The State of Working Pennsylvania 2012

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The Keystone Research Center
Harrisburg, Pennsylvania

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Executive Summary

The State of Working Pennsylvania 2012 is The Keystone Research Center's deepest and most comprehensive recent look at the Pennsylvania economy and how it has performed for working and middle-class families. The central findings are straightforward: The Pennsylvania economy is performing poorly from the perspective of middle and low-income families—over the last year, the last decade, and the last third of a century. Although growth in productivity and the size of the overall economic pie have been sufficient to support rising living standards, wages and incomes for most families have stagnated—for those with full-time jobs as well as those who can't find as much paid employment as they want.[1]

Policy in the Short Run: Why Are We Hitting the Economic Brakes? The performance of the Pennsylvania economy reflects policy choices—poor policy choices—in both the short run and the long run. In the short run, Pennsylvania needs more jobs and less unemployment. The current unemployment rate equals about 8%, and has risen recently, more in Pennsylvania than nationally. Predictably, sustained high unemployment led to falling wages for most Pennsylvania workers in 2011. Why is this predictable? Because our economy lacks policies and institutions that bake in broad sharing of increases in the economic pie when unemployment is not low—policies such as a minimum wage indexed to inflation and productivity growth, and institutions such as collective bargaining agreements that cover most workers in an industry or region. The only time the benefits of economic growth were broadly shared in the last third of a century was also the only time that the United States and Pennsylvania had sustained unemployment below 5%—the second half of the 1990s. While Pennsylvania needs more jobs and less unemployment to achieve broadly shared prosperity, in the past year economic austerity policies at the federal and state level have *increased* Pennsylvania's shortage of jobs by an estimated 74,000. (This shortage, or "job deficit," equals job loss since the Great Recession began in December 2007 combined with the additional jobs needed to keep pace with the growth of the working-age population.)

Policy in the Longer Run: A Lost Decade…and More. In the longer run, there has also been a disconnect between rising productivity and stagnating wages and incomes. Over the last—or "lost"—decade, from 2000 to 2010, for example, median four-person family income in Pennsylvania declined by $6,100 from its 2000 peak (of $82,818). During the short economic expansion from 2002 to the end of 2007, the top 1% of Pennsylvania taxpayers captured 54% of **all** income growth in Pennsylvania. Going back further, to the late 1970s, growth has also failed to translate into rising living standards across the board. Again this was the predictable result of policy choices—policy choices unfriendly to working families but very friendly to the wealthiest Americans. Pick a policy area related to the economy—wage and tax laws, trade agreements that establish rules governing trade and investment flows across national borders, laws governing unions and workers' power in

[1] Adjusted for inflation, U.S. productivity—output per hour—in the nonfarm business sector increased by 84.8% between 1979 and 2011.

bargaining with employers, laws regulating (or deregulating) specific industries, the social safety net—and almost without exception national and state policies have tilted against middle- and low-income families. In some cases, policies have been tailored very explicitly to suit multi-national corporations that want to produce for the U.S. market from low-wage offshore platforms, or to allow billionaire hedge fund managers to pay lower income tax rates than middle-class families.

Will Policy Looking Forward Lead to Another Lost Decade? While the first year of the current decade (2010) started well for Pennsylvania, with the state ranked near the top based on job growth, in 2011 the loss of jobs for more than 25,000 teachers, first responders and other public servants contributed to Pennsylvania's fall towards the bottom of the state job rankings. Pennsylvania's job growth in 2012 has been negative, so far. Consensus economic forecasts predict continued high unemployment in the nation and in Pennsylvania for the next several years. Indeed, the Economic Policy Institute's forthcoming *State of Working America* projects that the incomes of the middle fifth of families will be lower in 2018 than in 2007 and 2000. Similar to the last decade, robust income growth is likely to return for only a tiny sliver at the very top. In 2010, the first full year of economic recovery, Pennsylvania's top 1% saw its average incomes grow by 11%. This 1% of Pennsylvania taxpayers captured 76% of all income growth in the state in 2010. The top 1% of this top 1% (an estimated 620 taxpayers) enjoyed an average income increase, adjusted for inflation, of $1.75 million in 2010. (This is a conservative estimate of the 2010 increase for Pennsylvania's 1%.) In sum, polarized growth and another lost decade for most families is a predictable result of a continued failure to address the short-term problems of insufficient economic demand and job creation, and the long-term problem of stagnant wages and incomes.

The problems with another lost decade go beyond the threat to the living standards of Pennsylvania's broad middle class. More years of polarizing growth will result in levels of inequality that exceed those of the late 1920s. Such inequality is bad news not just for the middle class but for the nation as a whole, and for three reasons core to the identity of America. First, very high inequality is incompatible with the American Dream of widespread opportunity—and Americans are already more locked into the economic status of their birth than people of most other advanced nations (for references, see Chapter 6). Second, countries with very high inequality also tend to experience lower economic growth. (Among other explanations for this, polarized societies struggle to persuade the economic elite to invest in the education of the population as a whole.) Third, very high levels of economic inequality reinforce the political problem that contributed to poor policy choices in the first place: the excessive responsiveness of our democracy to the very wealthy and our political system's lack of responsiveness to ordinary families and the public good. In sum, another lost decade threatens three treasured American and Pennsylvanian values: widespread mobility, a robust economy, and democracy.

A New Direction: While there is no past year quite like the current one, one parallel is 1936. In 1936, while the U.S. economy had begun to recover from the Great Depression, it was far from healthy. The unemployment rate was still 17%, roughly twice today's level. Moreover, the policy choices that would govern American citizens moving forward remained uncertain. Even President Roosevelt acquiesced to austerity economics in 1937, triggering a five-percentage-point increase in

unemployment by 1939. Rather than consolidating the New Deal as the United States did starting in 1938, the government could have made a different set of political and policy choices that would have prolonged high unemployment and brought a return to 1920s levels of inequality. Instead the United States made policy choices that lifted living standards for America's working families over four decades and created the most powerful economy the world had ever known.

If America and Pennsylvania make the wrong policy choices in the next few years, they will miss a golden opportunity for another generation of broadly shared prosperity. But the wrong choices over the next few years are no more inevitable than were the right choices from 1938 onward. The end of this report outlines three simple steps to chart a positive new direction, all of them aimed at restoring the three core American values threatened by polarizing growth.

1. The first and most essential step is that our state and our nation commit themselves to broadly shared prosperity. Candidates for office should be asked to endorse three basic values: the American Dream, the idea that people who work hard and play by the rules should be able to share in our nation's expanding economic pie, and a commitment to a democracy that is responsive to people rather than wealth and money. In Pennsylvania, we could call this the "Contract with the Keystone State."

2. The second step is implementation of an "Investment in the Future" plan that bolsters our infrastructure, manufacturing sector, education, skills, and scientific research in a way that grows jobs in the short run and lays the foundation for long-run growth.

3. The third step should be wage and incomes policies that restore a level of equity in America that is compatible, in the long run, with widespread mobility, a strong economy, and a responsive democracy.

The next several pages, "The State of Working Pennsylvania at a Glance: Just the Facts," contain a fuller summary of the key findings in the body of this report. The report itself provides an explanation of the numbers, along with many easy-to-read charts and complete sources. Our intent in releasing a more comprehensive report this year is to provide an authoritative reference manual for members of the Pennsylvania media, policymakers, and the public as they evaluate policy and electoral choices over the next year.

Box 1. The State of Working Pennsylvania At a Glance: Just the Facts

Chapter 1: The Great Recession and the Lost Decade

Pennsylvania families made little progress economically in the last decade.

- Total non-farm employment in Pennsylvania and the United States were virtually unchanged in 2011 compared to 2000 (Figure 1.10).
- Inflation-adjusted median four-person family income fell in both the United States and Pennsylvania in the 2000s by slightly more than $6,000 (Figure 1.11).
- The state lost 300,000 manufacturing jobs since 2000 (Figure 1.4).

Pennsylvania workers fared somewhat better from 2007-11 thanks to the American Recovery and Reinvestment Act, federal auto sector intervention, and a lower unemployment rate than nationally.

- From 2007 to 2011, the Pennsylvania unemployment rate hovered a percentage point or more below the U.S. unemployment rate. (Table 1.8 and Figure 1.6).
- In 2009-11, federal income supports (e.g., unemployment insurance and food stamps) for those on the front line of the recession, and targeted federal tax cuts, helped prevent a much sharper fall in disposable income that could have prolonged and deepened the downward spiral of the economy that began in 2008 (Figure 1.7).
- In Pennsylvania manufacturing, job growth from 2009 to 2011 centered in five subsectors that benefitted from the rescue of General Motors and Chrysler from bankruptcy in 2009.

Since 2011, however, Pennsylvania's economy is losing ground compared to other states.

- The state's job shortfall increased by over 74,000 from July 2011 to July 2012 to just over 301,000. (This shortfall—or "jobs deficit"—equals job loss since December 2007 plus the number of jobs needed to keep pace with the growth of the working-age population.)
- The state ranked 8th measured by percent job growth in 2010 but 38th in the 12-month period ending in July 2012 (Tables 1.2 and 1.3). After being well below the national rate for several years, the state's unemployment rate is now approaching the national rate.
- The state lost just over 25,000 public sector jobs in 2011 alone, most of them jobs in elementary and secondary schools (Table 1.10). Cuts in public sector jobs further undercut demand at private sector businesses where laid off teachers and first responders shop.
- While manufacturing employment in Pennsylvania grew by 11,700 since January 2010, this 2.1% increase was less than half the 4.6% increase nationally (Figure 1.5).

Chapter 2: Wage & Wage Disparity

Wage trends also tell the story of the lost decade and the lost third of a century, except for the shared prosperity of the second half of the 1990s.

- Pennsylvania workers earned the same or less in 2011 than a full business cycle earlier, in 2002. By contrast, workers enjoyed wage increases in the previous economic cycle (1993 to 2002) (Figure 2.1 and Table 2.1). Even the 95th percentile worker saw a 0.6% fall in wages from 2002 to 2011, after a rise of 24% from 1993 to 2001.
- Despite being better educated and more productive, the typical Pennsylvania worker in 2011 earned only 63 cents more per hour than in 1979—$1,310 more per year for a full-time, full-year worker (Figure 2.2).
- Employer -based health care coverage for private-sector Pennsylvania workers declined from 76.1% to 60.8% between 1979-81 and 2008-10.

- Some Pennsylvania groups experienced particularly large falls in hourly wages during the last three decades. In 1979-81, the typical Pennsylvania black male's hourly wages lifted them $3,500 above their U.S. counterpart (if both worked full-time, full year) (Figure 2.5). By 2011 typical Pennsylvania black men earned $700 **less** in a year than U.S. black males.
- Pennsylvania women did experience large increases in wages from 1979 to 2011 (Figure 2.6). Women's median wage in Pennsylvania remains 83% of the typical man's wage.

Chapter 3: Poverty-Wage Jobs

Lower-wage workers in Pennsylvania have made little progress in a third of a century. Low-wage jobs are held most often by certain demographic groups and also concentrate in service industries.

- In 2011, a quarter of Pennsylvania jobs paid a "poverty wage"—an hourly wage too low to lift a family of four out of poverty if the person worked full-time, full-year (Figure 3.1).
- Per capita income in Pennsylvania grew 61% between 1979 and 2011—a measure of the size of the total economic pie that reflects big income increases at the top. Despite growth in the overall pie, the share of workers with poverty wage jobs hardly changed (Table 3.1).
- In 2011, 30% of black women, 27% of white women, and more than a third of all black males were employed in poverty wage jobs (Table 3.1).
- Workers in Service and Sales Occupations account for 57% of all poverty wage jobs. Seven in 10 poverty wage jobs are in just three industries; Leisure and Hospitality; Wholesale and Retail Trade; and Education and Health Services (Table 3.2).

Chapter 4: Income and Poverty

While the overall economic pie expands, high unemployment and underemployment combined with flat or slightly declining wages among most workers have led to stagnant middle-class incomes and persistent poverty during the Lost Decade.

- Adjusted for inflation, median income of four-person Pennsylvania families is lower today than 10 years ago, falling by $6,100 since 2000, from $82,800 (Table 4.1 and Figure 4.1).
- The poverty rate in Pennsylvania and nationally is higher than in 2000 and hardly changed from the early 1980s) (Figure 4.3).
- A smaller share of the Pennsylvania population and of Pennsylvania children live in poverty or are low-income (incomes below twice the poverty rate) than nationally (Figures 4.3-4.5).

Chapter 5: Three Decades of Income Inequality

While most families saw little improvement in their living standards since 1980, the highest-income 1% of U.S. and Pennsylvania taxpayers have enjoyed dramatic income growth.

- The top 1% in Pennsylvania and the United States now takes home 20% of all income, up from 9.2% in 1973 in the U.S. (Pennsylvania estimates only go back to the mid-1990s.)
- During the economic expansion from 2002 to 2007, the incomes of the top 1% in Pennsylvania grew by 50% and the top 1% captured 54% of all income growth (Table 5.1).
- The first full year of the current economic recovery (2010) marked a startling return to the pre-recession pattern of uneven income growth. In 2010, the income of the top 1% in Pennsylvania grew by 11% and this group captured 76% of all income growth in the state.
- In 2010, the incomes of the very richest Pennsylvanians—the 620 taxpayers who make up the top 1% of the top 1%—were surging. Our preliminary estimate is that the average incomes of this group grew by $1.7 million (to $18,480,207) in 2010. Nationally, the top 1% of the top 1% experienced an incomes hike in 2010 of 21.5%, more than $4.2 million.

Chapter 1: The Great Recession & a Lost Decade

While many other states suffered more job losses and higher unemployment than Pennsylvania, the Great Recession still hit Pennsylvania workers hard. In July, a full three years after the official end of the recession, the unemployment rate in Pennsylvania remained high at 7.9%. The state's economic forecaster Global Insight does not expect the unemployment rate to reach its pre-recession low of 4.5% any time in the next 10 years.[2] Worse still, Pennsylvania's job market for the second summer in a row has stalled, with unemployment rising by a half a percentage point and nonfarm payrolls falling by 3,600 jobs since December 2011.

Recent trends in Pennsylvania partly reflect troubles in the global economy, as much of Europe has dipped back into a recession, weighing down job growth here at home. Beyond those global headwinds, the U.S. economy remains mired in its own negative feedback loop: high unemployment depresses income growth, which holds back spending on consumer goods; this, in turn, leads employers to limit new hiring, starting the cycle all over again. As a result, employment growth is likely to remain too slow to bring down the unemployment rate in the near future.

Compounding weak private-sector job growth, Pennsylvania policymakers continue to practice austerity economics—the idea that reducing public spending while the economy is weak will result in a surge in private-sector job growth. This approach comes at the expense of badly needed long-term investments that strengthen the Pennsylvania economy, such as capital building projects, roads and bridges, and education. Pennsylvania Governor Tom Corbett has, in two consecutive budgets, collected but not spent more than a half billion dollars in tax revenue, in effect setting aside a sizable amount of revenue for a rainy day even while it is raining heavily right now. With construction prices lower than they will be for decades, neither Governor Corbett nor the General Assembly have taken steps to increase investments in Pennsylvania's aging infrastructure. Beyond unspent tax revenues, the commonwealth could have made key investments in Pennsylvania's economy by enacting a reasonable tax on Marcellus gas drilling. Two governors and two general assemblies have failed to enact a drilling tax on Marcellus shale gas extraction similar to the West Virginia tax, giving up a half a billion in revenue between mid-2009 and mid-2012.[3]

Austerity economics within Pennsylvania and nationally—in part because of the end of Recovery Act federal assistance for state and local governments—hit Pennsylvania's economy hard in 2011. The public sector in Pennsylvania shed 25,000 jobs in 2011, with 20,000 of those losses occurring in school districts. So far in 2012 the story is similar, with the public sector shedding another 5,700 jobs and the unemployment rate rising to 7.9% in July.

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[2] *Pennsylvania Fast Facts July 2012 Edition*, Pennsylvania Department of Labor and Industry, available online at http://www.paworkstats.state.pa.us/admin/gsipub/htmlarea/uploads/PA_Fast_Facts.pdf

[3] Michael Wood, "Pennsylvania's Natural Gas Tax Giveaway Exceeds $500 Million Mark," *Third and State,* http://thirdandstate.org/2012/august/pennsylvanias-natural-gas-tax-giveaway-exceeds-500-million-mark

Pennsylvania's jobs deficit, or the difference between the number of jobs Pennsylvania has and the number it needs to regain its pre-recession employment rate, stood at 301,300 in July. That number includes the 103,400 jobs Pennsylvania lost following the recession plus the 197,900 jobs it needs to keep up with the 3.4% growth in population that Pennsylvania has experienced in the 55 months since the recession began.

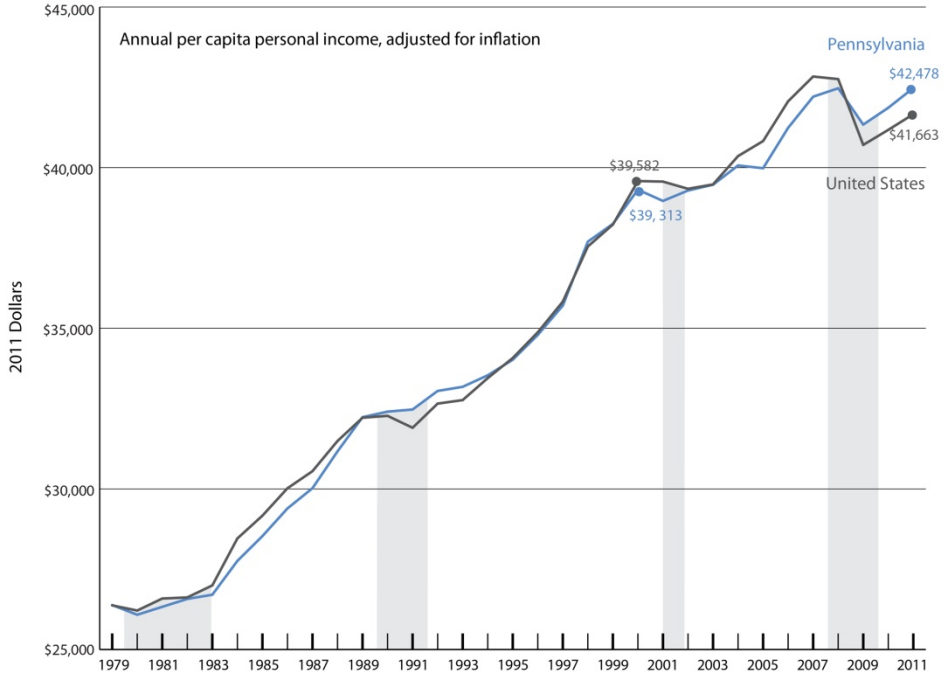
We start this chapter with a review of trends in economic growth followed by a more detailed review of the jobs and unemployment picture in the commonwealth.

Pennsylvania's Economy, The Great Recession and the Recovery

Per capita income presented in Figure 1.1 represents one measure of the size and growth of Pennsylvania's economy since 1979. (All data in this report are adjusted for inflation and expressed in 2011 dollars unless otherwise noted). Between 2008 and 2009, per capita personal income declined by 2.7% in Pennsylvania, a larger decline than in previous recessions, even the deep recession of the early 1980s. The Great Recession was less severe in Pennsylvania than in the nation as a whole, which experienced a 4.8% decline in per capita income from 2008 to 2009.

Per capita income in Pennsylvania has been growing since 2009 and, as of 2011, was higher than before the recession began. Despite two recessions, per capita income has grown by 8% since 2000.

Figure 1.1 Economic Growth, Pennsylvania and U.S., 1979-2011



Note. Recessions denoted in grey
Source. Keystone Research Center based on U.S. Bureau of Economic Analysis data

Table 1.1 compares growth since 2000 in per capita income in Pennsylvania, the nation, and Pennsylvania's six bordering states. Of Pennsylvania's neighbors, only West Virginia has experienced more growth since 2007. Since 2000, Maryland, New York and West Virginia have enjoyed more per capita income growth than Pennsylvania.

While the Pennsylvania economy has grown since 2000, as we will see in Chapter 2, little of that growth has shown up in the paychecks of the typical worker. Instead, this growth has accrued to the top 1% of Pennsylvania households, as we detail in Chapter 5. To explain these trends, we will now look to the key factors that drive the growth and distribution of incomes in the economy: jobs and unemployment.

Table 1.1
Per Capita Personal Income and Per Capita Income Growth, Pennsylvania, U.S., and Bordering States (2011 dollars)

State	2000	2007	2011	Percent Change 2007-2011	Percent Change 2000-2011
Pennsylvania	$39,313	$42,208	$42,478	0.6%	8.1%
United States	$39,582	$42,836	$41,663	-2.7%	5.3%
Delaware	$40,483	$43,163	$41,635	-3.5%	2.8%
Maryland	$45,273	$50,787	$51,038	0.5%	12.7%
New Jersey	$50,480	$54,492	$53,181	-2.4%	5.4%
New York	$45,201	$51,885	$50,545	-2.6%	11.8%
Ohio	$37,462	$38,148	$37,791	-0.9%	0.9%
West Virginia	$28,947	$31,983	$33,513	4.8%	15.8%

Source. Keystone Research Center based on Bureau of Economic Analysis data

Dramatic Decline in Jobs

The Great Recession officially began in December 2007. Modest job losses of about 600 jobs per month occurred in Pennsylvania through August 2008, but between August 2008 and March 2009, the state's job losses mushroomed to more than 21,000 jobs a month. From March to February 2010 (the low point or "trough" of employment), the pace of job loss decelerated, as provisions of the American Recovery and Reinvestment Act (ARRA) and policies that stabilized financial markets began to take effect. The U.S. economy exited the recession in June 2009. From the beginning of the recession through February 2010, the Pennsylvania economy shed a total of 242,600 jobs (a decline of 4.2%). Even now, as Figure 1.2 shows, Pennsylvania employment is only at the same level as it was at the peak of the 1990s economic expansion.

Figure 1.2 Pennsylvania Non-Farm Employment, 1998-2012

Note. Recessions denoted in grey
Source. Keystone Research Center based on Current Employment Statistics data

Consistent with Pennsylvania's somewhat less severe recession, the state enjoyed robust job growth in the remainder of 2010 adding 9,000 jobs per month. Percent job growth in Pennsylvania put the commonwealth among the top 10 states in 2010 (see Table 1.2).

Table 1.2

Rank of Employment Growth in Pennsylvania and Neighboring States 2009 to 2010

State	December 2009 (thousands)	December 2010 (thousands)	Change	Rank	Percent Change	Rank
Pennsylvania	5,578	5,660	82,500	4	1.5%	8
United States	129,319	130,346	1,027,000		0.8%	
Delaware	411	417	6,500	35	1.6%	7
Maryland	2,504	2,532	27,900	17	1.1%	19
New Jersey	3,862	3,844	-18,700	50	-0.5%	49
New York	8,495	8,592	97,700	3	1.2%	16
Ohio	5,002	5,057	54,900	8	1.1%	20
West Virginia	742	748	6,300	37	0.8%	31

Source. Keystone Research Center based on CES data

The pace of job growth in the commonwealth slowed markedly in 2011 with the Pennsylvania economy adding just 3,500 jobs each month. The pace of job growth has continued to be weak in 2012, with employers shedding just over 500 jobs per month through July. Table 1.3 marks a sharp

reversal in fortune for Pennsylvania compared to Table 1.2. While in the first full year of the recovery Pennsylvania's job growth outpaced most other states and the United States as a whole, Pennsylvania has lagged the nation in job growth over the past 12 months. During the past 12 months, Pennsylvania added just 20,000 jobs, ranking 38th out of 50 states as measured by percent job growth.

Table 1.3

Rank of Employment Growth in Pennsylvania and Neighboring States July 2011 to July 2012

State	July 2011 (thousands)	July 2012 (thousands)	Change	Rank	Percent Change	Rank
Pennsylvania	5,689	5,709	20,000	25	0.4%	38
United States	131,407	133,245	1,838,000		1.4%	
Delaware	417	417	-200	42	0.0%	42
Maryland	2,548	2,571	22,600	24	0.9%	31
New Jersey	3,859	3,900	40,200	15	1.0%	27
New York	8,695	8,809	113,300	3	1.3%	22
Ohio	5,087	5,187	100,300	4	2.0%	12
West Virginia	755	756	500	41	0.1%	41

Source. Keystone Research Center based on CES data

Table 1.4

Total Non-Farm Employment, Pennsylvania, U.S., and Bordering States (thousands)

State	1980	1990	2000	2007	2009	2011	Percent Change 2000-2011
Pennsylvania	4,753	5,173	5,694	5,801	5,618	5,687	-0.1%
United States	90,528	109,487	131,785	137,598	130,807	131,359	-0.3%
Delaware	259	348	421	439	417	417	-0.8%
Maryland	1,712	2,173	2,455	2,608	2,524	2,548	3.8%
New Jersey	3,060	3,635	3,995	4,079	3,895	3,856	-3.5%
New York	7,207	8,214	8,638	8,734	8,556	8,683	0.5%
Ohio	4,367	4,882	5,625	5,428	5,073	5,083	-9.6%
West Virginia	646	630	736	758	746	754	2.5%

Source. Keystone Research Center based on CES data

As mentioned earlier, Pennsylvania's jobs deficit—the difference between the number of jobs Pennsylvania has and the number it needs to regain its pre-recession employment rate—now stands at 301,300. By comparison, last year's jobs deficit stood at 227,100 jobs. This increase is one illustration of the subpar recent performance of Pennsylvania's labor market.[4] The jobs deficit has

[4]Mark Price & Stephen Herzenberg, *The State of Working Pennsylvania 2011*, September 2011, available online at http://keystoneresearch.org/sites/keystoneresearch.org/files/KRC_SWP_2011.pdf

grown substantially because job growth in Pennsylvania is not keeping pace with growth in the working-age population.

In order to deplete the current jobs deficit by July 2015, Pennsylvania must add 11,000 jobs per month. In the last 12 months, Pennsylvania has added fewer than 1,700 jobs a month.

Despite poor recent performance, Pennsylvania's relative job performance over the past 11 years has been close to the nation's and in the middle of the rankings among the states in our region. Maryland, West Virginia and New York had more job growth than Pennsylvania since 2000, while Delaware, New Jersey, and especially Ohio had much bigger job losses than Pennsylvania (Table 1.4).

We now turn our attention to a key part of the Pennsylvanian economy, the manufacturing sector.

Pennsylvania's Manufacturing Base in Decline

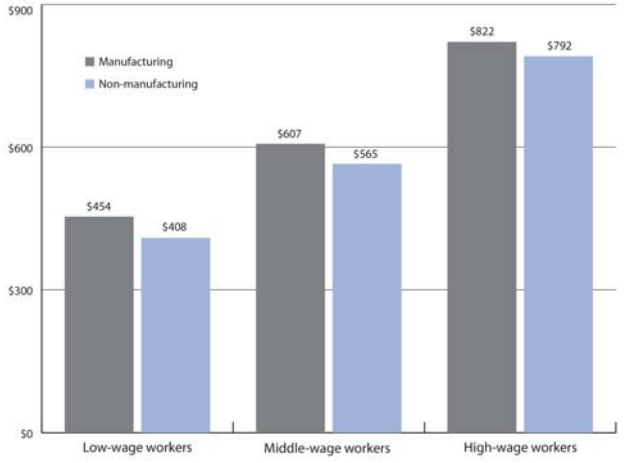
Manufacturing remains an integral part of the Pennsylvania economy, representing one in 10 of all non-farm payroll jobs in 2011.[5] The Great Recession reduced manufacturing employment by 15% (a loss of 98,200 jobs), striking the second body blow of the decade to this sector (Figure 1.4). Since its trough in January 2010, manufacturing has regained 11,700 jobs (2.1%), but this growth lags the 4.6% national recovery in manufacturing employment since January 2010 (Figure 1.5).

[5] Using a different employment series which incorporates farm and other employment sources available from the Bureau of Economic Analysis manufacturing accounts for 8% of total employment

Why Does Manufacturing Matter To The Middle Class?

One of the key advantages of a manufacturing job is that it pays better, compared to other sectors and controlling for worker and job characteristics. Using an analysis of U.S. data included in a paper by the Metropolitan Policy Program at the Brookings Institution, the Keystone Research Center estimated that, after controlling for characteristics that influence earnings, like education and occupation, the average weekly wage in manufacturing ($605.18) was 8.4% higher than in non-manufacturing industries ($558.29). As illustrated in Figure 1.3, this wage premium was larger for low-wage workers (11.1%) than for high-wage workers (3.8%). These data demonstrate that even today a manufacturing job remains an important pathway for workers to enter the middle class.

Figure 1.3 Weekly Earnings in Manufacturing and Non-Manufacturing Industries in the U.S. Controlling for Worker and Job Characteristics



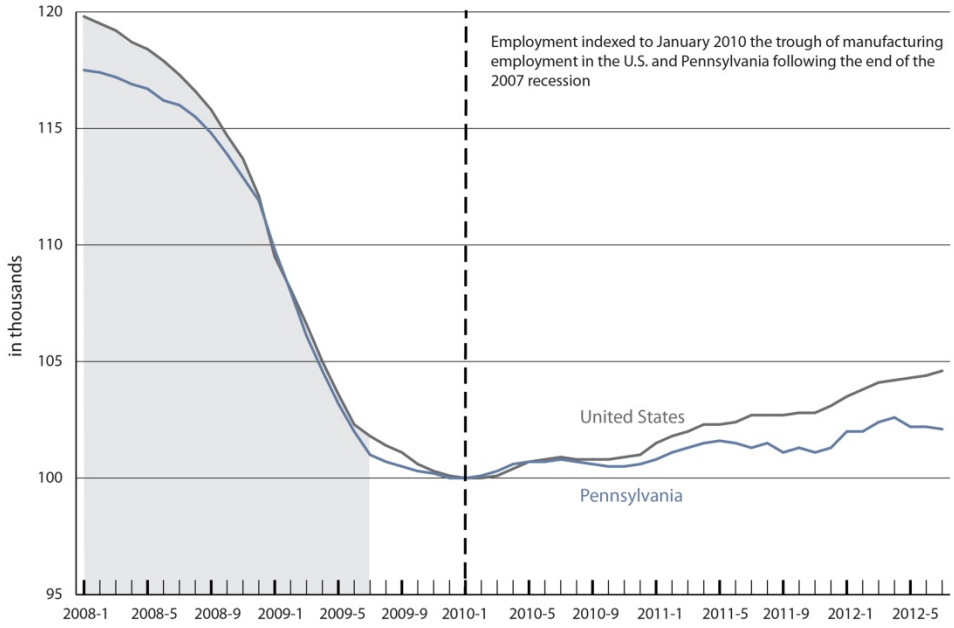
Source. Keystone Research Center analysis of Current Population Survey data 2008-2010 originally completed for *Why Does Manufacturing Matter? Which Manufacturing Matters? A Policy Framework* by Susan Helper, Timothy Krueger, and Howard Wial available online at http://goo.gl/Xb6D1

To read more on Manufacturing and Economic Policy *see Why Does Manufacturing Matter? Which Manufacturing Matters? A Policy Framework* by Susan Helper, Timothy Krueger, and

Figure 1.4 Pennsylvania Manufacturing Employment, 1998-2012

Note. Recessions denoted in grey
Source. Keystone Research Center based on Current Employment Statistics data

Figure 1.5 Manufacturing Employment, Pennsylvania and U.S., January 2008 - July 2012



Note. Recession denoted in gray
Source. Keystone Research Center based on Current Employment Statistics

Table 1.5 presents employment data in the manufacturing sector using the Quarterly Census of Employment and Wages (QCEW), a different data source than we typically use to summarize employment trends.[6] The QCEW provides more detailed data on employment change over the recession and recovery. Because QCEW data are not seasonally adjusted, we report data in the same month in different years and cannot match exactly the period of the recession, December 2007 to June 2009, or the precise period of the manufacturing recovery that started in January 2010.

Table 1.5

Manufacturing Employment Change by Manufacturing Subsector

Manufacturing Subsector (Three digit NAICS)	December 2007 to December 2009		December 2009 to December 2011	
	Change	Percent Change	Change	Percent Change
Total Covered Employment in the Private Sector	(252,664)	-5.1%	148,088	3.1%
Manufacturing	(94,528)	-14.4%	4,527	0.8%
Food manufacturing	(1,645)	-2.4%	261	0.4%
Beverage and tobacco product manufacturing	(348)	-5.1%	(101)	-1.6%
Textile mills	(1,290)	-25.5%	(183)	-4.9%
Textile product mills	(1,038)	-20.1%	(117)	-2.8%
Apparel manufacturing	(2,712)	-27.8%	(958)	-13.6%
Leather and allied product manufacturing	(215)	-20.5%	93	11.1%
Wood product manufacturing	(7,638)	-27.7%	(1,694)	-8.5%
Paper manufacturing	(1,949)	-7.3%	(675)	-2.7%
Printing and related support activities	(5,852)	-16.7%	(2,649)	-9.1%
Petroleum and coal products manufacturing	(476)	-7.3%	106	1.7%
Chemical manufacturing	(3,063)	-6.6%	(1,142)	-2.6%
Plastics and rubber products manufacturing	(3,955)	-10.3%	318	0.9%
Nonmetallic mineral product manufacturing	(4,371)	-16.4%	(1,893)	-8.5%
Primary metal manufacturing	(7,637)	-17.8%	4,078	11.6%
Fabricated metal product manufacturing	(15,203)	-16.6%	4,723	6.2%
Machinery manufacturing	(11,725)	-20.5%	2,629	5.8%
Computer and electronic product manufacturing	(7,083)	-18.0%	(194)	-0.6%
Electrical equipment and appliance mfg.	(2,612)	-9.7%	2,274	9.4%
Transportation equipment manufacturing	(5,084)	-11.9%	467	1.2%
Miscellaneous manufacturing	(3,689)	-12.2%	(623)	-2.3%

Source. Keystone Research Center based on Quarterly Census of Employment and Wages

[6] The QCEW is a survey of employment and wages in the economy based on administrative filings completed by almost all employers—i.e., those that participate in the unemployment insurance system in Pennsylvania. The most recent employment data currently available from the QCEW is for December 2011. Compare this to Current Employment Statistics (CES), the normal data source for job numbers, for which data are available through July 2012. On an annual basis, employment counts in the CES are benchmarked to QCEW data, because of the accuracy of the QCEW.

Table 1.6

Manufacturing Employment Change by Selected Manufacturing Subsectors

Manufacturing Subsector (four digit NAICS)	December 2007 to December 2009		December 2009 to December 2011	
	Change	Percent Change	Change	Percent Change
Primary metal manufacturing	(7,637)	-17.8%	4,078	11.6%
Iron and steel mills and ferroalloy mfg.	(1,691)	-11.9%	1,127	9.0%
Steel product mfg. from purchased steel	(1,364)	-17.7%	302	4.8%
Alumina and aluminum production	(1,486)	-34.4%	240	8.5%
Other nonferrous metal production	(349)	-5.6%	703	11.9%
Foundries	(2,747)	-26.5%	1,706	22.4%
Fabricated metal product manufacturing	(15,203)	-16.6%	4,723	6.2%
Forging and stamping	(1,975)	-17.6%	878	9.5%
Cutlery and handtool manufacturing	(701)	-20.6%	(79)	-2.9%
Architectural and structural metals mfg.	(3,649)	-15.0%	290	1.4%
Boiler, tank, and shipping container mfg.	(514)	-9.0%	(437)	-8.4%
Hardware manufacturing	(363)	-29.3%	(79)	-9.0%
Spring and wire product manufacturing	(1,164)	-31.0%	171	6.6%
Machine shops and threaded product mfg.	(3,539)	-15.6%	3,322	17.3%
Coating, engraving, and heat treating metals	(1,022)	-16.3%	390	7.4%
Other fabricated metal product manufacturing	(2,276)	-17.3%	267	2.5%
Machinery manufacturing	(11,725)	-20.5%	2,629	5.8%
Ag., construction, and mining machinery mfg.	(3,022)	-26.6%	1,169	14.0%
Industrial machinery manufacturing	(1,870)	-29.6%	156	3.5%
Commercial and service industry machinery	(990)	-19.6%	(337)	-8.3%
HVAC and commercial refrigeration equipment	(661)	-11.1%	(386)	-7.3%
Metalworking machinery manufacturing	(3,212)	-24.2%	823	8.2%
Turbine and power transmission equipment mfg.	(535)	-15.0%	431	14.2%
Other general purpose machinery manufacturing	(1,435)	-12.2%	773	7.5%
Electrical equipment and appliance mfg.	(2,612)	-9.7%	2,274	9.4%
Electric lighting equipment manufacturing	(547)	-20.0%	(4)	-0.2%
Household appliance manufacturing	48	10.8%	60	12.2%
Electrical equipment manufacturing	(105)	-1.4%	100	1.4%
Other electrical equipment and component mfg.	(2,008)	-12.4%	2,118	14.9%
Transportation equipment manufacturing	(5,084)	-11.9%	467	1.2%
Motor vehicle manufacturing	n.a.	n.a.	n.a.	n.a.
Motor vehicle body and trailer manufacturing	(2,940)	-29.9%	(1,787)	-25.9%
Motor vehicle parts manufacturing	(1,231)	-15.6%	1,528	23.0%
Aerospace product and parts manufacturing	2,026	22.5%	572	5.2%
Railroad rolling stock manufacturing	(1,570)	-21.1%	1,685	28.7%
Ship and boat building	n.a.	n.a.	n.a.	n.a.
Other transportation equipment manufacturing	(1,009)	-17.2%	(1,834)	-37.7%

Note. Shaded rows are manufacturing subsectors that posted gains in the recovery (December 2009 to December 2011) nearly equivalent to or exceeding their losses during the recession (December 2007 to December 2009).

Source. Keystone Research Center based on Quarterly Census of Employment and Wages

The data in Table 1.5 reveals that no manufacturing subsector in Pennsylvania escaped substantial job losses during the recession. They also reveal that growth in manufacturing employment during the recovery has been largely in five manufacturing subsectors: primary metals; electrical equipment and appliances; fabricated metal products; machinery; and transportation equipment manufacturing (all shaded in Grey in Table 1.5). In Table 1.6 (previous page), we break down these five manufacturing industries into their more detailed subsectors; shaded in grey are those sectors that have seen job growth during the recovery nearly equivalent to or exceeding their losses during the recession.[7] Those five sectors are: other nonferrous metal production, machine shops and threaded product manufacturing, other electrical equipment and component manufacturing, motor vehicle parts manufacturing, and railroad rolling stock manufacturing.

The China Toll

Robert Scott of the Economic Policy Institute estimates that the U.S. Trade Deficit with China has displaced 101,200 Pennsylvania jobs between 2001 and 2011. Most of those jobs losses were in manufacturing.

http://www.epi.org/publication/bp345-china-growing-trade-deficit-cost/

During the recovery, those sectors that have posted strong employment growth largely reflect Pennsylvania's historical strengths in manufacturing as well as the robust recovery in auto manufacturing following the rescue of General Motors and Chrysler from bankruptcy. (Motor vehicle parts manufacturing has added back more jobs than it lost during the recession in Pennsylvania.)

Table 1.7 compares job loss since 2000 in the manufacturing sector in the United States as a whole, in Pennsylvania, and among its bordering states.

Table 1.7

Manufacturing Employment, Pennsylvania, U.S., and Bordering States (1000s)

State	1990	2000	2007	2009	2011	Percent Change 2000-2011
Pennsylvania	950	864	659	574	564	-34.7%
United States	17,695	17,263	13,879	11,847	11,733	-32.0%
Delaware	46	42	33	28	26	-38.1%
Maryland	199	172	132	119	113	-34.3%
New Jersey	530	422	311	266	254	-39.7%
New York	982	749	552	476	458	-38.9%
Ohio	1,060	1,021	771	629	638	-37.5%
West Virginia	82	76	59	51	50	-34.8%

Source. Keystone Research Center based on CES data

[7] Table 1.4 presents employment data by three-digit NAICS code and Table 1.5 presents data by four-digit NAICS code.

Maryland and Pennsylvania suffered the smallest loss of manufacturing employment since 2000, shedding just over a third of their manufacturing workforces, 59,100 and 300,100, respectively. With the nation and our neighboring states losing not less than 30% of manufacturing employment over the period, the last 11 years have been a grim one for manufacturing and its capacity to create middle-class jobs.

Increasing Unemployment and Underemployment

Table 1.8

Unemployment Rates, Pennsylvania and U.S., 2011

Demographic	Pennsylvania	United States
All	7.8%	8.9%
Gender		
Male	8.3%	9.4%
Female	7.2%	8.5%
Age		
16-24 yrs	14.2%	17.3%
25-54 yrs	6.9%	7.9%
55 yrs and older	6.0%	6.6%
Race / ethnicity		
White	6.7%	7.2%
Black	12.9%	15.9%
Hispanic	14.4%	11.5%
Asian/Pacific islander	10.7%	7.2%
Education		
Less than high school	16.6%	17.8%
High school	9.2%	11.1%
Some college	8.2%	9.4%
Bachelor's or higher	4.6%	4.5%

Source. Economic Policy Institute analysis of CPS data

Definition

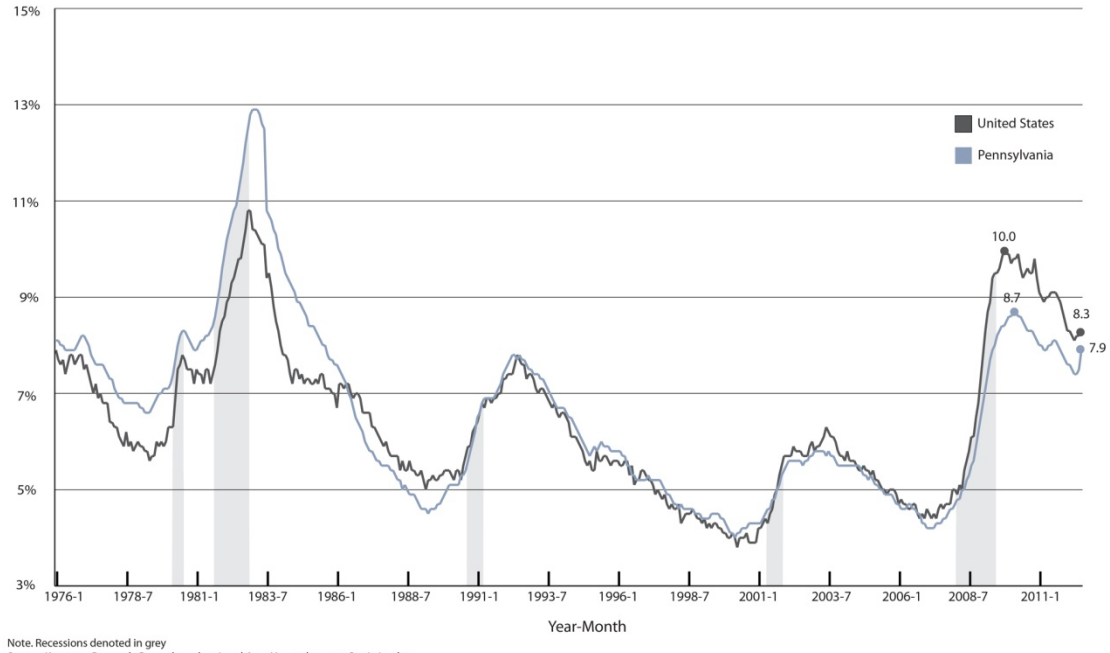
Unemployment rates count the share of the labor force that is not currently working but is actively seeking employment. More precisely, the unemployed must meet all of the following criteria: they had no employment during a given week, they were available for work at that time, and they made specific efforts to find employment some time during the previous four-week period. Persons laid off from a job and expecting recall need not be looking for work to be counted as unemployed.

After reaching 4.2% in early 2007, the Pennsylvania unemployment rate climbed to a peak of 8.7% in February 2010, surpassing the peak unemployment rate following both the 1990 and 2001 recessions. Three years after the end of the Great Recession, state unemployment remains above 7% and, in recent months, has been heading back toward 8% (Figure 1.6).

With men concentrated in manufacturing and construction, the two sectors hardest hit by the recession, Pennsylvania's unemployment rate among men remains above 8%. As in the rest of the country, the state's unemployment rate among women has been lower than for men (Table 1.8).

Unemployment rates for African Americans and Hispanics in the commonwealth remain in the double digits and substantially higher than for whites. The unemployment rate for young workers ages 16-24 is more than double the unemployment rate for other age groups. Workers who did not complete high school face substantially higher unemployment rates than most workers.

Figure 1.6 Unemployment, Pennsylvania and U.S., 1976 to July 2012



Note. Recessions denoted in grey
Source. Keystone Research Center based on Local Area Unemployment Statistics data

Workers with a College Education Do Not Escape the Hardships of Recessions

As Table 1.8 makes clear, workers with only a high school diploma in 2011 had unemployment rates that were twice those of college graduates. Thus, workers can significantly reduce their chances of being unemployed by going to college. But as Table 1.9 illustrates, a college education does not prevent graduates from experiencing the increased hardship that comes with a recession. Today a college graduate in Pennsylvania is twice as likely to be unemployed as a college graduate before the recession started.

Table 1.9 Unemployment Rates by Education in Pennsylvania 2007 and 2011

Education	2007	2011	Percent Change
Less than high school	11.1%	16.6%	50%
High school	4.9%	9.2%	88%
Some college	3.8%	8.2%	116%
Bachelor's or higher	1.8%	4.6%	156%

Source. Economic Policy Institute analysis of CPS data

Table 1.10

Underemployment Rates, Pennsylvania and U.S., 2011

Demographic	Pennsylvania	United States
All	13.9%	15.9%
Gender		
Male	14.3%	16.1%
Female	13.5%	15.7%
Age		
16-24 yrs	24.6%	29.3%
25-54 yrs	12.2%	14.2%
55 yrs and older	11.4%	12.4%
Race / ethnicity		
White	12.3%	13.1%
African-American	20.6%	24.8%
Hispanic	23.8%	22.1%
Asian/Pacific islander	16.2%	13.4%
Education		
Less than high school	25.6%	30.6%
High school	17.0%	19.9%
Some college	15.0%	16.6%
Bachelor's or higher	7.7%	8.1%

Source. Economic Policy Institute analysis of CPS data

Definition

Underemployment rates include four groups: (1) the unemployed, (2) discouraged workers (those who have given up looking for work in the last year), (3) part-time workers who would prefer full-time work, and (4) those who face a substantial barrier to work, such as lack of transportation or child care (this last group tends to be very small).

Keep in mind that the unemployment rate is a conservative measure of what labor market statisticians call the underutilization of labor. It fails to capture people who work part-time because they can't find a full-time job or people who have stopped looking for a job because they don't believe they can find one. The broadest measure of the labor-market slack that takes into account these factors is called the underemployment rate (see box above with the full definition).

In 2011 one in seven workers in Pennsylvania were underemployed compared to one in six U.S. workers (Table 1.10). One in four workers 16-24 years of age, one in five African-Americans and nearly one in four Hispanics were underemployed in 2011. A startling one in every four high school dropouts and one in six high school graduates couldn't find enough work in 2011.

A Slow Recovery That Could Have Been Worse

The Recovery Act Worked

Economic Recovery Part Two: We Need More Action on Jobs and Wages: Reviews the impact through December 2010 on employment and unemployment at the state and local level in Pennsylvania.

http://keystoneresearch.org/sites/keystoneresearch.org/files/Economic-Recovery-Part-2.pdf

Although officially the Great Recession began in December 2007, the full extent of the impact of the collapsing housing bubble didn't become apparent until September 15, 2008 when the financial services firm Lehman Brothers filed for bankruptcy after failing to secure critical aid from the Bush administration. Within a day, the fallout from a similar potential bankruptcy at American International Group (AIG) rocked financial markets and prompted a series of interventions by the Federal Reserve and the Bush administration in the banking and auto sectors. These policies were aimed at avoiding policy missteps that deepened and lengthened the Great Depression of the 1930s.

In part because these events unfolded over the course of the 2008 presidential election and transition, an economic stimulus package was delayed until the American Recovery and Reinvestment Act (ARRA) passed Congress in mid-February 2009. Between September 2008 and March 2009, the Pennsylvania labor market lost a stunning 144,500 jobs.

Were it not for the full range of federal interventions, including ARRA, Pennsylvania could have lost as many as 400,000 jobs, sending the unemployment rate to 15%. Instead, the state's unemployment rate peaked at 8.7%, and Pennsylvania employment loss over the whole of the Great Recession was 243,000 jobs.[8]

As job losses and cuts in work hours accelerated in 2008 and early 2009, incomes generated in the market-based economy in Pennsylvania cratered. **Between the 3rd quarter of 2008 and the 3rd quarter of 2009, incomes derived from providing services to the market economy declined by 7%.** However, over this same period, disposable personal income per capita—the income available to Pennsylvania households to purchase goods and services—declined by just 1%. Government transfers, such as for Social Security, unemployment insurance or public health care and tax cuts, made the difference.

Figure 1.7 illustrates the impact of the recession and the federal interventions included in ARRA on personal income in Pennsylvania. The blue line represents personal income minus transfers per capita a proxy for the incomes earned in the market. The solid black line represents disposable personal income per capita or the income households have available to spend on goods and services. The dashed black line in between provides a rough sense of how important federal tax

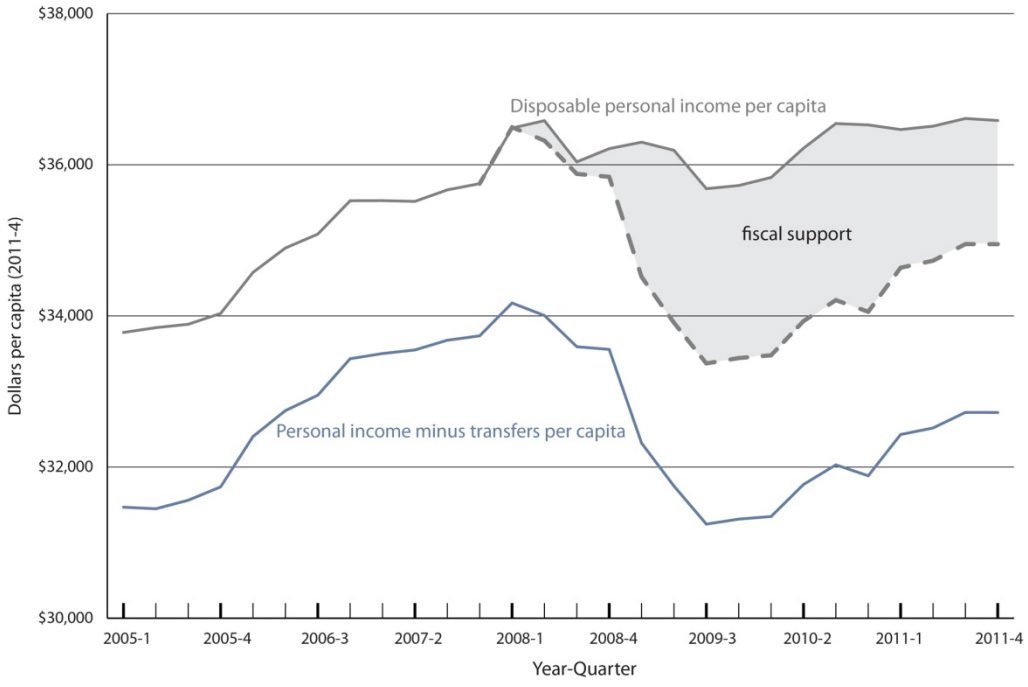
[8] 243,000 is the number of jobs lost between December 2007 and the trough of employment in Pennsylvania which was February 2010. The official end of the recession was June 2009 as defined by the Business Cycle Dating Committee at the National Bureau of Economic Research (NBER). The NBER considers more than just employment in identifying business cycle peaks and troughs.

cuts, tax credits and ARRA benefits—such as extended unemployment insurance and food stamps—were to preventing larger declines in consumer spending.[9]

If federal policymakers had sat on their hands in the wake of the recession, disposable income per capita likely would have declined by $2,500 between the 3rd quarter of 2008 and the 3rd quarter of 2009. Instead, disposable personal income per capita over this period declined by just under $400 per capita. Deficit-financed federal tax cuts and credits, and enhanced unemployment, social security and food stamp benefits blunted the decline in consumer spending in the private economy. Without this federal action, Pennsylvania income would have declined much more than it did and the Pennsylvania economy would have experienced significantly greater job loss than it did.

Although market-based incomes began to recover in the last quarter of 2009, they have yet to match their pre-recession peak—a reflection of the continued high level of unemployment still bogging down the economy.

Figure 1.7 Disposable and Market Incomes (Personal Income Minus Transfers) Per Capita, Pennsylvania, 2005 to 2011

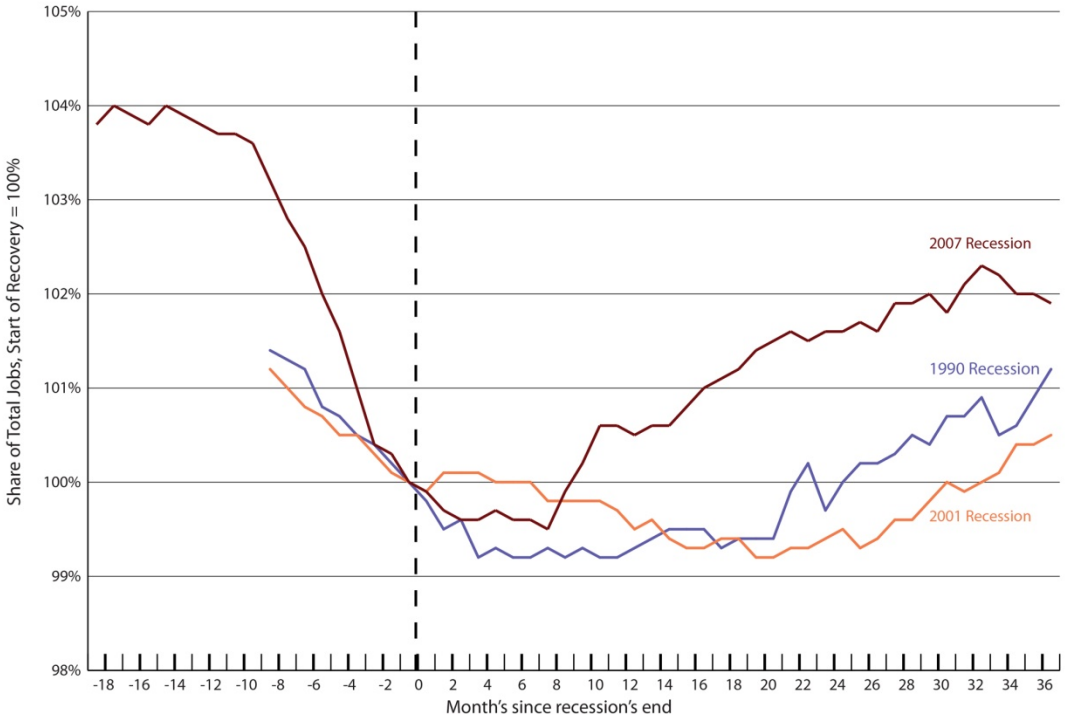


Source. Keystone Research Center analysis of Bureau of Economic Analysis data

[9] It does so by assuming that the historic relationship between per capita disposable personal income and personal income minus transfers in Pennsylvania was maintained from 2008 to the end of 2011.

Figure 1.8 tracks employment growth from the start of the recovery in each of the last three recessions. In Pennsylvania, employment growth since the beginning of the recovery in June 2009 has been stronger than in either the 1990 or the 2001 recession. However, because the job losses associated with this recession were more substantial than in either of the last two recessions, Pennsylvania remains well below full employment. In addition, job growth has been declining recently, as noted earlier.

Figure 1.8 Pennsylvania Employment in Last Three Recoveries, Relative to Start



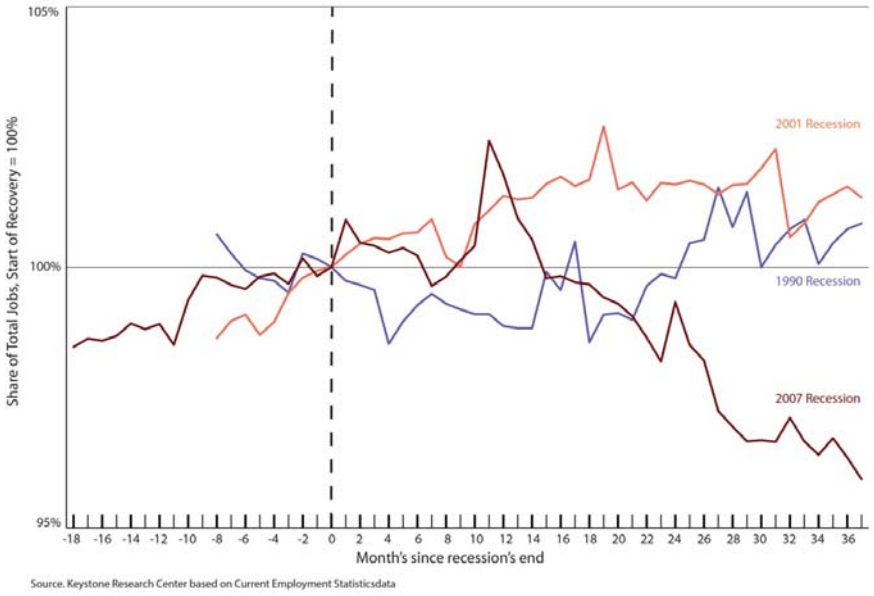
Source. Keystone Research Center based on Current Employment Statistics data

Complicating matters further, the current Congress, elected in 2010, has failed to extend aid to state and local governments beyond what was contained in the ARRA. At the state level, Governor Corbett and the Pennsylvania Legislature have chosen to rely exclusively on budget cuts to address the expiration of federal ARRA aid rather than take a balanced approach that includes budget savings and new revenue. In addition, surpluses of more than half a billion dollars have been carried forward in each of the last two state budgets.

A direct result of expiring federal aid and state budget cuts was the loss of tens of thousands of public-sector jobs in 2011. Figure 1.9 presents the change in employment since the start of the recovery in the three most recent recessions, revealing that the loss of public-sector jobs is unique to the current recovery.

Thirty-seven months after the official end of the 1990 recession, employment in Pennsylvania's public sector had climbed by 5,900 jobs. In the same period following the end of the 2001 recession, Pennsylvania's public sector had added 9,900 jobs. The 2007 recession officially ended in June 2009, and since then the Pennsylvania public sector has shed 31,000 jobs.[10]

Figure 1.9 Public Sector Employment in Last Three Recoveries, Relative to Start



Source. Keystone Research Center based on Current Employment Statisticsdata

Austerity Economics In Action

Analysis by Bryce Covert and Mike Konczal finds that 70 percent of public sector job losses at the state and local level in 2011 were in just 12 states. These were all states, such as Pennsylvania, that embraced austerity economics: they undertook deep cuts to address fiscal challenges rather than a balanced approach: Alabama, Indiana, Maine, Michigan, Minnesota, Montana, New Hampshire, North Carolina, Ohio, Pennsylvania, Wisconsin and Texas. The Covert and Konczal analysis suggests that the deterioration in Pennsylvania's recent job-growth ranking is not a random event but a predictable result of policy changes since 2010.

http://www.rooseveltinstitute.org/sites/all/files/GOPProjectSlashingPublicWorkforce.pdf

[10] Note that most of the increase in temporary public-sector employment associated with 2010 census occurred in the first six months of 2010.

The Quarterly Census of Employment and Wages (QCEW), as noted earlier (in the discussion of manufacturing employment trends), provides less timely but more detailed data on changes in employment by industry.

The most current data available from the QCEW are for December 2011. Table 1.11 breaks down Pennsylvania's employment growth by sector from the QCEW in 2011, showing that there was a loss of 25,000 public-sector jobs that year, with the bulk of them concentrated in local government. Table 1.12 breaks down local government employment over this same period, revealing that 19,000 local job losses were in Elementary and Secondary schools, which faced significant funding cuts in the 2011-12 state budget. Table 1.13 provides detailed data on public-sector job losses at the state level.

Table 1.11

Employment change December 2010 to December 2011 by Sector in Pennsylvania

Sector	December 2010	December 2011	Change	Percent Change
Total Covered	5,555,783	5,595,135	39,352	0.7%
Private	4,813,921	4,878,519	64,598	1.3%
Public	741,862	716,616	(25,246)	-3.4%
Federal	104,525	101,951	(2,574)	-2.5%
State	140,146	137,526	(2,620)	-1.9%
Local	497,191	477,139	(20,052)	-4.0%

Source. Keystone Research Center based on QCEW data

Table 1.12

Employment change December 2010 to December 2011 by Sector in Pennsylvania

Subsector of Local Government in Pennsylvania	December 2010	December 2011	Change	Percent Change
Local Government Total	497,191	477,139	(20,052)	-4.0%
Utilities	10,113	10,179	66	0.7%
Heavy and civil engineering construction	2,855	2,835	(20)	-0.7%
Transit and ground passenger transportation	7,712	7,996	284	3.7%
Support activities for transportation	1,485	1,416	(69)	-4.6%
Other information services	2,204	2,122	(82)	-3.7%
Professional and technical services	21	42	21	100.0%
Administrative and support services	1,648	2,394	746	45.3%
Waste management and remediation services	435	467	32	7.4%
Educational services	314,248	294,526	(19,722)	-6.3%
Elementary and secondary schools	296,966	277,591	(19,375)	-6.5%
Junior colleges	17,111	16,630	(481)	-2.8%
Nursing and residential care facilities	10,763	10,406	(357)	-3.3%
Social assistance	2,209	2,961	752	34.0%
Performing arts and spectator sports	436	379	(57)	-13.1%
Museums, historical sites, zoos, and parks	112	112	0	0.0%
Amusements, gambling, and recreation	557	538	(19)	-3.4%
Food services and drinking places	932	940	8	0.9%
Personal and laundry services	1,358	1,307	(51)	-3.8%
Executive, legislative and general government	102,694	101,362	(1,332)	-1.3%
Justice, public order, and safety activities	25,132	25,092	(40)	-0.2%
Courts	3,987	3,991	4	0.1%
Police protection	9,766	9,662	(104)	-1.1%
Legal counsel and prosecution	1,043	992	(51)	-4.9%
Correctional institutions	6,046	6,097	51	0.8%
Parole offices and probation offices	597	582	(15)	-2.5%
Fire protection	3,583	3,650	67	1.9%
Administration of environmental programs	1,442	1,382	(60)	-4.2%
Community & housing prog. administration	5,132	5,109	(23)	-0.4%
Administration of economic programs	1,103	1,092	(11)	-1.0%

Note. As a result of non-disclosure of data by the Bureau of Labor Statistics the sum of data by subsector will not sum to equal the local total.

Source. Keystone Research Center based on QCEW data

Table 1.13

Employment change December 2010 to December 2011 For State Government

Subsector of State Government	December 2010	December 2011	Change	Percent Change
State Government Total	140,146	137,526	(2,620)	-1.9%
Animal production and aquaculture	131	116	(15)	-11.5%
Heavy and civil engineering construction	6,441	6,401	(40)	-0.6%
Food and beverage stores	4,780	4,554	(226)	-4.7%
Professional and technical services	4,392	4,380	(12)	-0.3%
Administrative and support services	1,728	1,543	(185)	-10.7%
Educational services	37,854	37,594	(260)	-0.7%
Colleges and universities	37,550	37,305	(245)	-0.7%
Ambulatory health care services	704	695	(9)	-1.3%
Hospitals	4,557	3,999	(558)	-12.2%
Nursing and residential care facilities	6,887	6,654	(233)	-3.4%
Social assistance	7,811	7,490	(321)	-4.1%
Museums, historical sites, zoos, and parks	216	211	(5)	-2.3%
Amusements, gambling, and recreation	238	240	2	0.8%
Executive, legislative & gen. government	9,624	9,242	(382)	-4.0%
Justice, public order, and safety activities	24,734	24,159	(575)	-2.3%
Courts	1,022	1,011	(11)	-1.1%
Police protection	6,051	5,970	(81)	-1.3%
Legal counsel and prosecution	733	676	(57)	-7.8%
Correctional institutions	15,649	15,178	(471)	-3.0%
Parole offices and probation offices	1,063	1,071	8	0.8%
Administration of human resource prog.	6,233	6,152	(81)	-1.3%
Administration of environmental prog.	5,511	5,666	155	2.8%
Administration of economic programs	4,897	4,892	(5)	-0.1%

Note. As a result of non-disclosure of data by the Bureau of Labor Statistics the sum of data by subsector will not sum to equal the state total.

Source. Keystone Research Center based on QCEW data

We now turn our attention to trends in employment over the last seven decades and briefly to incomes over the last three decades to reveal the consequences of weak employment growth on income growth in the Pennsylvania economy.

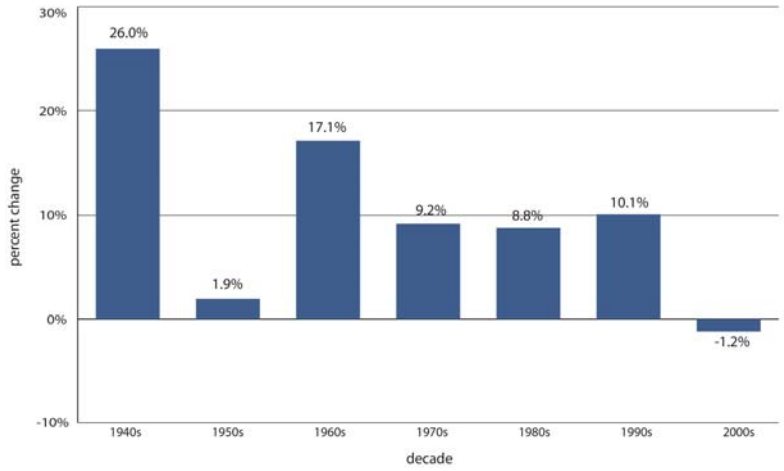
A Lost Decade

Two recessions in a decade make the period from 2000-2010 the worst in terms of job creation in Pennsylvania since 1940 (Figure 1.10).

Weak job growth in the last decade translated into falling incomes. Our data on incomes at the state level only extend back to the 1980s, but the pattern of income growth follows that of job growth. Median four-person family income grew almost twice as fast in the 1990s as it did in the 1980s, but in the last decade, it actually declined. Median four-person family income in Pennsylvania declined by $6,136 in 2010 from $82,818 in 2000 (Figure 1.11).[11]

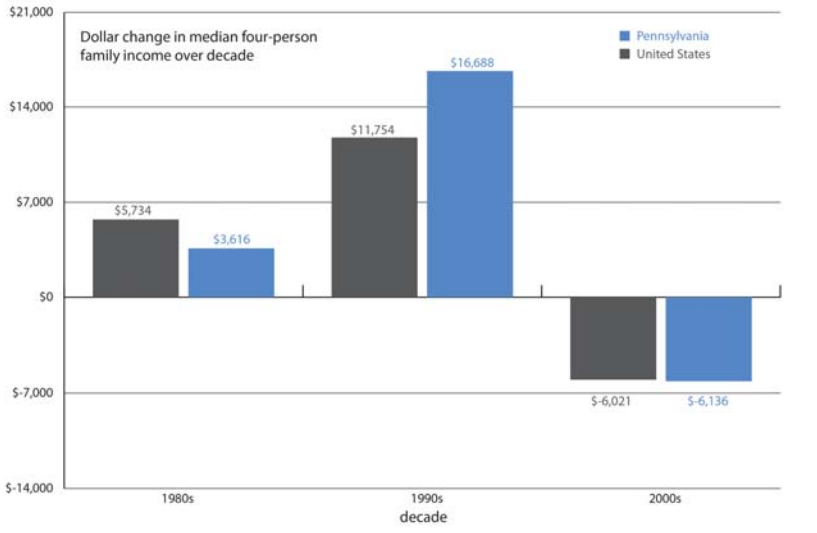
These data make clear that strong job growth is not just important for the unemployed or young graduates; it is also a necessary ingredient for

Figure 1.10 Change in Non-Farm Employment In Pennsylvania, By Decade



Source. Keystone Research Center based on Current Employment Statistics data

Figure 1.11 Change in Real Four-Person Family Income Pennsylvania and U.S., By Decade (2010 dollars)



Source. Economic Policy Institute based on U.S. Census Bureau, Current Population Survey and American Community Survey; data series changes from CPS to ACS in 2004-2005

[11] The data source for median four-person family income series for Pennsylvania switches in 2004-05 from the March Current Population Survey to the American Community Survey. Other income time series which are measured using the same instrument across the whole period also demonstrate a decline in incomes over the past decade. Median household income, available for Pennsylvania from 2000 to 2010 from the March Current Population Survey, declined from its 2000 level by $4,940 to $48,144 in 2010. Median household income as measured in the American Community Survey declined over the same period by $927 to $49,288 in 2010. Average taxable income in Pennsylvania estimated from Pennsylvania Department of Revenue (DOR) and Internal Revenue Service (IRS) data declined from its 2000 level by 3,641 to $51,289 in 2010 (See Chapter 5 for methodological details on the construction of the taxable income time series).

broad-based growth in incomes.

In the next section, we briefly review Pennsylvania's population growth and labor force characteristics before returning, in Chapter 2, to the impact of weak job growth on the wages.

Table 1.14

Population and Population Growth, Pennsylvania, U.S., and Bordering States, 2000-2010

State	2000	2010	Percent Change
Pennsylvania	12,281,054	12,702,379	3.4%
United States	281,421,906	308,745,538	9.7%
Delaware	783,600	897,934	14.6%
Maryland	5,296,486	5,773,552	9.0%
New Jersey	8,414,350	8,791,894	4.5%
New York	18,976,457	19,378,102	2.1%
Ohio	11,353,140	11,536,504	1.6%
West Virginia	1,808,344	1,852,994	2.5%

Source. U.S. Census Bureau

Some Basic Facts on the Pennsylvania Economy

Pennsylvania's Population and Workforce Growing

As shown in Table 1.14, Pennsylvania's population grew by 3.4% from 2000 to 2010, as the commonwealth added just over 420,000 people. Of six neighboring states, half—Delaware, Maryland and New Jersey—grew faster.

Pennsylvania's labor force in 2011 stood at 6.3 million. The Pennsylvania labor force is substantially more white (83%) than the labor force of the nation (67%) (Table 1.15).

Table 1.15

Labor Force Demographics, Pennsylvania and U.S., 2011

Demographic	Pennsylvania	United States
Gender		
Male	53.1%	53.4%
Female	46.9%	46.6%
Race / ethnicity		
White	82.9%	67.3%
African-American	8.9%	11.1%
Hispanic	4.7%	14.9%
Other	3.5%	6.7%
Education		
Less than high school	8.0%	10.3%
High school	35.6%	28.4%
Some college	25.6%	29.3%
Bachelor's or higher	30.8%	32.0%
Age		
16-24 yrs	15.0%	13.7%
25-54 yrs	63.8%	66.2%
55 yrs and older	21.2%	20.1%

Source. EPI analysis of CPS data

Labor Force Participation Rates Reveal a Strong and Widely Shared Work Ethic

In 2011, 63.2% of adults participated in the Pennsylvania labor force, about a percentage point lower than the national average of 64.1% (Table 1.16). Labor force participation rates by age group reveal that 60.6% of people ages 16 to 24 participate in the labor market compared to 55% of workers in this age group nationally. Among Pennsylvania adults ages 25 to 54, 81.8% participate in the labor market, two-tenths of a percentage point higher than the national average. It is among adults 55 and older that Pennsylvania labor force participation rates fall off compared to the national average: 38.2% of Pennsylvania adults 55 and older participate in the labor market compared to 40.3% nationally.

Figure 1.12 examines the changes in labor force participation rates for men and women in Pennsylvania and the United States between 1979 and 2011. They reveal the familiar pattern of rising participation of women over this period and a long run gradual decline in men's labor force participation. In 1979, just

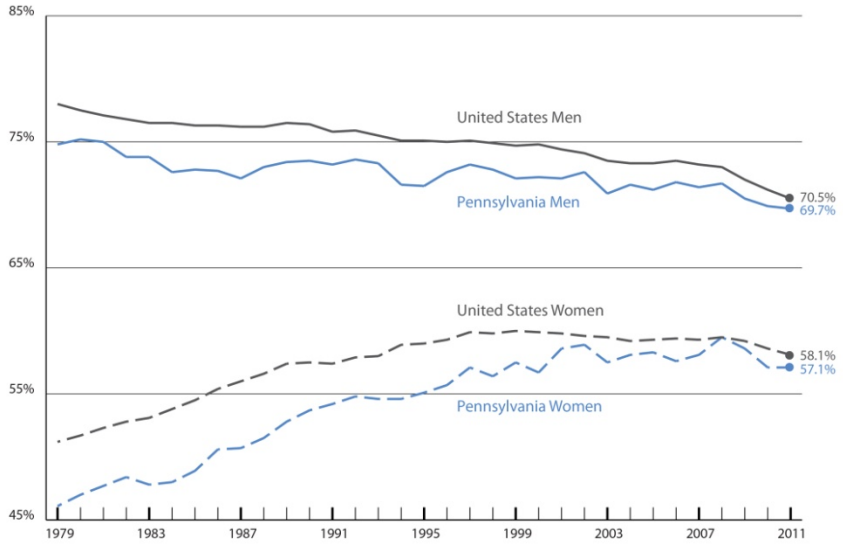
Table 1.16

Labor Force Participation Rates by Demographic, Pennsylvania and U.S., 2011

Demographic	Pennsylvania	United States
All	63.2%	64.1%
Gender		
Male	69.7%	70.5%
Female	57.1%	58.1%
Age		
16-24 yrs	60.6%	55.0%
25-54 yrs	81.8%	81.6%
55 yrs and older	38.2%	40.3%
Race / ethnicity		
White	63.7%	64.1%
African-American	58.9%	61.3%
Hispanic	61.7%	66.5%
Asian/Pacific islander	61.5%	64.7%
Education		
Less than high school	36.9%	41.0%
High school	58.9%	61.3%
Some college	65.8%	65.9%
Bachelor's or higher	78.3%	76.7%

Source. EPI analysis of CPS data

Figure 1.12 Labor Force Participation by Gender, Pennsylvania and U.S., 1979-2011



Source: Economic Policy Institute analysis of Current Population Survey data

shy of three out of four men in Pennsylvania were working or looking for work. That share has declined by roughly five percentages points, to 69.7% in 2011. For women in Pennsylvania and the nation, participation in the labor force has been on the upswing over this same period. In 1979, 46.1% of women in Pennsylvania participated in the labor market, a figure that has increased by 11 percentage points to 57.1% in 2011.

Key Sectors in Pennsylvania

Gross Domestic Product (GDP), presented in Table 1.15, shows the total value of all goods and services produced in Pennsylvania. In 2011, Pennsylvania GDP was $578 billion. The last two columns of the table present total employment as measured by the Bureau of Economic Analysis (BEA) in 2010. Unlike the employment figures we have presented thus far, the employment data maintained by the BEA also include counts of farming and sole proprietorship employment. The most current employment counts available from the BEA are for 2010, which we present alongside 2011 GDP.

Of all the major industrial sectors in the Pennsylvania economy, the three largest sectors as a share of either GDP or employment are Manufacturing, Health Care and Social Assistance (discussed in more detail in the next section) and Government

In the private sector, Manufacturing accounts for 12% of GDP and 8% of total employment, and Health Care and Social Assistance accounts for 10% of GDP and 13.9% of total employment. Contrast these two sectors with Mining, which captures coal mining, oil extraction and most of the economic activity associated with Marcellus Shale natural gas extraction. Mining in Pennsylvania in 2011 accounted for 1.3% of GDP and 0.2% of employment.

The public sector in Pennsylvania accounted for just shy of $59 billion in economic activity (10.2% of all GDP) and employs 11.6% of the workforce.

The Middle Class Challenge Presented by Health Care and Social Assistance

Health Care and Social Assistance includes the offices of physicians, hospitals, nursing homes and child Care providers. While overall private-sector employment plunged during the Great Recession, Health Care and Social Assistance added 29,000 jobs (Table 1.16). Job growth has continued in this sector as the overall economy began to recover, adding another 28,700 jobs between December 2009 and December 2011. No other sector in the Pennsylvania economy today better captures the challenges we face in strengthening the middle class.

Table 1.17

Pennsylvania Gross Domestic Product and Employment By Industry

Sector	Gross Domestic Product (millions of 2011 dollars)	Percent of Total GDP	Employment 2010	Percent of Total Employment
Total	$578,839		7,137,155	
Private industries	$519,654	89.8%	6,237,184	87.4%
Agriculture, forestry, fishing, & hunting	$3,551	0.6%	17,620	0.2%
Mining	$7,413	1.3%	41,541	0.6%
Utilities	$11,273	1.9%	22,526	0.3%
Construction	$19,732	3.4%	354,776	5.0%
Manufacturing	$70,958	12.3%	589,431	8.3%
Durable goods	$37,606	6.5%	353,357	5.0%
Nondurable goods	$33,352	5.8%	236,074	3.3%
Wholesale trade	$34,026	5.9%	243,980	3.4%
Retail trade	$33,321	5.8%	765,013	10.7%
Transportation and warehousing	$16,571	2.9%	254,648	3.6%
Information	$22,561	3.9%	108,890	1.5%
Finance and insurance	$47,920	8.3%	397,113	5.6%
Real estate and rental and leasing	$64,572	11.2%	248,692	3.5%
Professional, scientific, and technical services	$46,258	8.0%	458,446	6.4%
Management of companies and enterprises	$19,140	3.3%	123,069	1.7%
Administrative & waste mgmt. services	$14,832	2.6%	356,721	5.0%
Educational services	$12,857	2.2%	272,950	3.8%
Health care and social assistance	$59,916	10.4%	994,847	13.9%
Arts, entertainment, and recreation	$6,513	1.1%	153,001	2.1%
Accommodation and food services	$13,481	2.3%	445,407	6.2%
Other services, except government	$14,758	2.5%	388,513	5.4%
Government	$59,185	10.2%	825,358	11.6%

Source. Keystone Research Center based on BEA data

Health Care and Social Assistance powerfully illustrates the rise in earnings inequality since 1979 between workers based on educational credentials (See Chapter 2 for more discussion on this topic). The highest paying Pennsylvania occupations in this sector include surgeons ($92.15 per hour); the lowest paying occupations include child care workers ($9.98 per hour) and home health aides (10.36 per hour).[12] According to the Occupational Handbook of the Bureau of Labor Statistics (BLS), the entry level credential for home health aides is less than a high school education and for child care workers it is a high school diploma. As we detail in Chapter 2, the wages of workers with less than a high school diploma are lower today than they were in 1979 and have stagnated for both men and women with high school diplomas. The Pennsylvania Department of Labor and Industry projects employment growth in Pennsylvania in both of these low-paid occupations will be above

[12] Mean hourly wages, May 2011 Occupational Employment and Wage Estimates, Occupational Employment Statistics (OES) available online at http://www.bls.gov/oes/oes_dl.htm

average (6.4%) through 2020, with jobs increasing among home health aides by 32% and among child care workers by 9.8%.[13]

While these low-paying caring jobs can offer great non-financial rewards to the workers who care for the young, the elderly, and the disabled, they are also chronically among the worst in pay and benefits. As Manufacturing employment has declined and employment in Health Care and Social Assistance has increased over the last several decades, inequality has increased and job quality eroded for workers without post-secondary credentials. In the future, a major challenge is to improve outcomes for consumers in these sectors, job quality for workers, and affordable access to these critical services. This challenge will be easier to achieve because the cost of lower-paid workers is relatively low (especially in acute health care) as a share of total costs. In addition, improving jobs can save money by reducing worker turnover and also improving health care quality.

Table 1.18

Change in Employment in Health Care and Social Assistance by Subsector 2007 to 2011

Health Care and Social Assistance (Three digit NAICS)	December 2007 to December 2009		December 2009 to December 2011	
	Change	Percent Change	Change	Percent Change
Total Covered Employment in the Private Sector	(252,664)	-5.1%	148,088	3.1%
Health care and social assistance	29,297	3.4%	28,741	3.3%
Ambulatory health care services	12,722	4.8%	11,616	4.2%
Offices of physicians	4,136	3.9%	1,625	1.5%
Offices of dentists	540	1.7%	303	0.9%
Offices of other health practitioners	3,493	10.4%	3,320	9.0%
Outpatient care centers	1,095	3.6%	2,523	8.1%
Medical and diagnostic laboratories	75	0.7%	101	0.9%
Home health care services	2,408	7.2%	2,879	8.0%
Other ambulatory health care services	975	5.3%	865	4.5%
Hospitals	(3,227)	-1.2%	1,744	0.7%
General medical and surgical hospitals	(5,358)	-2.2%	(97)	0.0%
Psychiatric and substance abuse hospitals	368	4.5%	656	7.6%
Other hospitals	1,763	9.1%	1,185	5.6%
Nursing and residential care facilities	5,843	3.1%	4,700	2.4%
Nursing care facilities	(1,165)	-1.5%	1,352	1.8%
Residential mental health facilities	2,984	6.5%	2,338	4.8%
Community care facilities for the elderly	4,994	8.9%	2,059	3.4%
Other residential care facilities	(970)	-9.4%	(1,049)	-11.2%
Social assistance	13,959	10.8%	10,681	7.5%
Individual and family services	13,732	19.1%	11,016	12.9%
Emergency and other relief services	(16)	-0.3%	202	3.2%
Vocational rehabilitation services	(449)	-3.5%	(1,671)	-13.5%
Child day care services	692	1.8%	1,134	2.9%

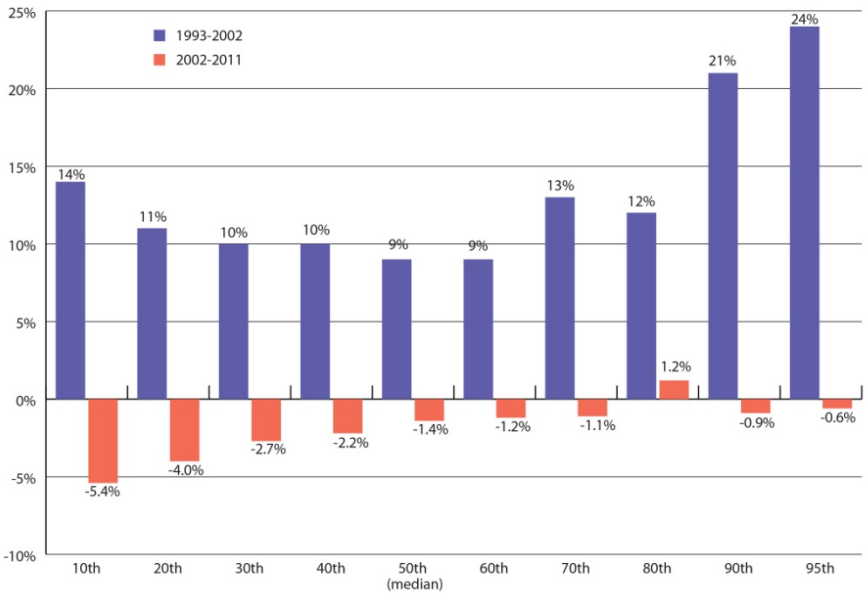
Source. Keystone Research Center based on Quarterly Census of Employment and Wages

[13]Pennsylvania data is available from the Pennsylvania Department of Labor and Industry available online at http://www.paworkstats.state.pa.us/gsipub/index.asp?docid=412. For the national data see the Occupational Outlook Handbook at http://www.bls.gov/ooh/home.htm

Chapter 2: Wages & Wage Disparity

As Chapter 1 made clear, the Pennsylvania labor market more than three years after the end of the Great Recession has not been adding enough jobs to keep up with the growth in the working-age population. Worse still, there were fewer jobs in Pennsylvania in July 2012 than there were more than a decade earlier, in July 2000. The lack of employment is particularly challenging for those who have lost their jobs or those graduating from high school and college in the last three years. Less commonly understood is the impact of high unemployment and weak job growth on wage growth for the majority of people who have paid employment.

Figure 2.1 Percent Change in Hourly Earnings 1993-2002 and 2002-2011 by Percentile



Source. Keystone Research Center based on Current Population Survey data

As Figure 2.1 and Table 2.1 illustrate, there was broad-based although somewhat unequal growth in hourly earnings among Pennsylvania workers between 1993 and 2002, a period in which the state's economy added more than 4,500 jobs a month. All workers gained some ground during that period. Low-wage workers at the 10th percentile saw their earnings rise 14%, or by just over $1 per hour, to $8.66 by 2002. The typical worker (who earns at the median) saw earnings rise 10%, to $14.58 per hour. Still, inequality rose during this period as the highest-wage workers experienced the most

Table 2.1
Hourly earnings by percentile 1993, 2002 and 2011 in Pennsylvania

Percentile	1993	2002	2011	Percent change	
				1993-2002	2002-2011
10th	$7.60	$8.66	$8.19	13.9%	-5.4%
20th	$9.39	$10.45	$10.02	11.2%	-4.0%
30th	$11.30	$12.38	$12.05	9.5%	-2.7%
40th	$13.26	$14.58	$14.26	10.0%	-2.2%
50th (Median)	$15.34	$16.65	$16.43	8.5%	-1.4%
60th	$17.72	$19.24	$19.00	8.5%	-1.2%
70th	$20.42	$23.12	$22.87	13.2%	-1.1%
80th	$24.67	$27.61	$27.95	11.9%	1.2%
90th	$30.81	$37.38	$37.04	21.3%	-0.9%
95th	$38.00	$47.15	$46.87	24.1%	-0.6%

Source. Keystone Research Center based on CPS data

growth in hourly earnings; those at the 90th and 95th percentile saw their earnings rise by more than 20% between 1993 and 2002.

Contrast those trends with the period between 2002 and 2011 when the economy added fewer than 600 jobs a month. Almost every group of Pennsylvania workers lost ground, although much like in the 1990s, the highest-wage workers held onto more than those at the bottom, who lost the most.

With unemployment projected to remain stubbornly high in the years ahead, the most troubling question is how much more of the gains in hourly earnings made in the 1990s will workers in Pennsylvania have to give up?

The Broken Link

Lawrence Mishel in *The Wedges Between Productivity and Median Compensation Growth* finds the gap between productivity and compensation growth was larger in the "lost decade" than at any point in the post-World War II period.

http://www.epi.org/publication/ib330-productivity-vs-compensation/

In the next section, we explore trends in wages for the typical Pennsylvania worker since 1979. In the rest of this chapter, we examine trends in health and pension coverage as well as wage trends by gender, race and education, showing how wage inequality based on these characteristics has risen over-time.

The Long-Term Perspective: Slow Wage Growth

Figure 2.2 Median Hourly Wages, Pennsylvania and U.S., 1979-2011

Source. Economic Policy Institute analysis of Current Population Survey ORG data

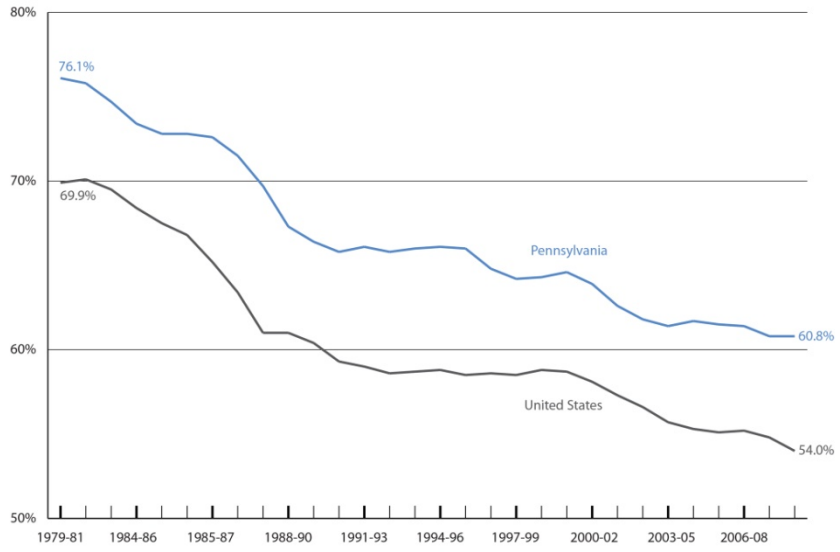
Figure 2.2 illustrates median hourly wages in Pennsylvania and the United States from 1979 to 2011. (All figures are in 2011 dollars). Wages for the typical worker in Pennsylvania declined sharply in the early 1980s and by 1990 remained 2.3% below their 1979 high. The 1991 recession reduced wages again in Pennsylvania, eroding most of the gains accrued during the recovery of the late 1980s. The stronger recovery in the 1990s resulted in much stronger wage growth in the latter half of that decade. Wages for Pennsylvania workers rose 8% between 1990 and 2001. With the 2000s including periods of high unemployment at the start and end of the decade, wage growth from 2001 to 2011 was once again negative, falling 1.4%.

Despite being better educated and more productive, the typical Pennsylvania worker earned only $16.43 per hour in 2011, or 63 cents more than in 1979; for a full-time worker employed all 52 weeks of the year, that amounted to just $1,310 more per year. While the typical worker enjoyed an increase in wages of 4% over the last 33 years, per capita personal income in Pennsylvania

increased by $33,168, or 61%. Part of the discrepancy between wage and personal income growth is attributable to the rising share of health care benefits and pensions in the overall compensation of workers (for those employees fortunate enough to receive such benefits). Another component is the increasing share of income growth that has been flowing to the top 1% of Pennsylvania households in recent decades (see Chapter 5 for more details).

Falling Health Insurance and Other Benefits at Work

Figure 2.3 Private-Sector Employer-Provided Health Insurance Coverage Pennsylvania and U.S. 1979-2010 *(three-year moving average)*



Source. Economic Policy Institute analysis of Current Population Survey Annual Social and Economic Supplement data

While median wages have grown very little over the past three decades, the percentage of workers receiving work-based benefits has declined. As illustrated in Figure 2.3, employer-based health care coverage for private-sector workers in Pennsylvania has declined since 1979-81 by 15 percentage points (a decline of 20%) to about 61% in 2008-2010. National data also make clear that those workers who still receive health coverage from an employer have over time been saddled with higher deductibles and required to pay a larger share of the monthly premium for coverage.[14]

The share of Pennsylvania workers participating in a pension plan at work has also declined: from 60% in

Declining Job Quality

John Schmitt and Janelle Jones of the Center for Economic Policy Research in *Where Have All the Good Jobs Gone?* summarize national data on trends in wages, health care and pension coverage. These trends document a severe drop in the economic rewards of U.S. jobs over time.

http://www.cepr.net/index.php/publications/reports/where-have-all-the-good-jobs-gone

[14] See the 2011 Kaiser/HRET Employer Health Benefits Survey (EHBS) available online at http://ehbs.kff.org/pdf/8226.pdf

1979-81 to 50% in 2008-2010. Over time, the quality of pension benefits for workers who still receive them has declined, national data show, as employers have shifted away from defined benefit pension plans to 401(k)-type plans.[15]

Trends in Wages for Demographic Groups

Underlying overall trends in wages in Pennsylvania are divergent trends for different demographic groups. Hourly earnings for the typical man in Pennsylvania have declined between 2000 and 2011, a trend that also holds separately for white, black and Hispanic men. Figure 2.4 demonstrates the diverging fortunes of men and women over the past several decades. Between 1979 and 2011 wages for the typical male in Pennsylvania declined by 8%, closely matching the decline for men nationally (7.5%). Men in Pennsylvania have never fully regained the ground lost in the early 1980s. While men did post wage gains in the 1990s, two recessions in the 2000s brought a return to declining wages for men.

Women have fared significantly better over the whole period, enjoying wage gains in Pennsylvania of nearly 25% since 1979. For a woman working full-time, earnings rose from $11.99 per hour in 1979 to $14.97 in 2011, an increase that boosts annual pay (for a full-time, full-year worker with 2,080 annual work hours) nearly $6,200.

Table 2.1

Median Hourly Wages by Gender, Race, and Ethnicity in Pennsylvania, 2000 and 2011

Demographic	2000	2011	Percent Change
All			
White	$16.56	$16.99	2.6%
Black	$13.49	$13.88	2.9%
Hispanic	$12.44	$12.21	-1.9%
Men			
White	$19.51	$18.80	-3.6%
Black	$14.27	$13.91	-2.6%
Hispanic	$12.96	$12.67	-2.2%
Women			
White	$13.87	$15.24	9.9%
Black	$13.12	$13.86	5.6%
Hispanic	$11.26	$11.82	5.0%

Source. Keystone Research Center analysis of CPS ORG data

Table 2.2

Median Hourly Wages by Gender, Race, and Ethnicity in United States, 2000 and 2011

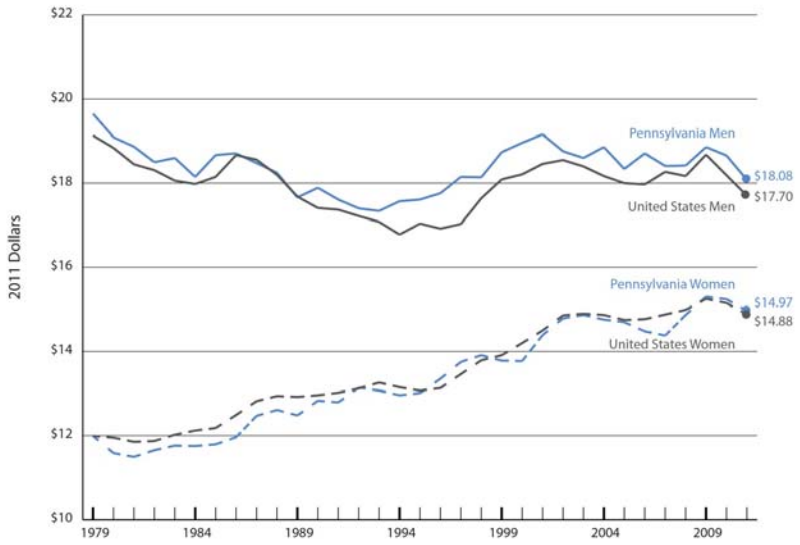
Demographic	2000	2011	Percent Change
All			
White	$17.32	$17.77	2.6%
Black	$13.69	$13.88	1.4%
Hispanic	$12.46	$12.21	-2.0%
Men			
White	$19.90	$19.76	-0.7%
Black	$14.55	$14.25	-2.1%
Hispanic	$12.76	$12.73	-0.3%
Women			
White	$14.92	$15.88	6.4%
Black	$13.03	$13.12	0.7%
Hispanic	$11.02	$11.76	6.7%

Source. Keystone Research Center analysis of CPS ORG data

[15] For national data on the shift to defined benefit pension plans see Facts From EBRI, Employee Benefit Research Institute, June 2007 available online at http://www.ebri.org/pdf/publications/facts/0607fact.pdf. For more on the pitfalls of 401(k)-type plans see Robert Hiltonsmith, *The Retirement Savings Drain: Hidden & Excessive Costs of 401(k)s,* Demos, May 2012, available online at http://www.demos.org/publication/retirement-savings-drain-hidden-excessive-costs-401ks

Table 2.1 also presents earnings by race and ethnicity, revealing large gaps in earnings. The typical black worker in Pennsylvania earned $13.88 per hour in 2011, lagging behind whites by more than $3.00 per hour. Hispanics fared worse, earning $12.44 an hour, just over $4.00 less per hour than the typical white worker (over $8,500 per year less for full-time, full-year work). Compared to white men, the typical black and Hispanic man earns $5.23 and 6.55 less per hour, respectively. Among women, the gaps are somewhat smaller, with less than a dollar per hour separating white and black women's earnings. Hispanic women fall short of the wages of white women by $2.61 per hour.

Figure 2.4 Median Hourly Wages by Gender
Pennsylvania and U.S., 1979-2011



Source. Economic Policy Institute analysis of Current Population Survey ORG data

The Gender Gap in Wages

Table 2.4
Ratio of Women's Median Wage to Men's, Pennsylvania and U.S., 1979-2011

Year	PA	US
1979	61%	63%
1989	71%	73%
2000	73%	78%
2011	83%	84%

Source. Keystone Research Center analysis of CPS ORG data

While women have enjoyed earnings gains in the last several decades, a gender gap remains in the wages of Pennsylvania men and women.

In 2011, the typical woman in Pennsylvania earned 17% less than the typical man (Table 2.4).

As Figure 2.4 illustrates, the gender gap has narrowed substantially, although at times that narrowing has occurred as men's wages have fallen.

More on the Gender Wage Gap

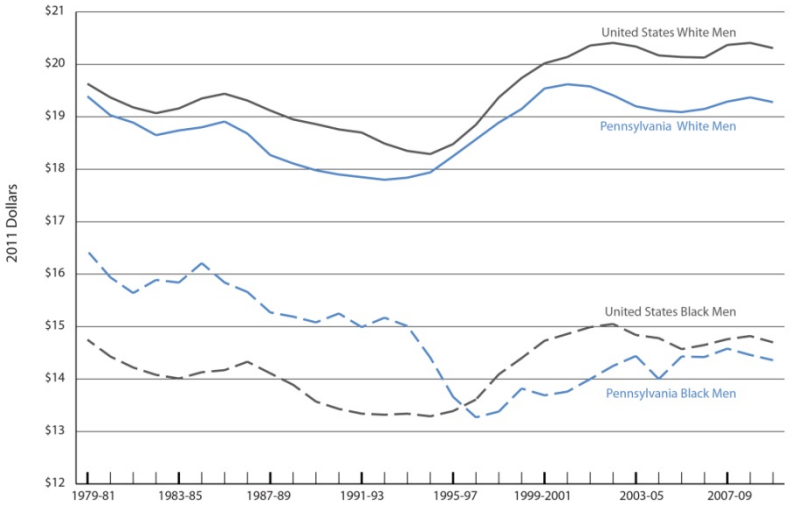
There are differences between men and women in terms of what economists call productivity-related characteristics. For example, because women are the primary caregiver in most families with children, the typical women will have less labor market experience than the typical man. Less experience tends to result in lower earnings for men and women with similar education and in similar occupations. A statistical method called the Oaxaca decomposition attempts to determine how much of the gender wage gap can be explained by such productivity-related differences in individual characteristics. In *Gender Wage Disparity in the Pittsburgh Region: Analyzing Causes and Differences in the Gender Wage Gap,* Sabina Deitrick, Susan B. Hansen and Christopher Briem of the University Center for Social and Urban Research at the University of Pittsburgh use this method to conclude that about 24% of the gender wage gap in the United States can be explained by differences in productivity-related characteristics. In other words, for a woman who earned 78 cents for every dollar a man earned in 2000, only about 5 cents of the 22-cent gap could be explained by productivity-related characteristics. The rest of the gap is very likely the result of continued discrimination against women in the labor market.

http://www.ucsur.pitt.edu/files/frp/DeitrickGenderWageDisparity12-07.pdf

The Black/White Gap in Wages

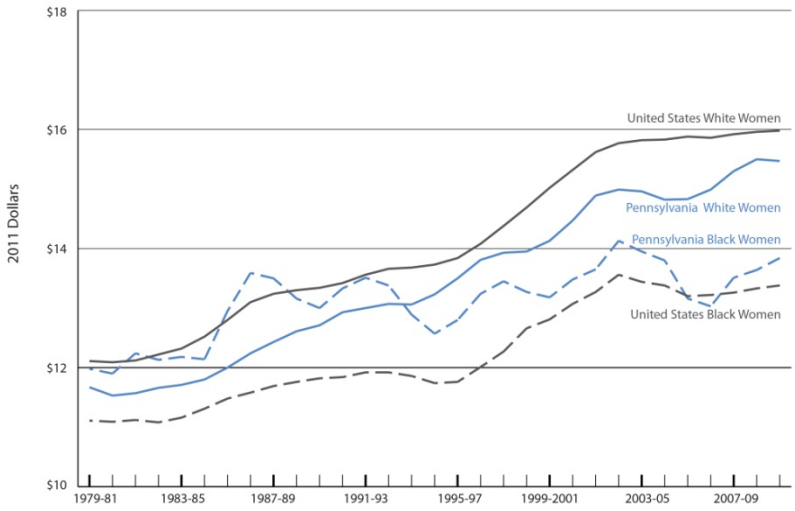
Black and white men experienced substantial declines in earnings from 1979-81 to 1995-97 in Pennsylvania. The typical white male experienced a 6% reduction in earnings over this period, and the typical black male saw a 17% decline in earnings. As a result, the wage gap between white and black men in Pennsylvania widened over this period from just under $3.00 per hour to nearly $5.00 per hour, where it has stayed through 2011. This loss of income for black men in Pennsylvania also reversed their earlier wage advantage over black men in the United States. In 1979-81, the typical black male employed full-time in Pennsylvania earned $3,500 more than the typical black male in the United States. By 2011, that advantage had disappeared, with the typical U.S. black male earning just over $700 more per year than the typical black man in Pennsylvania.

Figure 2.5 Men's Median Wages by Race, Pennsylvania and U.S., 1979-2011
(three-year moving average)



Source. Keystone Research Center analysis of Current Population Survey ORG data

Figure 2.6 Women's Median Wages by Race, Pennsylvania and U.S., 1979-2011
(three-year moving average)

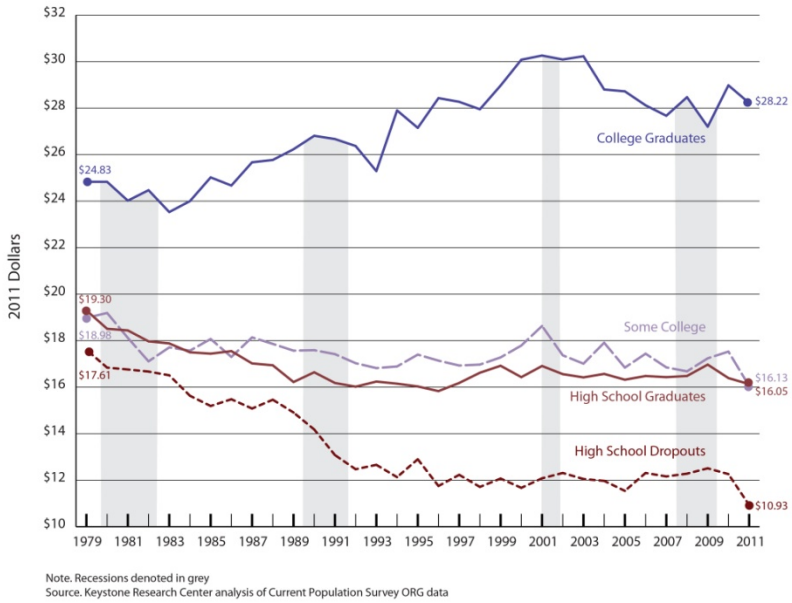


Source. Keystone Research Center analysis of Current Population Survey ORG data

A slightly slower pace of growth in hourly wages of black women in Pennsylvania compared to the national median for black women lead to a convergence in wages between 2009-2011 and 1979-81, although the two groups' relative wages between these two end points fluctuate. Over the whole period, the wages of white women in Pennsylvania and the nation grew by 32%, while Pennsylvania black women saw their hourly earnings rise by just 15%.

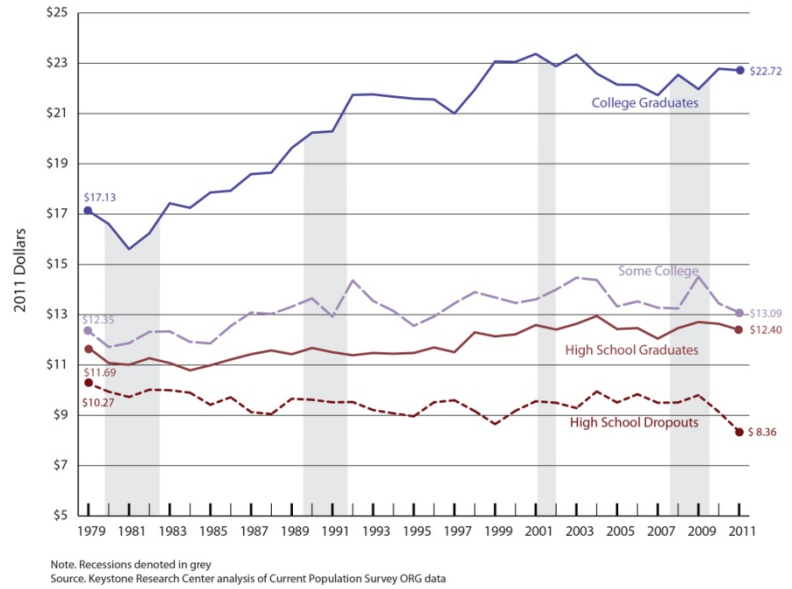
The Educational Gap in Wages

Figure 2.7 Men's Median Wages by Education, Pennsylvania 1979-2011



Note. Recessions denoted in grey
Source. Keystone Research Center analysis of Current Population Survey ORG data

Figure 2.8 Women's Median Wages by Education, Pennsylvania 1979-2011



Note. Recessions denoted in grey
Source. Keystone Research Center analysis of Current Population Survey ORG data

One of the single most important factors in determining wage levels in the U.S. economy is educational attainment. In particular, the benefit from college completion has been rising over time, while the wages of those without a college degree have stagnated or, in the case of high school dropouts, fallen. While this is good news for the roughly three in ten Pennsylvanians who have a college degree, it means the other 70% of workers have found it increasingly hard to get ahead.

Figure 2.7 and Figure 2.8 make clear the rising advantage of college completion for men and women in Pennsylvania as well as the declining fortunes of those with fewer credentials. In 1979, a male college graduate in Pennsylvania could expect to earn $5.53 more per hour than the typical male high school graduate; for a full-time job, that works out to just over $11,500 more in annual income. By 2011, at $28.22 per hour, the typical male college graduate could expect to make $12.09 more per hour than the typical worker who has only completed high school; for a full-time job, that totals more than $25,000 a year in additional income. Between 1979 and 2011, male college graduates saw a 13.7% rise in wages. For the typical male worker with only a high school diploma, wages fell 16% over the same period, and for male high school dropouts, the wage loss over this period is a stunning 38%.

As was the case for women in general in Pennsylvania, wage growth for women of all educational levels has been stronger in recent decades than it has been for men. Women with college degrees experienced a 33% increase in their earnings between 1979 and 2011. Women with high school diplomas or some college experienced only a 6% increase, while female high school dropouts saw their wages decline by 19% over this period. The typical female college graduate saw her hourly earnings rise from $17.13 an hour in 1979 to $22.72 an hour in 2011. Among women, the premium for college completion climbed on an annual basis (for a full-time, full-year worker) from $11,319 per year in 1979 to more than $21,400 a year in 2011.

The Power of Associate Degrees

The data from the previous section on earnings for Pennsylvania workers with "some college" obscures the impact of a key credential on earnings. The "some college" category can be broken into three groups: 1) those who have attended some amount of college at any type of postsecondary institution but have not completed a degree; 2) those who have completed an associate (AA) degree in an occupational or vocational area; and (3) those who have completed an academic AA degree. It is only possible since 1992 to distinguish between workers who had attended college but not completed any degree and those who had obtained either an academic or vocational AA degree.

Table 2.5

Median Wages (2011 dollars) and Share of Workers by Education: Pennsylvania and U.S., 2011

	Pennsylvania	United States
Wage		
Dropouts	$9.97	$9.99
High School	$14.48	$13.52
Some College, No Degree	$13.38	$13.60
Associate Degree	$16.43	$16.06
Occupational/Vocational	$16.31	$16.67
Academic	$16.60	$16.56
Bachelor's Degree or Higher	$24.82	$25.02
Labor Force Share		
Dropouts	8.0%	10.3%
High School	35.6%	28.4%
Some College, No Degree	15.0%	19.2%
Associate Degree	10.6%	10.0%
Occupational/Vocational	4.7%	4.6%
Academic	5.9%	5.5%
Bachelor's Degree or Higher	30.8%	32.0%
Share Within Associate Degrees		
Occupational/Vocational	44%	46%
Academic	56%	54%

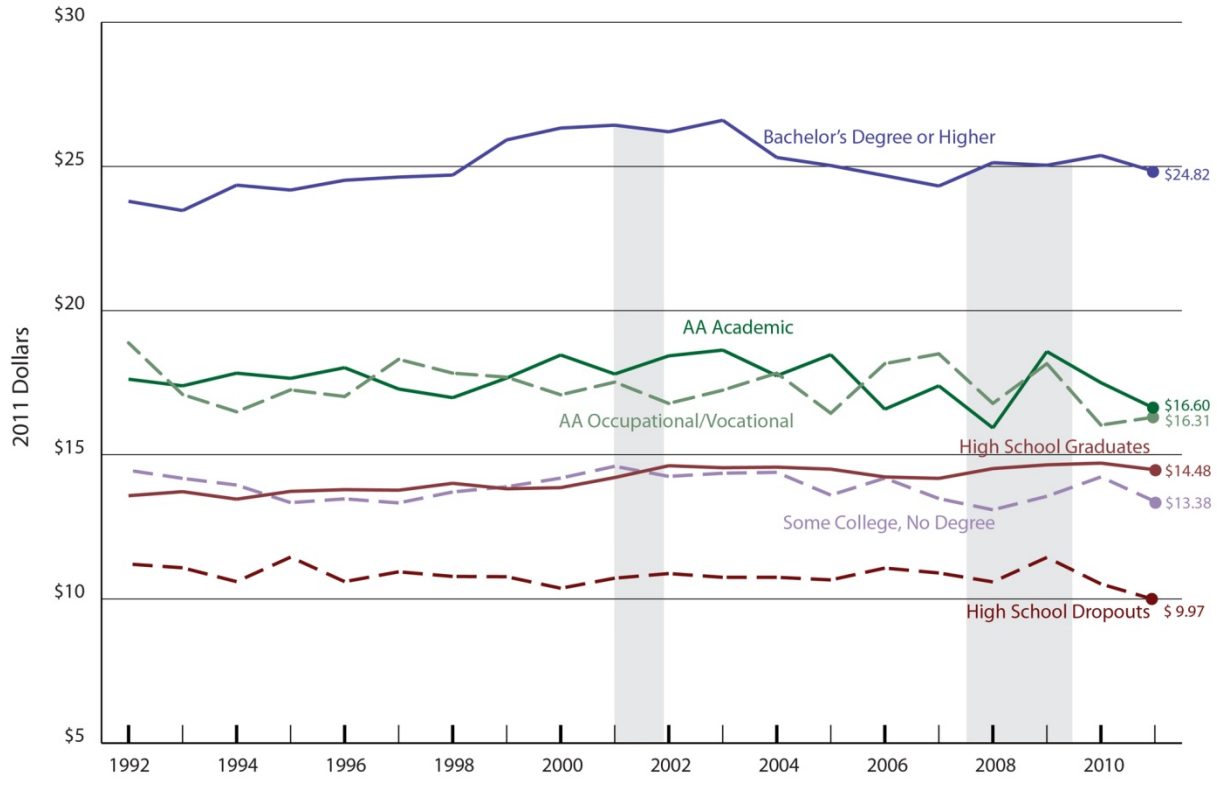
Source. Keystone Research Center analysis of CPS Org data

When earnings are combined for these three different groups of workers, there is very little difference in earnings between Pennsylvania workers with "some college" and those who simply completed high school. Presented in Table 2.5 and Figure 2.9 are more detailed data on earnings by education that illustrate much more clearly the earnings advantage to Pennsylvania workers who obtain an AA degree over those who only have a high school diploma.

Overall, Pennsylvania workers with an academic or vocational AA degree earned an annual wage premium over the typical high school graduate of a little more than $4,000. There is little difference

in earnings between workers with only a high school diploma and those who have some college but no degree. These data highlight the importance of credentials as well as the value of taxpayer investments in Associate Degree-granting institutions in Pennsylvania, especially the state's community colleges.

Figure 2.9 Median Wages by Educational Attainment, Pennsylvania, 1992-2011



Note. Recessions denoted in grey
Source. Keystone Research Center analysis of Current Population Survey ORG data

Wages by Industry and Occupation

Table 2.6 presents median wages in the period 2009-2011 by industry and occupation in Pennsylvania. Industry and occupation are different, but related, ways of describing the labor force. Presenting data by "industry" organizes employers according to the products and services they provide. For example, "construction" includes all workers who are employed by firms that construct buildings, roads and bridges. It includes everyone from secretaries in construction companies to carpenters. "Occupation" groups workers based upon the kind of work they do. "Construction and extraction occupations" include workers employed in the construction industry but also carpenters and electricians employed in all other industries. Secretaries in construction companies in this grouping appear in the category "office and administrative support occupations."

Pennsylvania's highest-median-wage industry is "public administration" ($20.85) followed by "financial activities" ($19.78). The lowest-paying industries in the commonwealth are "leisure and hospitality"

Table 2.6
Pennsylvania Median Wages by Industry and Occupation, 2009-2011

Industry and Occupation	Median Wage
Overall	$16.73
Industry	
Agriculture, forestry, fishing, and hunting	$10.55
Mining	$19.38
Construction	$19.49
Manufacturing	$18.51
Wholesale and retail trade	$12.82
Transportation and utilities	$19.26
Information	$19.36
Financial activities	$19.78
Professional and business services	$18.96
Educational and health services	$17.98
Leisure and hospitality	$9.19
Other services	$14.46
Public administration	$20.85
Occupation	
Management, business, and financial occupations	$25.28
Professional and related occupations	$23.89
Service occupations	$10.42
Sales and related occupations	$12.30
Office and administrative support occupations	$14.83
Farming, fishing, and forestry occupations	$9.46
Construction and extraction occupations	$19.57
Installation, maintenance, and repair occupations	$23.58
Production occupations	$15.52
Transportation and material moving occupations	$14.39

Source. Keystone Research Center analysis of CPS ORG data

More On Pay In The Public Sector In Pennsylvania

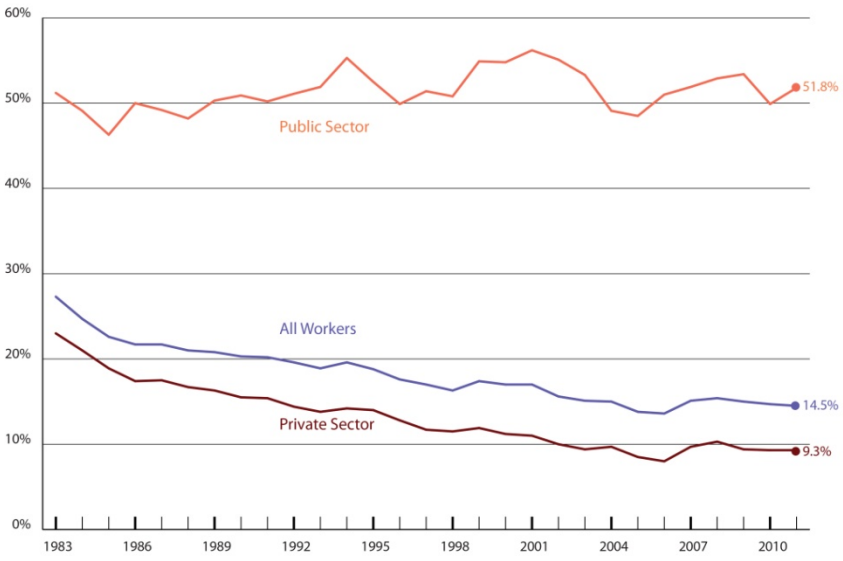
Public Versus Private Employee Costs in Pennsylvania: Comparing Apples to Apples, by Labor and Employment Relations Professor Jeffrey Keefe of Rutgers University

http://keystoneresearch.org/publications/research/public-versus-private-employee-costs-pennsylvania

($9.19) and "agriculture, forestry, fishing and hunting" ($10.55). Considering wages by occupation, the highest-paying occupations in Pennsylvania are "management, business and financial occupations," and the lowest paid are "farming fishing and forestry" ($9.46) and "service occupations" ($10.42).

Unions and Wages in Pennsylvania

Figure 2.10 Pennsylvania Union Membership, 1983-2011



Source. Keystone Research Center analysis of Current Population Survey ORG data

The decline in union membership is one of the major reasons behind the rise in income inequality over the last several decades.[16] By raising the bargaining power of workers, unions ensure that rising productivity translates not only into rising profits for companies but also rising wages for workers. Even non-union workers benefit from high levels of union density, as non-union employers tend to raise wages to better compete with unionized employers for skilled labor and/or discourage workers from unionizing. As unions have become less prevalent in the economy, a wide gap has opened up between wage and productivity growth, contributing to the concentration of income growth among the highest-earning households.

More on Unions

The Unions of the States by John Schmitt provides a detailed state-by-state analysis of union membership by state.

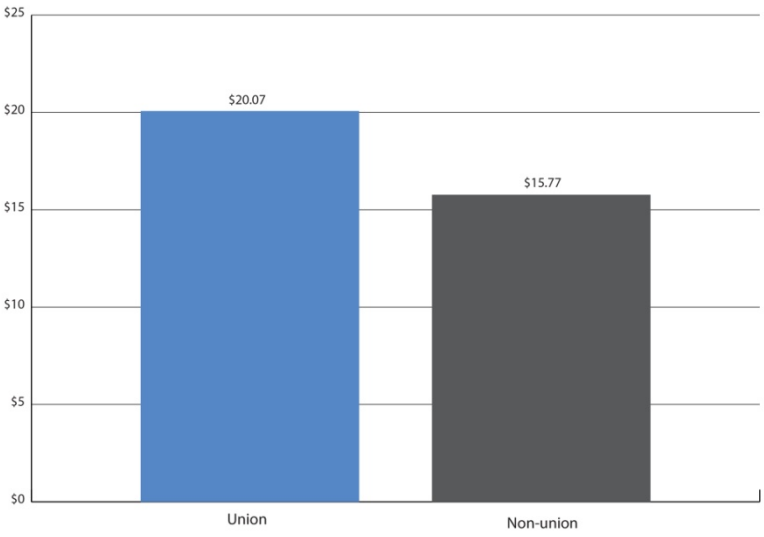
http://www.cepr.net/documents/publications/unions-states-2010-02.pdf

A less well understood but important effect of unions is to raise productivity by prompting employers to compete in product markets based on service, quality and other factors—and not simply by paying workers low wages. Because unions raise wages, they provide an incentive for employers to increase investment in labor-saving technology that helps offset higher wage costs. In

[16] Lawrence Mishel, *Unions, inequality, and faltering middle-class wages*, Economic Policy Institute, August 2012, available online at http://www.epi.org/publication/ib342-unions-inequality-faltering-middle-class/

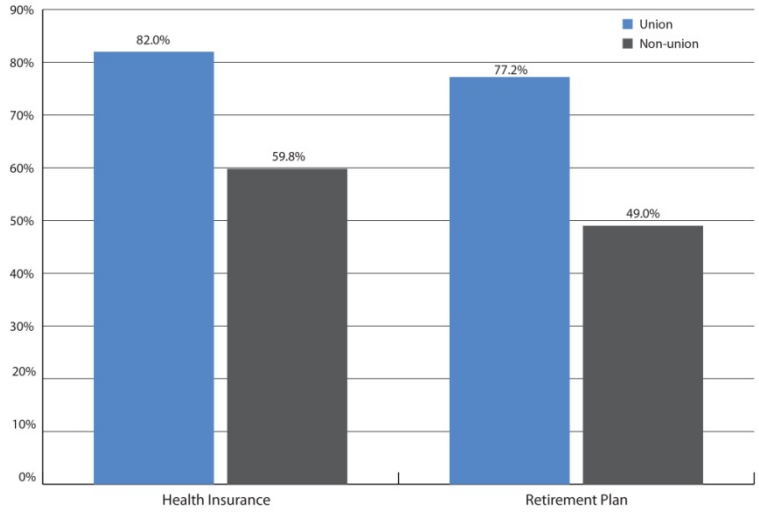
industries like construction, unions and unionized employers have established multi-employer apprenticeship systems that provide sophisticated on-the-job and classroom instruction, raising productivity and embedding in construction prices the cost of training each new generation of skilled craftsmen. These systems are virtually nonexistent in the non-union construction industry because their persistence depends on the presence of a union to ensure that all employers and workers who benefit from investments in apprenticeship pay to maintain those systems over time. This is one concrete way that unions improve product quality as well as equity.

Figure 2.11 Pennsylvania Median Hourly Wages by Union Status, 2011



Source. Keystone Research Center analysis of Current Population Survey ORG data

Figure 2.12 Health Insurance and Pension Coverage by Union Status Pennsylvania, 2003-2009



Source. John Schmitt, The Unions of the States, Center for Economic and Policy Research, February 2010

Pennsylvania has more than 700,000 union members, the fourth-largest number of union members and the 15th most unionized workforce in the country. As illustrated in Figure 2.10, union density in 1983 was 27% and has fallen by almost half to 14.5% in 2011. All of the losses in union membership have occurred in the private sector where today just below one in 10 Pennsylvanian workers are members of unions.

As illustrated in Figure 2.11, union workers earn 27% more than their non-union counterparts in Pennsylvania. When you consider that unionized workers are more likely to have characteristics associated with higher wages, including higher levels of education and a greater concentration in high-wage industries, the union earnings advantage shrinks somewhat but is still substantial. Using standard statistical techniques to separate out the advantages of union membership from other productivity-related characteristics, labor economist John Schmitt finds a union wage premium in

Pennsylvania of 15.3%.[17] For a full-time worker in 2011, the union wage premium yields an additional $5,100 in annual income.

Having reviewed trends in hourly earnings for workers at different wage levels and across and between demographic groups, in the next chapter we narrow our focus to the lowest-paying jobs in the Pennsylvania economy.

Chapter 3: Poverty-Wage Jobs

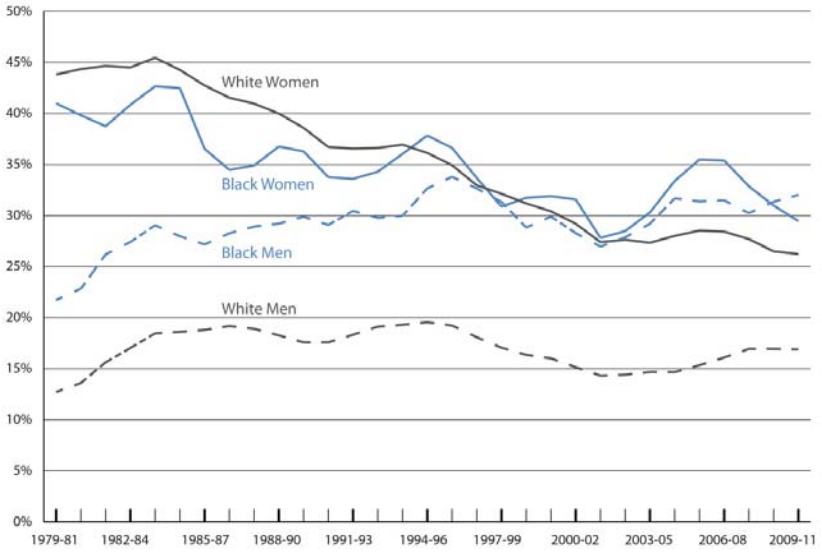
In this chapter, we turn our attention to the lowest paying jobs in the state's economy. Specifically, we look at jobs paying poverty wages—in other words, wages that would earn an annual income (for a full-time, full-year worker) below the federal poverty line for a family of four. As a society, we have failed to honor the commitment to work made by workers in poverty-wage jobs because they are still unable to afford a decent standard of living for their families.

We conduct our analysis by establishing a threshold for a poverty wage of $10.97 an hour. In 2011, just under one in four jobs in Pennsylvania paid wages below this amount.

Definition: Poverty-Wage Jobs

We define poverty-wage jobs as those paying hourly wages that would not be sufficient for a full-time (40 hours a week), year-round (52 weeks) worker to earn an income greater than the poverty line for a family of four with two children. In 2011 dollars, the poverty wage was $10.97 an hour or less. At this wage, a worker employed full-time year-round would earn $22,811.

Figure 3.1 Share of Pennsylvania Workers Earning Poverty Wages, 1979-2011
(three-year moving average)



Source. Keystone Research Center analysis of Current Population Survey ORG data

In the sections that follow, we analyze the change over time in the share of poverty-wage jobs in the Pennsylvania economy as well as the characteristics of the workers in these jobs.

[17] John Schmitt, The Unions of the States, Center for Economic and Policy Research, February 2010, available online at http://www.cepr.net/documents/publications/unions-states-2010-02.pdf

Trends in Poverty-Wage Jobs

Table 3.1

Share of Pennsylvania Workers Earning Poverty Wages, 1979-2011

Demographic	1979	1989	2000	2011	Percent Change 1979-2011	Percent Change 1989-2011
All	24.0%	29.3%	24.4%	23.9%	-0.6%	-18.7%
By Race and Gender						
White Men	11.3%	18.6%	16.6%	17.1%	51.2%	-8.2%
Black Men	19.9%	31.0%	27.3%	34.8%	75.0%	12.3%
White Women	40.6%	40.6%	30.9%	27.0%	-33.5%	-33.6%
Black Women	41.1%	40.2%	36.5%	29.5%	-28.2%	-26.5%
By Education						
No High School Degree	28.9%	44.9%	54.5%	57.9%	100.4%	28.8%
High School Degree	26.0%	33.9%	29.1%	27.9%	7.2%	-17.9%
Some College	25.7%	28.7%	26.1%	31.2%	21.7%	8.9%
No Degree	n.a	n.a	31.3%	38.9%	n.a	n.a
AA Degree	n.a	n.a	16.1%	20.2%	n.a	n.a
Bachelor's or Higher	10.6%	11.2%	8.1%	7.9%	-25.2%	-29.6%

Note. Poverty wages are defined here as wages less than $10.97 per hour, 2011 dollars
Source. Keystone Research Center analysis of CPS ORG data

Per capita incomes in Pennsylvania grew by 61% between 1979 and 2011. Despite this economic growth, the share of workers in the commonwealth earning poverty wages remained essentially unchanged over the same period (Table 3.1). Over the course of the 1980s, the share of poverty-wage jobs rose, reflecting the deep recession early that decade. Starting in the late 1980s and especially in the late 1990s, the share of poverty-wage jobs fell sharply. The weaker economy of the 2000s has once again driven the share of poverty-wage jobs higher.

Figure 3.1 above presents the trends in poverty-wage jobs by gender and race between 1979 and 2011. As more women entered into new fields and experienced an increase in wages over this period, there was a sharp decline in the share of both white and black women in Pennsylvania employed in poverty-wage jobs. The share of white women in poverty-wage jobs declined from nearly 41% in 1979 to 27% by 2011. In 1979, 41% of black women in Pennsylvania were employed in poverty-wage jobs, and by 2011 just under 30% were.

White women are still more likely to hold poverty-wage jobs than white men in Pennsylvania, although the gap has narrowed. In 1979 Pennsylvania white women were more than 3.5 times more likely to hold such jobs than white men, but in 2011 they were a little more than 1.5 times as likely. Still, in 2011 more than one in four white women in Pennsylvania were employed in poverty-wage jobs.

While the share of white men employed in poverty-wage jobs in Pennsylvania remains lower than for all other groups, it rose from 11% in 1979 to 17% in 2011.

Just under one in four African-American men in Pennsylvania were employed in poverty-wage jobs in 1979, but by 2011 over one in three were employed in such jobs. Today black men are more likely than black women in the commonwealth to be employed in poverty-wage jobs.

Poverty-Wage Jobs Are Sticky

The Keystone Research Center's briefing paper *Stuck on the Bottom Rung of the Wage Ladder* found that roughly 40% of Pennsylvania workers earning poverty wages in 1998 were still earning poverty wages in 2004

http://keystoneresearch.org/publications/research/stuck-bottom-rung-wage-ladder

Finally, table 3.1 shows that workers with more credentials are less likely to be employed in poverty-wage jobs. In 1979, 29% of Pennsylvania workers without a high school diploma held poverty-wage jobs, but by 2011 that figure had climbed to 58%. High school graduates fared somewhat better, with 26% holding poverty-wage jobs in 1979 and 28% by 2011. One in five Pennsylvania workers with an Associate degree and 8% of college graduates held poverty-wage jobs in 2011.

Where Are All Those Bad Jobs?

The characteristics of poverty-wage, or "bad," jobs boil down to three factors: low wages in the service sector, the absence of a union, and part-time work. In 2011, almost half of Pennsylvania workers with poverty-wage jobs had part-time jobs, and fewer than 5% were members of unions. Pennsylvania workers in "service and sales occupations" account for 57% of all poverty-wage jobs. When examining the same data by industry, we find seven in 10 poverty-wage jobs in the commonwealth are in just three industries: leisure and hospitality; wholesale and retail trade, and education and health services.

The Union Advantage For Low Wage Workers

In *Unions and Upward Mobility for Low-Wage Workers* by John Schmitt, Margy Waller, Shawn Fremstad, and Ben Zipperer the authors analyzed wages for 15 low wage occupations including Child Care workers and Home Health aides and find that unionization raised workers' wages by just over 16 percent --about $1.75 per hour-- compared to those of non-union workers.

http://www.cepr.net/documents/publications/UnionsandUpwardMobility.pdf

The industry category "education and health services" is a combination of "education services" and "health care and social assistance." As we discussed in Chapter 1, health care and social assistance is a highly polarized sector containing both high-wage jobs for physicians and nurses as well as many low-wage but fast-growing jobs, such as home health aides and child care workers.

Despite rising productivity and economic growth virtually no progress has been made in more than 30 years in reducing the share of jobs in Pennsylvania that leave workers living in poverty. With this in mind, in the next chapter we explore trends in income and poverty in Pennsylvania.

Table 3.2

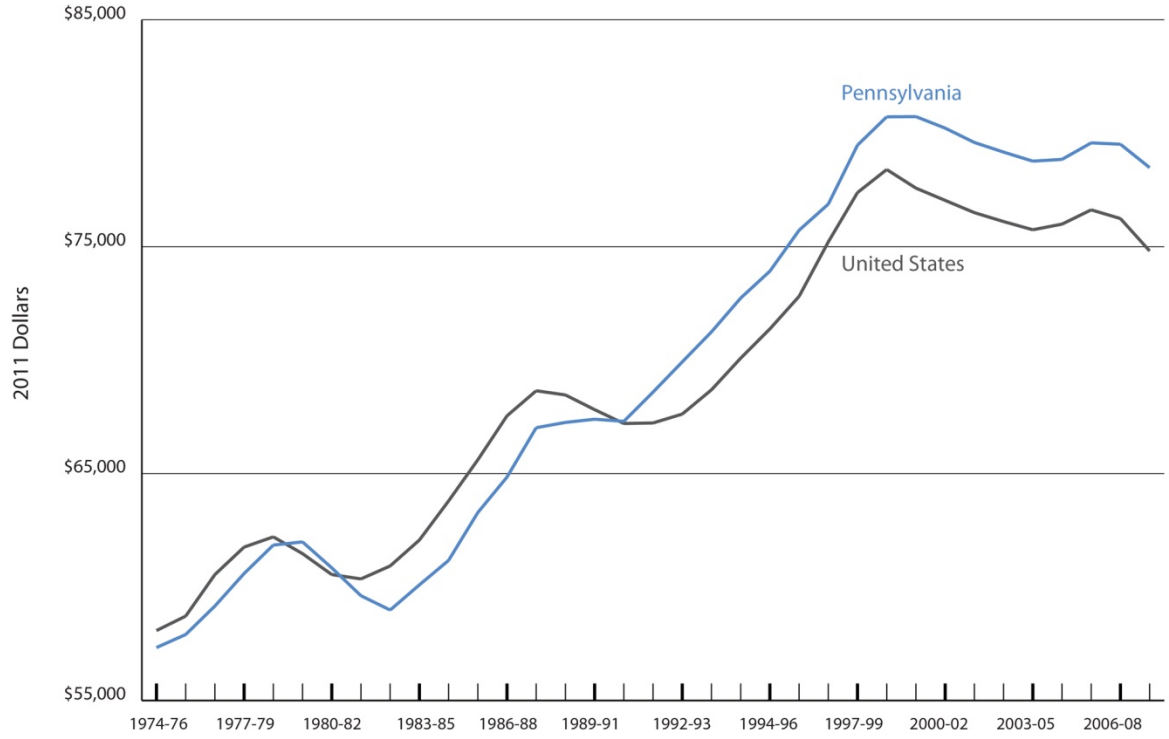
Distribution of Pennsylvania Workers by Selected Characteristics and Wage Level, 2011

Characteristics	Workers with Poverty-Wage Jobs (wage<$10.97/hr.)	Workers with Higher-Wage Jobs (wage>$10.97/hr.)
Part-Time	46%	9.9%
Union Member	4.9%	17.9%
Percent in Occupation		
Management, business, and financial occupations	3%	17%
Professional and related occupations	10%	26%
Service occupations	38%	10%
Sales and related occupations	19%	7%
Office and administrative support occupations	11%	15%
Farming, fishing, and forestry occupations	1%	0%
Construction and extraction occupations	2%	5%
Installation, maintenance, and repair occupations	1%	4%
Production occupations	6%	7%
Transportation and material moving occupations	8%	7%
Percent in Industry		
Agriculture, forestry, fishing, and hunting	1%	0%
Mining	0%	1%
Construction	2%	6%
Manufacturing	7%	15%
Wholesale and retail trade	24%	12%
Transportation and utilities	3%	6%
Information	1%	2%
Financial activities	3%	8%
Professional and business services	6%	9%
Educational and health services	21%	28%
Leisure and hospitality	24%	4%
Other services	5%	4%
Public administration	2%	6%

Source. Keystone Research Center analysis of CPS data

Chapter 4: Income and Poverty

Figure 4.1 Median Four-Person Family Income, Pennsylvania and U.S., 1980-2010 *(three-year moving average)*



Source. U.S. Census Bureau, Current Population Survey and American Community Survey; data series changes from CPS to ACS in 2004-2005

As the previous chapters have made clear, widespread joblessness and slow growth over the last decade have led to falling or, at best, stagnating wages for a broad group of workers. With unemployment expected to remain high for some time, the wage gains accrued by Pennsylvania workers in the late 1990s are at risk of completely disappearing.

Against this grim backdrop, this chapter examines the product of wages and hours worked to evaluate how well economic growth is translating into prosperity for the typical four-person family. We find, by examining family income and poverty rates over time, that middle- and low-income Pennsylvanians have experienced falling incomes.

Median Family Income Below Its 2000 Level

Table 4.1 and Figure 4.1 present data on median incomes for four-person families from 1980 to 2010. The growth in median family incomes over time in Pennsylvania closely tracks national trends. After falling slightly below the national median in the 1980s, median incomes in

Pennsylvania grew slightly more in Pennsylvania than nationally. In 2010, the four-person median income in Pennsylvania was $76,682 compared to $72,767 nationally.

Adjusting for inflation, median income for four-person families is lower today than a decade ago, with incomes falling by $6,100 from $82,800 in 2000.

In the last decade, the growth in four-person median incomes in Pennsylvania has lagged all of our neighboring states except Ohio and Delaware.

Table 4.1

Median Income for Four-Person Families, Pennsylvania, U.S., and Neighboring States, 1980-2010

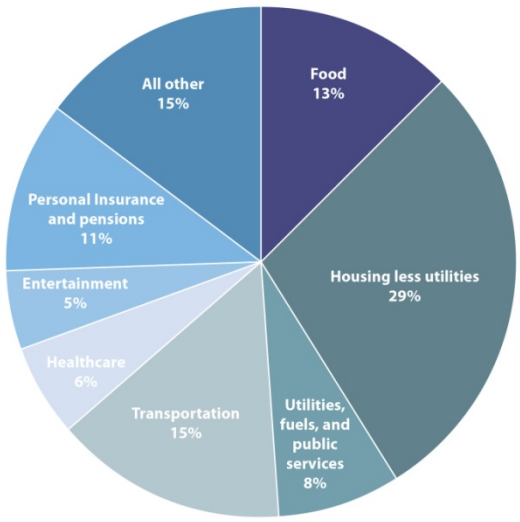
State	1980	1990	2000	2010	Change 1980-1990	Change 1990-2000	Change 2000-2010
Pennsylvania	$62,513	$66,129	$82,818	$76,682	$3,616	$16,688	($6,136)
United States	$61,299	$67,033	$78,788	$72,767	$5,734	$11,754	($6,021)
Delaware	$64,189	$75,237	$87,818	$79,829	$11,049	$12,580	($7,989)
Maryland	$69,013	$86,333	$98,202	$100,928	$17,320	$11,870	$2,726
New Jersey	$69,965	$91,267	$99,466	$101,957	$21,301	$8,199	$2,491
New York	$61,634	$71,479	$81,690	$81,212	$9,845	$10,211	($478)
Ohio	$62,725	$69,249	$78,817	$70,599	$6,524	$9,568	($8,218)
West Virginia	$53,520	$54,444	$58,583	$61,691	$924	$4,139	$3,108

Source. U.S. Census Bureau, CPS and ACS; data series changes from CPS to ACS in 2004-2005

Where the Money Goes

How is family income spent? Presented in Figure 4.2 are data on family expenditures for the Northeastern United States (Pennsylvania data are not available). The single largest spending category for households is housing, consuming 29% of expenditures. The next largest category is transportation, which accounts for 15% of spending. Together, housing, transportation, and utilities, fuels, and public services account for 51% of

Figure 4.2 Shares of Average Annual Household Expenditures, Northeast, 2010



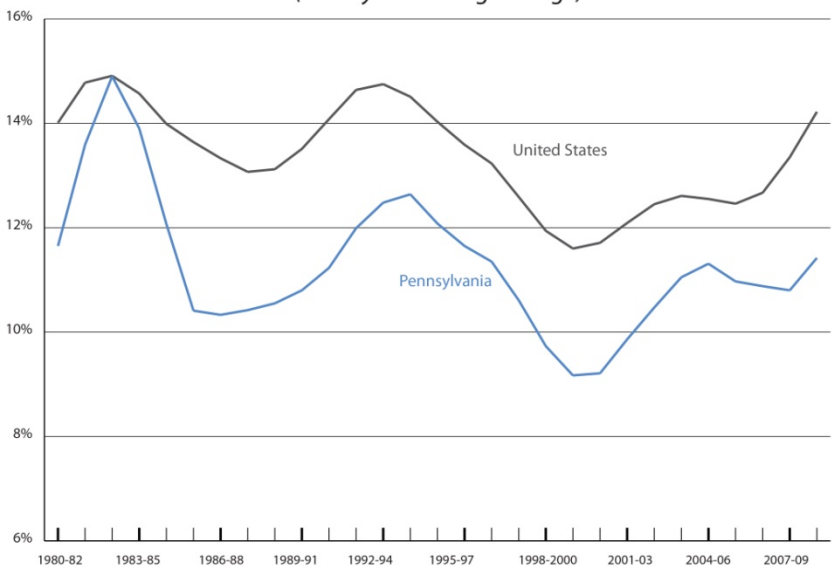
Source. Bureau of Labor Statistics Consumer Expenditure Survey

expenditures; add in food (13%), personal insurance and pensions (11%), and health care (6%), and we have accounted for 80 cents of every dollar of household expenditures.

Poverty in Pennsylvania

In 2010, a family of four was defined as living in poverty if their annual income fell below $22,811. For most of the last several decades, except for a very brief period in the early 1980s, the poverty rate has been lower in Pennsylvania than in the nation. In 2010, 12.2% of Pennsylvania residents lived below the poverty line compared to 15% nationally.

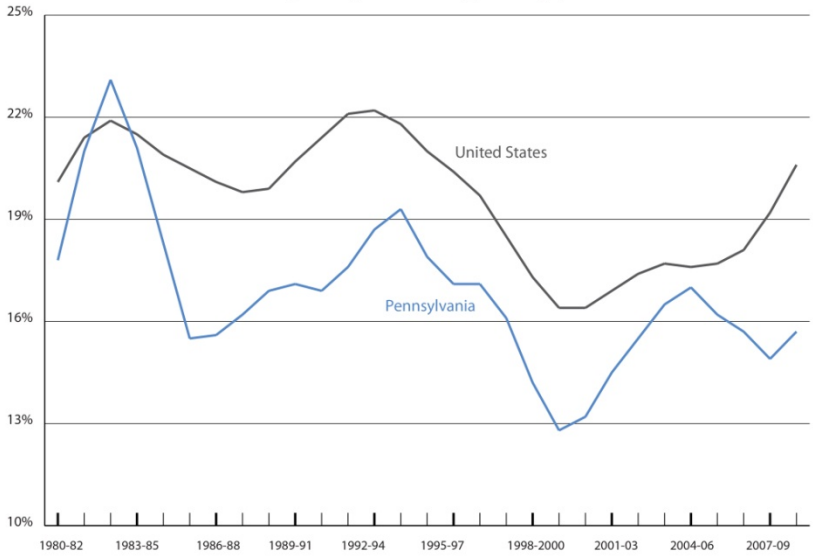
Figure 4.3 Poverty Rate, Pennsylvania and U.S., 1980-2010
(three-year moving average)



Source. U.S. Census Bureau

Figure 4.4 shows the poverty rate for children in Pennsylvania from 1980 to 2010. Similar to the overall poverty rate, the child poverty rate in Pennsylvania has generally been lower than the national child poverty rate over the last several decades. In 2010, 17.3% of children in the commonwealth were poor, compared to 22% of children nationally.

Figure 4.4 Child Poverty Rate, Pennsylvania and U.S., 1980-2010
(three-year moving average)



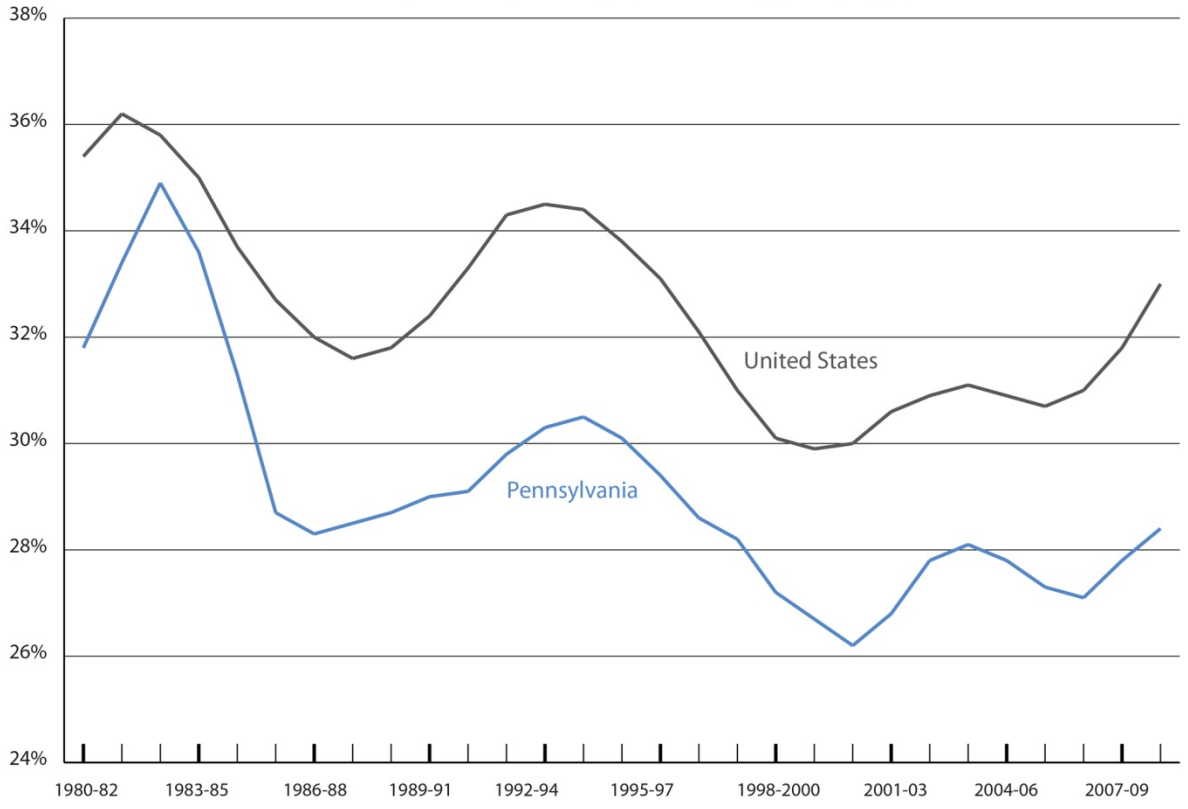
Source. U.S. Census Bureau

The federal poverty line is calculated by multiplying the cost of a subsistence food budget by three. It is widely understood that the current poverty threshold is a conservative benchmark that understates the number of people struggling to get by in our economy. A common

rule of thumb for a somewhat more realistic poverty measure is twice the poverty line. Figure 4.5 shows the change in the share of Pennsylvanians with incomes below twice the poverty line. In 2010, 29.5% of the population in Pennsylvania lives below this threshold compared to 34% of people nationally.

In 1980 one in 10 Pennsylvanian's had incomes that put them below the poverty line; 33 years later one in eight Pennsylvanian's lived in poverty. Given the continued high level of unemployment many economists are bracing for a further rise in poverty rates when new data for 2011 are released in early September.[18] The rise of poverty and stagnating incomes for a broad group of workers documented in this and previous chapters has also been accompanied by an unprecedented rise in income inequality a subject we focus upon in the next chapter.

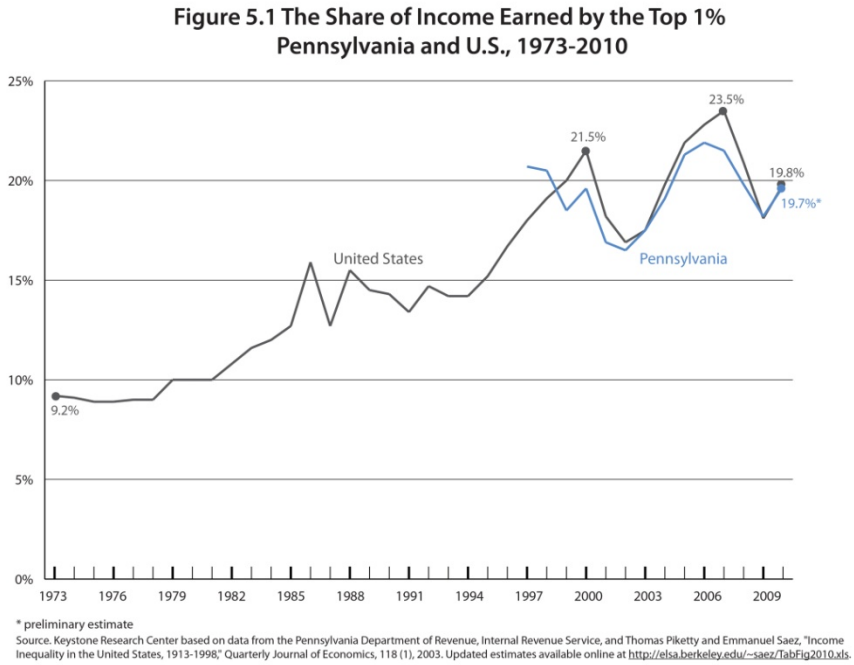
Figure 4.5 Population Below Twice the Poverty Line, Pennsylvania and U.S., 1980-2010 *(three-year moving average)*



Source. U.S. Census Bureau

[18] Hope Yen, Associated Press, US poverty on track to rise to highest since 1960s, July 22nd 2012, available online at http://bigstory.ap.org/article/us-poverty-track-rise-highest-1960s

Chapter 5: Three Decades of Income Inequality



As we have detailed in previous chapters, the Great Recession's impact on Pennsylvania's economy and people lingers both in terms of high unemployment and falling wages for those fortunate enough to hold onto their jobs. There was a startling rise in income inequality in both the United States and Pennsylvania even before the worst recession since the Great Depression hit us in late 2007—as we have documented in past editions of *The State of Working Pennsylvania*. In this chapter, we examine trends in inequality over the last decade in Pennsylvania but focus especially on data for 2010, the first year of the economic recovery. All data summarized in this chapter are adjusted for inflation and expressed in 2010 dollars.

Tax data, which allow us to examine trends in income among the wealthiest households, are available from the Internal Revenue Service (IRS) only with a long lag.[19] At the time of publication, we have only preliminary 2010 data (from the IRS) for Pennsylvania, which we are able to use to make preliminary projections of top incomes for 2010 in Pennsylvania.[20] (More detailed 2010 Pennsylvania data on top incomes—permitted more precise estimates—should be available within the next year from the Pennsylvania Department of Revenue.)

[19] For example the Current Population Survey (CPS) which we rely upon to track trends in wages for the typical worker was not designed to sample effectively high income households.

[20] IRS data on 2010 incomes are available online at http://www.irs.gov/uac/SOI-Tax-Stats---Historic-Table-2. Following the methodology outlined by Estelle Sommeiller, Regional Income Inequality in the United States, 1913-2003, PhD dissertation, University of Delaware (2006), we use these IRS data to estimate income levels by top fractiles. We normalize the 2010 figures from the IRS data based upon an average of the ratio of top fractile income levels estimated from IRS data to top fractile income levels as reported by the Pennsylvania Department of Revenue (DOR) for each year between 1997 and 2009. For example, we calculate following Sommeiller (2006) that the average income for the top 1% of taxpayers was, between 1997 and 2009, 85% of the average income of the top 1% of taxpayers as reported by the Pennsylvania Department of Revenue. To calculate the average income in 2010, we divide $861,068 by 85.3% to arrive at a preliminary estimate of top incomes in Pennsylvania of $1,009,688.

Unequal Income Growth: It's Lonely on the Top

Roughly 62,000 Pennsylvania taxpayers, the top 1%, experienced rapid growth in incomes as the economy grew from 2002 to 2007 (Table 5.1). During that time period, while average incomes grew by 15.4%, the incomes of the top 1% grew by 50%. As a result, the top 1% in Pennsylvania captured 54% of all income growth during this period.

As the financial sector crashed during the Great Recession, the top 1% in Pennsylvania experienced a 27% decline in their incomes from 2007 to 2009—a reflection of the concentration of wealth among the 1% in financial markets. As all incomes declined, the top 1% absorbed 44% of all the income losses during the Great Recession.

The beginning of the recovery marked a startling return to the pre-recession pattern of uneven income growth that has favored the 1% at the expense of the 99%. While all incomes grew on average by 2.7% in Pennsylvania in 2010, the income of the top 1% grew by 11%. As a result, the top 1% captured 76% of all income growth in the first full year of the economic recovery. In the U.S., the top 1% captured 93% of all income growth in 2010.[21]

Table 5.1

Inflation-Adjusted Income Growth in Pennsylvania, 2000-2010

	Average Income Growth	Top 1% Income Growth	Bottom 99% Income Growth	Fraction of total growth (or loss) captured by top 1%
2001 Recession 2000-2002	-9.4%	-23.9%	-5.8%	50%
Expansion 2002-2007	15.4%	50.4%	8.5%	54%
Great Recession 2007-2009	-13.1%	-26.5%	-9.4%	44%
Recovery 2009-2010	2.7%	11.2%	1.0%	76%

Notes. See text for methodological details

Source. Keystone Research Center based on Pennsylvania Department of Revenue, Internal Revenue Service and Piketty & Saez (2003) data

[21] Emmanuel Saez, *Striking it Richer: The Evolution of Top Incomes in the United States*, Unpublished Working Paper, March 2012 available online at http://elsa.berkeley.edu/~saez/saez-UStopincomes-2010.pdf.

The Race Resumes to Surpass the 1920s Age Inequality

Income inequality in the United States reached a peak in 2007 not seen since 1928, as the share of income earned by the top 1% reached 23.5% (Figure 5.1).[22] Here in Pennsylvania, the share of income earned by the top 1% peaked at just shy of 22% in 2006 before following the national pattern and declining to 18% in 2009.[23] In 2010, the first full year of the recovery, preliminary data from the IRS indicate that top incomes were once again surging in Pennsylvania, driving the 1%'s share of all income to 19.7%.

In 2010, the average income of the bottom 99% of Pennsylvania taxpayers grew by 1%, while the average income

Table 5.2

Percent Change in Income by Income Group 2009 to 2010 (2010 dollars)

Pennsylvania			
Income Group	2009	2010*	Percent Change
Bottom 99%	$41,281	$41,676	1.0%
The 1%	$907,932	$1,009,688	11.2%
Bottom 90%	$28,803	$29,162	1.2%
90-95%	$128,536	$129,547	0.8%
95-99%	$212,971	$213,407	0.2%
99.99.5%	$426,184	$452,527	6.2%
99.5-99.9%	$770,245	$847,832	10.1%
99.9-99.99%	$2,439,322	$2,750,248	12.7%
99.99-100%	$16,731,881	$18,480,207	10.4%
United States			
Income Group	2009	2010	Percent Change
Bottom 99%	$41,696	$41,777	0.2%
The 1%	$913,451	$1,019,089	11.6%
Bottom 90%	$29,967	$29,840	-0.4%
90-95%	$124,916	$125,627	0.6%
95-99%	$201,580	$205,529	2.0%
99-99.5%	$399,985	$418,378	4.6%
99.5-99.9%	$738,187	$798,120	8.1%
99.9-99.99%	$2,465,244	$2,802,020	13.7%
99.99-100%	$19,631,207	$23,846,950	21.5%

*The 2010 figures for Pennsylvania are projections based on data from the Internal Revenue Service. Final data for 2010 on incomes by income level were not available from the Pennsylvania Department of Revenue as this report was completed. See text for additional notes on methodology.

Source. Keystone Research Center based on Pennsylvania Department of Revenue, U.S. Internal Revenue Service and Piketty & Saez (2003) data

[22] Thomas Piketty and Emmanuel Saez, "Income Inequality in the United States, 1913-1998," *Quarterly Journal of Economics*, 118 (1), 2003. Updated estimates available online at http://elsa.berkeley.edu/~saez/TabFig2010.xls.

[23] Previously, when calculating income shares, we followed Estelle Sommeiller, *Regional Income Inequality in the United States*, 1913-2003, PhD dissertation, University of Delaware (2006), and used personal income data from the Bureau of Economic Analysis (BEA). Because personal income data also contain the dollar value of transfers and health benefits, it is generally greater than total taxable income. As a result, dividing the total taxable income held by the 1% by personal income understates their share of all income. With this year's report, we calculate top fractile income shares in the following way: First we calculate Pennsylvania's share of U.S. Adjusted Gross Income for each year between 1997 and 2008 (online at http://www.irs.gov/taxstats/article/0,,id=171535,00.html). This figure is then used to derive income for Pennsylvania from U.S. income, including capital gains found in column 6 of Table A0 in http://elsa.berkeley.edu/~saez/TabFig2008.xls. We then combine this figure with estimates of the average income for each top income fractile provided by the Pennsylvania Department of Revenue to estimate the share of income earned by each top income fractile for each year from 1997 to 2009.

of the top 1% grew by 11%. The top 1% in the state captured 76% of all income growth that year (Table 5.1). Our preliminary estimates likely understate top incomes in Pennsylvania, so the share of income captured by the top 1% will likely move higher once the Pennsylvania Department of Revenue (DOR) releases its final data for the 2010 tax year.

Table 5.2 presents top fractile income levels for 2009 and 2010 in Pennsylvania and the United States. In 2010, the average income of Pennsylvania's top 1% grew by over $100,000 to $1,009,688. Over the same period, the average income of Pennsylvania's bottom 99% grew by less than $400 to $41,676. The highly uneven growth in incomes is even more apparent when you examine the change in average incomes for the roughly 621 Pennsylvania taxpayers who make up the .01% (99.99-100% in Table 5.2). Our preliminary estimate is that their average income grew by $1.7 million to $18,480,207 in 2010. Nationally, this group of taxpayers experienced an increase in their incomes in 2010 of 21.5% or more than $4.2 million. Because our Pennsylvania projections understate the highest incomes the most, we expect the gap between the .01% in Pennsylvania and nationally to close substantially once we have the final data from the DOR.

Chapter 6: Conclusion

This report has established that the Pennsylvania economy is performing poorly from the perspective of middle-class and low-income families. This is particularly evident since 2000, the end of the long 1990s economic expansion. It is also largely true for the full third of a century that began in 1979. The explanation for the economy's failure to improve the living standards and lives of typical families is not uncontrollable outside forces such as the three horsemen of the middle-class apocalypse—globalization, technological change, and the market. The explanation is misguided policies.

Currently, federal and state policies are misguided because they are putting the brakes on an economy that is already threatening to go back into reverse. We need to press the accelerator. Longer-term, policies are misguided because they have failed to deliver on a core democratic premise—and promise. By this democratic promise we mean that the central point of policy in a capitalist democracy *should b*e to ensure that a market economy improves the lives of most people and benefits the country (or state) as a whole. This it is possible to define policies that would deliver broadly shared prosperity is illustrated by the detailed policy agenda in *The State of Working Pennsylvania 2011* (see the box at the end of this chapter). If Pennsylvania and the United States had adopted a year ago the short-term policy recipes we outlined last year, many more Pennsylvania families would be benefiting from growth today.

To close this year's *State of Working Pennsylvania*, we first sound a warning and then outline a simple three-part policy prescription. The warning is that there is a clear and present danger of another lost decade for working families and a rise of economic inequality above even the levels before the Great Depression. Using consensus economic forecasts for economic growth, which project continued high unemployment until the end of the current decade, the Economic Policy

Institute projects that the incomes of the middle fifth of families will be lower in 2018 than they were in 2007 and 2000.[24] This is a "status quo policy" forecast—the outcome in the absence of additional federal policies to increase job creation and lower unemployment rates.

A by-product of wages not rising for most workers during another lost decade will be that an outsized share of the benefits of economic growth will continue to go to the top 1%, as in 2002 to 2007 and once again in 2010. This could produce levels of inequality that exceed those of the late 1920s.

For three reasons core to the identity of America, even higher levels of inequality would be bad news not just for the middle class but for the nation as a whole.

- First, even greater inequality is incompatible with the American Dream of widespread opportunity. Indeed, even before the nation feels the full impact of increases in inequality since 2000, Americans are more locked into the economic status of their birth than people in most other advanced nations.[25]
- Second, countries with high inequality also experience low economic growth.[26] Among other possible reasons for this correlation, polarized societies (a) struggle to persuade the economic elite to invest in the education of the population as a whole or in other public goods that boost long-run productivity (e.g., traditional and telecommunications infrastructure and scientific research.), (b) lack a robust middle-class that sustains economic demand over time, (c) tend to have high criminal justice and private security costs, and (d) have larger shares of businesses (than more equitable countries) that "take the low-road"—compete by exploiting workers or despoiling the environment, business strategies that do not increase productivity or contribute to innovation.
- Third, high levels of economic inequality reinforce the political problems that contributed to poor policy choices in the first place: the excessive responsiveness of our democracy to the very wealthy, and our political system's lack of responsiveness to ordinary families and the public good.

In sum, another lost decade threatens three treasured American and Pennsylvania values—widespread mobility, our robust economy, and our democracy.

A New Direction: The past is not prologue when it comes to economic policy. We therefore recommend three simple steps to chart a positive new direction, all of them aimed at restoring the three core American values threatened by polarizing growth.

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[24] See the Economic Policy Institute's (EPI's) 12th Edition of *The State of Working America*, to be released on Tuesday, September 11, 2012. Online at www.stateofworkingamerica.org

[25] In one study of 17 Organization for Economic Co-operation and Development countries, the United States ranked 13th on a measure of mobility. Americans largely end up where they start on the economic ladder, and the same is true of their children. See EPI's 12th Edition of *The State of Working America*.

[26] For additional citations on the impact of inequality on mobility and economic growth, see Alan Krueger, "The Rise and Consequences of Inequality in the United States," online at http://www.whitehouse.gov/sites/default/files/krueger_cap_speech_final_remarks.pdf; and http://keystoneresearch.org/media-center/op-eds/democracy-and-inequality-america-response-eric-cantor

1. The first and most essential step is that our state and our nation commit themselves to broadly shared prosperity. Candidates for office should be asked to endorse three basic values: the American Dream of upward mobility; the idea that people who work hard and play by the rules should be able to share in our nation's expanding economic pie; and, third, a commitment to a democracy that is responsive to people rather than wealth and money. In Pennsylvania, we could call this the Contract with the Keystone State.

2. The second step would be an Investment in the Future plan that bolsters our infrastructure, manufacturing sector, education, skills, and scientific research in a way that grows jobs in the short run and lays the foundation for long-run growth. This would be most effectively implemented by a next President and Congress in 2013. But versions of the basic approach could also be implemented in Pennsylvania. We also think that the Corbett administration would be well advised to refocus in this direction in its next budget if it wants to bolster the state's job and unemployment performance over the next 26 months.

3. The third step should be wage and incomes policies that restore a level of equity in America that is compatible with widespread mobility and a strong economy. For 33 years, as economic inequality has grown and the middle class has been under siege, neither the United States nor Pennsylvania has had a policy discussion that addresses the basic question of how can we restore the American Dream?[27] Given the importance of that dream to our nation's identity, work ethic, and innovative spirit, we think this is a gaping hole in our political discourse.

In the end, the basic question is "What Kind of Pennsylvania Do You Want?" We want:

- a Pennsylvania in which hard-working and talented children from low- and middle-income communities have a fair shot at success, not only more privileged children;
- a Pennsylvania with opportunity for all willing to work hard, and
- a Pennsylvania in which a responsive democracy helps create an economy that works for all Pennsylvanians and that can hold its own against any economic region in the world.

Austerity economics and policies written for and by the companies and individuals that make the largest political contributions won't get us to this kind of Pennsylvania. It's time for a new direction.

[27] President Obama's "Middle Class Task Force," chaired by Vice President Biden, was a step in this direction but did not have a full enough discussion about the economic forces driving the increase in inequality or the policies necessary to restore levels of pre-tax wage and income inequality similar to those of the 1970s. On the Task Force, see http://www.whitehouse.gov/strongmiddleclass

State of Working Pennsylvania 2011: Policy Recommendations

- Maintain federal support for extended unemployment benefits (that allow workers to receive benefits—and maintain their consumer buying power—for up to 99 weeks).
- Provide additional federal aid for state and local governments, so that public-sector layoffs don't undercut a rebound in private employment;
- Invest in infrastructure and school construction: as we have pointed out since 2008 (in advocating a "buy low" Pennsylvania school construction initiative), construction projects that take place when the market is soft save as much as 20% because bid prices come in lower. Additional infrastructure and school construction thus deliver a triple benefit: they create jobs, they provide a foundation for long-term competitiveness, and they would be good value for money.
- Modernize our social safety net for jobless workers in a way that also strengthens our skills and the economy: the current U.S. system of unemployment benefits still looks basically like it did in the 1930s, paying people a portion of their lost wages with the (implicit) expectation that they don't need re-skilling because they are going to their old job. In fact, they are not going back to their old job in most cases. We need an adjustment system that combines income maintenance with expanded opportunities for workers to gain new skills in decent paying careers projected to expand over the next few years. This shift partly requires making training generally available to jobless workers not just available to a few trade-displaced workers. But it also requires some other components:
    - Stronger and more widespread industry training consortia ("Industry Partnerships") that provide real-time intelligence on skill needs from businesses—knowledge that can be used for jobless, incumbent (currently employed), and low-income workers alike;
    - Incentives for expanding work sharing, which Dean Baker has shown has been critical to keeping unemployment low in Germany;
    - When unemployment gets above certain thresholds, the flexibility to combine training with job-creation incentives for businesses; and
    - When unemployment gets higher still, the ability to invest in direct public job creation.
    - The federal government should fund innovative efforts by states to modernize in these ways, not prescribing solutions but establishing criteria and then allowing states to be laboratories of democracy. For our money, this flexible approach would be a more effective use of funds now being considered for an extension of payroll tax holidays.
- Raise the minimum wage as just one step in the long-overdue effort to improve wages for the middle-class and to repair the broken link between wages and productivity growth. Although often forgotten, the first federal minimum wage was established in 1938. Our experience in the following three decades demonstrated that a rising minimum wage could actually help the economy by creating purchasing power and discouraging companies from competing using "low-wage" strategies that don't raise productivity. The minimum wage rose steadily in inflation-adjusted terms from 1938 to 1968, a period distinguished by very low unemployment rates and very high productivity growth.
- Catalyze larger-scale energy-efficiency retrofits, using small amounts of federal funds to mobilize private capital that could be attracted to a new market with predictable returns (because of the relatively payback periods of many energy efficiency upgrades).