



Economic Recovery Part Two: We Need More Action on Jobs and Wages

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February 17, 2011

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Overview

As we approach February 19th, the second anniversary of the passage of the American Recovery and Reinvestment Act of 2009 (ARRA), this report updates analysis of the effect of the Act and other federal actions on the economy of Pennsylvania and its metropolitan areas. The report also considers the need for policymakers to take additional action to ensure a robust and sustainable recovery.

The Recovery Act Worked. A year ago, some economists and many pundits questioned the effectiveness of the Act. Today, the evidence is indisputable: aggressive action by the federal government to create jobs *worked*. The Recovery Act turned the nation and Pennsylvania around, from recession toward recovery.

As of December 2010, federal action on the economy saved 400,000 Pennsylvania jobs and prevented a rise in the state's unemployment rate to 15%. (The body of this report contains full sources and methodological details for estimates in the overview.) Federal action saved 118,000 jobs in the Philadelphia metro area, 80,000 in the Pittsburgh metro area, and 10,000 to 30,000 in the Allentown-Bethlehem-Easton, Harrisburg-Carlisle, Scranton-Wilkes Barre, York-Hanover, and Reading metro areas.

Compared to two previous "jobless recoveries," Pennsylvania is also adding jobs faster in the current economic expansion. Eighteen months after the end of the 1991 and 2001 recessions, employment in Pennsylvania had declined by roughly 35,000 jobs. As of December 2010, 18 months after the official end of the Great Recession, employment in Pennsylvania was up by 24,200 jobs.

As we documented earlier this month, recent job growth in Pennsylvania is also healthier than in most other states. Pennsylvania ranked third based on the number of jobs created in 2010, 12th by percentage job growth over the last year and 14th by percentage job change since December 2007.¹

We Need More Action on Jobs and Wages. Despite some good news, the unemployment rate in Pennsylvania remains at 8.5%, and the state is still short of full employment by an estimated 300,000 jobs. While these figures **do not** imply that federal action was ineffective, they **do** illustrate that not enough has been done to replace the thousands of jobs lost as a result of the collapse of the housing bubble.

One of the reasons that the private economy will be slow to pick up the slack from the federal Recovery Act is the erosion of middle-class workers' wages over the past three decades as much of the gains from growth have gone to a thin slice of the highest earners. Typical workers have lost \$3,000 to \$3,500 in

annual earnings due the three-decade rise in inequality. Slow wage growth will continue to hold down consumption over the next several years, according to the Congressional Budget Office.

The compromise on tax cuts and the extension of unemployment insurance (UI) that President Obama and Congressional Republicans negotiated in December will boost the economy significantly this year, lowering the unemployment rate by a projected 1.2 percentage points. Even with this boost, the national unemployment rate will remain a projected 8.4% in 2012 and 6.7% in 2013, according to economist Mark Zandi. Moreover, House Republicans are now proposing \$61 billion in spending cuts that will decelerate the economy, undoing some of the positive impact of the December compromise. These cuts are being proposed by legislators wrapping themselves in the mantle of deficit reduction, even though the tax cuts they insisted on for the wealthy in December cost \$139 billion and will have almost no positive impact on the economy, according to Zandi.

In this still-fragile recovery, it is critical that policymakers not fixate on the wrong deficit. For Main Street families, the **jobs deficit** and the **wage deficit** matter a lot more than the federal fiscal deficit. Moreover, more action to address the jobs and wage deficits — eliminating the shortfall in jobs since the recession began and the shortfall in middle-class wages that has built up over three decades — is the best way to restore robust economic growth that will drive down America's fiscal deficit.

Options for Pennsylvania Policymakers. Although Pennsylvania lawmakers are more constrained in their ability to create jobs than those in Washington, Harrisburg does have options.

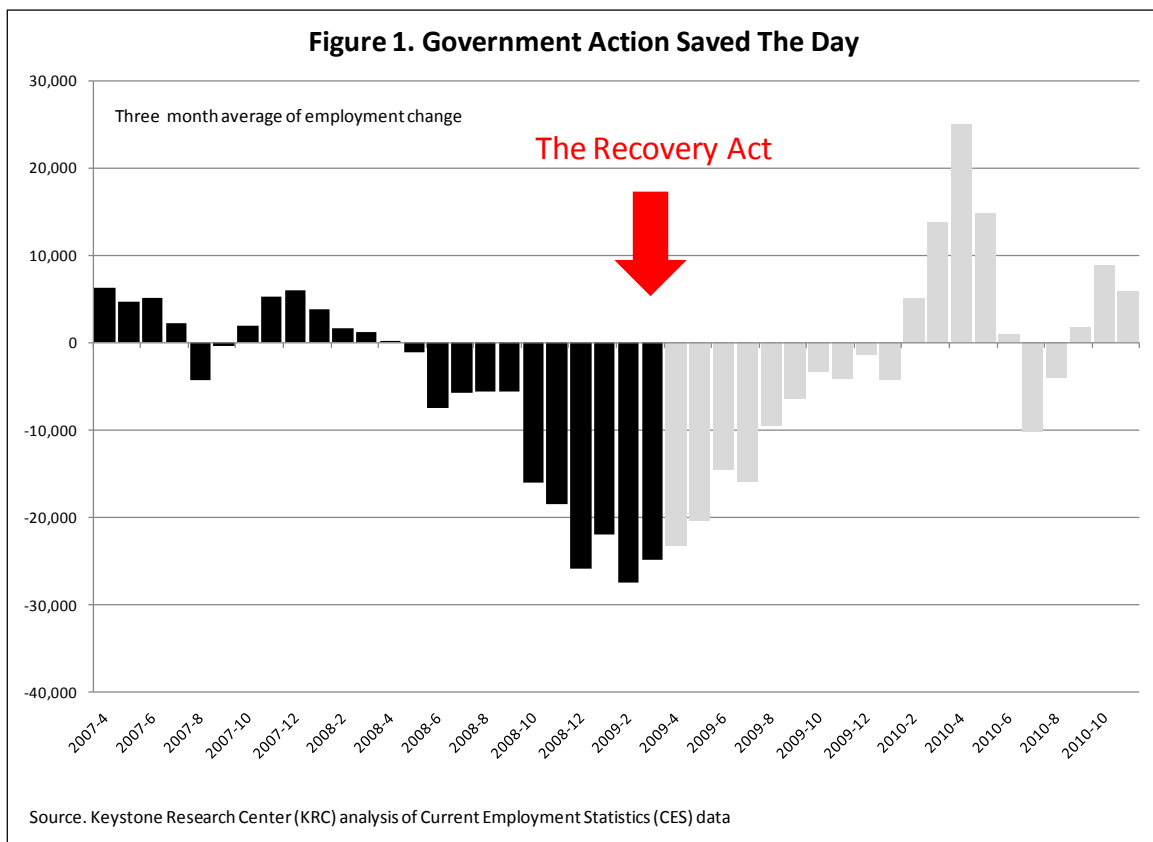
- The state should increase its bond-financed investments in infrastructure, transportation, schools, and energy efficiency retrofits. By ramping up construction projects now, the state will not only create additional jobs, it will also get much better value for money because bid prices can be as much as 20% lower when the industry is in the doldrums and contractors are desperate for business.
- The state should modernize its unemployment insurance rules and capture \$289 million in federal dollars still available for the low-income unemployed.
- The state should join 17 other states by enacting a work sharing law that allows employers, on a voluntary basis, to permit their workers to claim part-time unemployment insurance benefits when those workers see their hours cut back because of the slow economy. This helps avoid layoffs and allows employers to retain workers with valued skills.
- Fourth, the state should invest in innovative workforce and economic development programs that help strengthen Pennsylvania's critical industries.
- Fifth, to get started on the wage deficit, the legislature should raise the state's minimum wage and enact an economic development accountability bill requiring companies receiving state business subsidies to pay market-based wages that are not near the bottom of their industry. The new administration and the legislature should also establish a "Task Force on the Pennsylvania Middle Class" to generate additional proposals for lifting wages and reducing income polarization in the private sector.

Along with using bond financing when it would save on project costs, and maximizing federal funds coming to Pennsylvania, the state could pay for expanded state-level job creation through a two-year temporary increase in the tax rate on capital gains and dividends. Recapturing some of the two-year extension of tax cuts for the wealthy that was part of the December federal compromise would take this money off the sidelines and put it to work investing in Pennsylvania's future.

A smart, aggressive jobs plan enacted even in a tight fiscal year would position Pennsylvania to maintain and expand its job-growth and unemployment rate advantage on the rest of the country and on neighboring New Jersey.

Swift Federal Action Saved The Day

As a result of the collapsing housing bubble, culminating in a financial crisis, Pennsylvania job losses per month were growing rapidly in the latter part of 2008 and into the first couple months of 2009 (see Figure 1). Between the first and second quarter of 2009, just as the impact of the ARRA was felt, job losses per month started falling, with job losses turning to job gains in 2010.²



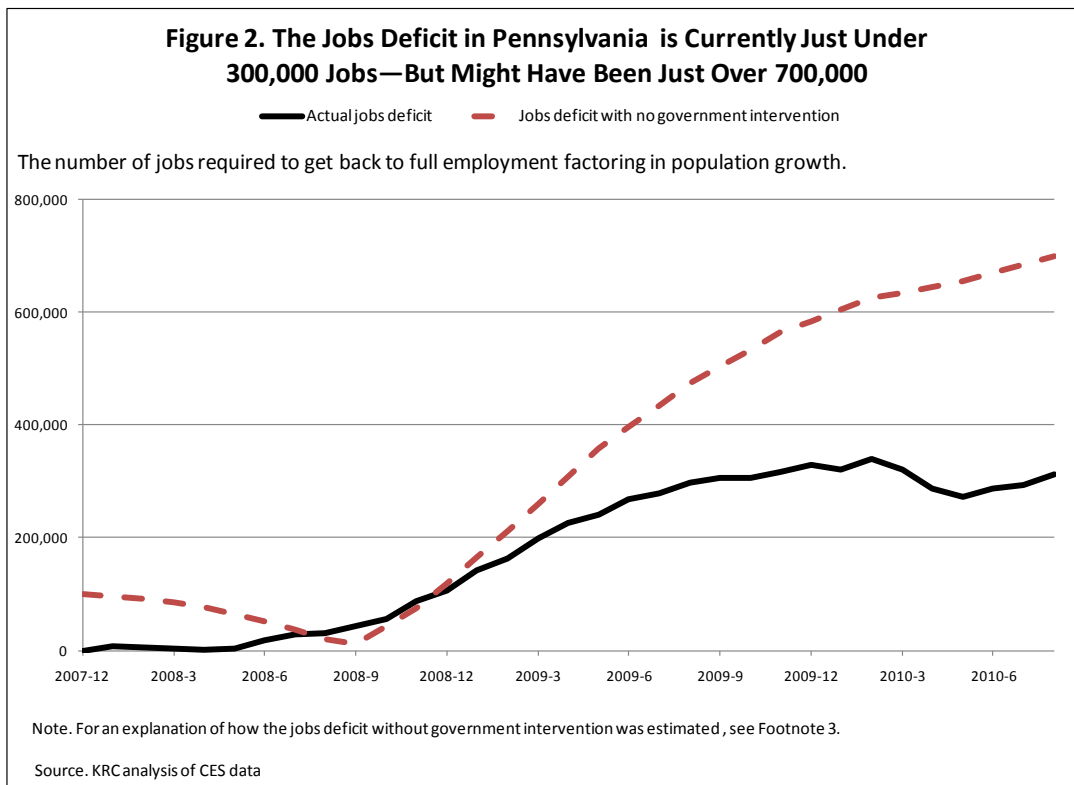
Had nothing been done to rescue the Pennsylvania economy, the state would now be facing a jobs deficit of 700,000 jobs, according to our extension to the state level of national analysis conducted by economists Alan Blinder and Mark Zandi (Figure 2).³

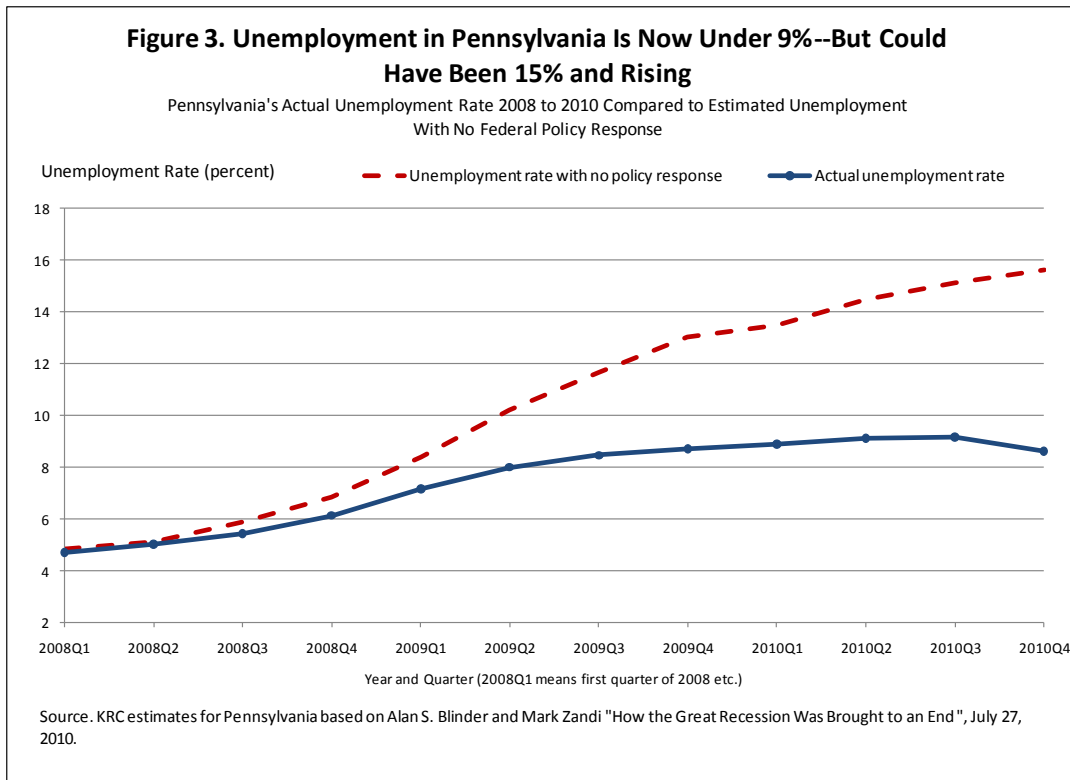
Thus, federal action saved more than 400,000 jobs to date in Pennsylvania. Absent federal action, the state's unemployment rate would have reached 15% in the fourth quarter of this year (Figure 3).

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 policy 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 as well as the cuts in spending by state and local governments necessitated by the recession. The failure to boost federal spending enough to offset the decline in demand has left Pennsylvania facing a jobs deficit of nearly 300,000 jobs and by extension years of high unemployment.

In addition as we explained in *The State of Working Pennsylvania 2010*, federal policymakers also failed to 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.



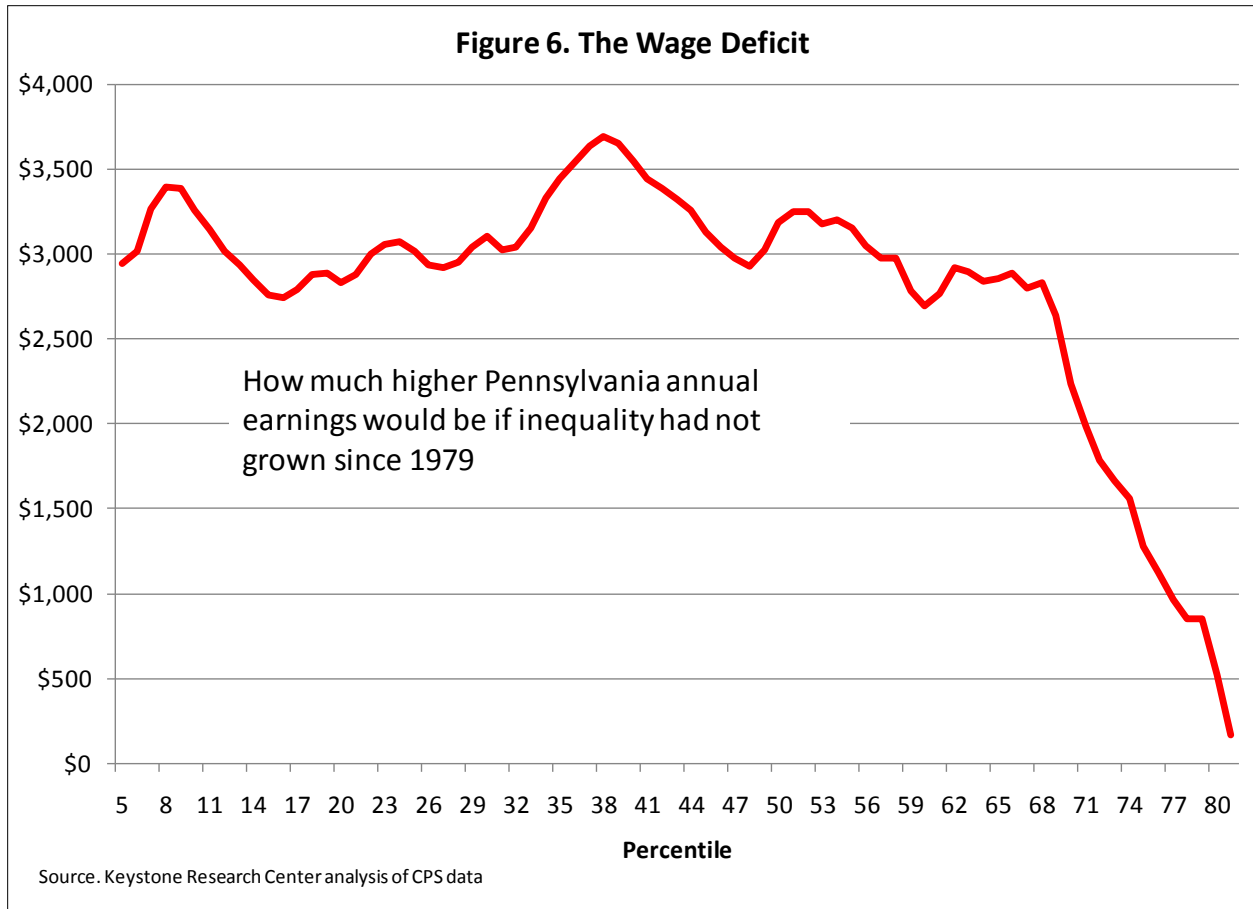


The Wage Deficit

Currently, households do not possess the buying power to drive the economy because an unprecedented “wage deficit” has opened up for the bottom two-thirds of wage earners over the past three decades. Although the total economic pie, driven by rising productivity growth, has increased in size, most of the increase has been captured by the highest-income households. One way to measure the “wage deficit” is to estimate how much more workers would earn if the distribution of wages was as equal today as it was in 1979.⁴

For two-thirds of Pennsylvania workers, the wage deficit is between \$1.30 and \$1.80 per hour. For a full-time employee who works 2,080 hours per year, this translates into between \$2,800 and \$3,750 per year. For a middle-class family with two full-time earners, this adds up to between \$5,600 and \$7,500 per year.

The lower end of our estimate of the wage deficit for a two-earner family is approximately what Pennsylvanians pay each year in state and local income, sales and property taxes.⁵ In sum, taxes are not the primary reason for the erosion in the buying power of working families: the wage deficit is.



According to the Congressional Budget Office, slow wage and salary growth in the recession and recovery will continue to hold down consumption, “Real wage and salary income, the largest component of consumer income, declined during the recession at the fastest rate since the recession of 1973–1975. It is likely to recover only slowly, further restraining consumer spending. CBO expects that the continued high rate of unemployment will limit the growth of wage rates for the next few years...”⁶

We Need More Action on Jobs and Wages

The analysis above makes clear that we need more action on jobs and wages to accelerate a return to full employment and to strengthen the middle class.

The Flawed Federal Compromise of December 2010. The federal government did take some additional action to create jobs through the tax cut-unemployment insurance (UI) extension law compromise signed into law by President Obama last December 17. This compromise will lower the unemployment rate by a projected 1.2 percentage points in 2011 according Mark Zandi, chief economist for Moody Analytics and former John McCain economic advisor.⁷ Even with this boost, however, Zandi estimates that the national unemployment rate will remain 8.4% in 2012 and 6.7% in 2013.

The tax cut-UI extension deal will have less impact on jobs than if the money spent on what Zandi refers to as the “Republican Proposals”—the extension of the tax cuts for households earning over \$250,000

and additional cuts in the estate tax—had been spent on infrastructure investments and additional revenue sharing with states and localities. The provisions benefitting the wealthy cost \$139 billion over two years. Zandi’s economic model shows that they will have almost no positive impact on jobs and the unemployment rate.

Another emerging danger for the economy is the prospect of significant cuts in job-creating programs *this year*, even though the national unemployment rate remains over 9%. Taking on the mantle of deficit cutters, House Republicans are proposing budget cuts of \$61 billion in programs that disproportionately benefit vulnerable families—e.g., by paying for home heating oil or college tuition. These programs create jobs precisely because they go to families on limited means that spend all the assistance they receive. These cuts, if enacted, will make up less than half of the increase in the deficit due to the tax cuts for the wealthy that many of these same officials insisted on in December. At the same time, these cuts would have a bigger negative impact on jobs than the tiny positive impact of the high-end tax cuts.

In sum, policymakers—even if sometimes disingenuously—are increasingly fixating on the wrong deficit. For Main Street families, the **jobs deficit** and the **wage deficit** matter a lot more than the federal fiscal deficit or than cutting “spending” because this is ostensibly necessary to reign in the fiscal deficit. Moreover, addressing the jobs and wage deficits is the best way to restore robust economic growth that will drive down America’s fiscal deficit. Today’s economic growth, while positive, is not fast enough to put people back to work or lift wages and incomes. As long as growth remains sluggish, tax revenues will remain low and our fiscal deficit high.

Focusing too soon on the fiscal deficit risks a worst-of-both-worlds outcome in which our economic recovery falters, and the jobs, wage, and fiscal deficits all grow. Premature focus on fiscal deficits risks snatching defeat from the jaws of victory in the effort to restore the economy after its collapse in 2008.

Options for Pennsylvania Policymakers. Although Pennsylvania lawmakers are more constrained in their ability to create jobs than those in Washington, Harrisburg does have options. For example:

- First, the state should increase its bond-financed investments in infrastructure, transportation, schools, and energy efficiency retrofits. As a result of the steep downturn in the construction industry, major projects can cost 20% less than they would with unemployment low, significantly stretching the public investment dollar. By ramping up construction projects now, the state would create additional jobs and get much better value for money.
- The state is at risk of leaving \$289 million in federal dollars on the table that would expand unemployment benefits for the low-income unemployed. While the official deadline is August to claim this money, Washington could try to take back unspent funds before then. Therefore, the legislature should act immediately to modernize the state’s unemployment insurance rules and access these funds.
- The state should enact a work sharing law that allows workers who are part-time because their employer does not have sufficient customer demand to claim part-time unemployment benefits. Seventeen other states have such “work sharing” programs which enable employers, on a voluntary basis, to avoid laying off valued skilled workers.

- Fourth, the state should invest in innovative workforce and economic development programs that help strengthen Pennsylvania’s critical industries. This includes the state’s nationally recognized industry partnership training program, which ensures that training programs develop the skills employers need to create additional good jobs. The state should also expand the basic approach of partnering with industry to the economic development sphere, funding competitive grants from groups of employers with promising proposals that would increase jobs—e.g., through supply chain development and in-sourcing, joint technology diffusion or innovation, or joint marketing initiatives.⁸ Since industry cluster initiatives are aligned with the economic development strategies of the Obama Administration, it should be possible to leverage additional federal funds to help pay for them in Pennsylvania.
- Fifth, to get started on closing the wage deficit, the legislature should increase the state’s minimum wage, just as the federal government did in 1938, early in the recovery from the Great Depression. The state should also enact an economic development accountability bill that includes market-based wage standards that ensure the companies receiving state business subsidies do not pay near the bottom of their industry sector. Since most companies don’t receive such subsidies, it makes no sense to give subsidies to companies that may less than most of their peers. The new administration and the legislature should also establish a “Task Force on the Pennsylvania Middle Class” to generate additional proposals for lifting wages and reducing income polarization in the private sector.

In addition to using bond financing when it would save on project costs, and maximizing federal funds coming to Pennsylvania, one other way to pay for expanded state-level job creation would be through a two-year temporary increase in the Pennsylvania tax rate on capital gains and dividends. (This extension is allowable under the state’s flat-tax constitutional provision because taxes need only be uniform on each “class” of income. Capital gains and dividends are each their own class.) This increase could recapture some of two-year extension of tax cuts for the wealthy that was part of the December federal compromise. Instead of this money largely staying on the sidelines, it would be put to work investing in Pennsylvania’s future—and creating a stronger foundation for future increases in capital gains as well as wages and profits more generally.

A smart, aggressive jobs plan enacted even in a tight fiscal year would position Pennsylvania to maintain and expand its job-growth and unemployment rate advantage on the rest of the country and on neighboring New Jersey.

Appendix A: The Jobs Deficits and Unemployment Rates in Pennsylvania Metro Areas

Since the start of the recession in December 2007, Pennsylvania has shed 190,000 jobs, and now has an 8.5% unemployment rate.

As grim as these statistics are for Pennsylvania workers and their families, the joblessness we now face could have been substantially worse were it not for the extraordinary interventions in the economy by the Federal Reserve, the Bush and Obama administrations, and Congress. In this section, we update for every metro area and county in Pennsylvania the shortfall in jobs and the rise in the unemployment rate absent federal action.

For each Pennsylvania metro area, Table 1 presents four numbers. The first is *the actual job loss* between December 2007 and December 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.⁹ 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, *the actual unemployment rate* and *the unemployment rate absent federal action*.¹⁰

For each of Pennsylvania's 67 counties, Table 3 (at the back of the report because of its length) shows *the actual unemployment rate* and an estimate of *the unemployment rate absent federal action*. (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.¹¹) Charts showing the actual unemployment rate in each metro area and county, and the unemployment rate absent federal policy action, are available online at [INSERT LINK].

Table 1. Actual job loss as of December 2010, 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 loss	Actual jobs deficit	Jobs deficit with no government intervention	Jobs saved
Pennsylvania	190,100	298,805	716,249	417,444
Allentown-Bethlehem-Easton, PA-NJ	14,000	19,182	46,673	27,491
Altoona, PA	1,300	157	5,257	5,100
Erie, PA	6,500	7,234	14,003	6,769
Harrisburg-Carlisle, PA	13,100	19,063	40,903	21,841
Johnstown, PA	2,200	1,102	5,893	4,791
Lancaster, PA	14,000	19,860	33,535	13,675
Lebanon, PA	1,500	1,717	7,115	5,398
Philadelphia, PA Metropolitan Division	79,600	182,534	300,187	117,653
Pittsburgh, PA	26,000	28,747	109,088	80,341
Reading, PA	8,600	11,093	21,831	10,737
Scranton--Wilkes-Barre, PA	9,600	8,470	25,606	17,135
State College, PA	1,000	1,722	9,068	7,346
Williamsport, PA	1,900	1,224	4,268	3,044
York-Hanover, PA	8,000	11,038	26,472	15,433

Source. KRC analysis of CES data

Table 2. Unemployment rates by metropolitan area with and without a policy response

Metropolitan Area		08q1	08q2	08q3	08q4	09q1	09q2	09q3	09q4	10q1	10q2	10q3	10q4
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	9.2	8.6
Allentown-Bethlehem-Easton, PA-NJ MSA	With no policy response	4.8	5.1	5.8	6.8	8.3	10.1	11.5	12.9	13.4	14.3	15.0	15.5
	With actual policy response	4.9	5.1	5.6	6.4	7.6	8.3	9.1	9.6	9.7	9.8	9.7	9.3
Altoona, PA MSA	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
	With actual policy response	4.5	4.9	5.5	6.0	6.7	7.1	7.4	7.7	7.9	8.0	7.8	7.5
Erie, PA MSA	With no policy response	5.4	5.7	6.6	7.6	9.4	11.4	13.0	14.5	15.0	16.1	16.9	17.4
	With actual policy response	5.3	5.4	5.7	6.4	7.7	8.8	9.7	10.0	10.0	9.9	9.4	9.2
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
	With actual policy response	3.9	4.3	4.7	5.3	6.5	7.0	7.6	7.8	8.0	8.2	8.1	7.8
Johnstown, PA MSA	With no policy response	6.0	6.3	7.3	8.5	10.4	12.7	14.4	16.1	16.7	17.9	18.7	19.3
	With actual policy response	5.6	5.9	6.4	6.9	7.9	8.5	9.0	9.4	9.8	10.0	9.7	9.5
Lancaster, PA MSA	With no policy response	3.7	3.9	4.5	5.2	6.4	7.7	8.8	9.9	10.2	11.0	11.5	11.8
	With actual policy response	3.7	4.0	4.4	5.1	6.7	7.1	7.6	7.8	8.1	7.9	7.7	7.4
Lebanon, PA MSA	With no policy response	3.7	3.9	4.5	5.3	6.4	7.8	8.9	10.0	10.4	11.1	11.6	12.0
	With actual policy response	3.6	3.9	4.3	4.8	6.3	6.7	7.0	7.2	7.6	7.7	7.5	7.3
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	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
	With actual policy response	4.6	4.9	5.5	6.2	7.4	8.0	8.6	9.0	9.2	9.4	9.2	9.0
Pittsburgh, PA MSA	With no policy response	4.8	5.1	5.9	6.9	8.4	10.3	11.7	13.1	13.5	14.5	15.2	15.7
	With actual policy response	4.6	4.9	5.2	5.8	6.7	7.3	7.7	8.1	8.4	8.5	8.2	8.1
Reading, PA MSA	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
	With actual policy response	4.6	4.9	5.6	6.5	7.9	8.7	9.2	9.5	9.7	9.7	9.6	9.2
Scranton--Wilkes-Barre, PA MSA	With no policy response	5.5	5.8	6.7	7.7	9.5	11.6	13.2	14.7	15.3	16.4	17.1	17.7
	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	9.8
State College, PA MSA	With no policy response	3.8	4.0	4.6	5.4	6.6	8.0	9.2	10.2	10.6	11.4	11.9	12.3
	With actual policy response	3.8	4.2	4.5	4.9	5.4	5.7	6.0	6.2	6.4	6.6	6.4	5.9
Williamsport, PA MSA	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	17.1
	With actual policy response	5.4	5.5	5.9	6.8	8.1	8.7	9.3	9.7	9.6	9.6	9.2	8.8
York-Hanover, PA MSA	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
	With actual policy response	4.1	4.3	4.9	5.6	7.2	8.1	8.6	8.9	9.3	9.2	9.0	8.9

Source: KRC estimates for Pennsylvania based on Alan S. Blinder and Mark Zandi "How the Great Recession Was Brought to an End", July 27, 2010.

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 6,000 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 13%.
- 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 117,000 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%.¹²

- In the Pittsburgh metropolitan area, government intervention saved an estimated 80,000 jobs. Without that intervention, the unemployment rate today would be 15%.
- In the Reading metropolitan area, government action saved about 10,000 jobs. Without that action, the unemployment rate would be above 15%.
- In the Scranton-Wilkes-Barre metropolitan area, government action saved more than 17,000 jobs. Without federal intervention in the economy, the unemployment rate would be 17%.
- In the York-Hanover metropolitan area, federal action saved nearly 15,000 jobs. Without that action, the unemployment rate would be nearing 14%.

Table 3. Unemployment rates with and without a policy response by county

County		08q1	08q2	08q3	08q4	09q1	09q2	09q3	09q4	10q1	10q2	10q3	10q4
Adams	With no policy response	3.8	4.0	4.6	5.4	6.6	8.0	9.2	10.2	10.6	11.4	11.9	12.3
	With actual policy response	3.8	4.0	4.5	5.2	6.8	7.4	7.7	8.2	8.5	8.3	8.1	7.9
Allegheny	With no policy response	4.5	4.8	5.5	6.5	7.9	9.6	11.0	12.3	12.7	13.6	14.3	14.7
	With actual policy response	4.4	4.6	4.9	5.4	6.2	6.7	7.2	7.6	7.9	8.3	7.9	7.7
Armstrong	With no policy response	5.8	6.2	7.1	8.3	10.1	12.3	14.1	15.7	16.3	17.5	18.3	18.9
	With actual policy response	5.5	5.4	5.9	7.1	8.5	9.2	9.3	9.6	10.2	9.7	9.2	9.4
Beaver	With no policy response	5.0	5.3	6.1	7.1	8.8	10.7	12.2	13.6	14.1	15.1	15.8	16.3
	With actual policy response	5.1	5.1	5.6	6.2	7.5	8.1	8.5	8.6	8.6	8.6	8.3	8.0
Bedford	With no policy response	6.5	6.9	8.0	9.3	11.3	13.8	15.8	17.6	18.3	19.6	20.5	21.1
	With actual policy response	5.8	6.2	7.0	8.5	10.3	10.8	11.4	11.7	11.5	10.7	10.9	10.8
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
	With actual policy response	4.6	4.9	5.6	6.5	7.9	8.7	9.2	9.5	9.7	9.7	9.6	9.2
Blair	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
	With actual policy response	4.5	4.9	5.5	6.0	6.7	7.1	7.4	7.7	7.9	8.0	7.8	7.5
Bradford	With no policy response	4.7	5.0	5.7	6.7	8.2	9.9	11.3	12.6	13.1	14.1	14.7	15.2
	With actual policy response	4.4	4.9	5.4	6.4	8.4	8.2	8.5	8.4	7.4	7.4	7.5	7.0
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
	With actual policy response	4.0	4.3	4.6	5.4	6.2	6.9	7.3	7.6	7.9	8.2	8.0	7.7
Butler	With no policy response	4.5	4.8	5.5	6.5	7.9	9.6	11.0	12.3	12.7	13.6	14.3	14.7
	With actual policy response	4.2	4.4	4.8	5.3	6.4	7.1	7.5	7.6	7.9	7.8	7.6	7.4
Cambria	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
	With actual policy response	5.6	5.9	6.4	6.9	7.9	8.5	9.0	9.4	9.8	10.0	9.7	9.5
Cameron	With no policy response	7.4	7.9	9.1	10.6	12.9	15.8	18.0	20.1	20.8	22.3	23.3	24.1
	With actual policy response	6.6	7.1	10.6	11.8	15.2	17.8	18.4	18.1	17.0	14.9	14.1	15.2
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
	With actual policy response	6.1	6.4	6.9	7.9	9.2	10.1	10.4	11.3	11.5	11.2	11.0	10.9
Centre	With no policy response	3.8	4.0	4.6	5.4	6.6	8.0	9.2	10.2	10.6	11.4	11.9	12.3
	With actual policy response	3.8	4.2	4.5	4.9	5.4	5.7	6.0	6.2	6.4	6.6	6.4	5.9
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	11.0	11.4
	With actual policy response	3.4	3.6	4.1	4.7	5.6	6.2	6.5	6.7	6.9	7.1	7.0	6.6
Clarion	With no policy response	5.2	5.5	6.4	7.4	9.1	11.0	12.6	14.1	14.6	15.6	16.3	16.9
	With actual policy response	5.5	5.9	6.3	7.4	9.4	9.4	9.7	9.8	10.0	10.0	10.5	10.6
Clearfield	With no policy response	6.1	6.5	7.4	8.7	10.6	12.9	14.8	16.5	17.1	18.3	19.2	19.8
	With actual policy response	6.1	6.3	7.0	7.7	9.2	10.0	10.6	10.9	10.5	10.7	10.4	10.3
Clinton	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	19.0
	With actual policy response	5.7	6.0	6.2	7.0	8.0	9.0	9.3	9.7	9.5	9.4	9.2	8.5

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	7.9	9.7	11.8	13.5	15.1	15.6	16.7	17.5	18.1
	With actual policy response	5.5	5.6	6.0	6.7	7.7	8.5	9.0	9.3	9.2	9.4	9.0	8.6
Crawford	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
	With actual policy response	5.1	5.1	5.7	6.8	8.7	9.8	10.9	10.9	10.2	10.0	9.8	9.3
Cumberland	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
	With actual policy response	3.7	4.0	4.4	4.9	6.2	6.5	7.0	7.2	7.4	7.6	7.3	7.1
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
	With actual policy response	4.0	4.4	4.9	5.5	6.7	7.3	7.9	8.1	8.4	8.7	8.7	8.4
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
	With actual policy response	4.5	4.7	5.2	5.7	6.6	7.2	7.8	8.4	8.5	9.0	8.8	8.5
Elk	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
	With actual policy response	4.8	5.3	6.2	7.7	11.9	13.8	13.5	12.1	11.5	10.8	9.5	9.2
Erie	With no policy response	5.4	5.7	6.6	7.6	9.3	11.4	13.0	14.5	15.0	16.1	16.9	17.4
	With actual policy response	5.3	5.4	5.7	6.4	7.7	8.8	9.7	10.0	10.0	9.9	9.4	9.2
Fayette	With no policy response	6.3	6.7	7.7	8.9	10.9	13.3	15.2	16.9	17.6	18.8	19.7	20.3
	With actual policy response	6.0	6.3	6.7	7.3	8.2	8.9	9.7	10.2	11.0	10.1	9.8	10.1
Forest	With no policy response	8.8	9.3	10.7	12.5	15.3	18.7	21.3	23.8	24.6	26.4	27.6	28.5
	With actual policy response	6.5	7.6	7.9	8.8	9.9	10.4	11.8	12.4	12.6	11.2	9.5	9.3
Franklin	With no policy response	4.0	4.2	4.9	5.7	6.9	8.4	9.6	10.7	11.1	11.9	12.5	12.9
	With actual policy response	3.5	3.8	4.5	5.5	7.3	8.0	8.6	8.9	8.8	8.7	8.4	8.2
Fulton	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
	With actual policy response	5.7	6.5	7.1	9.9	12.8	13.8	14.5	13.7	13.1	12.2	12.1	12.6
Greene	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	18.1
	With actual policy response	5.5	5.6	5.9	6.3	6.9	7.3	7.8	7.9	8.3	8.2	7.7	7.5
Huntingdon	With no policy response	6.3	6.7	7.7	9.0	11.0	13.4	15.3	17.1	17.8	19.0	19.9	20.6
	With actual policy response	5.6	6.0	6.7	8.1	9.9	10.4	11.0	11.2	11.0	10.5	11.0	10.8
Indiana	With no policy response	5.2	5.6	6.4	7.5	9.1	11.1	12.7	14.2	14.7	15.7	16.5	17.0
	With actual policy response	4.9	5.1	5.3	5.8	6.5	7.3	8.0	8.3	8.7	8.6	8.4	8.0
Jefferson	With no policy response	5.5	5.8	6.7	7.8	9.6	11.6	13.3	14.8	15.4	16.5	17.2	17.8
	With actual policy response	5.0	5.3	5.6	6.5	8.2	9.4	10.3	10.5	10.3	10.2	9.9	9.8
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	14.5
	With actual policy response	4.8	4.8	5.5	6.5	7.4	8.1	8.2	8.5	8.4	8.0	8.2	7.8
Lackawanna	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
	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	9.4
Lancaster	With no policy response	3.7	3.9	4.5	5.2	6.4	7.7	8.8	9.9	10.2	11.0	11.5	11.8
	With actual policy response	3.7	4.0	4.4	5.1	6.7	7.1	7.6	7.8	8.1	7.9	7.7	7.4

Table 3. (cont)													
County		08q1	08q2	08q3	08q4	09q1	09q2	09q3	09q4	10q1	10q2	10q3	10q4
Lawrence	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	18.0
	With actual policy response	5.6	5.9	6.4	7.0	8.4	9.5	10.0	10.1	9.8	10.1	9.9	9.6
Lebanon	With no policy response	3.7	3.9	4.5	5.3	6.4	7.8	8.9	10.0	10.4	11.1	11.6	12.0
	With actual policy response	3.6	3.9	4.3	4.8	6.3	6.7	7.0	7.2	7.6	7.7	7.5	7.3
Lehigh	With no policy response	4.8	5.1	5.9	6.8	8.4	10.2	11.6	13.0	13.5	14.4	15.1	15.6
	With actual policy response	5.1	5.4	5.8	6.4	7.8	8.5	9.2	9.6	9.6	9.9	9.8	9.5
Luzerne	With no policy response	5.6	6.0	6.9	8.0	9.8	12.0	13.7	15.2	15.8	16.9	17.7	18.3
	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	10.0
Lycoming	With no policy response	5.3	5.6	6.4	7.5	9.2	11.2	12.8	14.2	14.8	15.8	16.6	17.1
	With actual policy response	5.4	5.5	5.9	6.8	8.1	8.7	9.3	9.7	9.6	9.6	9.2	8.8
McKean	With no policy response	5.5	5.8	6.7	7.8	9.5	11.6	13.2	14.8	15.3	16.4	17.2	17.7
	With actual policy response	5.1	5.5	6.5	7.6	9.1	10.5	10.9	11.1	10.7	10.7	9.9	9.6
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	18.1	18.7
	With actual policy response	5.8	6.0	7.0	8.2	10.0	11.4	11.8	12.2	11.7	11.7	11.1	10.8
Mifflin	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	18.6
	With actual policy response	5.7	6.0	6.8	7.9	9.5	9.7	10.3	10.8	10.5	10.4	10.4	9.9
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
	With actual policy response	5.0	5.5	6.1	6.9	8.0	8.7	9.1	9.7	9.7	9.9	10.0	9.9
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
	With actual policy response	3.7	4.0	4.5	5.1	6.1	6.7	7.1	7.3	7.4	7.7	7.5	7.4
Montour	With no policy response	4.2	4.4	5.1	5.9	7.2	8.8	10.1	11.2	11.7	12.5	13.1	13.5
	With actual policy response	4.2	4.6	5.0	5.4	6.3	6.7	6.8	6.7	6.6	6.9	7.1	6.7
Northampton	With no policy response	4.7	5.0	5.7	6.7	8.2	10.0	11.4	12.7	13.2	14.1	14.8	15.2
	With actual policy response	4.7	4.9	5.2	6.0	7.0	7.7	8.5	9.2	9.4	9.6	9.5	9.3
Northumberland	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	18.0
	With actual policy response	5.5	6.1	6.9	7.8	9.0	9.6	10.2	10.5	10.1	9.9	10.0	9.6
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
	With actual policy response	4.5	5.0	5.3	6.1	7.1	7.6	8.3	8.7	8.9	8.9	8.7	8.3
Philadelphia	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
	With actual policy response	6.4	6.7	7.2	7.9	8.9	9.5	10.4	11.1	11.1	11.6	11.6	11.5
Pike	With no policy response	5.2	5.5	6.4	7.4	9.1	11.1	12.6	14.1	14.6	15.7	16.4	16.9
	With actual policy response	5.6	5.2	5.4	6.2	7.7	8.3	8.4	9.2	10.5	10.3	10.0	10.5
Potter	With no policy response	6.0	6.4	7.3	8.6	10.5	12.8	14.6	16.3	16.9	18.1	18.9	19.5
	With actual policy response	6.6	6.5	7.3	8.3	10.7	11.0	11.2	11.7	10.6	10.9	11.0	10.4
Schuylkill	With no policy response	6.0	6.3	7.3	8.5	10.4	12.7	14.5	16.1	16.7	17.9	18.7	19.3
	With actual policy response	5.3	5.8	6.4	7.5	9.0	9.9	10.5	10.8	10.8	10.9	10.7	10.3

County		08q1	08q2	08q3	08q4	09q1	09q2	09q3	09q4	10q1	10q2	10q3	10q4
Snyder	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
	With actual policy response	5.3	5.8	6.2	7.3	8.6	8.8	9.2	10.0	9.5	9.1	9.1	8.6
Somerset	With no policy response	5.7	6.1	7.0	8.1	10.0	12.2	13.9	15.5	16.1	17.2	18.0	18.6
	With actual policy response	5.8	6.1	6.6	7.1	7.8	8.5	9.0	9.6	10.1	9.9	9.8	9.4
Sullivan	With no policy response	5.3	5.6	6.4	7.5	9.1	11.1	12.7	14.2	14.7	15.8	16.5	17.0
	With actual policy response	5.0	5.2	5.7	7.0	8.2	8.5	9.0	8.9	8.1	8.5	8.7	7.9
Susquehanna	With no policy response	5.0	5.3	6.1	7.1	8.7	10.7	12.2	13.6	14.1	15.1	15.8	16.3
	With actual policy response	4.8	5.3	5.8	6.9	8.2	8.1	8.6	9.3	9.2	8.8	8.8	8.6
Tioga	With no policy response	5.5	5.9	6.7	7.8	9.6	11.7	13.4	14.9	15.5	16.6	17.3	17.9
	With actual policy response	5.2	5.3	6.2	7.6	9.7	9.9	9.6	9.6	8.4	8.9	8.7	8.0
Union	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	16.4
	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	8.8
Venango	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
	With actual policy response	5.2	5.5	5.8	6.4	7.8	8.6	9.3	9.6	9.4	9.4	8.9	8.6
Warren	With no policy response	4.8	5.1	5.9	6.9	8.4	10.3	11.7	13.1	13.5	14.5	15.2	15.7
	With actual policy response	4.8	4.8	5.3	6.1	7.5	7.7	8.1	8.2	8.4	8.3	8.1	8.1
Washington	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	16.3
	With actual policy response	4.8	4.9	5.4	5.9	6.9	7.6	8.1	8.4	9.0	8.8	8.1	8.2
Wayne	With no policy response	4.6	4.9	5.6	6.5	8.0	9.8	11.2	12.4	12.9	13.8	14.5	14.9
	With actual policy response	4.5	4.9	5.4	6.2	7.2	7.2	7.5	7.9	7.7	7.8	8.1	7.9
Westmoreland	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	16.3
	With actual policy response	4.7	5.0	5.5	6.1	7.2	7.7	8.2	8.6	8.8	8.6	8.5	8.4
Wyoming	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
	With actual policy response	5.5	5.7	6.2	6.8	8.1	8.6	8.6	9.1	8.6	9.6	9.5	9.7
York	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
	With actual policy response	4.1	4.3	4.9	5.6	7.2	8.1	8.6	8.9	9.3	9.2	9.0	8.9

Source. KRC estimates for Pennsylvania based on Alan S. Blinder and Mark Zandi "How the Great Recession Was Brought to an End", July 27, 2010.

¹ Available online at <http://keystoneresearch.org/media-center/press-releases/recent-job-growth-pennsylvania-healthier-most-states>

² Pennsylvania’s economy is adding jobs faster during the current economic recovery than during the two previous recoveries, which followed the 2001 and 1991 recessions. Eighteen months after the end of the 1991 recession, employment in Pennsylvania had declined by 35,000 jobs. At the same point following the 2001 recession, employment was down 37,500 jobs. As of this December (18 months after the official end of the Great Recession in June 2009), employment in Pennsylvania is up by 24,200 jobs.

ENDNOTES

³ 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* (Available online at <http://www.economy.com/mark-zandi/documents/End-of-Great-Recession.pdf>) 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.

⁴ To calculate the wage deficit we hold constant the total increase in the “wage pie” (and in average wages), but suppose that wages increased equally at every point in the wage curve rather than increases being concentrated just at the top. This calculations is conservative because some of the erosion in the distribution of income since the 1970s resulted from an increase in profits relative to wages. Our estimates are also conservative because our data source caps reported earnings at the top end.

⁵ Data contained in the Institute for Taxation and Economic Policy's report, *Who Pays 2007?*, indicate that average state plus local taxes paid by Pennsylvania families equal \$5,771.

⁶ Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2010 to 2020* (Washington, D.C.: CBO, 2010).

⁷ Mark Zandi, "U.S. Macro Outlook: Compromise Boosts Stimulus," Moody's Analytics, December 8, 2010, online at http://www.economy.com/dismal/article_free.asp?cid=195470; see also Chad Stone and Hannah Shaw, *Zanid Analyses Show "Democratic" Measures in Tax Cut-UI Deal Boost Economy, "Republican" Measures Add to Deficit Risks*, Center on Budget and Policy Priorities, Washington, D.C., December 22, 2010, online at <http://www.cbpp.org/cms/index.cfm?fa=view&id=3349>.

⁸ We owe this suggestion to Representative Scott Boyd, who made it during February 24, 2010 hearings before the Pennsylvania House Labor Relations Committee.

⁹ 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 December 2010. According to the BLS (<http://www.bls.gov/lau/ststdsadata.txt>), the working-age population in Pennsylvania grew by 1.9% between December 2007 and December 2010. To compute the jobs deficit for each metro area, we need to estimate working-age population growth through December 2010 in each metro area. Working-age population growth figures in each metro area, however, only available up to 2009 (from the American Community Survey, or ACS). To project working-age population growth in each metropolitan area through December 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 December 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 December 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 December 2010) times Blinder and Zandi's national employment estimates in the absence of policy intervention.

¹⁰ 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.

¹¹ 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.

¹² 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.