 | 54% | 51% | 60% |



Products and Publications

LMCI Software Tools

- Texas CARES Online
- TRACER
- Texas Industry Profiles
- SOCRATES

WSC 508

2005-2006 Exited, 5-year

First, Select a program, then a sub-category for cross

Program: Workforce Investment Act
 Category: Gender

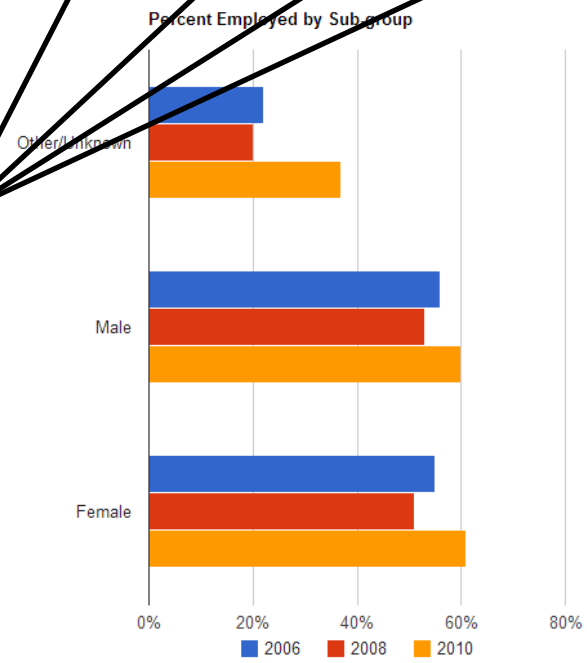
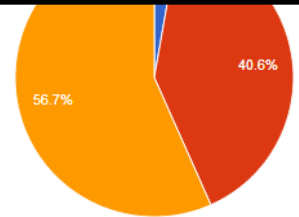
Then, select a variable to display.

% Working Median Quarterly Earnings

2006 2008 2010 All Years

You can cross-tabulate by changing the category (notice now the results are broken down by Gender)

To chart only one year of outcomes or switch back to all years, use these buttons.



| Value | N | 2006 | 2008 | 2010 |
|---------------|--------|------|------|------|
| Other/Unknown | 2,540 | 22% | 20% | 37% |
| Female | 52,195 | 55% | 51% | 61% |
| Male | 37,382 | 56% | 53% | 60% |



2005-2006 Exitters, 5-year Follow-up Report

First, Select a program, then a sub-category.

Program: Workforce Investment Act
 Category: Gender

[Methodology](#)

Then, select a variable to display.

Select year if desired.

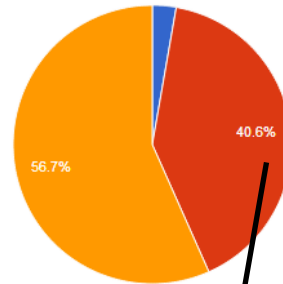
2006 2008 2010 All Years

The bar chart visually compares the levels over time and across groups.

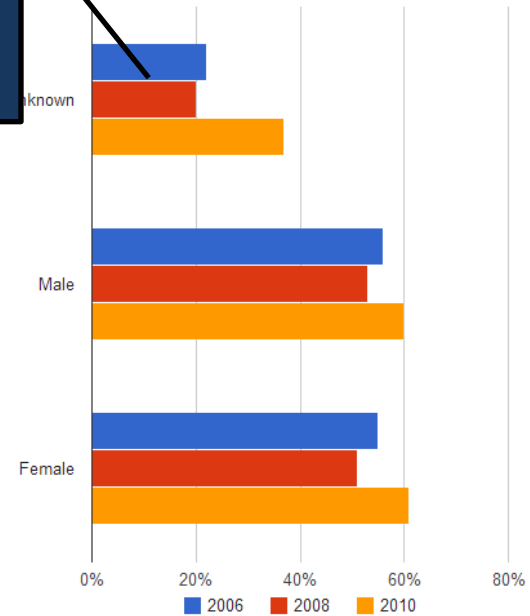


Cohort Composition

- Other/Unknown
- Male
- Female



Percent Employed by Sub-group



| N | 2006 | 2008 | 2010 |
|--------|------|------|------|
| 2,540 | 22% | 20% | 37% |
| 52,195 | 55% | 51% | 61% |
| 37,382 | 56% | 53% | 60% |

The pie chart shows the percent of the cohort belonging to each sub-category

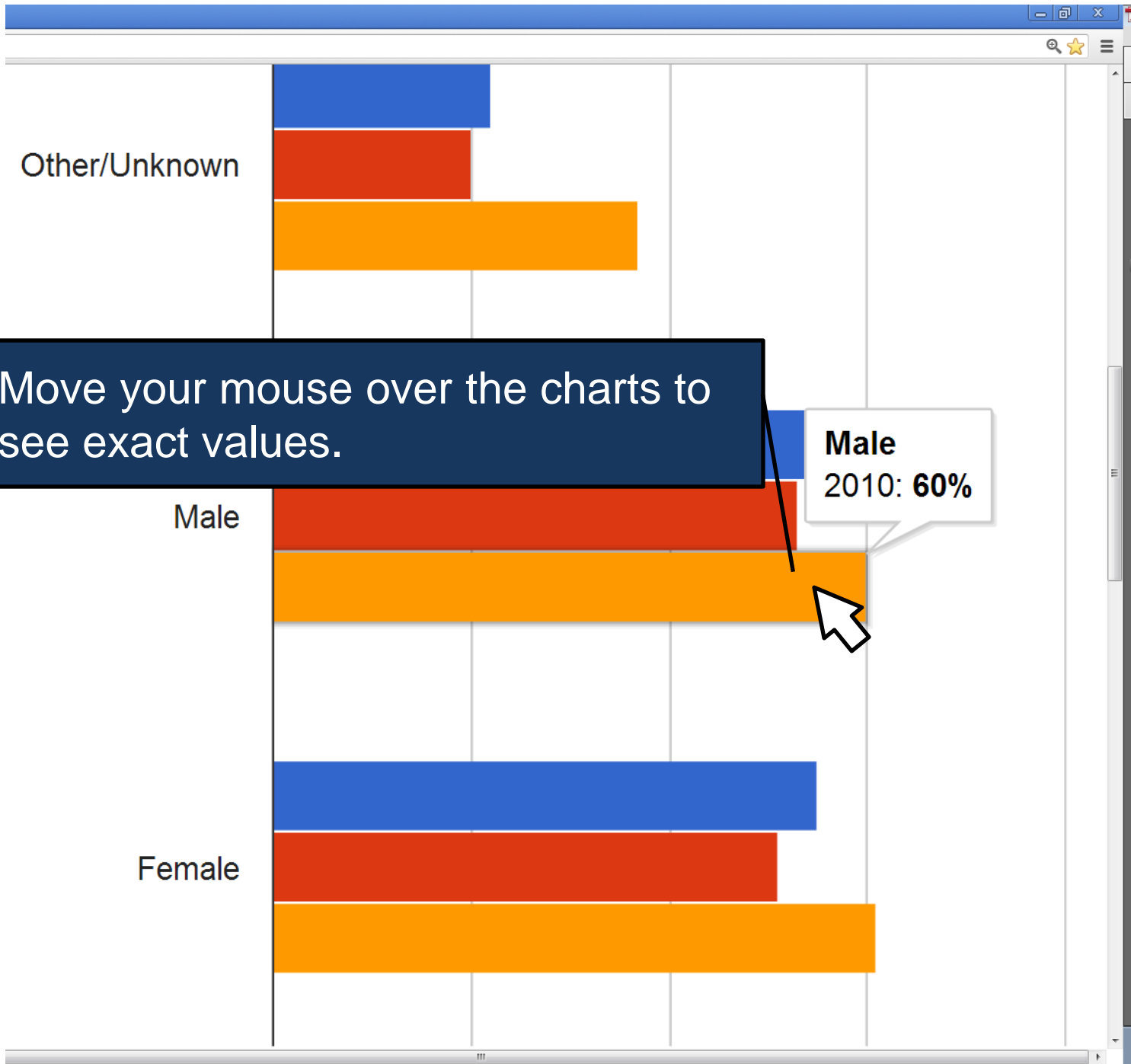
Other/Unknown


Move your mouse over the charts to see exact values.

Male

Male
2010: 60%



Female





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2005-2006 Exiters, 5-year Follow-up Report

First, Select a program, then a sub-category for cross-tabulation.

Program:
 Category:

[Methodology](#)

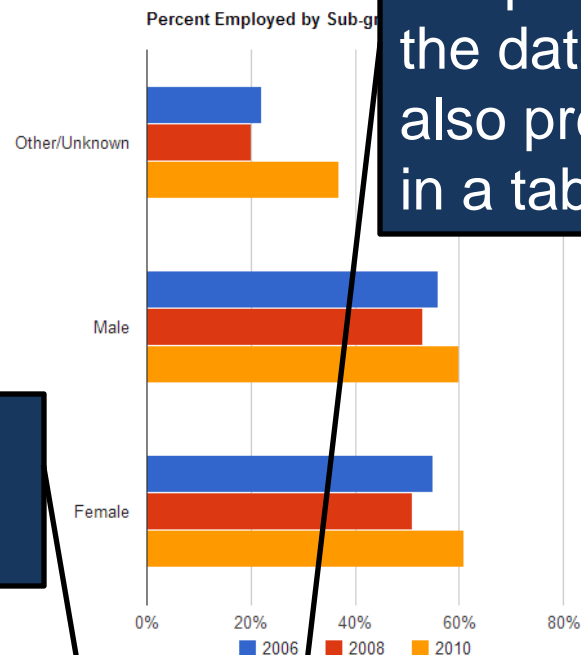
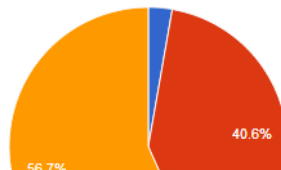
Then, select a variable to display.

Select year if desired.

| | |
|------------------|---------------------------------|
| Program Name: | Workforce Investment Act |
| Online: | Program Website |
| Download Report: | Full Report |

Cohort Composition

- Other/Unknown
- Male
- Female



For precision, the data are also presented in a table.

Click the table column headings to sort the bar chart.

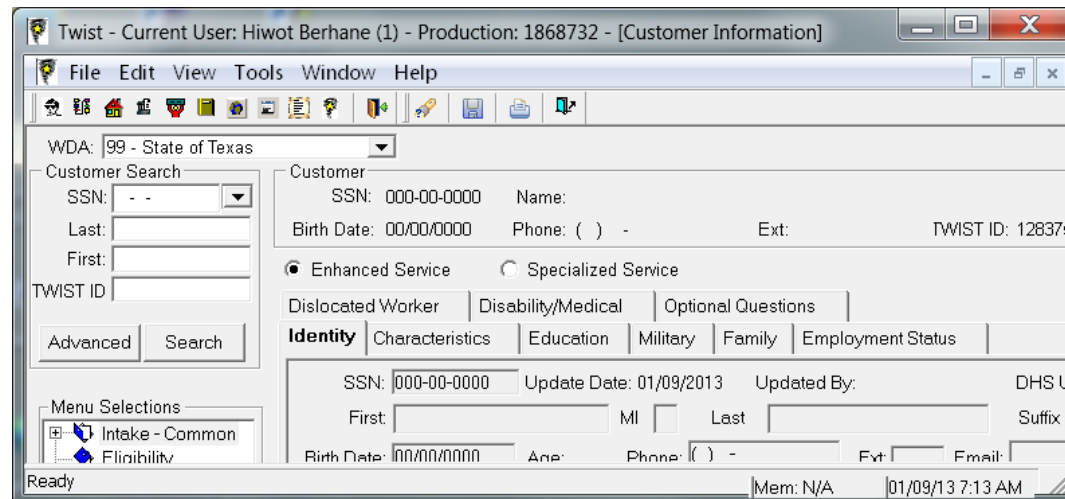
| | Value | N | 2006 | 2008 | 2010 |
|---------------|-------|--------|------|------|------|
| Other/Unknown | | 2,540 | 22% | 20% | 37% |
| Female | | 52,195 | 22% | 20% | 37% |
| Male | | 37,382 | 56% | 53% | 60% |

HOW'D THEY DO IT?



How do we Collect Data?

- Systematically and based on well-defined procedures!
- Main Data Sources: Unemployment Insurance Wage Records, The Workforce Information System of Texas (TWIST)
- Both Transaction data



The screenshot displays the TWIST software interface. The title bar reads "Twist - Current User: Hiwot Berhane (1) - Production: 1868732 - [Customer Information]". The menu bar includes "File", "Edit", "View", "Tools", "Window", and "Help". The interface is divided into several sections:

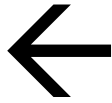
- WDA:** 99 - State of Texas
- Customer Search:** Fields for SSN (dropdown), Last, First, and TWIST ID, with "Advanced" and "Search" buttons.
- Customer Information:** Fields for SSN (000-00-0000), Name, Birth Date (00/00/0000), Phone, Ext, and TWIST ID (12837).
- Service Options:** Radio buttons for "Enhanced Service" (selected) and "Specialized Service".
- Navigation Tabs:** "Dislocated Worker", "Disability/Medical", "Optional Questions", "Identity", "Characteristics", "Education", "Military", "Family", and "Employment Status".
- Customer Details:** Fields for SSN (000-00-0000), Update Date (01/09/2013), Updated By (DHS U), First, MI, Last, and Suffix.
- Bottom Fields:** Birth Date (00/00/0000), Age, Phone, Ext, and Email.

The status bar at the bottom shows "Ready", "Mem: N/A", and the date/time "01/09/13 7:13 AM".

Convert to Flat File, Then Clean Data

1. Remove rows with no SSN
2. Find and replace text, recode variables
3. Remove spaces and nonprinting characters from text
4. Fix numbers with leading 0s
5. Change dates to desired format
6. Merge and split columns
7. Transform and rearrange columns and rows
8. Reconcile table data by joining or matching
9. Find unknown activity codes
10. Unduplicate!

Add Outcome Variables



SSN

XXX-XX-XXXX



**UI Wage Records
(TX Employment)**



**(Federal
Employment)**



**Wage Record
Interchange
System
(Out-of-State
Employment)**

Start doing the Analysis

```
libname mylib 'c:\fup2012\followup';  
PROC IMPORT  OUT=mylib.cohort  
DATAFILE='c:\fup2012\followup\sdfssf12sd2.dbf'  
          DBMS=DBFMEMO    REPLACE;  
RUN;
```

Analyze using SAS

```
PROC FORMAT
  value $gender
    '1' = 'Male'
    '2' = 'Female';
DATA work.lwdunq;
  Set mylib.cohort;
  totwg=twg411+fedswg+wriswg ;
  if ncs411 ^= " " then nq0= substr(ncs411,1,4) ;
  if dod="Y" or opm="Y" then wka=1 ;
  format gender $gender. ethnicity $ethnic. age age. ;
RUN;

ODS
html FILE="C:\fup2012\followup\lw'&nm'.xls" STYLE=MINIMAL;
```

Sample Output (Excel)

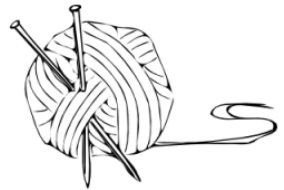
| Local Workforce Development Board GULF COAST (28) | | | | | | | | | |
|---|---------------|------------|----|----------------|----------------|----------------------------------|--------------------|---------------|---------------------------------|
| Program Group | Variable Name | Value | N | 4th qtr. 2011 | | | 4th qtr 2010 (q-4) | | |
| | | | | Post N Working | post % Working | Post Median Earning 4th qtr 2011 | Pre N Working | Pre % Working | Pre Median Earning 4th qtr 2010 |
| Apprenticeship | Gender | Male | 92 | 70 | 0.761 | 9151 | 81 | 0.88 | 6575 |
| Apprenticeship | Gender | Female | 9 | 6 | 0.667 | 6274 | 8 | 0.889 | 3984 |
| Apprenticeship | Age | BN 21 - 30 | 52 | 40 | 0.769 | 9882 | 45 | 0.865 | 6966 |
| Apprenticeship | Age | BN 31 - 40 | 26 | 20 | 0.769 | 7709 | 24 | 0.923 | 4951 |
| Apprenticeship | Age | GT 51 | 11 | 8 | 0.727 | 3671 | 10 | 0.909 | 3004 |
| Apprenticeship | Age | BN 41-50 | 10 | 7 | 0.7 | 4461 | 9 | 0.9 | 4663 |

OPEN-SOURCE TOOLS



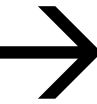
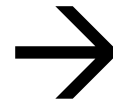
knitr

Elegant, flexible and fast
dynamic report generation with R

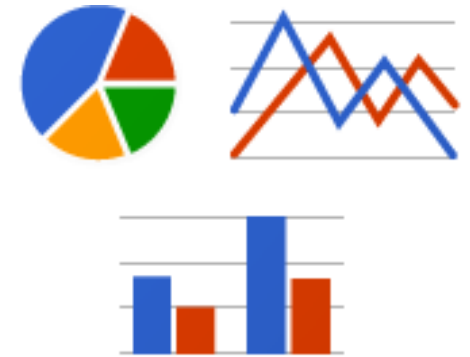
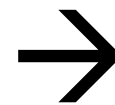


Total Cost: \$0

Process Flow



JS Array
[[A, B, C],
[1, 2, 3],
[3, 2, 1]]



We “R”—and so can you...

*You can use these or similar
techniques to present YOUR
analyses at YOUR institution
using YOUR DATA*

**Don't fear code—you too,
can do this**

*You don't need to hire a
consultant...unless his name is
Jesse Sampson*

See the Dashboards live!

<http://www.lmci.state.tx.us/researchers/FinalReport2011.asp>

TAIR 2013

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Jesse Sampson: jesse.sampson@twc.state.tx.us

February 12, 2013

Moody Gardens

Galveston, Texas

