

Setting and Adjusting Performance Goal Targets

American Recovery and Reinvestment Act
Performance Accountability Summit

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U.S. Department of Labor
*Employment and Training
Administration*

Background

- Office of Management and Budget (OMB) requires revisions to the Government Performance and Results (GPRA) performance goals.
- Goals established using prior year's results with an incremental increase to demonstrate continuous improvement
- Early 2008, ETA conducted an analysis on average earnings
- Late 2008, ETA negotiated additional time to set new "common measures" targets for the Fiscal Year 2010 Budget due to the economic downturn

Effects of the Economic Recession

- ETA did not have any data to understand the implications of the recession on program performance
- ETA initiated a study with the W. E. Upjohn Institute to identify a methodology that would look at effects of unemployment on past program performance
- Purpose of the study was to estimate the cyclical effects of the business cycle on program performance
- Use the estimates of the effect of unemployment rates on performance to adjust performance targets for the common measures of entered employment, retention and earnings outcomes

GPRRA Performance Goals for PY 2008/FY 2009

- The W.E. Upjohn Institute developed a regression model for the “Common Measures.”
- Analysis conducted for WIA (Adult, Dislocated Worker, and Youth), Wagner-Peyser, and Trade Adjustment Assistance.
- ETA received approval to apply the coefficients to SCESP, NEG, NFJP, INA, WIGs, YouthBuild, Apprenticeship, and Re-integration of Ex-offenders
- TEGl 09-08, Change 1, issued June 3, 2009, explains the methodology and describes efforts to expand the regression model

Purpose of the Methodology

- Offers a systematic, objective and transparent framework for:
 - Setting performance targets
 - Focusing on the value-added of WIA
 - Diagnosing WIA performance
- Accounts for factors outside the control of state and local programs
 - “Outside the control,” means factors that affect performance outcomes but are not related to the services provided by the programs
 - Local labor market conditions (unemployment rates)
 - Personal characteristics of participants (prior work history, educational attainment, barriers to employment)
- Focuses on the value-added of WIA services
 - Adjusted targets credit service providers for performance not for favorable factors
 - Helps to level the “playing field”
- Diagnoses performance by understanding factors affecting outcomes

Framework for Regression Analysis

- Procedure follows the basic regression-adjusted approach used to adjust JTPA performance targets
- Based on the experience of individual participants within their local labor markets
- Allows the aggregation of performance outcomes and factors from the individual to the WIB to the State to the Nation
 - By using the same weights for each level of jurisdiction, the differences add up
 - Thus the targets are consistent across jurisdictions
- Uses estimates of the effects of unemployment rates and personal characteristics on performance outcomes, based on all WIA exiters in all 50 states

Basic Equation

- Use ordinary least squares regression to relate the performance measures to individual participant characteristics and local labor market conditions as measured by local unemployment rates

$$Y_{isq} = b_0 + b_1 * X_{isq} + b_2 D_s + b_3 D_q + b_4 U_{sq} + \text{error}$$

- Y_{isq} : performance measure
- X_{isq} : personal characteristics and employment history
- D_s : state or WIB dummy
- D_q : quarter dummy
- U_{sq} : quarterly unemployment rate by
WIB or state

- Unemployment rates are entered in three ways depending on performance measure
- Personal characteristics and employment history are entered as categorical variables with one of the categories omitted from the equation as the reference group

Variables included in estimation

Unemployment rate	Personal Characteristics	Other
WIB unemployment rate	Gender	WIB dummy variables
	Age (5 categories)	Year-Quarter dummy
	School attainment (8 categories)	Urban indicator
	Race/ethnicity (6 categories)	Industrial structure
	Disabled	
	Veteran	
	Limited English	
	Single parent	
	TANF	
	Other assistance	
	Low income	
	UI claimant/exhaustee	
	Prior employment	

Performance Measures included in the Estimation

	WIA				TAA	ES
	Adult	Dislocated Worker	Older Youth	Youth		
Entered Employment	x	x	x		x	x
Retention rate	x	x	x		x	x
Earnings	x	x	x		x	x
Credentials	x	x	x			
Placement in education or employment				x		
Degree or certificate attainment				x		
Literacy & Numeracy				x		

(Note: Shaded cells indicate that the corresponding performance measure is not recorded for that program.)

Sample Description

(initial estimates)

	WIA				TAA	ES
	Adult	Dislocated Worker	Older Youth	Youth		
Unit of observation	Individual participants, quarterly	Individual participant, quarterly	Individual participant, quarterly	Individual participant, quarterly	Individual participant quarterly	Individual participant quarterly
Number of observations	300,000-429,000	266,000-408,000	38,000-80,000	5,000-17,000	136,000	147,000-198,000
States included	CA FL GA IL MI NC NJ NY OH PA TX	CA FL GA IL MI NC NJ NY OH PA TX	CA FL GA IL MI NC NJ NY OH PA TX	CA FL GA IL MI NC NJ NY OH PA TX	ALL, but Alaska, Hawaii	TWO
Demographic variables Employment history	YES	YES	YES	YES	YES	YES
Fixed Effects	WIBs	WIBs	WIBs	States	States	None
Geographical unit of unemployment rates	WIB (2000:q3-2007:q3)	WIB (2000:q3-2007:q3)	WIB (2000:q3-2007:q3)	WIB (2006:q1-2008:q1)	County (2000:q3-2007:q2)	WIB (2004:q3-2005:q2)

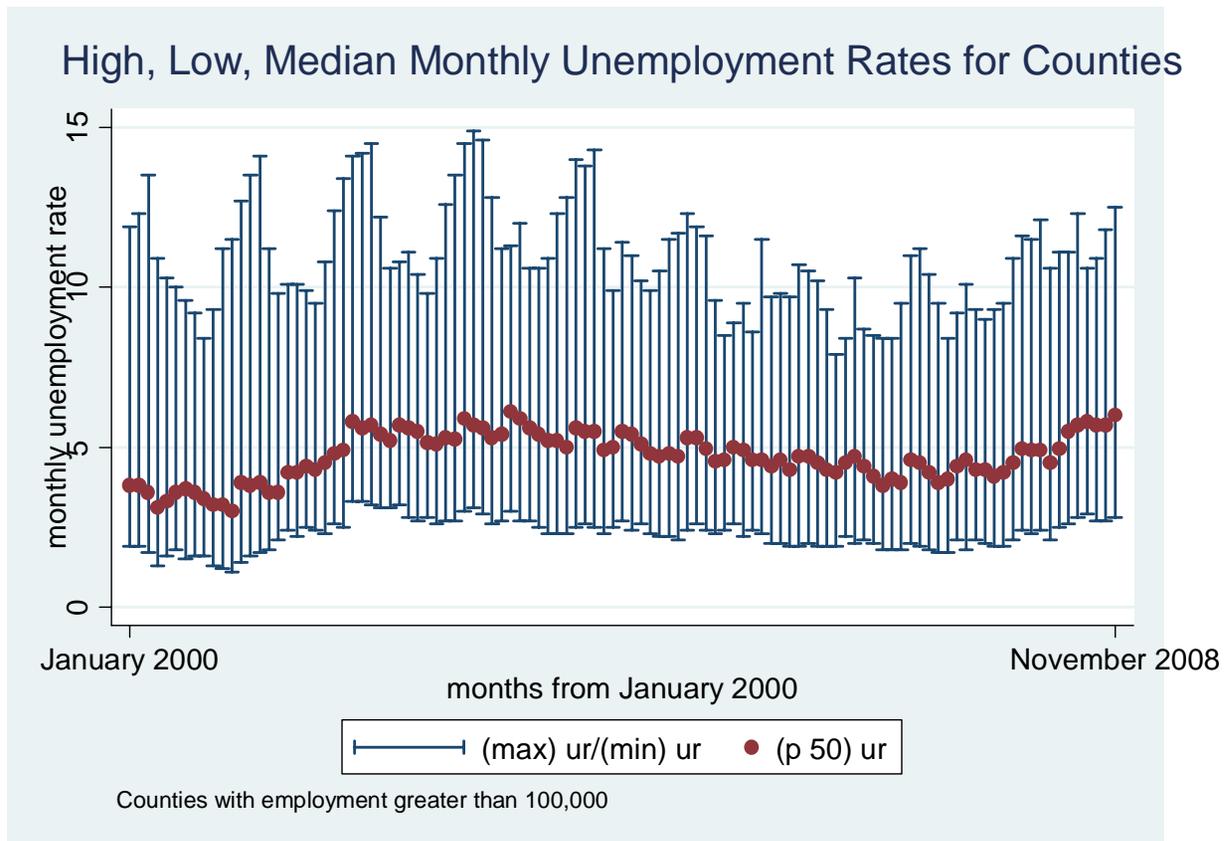
Sample Description

(WIA update)

	Adult	Dislocated Worker	Youth
Unit of observation	Individual participants, quarterly	Individual participant, quarterly	Individual participant, quarterly
Number of observations	480,000-645,000	455,000-680,000	60,000-105,000
States included	All+PR+DC	All+PR+DC	All+PR+DC
Demographic variables Employment history	YES	YES	YES
Fixed Effects	WIBs	WIBs	WIBs
Geographical unit of unemployment rates	WIB (2000:q3-2007:q3)	WIB (2000:q3-2007:q3)	WIB (2000:q3-2007:q3)

Significant Differences in Unemployment Rates Across States and Counties

Unemployment rates among counties with total employment of more than 100,000 ranged from 1.1 to 14.9 percent from 2000 through 2008.



Effects of Selected Personal Characteristics on the Entered Employment Rate

	Adult	Dislocated Worker	Youth	TAA	ES
Female	0	-0.4	-2.6	0	0
Age: 56-65	-3.3	-2.2		-5.8	-6.3
Age: >65	-8.5	-10.8		-25.9	-14.0
Race/ ethnicity: black	-2.8	-0.6	-4.7	0	2.0
Education: less than HS	-4.9	-3.2	-10.0	-4.5	
Bachelor's degree	2.2	0	0	-1.7	
Disabled	-9.6	-5.3	-7.4	-10.8	-10.2
Veteran	-0.7	-1.0	0	0	-1.5
Employed two quarters prior to registration	14.0	7.4	14.6	10.4	21.0

(Note: Estimates are percentage point differences in the entered employment rate due to a participant in each of the five programs having that specific characteristic compared to not having it.)

Estimates of the Effect of the Unemployment Rate on Performance Measures

	WIA				TAA	ES
	Adult	Dislocated Worker	Older Youth	Youth		
Entered Employment	-1.8***	-1.0***	-1.7***		-1.4***	-0.5***
Retention rate	-0.8***	-1.0***	-0.6*		0.0	0.0
Earnings	-\$266**	-\$123**	-\$101*		-\$377***	-\$921***
Credentials	-3.5***	-1.7**	-1.4*			
Placement in education or employment				-1.4**		
Degree or certificate attainment				-2.1**		
Literacy & Numeracy				-2.4**		

(Percentage point change (or dollar change) of the performance measure associated with a one percentage point change in the unemployment rate; estimates are statistically significant at the 0.001 (***) , 0.01 (**) and 0.10 (*) confidence levels)

Estimates of the Effect of Unemployment Rates on Performance Measures

	Adult		Dislocated Worker		Older Youth	
	Mean	% Change	Mean	% Change	Mean	% Change
Entered Employment	77.2	-1.69%***	83.2	-0.62%***	74.7	-0.93**
Retention rate	84.4	-0.85***	89.5	-1.06***	82.8	-0.81*
Earnings	11,152	-1.60**	14,041	-2.28**	6,949	-2.73***

(Percentage change of the performance measure associated with a one percentage point change in the unemployment rate; estimates are statistically significant at the 0.001 (***), 0.01 (**) and 0.05 (*) confidence levels)

Procedure to Set and Adjust Target Estimates

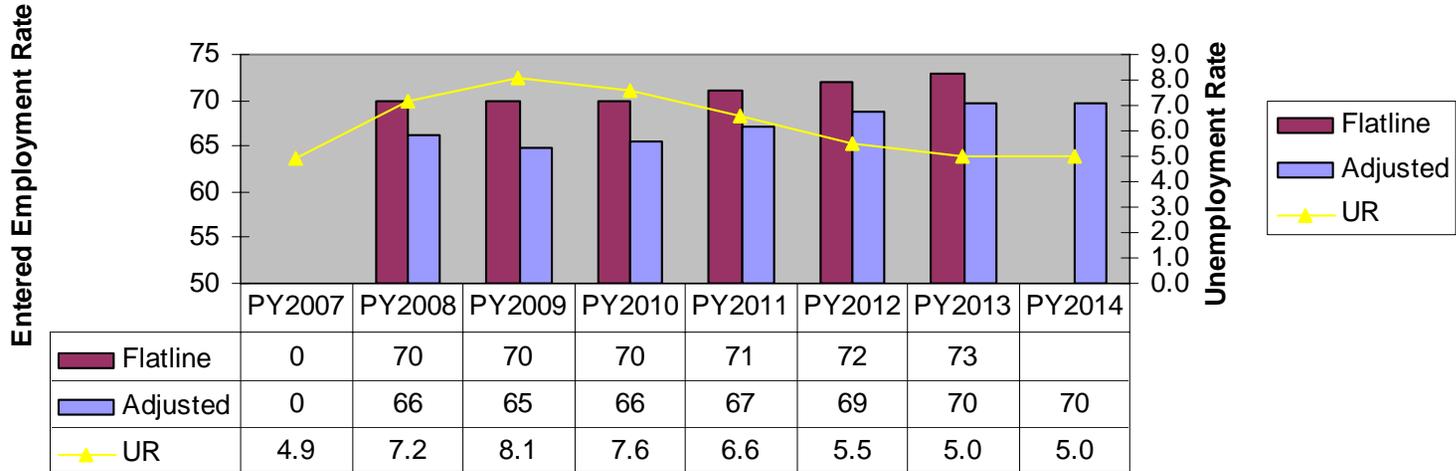
- Three step process: one for each jurisdictional level: national, state, WIB
- **Step One:** Adjust the national targets for assumed changes in unemployment rates
- **Step Two:** Use the national adjusted targets as the departure for setting state performance targets
 - State and national performance outcomes differ because of differences in unemployment rates and participant characteristics
- **Step Three:** Use each state's adjusted targets as departure for setting targets of WIBs within the state
 - WIB and state performance outcomes differ because of differences in unemployment rates and participant characteristics

Step One: Set National Performance Goals

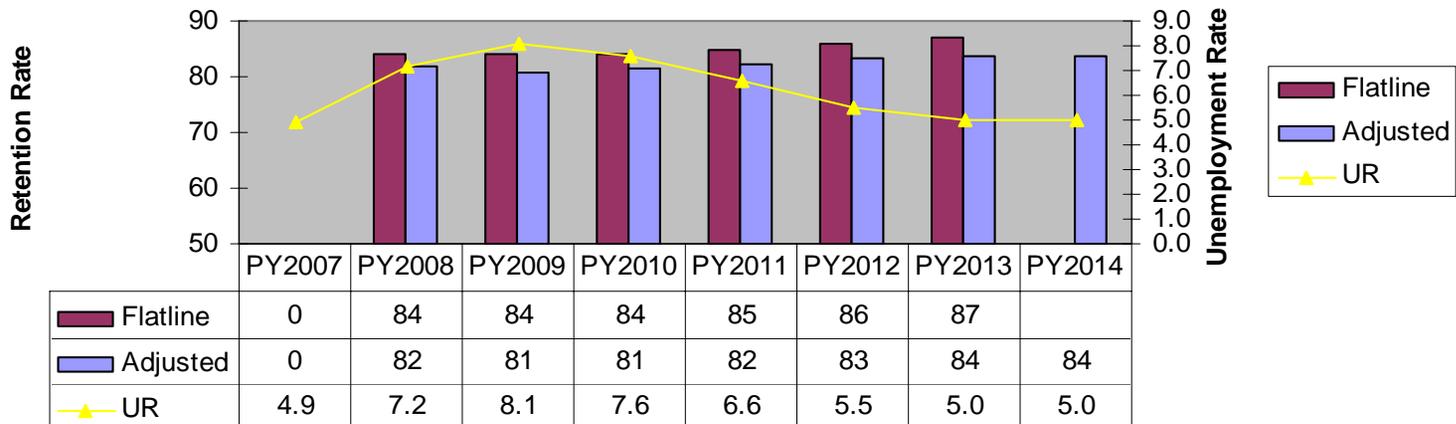
Use estimates of the effect of unemployment rates on individual participants to adjust national performance targets based on President's 2010 Budget

WIA Adult Program	Program Year							
	2007	2008	2009	2010	2011	2012	2013	2014
UR assumptions	4.9	7.2	8.1	7.6	6.6	5.5	5.0	5.0
Entered employment								
GPRA target		70	70	70	71	72	73	
UR adjusted target	70.0	66.2	64.8	65.6	67.1	68.8	69.7	69.7
Retention rate								
GPRA target		84.0	84.0	84.0	85.0	86.0	87.0	
UR adjusted target	84.0	81.7	80.8	81.3	82.3	83.3	83.8	83.8
Earnings								
GPRA target (\$)		13,575	13,575	13,575	13,914	14,262	14,619	
UR adjusted target (\$)	13,575	12,862	12,597	12,741	13,032	13,360	13,512	13,512

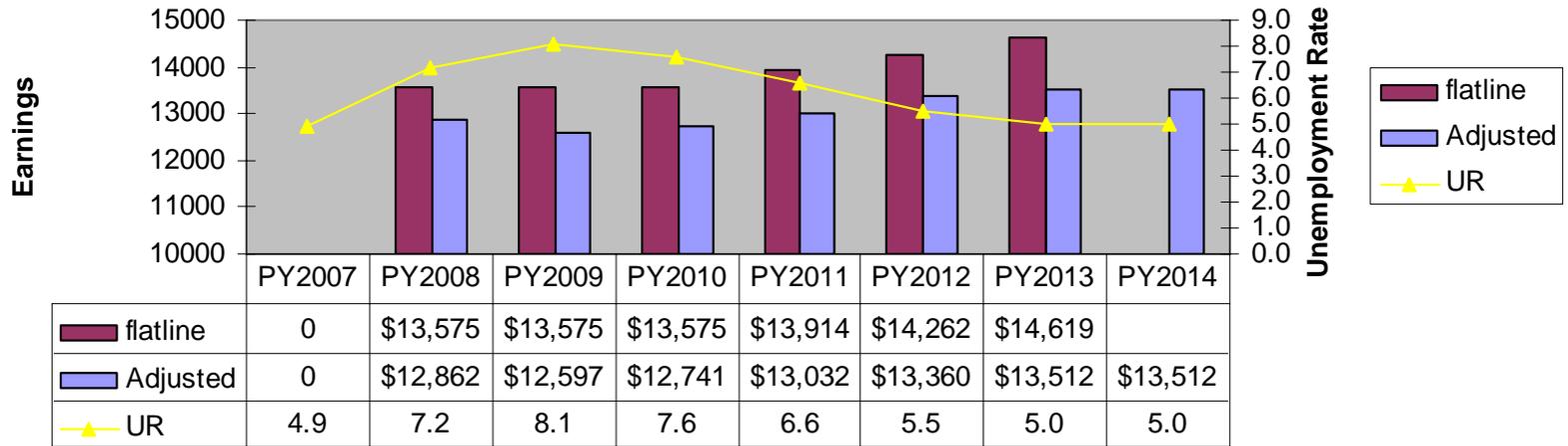
WIA Adult Entered Employment



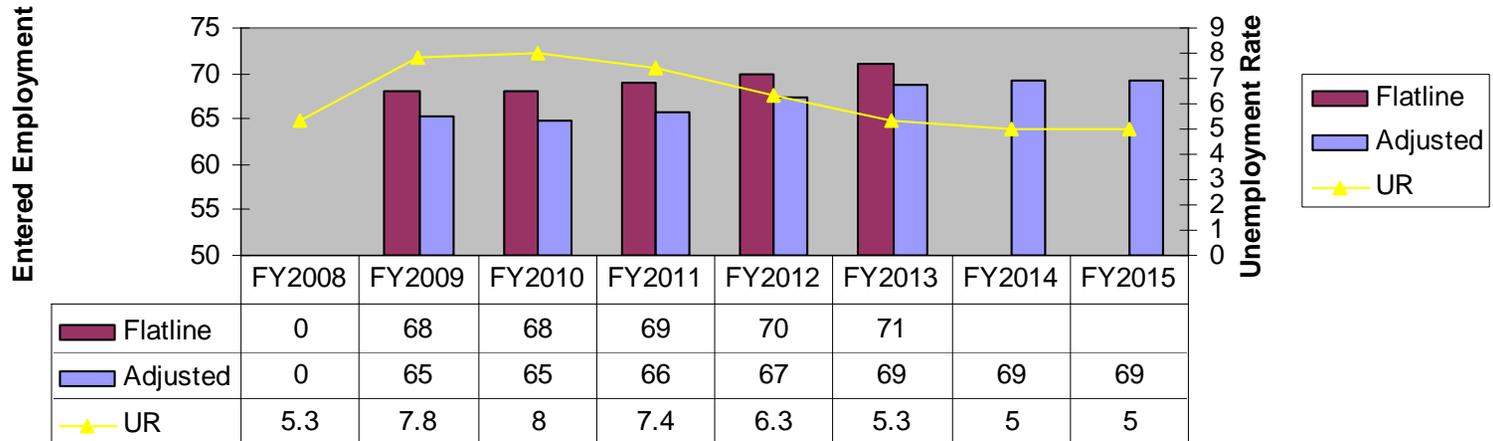
WIA Adult Retention Rate



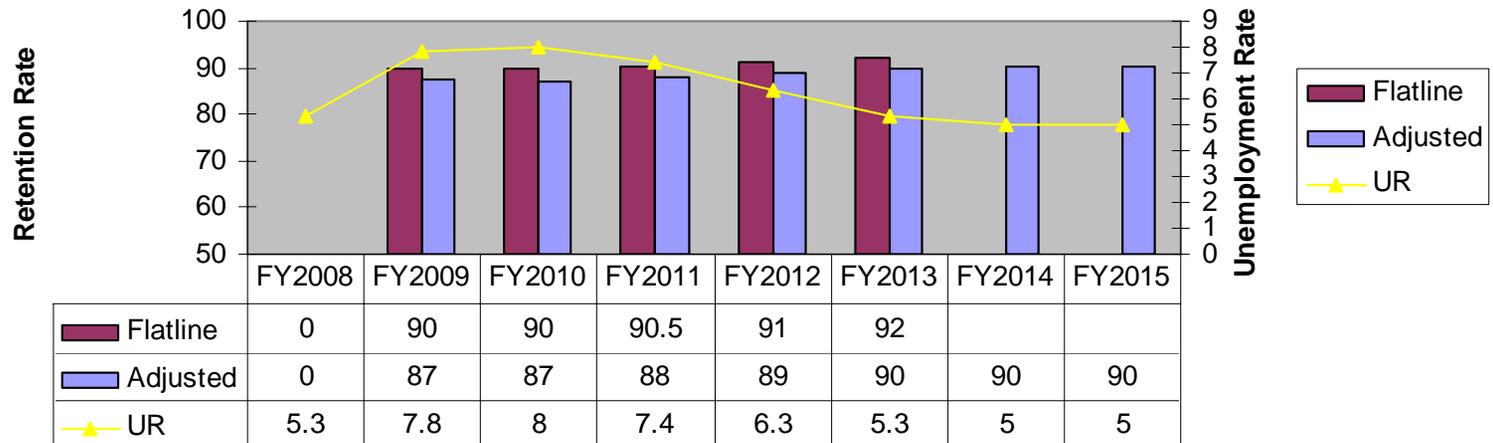
WIA Adult Earnings



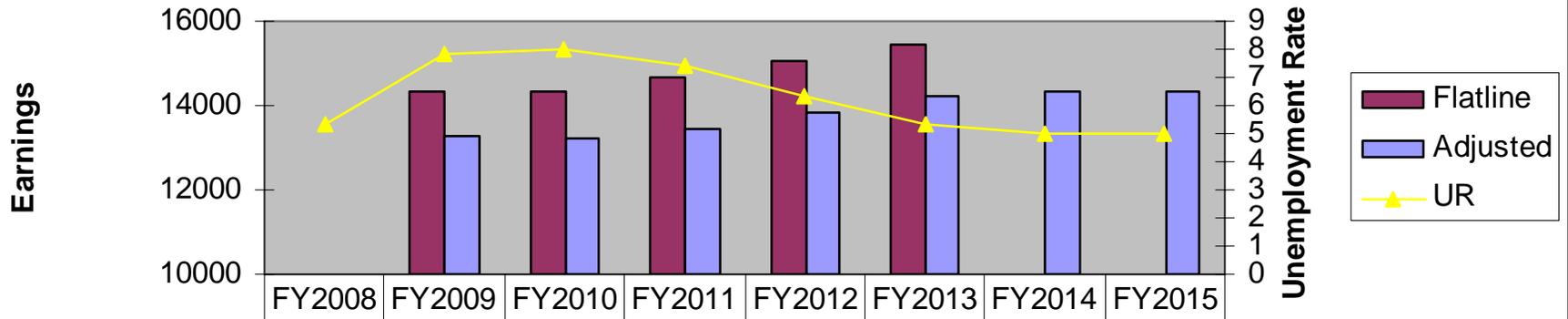
TAA Entered Employment Rate



TAA Retention



TAA Earnings



	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
■ Flatline	0	\$14,321	\$14,321	\$14,679	\$15,046	\$15,422		
■ Adjusted	0	\$13,294	\$13,221	\$13,440	\$13,849	\$14,231	\$14,349	\$14,349
▲ UR	5.3	7.8	8	7.4	6.3	5.3	5	5

Estimates

Estimates						
	WIA					
Programs	Adult	Dislocated Worker	Older Youth	Youth	TAA	ES
WIA Adult	✓					
WIA Dislocated Worker		✓			✓	
ES						✓
SCSEP	✓					
MSFW	✓					
INA	✓					
WIG	✓					
WIA Youth				✓		
YouthBuild						
Prisoner Re-entry	✓					
Youthful Offenders				✓		
NEG	✓					
TAA					✓	
Apprenticeship		✓				22

Step Two: State Estimates for Targets

- State estimates differ from national performance goals:
 - Differences in unemployment rates
 - Differences in personal characteristics
- Add adjustment to the departure national target rate

	A	B	C	D	E
WIA Adult Entered Employment	State A	National	Difference (A-B)	Effect on EE	Adjustment: Weighted Difference (C * D)
Unemployment rates	12.6%	8.3%	4.3	-1.8	-7.70
High School drop out	10.3	4.6	5.7	-0.049	-0.279
BA degree	7.6	1.8	5.8	+0.022	+0.128
Disabled	6.4	4.9	1.5	-0.096	-0.144
Work experience	39.0	64.0	-25.0	+0.14	-3.50
Adjusted Target	53.3	64.8	Total adjustment (add column E)		-11.5

Examples of Performance Adjustments

State	Adjustment	Adult			Dislocated			Youth		
		ee	ret	earnings	ee	ret	earnings	place	att	lit
Illinois	Adj. Target	60.5	80.2	11748	69.8	85.6	15848	54.9	43.5	17.3
Illinois	Adj. Factor: Unemp. Rate	-1.3	0.7	-188	-0.7	0.7	-87	-1.0	-1.5	-1.7
Illinois	Adj. Factor: State	-0.1	0.1	15	0.2	0.2	35	0.0	0.0	0.0
Illinois	Adj. Factor: Personal	-3.0	-1.5	-675	0.2	0.7	1127	-2.6	-3.8	-2.2
Indiana	Adj. Target	64.8	81.6	12851	72.0	85.6	15780	62.6	48.8	20.2
Indiana	Adj. Factor: Unemp. Rate	-0.2	-0.5	-35	-0.1	-0.5	-16	-0.2	-0.3	-0.3
Indiana	Adj. Factor: State	0.0	1.1	9	1.3	1.6	22	0.0	0.0	0.0
Indiana	Adj. Factor: Personal	0.2	0.2	280	0.6	0.6	1001	4.3	0.2	-0.7
Kansas	Adj. Target	70.1	84.3	13996	72.9	86.4	16143	58.4	51.4	23.9
Kansas	Adj. Factor: Unemp. Rate	2.5	0.8	370	1.4	0.8	171	1.9	2.9	3.3
Kansas	Adj. Factor: State	0.0	0.5	-5	0.6	0.7	-12	0.0	0.0	0.0
Kansas	Adj. Factor: Personal	2.8	2.2	1034	0.7	1.0	1211	-2.0	-0.3	-0.7
Michigan	Adj. Target	58.4	79.3	11665	68.4	85.0	15914	53.1	41.6	13.4
Michigan	Adj. Factor: Unemp. Rate	-4.8	-0.4	-709	-2.7	-0.4	-328	-3.7	-5.6	-6.4
Michigan	Adj. Factor: State	0.0	0.5	9	0.6	0.8	22	0.0	0.0	0.0
Michigan	Adj. Factor: Personal	-1.6	-1.7	-232	0.2	0.7	1446	-1.7	-1.6	-1.4
Minnesota	Adj. Target	63.7	80.7	12391	70.8	86.2	17190	54.1	50.3	21.1
Minnesota	Adj. Factor: Unemp. Rate	0.6	0.6	86	0.3	0.6	40	0.5	0.7	0.8
Minnesota	Adj. Factor: State	0.0	0.4	-2	0.5	0.5	-5	0.0	0.0	0.0
Minnesota	Adj. Factor: Personal	-1.7	-1.1	-291	-0.1	1.2	2382	-4.9	0.8	-0.9
Missouri	Adj. Target	61.2	79.6	11699	64.4	82.3	15183	59.5	50.3	18.8
Missouri	Adj. Factor: Unemp. Rate	-0.5	0.3	-75	-0.3	0.3	-35	-0.4	-0.6	-0.7
Missouri	Adj. Factor: State	0.0	0.1	0	0.1	0.1	0	0.0	0.0	0.0
Missouri	Adj. Factor: Personal	-3.1	-1.6	-822	-5.6	-2.1	445	1.4	2.1	-1.7

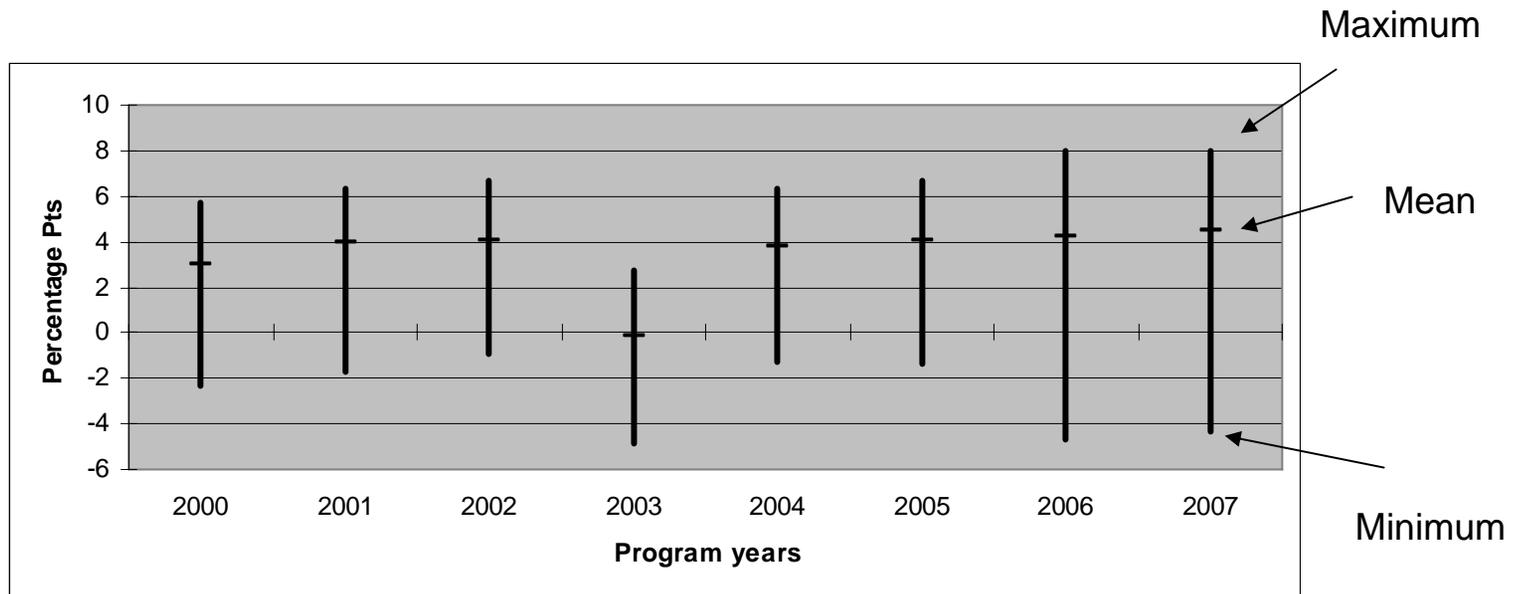
The adjusted targets, and their components, are shown for six states. It should be noted that the direction of the effect of the unemployment rate may be different for retention than for the other two performance measures since retention is estimated as the change in the unemployment. Differences in the changes in the unemployment rate between the state and the nation may be different from the differences in the levels.

Means of the Adjustment Components for WIA Adult and Dislocated Workers

	WIA Adult			WIA Dislocated Worker		
	Mean	Minimum	Maximum	Mean	Minimum	Maximum
	Entered Employment					
UR	0.63	-10.4	4.9	0.35	-5.8	2.7
Labor Market	-0.12	-3.7	0.03	-0.15	-5.7	1.3
Personal Characteristics	-0.42	-8.8	10.1	-0.07	-5.7	1.6
	Retention Rate					
UR	0.27	-1.2	1.6	0.27	-1.2	1.6
Labor Market	-0.11	-4.0	1.1	-0.10	-4.2	1.6
Personal Characteristics	-0.24	-6.3	7.7	0.25	-2.7	1.4
	Earnings					
UR	93.5	-1536	724	43.2	-710	335
Labor Market	29.8	-8.4	947	71.5	-20	2284
Personal Characteristics	-210	-2595	1572	642	-1596	2381

Significant Differences in Personal Characteristics Across States and WIBs

State differences in personal characteristics contribute to a difference of as much as 12 percentage points in performance outcomes and the differences have increased in recent years.



Note: WIA Adult Entered Employment. Participant attributes are weighted by their estimated effect on performance outcomes.

Step Three: WIB Estimates for Targets

- WIB performance estimates differ from the state estimates:
 - Differences in unemployment rates
 - Differences in personal characteristics
- Add adjustment to departure state target rate

	A	B	C	D	E
WIA Adult Entered Employment	WIB A in State A	State A	Difference (A-B)	Effect on EE	Adjustment: Weighted Difference (C * D)
Unemployment rates	7.8%	12.6%	-4.8	-1.8	+8.64
High School drop out	4.7	10.3	-5.7	-0.049	+0.279
BA degree	9.3	7.6	+1.7	+0.022	+0.037
Disabled	2.3	6.4	-4.1	-0.096	+0.394
Work experience	39.5	39.0	-0.05	+0.14	+0.07
Adjusted Target	62.7	53.3	Total adjustment (add column E)		+9.42

Adjustments Add Up

- Adjustments add up from LWIB to State to Nation
 - Based on differences in characteristics
 - Weights are the same at all levels

	A	B	C	D	E	F
WIA Adult Entered Employment	WIB A in State A	State A	National	Effect on EE	Difference in WIB and National (C – A)	Adjustment: Weighted Difference (D * E)
Unemployment rates	7.8%	12.6%	8.3%	-1.8	-0.50	+0.9
High School drop out	4.7	10.3	4.6	-0.049	+0.10	-0.005
BA degree	9.3	7.6	1.8	+0.022	+7.5	+0.165
Disabled	2.3	6.4	4.9	-0.096	-2.6	+0.250
Work experience	39.5	39.0	64.0	+0.14	-24.5	-3.43
Adjusted Target	62.7	53.3	64.8		Total adjustment (add column F)	-2.12

Summary

- Target adjustment procedure provides a systematic, transparent, and objective way to set national, state, and WIB performance targets for WIA programs
- Adjustment factors, since they are related to factors that are familiar to administrators, can be easily scrutinized to better understand and diagnose programs
 - Also familiar since state adjustment procedure is similar to the JTPA method and WIB adjustment similar to Michigan's VAPIS
- With the analysis of factors already completed and WIASRD data available, the necessary ingredients are currently available to calculate the targets for states and WIBs

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