

Getting Pennsylvania's Economy Back on Track

Federal Policies Save Thousands of Jobs and Prevent Much Higher
Unemployment Across Pennsylvania

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Overview

While some observers think of our economy as self-regulating, experience teaches that it is not. The health of our economy is, in fact, shaped very much by policy choices. At the current political and economic juncture, with unemployment still above 9%, it is critical to remember the impact of policy choices and for policymakers to make the right choices in the months ahead.

This point in time is also defined by a political discussion that takes increasingly seriously policy choices dismissed by economists across the political spectrum since the 1930s. The idea that government should cut federal spending and tackle the deficit IMMEDIATELY is gaining credence.

This briefing paper seeks to establish that this would be the wrong choice. It does so by asking the following

question: what would the Pennsylvania jobs situation and unemployment rate look like today if federal policymakers had not intervened in the economy, including through deficit spending in the form of the \$787 billion American Recovery and Reinvestment Act?

We estimate below for every metro area in Pennsylvania the shortfall in jobs and the rise in the unemployment rate absent federal action. Unemployment rates absent federal action are also estimated for each of Pennsylvania's 67 counties.

Our estimates for Pennsylvania metro areas and counties derive from national estimates developed by Princeton economist Alan Blinder and John McCain economic advisor Mark Zandi. In a report called *How the Great Recession Was Brought to an End*, these authors estimate what total nonfarm employment would have been, and what the national unemployment rate would have been, if the federal government had not intervened in the economy to stabilize financial markets and to increase aggregate demand through a mix of tax cuts and direct government spending.¹



The best known U-Turn in Pennsylvania is the famous Altoona Curve, built by railroad workers as they sought to establish rail passage through the rough terrain of the Allegheny Mountains. This briefing paper documents another Pennsylvania "U-Turn"—in the economic performance of the state's economy—as a result of the federal actions taken in 2008 and 2009 to stop the economy's free fall.

The answer we get to our question makes a compelling case for the success of the federal Recovery Act and the need to continue public intervention so that the economy doesn't get derailed again. Federal action on the economy saved nearly 400,000 Pennsylvania jobs. Absent federal action, unemployment would be rising above 15% rather than at the 9% September rate.

The Jobs Deficits and Unemployment Rates in Pennsylvania Metro Areas

The current jobs and unemployment situation across Pennsylvania and nationally are not good. In addition to a 9% unemployment rate, Pennsylvania has shed 217,500 jobs since the start of the recession in December 2007.

As grim as these statistics are for Pennsylvania workers and their families, the joblessness we now face could have been substantially worse but for the extraordinary interventions in the economy by the Federal Reserve, the Bush and Obama administrations, and Congress. *The State of Working Pennsylvania 2010* summarized the evidence for Pennsylvania as a whole.² A later section of this briefing paper updates our analysis for Pennsylvania as a whole and also updates three of the key charts showing the Pennsylvania economy's U-turn. In this section, we focus on Pennsylvania metro areas and counties, for which this report presents the first analysis of the impact of federal action on jobs and unemployment rates.

For each Pennsylvania metro area, Table 1 presents four numbers. The first is *the actual job loss* between December 2007 and August 2010. The second is *the actual jobs deficit*, which is defined as the actual job loss plus the additional jobs needed to keep pace with the growth of the working-age population. (In four metro areas, the actual jobs deficit is below actual job loss because the working-age population of the area is declining.) The third number is *the jobs deficit absent federal intervention* in the economy.³ The final column in Table 1 is the difference between the jobs deficit absent federal intervention and the actual jobs deficit—i.e., the number of *jobs saved* thanks to federal action.

Table 2 turns from jobs deficits to unemployment rates. The table estimates, for each metro area, <u>the</u> actual unemployment rate and the unemployment rate absent federal action.⁴

For each of Pennsylvania's 67 counties, Table 3 (at the back of the report because of its length) shows <u>the actual unemployment rate</u> and an estimate of <u>the unemployment rate absent federal action</u>. (Lack of recent employment data by county makes it difficult to estimate the jobs deficits, and jobs saved, with and without federal action, at the county level. ⁵) Charts showing the actual unemployment rate in each metro area and county, and the unemployment rate absent federal policy action, are available online at http://keystoneresearch.org/local-unemployment-rates.

Table 1. Actual job loss, the current jobs deficit and the jobs deficit had nothing been done to stabilize the economy and the jobs saved by federal intervention

Metropolitan Area	Actual job	Actual jobs deficit	Jobs deficit with no government	Jobs saved
	loss	,	intervention	
Pennsylvania	217,500	311,912	699,003	387,091
Allentown-Bethlehem-Easton, PA-NJ	14,700	19,200	45,911	26,710
Altoona, PA	1,100	107	5,393	5,286
Erie, PA	7,600	8,237	13,755	5,518
Harrisburg-Carlisle, PA	13,500	18,679	39,883	21,204
Johnstown, PA	2,500	1,547	6,014	4,467
Lancaster, PA	13,600	18,690	32,561	13,871
Lebanon, PA	2,000	2,189	7,114	4,926
Philadelphia, PA Metropolitan Division	85,000	174,400	285,041	110,641
Pittsburgh, PA	29,300	31,686	108,049	76,363
Reading, PA	10,100	12,266	21,361	9,096
ScrantonWilkes-Barre, PA	10,900	9,919	25,549	15,630
State College, PA	1,200	1,827	9,001	7,174
Williamsport, PA	1,800	1,213	4,313	3,099
York-Hanover, PA	9,700	12,339	26,042	13,703
Source. Source. Keystone Research Center	analysis of Cu	rrent Employment Stat	istics data	•

• •	by metropolitan area with and				•	00 - 1	00.2	00.0	00 - 1	40.4	10.3	40.0	10.1
		-		08q3			09q2		_		10q2	10q3	<u> </u>
Pennsylvania	With no policy response	4.8	5.1	5.9	6.9	8.4	10.2	11.7	13.0	13.5	14.5	15.1	15.6
,	With actual policy response	4.7	5.0	5.4	6.1	7.2	8.0	8.5	8.7	8.9	9.1	9.0	8.9
Allentown-Bethlehem-Easton,	With no policy response	4.8	5.1	5.8	6.8	8.3	10.1	11.5	12.9	13.3	14.3	15.0	15.4
PA-NJ MSA	With actual policy response	4.9	5.1	5.6	6.4	7.6	8.3	9.1	9.6	9.7	9.8	8.9	8.8
Altoona, PA MSA	With no policy response	4.9	5.2	5.9	6.9	8.5	10.3	11.8	13.2	13.6	14.6	15.3	15.8
74100114, 17111071	With actual policy response	4.5	4.9	5.5	6.0	6.7	7.1	7.4	7.7	7.9	8.0	9.1	9.0
Erie, PA MSA	With no policy response	5.4	5.7	6.6	7.6	9.4	11.4	13.0	14.5	15.1	16.2	16.9	17.5
	With actual policy response	5.3	5.4	5.7	6.4	7.7	8.8	9.7	10.0	10.0	9.9	10.1	9.9
Harrisburg-Carlisle, PA MSA	With no policy response	4.0	4.3	4.9	5.7	7.0	8.5	9.7	10.9	11.3	12.1	12.6	13.0
Harrisburg-Carriste, PA WISA	With actual policy response	3.9	4.3	4.7	5.3	6.5	7.0	7.6	7.8	8.0	8.2	7.5	7.4
Johnstown, PA MSA	With no policy response	6.0	6.4	7.3	8.5	10.4	12.7	14.5	16.2	16.8	18.0	18.8	19.4
	With actual policy response	5.6	5.9	6.4	6.9	7.9	8.5	9.0	9.4	9.8	10.0	11.1	11.0
Lancaster, PA MSA	With no policy response	3.6	3.9	4.4	5.2	6.3	7.7	8.8	9.8	10.2	10.9	11.5	11.8
Lancaster, PA MSA	With actual policy response	3.7	4.0	4.4	5.1	6.7	7.1	7.6	7.8	8.1	7.9	6.8	6.8
Lebanon, PA MSA	With no policy response	3.7	3.9	4.5	5.2	6.4	7.8	8.9	10.0	10.3	11.1	11.6	12.0
Lebation, PA IVISA	With actual policy response	3.6	3.9	4.3	4.8	6.3	6.7	7.0	7.2	7.6	7.7	6.9	6.8
Philadelphia-Camden-	With no policy response	4.7	4.9	5.7	6.6	8.1	9.9	11.3	12.6	13.0	14.0	14.6	15.1
Wilmington, PA-NJ-DE-MD	With actual policy response	4.6	4.9	5.5	6.2	7.4	8.0	8.6	9.0	9.2	9.4	8.7	8.6
Divisional DA MCA	With no policy response	4.9	5.1	5.9	6.9	8.4	10.3	11.7	13.1	13.6	14.6	15.2	15.7
Pittsburgh, PA MSA	With actual policy response	4.6	4.9	5.2	5.8	6.7	7.3	7.7	8.1	8.4	8.5	9.0	8.9
Daniel and DA MACA	With no policy response	4.8	5.1	5.9	6.9	8.4	10.3	11.7	13.1	13.6	14.5	15.2	15.7
Reading, PA MSA	With actual policy response	4.6	4.9	5.6	6.5	7.9	8.7	9.2	9.5	9.7	9.7	9.1	9.0
ScrantonWilkes-Barre, PA	With no policy response	5.5	5.8	6.7	7.8	9.5	11.6	13.2	14.7	15.3	16.4	17.1	17.7
MSA	With actual policy response	5.4	5.8	6.3	7.0	8.1	8.5	9.1	9.6	9.6	10.2	10.2	10.1
State College, PA MSA	With no policy response	3.8	4.0	4.6	5.4	6.6	8.1	9.2	10.3	10.7	11.4	11.9	12.3
State Correge, PA MSA	With actual policy response	3.8	4.2	4.5	4.9	5.4	5.7	6.0	6.2	6.4	6.6	7.1	7.0
Milliams part DA MCA	With no policy response	5.3	5.6	6.5	7.5	9.2	11.2	12.8	14.3	14.8	15.9	16.6	17.2
Williamsport, PA MSA	With actual policy response	5.4	5.5	5.9	6.8	8.1	8.7	9.3	9.7	9.6	9.6	9.9	9.8
Verla Herrarian DA MCA	With no policy response	4.2	4.5	5.2	6.0	7.4	9.0	10.3	11.5	11.9	12.7	13.3	13.7
York-Hanover, PA MSA	With actual policy response	4.1	4.3	4.9	5.6	7.2	8.1	8.6	8.9	9.3	9.2	7.9	7.9

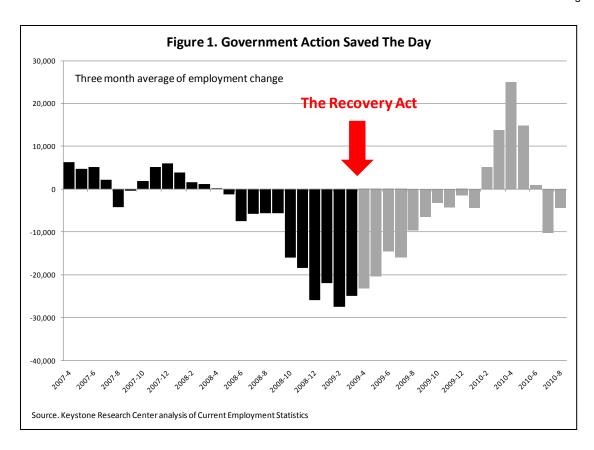
Source. Keystone Research Center estimates for Pennsylvania based on Alan S. Blinder and Mark Zandi "How the Great Recession Was Brought to an End", July 27, 2010. Unemployment rates for the 3rd and 4th quarter are based on estimates by Global Insight.

Examining select metro areas in alphabetical order, we find the following.

- Federal action saved nearly 27,000 jobs in the Allentown-Bethlehem-Easton metro area; absent federal action, the unemployment rate in the area would be 15% today.
- In the Altoona area itself, government action saved more than 5,000 jobs. Without that action, the unemployment rate today would be over 15%.
- In Erie County, government action saved more than 5,000 jobs. Without that action, the unemployment rate would be approaching 17%.
- In the Harrisburg-Carlisle metropolitan area, government action saved more than 21,000 jobs. Without that action, the unemployment rate would be above 12%.
- In Lancaster County, federal intervention saved nearly 14,000 jobs. Absent that intervention, the unemployment rate would be above 11% today.
- In the Philadelphia metropolitan division (Bucks, Chester, Delaware, Montgomery and Philadelphia County), federal intervention saved 110,000 jobs. Without that action, the unemployment rate in the city of Philadelphia would now be 20%, and the unemployment rate in the broader metro region (including the five counties and parts of New Jersey and Delaware) would now be headed to 15%.⁶
- In the Pittsburgh metropolitan area, government intervention saved an estimated 76,000 jobs. Without that intervention, the unemployment rate today would be 15%.
- In the Reading metropolitan area, government action saved about 9,000 jobs. Without that action, the unemployment rate would be 15%.
- In the Scranton-Wilkes-Barre metropolitan area, government action saved more than 15,000 jobs. Without federal intervention in the economy, the unemployment rate would be 17%.
- In the York-Hanover metropolitan area, federal action saved nearly 14,000 jobs. Without that action, the unemployment rate would be over 13%.

The Jobs Deficit and Unemployment Rate at the State Level

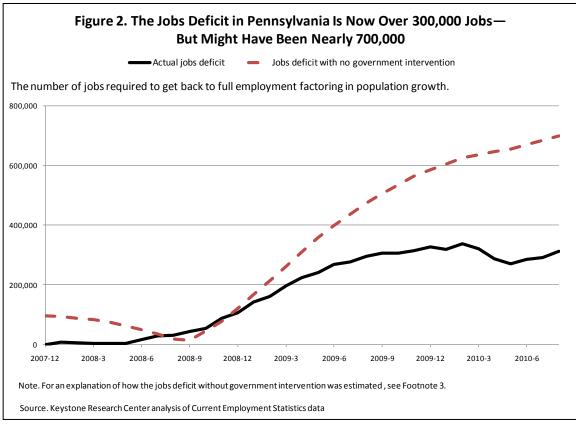
Figure 1-3 update our statewide analysis first presented in *The State of Working Pennsylvania 2010*. Figure 1 shows that Pennsylvania job losses per month were growing rapidly in the latter part of 2008 and into the first couple of months of 2009. It also shows that job growth trends did an abrupt U-turn between the first and second quarter of 2009: as the impact of the ARRA was felt, job losses per month started falling, with job losses turning to job gains early this year (although dropping slightly below zero again in the last three months—a point to which we return shortly).

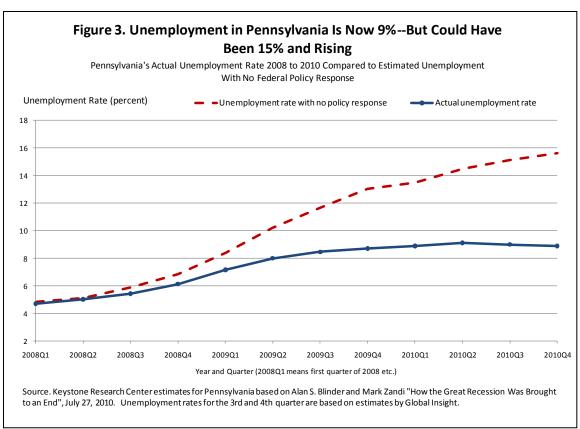


Had nothing been done to rescue the Pennsylvania economy, our extension of Blinder and Zandi's analysis indicates, the state would now be facing a jobs deficit of almost 700,000 jobs (Figure 2). Thus, federal action saved nearly 400,000 jobs to date. Absent federal action, the unemployment rate would have reached 15% in the third quarter of this year (Figure 3).

The Current Recovery Has Been More Robust Than the Previous Two

Another point of comparison to consider: Pennsylvania's economy is adding private-sector jobs somewhat faster during the current economic recovery than during the two previous recoveries, which followed the 2001 and 1991 recessions. Fourteen months after the end of the 1991 recession, private-sector employment in Pennsylvania had declined by 19,300 jobs. At the same point following the 2001 recession, private-sector employment was down 29,800 jobs. As of this August (14 months after the official end of the Great Recession in June 2009), private-sector employment in Pennsylvania is up by 2,900 jobs.





Let's Not Turn Back the Economic Policy Clock

By acting forcefully when the economy looked likely to collapse at the end of 2008 and beginning of 2009, the Federal Reserve and the Bush and Obama Administrations demonstrated that they had absorbed the historical lessons of the Great Depression. Both conservative and liberal economic historians accept that the failure of the Federal Reserve to stabilize the banking system under President Hoover, and the failure to increase government spending until President Roosevelt took office, contributed to a rise in unemployment that ultimately reached 25%.

The actions taken to contain the Great Recession were imperfect. The Wall Street bailout—the Troubled Assets Relief Program or TARP—was too generous to the banks and to bankers. The ARRA was too small relative to the decline in demand generated by the collapse of the housing bubble. Recognizing this, the head of Ronald Reagan's Council of Economic Advisors, Martin Feldstein, along with liberal economist Paul Krugman, have now called for additional action to create jobs. Another limitation of the response to the Great Recession, as elaborated in *The State of Working Pennsylvania 2010*, was that federal policymakers did not heed a second lesson of the New Deal—the need to lift middle-class wages so that families' consumption rather than government spending can once again drive the economy.

Yet despite their flaws, the actions taken to stabilize to economy in 2008 and 2009 did bring the economy back from the brink.

Elected officials who opposed federal actions on the grounds that the government should not intervene were, in essence, voting for significantly higher unemployment levels and job deficits. Based on the estimates here of the consequences of a lack of federal intervention, those who sought to block such intervention were voting for unemployment rates ranging up to 20 percent in some counties and for a Pennsylvania job deficit of nearly 700,000.

That the economy could have been "much worse" may be cold comfort to many families and many communities given how weak the labor market remains. Yet it remains critical that policymakers make the right choice again after the upcoming election and into the early part of next year. We already have an indicator of the consequences of making the wrong choices: the sputtering of the economy over the past several months. Over the past year, voices in Washington calling for additional job creation have mostly lost political battles to voices saying that we can't spend any more federal money. The result so far: job growth has stalled again. (The impact of temporary employment required to conduct the decennial Census exaggerates the recent drop-off in employment relative to the previous period.)

Those who forget history, as they saying goes, are doomed to repeat it. If our policymakers experience a collective amnesia, and we get a wholesale return to the policies of Herbert Hoover, the impact of that policy choice will be reflected in fewer jobs, persistent very high unemployment rates, and, given the impact of unemployment on workers' leverage in the job market, continued wage stagnation and inequality. 8 Count on it.

Table 3. Unemployment rates	with and without a policy response						•				- I		
County		08q1	08q2	08q3			09q2				10q2		-
Adams	With no policy response	3.8	4.0	4.6	5.4	6.6	8.0	9.1	10.2	10.6	11.3	11.9	12.2
Additis	With actual policy response	3.8	4.0	4.5	5.2	6.8	7.4	7.7	8.2	8.5	8.3	7.1	7.0
Allegheny	With no policy response	4.6	4.8	5.6	6.5	7.9	9.7	11.0	12.3	12.8	13.7	14.3	14.8
Arcgreny	With actual policy response	4.4	4.6	4.9	5.4	6.2	6.7	7.2	7.6	7.9	8.3	8.5	8.4
Armstrong	With no policy response	5.8	6.2	7.1	8.3	10.2	12.4	14.2	15.8	16.4	17.5	18.4	18.9
Armstrong	With actual policy response	5.5	5.4	5.9	7.1	8.5	9.2	9.3	9.6	10.2	9.7	10.9	10.8
Beaver	With no policy response	5.1	5.4	6.2	7.2	8.8	10.7	12.2	13.7	14.2	15.2	15.9	16.4
beaver	With actual policy response	5.1	5.1	5.6	6.2	7.5	8.1	8.5	8.6	8.6	8.6	9.4	9.3
Bedford	With no policy response	6.5	6.9	8.0	9.3	11.4	13.9	15.8	17.7	18.3	19.6	20.6	21.2
Bearora	With actual policy response	5.8	6.2	7.0	8.5	10.3	10.8	11.4	11.7	11.5	10.7	12.2	12.1
Berks	With no policy response	4.8	5.1	5.9	6.9	8.4	10.3	11.7	13.1	13.6	14.5	15.2	15.7
Derks	With actual policy response	4.6	4.9	5.6	6.5	7.9	8.7	9.2	9.5	9.7	9.7	9.1	9.0
Blair	With no policy response	4.9	5.2	5.9	6.9	8.5	10.3	11.8	13.2	13.6	14.6	15.3	15.8
Didii	With actual policy response	4.5	4.9	5.5	6.0	6.7	7.1	7.4	7.7	7.9	8.0	9.1	9.0
Bradford	With no policy response	4.7	5.0	5.8	6.7	8.2	10.0	11.4	12.7	13.2	14.1	14.8	15.3
Biadioid	With actual policy response	4.4	4.9	5.4	6.4	8.4	8.2	8.5	8.4	7.4	7.4	8.8	8.7
Bucks	With no policy response	4.1	4.3	5.0	5.8	7.1	8.7	9.9	11.0	11.5	12.3	12.8	13.3
Bucks	With actual policy response	4.0	4.3	4.6	5.4	6.2	6.9	7.3	7.6	7.9	8.2	7.6	7.6
Butler	With no policy response	4.6	4.8	5.6	6.5	7.9	9.7	11.0	12.3	12.8	13.7	14.3	14.8
Butter	With actual policy response	4.2	4.4	4.8	5.3	6.4	7.1	7.5	7.6	7.9	7.8	8.5	8.4
Cambria	With no policy response	6.0	6.4	7.3	8.5	10.4	12.7	14.5	16.2	16.8	18.0	18.8	19.4
Cambira	With actual policy response	5.6	5.9	6.4	6.9	7.9	8.5	9.0	9.4	9.8	10.0	11.1	11.0
Cameron	With no policy response	7.4	7.9	9.1	10.5	12.9	15.7	18.0	20.0	20.8	22.3	23.3	24.0
Carrier of	With actual policy response	6.6	7.1	10.6	11.8	15.2	17.8	18.4	18.1	17.0	14.9	13.9	13.8
Carbon	With no policy response	6.0	6.3	7.3	8.5	10.4	12.6	14.4	16.1	16.7	17.9	18.7	19.3
Carbon	With actual policy response	6.1	6.4	6.9	7.9	9.2	10.1	10.4	11.3	11.5	11.2	11.1	11.0
Centre	With no policy response	3.8	4.0	4.6	5.4	6.6	8.1	9.2	10.3	10.7	11.4	11.9	12.3
Centre	With actual policy response	3.8	4.2	4.5	4.9	5.4	5.7	6.0	6.2	6.4	6.6	7.1	7.0
Chester	With no policy response	3.5	3.7	4.3	5.0	6.1	7.5	8.5	9.5	9.9	10.6	11.1	11.4
Criestei	With actual policy response	3.4	3.6	4.1	4.7	5.6	6.2	6.5	6.7	6.9	7.1	6.6	6.5
Clarion	With no policy response	5.2	5.5	6.3	7.4	9.0	11.0	12.6	14.0	14.5	15.6	16.3	16.8
Ciarioii	With actual policy response	5.5	5.9	6.3	7.4	9.4	9.4	9.7	9.8	10.0	10.0	9.7	9.6
Clearfield	With no policy response	6.1	6.5	7.5	8.7	10.7	13.0	14.8	16.5	17.1	18.4	19.2	19.8
Clearneld	With actual policy response	6.1	6.3	7.0	7.7	9.2	10.0	10.6	10.9	10.5	10.7	11.4	11.3
Clinton	With no policy response	5.9	6.2	7.2	8.4	10.2	12.5	14.3	15.9	16.5	17.7	18.5	19.1
Clinton	With actual policy response	5.7	6.0	6.2	7.0	8.0	9.0	9.3	9.7	9.5	9.4	11.0	10.8

Table 3. (cont)													
County		08q1	08q2	08q3	08q4	09q1	09q2	09q3	09q4	10q1	10q2	10q3	10q4
Columbia	With no policy response	5.6	5.9	6.8	8.0	9.8	11.9	13.6	15.1	15.7	16.8	17.6	18.2
Columbia	With actual policy response	5.5	5.6	6.0	6.7	7.7	8.5	9.0	9.3	9.2	9.4	10.4	10.3
-	With no policy response	5.7	6.0	7.0	8.1	9.9	12.1	13.8	15.4	16.0	17.1	17.9	18.5
Crawford	With actual policy response	5.1	5.1	5.7	6.8	8.7	9.8	10.9	10.9	10.2	10.0	10.6	10.5
Cumbarland	With no policy response	3.7	3.9	4.5	5.2	6.4	7.8	8.9	10.0	10.3	11.1	11.6	11.9
Cumberland	With actual policy response	3.7	4.0	4.4	4.9	6.2	6.5	7.0	7.2	7.4	7.6	6.9	6.8
Dauphin	With no policy response	4.3	4.5	5.2	6.0	7.4	9.0	10.3	11.5	11.9	12.8	13.4	13.8
Daupiiiii	With actual policy response	4.0	4.4	4.9	5.5	6.7	7.3	7.9	8.1	8.4	8.7	7.9	7.9
Delaware	With no policy response	4.4	4.7	5.4	6.3	7.7	9.4	10.7	12.0	12.4	13.3	13.9	14.4
Delaware	With actual policy response	4.5	4.7	5.2	5.7	6.6	7.2	7.8	8.4	8.5	9.0	8.3	8.2
Elk	With no policy response	5.7	6.0	6.9	8.1	9.9	12.0	13.7	15.3	15.9	17.0	17.8	18.4
LIK	With actual policy response	4.8	5.3	6.2	7.7	11.9	13.8	13.5	12.1	11.5	10.8	10.6	10.5
Erie	With no policy response	5.4	5.7	6.6	7.6	9.4	11.4	13.0	14.5	15.1	16.2	16.9	17.5
Lite	With actual policy response	5.3	5.4	5.7	6.4	7.7	8.8	9.7	10.0	10.0	9.9	10.1	9.9
Fayette	With no policy response	6.3	6.7	7.7	9.0	11.0	13.4	15.3	17.0	17.7	18.9	19.8	20.4
Tayette	With actual policy response	6.0	6.3	6.7	7.3	8.2	8.9	9.7	10.2	11.0	10.1	11.7	11.6
Forest	With no policy response	8.9	9.5	10.9	12.7	15.5	18.9	21.6	24.1	25.0	26.8	28.0	28.9
Torest	With actual policy response	6.5	7.6	7.9	8.8	9.9	10.4	11.8	12.4	12.6	11.2	16.6	16.4
Franklin	With no policy response	4.0	4.2	4.8	5.6	6.9	8.4	9.6	10.7	11.1	11.9	12.5	12.9
TTGTIKITT	With actual policy response	3.5	3.8	4.5	5.5	7.3	8.0	8.6	8.9	8.8	8.7	7.4	7.3
Fulton	With no policy response	5.5	5.9	6.8	7.9	9.7	11.8	13.4	15.0	15.5	16.6	17.4	18.0
Turton	With actual policy response	5.7	6.5	7.1	9.9	12.8	13.8	14.5	13.7	13.1	12.2	10.4	10.3
Greene	With no policy response	5.6	6.0	6.9	8.0	9.8	11.9	13.6	15.2	15.7	16.9	17.7	18.2
dieene	With actual policy response	5.5	5.6	5.9	6.3	6.9	7.3	7.8	7.9	8.3	8.2	10.4	10.3
Huntingdon	With no policy response	6.4	6.7	7.8	9.0	11.1	13.5	15.4	17.2	17.8	19.1	20.0	20.6
Training a on	With actual policy response	5.6	6.0	6.7	8.1	9.9	10.4	11.0	11.2	11.0	10.5	11.9	11.7
Indiana	With no policy response	5.3	5.6	6.4	7.5	9.2	11.2		14.3	14.8	15.8	16.6	17.1
marana	With actual policy response	4.9	5.1	5.3	5.8	6.5	7.3	8.0	8.3	8.7	8.6	9.8	9.7
Jefferson	With no policy response	5.5	5.8	6.7	7.8	9.6	11.7	13.3	14.9	15.4	16.5	17.3	17.8
Jenerson	With actual policy response	5.0	5.3	5.6	6.5	8.2	9.4	10.3	10.5	10.3	10.2	10.2	10.1
Juniata	With no policy response	4.5	4.8	5.5	6.4	7.8	9.5	10.9	12.1	12.6	13.5	14.1	14.6
***************************************	With actual policy response	4.8	4.8	5.5	6.5	7.4	8.1	8.2	8.5	8.4	8.0	8.4	8.3
Lackawanna	With no policy response	5.2	5.5	6.3	7.4	9.0	11.0	12.6	14.0	14.6	15.6	16.3	16.8
ac one warming	With actual policy response	5.2	5.6	6.1	6.6	7.6	8.1	8.5	9.1	9.1	9.7	9.7	9.6
Lancaster	With no policy response	3.6	3.9	4.4	5.2	6.3	7.7	8.8	9.8	10.2	10.9	11.5	11.8
ancaster	With actual policy response	3.7	4.0	4.4	5.1	6.7	7.1	7.6	7.8	8.1	7.9	6.8	6.8

Table 3. (cont)			-		-	-			-	-			
County		08q1	08q2	08q3	08q4	09q1	09q2	09q3	09q4	10q1	10q2	10q3	10q4
	With no policy response	5.6	5.9	6.8	7.9	9.7	11.8	13.5	15.1	15.6	16.7	17.5	18.1
Lawrence	With actual policy response	5.6	5.9	6.4	7.0	8.4	9.5	10.0	10.1	9.8	10.1	10.4	10.3
	With no policy response	3.7	3.9	4.5	5.2	6.4	7.8	8.9	10.0	10.3	11.1	11.6	12.0
Lebanon	With actual policy response	3.6	3.9	4.3	4.8	6.3	6.7	7.0	7.2	7.6	7.7	6.9	6.8
Lobiah	With no policy response	4.8	5.1	5.9	6.8	8.3	10.2	11.6	13.0	13.4	14.4	15.1	15.5
Lehigh	With actual policy response	5.1	5.4	5.8	6.4	7.8	8.5	9.2	9.6	9.6	9.9	9.0	8.9
Luzerne	With no policy response	5.7	6.0	6.9	8.0	9.8	12.0	13.7	15.3	15.8	17.0	17.8	18.3
Luzerne	With actual policy response	5.5	5.9	6.5	7.2	8.4	8.8	9.4	9.9	10.1	10.6	10.5	10.4
Lucomina	With no policy response	5.3	5.6	6.5	7.5	9.2	11.2	12.8	14.3	14.8	15.9	16.6	17.2
Lycoming	With actual policy response	5.4	5.5	5.9	6.8	8.1	8.7	9.3	9.7	9.6	9.6	9.9	9.8
Mc Kean	With no policy response	5.5	5.8	6.7	7.8	9.5	11.6	13.3	14.8	15.4	16.5	17.2	17.8
IVIC REATI	With actual policy response	5.1	5.5	6.5	7.6	9.1	10.5	10.9	11.1	10.7	10.7	10.3	10.1
Mercer	With no policy response	5.8	6.1	7.1	8.2	10.1	12.3	14.0	15.6	16.2	17.3	18.2	18.7
iviercei	With actual policy response	5.8	6.0	7.0	8.2	10.0	11.4	11.8	12.2	11.7	11.7	10.8	10.7
Mifflin	With no policy response	5.8	6.1	7.0	8.2	10.0	12.2	14.0	15.6	16.1	17.3	18.1	18.7
IVIIIIIII	With actual policy response	5.7	6.0	6.8	7.9	9.5	9.7	10.3	10.8	10.5	10.4	10.8	10.7
Monroe	With no policy response	5.2	5.5	6.3	7.3	9.0	10.9	12.5	13.9	14.4	15.5	16.2	16.7
Wolffde	With actual policy response	5.0	5.5	6.1	6.9	8.0	8.7	9.1	9.7	9.7	9.9	9.6	9.5
Montgomery	With no policy response	3.8	4.1	4.7	5.5	6.7	8.1	9.3	10.4	10.7	11.5	12.1	12.4
ivioritgornery	With actual policy response	3.7	4.0	4.5	5.1	6.1	6.7	7.1	7.3	7.4	7.7	7.2	7.1
Montour	With no policy response	4.2	4.4	5.1	5.9	7.3	8.9	10.1	11.3	11.7	12.6	13.1	13.6
Wortou	With actual policy response	4.2	4.6	5.0	5.4	6.3	6.7	6.8	6.7	6.6	6.9	7.8	7.7
Northampton	With no policy response	4.7	5.0	5.7	6.7	8.2	9.9	11.4	12.7	13.1	14.1	14.7	15.2
Northampton	With actual policy response	4.7	4.9	5.2	6.0	7.0	7.7	8.5	9.2	9.4	9.6	8.8	8.7
Northumberland	With no policy response	5.6	5.9	6.8	7.9	9.7	11.8	13.5	15.1	15.6	16.8	17.5	18.1
Northania	With actual policy response	5.5	6.1	6.9	7.8	9.0	9.6	10.2	10.5	10.1	9.9	10.4	10.3
Perry	With no policy response	4.4	4.7	5.4	6.2	7.6	9.3	10.6	11.9	12.3	13.2	13.8	14.2
Гену	With actual policy response	4.5	5.0	5.3	6.1	7.1	7.6	8.3	8.7	8.9	8.9	8.2	8.1
Philadelphia	With no policy response	6.4	6.8	7.8	9.0	11.1	13.5	15.4	17.2	17.8	19.1	20.0	20.6
Tilliadeipilia	With actual policy response	6.4	6.7	7.2	7.9	8.9	9.5	10.4	11.1	11.1	11.6	11.9	11.7
Pike	With no policy response	5.2	5.5	6.4	7.4	9.1	11.1	12.6	14.1	14.6	15.6	16.4	16.9
TING	With actual policy response	5.6	5.2	5.4	6.2	7.7	8.3	8.4	9.2	10.5	10.3	9.7	9.6
Potter	With no policy response	6.0	6.4	7.4	8.6	10.5	12.8	14.6	16.3	16.9	18.1	19.0	19.6
i ottei	With actual policy response	6.6	6.5	7.3	8.3	10.7	11.0	11.2	11.7	10.6	10.9	11.3	11.2
Schuylkill	With no policy response	6.0	6.3	7.3	8.5	10.4	12.7	14.5	16.2	16.8	18.0	18.8	19.4
- Chaylkiii	With actual policy response	5.3	5.8	6.4	7.5	9.0	9.9	10.5	10.8	10.8	10.9	11.2	11.0

County		08q1	08q2	08q3	08q4	09q1	09q2	09q3	09q4	10q1	10q2	10q3	10q4
Carrelan	With no policy response	4.6	4.8	5.6	6.5	7.9	9.7	11.0	12.3	12.8	13.7	14.3	14.
Snyder	With actual policy response	5.3	5.8	6.2	7.3	8.6	8.8	9.2	10.0	9.5	9.1	8.5	8.
Camanant	With no policy response	5.8	6.1	7.0	8.2	10.0	12.2	13.9	15.5	16.1	17.3	18.1	18.
Somerset	With actual policy response	5.8	6.1	6.6	7.1	7.8	8.5	9.0	9.6	10.1	9.9	10.7	10.
Sullivan	With no policy response	5.3	5.6	6.4	7.5	9.2	11.2	12.8	14.3	14.8	15.8	16.6	17.
Sumvan	With actual policy response	5.0	5.2	5.7	7.0	8.2	8.5	9.0	8.9	8.1	8.5	9.8	9.
Susquehanna	With no policy response	5.0	5.3	6.2	7.2	8.8	10.7	12.2	13.6	14.1	15.1	15.8	16.
Susquenanna	With actual policy response	4.8	5.3	5.8	6.9	8.2	8.1	8.6	9.3	9.2	8.8	9.4	9.
Tiogo	With no policy response	5.6	5.9	6.8	7.9	9.7	11.8	13.5	15.0	15.6	16.7	17.5	18.
Tioga	With actual policy response	5.2	5.3	6.2	7.6	9.7	9.9	9.6	9.6	8.4	8.9	10.4	10.
Union	With no policy response	5.1	5.4	6.2	7.2	8.8	10.8	12.3	13.7	14.2	15.2	16.0	16.
Official	With actual policy response	5.5	6.0	6.4	7.3	8.6	9.0	9.3	9.5	9.2	9.6	9.5	9.
Venango	With no policy response	5.3	5.6	6.5	7.6	9.3	11.3	12.9	14.4	14.9	16.0	16.7	17.
venango	With actual policy response	5.2	5.5	5.8	6.4	7.8	8.6	9.3	9.6	9.4	9.4	9.9	9.
Warren	With no policy response	4.9	5.1	5.9	6.9	8.5	10.3	11.8	13.1	13.6	14.6	15.2	15.
warren	With actual policy response	4.8	4.8	5.3	6.1	7.5	7.7	8.1	8.2	8.4	8.3	9.1	9.
Washington	With no policy response	5.1	5.4	6.2	7.2	8.8	10.7	12.3	13.7	14.2	15.2	15.9	16.
wasiiiigtoii	With actual policy response	4.8	4.9	5.4	5.9	6.9	7.6	8.1	8.4	9.0	8.8	9.4	9.
Wayne	With no policy response	4.6	4.9	5.6	6.6	8.0	9.8	11.2	12.5	12.9	13.9	14.5	15.
vvayne	With actual policy response	4.5	4.9	5.4	6.2	7.2	7.2	7.5	7.9	7.7	7.8	8.6	8.
Westmoreland	With no policy response	5.1	5.4	6.2	7.2	8.8	10.7	12.3	13.7	14.2	15.2	15.9	16.
westinorerand	With actual policy response	4.7	5.0	5.5	6.1	7.2	7.7	8.2	8.6	8.8	8.6	9.4	9.
Wyoming	With no policy response	5.3	5.6	6.5	7.5	9.2	11.3	12.8	14.3	14.9	15.9	16.7	17.
vv yoming	With actual policy response	5.5	5.7	6.2	6.8	8.1	8.6	8.6	9.1	8.6	9.6	9.9	9.
York	With no policy response	4.2	4.5	5.2	6.0	7.4	9.0	10.3	11.5	11.9	12.7	13.3	13.
fork	With actual policy response	4.1	4.3	4.9	5.6	7.2	8.1	8.6	8.9	9.3	9.2	7.9	7.

Source. Keystone Research Center estimates for Pennsylvania based on Alan S. Blinder and Mark Zandi "How the Great Recession Was Brought to an End", July 27, 2010. Unemployment rates for the 3rd and 4th quarter are based on estimates by Global Insight.

ENDNOTES

¹ Alan. S. Blinder and Mark Zandi, *How the Great Recession Was Brought to an End*, July 27, 2010. Available online at http://www.economy.com/mark-zandi/documents/End-of-Great-Recession.pdf.

² Available online at http://keystoneresearch.org/publications/research/state-working-pennsylvania-2010

³ The jobs deficit is estimated as the sum of the total number of nonfarm payroll jobs the region has lost plus the number of jobs in December 2007 times the percentage growth in the working-age population between December 2007 and August 2010. According to the BLS (http://www.bls.gov/lau/ststdsadata.txt), the working-age population in Pennsylvania grew by 1.6% between December 2007 and August 2010. To compute the jobs deficit for each metro area, we need to estimate working-age population growth through August 2010 in each metro area. Working-age population growth figures in each metro are, however, only available up to 2009 (from the American Community Survey, or ACS). To project working-age population growth in each metropolitan area through August 2010, we first computed from the ACS for the 2007 to 2009 period each metropolitan area's share of statewide working-age population growth. We estimated each metropolitan area's working-age population growth through August 2010 as its share of statewide population growth from 2007 to 2009 times the increase in the state working-age population between December 2007 and August 2010. To calculate the jobs deficit in each area if there had been no intervention in the economy by policymakers, we first estimate what total nonfarm employment would have been based upon national estimates provided in Alan. S. Blinder and Mark Zandi "How the Great Recession Was Brought to an End." Each area's employment is estimated as the area's average share of national employment based on Current Employment Statistics (CES) (between January 2000 and August 2010) times Blinder and Zandi's national employment estimates in the absence of policy intervention.

⁴ Alan. S. Blinder and Mark Zandi in "How the Great Recession Was Brought to an End" estimate what the national unemployment rate would have been in the absence of any intervention in the economy. We convert these estimates into state, metropolitan and county unemployment rates by averaging the ratio of the state, metropolitan and county unemployment rate to national unemployment between January 2000 and August 2010. This ratio is then multiplied by Blinder and Zandi's estimate of what the national unemployment rate would have been in each quarter in 2008, 2009 and 2010.

⁵ The data source (Current Employment Statistics (CES)) used to project metro area job deficits, with and without federal policy intervention, does not contain county-level data.

⁶ The Bureau of Labor Statistics (BLS) does not produce a seasonally adjusted estimate of the unemployment rate in the Philadelphia Metropolitan Division but they do for the broader Philadelphia-Camden-Wilmington metropolitan statistical area which is what we report in this paper. The BLS does produce seasonally adjusted figures for total nonfarm employment in the Philadelphia Metropolitan Division and we do rely on those numbers in this report.

⁷ Panel discussion: Budget Policy, Short-Term Recovery and Long-Term Growth available online: http://www.epi.org/publications/entry/americas fiscal choices.

⁸ Corporate profits have already fully recovered. Dean Baker, "The Myth of Expansionary Fiscal Austerity," October 2010, available online: http://www.cepr.net/documents/publications/austerity-myth-2010-10.pdf.