

# MOVING THE GOALPOSTS: HOW WASHINGTON'S OZONE PLAN THREATENS WORKING FAMILIES AND PENNSYLVANIA'S ECONOMIC COMEBACK



*The Center For*  
**Regulatory Solutions**

[www.centerforregulatorysolutions.org](http://www.centerforregulatorysolutions.org)





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## About Us

The Center for Regulatory Solutions is a project of the Small Business and Entrepreneurship Council, a 501c(4) advocacy, research, education and networking organization dedicated to protecting small business and promoting entrepreneurship.

The SBE Council works to educate elected officials, policymakers, business leaders and the public about key policies that enable business start-up and growth.

## 1.0 FINDINGS

- Analysis commissioned by the Center for Regulatory Solutions (CRS) demonstrates that the U.S. Environmental Protection Agency's (EPA) plan to dramatically tighten federal ozone limits could stall Pennsylvania's recovery from the Great Recession and deny the Commonwealth a long-awaited comeback in manufacturing jobs.
- Pennsylvania employers, workers and public officials have been optimistic that the conditions are set for a [resurgence](#) in manufacturing, led by cheap energy prices and the growth of Marcellus Shale. Yet, Pennsylvanians remain anxious about the state of their local economy, the direction of their state, and how it could be impacted by policies coming out of Washington, D.C. Just over one-third of Pennsylvanians (34 percent) rate their local economy as "Excellent" or "Good," and barely one-quarter (26 percent) say it's "Getting Better."
- A decision by the EPA to dramatically tighten the federal ozone standard will impose the kind of regulatory constraints that could undermine a manufacturing resurgence.
- CRS analysis found that a vast majority of Pennsylvania's economy, population and workforce could be subjected to new ozone-related restrictions under the EPA's proposed range of 65 to 70 parts per billion (ppb).
- The 33 impacted counties represent 85 percent of the state's GDP, 83 percent of the state's workforce and 81 percent of the state's population.
- Under the Clean Air Act, cities and counties that do not meet the NAAQS for ozone are placed into "non-attainment," or violation of federal environmental standards. Once in non-attainment, state officials are required to develop an "implementation plan" that imposes new restrictions across the economy, especially the transportation, construction and energy industries. The EPA has veto power over these implementation plans. States that refuse to comply, or have their implementation plans rejected, face regulatory and financial sanctions imposed on them directly from the federal government.
- The timing of these restrictive mandates from Washington, D.C. could not be worse, because after decades of major improvements in air quality, Pennsylvania is about to reach full compliance with the current federal ozone

standards, which would finally loosen the EPA's grip on the Keystone State's economy, job creators and working families.

- Pennsylvania has made great strides in improving its air quality. For example, Philadelphia's ozone level in 1980 was 152 ppb. Today, that number has been cut in half. Similarly, in Pittsburgh, the ozone level in 1980 was 115 ppb. Since then, it has fallen by more than a third. Reductions of similar magnitudes have been recorded across the Commonwealth during the past three-and-a-half decades.
- In August 2015, Pennsylvania's positive air quality trends were recognized by [an EPA proposal](#) to reclassify five of the 17 marginal non-attainment counties as fully compliant with the 2008 ozone standard.
- Despite what should be an environmental success story, proponents of new ozone rules have tried to convince Pennsylvanians that their air is dirty. For example, the American Lung Association (ALA) claimed Allegheny County had the 10th most polluted air in the nation for short-term particulate matter, ninth worst for year-round particulate matter and 21st worst for ozone.
- The [Pittsburgh Post-Gazette](#) took the ALA to task for making misleading claims. According to the newspaper, the group's report used a reading from a single air monitor, located near an industrial plant, to make alarmist air quality claims about the 12-county Pittsburgh metropolitan region. This "skewed presentation" and "statistical malpractice" resulted in a "bogus" finding that was intended to "alarm and deceive," the *Post-Gazette* said in an editorial.
- However, Pennsylvanians are by and large very satisfied with their local air quality. According to a recent survey commissioned by the National Association of Manufacturers almost two-thirds (65 percent) of Pennsylvania voters rate their local air quality as "Excellent" or "Good." Just 28 percent rate their local air quality as "Fair," and only six percent consider their local air quality "Poor."

## Western Pennsylvania

- Under the EPA's proposed ozone range of 65 to 70 ppb, Pittsburgh and at least 10 Western Pennsylvania counties are threatened with violating the dramatically tighter standard.

- Across Western Pennsylvania, business, labor and civic leaders expressed dismay that the EPA's ozone proposal ignores economic and environmental trends that communities are seeing on the ground.
- For example, [Beaver County Commissioners Tony Amadio \(D\), Joe Spanik \(D\) and Dennis Nichols \(R\)](#) criticized the EPA for failing to understand recent trends in Western Pennsylvania's economy, "namely the Marcellus shale gas revolution and the positive environmental consequences it promises." Violation of a drastically tighter ozone standard will be "a huge deterrent to businesses looking to locate or expand in a given area," they warned.
- [State Rep. Pam Snyder \(D\)](#), a member of the House Environmental Resources and Energy Committee told CRS, "The ever-changing and disputed EPA standards represent a dagger pointed to the heart not only of southwestern Pennsylvania but the entire state."
- [U.S. Rep. Glenn 'GT' Thompson \(R\)](#) told CRS the EPA's ozone proposal is "unworkable" and "unrealistic" for communities across the Commonwealth. "Pennsylvania ozone emissions have notably been in decline over the past several decades. With so many small and medium-sized businesses still working to recover from the economic downturn, now is the wrong time to change the rules," Rep. Thompson said.

## **Central Pennsylvania**

- By tightening the federal ozone standard into the range of 65 to 70 ppb, EPA would throw the state capital, Harrisburg, and much of central Pennsylvania into violation of federal air quality laws. Manufacturing and construction make up 10 percent of jobs in these counties.
- Harrisburg ozone levels have fallen by 38 percent since 1980. During the same period, ozone levels fell by 49 percent in Johnstown and 19 percent in Williamsport.
- Even counties that don't face the immediate threat of violating the standard are still worried they will eventually be caught under EPA's tighter ozone caps. For example, [Somerset County Commissioners John P. Vataavuk \(D\), Joe Betta \(R\) and Pamela Tokar-Ickes \(D\)](#) told the EPA they "firmly believe that lowering the ozone standard will result in lost economic development opportunities that our

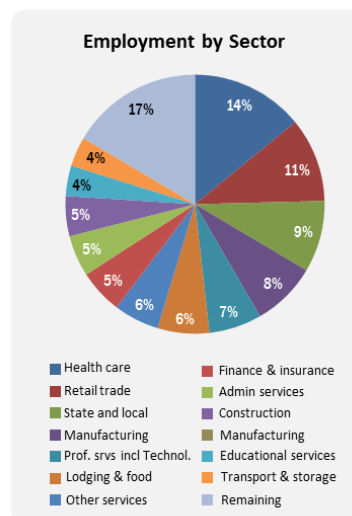
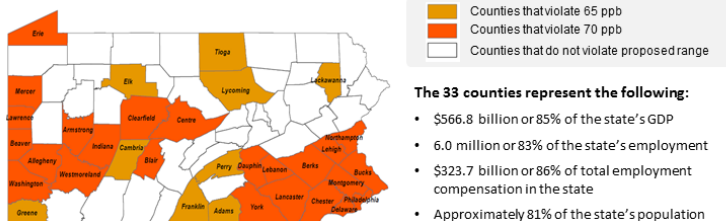
region can ill afford,” especially when “air quality in our region has indeed been improving dramatically under the current rules.”

- The [Pennsylvania Farm Bureau](#) has also warned of several potential impacts for farmers in the Central Pennsylvania and the rest of the Keystone State. They include restrictions on animal feeding operations, because of emissions from animal waste, and limits on pesticide use.

## **Eastern Pennsylvania**

- Under the EPA’s proposed ozone range of 65 to 70 ppb, nine counties in eastern Pennsylvania – including Philadelphia – would violate the EPA’s proposed ozone range of 65 to 70 ppb.
- The EPA recently proposed reclassifying the city of Reading and surrounding Berks County into full compliance with the existing 75 ppb standard. According to the EPA, Philadelphia and the other “collar counties” are also close to reaching the existing standard, and may achieve that goal within the next year.
- [Ellen Horan, President & CEO of the Greater Reading Chamber of Commerce](#), told CRS, “Our regional economy is driven by the manufacturing sector that is still recovering from the recession and will be further hindered by the increased uncertainty and expense that the new regulations bring.”
- [Schuylkill County Commissioner Gary Hess \(D\)](#) is worried about the impact of neighboring communities being found in violation of the stringent new ozone standard.
- Lackawanna County faces the immediate threat of non-attainment under the EPA’s stringent ozone proposal. In a letter to the White House and the EPA, [Wyoming-Lackawanna Farm Bureau President Dale Shupp](#) did not mince words: “I want you to understand that this regulation in essence would be a farm killer.” Because the EPA’s proposed ozone standard comes “close to background levels of ozone in some areas,” the search for new emission sources to cut could lead to “restrictions on land use” for farmers, Shupp said.

## 2.0 EXECUTIVE SUMMARY



\* Based on EPA analysis of 2011-2013 ozone data, accessed at <http://www.epa.gov/groundlevelozone/pdfs/20141126-20112013data.pdf>

Non-Attainment Counties	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Adams	3.0	51,766
Allegheny	71.1	880,553
Armstrong	1.8	30,722
Beaver	9.8	72,636
Berks	16.9	222,680
Blair	4.9	73,810
Bucks	41.4	361,025
Cambria	4.3	72,399
Centre	7.7	112,922
Chester	33.8	341,813
Clearfield	2.8	40,262
Dauphin	16.1	220,408
Delaware	37.2	301,725
Elk	1.4	18,840
Erie	10.8	160,457
Franklin	5.4	75,571
Greene	2.1	20,384
Indiana	3.7	48,151
Lackawanna	8.3	127,651
Lancaster	24.2	303,024
Lawrence	2.8	39,837
Lebanon	8.1	65,416
Lehigh	15.4	226,944
Lycoming	5.1	69,769
Mercer	4.5	61,864
Montgomery	53.9	613,059
Northampton	13.0	138,229
Perry	2.7	13,692
Philadelphia	103.0	803,636
Tioga	1.3	19,650
Washington	12.0	114,487
Westmoreland	20.8	173,354
York	17.4	221,944
<b>Total</b>	<b>566.8</b>	<b>6,098,680</b>
<b>Pennsylvania</b>	<b>665.1</b>	<b>7,321,660</b>

A plan from the U.S. Environmental Protection Agency (EPA) to dramatically tighten federal ozone limits could stall Pennsylvania's recovery from the Great Recession and deny the Commonwealth a long-awaited comeback in manufacturing jobs, according to an economic analysis commissioned by the Center for Regulatory Solutions (CRS), a project of the Small Business and Entrepreneurship Council. The timing of these restrictive mandates from Washington, D.C. could not be worse. After decades of major improvements in air quality, Pennsylvania is about to reach full compliance with federal ozone standards, which would loosen the EPA's grip on the Keystone State's economy, job

creators, and working families. Local and state officials from both parties, business groups, and leaders of the labor movement are speaking out against the Obama Administration's proposal to move the goalposts on ozone. At the same time, recent public opinion research shows a clear majority of Pennsylvanians believe their air quality is good or excellent, and oppose an ozone plan that would come at the expense of lost jobs or give federal officials more control over planning decisions than state and local governments.

### Washington's ozone agenda hits Pennsylvania especially hard

By lowering the National Ambient Air Quality Standard for ground-level ozone from 75 parts per billion (ppb) into the 65 to 70 ppb range, EPA would effectively hold at least

33 counties in Pennsylvania in violation of federal law. Together, these 33 counties are responsible for 85 percent of Pennsylvania's economy and 83 percent of employment in the Commonwealth.

Violation of the tighter ozone standard will trigger an implementation procedure that makes state and local officials answerable to the EPA for basic permitting and planning decisions. New red tape generated by EPA's ultra-low cap on ozone-forming emissions is threatening Pennsylvania's ability to open new manufacturing facilities, expand existing businesses and invest in new and better roads. Even worse, the EPA's role in micromanaging Pennsylvania's economy could be permanent. Some officials believe the new standards being proposed by the EPA in Washington are so stringent, and set so close to background levels, they may be physically impossible to meet.

### **Democrats, Republicans, unions and businesses speak out**

There is a rising wave of opposition to the EPA's ozone standard, which could be finalized in weeks. "The ever-changing and disputed EPA standards represent a dagger pointed to the heart not only of southwestern Pennsylvania but the entire state," said [State Rep. Pam Snyder \(D\)](#), a member of the House Environmental Resources and Energy Committee, to CRS. [Erie Mayor Joseph Sinnott \(D\)](#) warned that the EPA has lost sight of the responsibility to "balance the needs of improved air and water quality with the very real economic challenges of building new industries." Hard work through the years has finally put ozone levels in Erie below the existing standard of 75 ppb, and Sinnott urged the federal agency not to change the standard to "unachievable" levels. He added: "The people of this community have struggled as heavy manufacturing has declined over the past several decades. They cannot afford additional hardships."

[U.S. Rep. Glenn 'GT' Thompson \(R\)](#) told CRS the EPA's ozone proposal is "unworkable" and "unrealistic." "Pennsylvania ozone emissions have notably been in decline over the past several decades," Rep. Thompson said. "With so many small and medium-sized businesses still working to recover from the economic downturn, now is the wrong time to change the rules."

The [Greater Pittsburgh Chamber of Commerce](#) has warned the EPA that Western Pennsylvania "would be at risk of losing its current economic momentum and would be hindered in its ability to take advantage of shale gas development and new advanced manufacturing opportunities." In an interview with CRS, the [International Union of Operating Engineers Local 66](#) said its members are "just beginning to obtain new opportunities" after the Great Recession and decades of huge job losses in the manufacturing sector. "EPA's strict ozone standards are nearly impossible to meet



and threaten the forward economic and environmental progress we're experiencing," the union's business manager Jim Kunz told CRS.

Likewise, [Johnstown Mayor Frank Janakovic \(D\)](#) also pleaded with the EPA not to lower the standard any further. "That could be disastrous for our economic development efforts," he said. Some counties that don't face the immediate threat of violating the standard are still worried they will eventually be caught under EPA's tighter ozone caps. For example, [Somerset County Commissioners John P. Vataavuk \(D\), Joe Betta \(R\) and Pamela Tokar-Ickes \(D\)](#) told the EPA they "firmly believe that lowering the ozone standard will result in lost economic development opportunities that our region can ill afford," especially when "air quality in our region has indeed been improving dramatically under the current rules." The commissioners concluded: "Don't move the goal posts on us now. Please don't label us arbitrarily and unfairly. Keep the ozone standard at the 2008 level."

Similarly, [Schuylkill County Commissioner Gary Hess \(D\)](#) is worried about the impact of neighboring communities being found in violation of the stringent new ozone standard. Hess even supports some of the Obama Administration's environmental policies, but warns: "An unfortunate exception is the recently released proposed ozone standard, which asks too many businesses to meet unreachable benchmarks."

State legislators are also deeply concerned. [State Rep. Parke Wentling \(R\)](#) of Western Pennsylvania warned the EPA that tighter ozone limits "make it more difficult to obtain necessary permits required for manufacturing and for building the infrastructure critical to further develop our communities." On top of these economic impacts, the EPA's proposed ozone standard would expand mandatory emissions testing for automobiles – considered an expensive "cruel joke" by many motorists – into even more counties, warned [State Sen. John Wozniak \(D\)](#) from Central Pennsylvania. "As I understand it the health benefits of these last few yards of emission reductions are minimal, but I can tell you that the public disdain for government will be maximum if you go forward with a lower standard," Sen. Wozniak wrote in a letter to the EPA.

### **Construction bans, delayed road projects**

Local and national groups representing [cities, counties, transportation departments, agricultural agencies, state-level environmental regulators, labor unions, construction companies, energy producers, manufacturers](#) and many other stakeholders have all sounded the alarm over Washington's ozone plans. In their view, the EPA is ignoring that very few cost-effective strategies are available to reduce remaining ozone-forming emissions, following four decades of huge private and public investments across all levels of government to solve the problem. Therefore, in comments to the Obama

Administration, these stakeholders have warned that states may be forced to adopt much harsher measures, including:

- Construction bans
- Limits or bans on business expansions
- Delays in highway and road projects
- Denials of highway and road projects
- Measures to discourage driving, including the adoption of “no drive” days
- Expanded emissions testing for motor vehicles
- New restrictions on energy production
- New restrictions on agriculture

### **Voters nervous about economic outlook and wary of federal overreach**

Recent public opinion research suggests strong opposition to the EPA’s plans in Pennsylvania. A statewide public opinion poll, commissioned by the Pennsylvania Manufacturers’ Association and the National Association of Manufacturers, found almost two-thirds (65 percent) of Pennsylvania voters rate their local air quality as “Excellent” or “Good.” By a three-to-one margin, Pennsylvanians believe that a bigger problem for their local area is “less economic growth and job opportunities caused by regulations” (68 percent) rather than “lower air quality caused by pollution” (23 percent).

Two-thirds (67 percent) of Pennsylvania voters believe stricter federal air quality regulations would make it harder for local businesses to start new operations or expand. Three-quarters (75 percent) think stricter federal air quality regulations would increase the price they pay for everyday goods and services, and 76 percent believe tighter federal rules on their local area would increase taxes.

These and other public opinion trends clearly show that Pennsylvanians simply don’t want what Washington and big environmental groups are selling when it comes to ozone.

### **Conclusion**

This report shows that Washington’s plan to dramatically tighten the federal ozone standard – a plan which could be finalized by Oct. 1 or sooner – poses an urgent threat to the Pennsylvania economy, Pennsylvania employers and Pennsylvania workers. It also serves as a call to action for citizens, public officials, business owners and industry groups to demand the federal ozone standard remains at the current 75 ppb level – a standard itself that was only imposed in 2008, and with which many states haven’t even yet had a chance to comply.

### 3.0 OZONE BASICS

Ground-level ozone is formed by a complex chemical reaction involving nitrogen oxides (NOx), volatile organic compounds (VOCs), sunlight and other weather conditions. Industrial facilities and tailpipe emissions from cars and trucks are

*“Erie and our surrounding communities have worked hard over the years to lower our ground-level ozone levels. As you might imagine, this wasn't easy when our region's economy has historically been based on industry and manufacturing. Despite that, Erie County has attained ozone levels of 74 parts per billion, just under the 2008 goal of 75 ppb.*

*As mayor, my responsibility is to balance the needs of improved air and water quality with the very real economic challenges of building new industries and jobs, as our manufacturing base continues to decline. If the Environmental Protection Agency were to pursue a plan to lower the required ozone level to 65 ppb, we would not be able to maintain that balance...*

*The people of this community have struggled as heavy manufacturing has declined over the past several decades. They cannot afford additional hardships.”*

**Mayor Joseph E. Sinnott (D)**

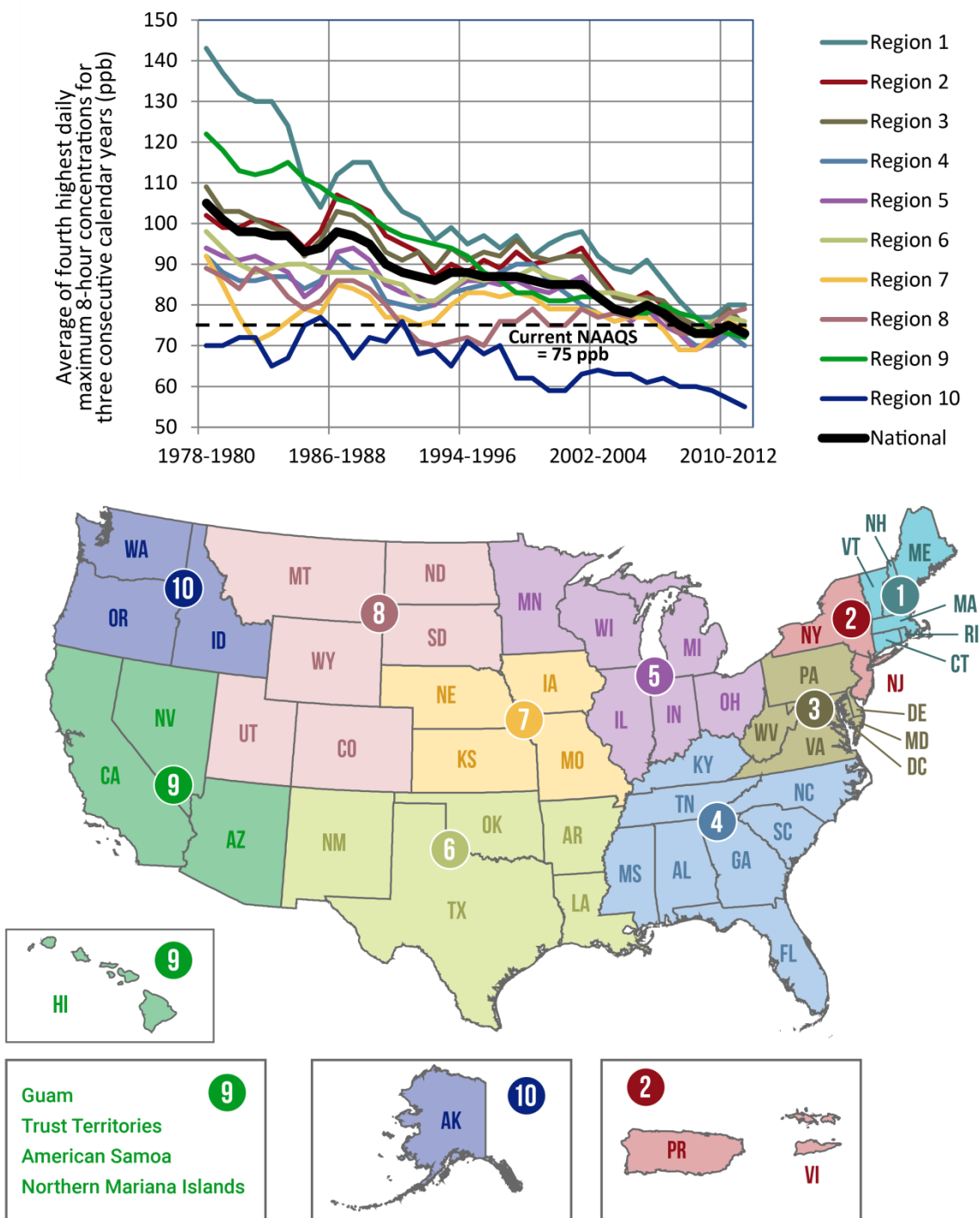
*Erie, Pa.*

sources of NOx and VOCs, which are together known as ozone precursors. Across the United States, there are also significant levels of so-called background ozone, attributed to natural sources and air pollution that drifts into the country from other nations.

In the 1970s, concerns over air pollution and health prompted the EPA to set National Ambient Air Quality Standards (NAAQS) for six “criteria pollutants,” including ozone. In 1979, the ozone NAAQS was 120 parts per billion (ppb), averaged over the course of one hour. In 1997, it was lowered to 80 ppb, with the averaging time changed from one hour to eight hours. Then, in 2008, the ozone NAAQS was lowered again to 75 ppb.

Since the late 1970s, ozone levels have [fallen](#) by one-third. Likewise, emissions of NOx and VOCs have each fallen by more than 50 percent. According to EPA [data](#), this clean-air trend has happened across all regions of the country.

## HISTORICAL OZONE TRENDS ACROSS EPA REGIONS





## 4.0 HISTORY OF OZONE IN PENNSYLVANIA

As a major manufacturing, energy and agricultural state with two of the nation's biggest metropolitan areas, Pennsylvania has spent decades dealing with air quality challenges. But the communities of the Keystone State have turned things around in dramatic fashion on several air quality fronts, including ozone.

*"The ever-changing and disputed EPA standards represent a dagger pointed to the heart not only of southwestern Pennsylvania but the entire state...*

*Proven providers of reliable and cleaner energy ... are reeling from the punitive regulatory environment being promoted in Washington, D.C. After witnessing the incredible strides and investment made by energy firms to provide cleaner, low-cost and reliable power, the changing federal mandates pose not only dangerous threats but deceitful ones.*

*Instead of addressing legitimate concerns with measured, consistent and science-supported regulations, the suspect and far-reaching standards are jeopardizing the livelihoods, futures and energy supplies throughout Pennsylvania."*

**State Rep. Pam Snyder (D)**  
*Fayette, Greene and Washington Counties*

At the start of the 1980s, Pennsylvania experienced very high ozone levels, like many other parts of the United States. For example, using the EPA's current methods for measuring ozone, Philadelphia's ozone level in 1980 was 152 ppb. Today, that number has been cut in half. Similarly, in Pittsburgh, the ozone level in 1980 was 115 ppb. Since then, it has fallen by more than a third. Reductions of similar magnitudes have been recorded across the Commonwealth during the past three-and-a-half decades, [according to EPA data](#).

During that time, however, the ozone standard has been tightened

considerably as well. Subsequently, at the start of this year, 17 Pennsylvania counties remained out of compliance with the 75 ppb ozone standard set in 2008. But due to ongoing improvements, the EPA [classified](#) these counties as "marginal non-attainment" areas. This is the least serious violation of the ozone standard, and it effectively means that an area is very close to compliance. In fact, under the Clean Air

Act, areas that fall into marginal non-attainment for the first time [do not have to develop](#) so-called “implementation plans” – to be discussed in more detail in Section 6.0 – under the supervision of the EPA.

*“Effective environmental regulations protect public health in a manner that does not stifle job and economic growth. I believe that the administration has overall, successfully balanced these two goals. An unfortunate exception is the recently released proposed ozone standard, which asks too many businesses to meet unreachable benchmarks..”*

**Gary Hess (D)**  
*Schuylkill County Commissioner*

In August 2015, Pennsylvania’s positive air quality trends were recognized by [an EPA proposal](#) to reclassify five of the 17 marginal non-attainment counties as fully compliant with the 2008 ozone standard. Continued air quality progress in the remaining 12 counties also prompted the EPA to grant them a one-year extension to demonstrate compliance

with the existing standard. In effect, this means Pennsylvania is edging closer to having all its 67 counties fully compliant with the existing 75 ppb ozone standard.

The trends behind these reductions in Pennsylvania are similar in many ways to those of other states that have dramatically improved air quality since the 1970s. Industrial

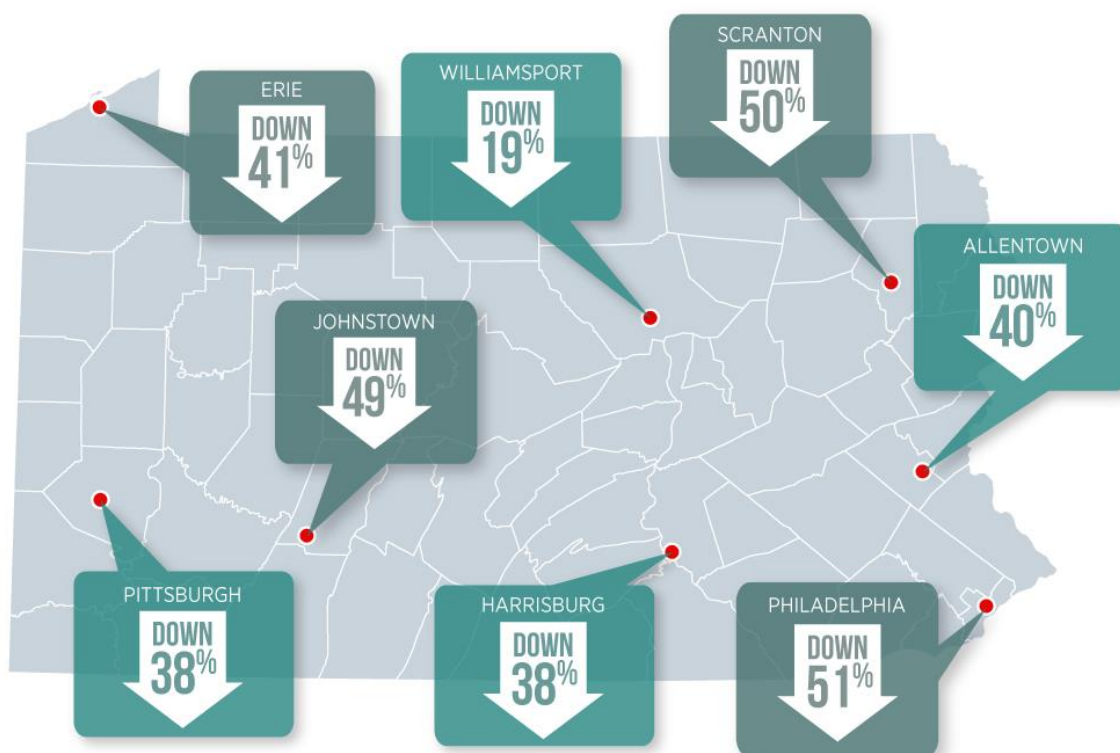
*“Each of the counties I serve, and Pennsylvania as a whole, have always had a rich heritage of manufacturing. Although perhaps well-intentioned, these regulations do more harm than good, as the consequences of these far reaching regulations will adversely affect local business and industry and our state's overall economy.*

*In a struggling economy, stricter regulations make it more difficult to obtain necessary permits required for manufacturing and for building the infrastructure critical to further develop our communities.”*

**State Rep. Parke Wentling (R)**  
*Lawrence, Mercer, Crawford and Erie counties, Western Pennsylvania*

sources, especially power plants, cut their emissions through a combination of post-combustion control technologies and cleaner fuels. As for cars and trucks, advances in exhaust controls and fuel-efficiency have produced huge improvements in tailpipe emissions. Indeed, according to the [EPA](#), cars, SUVs and pickup trucks purchased today are “well over 90 percent cleaner than a new vehicle purchased in 1970.”

## TRENDS IN PENNSYLVANIA OZONE LEVELS: 1980–2014



Source: EPA

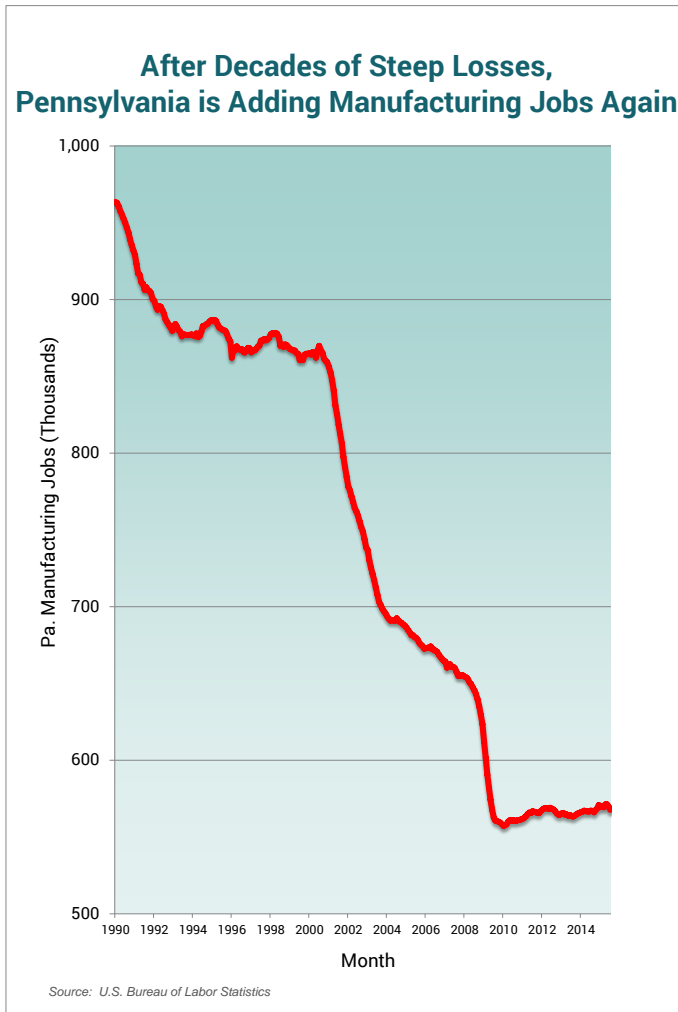
Today's car fleet is so much cleaner, in fact, that there have been calls to abolish mandatory emissions testing programs for motor vehicles in non-attainment areas. One of the leaders of the effort, State Sen. John Wozniak (D), has [cited](#) a 99 percent passing rate for vehicles tested in Pennsylvania. "If you had your kids in school and that's the kind of grades they were bringing home, you'd say well done ... we don't need these inspections anymore," Sen. Wozniak said.

But in Pennsylvania, not all the news behind the dramatic drop in ozone-forming emissions is good. In fact, some of the decline can be attributed to the loss of the manufacturing sector. According to the [U.S. Bureau of Labor Statistics](#), the number of manufacturing jobs fell by 40 percent between 1990 and 2010, which translates into

a loss of roughly 370,000 jobs. Recently, the development of the Marcellus Shale region has helped turn the trend around, and manufacturing has been returning to the state, lured by the promise of low energy prices.

The energy industry's expansion has driven up demand for manufactured goods, and at the same time lowered input costs for manufacturers, giving them an advantage over international competitors.

In fact, employers, workers and public officials in Pennsylvania are now optimistic that the conditions are set for a **resurgence** in manufacturing. However, as detailed in Section 6.0, a decision by the federal EPA to dramatically tighten the federal ozone standard will impose the kind of regulatory constraints that could undermine this resurgence.



*"The new ozone regulation being proposed by EPA is directly threatening jobs and the economic growth of Northeastern Pennsylvania. A non-attainment designation is a very real economic penalty that will add layers of bureaucratic red tape, regulatory delays, and effectively block any current and new business or industrial expansion. With uncertain benefits and astronomical costs, this regulation is a massive overreach that must be pulled back."*

**Darlene J. Robbins**

*President*

*Northeast Pennsylvania Manufacturers and Employers Association*



This would be a cruel blow for a state that is closer than ever to reaching full compliance with federal ozone mandates and escaping the stigma and economic constraints that come with ozone nonattainment.

*"Our regional economy is recovering and the members of our 7,000 strong Local 66 are just beginning to obtain new opportunities following the Great Recession. But EPA's strict ozone standards are nearly impossible to meet and threaten the forward economic and environmental progress we're experiencing.*

*With these overly-strict standards, it will be even more challenging for the majority of Western Pennsylvania to be in compliance, further adding regulatory delays and costs to construction projects that provide our members with family-supporting wages and benefits.*

*Adding layer upon layer of red tape at an astronomical cost and minimal environmental benefit will be economically damaging for our members and our region's economy."*

**Jim Kunz**

*Business Manager, International Union of Operating Engineers Local 66  
Western Pennsylvania*

## 5.0 THE EPA'S PROPOSAL AND SUPPORT FROM ALLIED POLITICAL GROUPS

The Obama Administration's push to dramatically tighten the ozone NAAQS began in 2010 – just two years after the current standard set at 75 ppb. After a major outcry over the impacts of this proposal, it was [withdrawn](#) by the EPA in 2011.

In late 2014, the EPA decided to [try again](#). It released a proposal to lower the ozone NAAQS from 75 ppb into the range of 65 to 70 ppb. The EPA also agreed to take comments on proposals as low as 60 ppb.

The EPA claims a dramatically tighter standard is justified by health concerns. In particular, the agency has repeatedly [cited asthma prevention](#) as one of the benefits of the proposal. However, this ignores historical data on air quality and public health which clearly shows recent reductions in ozone have not reduced asthma cases. In fact, the federal government's own [data](#) show [millions more](#) asthma cases have been reported while ozone levels have [fallen significantly](#).

*"The non-attainment status unfairly burdens us with a label that is well known to be a deterrent to economic development. We firmly believe that lowering the ozone standard will result in lost economic development opportunities that our region can ill afford.*

*Like it or not, businesses do make decisions to expand or locate based upon the regulatory burdens in a given area. Obviously we support clean air for our citizens and the record in fact shows that air quality in our region has indeed been improving dramatically under the current rules...*

*Don't move the goal posts on us now. Please don't label us arbitrarily and unfairly. Keep the ozone standard at the 2008 level."*

**John P. Vatauvuk (D)**

**Joe Betta (R)**

**Pamela Tokar-Ickes (D)**

*Somerset County Commissioners*

As the Texas Commission on Environmental Quality explained in a recent [report](#), “respiratory effects can occur at the high ozone concentrations that were measured in the 1980s and 1990s.” But with today’s much cleaner air, the EPA “has not

*“The American Lung Association has the ability to convey air quality data with more accuracy and sophistication. Yet it refuses, favoring instead annual reports that alarm and deceive. Talk about a pollution source in need of cleanup.”*

**Pittsburgh Post-Gazette**

demonstrated that public health will measurably improve by decreasing the level of the ozone standard.” The general public is also very much aware of the nation’s remarkable air quality progress. A recent national [poll](#) commissioned by the National Association of Manufacturers found 67 percent of Americans rate their local air quality as “Excellent” or “Good.” The same poll found nearly three times more Americans worry about the impact of “less economic growth and

job opportunities caused by regulations” than those who are concerned about “lower air quality caused by pollution.”

To bolster what is an objectively weak scientific case, the EPA has looked to a number of outside political groups to serve as surrogates and supporters. For example, in April 2015, the American Lung Association (ALA) issued a report – called “State of the Air” – on state and national air quality trends. Based on this report, the ALA, which has received over \$20 million in [grants](#) from the EPA over the past decade, [called](#) the current ozone standard “weak” and “out of date,” despite the fact it was only set in 2008 and has yet to be fully implemented.

To build the case for a dramatic tightening of the federal ozone standard, the ALA even tried to rewrite four decades of history. The [Pittsburgh Post-Gazette](#) took the ALA to task for making misleading claims about air quality in Western Pennsylvania. According to the newspaper, the group’s State of the Air report used a reading from a single air monitor, located near an industrial plant, to make alarmist air quality claims about the 12-county Pittsburgh metropolitan region. This “skewed presentation” and “statistical malpractice” resulted in a “bogus” finding that was intended to “alarm and deceive,” the *Post-Gazette* said in an editorial. For trafficking in misinformation, the newspaper called the ALA itself “a pollution source in need of cleanup.”

Similarly, in Colorado, the ALA told the [Denver Post](#): “Our air looks cleaner than in the 1970s. But we have higher ozone. ... The gains we made in the 1970s are going away.”

But the ALA was swiftly rebuked by air quality regulators in Colorado, who called the group’s report “inaccurate.” According to [E&E News](#), air quality regulators in Maryland and Texas also pushed back on the ALA’s claims, with an Indiana regulator saying: “We want people to know ... their air is healthy to breathe.” In a follow-up [interview](#), Colorado’s top air quality official said the ALA was simply wrong to claim that ozone is higher now than in the 1970s and “it makes our jobs harder when positive trends are being spun the exact opposite way.”

*“I am concerned with the EPA’s use of a questionable computer model, without empirical data, that assumes Washington County, or any other county, requires tougher standards.*

*I believe any proposal to lower the standards will have an extremely negative impact on our economic development. I am in support of clean air for all of us, but the record shows that our air quality has improved under the 2008 standards.”*

**Harlan Shober (D)**

*Washington County Commissioner*

*“By changing existing regulations while businesses and communities continue to adapt, we face a great risk of negatively impacting our economy. Stricter standards will halt construction jobs and shut down businesses which will have a devastating impact on workers by driving down their wages and severely limiting employment opportunities. While we deeply care about our nation’s air quality, we don’t want overzealous regulations to hurt our workforce or economy. We urge the EPA to maintain its current standards for the sake of workers everywhere.”*

**Dennis L. Martire**

*Vice President and Mid-Atlantic Regional Manager  
Laborers’ International Union of North America*



The [Denver Post](#) also debunked the ALA's "Chicken Little" claims, noting that "it's important to understand where we've come from and where we actually are, and not to fudge the data." Under pressure, the ALA retracted its misinformation and conceded to the newspaper "ozone is not worse than in the 1970s."

Despite playing fast and loose with the facts, the ALA remains a key political ally of the Obama Administration's environmental agenda. EPA [e-mails](#) obtained by the Energy & Environmental Legal Institute suggest the ALA was selected to be the "messenger" of the ozone proposal and other planned regulations, based on polling provided to the agency by the Natural Resources Defense Council (NRDC), a New York-based environmental group. For example, the ALA [hosted](#) President Obama on a conference call with reporters to build the case for new EPA regulations, and ALA officials have [participated](#) in White House briefings aimed at building public support for their shared agenda.

The ALA has also orchestrated a series of "mass comment" campaigns in support of a dramatically tighter federal ozone standard. These campaigns involve sending thousands of "duplicate" comments under different names, [according to EPA records](#), to create the impression that the proposed ozone standard is broadly understood and supported by the public. In fact, the ALA was [joined](#) by NRDC and two other groups with close ties to the Obama Administration – the Sierra Club and Organizing for Action (OFA) – in generating mass comments.

*"Adding layer upon layer of unnecessary and costly regulations will drive away good-paying jobs and make it more difficult for my contractors to find opportunities.*

*We urge the administration to keep the 2008 standards in effect so we can continue to improve our environment without stalling our economy's growth."*

**William C. Ligetti, Jr.**

*Executive Director,  
Ironworker Employers Association  
of Western Pennsylvania*

*"The plan is outrageously unreasonable and declares war on common sense by establishing ozone levels at or near those occurring in nature. Pennsylvania's General Assembly should refuse to comply with this unconstitutional federal power grab which will not survive judicial review."*

**David Taylor**

*President*

*Pennsylvania Manufacturers' Association*

Together, these four groups generated [almost 30 percent](#) of the total public comments received by the federal government about the EPA's proposal to dramatically tighten ozone standards. The way these comments were generated is remarkably similar to the way the EPA campaigned to expand the agency's authority over wetlands to cover a host of new water sources – [including drains](#)

[and ditches](#) – and infringe upon local land-use decisions. A *New York Times* [investigation](#) concluded the EPA "orchestrated a drive to counter political opposition ... and enlist public support in concert with liberal environmental groups." The goal was "to flood the agency with positive comments to counter opposition from farming and industry groups," and according to the *Times*, the effort was led by the NRDC, Sierra Club and OFA. As noted above, these three groups have also actively lobbied in support of the EPA's ozone proposal.

They have provided other kinds of support, too. For example, after the ALA's ozone claims were discredited, the NRDC issued another [report](#) – called "Sneezing and Wheezing" – which claimed more than 100 million Americans face higher asthma and seasonal allergy risks due to the combined effects of ozone and global warming. As for the Sierra Club, it sent staffers and volunteers to [testify](#) at public hearings on the EPA's proposed ozone standard, complete with a "[script](#)" based on the claim that further reductions in ozone will also reduce the number of asthma cases.

*"Additionally, the mandated auto emissions inspection program has proven to be very costly for vehicle owners/operators, without any real purpose or results, only adding to further public opposition for future federal and state government efforts.*

*In order to expect public compliance with such a regulation, the rules set forth need to be reasonable, sensible, and clearly within the public interest. I do not believe these regulations fit those standards."*

**Jack Lynch (R)**

*Crawford County Commissioner*

In effect, these outside political groups have been working to give the EPA political cover to move ahead with a dramatically tighter ozone standard. The agency needs this cover because a broad swath of the country – including business groups, labor organizations, local governments and state-level officials – believe the agency's ozone agenda goes too far and could cripple the fragile economic recovery.

*"This is just another example of EPA putting forth an unworkable proposal, which is just not realistic. I believe we have a duty to the health and prosperity of the communities across the Commonwealth, which would suffer under this lofty proposal.*

*Pennsylvania ozone emissions have notably been in decline over the past several decades. With so many small and medium-sized businesses still working to recover from the economic downturn, now is the wrong time to change the rules."*

**U.S. Rep. Glenn 'GT' Thompson (R)**

*5<sup>th</sup> Congressional District of Pennsylvania*

## 6.0 NATIONAL WAVE OF OPPOSITION, LED BY LOCAL AND STATE OFFICIALS

Under the Clean Air Act, cities and counties that do not meet the NAAQS for ozone are placed into “non-attainment,” or violation of federal environmental standards. Once in non-attainment, local and state officials must answer to the federal government for permitting and planning decisions that could impact ozone levels. State officials are required to develop an “implementation plan” that imposes new restrictions across the economy, especially the transportation, construction and energy industries. The EPA has veto power over these implementation plans.

States that refuse to comply, or have their implementation plans rejected, face regulatory and financial sanctions imposed on them directly from the federal government.

Under the current ozone NAAQS of 75 ppb, which was set in 2008, [231 counties](#) are in non-attainment, or close to non-attainment. Under the new range of 65-70 ppb proposed by the EPA, at least [558 counties](#) face the threat of non-attainment. The dramatic expansion of the EPA’s reach comes despite continued progress at the state level in improving air quality. EPA’s proposal, therefore, is simply a decision by the

*“Because of the financial and administrative burden that would come with a more stringent NAAQS for ozone, we ask EPA to delay implementation of a new standard until the 2008 standard is fully implemented...”*

*A more stringent NAAQS for ozone will dramatically increase the number of regions classified as nonattainment...*

*For non-attainment areas, the federal government can withhold federal highway funds for projects and plans. Withholding these funds can negatively affect job creation and critical economic development projects for impacted regions, even when these projects and plans could have a measurable positive effect on congestion relief.”*

**U.S. Conference of Mayors  
National Association of Counties  
National League of Cities  
National Association of Regional Councils**

*Joint statement*



agency to move the goal posts and redefine the legal definition of non-attainment. To complicate matters further, state and local officials are still struggling to implement the 2008 standard, because the EPA *just this year* finalized the rules for compliance, after a [seven-year](#) delay. If the EPA pushes ahead, ignoring the legitimate concerns of state and local interests, it will mark a radical departure from the way federal ozone standards have been enforced heretofore.

For decades, the ozone NAAQS was set at levels that provided cities and counties with a reasonable pathway out of non-attainment, through manageable reductions in ozone-forming emissions. The result was more cooperation than confrontation among local, state and federal officials in the development of implementation plans, and ozone levels nationwide have been steadily declining. But today, with the EPA proposing to tighten the standard close to background levels in some parts of the country, many stakeholders are warning that long-term – and possibly indefinite – EPA intervention into local economies will have severe regional and national impacts.

*“The threat of new ozone standards is having a chilling impact on small business investment and growth. Rather than invest in hiring and expansion, more small businesses throughout the Commonwealth are being forced to cut operations or buy costly equipment to comply with additional layers of unnecessary, burdensome red tape...*

*You’ll never grow the economy if you continue to make it nearly impossible for the core of our nation’s economic engine – our small business owners – to plan for the future and grow.”*

**Kevin Shivers**

*Executive State Director*

*National Federation of Independent Business – Pennsylvania*

*“LIUNA agrees that the United States must continue to place a priority on decreasing our air pollution, but the proposed dramatic emissions reduction will place millions of jobs and billions of dollars at risk. The construction and related manufacturing businesses who are most effected by the extreme requirements are also among the best providers of good-paying jobs for Americans.*

*We cannot continue to layer environmental regulation upon environmental regulation without considering the impact it will have on our economy and our workers. Let us work to fully achieve the current standard first, before placing stricter regulations on an industry struggling to get back on its feet.*

*While businesses across the country are working towards complying with the previous rule, moving the goalpost further away only weakens our global competitiveness and sets us up for failure.”*

**Terry O’Sullivan**

*General Pesident, Laborers’ International Union of North America*

The “already confusing” approval process for transportation projects – including roads, bridges, highways and public transit – will only get worse if the EPA tightens the ozone NAAQS any further, according to a joint [warning](#) from the U.S. Conference of Mayors, National Association of Counties, National League of Cities, and National Association of Regional Councils. These four groups, representing more than 20,000 local governments, also fear that “federal approval or funding” will be withheld while projects are analyzed for “conformity” with ozone standards. Delays and denials will only add to traffic

congestion, which is itself a major contributor to air pollution. “Withholding these funds can negatively affect job creation and critical economic development projects for impacted regions, even when these projects and plans could have a measurable positive effect on congestion relief,” the local governments conclude.

The “administrative burdens and slowdown in project delivery” could be severe, [according](#) to the American Association of State Highway and Transportation Officials (AASHTO) and the Association of Metropolitan Planning Organizations (AMPO). “The transportation conformity process will impose a difficult – if not impossible – task in places where background levels are so high that there is little that can be done

through transportation planning to reduce ambient ozone,” according to AASHTO and AMPO, which together represent transportation planning officials from all 50 U.S. States, the District of Columbia and Puerto Rico.

Transportation conformity involves “extensive transportation and air quality coordination and computer modeling” which are time-consuming and costly, according to the [Associated General Contractors of America](#) (AGC), which represents more than 26,000 firms in the construction industry. In effect, construction is banned unless it can be shown the project “will not result in increased

emissions,” the AGC warns. These “construction bans” will “delay the renovation and improvement of public infrastructure, including highway and transit construction projects, and bridge construction and repairs.”

According to the [U.S. Chamber of Commerce](#), the conformity process applies both to long-term transportation plans and individual projects. While all-out federal sanctions that prohibit the release of transportation funds are rare, so-called “conformity lapses” are quite common and “just as disruptive,” according to the Chamber, which represents more than three million businesses nationwide. These lapses, which effectively block “permits and approvals for projects in the development stage,” have occurred 70 times. The highest-profile case took place in the late 1990s in Atlanta. There, a conformity lapse of more than two years led to \$700 million of federal transportation funding being withheld, according to the Chamber.

A separate set of regulatory hurdles can slow or stop private-sector construction projects in non-attainment areas. Restrictive permitting procedures are “essentially a ban on the construction of new industrial or manufacturing facilities” and it becomes “very difficult even to expand existing facilities,” the AGC [warns](#). This is because states cannot allow any increase in emissions without finding an “offset,” or a reduction in emissions from another facility. “If no party is willing to provide offsets, then the

*“EPA appears to have made several unrealistic assumptions about the cost of controls—particularly ‘unknown’ controls that could comprise 75% of the total costs...”*

*Furthermore, it would be unreasonable to read the Clean Air Act to permit EPA to set standards that are not achievable due to background levels of ozone in many parts of the country.”*

**International Brotherhood of Boilermakers**

project cannot go forward,” according to the AGC. In effect, non-attainment areas are placed under “emission caps limiting economic development,” the AGC warns.

*“The tremendous reductions in emissions from an entire American industry sector, coupled with the proposed level of the standard being set at almost background levels, and the lack of a clear health benefit signal to further lower the standard, lead to the need for a new approach to NAAQS setting.”*

**Alliance of American Automobile  
Manufacturers**

For this reason, the construction-sector impacts of the proposed ozone NAAQS are deeply concerning to unions and allies of organized labor. For example, one state lawmaker from Queens, N.Y. [warned](#) “the new standards will impose a hardship on hundreds of thousands of union workers” because businesses “might not be able to afford expansions, new operations, or the ability to hire new employees.”

For this reason, the [Laborers’ International Union of North America](#) (LIUNA) is urging the EPA

to stand down because “moving the goalpost further away only weakens our global competitiveness and sets us up for failure,” putting “millions of jobs and billions of dollars at risk.” The EPA is threatening workers in the construction and manufacturing industries with “extreme requirements,” according to LIUNA. The union’s general president, Terry O’Sullivan, also warns: “We cannot continue to layer environmental regulation upon environmental regulation without considering the impact it will have on our economy and our workers.”

Meanwhile, a coalition of labor organizations representing 3.2 million workers – [Unions for Jobs and Environmental Progress](#) – predicts the EPA’s ozone plan “would threaten jobs across most energy-related sectors, including electric utility generation, oil and gas extraction and processing, and all other industry sectors dependent on fossil fuels.”

In fact, when combined with other EPA rules targeting the electric power sector, the impact of the proposed ozone NAAQS would be “catastrophic” for some workers, cause “major economic hardship” for others, and may even result in “shutting down all industrial activity in many parts of the country,” according to the [International Brotherhood of Boilermakers](#). The union warns 75 percent of the EPA’s cost estimates for the ozone proposal rely on “unknown” controls, and concludes: “States and industry need a reasonable period of time to fully implement the existing standard

before attempting to achieve an even more ambitious standard like the one the EPA proposes to adopt.”

These energy-related impacts have sparked major concern in other economic sectors. Factory owners, already facing a *de facto* construction and expansion ban, would also suffer from higher energy costs, according to the [National Association of Manufacturers](#) (NAM). NAM estimates the overall cost of the new proposed ozone NAAQS at \$140 billion a year, making it “[the most expensive regulation ever](#)” in U.S. history. Moreover, NAM warns “the nation’s manufacturing comeback – driven largely by an advantage on energy – could be placed in jeopardy.”

Likewise, state regulators who oversee the nation’s agricultural sector are speaking up against the energy-price impacts, among other effects, of the EPA’s proposed ozone NAAQS. “Input costs, such as for fuel and fertilizer, would increase, impacting the economic vitality of rural communities,” according to the [National Association of State Departments of Agriculture](#). Farmers could also be hit with “costly upgrades on equipment such as engines for irrigation systems in order to comply with restrictions resulting from an increase in nonattainment areas,” the agriculture group warns.

Given the profound impacts of the proposed new ozone NAAQS across the economy, state air quality regulators are privately and publicly raising major concerns – and even calling on the EPA to stand down. According to a recent survey released by the [Association of Air Pollution Control Agencies](#), a solid majority of state-level air quality regulators are worried about the EPA moving the ozone NAAQS even closer to background levels. For example, the Virginia Department of Environmental Quality warns the EPA’s attempt to handle background ozone places an “undue burden” on states that “goes well beyond the requirements in the Clean Air Act.”

*“In nonattainment areas, transportation projects can proceed only if it can be demonstrated that they will not result in increased emissions.*

*Such construction bans would delay the renovation and improvement of public infrastructure, including highway and transit construction projects, and bridge construction and repairs.”*

**Associated General Contractors of America**



The [Ohio Environmental Protection Agency](#) says the burden of non-attainment has “a crippling impact on industrial and manufacturing growth.” Expansion plans are postponed and “new businesses look elsewhere due to the extra hurdles and burdens required of companies,” the Ohio EPA warns. State regulators in Ohio say the federal EPA’s planned new ozone NAAQS is especially difficult to justify given that the “scientific evidence demonstrated ... does not justify the proposed range.”

[WESTAR](#), a Seattle-based group representing 15 air quality regulatory agencies from Western states, has sounded the alarm over background ozone levels that are beyond the control of local officials. Some of this background ozone originates from natural sources, such as wildfires; some is blown in from other states or from international sources, such as “Mexico, Canada, or Asia,” according to WESTAR. The group of regulators is worried that rural areas caught in the non-attainment net for the first time, have “very few, if any” local emission sources that can be managed or

reduced to meet EPA mandates. Making the “right choices” about reducing ozone levels below their current levels “will depend on how well we understand the science, and our understanding of the science needs to improve,” according to WESTAR.

In Texas, air quality regulators have directly challenged EPA’s scientific justification for the rule. In a recent [interview](#), the top toxicologist at the Texas Commission on Environmental Quality said: “I don’t think the EPA can really back those claims up with science, if you really look at the data.” Separately, a TCEQ [report](#) on EPA’s sources, methods and assumptions found them to be “inconsistent,” “misleading,” “unrealistic,” “critically flawed,” and “implausible.” The TCEQ has [warned](#) the impact of the EPA’s proposed ozone standard could be especially hard on motorists, because in some parts of the country, compliance means “we are going to have to get cars off the road”

*“Reducing the standard for ozone from 75 ppb to between 70 ppb and 65 ppb—or even 60 ppb—would negatively impact agricultural producers around the country...*

*Input costs, such as for fuel and fertilizer, would increase, impacting the economic vitality of rural communities. In addition, farmers could be faced with implementing costly upgrades on equipment such as engines for irrigation systems in order to comply with restrictions resulting from an increase in nonattainment areas.”*

**National Association of  
State Departments of Agriculture**

through measures that may include “no drive days.” The EPA has threatened “no drive” measures before. During the 1990s in Los Angeles, the EPA proposed that commuters “would be forced to give up their cars one day a week and find other means of transportation ... based on the license plate number of their car,” [according to the Los Angeles Times](#).

*“This proposal is likely to be the most expensive regulation ever, costing as much as \$140 billion per year and placing the equivalent of 1.4 million jobs in jeopardy annually.*

*A substantial portion of the compliance with a new standard will come from controls that are unknown even to the EPA, and if these controls are not invented in time, manufacturers will be forced to consider scrapping existing plants and equipment.*

*Manufacturers operating in newly designated nonattainment areas could be effectively closed off to any new growth, and even manufacturers in areas that comply with the new standards will struggle to model attainment and obtain their new permits.*

*No sector will be spared, and the nation’s manufacturing comeback—driven largely by an advantage on energy—could be placed in jeopardy.”*

**National Association of Manufacturers**

Some regional air quality regulators in California are also worried about the measures that may be needed to further limit emissions from motor vehicles. The executive director of the Mojave Desert and Antelope Valley air quality districts has even [warned](#): “I fear that if the proposed Ozone standards are enacted ... the entire Southern California region will need to be an all-electric zone to meet the requirements.” On that point, the [Alliance of American Automobile Manufacturers](#) says a “new approach” is needed for deciding federal ozone standards when the EPA is “setting standards that would be in many areas nearly indistinguishable from background levels.”

Another California air quality official from the San Joaquin Valley has further warned “standards that approach background concentrations” require “technologies that in many cases are not yet commercially available or even conceived.” In other words, the

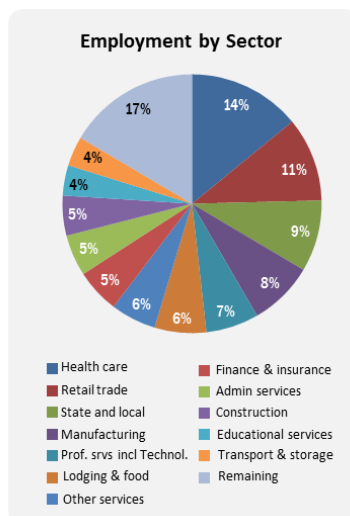
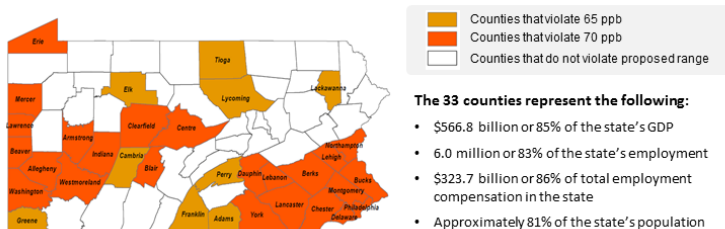
federal government is setting “mandates that are impossible to meet,” the regulator said in a [letter](#) to the EPA. Even the EPA’s own [analysis](#) of the proposed ozone NAAQS relies heavily on “unknown controls” for ozone-forming emissions.

When taken together, such wide-ranging concerns from so many different stakeholders make a compelling case against the EPA’s proposal to dramatically tighten the ozone NAAQS, especially so quickly after EPA is just beginning to implement the 2008 standard. The arguments against the EPA’s proposal are best [summarized](#) by the U.S. Conference of Mayors, National Association of Counties, National League of Cities, National Association of Regional Councils and the more than 20,000 local governments they represent: “[W]e urge EPA to delay issuing a new NAAQS for ozone until the 2008 ozone standard is fully implemented.”

## 7.0 PENNSYLVANIA IMPACTS

### 7.1 Overview

**THIRTY-THREE COUNTIES IN PENNSYLVANIA WOULD VIOLATE A 65 PPB OZONE STANDARD. TOGETHER, THEY REPRESENT 85 PERCENT OF THE STATE'S ECONOMY.**



\* Based on EPA analysis of 2011-2013 ozone data, accessed at <http://www.epa.gov/groundlevelozone/pdfs/20141126-20112013datatable.pdf>

Non-Attainment Counties	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Adams	3.0	51,766
Allegheny	71.1	880,553
Armstrong	1.8	30,722
Beaver	9.8	72,636
Berks	16.9	222,680
Blair	4.9	73,810
Bucks	41.4	361,025
Cambria	4.3	72,399
Centre	7.7	112,922
Chester	33.8	341,813
Clearfield	2.8	40,262
Dauphin	16.1	220,408
Delaware	37.2	301,725
Elk	1.4	18,840
Erie	10.8	160,457
Franklin	5.4	75,571
Greene	2.1	20,384
Indiana	3.7	48,151
Lackawanna	8.3	127,651
Lancaster	24.2	303,024
Lawrence	2.8	39,837
Lebanon	8.1	65,416
Lehigh	15.4	226,944
Lycoming	5.1	69,769
Mercer	4.5	61,864
Montgomery	53.9	613,059
Northampton	13.0	138,229
Perry	2.7	13,692
Philadelphia	103.0	803,636
Tioga	1.3	19,650
Washington	12.0	114,487
Westmoreland	20.8	173,354
York	17.4	221,944
<b>Total</b>	<b>566.8</b>	<b>6,098,680</b>
<b>Pennsylvania</b>	<b>665.1</b>	<b>7,321,660</b>

The EPA's proposed range of 65 to 70 ppb for a new federal ozone NAAQS would have a profound impact on Pennsylvania. At least 33 counties would face violation of the dramatically tighter ozone standard and be vulnerable to punitive new EPA-driven mandates. As discussed in Section 6.0, the EPA setting the standard so stringently raises the prospect of long-term or indefinite non-attainment status for these counties. This would impose serious restrictions on future economic growth.

It would also be a cruel reversal of fortune. As discussed in Section 4.0, Pennsylvania stands on the

verge of moving all its 67 counties into attainment with the existing 75 ppb standard, which was set less than 10 years ago. Once in compliance, these counties would have more control over basic economic and planning decisions. But if the goalposts are moved from 75 ppb into the 65 to 70 ppb range, the EPA will only tighten its grip over these counties, as well as many more communities caught in the net of non-attainment for the first time.

To estimate the reach of EPA's ozone agenda in Pennsylvania, CRS commissioned the economics division of FTI Consulting, Inc. – a global research, technology and business advisory firm – to conduct a statewide analysis using EPA ozone data and

key economic indicators. The analysis found that the vast majority of Pennsylvania's economy, population and workforce would be subjected to new ozone-related restrictions under the EPA's proposed range. The 33 impacted counties represent 85 percent of the state's GDP, 83 percent of the state's workforce and 81 percent of the state's population. In effect, with one rule change, the EPA would double the number of counties in Pennsylvania in violation of federal ozone standards.

*"Existing ozone regulations have already put the Commonwealth at a competitive disadvantage when it comes to attracting new and expanded investment – particularly in the manufacturing and energy sector.*

*In fact, Pennsylvania has been able to substantially reduce emissions and improve air quality over the past decades. These new rules are unnecessary and prohibitively expensive, and jeopardize our position as an energy powerhouse."*

**Gene Barr**

*CEO, Pennsylvania Chamber of Business and Industry*

The economic analysis also shows that manufacturing is a major employment sector in these 33 counties. As discussed in Section 6.0, the construction and expansion bans that can be imposed in ozone non-attainment areas, the cost of government-mandated emissions controls, and the requirement that emissions from new or bigger operations be offset somewhere else in the economy can greatly hamper the ability of manufacturing firms to retain and grow their workforce. The timing of

these new regulatory constraints could not be worse, because Pennsylvania only started adding new manufacturing jobs a few years ago, as detailed in Section 4.0.

With that in mind, the Pennsylvania Chamber of Business and Industry [warned](#) the EPA that "[d]ownward revisions to 70, 65 or even 60 ppb are unnecessary, given the tremendous costs of compliance with such low levels." The Commonwealth's biggest business advocacy group, with thousands of members across every industry sector, also noted that new industrial facilities typically avoid non-attainment areas because of the difficulty in getting the permits necessary to conduct business. "[W]hen it comes to selecting sites for new or expanded development, air quality designations are among the first criteria examined for a potential project, and, in particular, a non-attainment designation will in many cases remove a site from consideration," the Pennsylvania Chamber warned.



[Gene Barr, CEO of the Pennsylvania Chamber](#), told CRS in a follow-up interview that he's particularly concerned about the impacts on energy and manufacturing. "These new rules are unnecessary and prohibitively expensive, and jeopardize our position as an energy powerhouse," Barr said.

[U.S. Rep. Glenn 'GT' Thompson \(R\)](#) told CRS the EPA's ozone proposal is "unworkable" and "unrealistic" for communities across the Commonwealth. "Pennsylvania ozone emissions have notably been in decline over the past several decades," Rep. Thompson said. "With so many small and medium-sized businesses still working to recover from the economic downturn, now is the wrong time to change the rules."

According to the National Association of Manufacturers, a tighter federal ozone standard will "make it harder to get the necessary permits to manufacture goods," and much more than that. Under the EPA's proposed standard, it will also be harder to build critical infrastructure like roads and highways in Pennsylvania, while increasing the cost of energy for every business and household in the state," [according to NAM](#). A NAM-commissioned analysis by NERA Economic Consultants concluded that the equivalent of almost 102,000 jobs may be lost, along with \$98 billion of economic activity between 2017 and 2040.

In Pennsylvania, that means small businesses putting off "hiring and expansion" because they need "to cut operations or buy costly equipment to comply with additional layers of unnecessary, burdensome red tape," according to the National Federation of Independent Business (NFIB). "You'll never grow the economy if you continue to make it nearly impossible for the core of our nation's economic engine – our small business owners – to plan for the future and grow," [NFIB Pennsylvania Executive State Director Kevin Shivers](#) told CRS.

As discussed in Section 6.0, the transportation conformity process under the EPA's ozone regulations is a major concern for public officials, the

*"Now, this new ozone proposal will expand the auto emissions program to our rural counties because where else besides cars and wood burning stoves can they go to control emissions?"*

*As I understand it the health benefits of these last few yards of emission reductions are minimal, but I can tell you that the public disdain for government will be maximum if you go forward with a lower standard."*

**State Sen. John Wozniak (D)**  
*Bedford, Cambria and Clearfield counties*

companies that build and upgrade roads and highways, the businesses that rely on the transportation grid and individual motorists. Pennsylvania's construction sector has also expressed its deep concern over the impact on infrastructure investments. According to the [Keystone Chapter of the Associated Builders and Contractors, Inc.](#) (ABC), one year after an area is found in violation with federal ozone standards, "federally-supported highway and transit projects cannot proceed ... unless the state can demonstrate that the project will cause no increase in ozone emissions." Beyond road projects, the construction industry faces "permitting delays, restrictions and increased costs on projects" under the EPA's proposed ozone standard, with "severe implications for investment in new commercial construction, public infrastructure, business expansion and employment," the ABC warns.

A coalition of local officials, led by the U.S. Conference of Mayors and the National Association of Counties, has [warned](#) the EPA about the negative economic impact of the complex transportation conformity process. As detailed in Section 6.0, this

*"Local communities will face burdens to commercial, industrial and agricultural activity not only vital to creating jobs, but also to providing tax revenue that support local services like public safety and education.*

*This is of great concern to PFB, whose mission is not only to increase the viability of farmers and ranchers but to improve the quality of life in Pennsylvania's rural communities. This proposal's hardship to rural Pennsylvania is real and immediate, while the benefits are unverified and uncertain."*

**Pennsylvania Farm Bureau**

coalition – representing more than 20,000 local governments from across the country – is worried that a tighter ozone standard could actually block new road projects aimed at relieving traffic congestion. The economic costs of traffic congestion are widely documented. [U.S. DOT](#), for example, says congestion "increases the costs of delivering goods and services, because of the increased travel times and operating costs." Congestion-related delays also impose costs on households because they "plan their activities around the available time budget as well as around their financial budgets," which shrink with higher operating and maintenance costs due to bad traffic, according to U.S. DOT.

Research by [Texas A&M University's Transportation Institute](#) (TTI) shows traffic congestion has environmental impacts, too. TTI – a research organization supported

by more than 200 public and private [sponsors](#), including the EPA – finds that cars and trucks that spend more time on the road stuck in traffic jams will produce more emissions than vehicles traveling to their destinations at or near the speed limit. Therefore, by making it harder to invest in transportation projects that will ease traffic congestion, EPA's ozone proposal is not just economically destructive – it is self-defeating.

But the transportation-related impacts don't end there. As discussed in Section 4.0, State Sen. John Wozniak (D), is leading an effort to phase out mandatory emissions tests for motor vehicles, because of the very low percentage that actually fail. In a [letter](#) to the EPA, Sen. Wozniak said the emissions tests have outlived their usefulness and “are now viewed as some cruel joke by motorists,” because they have not been phased out in counties that have met the existing 75 ppb standard. Pushing ahead with an ozone standard that guarantees the expansion of these mandatory vehicle emissions tests will produce “minimal” health benefits, but the “public disdain for government will be maximum,” Sen. Wozniak warned.

*“This ozone proposal will negatively impact the still-recovering construction industry by creating permitting delays, restrictions and increased costs on projects. The uncertainty of building in or near a nonattainment area will lead to fewer projects overall and negatively impact job creation in the construction industry.”*

**Associated Builders and Contractors, Inc.**

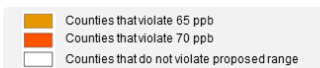
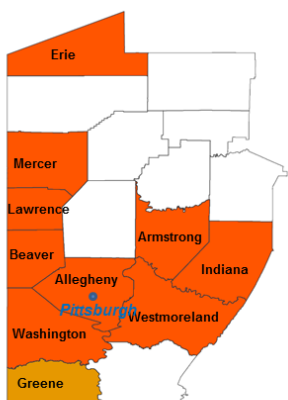
*Keystone Chapter*

Meanwhile, the [Pennsylvania Farm Bureau](#) views the EPA's ozone proposal as a threat not just to the agriculture sector, but to communities and industries of all kinds across the Commonwealth. The regulatory burdens imposed on state and local officials, through the development of ozone implementation plans, will limit “commercial, industrial and agricultural activity not only vital to creating jobs, but also to providing tax revenue that support local services like public

safety and education,” according to the Farm Bureau. In effect, the EPA is pushing an ozone policy that could “limit business expansion in nearly every populated region of the U.S.” and hamstringing the ability of employers across all sectors of the economy to remain competitive. “This proposal's hardship to rural Pennsylvania is real and immediate, while the benefits are unverified and uncertain,” the Farm Bureau concludes.

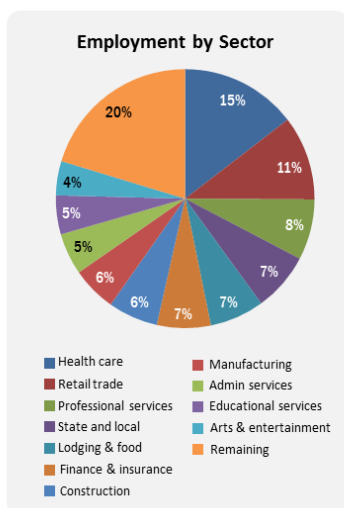
## 7.2 Pittsburgh & Western Pennsylvania

**TEN WESTERN PENNSYLVANIA COUNTIES WOULD VIOLATE A 65 PPB OZONE STANDARD. IN THESE COUNTIES, ROUGHLY 12% OF JOBS ARE IN MANUFACTURING AND CONSTRUCTION**



**The 10 counties in non-attainment represent for the following:**

- \$139.4 billion or 21% of the state's GDP
- 1.6 million or 20% of the state's employment
- 21% of the state's population



Non-Attainment Counties	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Allegheny	71.1	880,553
Westmoreland	20.8	173,354
Washington	12.0	114,487
Erie	10.8	160,457
Beaver	9.8	72,636
Mercer	4.5	61,864
Indiana	3.7	48,151
Lawrence	2.8	39,837
Greene	2.1	20,384
Armstrong	1.8	30,722
<b>Total</b>	<b>\$139.4</b>	<b>1,602,445</b>
Pennsylvania	665.1	7,321,660

Under the EPA's proposed ozone range of 65 to 70 ppb, Pittsburgh and at least 10 Western Pennsylvania counties are threatened with violating the dramatically tighter standard. As detailed in Section 6.0, violation of the federal ozone standard triggers a whole host of new regulatory restrictions across the economy. Labor unions, business groups and elected officials from both parties are fearful these restrictions could derail the region's economic recovery, undermine Marcellus Shale development, and jeopardize the return of manufacturing jobs.

While several counties in the Pittsburgh-Beaver Valley region are currently in marginal non-attainment with the existing 75

ppb ozone standard, they are very close to reaching the standard. In fact, those counties could be just one year away from full compliance, [according to the EPA](#). By tightening the standard now, the EPA would change the rules on these counties, dragging them back into much more serious degrees of violation. This would give the EPA much greater leverage over state and local officials to impose ozone-related restrictions on the regional economy.

The EPA's planned course of action against Western Pennsylvania is remarkable in light of the region's air quality trends. For example, as detailed in Section 4.0, ozone levels have fallen by 38 percent in Pittsburgh and 41 percent in Erie since 1980. These

continued improvements explain why communities in the Pittsburgh-Beaver Valley have moved into marginal non-attainment and are well on their way to reaching compliance with the existing 75 ppb standard.

*"Washington County and the Greater Pittsburgh Region have made great strides to transform our area from the 'Smokey City' to a region with a high quality of life that embraces economic growth through responsible development-which begins with clean air.*

*However, the new ozone regulations and even stricter standards being proposed by the EPA will hinder that growth by again imposing impossible policies whose only results will be slowing the economy and burdening our small businesses.*

*We all are for clean air but we are also for a level playing field with common sense rules that create jobs and economic opportunity."*

**Jeff Kotula**

*President, Washington County Chamber of Commerce*

"The ever-changing and disputed EPA standards represent a dagger pointed to the heart not only of southwestern Pennsylvania but the entire state," said [State Rep. Pam Snyder \(D\)](#), a member of the House Environmental Resources and Energy Committee, to CRS. Energy producers "are reeling from the punitive regulatory environment being promoted in Washington, D.C.," Rep. Snyder continued. The EPA's "suspect and far-reaching standards are jeopardizing livelihoods, futures and energy supplies throughout Pennsylvania," she said.

"Our regional economy is recovering and the members of our 7,000 strong Local 66 are just beginning to obtain new opportunities following

the Great Recession," [Jim Kunz, business manager of the International Union of Operating Engineers Local 66](#), told CRS. "But EPA's strict ozone standards are nearly impossible to meet and threaten the forward economic and environmental progress we're experiencing," he continued. IOUE members oppose "adding regulatory delays and costs to construction projects that provide our members with family-supporting wages and benefits," Kunz said. "Adding layer upon layer of red tape at an astronomical cost and minimal environmental benefit will be economically damaging for our members and our region's economy," he said.



The EPA's proposal is hard to accept because "air quality in the Pittsburgh region, as well as in the entire nation, is improving," Dennis Yablonsky, CEO of the [Greater Pittsburgh Chamber of Commerce](#), wrote in a letter to the EPA. "The Pittsburgh region, with a strong legacy of being the nation's manufacturing leader and as an energy provider for the nation, would be at risk of losing its current economic momentum and would be hindered in its ability to take advantage of shale gas development and new advanced manufacturing opportunities," Yablonsky warned the EPA.

The [Ironworker Employers Association of Western Pennsylvania](#) was one of many organizations to accuse the EPA of "moving the goal posts." The Obama administration should "keep the 2008 standards in effect so we can continue to improve our environment without stalling our economy's growth," the group's executive director William C. Ligetti, Jr. told CRS.

[Erie Mayor Joseph Sinnott \(D\)](#) warned that the EPA has lost sight of the responsibility to "balance the needs of improved air and water quality with the very real economic challenges of building new industries." Hard work through the years has finally put ozone levels in Erie below the existing standard of 75 ppb, and

*"Overreaching regulations are at a historical high in our country and the costs of compliance significantly burdens small companies and family owned businesses.*

*These business owners are trying to operate their companies and provide meaningful employment. They understand the need for some oversight but there is a complete lack of commonsense in many existing and proposed regulations – especially the EPA's current plan to drastically cut federal ozone limits.*

*These regulations will impede job creation and economic growth in Pennsylvania. Many companies are already hesitant to invest in expansions to their business due to uncertainties about healthcare, taxes and the economy.*

*This unattainable goal being set by the Obama administration and the EPA will prevent many businesses from being able to expand and grow."*

**Lori Joint**

*Vice President, Manufacturer & Business Association*

Sinnott urged the federal agency not to change the standard to “unachievable” levels. He added: “The people of this community have struggled as heavy manufacturing has declined over the past several decades. They cannot afford additional hardships.”

[State Rep. Parke Wentling \(R\)](#), whose district takes in Lawrence, Mercer, Crawford and Erie counties, warned the EPA that tighter ozone limits “make it more difficult to obtain necessary permits required for manufacturing and for building the infrastructure critical to further develop our communities.” [Washington County Commissioner Harlan Shober \(D\)](#) cautioned that “any proposal to lower the standards will have an extremely negative impact on our economic development.” Shober continued: “I am in support of clean air for all of us, but the record shows that our air quality has improved under the 2008 standards.”

[Mercer County Commissioners John L. Lechner \(R\) and Matthew B. McConnell \(R\)](#) told EPA officials that “we implore you to revisit before subjecting Mercer County and our local economies to further expensive regulation and the negative connotation associated with the non-attainment classification.” [State Rep. Michele Brooks \(R\)](#), whose district takes in Crawford, Mercer, Erie and Warren counties, took aim at the continuation and likely expansion of mandatory auto emissions inspections, which have been “vehicle owners/operators, without any real purpose or results.” Rep. Brooks concluded: “In order to expect public compliance with such a regulation, the rules set forth need to be reasonable, sensible, and clearly within the public interest. I do not believe these regulations fit those standards.”

*"With this massive regulation – coupled with EPA's overreach that's shutting down our power plants – the Obama administration is strangling economic growth and opportunity for Beaver County and threatening good-paying jobs. We can and must have cleaner air and a stronger economy. To advance this shared goal, a commonsense approach to policymaking rooted in facts and science is absolutely necessary.*

*This regulatory overreach however will place an even greater and unnecessary burden on our economy, making it more difficult for businesses and manufacturers to build, expand, and operate – ultimately hurting jobs and middle-class working families. With the potential for a petrochemical plant that could create thousands of jobs and boost our economy, the last thing we can afford is more bureaucratic red tape that'll slow growth, add costs and unnecessary regulatory delays.*

*We need commonsense from EPA, not the most expensive regulation in American history that will halt Beaver County's progress."*

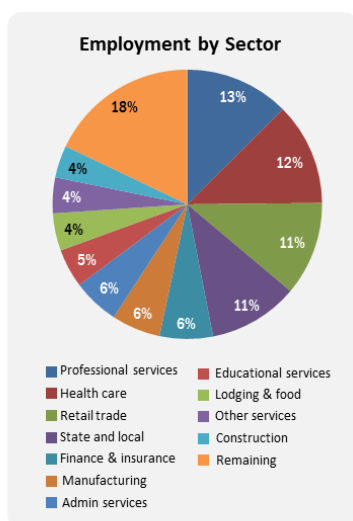
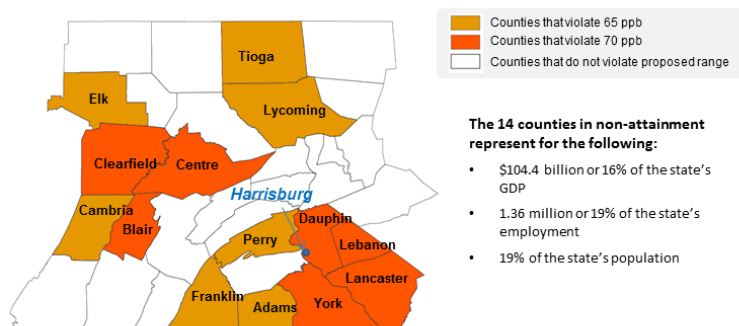
**State Rep. Jim Christiana (R)**  
*Beaver and Washington counties*

Across Western Pennsylvania, business, labor and civic leaders expressed dismay that the EPA's ozone proposal simply ignores economic and environmental trends that communities are seeing on the ground. For example, State Rep. Jim Christiana (R) – whose district takes in Beaver and Washington counties – said the combination of the ozone rule and other EPA regulations targeting power plants are "strangling economic growth and opportunity" and "threatening good-paying jobs." Rep. Christiana cited a proposed petrochemical plant "that could create thousands of jobs and boost our economy" as one project that could be jeopardized by "more bureaucratic red tape."

Meanwhile, [Beaver County Commissioners Tony Amadio \(D\), Joe Spanik \(D\) and Dennis Nichols \(R\)](#) criticized the EPA for failing to understand recent trends in Western Pennsylvania's economy, "namely the Marcellus shale gas revolution and the positive environmental consequences it promises." Violation of a drastically tighter ozone standard will be "a huge deterrent to businesses looking to locate or expand in a given area," they warned.

## 7.3 Harrisburg & Central Pennsylvania

**IN CENTRAL PENNSYLVANIA, 14 COUNTIES WOULD VIOLATE A 65 PPB OZONE STANDARD. MANUFACTURING AND CONSTRUCTION MAKE UP 10% OF JOBS IN THESE COUNTIES.**



Non-Attainment Counties	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Lancaster	24.2	303,024
York	17.4	221,944
Dauphin	16.1	220,408
Lebanon	8.1	65,416
Centre	7.7	112,922
Franklin	5.4	75,571
Lycoming	5.1	69,769
Blair	4.9	73,810
Cambria	4.3	72,399
Adams	3.0	51,766
Clearfield	2.8	40,262
Perry	2.7	13,692
Elk	1.4	18,840
Tioga	1.3	19,650
<b>Total</b>	<b>\$104.4</b>	<b>1,359,473</b>
Pennsylvania	665.1	7,321,660

By tightening the federal ozone standard into the range of 65 to 70 ppb, EPA would throw the state capital, Harrisburg, and much of Central Pennsylvania into violation of federal air quality laws. As detailed in Section 6.0, violation of the federal ozone standard triggers new regulatory restrictions across the economy. The impacts on industrial communities like Johnstown and Williamsport have triggered a backlash, as in other parts of the state. But there are also concerns about how agriculture and rural communities will be impacted, too.

The EPA's ozone proposal defies common sense and air quality trends in the region. For example, as detailed in Section

4.0, ozone levels have fallen by 38 percent in Harrisburg since 1980. During the same period, ozone levels fell by 49 percent in Johnstown and 19 percent in Williamsport. The downward trend also explains why the EPA recently [proposed](#) moving Lancaster County out of marginal non-attainment and into full compliance with the 2008 ozone standard.

**Johnstown Mayor Frank Janakovic (D)** – describing his community as “a small town in Pennsylvania which has been buffeted by a difficult economy” – has urged the EPA not to lower the standard any further. When recruiting new businesses to the area, “one issue that always comes up is government regulation and how much it will cost a prospective project,” Janakovic said. While local governments can address many of those regulatory hurdles, ozone-related requirements are “mostly out of our control,”

he said. Tightening the ozone standard any further “could be disastrous for our economic development efforts,” he said.

Likewise, the business community in Williamsport is also deeply worried. In an interview with CRS, [Williamsport/Lycoming Chamber of Commerce CEO Vince Matteo](#) said the EPA is jeopardizing the local economy’s “serious growth” in recent years “as a result of our commitment to foster new business in the region.” Matteo said the region is achieving clean-air goals through practical measures, such as building new natural gas-fired power plants. “But these impossibly strict ozone regulations will handcuff our small and mid-size businesses, costing jobs and hurting our local economy,” he said. How does EPA expect these unrealistic standards to be met?”

*“As Mayor of a small town in Pennsylvania which has been buffeted by a difficult economy, I am constantly looking for economic development opportunities for our citizens.*

*In discussions with potential business to locate here one issue that always comes up is government regulation and how much it will cost a prospective project...*

*I understand you are proposing to lower [the] ozone standard. That could be disastrous for our economic development efforts.”*

**Mayor Frank J. Janakovic (D)**

*Johnstown, Pa.*

Some counties that don’t face the immediate threat of violating the standard are still worried they will eventually be caught under EPA’s tighter ozone caps. For example, [Somerset County Commissioners John P. Vataavuk \(D\), Joe Betta \(R\) and Pamela Tokar-Ickes \(D\)](#) told the EPA they “firmly believe that lowering the ozone standard will result in lost economic development opportunities that our region can ill afford,” especially when “air quality in our region has indeed been improving

dramatically under the current rules.” The commissioners concluded: “Don’t move the goal posts on us now. Please don’t label us arbitrarily and unfairly. Keep the ozone standard at the 2008 level.”



*"In the last decade Williamsport and all of Lycoming County have seen serious growth as a result of our commitment to foster new business in the region. We all want a strong economy and clean air – and through efforts like building new natural gas-fired power plants, we're achieving those goals.*

*But these impossibly strict ozone regulations will handcuff our small and mid-size businesses, costing jobs and hurting our local economy. How does EPA expect these unrealistic standards to be met?"*

**Vince Matteo**

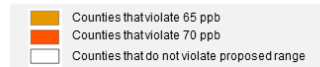
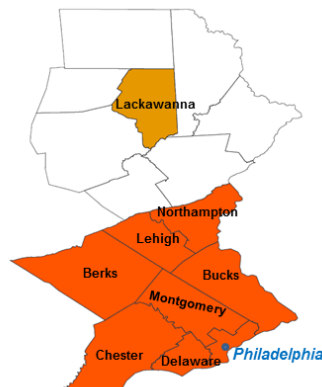
*President & CEO, Williamsport/Lycoming Chamber of Commerce*

Central Pennsylvania's rural and agricultural communities also face the threat of ozone-related regulatory restrictions. The [Pennsylvania Farm Bureau](#) has warned of several potential impacts for farmers in the Central Pennsylvania and the rest of the Keystone State. They include restrictions on animal feeding operations, because of emissions from animal waste, and limits on pesticide use. The viability of some farms could be negatively impacted by higher energy costs tied to the ozone standard and the indirect impacts of other

restrictions imposed elsewhere in the economy. "Farming is an energy-intensive business that depends on reliable, affordable sources of energy for daily operations, such as using tractors and operating dairy barns, poultry houses and irrigation pumps," the Farm Bureau warned. Central Pennsylvania's ethanol industry could also "be greatly affected by control measures required for a more stringent standard since they too can contribute to VOCs and NOx during manufacture and use."

## 7.4 Philadelphia & Eastern Pennsylvania

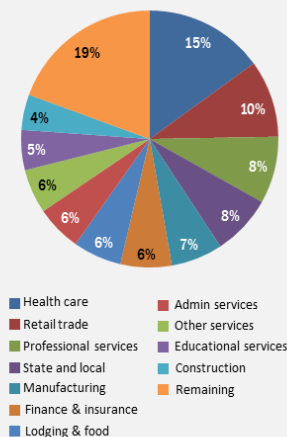
**NINE EASTERN PENNSYLVANIA COUNTIES WOULD VIOLATE A 65 PPB OZONE STANDARD. MANUFACTURING AND CONSTRUCTION MAKE UP 11% OF JOBS IN THESE COUNTIES.**



**The 9 counties in non-attainment represent for the following:**

- \$322.9 billion or 49% of the state's GDP
- 3.14 million or 43% of the state's employment
- 42% of the state's population

**Employment by Sector**



Non-Attainment Counties	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Philadelphia	103.0	803,636
Montgomery	53.9	613,059
Bucks	41.4	361,025
Delaware	37.2	301,725
Chester	33.8	341,813
Berks	16.9	222,680
Lehigh	15.4	226,944
Northampton	13.0	138,229
Lackawanna	8.3	127,651
<b>Total</b>	<b>\$322.9</b>	<b>3,136,762</b>
Pennsylvania	665.1	7,321,660

Nine counties in Eastern Pennsylvania – including Philadelphia – would violate the EPA's proposed ozone range of 65 to 70 ppb. As detailed in Section 6.0, violation of the federal ozone standard triggers an EPA-driven regulatory process that imposes new restrictions across the economy.

Several counties in Pennsylvania's southeast corner, including Philadelphia, are currently in marginal non-attainment with the existing 75 ppb ozone standard. But they are very close to reaching the standard, after many years of continued improvements in air quality. The EPA recently proposed reclassifying the city of Reading and surrounding

Berks County into full compliance with the existing 75 ppb standard. According to the EPA, Philadelphia and the other "collar counties" are also close to reaching the existing standard, and may achieve that goal within the next year.

However, if the EPA sets a new ozone standard now, it would change the rules on these counties, dragging them back into much more serious degrees of violation. This would give the EPA much greater leverage over state and local officials to impose ozone-related restriction on the region's economy.

Such an EPA crackdown ignores the facts about air quality in this part of Pennsylvania and decades of constant improvement. As detailed in Section 4.0, EPA data shows

ozone levels in Philadelphia have fallen by 51 percent since 1980. Allentown has seen a 40 percent drop.

EPA's proposal to move the goal posts has alarmed many stakeholders in this part of the Commonwealth. In Reading and Berks County, officials are proud of reaching compliance with the 75 ppb ozone standard, and the idea of being thrown right back into violation is very unwelcome. "EPA is changing the rules to require even stricter standards than that are not

likely achievable," [Ellen Horan, President & CEO of the Greater Reading Chamber of Commerce](#), told CRS. "Our regional economy is driven by the manufacturing sector that is still recovering from the recession and will be further hindered by the increased uncertainty and expense that the new regulations bring," Horan said.

[Berks County Commissioner Christian Leinbach \(R\)](#) expressed dismay at the EPA's proposal when ozone levels are "steadily declining in our region and the Commonwealth." The new restrictions that come with a drastically tighter ozone standard "will result in the EPA holding up permitting decisions for plant expansion" in the region's manufacturing sector "and could even threaten highway funding," Leinbach told CRS. "EPA needs to reject this unnecessary regulation that'll come at great cost with little environmental benefit and move back toward some level of common sense," he said.

*"While Schuylkill County, where OMNOVA has a facility, is in attainment with the Environmental Protection Agency's current ozone rule, Westmoreland County, where we have a second location, is not.*

*For both Westmoreland and Schuylkill counties, the new standard would nearly impossible to achieve, blocking manufacturers like OMNOVA from growing our businesses and creating more jobs in the region."*

**Stephen Vasko**

*Environmental and Security Manager  
OMNOVA Solutions  
Schuylkill County*

*"The Greater Reading region is proud of the significant progress we have made to ensure our community has clean air and we are in compliance with EPA's 2008 ozone standards. Now the EPA is changing the rules to require even stricter standards than that are not likely achievable.*

*Our regional economy is driven by the manufacturing sector that is still recovering from the recession and will be further hindered by the increased uncertainty and expense that the new regulations bring."*

**Ellen Horan**

*President & CEO, Greater Reading Chamber of Commerce*

Even counties that don't face the immediate threat of violating the proposed ozone standard are weighing in against the EPA. [Schuylkill County Commissioner Gary Hess \(D\)](#) is worried about the impact of neighboring communities being found in violation of the stringent new ozone standard. Hess supports some of the Obama Administration's environmental policies, but warns: "An unfortunate exception is the recently released proposed ozone standard, which asks too many businesses to meet unreachable benchmarks."

In Schuylkill County, a plastics manufacturer agreed that the EPA was going too far. The EPA's proposed ozone range is nearly impossible to achieve, blocking manufacturers ... from growing our businesses and creating more jobs in the region," [OMNOVA Solutions Environmental and Security Manager Stephen Vasko](#) told CRS.

Further north, the EPA's ozone proposal is provoking even more opposition. Rural Lackawanna County faces the immediate threat of non-attainment under the EPA's stringent ozone proposal. In a letter to the White House and the EPA, [Wyoming-Lackawanna Farm Bureau President Dale Shupp](#) did not mince words: "I want you to understand that this regulation in essence would be a farm killer." Because the EPA's proposed ozone standard comes "close to background levels of ozone in some areas," the search for new emission sources to cut could lead to "restrictions on land use" for farmers, Shupp said.

In nearby Bradford County, a local official worried about his community eventually getting caught in the net of non-attainment. These new regulations could prove detrimental for the livelihood of our businesses and residents, without any

consideration for the strides we've already made," [Bradford County Commissioner Doug McLinko \(R\)](#) told CRS.

Manufacturers from the region believe the EPA's proposal is directly threatening jobs and the economic growth of Northeastern Pennsylvania," said [Darlene J. Robbins, President, Northeast Pennsylvania Manufacturers and Employers Association](#). "A non-attainment designation is a very real economic penalty that will add layers of bureaucratic red tape, regulatory delays, and effectively block any current and new business or industrial expansion," Robbins told CRS. "With uncertain benefits and astronomical costs, this regulation is a massive overreach that must be pulled back."

*"With ozone levels steadily declining and our region, as well as much of the Commonwealth, close to compliance with EPA's current regulations, an even stricter ozone standard is premature at best and is little more than regulatory overreach that'll kill jobs.*

*Berks County relies heavily on manufacturing jobs and nonattainment will result in the EPA holding up permitting decisions for plant expansion and could even threaten highway funding.*

*EPA needs to reject this unnecessary regulation that'll come at great cost with little environmental benefit and move back toward some level of common sense."*

**Christian Leinbach (R)**  
*Berks County Commissioner*

*"Bradford County has taken a lot of care to grow businesses while protecting our environment, including building a new natural gas-fired power plant. Because of our efforts in government and good industry practices, we went from having the highest unemployment in the state to the lowest in a short span of time, have eliminated the county debt and cut taxes for all property owners in the county. These new regulations could prove detrimental for the livelihood of our businesses and residents, without any consideration for the strides we've already made."*

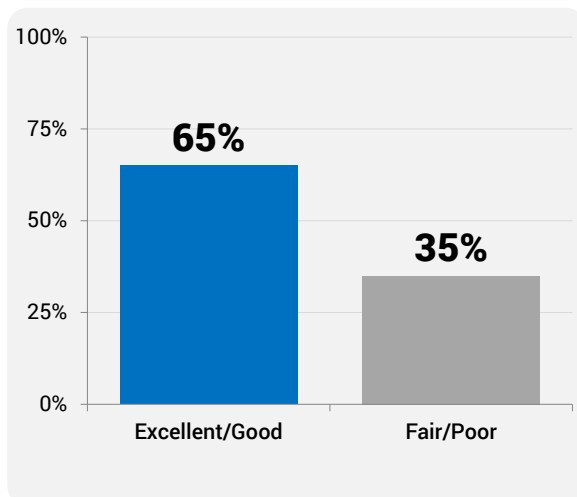
**Doug McLinko (R)**  
*Bradford County Commissioner*



## 7.5 Polling: Pennsylvanians Approve of Local Air Quality

### PENNSYLVANIA OPINION POLL

How would you rate the air quality in your local area?



Source: PMA/NAM Pennsylvania opinion poll, August 2015

local air quality. According to the survey, almost two-thirds (65 percent) of Pennsylvania voters rate their local air quality as “Excellent” or “Good.” Just 28 percent rate their local air quality as “Fair,” and only six percent consider their local air quality “Poor.” By a three-to-one margin, Pennsylvanians believe that a bigger problem for their local area is “less economic growth and job opportunities caused by regulations” (68 percent) rather than “lower air quality caused by pollution” (23 percent).

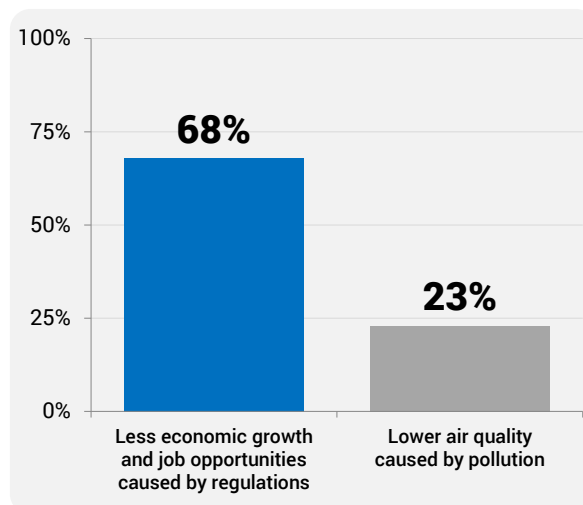
Pennsylvanians are clearly anxious about the state of their local economy, the direction of their state, and how it could be impacted by policies coming out of Washington, D.C. Just over one-third of Pennsylvanians (34 percent) rate their local economy as “Excellent” or “Good,” and barely one-quarter (26 percent) say it’s “Getting Better.” Moreover, Pennsylvania voters are

Supporters of the EPA’s ozone plan have tried to frighten the public into thinking there’s something drastically wrong with the air they breathe. In fact, as detailed in Section 5.0, the Obama EPA’s outside political supporters have run an aggressive campaign that, in effect, pretends the huge air quality gains of the last several decades never really happened.

But the public isn’t fooled. A recent survey commissioned by the Pennsylvania Manufacturers’ Association and the National Association of Manufacturers finds that voters in Pennsylvania give high ratings to their

### PENNSYLVANIA OPINION POLL

What do you see as the bigger problem for your local area?



Source: PMA/NAM Pennsylvania opinion poll, August 2015

split over the direction of their state. Forty-three percent say it's off on the wrong track, 39 percent say it's headed in the right direction, and 18 percent are unsure or see no change from the status quo.

As for the impact of the Obama Administration's economic policies on their local area, Pennsylvania voters are unenthusiastic. More than four-in-ten (43 percent) think they have a negative effect, about a third (34 percent) think they have a positive effect, and the remaining 24 percent are unsure or don't see any real impact.

Given their wide approval of local air quality and their nervousness about the state of the economy, Pennsylvanians are wary of Washington officials using new environmental regulations to move the goalposts on communities, businesses and workers.

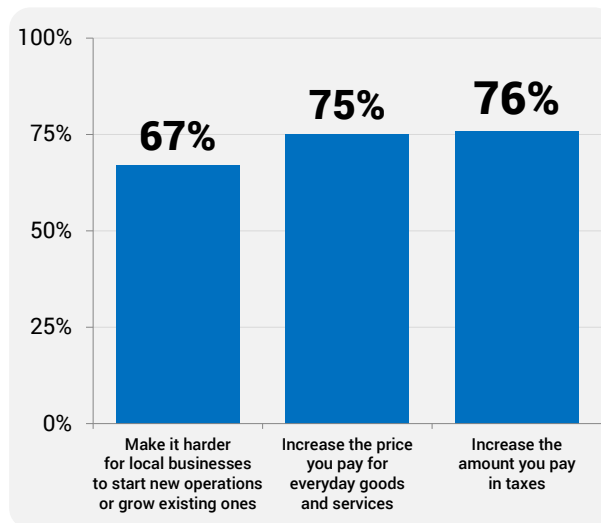
Two-thirds (67 percent) of Pennsylvania voters believe stricter federal air quality regulations would make it harder for local businesses to start new operations or expand. Three-quarters (75 percent) think stricter federal air quality regulations would increase the price they pay for everyday goods and services, and 76 percent believe tighter federal rules on their local area would increase taxes.

Less than half (43 percent) of the Pennsylvanians surveyed said new environmental regulations on local businesses would actually make the local air quality better. In fact, 48 percent believed the stricter regulations would have no real impact on air quality. More than half (56 percent) believe areas that currently don't comply with federal air quality regulations should be given more time before new rules are enacted.

In a similar vein, most Pennsylvanians are unwilling to see their quality of life suffer or see the economy take a hit because of stricter federal air quality regulations. Just 29 percent said they would accept less economic growth and job opportunities in their area. Only 32 percent said they would tolerate more traffic delays and longer commute times for the

## PENNSYLVANIA OPINION POLL

Do you think that implementing stricter federal air quality regulations on your local area would:



Source: PMA/NAM Pennsylvania opinion poll, August 2015

sake of stricter air quality regulations, and 38 percent said they would be willing to pay more in taxes.

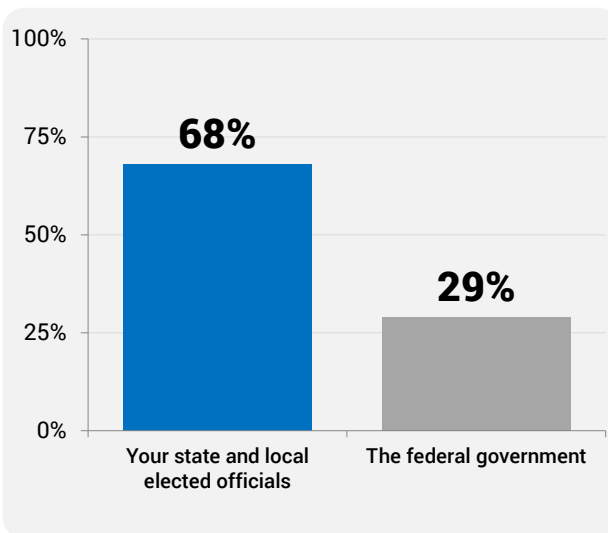
Pennsylvanians also have little tolerance for higher prices caused by tighter federal air quality regulations. Only 23 percent of those surveyed said they would pay \$500 or more every year for everyday goods and services in order to comply. This is a key data point because a NAM-commissioned analysis from NERA Economic Consulting finds that a 65 ppb federal ozone standard would reduce average household consumption in Pennsylvania by almost three times as much, [roughly \\$1,420 a year](#).

It comes as no surprise, then, to see that Pennsylvanians clearly favor state and local regulations over federal mandates when it comes to the economy and the environment. More than two-thirds (68 percent) of Pennsylvanians surveyed said they prefer decisions about air quality regulations to be handled by state and local officials. Only 29 percent said the federal government should have more of a say about air quality rules than state and local governments.

This public opinion research clearly shows why public officials from both major political parties, impacted businesses, and others in Pennsylvania are speaking out against the EPA's ozone agenda. With the Keystone State edging ever closer to full compliance with federal ozone standards – and escaping the penalty box of non-attainment – nobody but the EPA's most ardent political supporters want to see Washington move the goalposts and inflict more economic pain on Pennsylvania communities, businesses, and working families. In short, these polling numbers should give the agency and its supporters reason to stop and reconsider before moving ahead.

## PENNSYLVANIA OPINION POLL

Who do you think should have more of a say when it comes to air quality regulations in your local area?



Source: PMA/NAM Pennsylvania opinion poll, August 2015

## 8.0 CONCLUSION

In debates over regulatory policy, there's a widely used term for ideas that are perhaps well-intentioned, but poorly conceived: "A solution in search of a problem." That is certainly true of EPA's proposal to dramatically tighten the existing 75 ppb ozone standard – set less than a decade ago – into the the range of 65 to 70 ppb. But for Pennsylvania and many other states across the country, the EPA's ozone agenda is even worse than a solution in search of a problem. It will cause a whole host of new problems for communities that have more than enough challenges to work through or overcome.

Pennsylvania has come a long way from the high ozone levels of decades past. The EPA should applaud the communities of Pennsylvania for their hard work, and allow them to continue to make progress on their own. Instead, the new ozone standard would tighten EPA's grip on the Pennsylvania economy and punish its communities by unfairly moving the goal posts. In short, the EPA is behaving like a federal agency that wants to control and push communities around.

This could not come at a more critical time for Pennsylvania. The cities, townships and counties of the Keystone State are still trying to recover from the Great Recession, and there is new hope of a long-awaited comeback in manufacturing. The new and tighter restrictions resulting from a 65 to 70 ppb ozone standard will put this economy recovery and manufacturing comeback in jeopardy.

It is no surprise to see so many diverse voices from across Pennsylvania's political spectrum and economic sectors strongly speaking out against the EPA's proposal. They believe that the current ozone standard is sufficient, but the EPA must give it a chance to work. There is only one responsible course of action and the Obama Administration must heed the call of those who will directly feel the impact of the EPA's onerous rule. Just as the federal government did in 2011, the current 75 ppb standard should be upheld, and calls from environmental groups to tighten the standard – without regard to the economic consequences – must be rejected.

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## **APPENDIX A: PENNSYLVANIA NONATTAINMENT ECONOMIC IMPACT BY COUNTY**

(See following page)

## Executive Summary

**Scope of Analysis:** Evaluated the economies of 33 Pennsylvania counties that would be considered in non-attainment if the EPA proposed standard of 65 ppb were in effect today.

### **Economic Findings:**

- The 33 counties represent 85% of the state's GDP, 83% of its employment, and 81% of its population.
  - Philadelphia and the Eastern counties account for 49% of the state's GDP, 43% of its employment, and 42% of its population.
  - Pittsburgh and the Western counties account for 21% of the state's GDP, 20% of its employment, and 21% of its population.
  - Harrisburg and the Central counties account for 16% of the state's GDP, 19% of its employment, and 19% of its population.
- Manufacturing is a major sector of employment in these 33 counties, representing 465,000 jobs or 6% of the State's employment.
- In 2014, Pennsylvania was ranked second in U.S. natural gas production.<sup>10</sup>

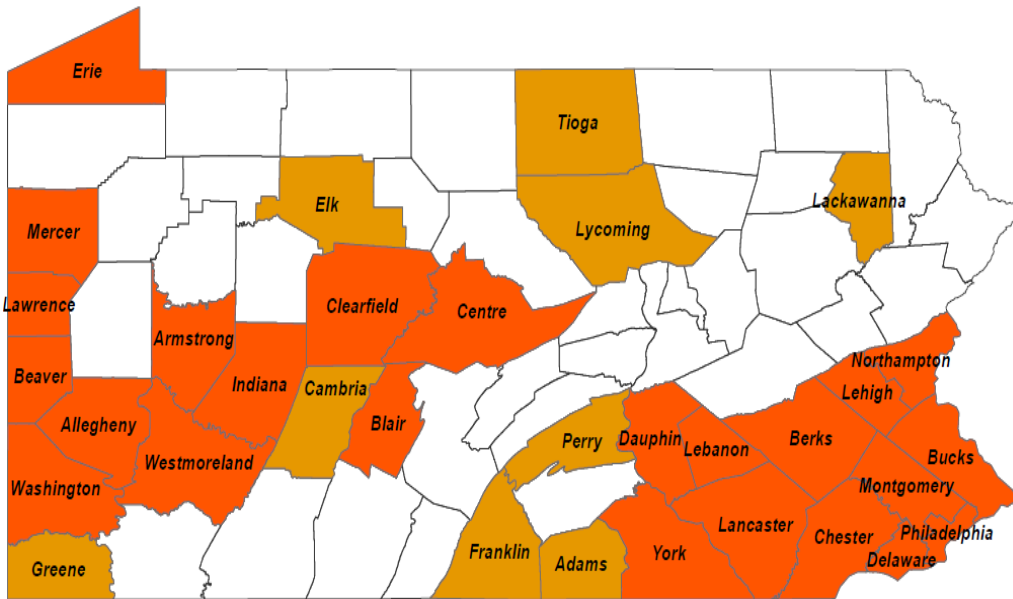
### **Ozone Findings:**

- The five counties in the Philadelphia MSA and four counties in the Pittsburgh MSA would be in non-attainment at 65 ppb.
- 23 of the 33 counties account for 23,700 MW of fossil fuel capacity of which 11,766 MW from Coal , 10,310 MW is from Natural gas, and 1,687 MW from Distillate.
- Several coal-fired power plants across the state have recently shut down due to EPA regulations.
- Philadelphia County has the largest refinery on the East Coast (the PES Philadelphia Refining Complex) with a capacity of 335,000 barrels per day.
- 6% of the total employment that are from manufacturing jobs in the 33 counties, indicating large number of jobs could be affected by ozone regulations.

### **Options for Reducing Ozone:**

- 13 of the 33 counties have coal or distillate fuel power generators that would face installation of expensive selective catalytic reductions to control NOx.
- 6 of the 33 counties account for 38% of the state's oil production in 2014; 10 of the 33 counties account for 50% of the state's natural gas production in 2014; significant emission controls would need to be installed to reduce ozone precursors
- The state's two refinery complexes in two of the impacted counties (Philadelphia and Delaware) likely would need additional emission controls beyond what might already exist.

According to EPA data, 33 counties in Pennsylvania would be in non-attainment if EPA lowers Ozone NAAQS to 65ppb. Together, these counties represent 85% of the state's GDP.



■ Counties that violate 65 ppb  
■ Counties that violate 70 ppb  
■ Counties that do not violate proposed range

**The 33 counties represent the following:**

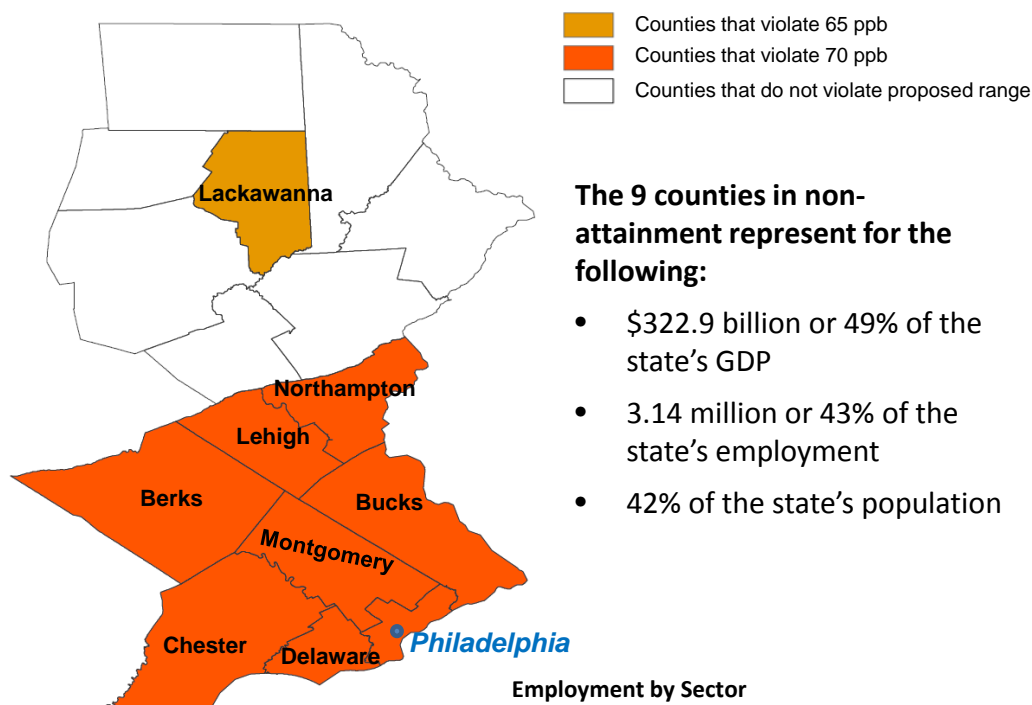
- \$566.8 billion or 85% of the state's GDP
- 6.0 million or 83% of the state's employment
- \$323.7 billion or 86% of total employment compensation in the state
- Approximately 81% of the state's population

Non-Attainment Counties*	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Adams	3.0	51,766
Allegheny	71.1	880,553
Armstrong	1.8	30,722
Beaver	9.8	72,636
Berks	16.9	222,680
Blair	4.9	73,810
Bucks	41.4	361,025
Cambria	4.3	72,399
Centre	7.7	112,922

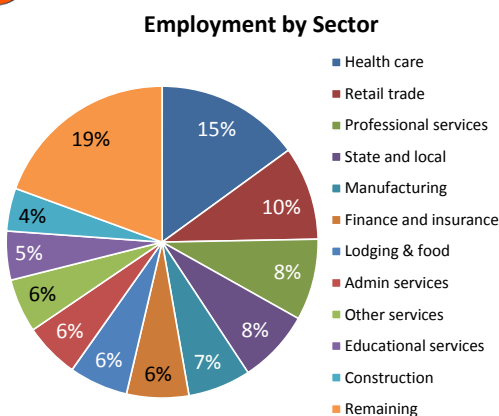
Non-Attainment Counties*	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Chester	33.8	341,813
Clearfield	2.8	40,262
Dauphin	16.1	220,408
Delaware	37.2	301,725
Elk	1.4	18,840
Erie	10.8	160,457
Franklin	5.4	75,571
Greene	2.1	20,384
Indiana	3.7	48,151
Lackawanna	8.3	127,651
Lancaster	24.2	303,024
Lawrence	2.8	39,837
Lebanon	8.1	65,416
Lehigh	15.4	226,944
Lycoming	5.1	69,769
Mercer	4.5	61,864
Montgomery	53.9	613,059
Northampton	13.0	138,229
Perry	2.7	13,692
Philadelphia	103.0	803,636
Tioga	1.3	19,650
Washington	12.0	114,487
Westmoreland	20.8	173,354
York	17.4	221,944
<b>Total</b>	<b>566.8</b>	<b>6,098,680</b>
Pennsylvania	665.1	7,321,660

\* Based on EPA analysis of 2011-2013 ozone data, accessed at <http://www.epa.gov/groundlevelozone/pdfs/20141126-20112013datatable.pdf>

Philadelphia & Eastern Pennsylvania have nine counties that would be in non-attainment at 65 ppb.

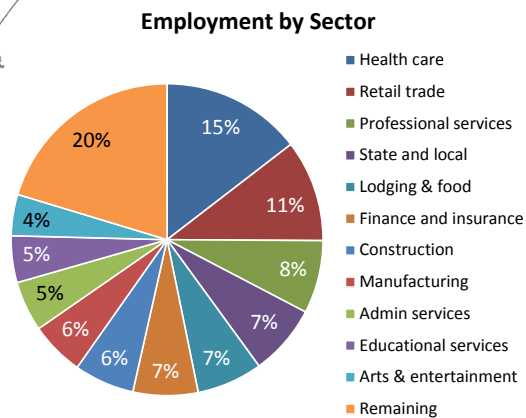
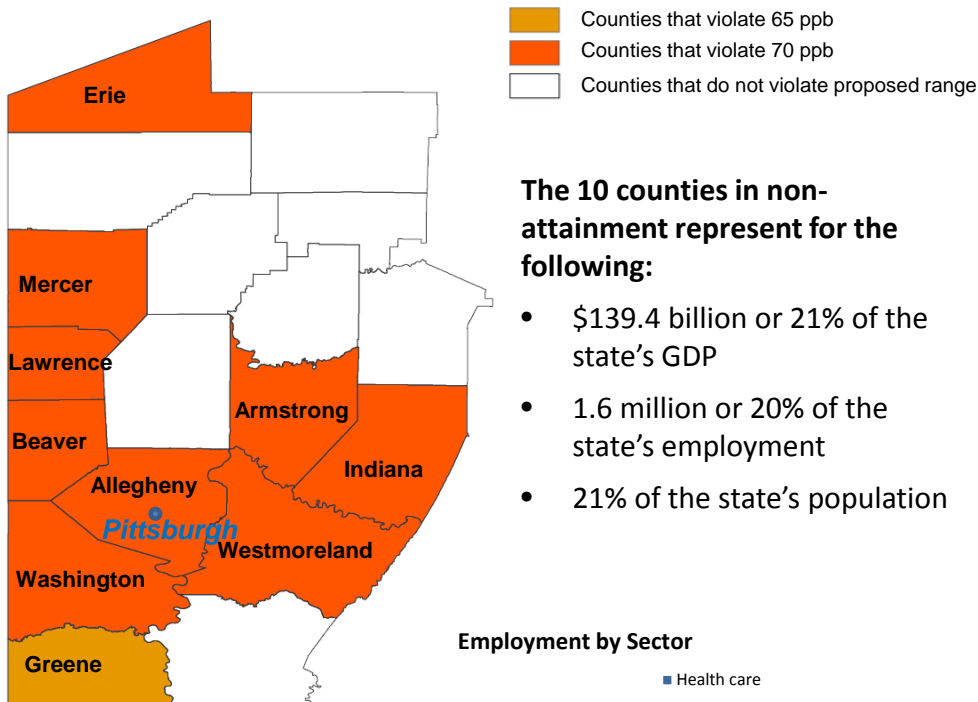


Non-Attainment Counties	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Philadelphia	103.0	803,636
Montgomery	53.9	613,059
Bucks	41.4	361,025
Delaware	37.2	301,725
Chester	33.8	341,813
Berks	16.9	222,680
Lehigh	15.4	226,944
Northampton	13.0	138,229
Lackawanna	8.3	127,651
<b>Total</b>	<b>\$322.9</b>	<b>3,136,762</b>
Pennsylvania	665.1	7,321,660



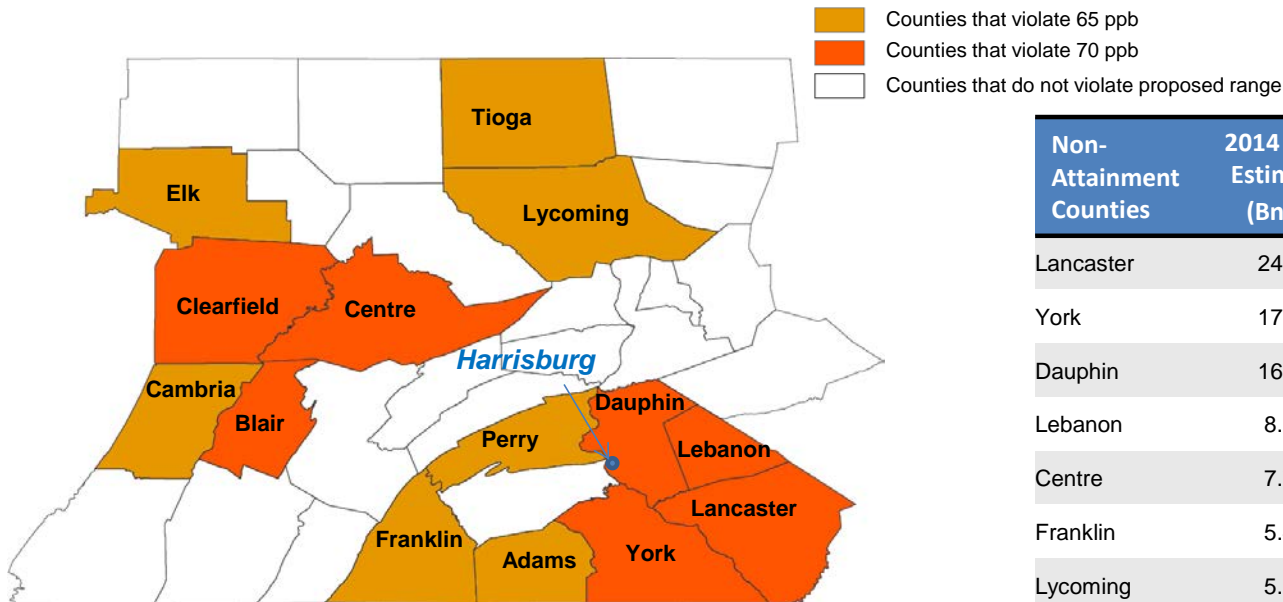


## Pittsburgh & Western Pennsylvania have ten counties that would be in non-attainment at 65 ppb.



Non-Attainment Counties	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Allegheny	71.1	880,553
Westmoreland	20.8	173,354
Washington	12.0	114,487
Erie	10.8	160,457
Beaver	9.8	72,636
Mercer	4.5	61,864
Indiana	3.7	48,151
Lawrence	2.8	39,837
Greene	2.1	20,384
Armstrong	1.8	30,722
<b>Total</b>	<b>\$139.4</b>	<b>1,602,445</b>
Pennsylvania	665.1	7,321,660

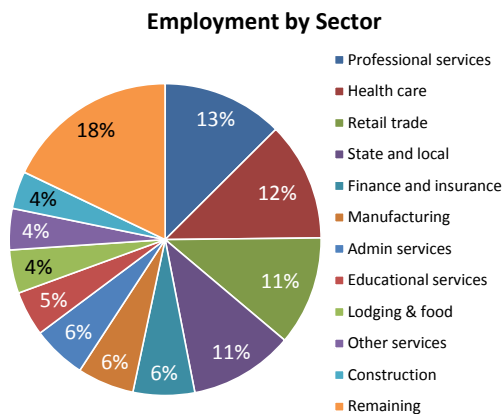
## Harrisburg & Central Pennsylvania have fourteen counties that would be in non-attainment at 65 ppb.



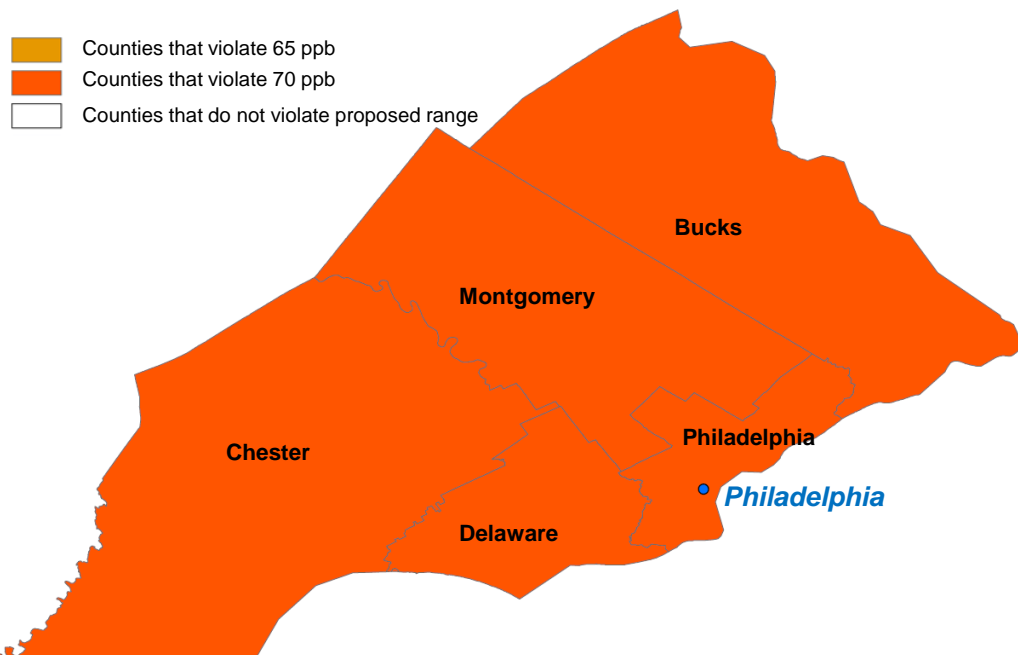
Non-Attainment Counties	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Lancaster	24.2	303,024
York	17.4	221,944
Dauphin	16.1	220,408
Lebanon	8.1	65,416
Centre	7.7	112,922
Franklin	5.4	75,571
Lycoming	5.1	69,769
Blair	4.9	73,810
Cambria	4.3	72,399
Adams	3.0	51,766
Clearfield	2.8	40,262
Perry	2.7	13,692
Elk	1.4	18,840
Tioga	1.3	19,650
<b>Total</b>	<b>\$104.4</b>	<b>1,359,473</b>
Pennsylvania	665.1	7,321,660

### The 14 counties in non-attainment represent for the following:

- \$104.4 billion or 16% of the state's GDP
- 1.36 million or 19% of the state's employment
- 19% of the state's population

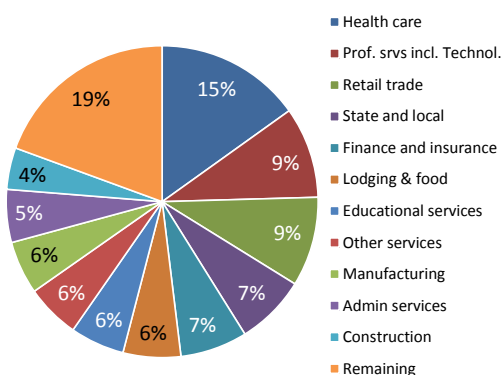


## Five counties on the Philadelphia MSA would be in non-attainment at 65 ppb.



Non-Attainment Counties	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Philadelphia	103.0	803,636
Montgomery	53.9	613,059
Bucks	41.4	361,025
Delaware	37.2	301,725
Chester	33.8	341,813
<b>Total</b>	<b>\$269.3</b>	<b>2,421,258</b>
Pennsylvania	665.1	7,321,660

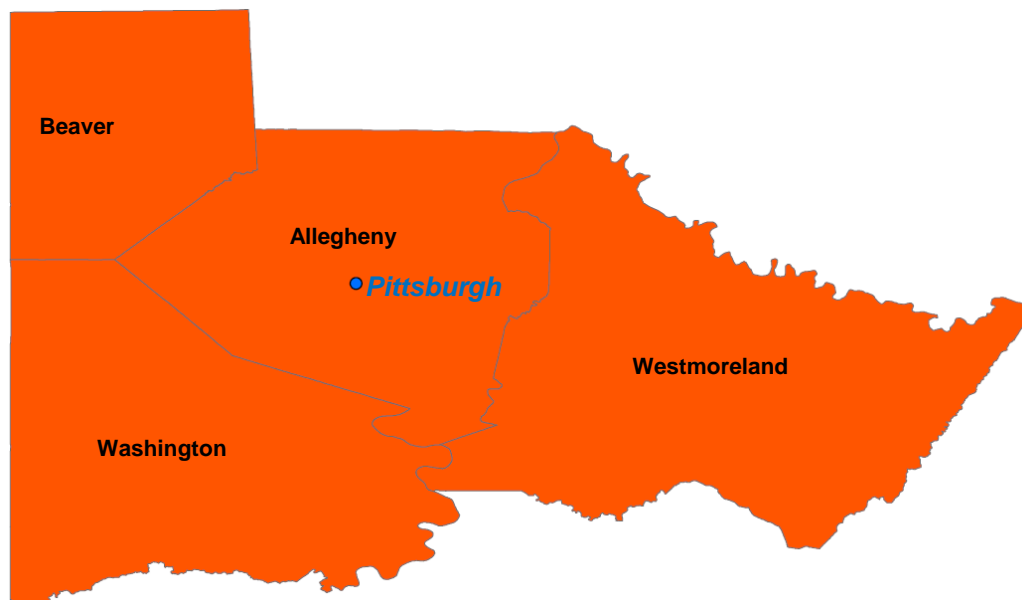
Employment by Sector



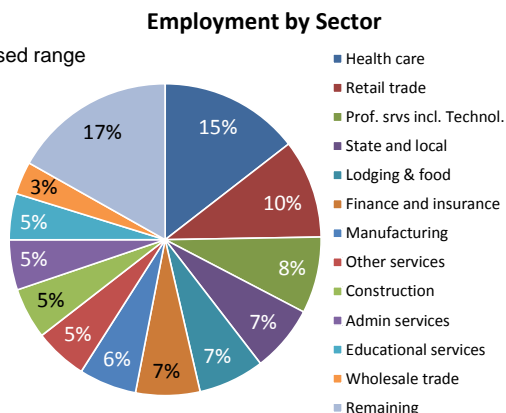
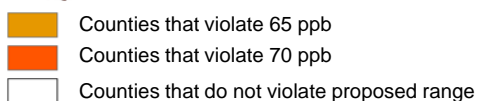
### The 5 counties in non-attainment represent for the following:

- \$269.3 billion or 40% of the state's GDP
- 2.42 million or 33% of the state's employment
- 32% of the state's population

Four counties on the Pittsburgh MSA would be in non-attainment at 65 ppb.



Non-Attainment Counties	2014 GDP Estimate (Bn \$)	2013 Employment Estimate
Allegheny	71.1	880,553
Westmoreland	20.8	173,354
Washington	12.0	114,487
Beaver	9.8	72,636
<b>Total</b>	<b>\$113.7</b>	<b>1,241,030</b>
Pennsylvania	665.1	7,321,660

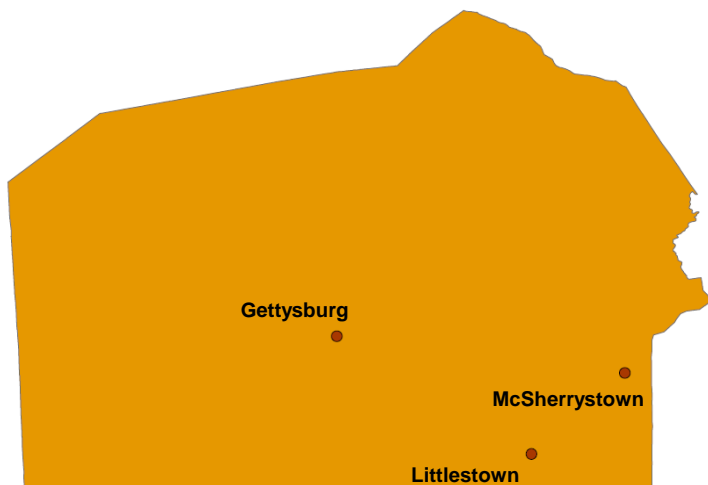


**The 4 counties in non-attainment represent for the following:**

- \$113.7 billion or 17% of the state's GDP
- 1.24 million or 17% of the state's employment
- 15% of the state's population

**Adams County** relies heavily on manufacturing (14% of employment). The county also has a large (758 MW) natural gas fired power plant.

### County Map



### Summary Statistics

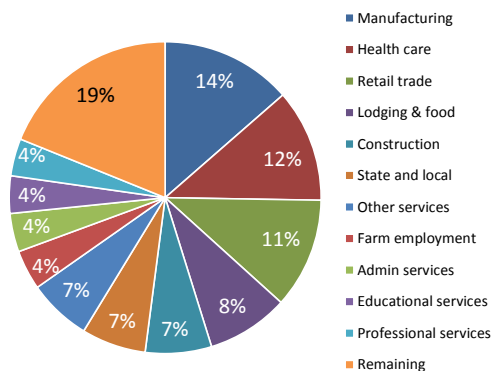
Population (2014) <sup>1</sup>	101,714
Households (2009-2013) <sup>2</sup>	38,141
Total Employment (2013) <sup>3</sup>	51,766
Manufacturing Employment (2013) <sup>3</sup>	7,029
Unemployment Rate (2014) <sup>4</sup>	4.5%
Employee Compensation (2014\$) <sup>5</sup>	\$1.7 Bn
GDP estimate (2014\$) <sup>6</sup>	\$3.0 Bn
Median Household Income (2014\$) <sup>7</sup>	\$61,800
Poverty Rate <sup>8</sup>	9.5%
2011-2013 Average Ozone <sup>9</sup>	70

### Employment Highlights

#### Top Employers

- Knouse Foods Cooperative, Inc
- Gettysburg College
- The Gettysburg Hospital
- Federal Government
- Aerotek Inc
- The Brethren Home Community
- C & J Clark America Inc
- Adams County
- Tim-Bar Corporation
- Hain Pure Protein Corporation
- Gettysburg Area School District
- World Color Printing
- Conewago Valley School District
- JDCS Enterprise
- Littlestown Area School District

#### Employment by Sector



### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 14% of employment in Adams County, including the largest employer, Knouse Foods.
- **Power Generation:** Adams County has 3 power generation facilities, all of which are fossil fuel fired:
  - Hunterstown (758 MW, Gas; 53 MW, Distillate)
  - Hamilton (18 MW, Distillate)
  - Orrtanna (18 MW, Distillate)

**Allegheny County**, which includes Pittsburgh, has a significant steel manufacturing presence and over 1,400 MW of fossil fuel power generation capacity.

County Map

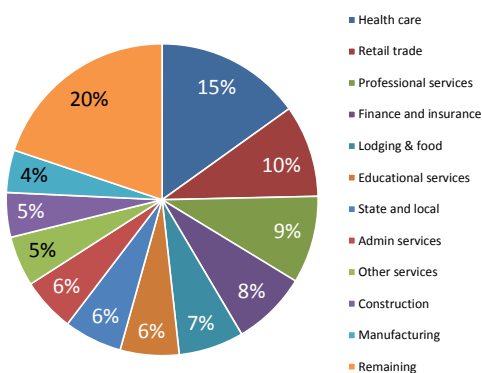


Employment Highlights

#### Top Employers

- UPMC Presbyterian Shadyside
- Federal Government
- Commonwealth of Pennsylvania
- University of Pittsburgh
- Giant Eagle Inc
- Western Penn Allegheny Health
- Walmart Associates Inc
- PNC Financial Services Group
- Bank of New York Mellon
- Allegheny County
- FedEx Ground Package System Inc
- Westinghouse Electric Co.,
- Highmark Inc.
- United States Steel Corporation
- Carnegie-Mellon University

#### Employment by Sector



Summary Statistics

Population (2014) <sup>1</sup>	1,231,255
Households (2009-2013) <sup>2</sup>	526,004
Total Employment (2013) <sup>3</sup>	880,553
Manufacturing Employment (2013) <sup>3</sup>	38,877
Unemployment Rate (2014) <sup>4</sup>	5.3%
Employee Compensation (2014\$) <sup>5</sup>	\$51.3 Bn
GDP estimate (2014\$) <sup>6</sup>	\$71.1 Bn
Median Household Income (2014\$) <sup>7</sup>	\$53,359
Poverty Rate <sup>8</sup>	13.5%
2011-2013 Average Ozone <sup>9</sup>	76

Ozone Challenges

- **Manufacturing:** Manufacturing makes up 4% of employment in Allegheny County.
  - Despite relatively small employment, manufacturing, particularly steel, produce approximately 20% of NOx emissions.
  - Cogeneration facilities include Clairton Works (22 MW, Gas) and PPG Monroeville Chemicals Center (1 MW, Distillate).
- **Power Generation:** Allegheny County has over 1,400 MW in fossil fuel capacity, including a large coal plant:
  - Brunot Island (198 MW, Gas; 45 MW, Distillate)
  - Cheswick Power Plant (563 MW, Coal)
  - FirstEnergy Allegheny Energy Units 1&2 (88 MW, Gas), Units 3-5 (509 MW, Gas)



**Armstrong County**, northeast of Pittsburgh, has a significant mining sector (10% of employment) and manufacturing sector (8% of employment).

County Map

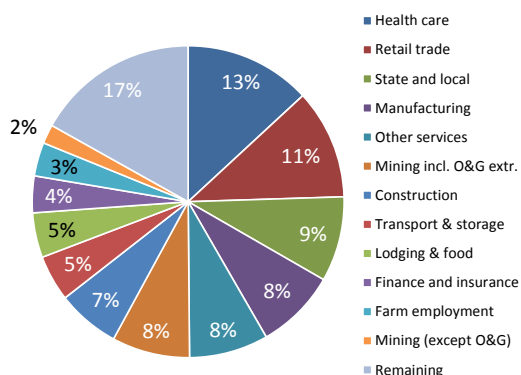


Employment Highlights

#### Top Employers

- Rosebud Mining Company
- Armstrong County Memorial Hospital
- Armstrong School District
- Armstrong County
- Walmart Associates Inc
- Commonwealth of Pennsylvania
- Herkules USA Corp
- Bank of New York Mellon
- Klingensmith, Inc
- Cook, Inc
- Shriver Contract Services, Inc
- Freeport Area School District
- Lenape Area Vo-Tech School
- Apollo-Ridge School District
- Leechburg Area School District

#### Employment by Sector



Summary Statistics

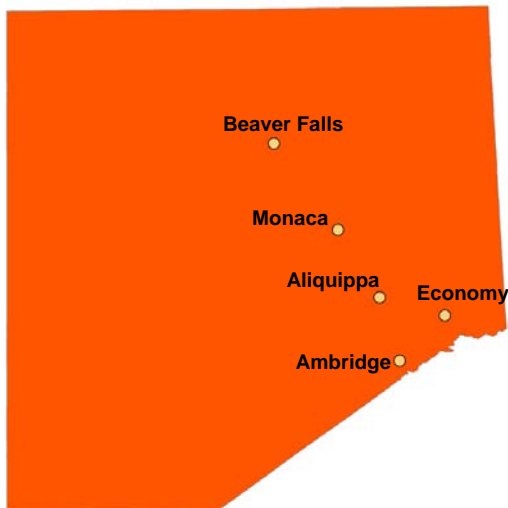
Population (2014) <sup>1</sup>	67,785
Households (2009-2013) <sup>2</sup>	28,525
Total Employment (2013) <sup>3</sup>	30,722
Manufacturing Employment (2013) <sup>3</sup>	2,564
Unemployment Rate (2014) <sup>4</sup>	6.4%
Employee Compensation (2014\$) <sup>5</sup>	\$1.0 Bn
GDP estimate (2014\$) <sup>6</sup>	\$1.8 Bn
Median Household Income (2014\$) <sup>7</sup>	\$46,996
Poverty Rate <sup>8</sup>	14.7%
2011-2013 Average Ozone <sup>9</sup>	75

#### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 8% of employment in Armstrong County.
- **Oil & Gas Production:** Armstrong County accounts for 0.3% of Oil Production and 1.9% of Natural Gas production in Pennsylvania.
- **Power Generation:** Armstrong County has two large fossil fuel fired plants:
  - Keystone (1,700 MW, Coal; 11 MW, Distillate)
  - Armstrong (625 MW, Gas)

**Beaver County** has a sizable manufacturing sector (11% of employment) and has over 2,600 MW of coal-fired power generation.

### County Map

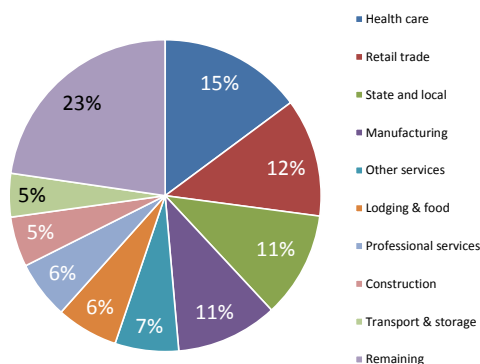


### Employment Highlights

#### Top Employers

- Heritage Valley Health System
- Geneva College
- Service Link Mgmt. Company, Inc
- Giant Eagle, Inc
- Friendship Ridge
- McGuire Memorial
- Comm. College of Beaver County
- Ambridge Area School District
- Hopewell Area School District
- Blackhawk School District
- Big Beaver Falls Area School District
- Beaver Area School District
- Pennsylvania State University
- New Brighton Area School District
- Aliquippa School District

#### Employment by Sector



### Summary Statistics

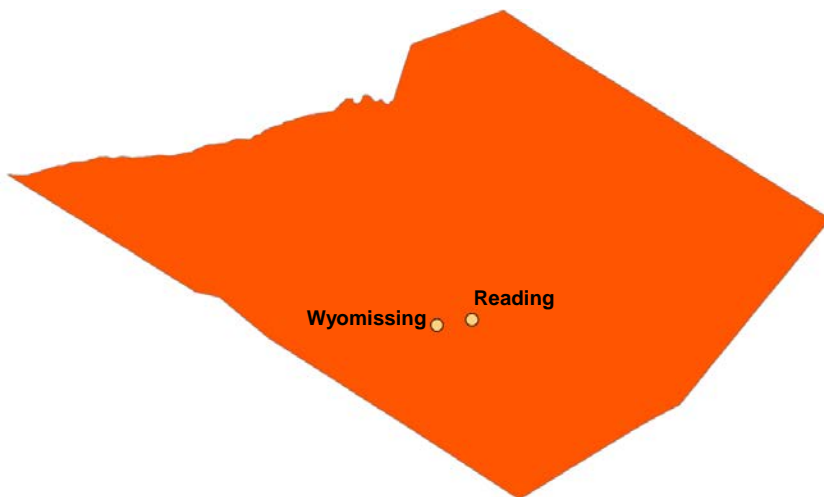
Population (2014) <sup>1</sup>	169,392
Households (2009-2013) <sup>2</sup>	70,867
Total Employment (2013) <sup>3</sup>	72,636
Manufacturing Employment (2013) <sup>3</sup>	7,636
Unemployment Rate (2014) <sup>4</sup>	6.4%
Employee Compensation (2014\$) <sup>5</sup>	\$3.1 Bn
GDP estimate (2014\$) <sup>6</sup>	\$9.8 Bn
Median Household Income (2014\$) <sup>7</sup>	\$51,127
Poverty Rate <sup>8</sup>	11.3%
2011-2013 Average Ozone <sup>9</sup>	75

### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 11% of employment in Beaver County.
- **Power Generation:** Beaver County has 2,656 MW of coal-fired power generation. In addition, there is a large nuclear plant, Beaver Valley (1,806 MW).
  - FirstEnergy Bruce Mansfield (2,510 MW, Coal)
  - AES Beaver Valley Partners (146 MW, Coal)
  - G F Weaton Power Station (112 MW, Coal) closed in 2012.

**Berks County** has a strong manufacturing base (13% of employment). The county also has a large (466 MW) natural gas power plant.

County Map

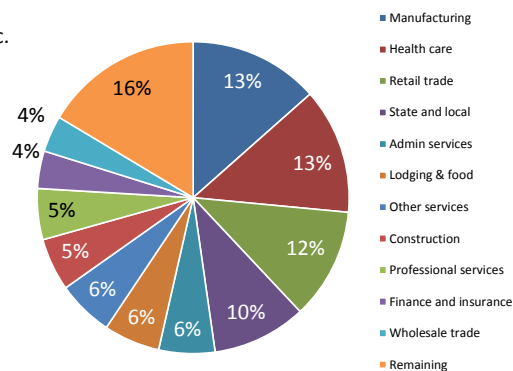


Employment Highlights

**Top Employers**

- Reading Health System
- East Penn Manufacturing Co. Inc.
- Berks County
- Carpenter Technology Corp.
- Reading School District
- Pennsylvania Government
- Boscov's Inc.
- Wal-Mart Stores Inc.
- St. Joseph Medical Center
- Penske Truck Leasing
- Redner's Warehouse Markets
- Weis Markets
- Santander Bank
- Giant Food Stores
- Berks County Intermediate Unit

**Employment by Sector**



Summary Statistics

Population (2014) <sup>1</sup>	413,691
Households (2009-2013) <sup>2</sup>	153,897
Total Employment (2013) <sup>3</sup>	222,680
Manufacturing Employment (2013) <sup>3</sup>	29,992
Unemployment Rate (2014) <sup>4</sup>	5.5%
Employee Compensation (2014\$) <sup>5</sup>	\$10.2 Bn
GDP estimate (2014\$) <sup>6</sup>	\$16.9 Bn
Median Household Income (2014\$) <sup>7</sup>	\$57,311
Poverty Rate <sup>8</sup>	14.0%
2011-2013 Average Ozone <sup>9</sup>	73

**Ozone Challenges**

- **Manufacturing:** Manufacturing makes up 13% of employment in Berks County, including East Penn and Carpenter.
- **Power Generation:** Berks County has one fossil fuel fired facility that accounts for more than 90% generation capacity in the county – Ontelaunee Energy Center (466 MW, Gas). NRG's Titus plant (216MW, Coal; 27MW, Distillate) closed in September 2013.

**Blair County** has a sizable manufacturing sector (10% of employment) and two industrial coal-fired cogeneration facilities.

### County Map

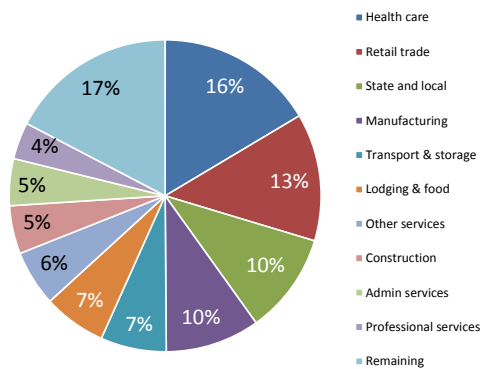


### Employment Highlights

#### Top Employers

- UPMC – Altoona Health System
- Sheetz, Inc.
- Altoona Area School District
- Norfolk Southern
- Home Nursing Affiliates
- Smith Transport
- Penn State -Altoona
- Wal-Mart Associates (2 stores)
- Hollidaysburg School District
- Cenveo
- PGW LLC
- Appvion
- Asurion
- NPC Inc.
- HH Brown Shoe Company

#### Employment by Sector



### Summary Statistics

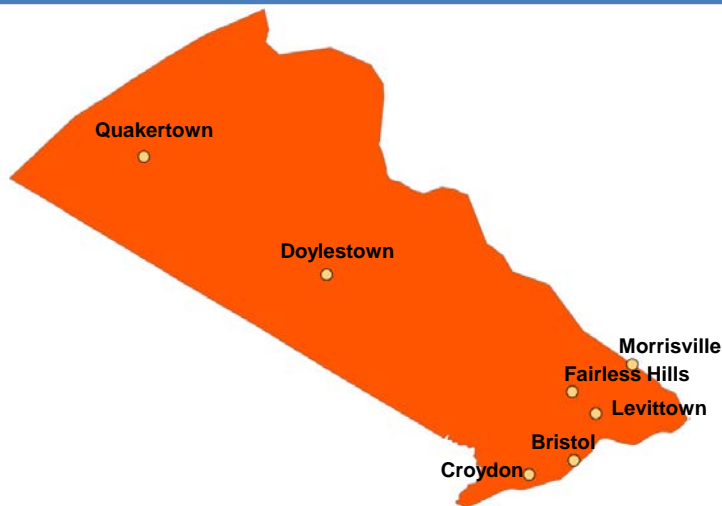
Population (2014) <sup>1</sup>	125,955
Households (2009-2013) <sup>2</sup>	51,433
Total Employment (2013) <sup>3</sup>	73,810
Manufacturing Employment (2013) <sup>3</sup>	7,219
Unemployment Rate (2014) <sup>4</sup>	5.6%
Employee Compensation (2014\$) <sup>5</sup>	\$3.1 Bn
GDP estimate (2014\$) <sup>6</sup>	\$4.9 Bn
Median Household Income (2014\$) <sup>7</sup>	\$44,660
Poverty Rate <sup>8</sup>	16.2%
2011-2013 Average Ozone <sup>9</sup>	73

### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 10% of employment in Blair County, including paper manufacturers Appvion and American Eagle, which are significant emitters of NOx.<sup>11</sup>
- **Industrial Co-Generation:** Industrial power generation totals 8.2 MW of capacity.
  - American Eagle Paper Mills (7.5 MW, Coal)
  - NS Juniata Locomotive Shop (0.7 MW, Coal)
- **Power Generation:** Other than cogeneration, there is no other fossil generation. The county however has 156 MW of wind power capacity.

**Bucks County** has over 1,600 MW of fossil fuel generation capacity. Transportation accounts for 78% of NOx emission in the county.

County Map

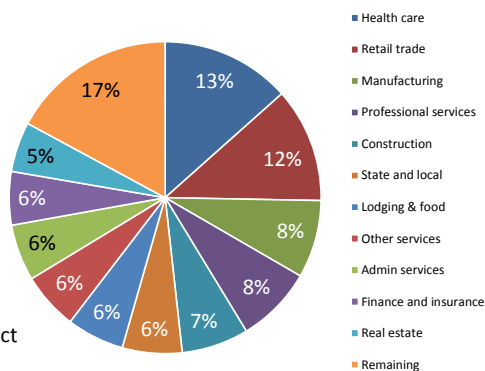


Employment Highlights

#### Top Employers

- Giant Food Stores LLC
- St. Mary Medical Center
- Central Bucks School District
- Bucks County
- Doylestown Hospital
- Northtec LLC
- Wal-Mart Associates, Inc.
- Pennsbury School District
- Woods Services
- Council Rock School District
- Grand View Hospital
- Neshaminy School District
- Bensalem Township School District
- Sesame Place
- Federal Government

#### Employment by Sector



Summary Statistics

Population (2014) <sup>1</sup>	626,685
Households (2009-2013) <sup>2</sup>	230,366
Total Employment (2013) <sup>3</sup>	361,025
Manufacturing Employment (2013) <sup>3</sup>	29,087
Unemployment Rate (2014) <sup>4</sup>	5.2%
Employee Compensation (2014\$) <sup>5</sup>	\$16.6 Bn
GDP estimate (2014\$) <sup>6</sup>	\$41.4 Bn
Median Household Income (2014\$) <sup>7</sup>	\$79,525
Poverty Rate <sup>8</sup>	6.4%
2011-2013 Average Ozone <sup>9</sup>	78

Ozone Challenges

- **Manufacturing:** Manufacturing makes up 8% of employment in Bucks County.
- **Power Generation:** More than 90% of Bucks County's generation capacity is fossil fuel fired:
  - Fairless Energy Center (1,211 MW, Gas)
  - Croydon CT Generating Station (392 MW, Distillate)
  - Falls (51 MW, Distillate)
- **Transportation:** The transportation sector accounts for 78% of NOx emissions in the county.

**Cambria County** has a relatively small manufacturing base. The county has 257 MW of waste coal generation capacity.

County Map

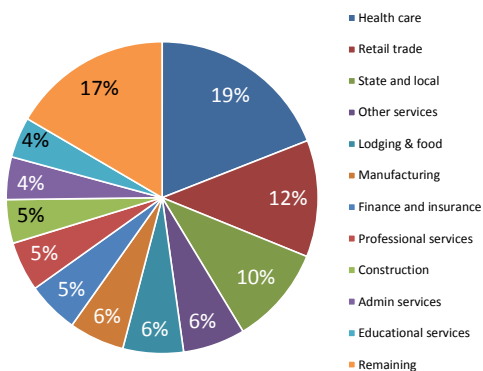


Employment Highlights

#### Top Employers

- Conemaugh Valley Memorial Hospital
- State Government
- Federal Government
- Cambria County
- Walmart Associates Inc
- Saint Francis University
- Concurrent Technologies Corp
- Conemaugh Health Initiatives Inc
- American Red Cross Blood Servc.
- University of Pittsburgh
- Greater Johnstown School District
- Sheetz Inc
- Alleghenies Unlimited Care Provider
- Giant Eagle Inc
- Metlife Group Inc

#### Employment by Sector



Summary Statistics

Population (2014) <sup>1</sup>	137,732
Households (2009-2013) <sup>2</sup>	58,208
Total Employment (2013) <sup>3</sup>	72,399
Manufacturing Employment (2013) <sup>3</sup>	4,148
Unemployment Rate (2014) <sup>4</sup>	6.9%
Employee Compensation (2014\$) <sup>5</sup>	\$2.8 Bn
GDP estimate (2014\$) <sup>6</sup>	\$4.3 Bn
Median Household Income (2014\$) <sup>7</sup>	\$43,349
Poverty Rate <sup>8</sup>	16.2%
2011-2013 Average Ozone <sup>9</sup>	70

#### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 6% of employment in Cambria County.
- **Power Generation:** Half of Cambria County's power generation capacity comes from wind, and the other half is from waste coal:
  - Colver Power Project (102 MW, Waste Coal)
  - Cambria Cogen (98 MW, Waste Coal)
  - Ebensburg Power (57 MW, Waste Coal)



**Centre County** is home to Penn State University, which has two small fossil fuel power plants.

### County Map



### Summary Statistics

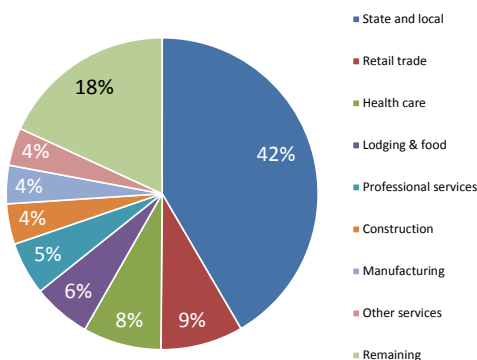
Population (2014) <sup>1</sup>	158,742
Households (2009-2013) <sup>2</sup>	57,197
Total Employment (2013) <sup>3</sup>	112,922
Manufacturing Employment (2013) <sup>3</sup>	4,503
Unemployment Rate (2014) <sup>4</sup>	4.1%
Employee Compensation (2014\$) <sup>5</sup>	\$5.0 Bn
GDP estimate (2014\$) <sup>6</sup>	\$7.7 Bn
Median Household Income (2014\$) <sup>7</sup>	\$52,289
Poverty Rate <sup>8</sup>	18.4%
2011-2013 Average Ozone <sup>9</sup>	72

### Employment Highlights

#### Top Employers

- Penn State University Park
- Mount Nittany Health
- State government
- State College School District
- Wal-Mart Associates Inc.
- Glenn O. Hawbaker Inc.
- Weis Markets Inc.
- Centre County government
- Geisinger Medical Group
- HRI Inc.
- Federal government
- YMCA of Centre County
- Bellefonte Area School District
- Wegmans Food Markets Inc.
- The Meadows/Universal Community Behavioral Health Center

#### Employment by Sector



### Ozone Challenges

- **Manufacturing:** Manufacturing makes up only 4% of employment in Centre County. However, Graymont's Pleasant Gap lime plant is a significant emitter of NOx. <sup>11</sup>
- **Transportation:** The transportation sector accounts for 66% of NOx emissions in the county.
- **Power Generation:** Centre County's electricity generation is 100% from fossil fuel sources:
  - East Campus Steam Plant (5.5 MW, Gas)
  - West Campus Steam Plant (1.1 MW, Coal), being converted to natural gas by 2016.

**Chester County** is west of Philadelphia, and its transportation sector accounts for 76% of NOx emissions.

### County Map

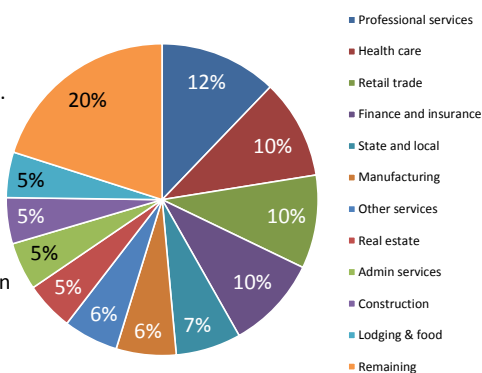


### Employment Highlights

#### Top Employers

- Vanguard Group
- Genesis Healthcare Corp.
- QVC Network Inc
- Siemens Medical Solutions USA, Inc.
- Federal Government
- County of Chester
- Giant Food Stores
- Mainline Hospitals
- The Chester County Hospital
- Chester County Intermediate Unit
- PA State System of Higher Education
- The Devereux Foundation
- Downingtown Area School District
- West Chester Area School District
- YMCA of Brandywine Valley

#### Employment by Sector



### Summary Statistics

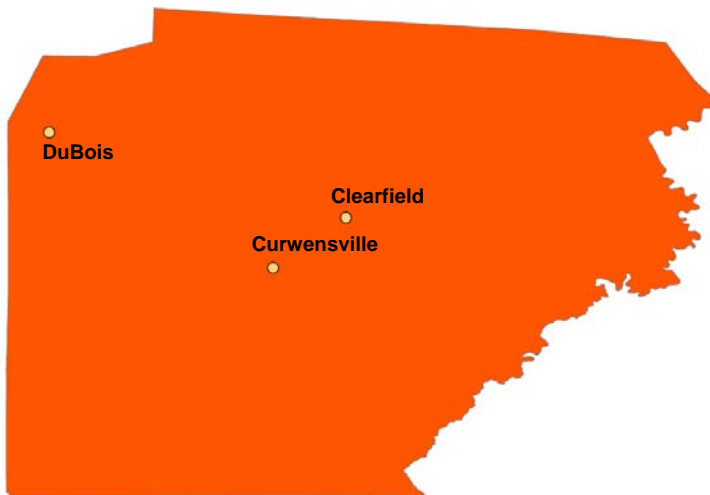
Population (2014) <sup>1</sup>	512,784
Households (2009-2013) <sup>2</sup>	184,788
Total Employment (2013) <sup>3</sup>	341,813
Manufacturing Employment (2013) <sup>3</sup>	21,183
Unemployment Rate (2014) <sup>4</sup>	4.1%
Employee Compensation (2014\$) <sup>5</sup>	\$21.0 Bn
GDP estimate (2014\$) <sup>6</sup>	\$33.8 Bn
Median Household Income (2014\$) <sup>7</sup>	\$89,389
Poverty Rate <sup>8</sup>	7.0%
2011-2013 Average Ozone <sup>9</sup>	76

### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 6% of employment in Chester County.
- **Transportation:** The transportation sector accounts for 76% of NOx emissions in the county.
- **Power Generation:** Roughly 87% of Chester County's generation capacity comes from the Chester Generating Station (39 MW, Distillate). The rest is from Solar and Landfill Gas.

**Clearfield County's** large coal fired power plant (565 MW) was closed in April 2015 for conversion to natural gas. The county has a large ethanol plant.

### County Map

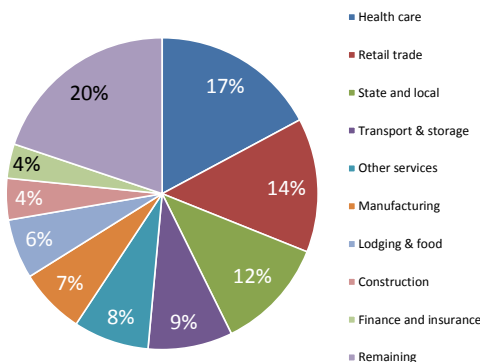


### Employment Highlights

#### Top Employers

- Dubois Regional Medical Center
- Walmart Associates Inc
- State Government
- Dubois Area School District
- Clearfield Hospital
- Cen-Clear Child Services, Inc.
- Clearfield Area School District
- Paris Cleaners Inc.
- Christ the King Manor
- Clearfield County
- Dubois Continuum of Care
- Dubois Logistics LLC
- Lowe's Home Centers Inc
- CI Moshannon Valley
- Fayette Resources Inc

#### Employment by Sector



### Summary Statistics

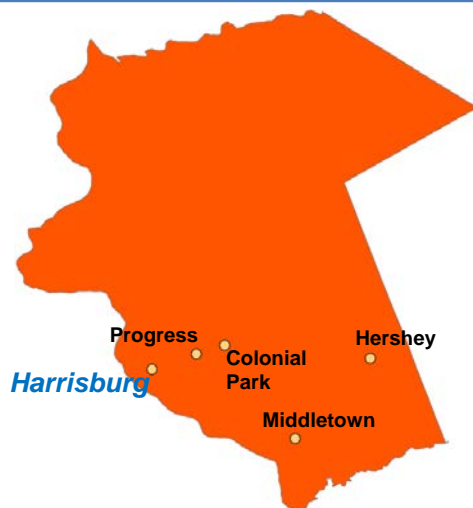
Population (2014) <sup>1</sup>	81,191
Households (2009-2013) <sup>2</sup>	32,192
Total Employment (2013) <sup>3</sup>	40,262
Manufacturing Employment (2013) <sup>3</sup>	2,750
Unemployment Rate (2014) <sup>4</sup>	7.1%
Employee Compensation (2014\$) <sup>5</sup>	\$1.6 Bn
GDP estimate (2014\$) <sup>6</sup>	\$2.8 Bn
Median Household Income (2014\$) <sup>7</sup>	\$42,622
Poverty Rate <sup>8</sup>	16.5%
2011-2013 Average Ozone <sup>9</sup>	71

### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 7% of employment in Clearfield County.
- **Oil & Gas Production:**
  - The PGP ethanol plant in Clearfield is a large emitter of NOx. <sup>11</sup>
  - Clearfield County accounts for 1.8% of natural gas production in Pennsylvania.
- **Power Generation:** The Shawville Power Plant (565 MW, Coal; 6MW Distillate) was closed in April 2015 to be converted to natural gas. It is expected to reopen in June 2016.

**Dauphin County** is home to Hershey Company and Hershey Entertainment. The transportation sector accounts for 80% of NOx emissions.

### County Map

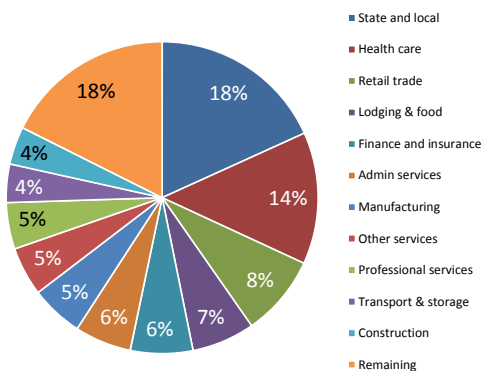


### Employment Highlights

#### Top Employers

- State Government
- Milton Hershey Medical Center
- Hershey Entertainment
- The Hershey Company
- Pinnacle Health Hospitals
- PHEAA
- Federal Government
- Tyco Electronics Corporation
- Pennsylvania State University
- Dauphin County
- United Parcel Service Inc
- Central Dauphin School District
- Giant Food Stores LLC
- Milton Hershey School
- Capital Blue Cross

#### Employment by Sector



### Summary Statistics

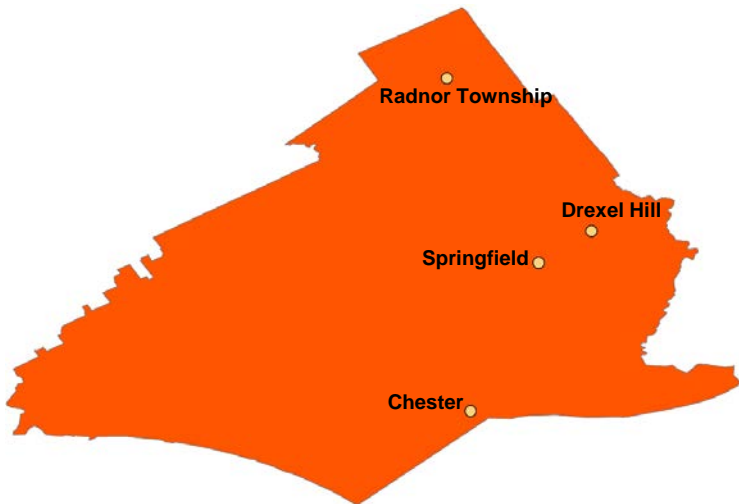
Population (2014) <sup>1</sup>	271,453
Households (2009-2013) <sup>2</sup>	108,831
Total Employment (2013) <sup>3</sup>	220,408
Manufacturing Employment (2013) <sup>3</sup>	12,001
Unemployment Rate (2014) <sup>4</sup>	5.3%
Employee Compensation (2014\$) <sup>5</sup>	\$12.5 Bn
GDP estimate (2014\$) <sup>6</sup>	\$16.1 Bn
Median Household Income (2014\$) <sup>7</sup>	\$56,164
Poverty Rate <sup>8</sup>	13.8%
2011-2013 Average Ozone <sup>9</sup>	74

### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 5% of employment in Dauphin County. ArcelorMittal employs 660 people at a large steel mill in Steelton, south of Harrisburg.
- **Transportation:** The transportation sector accounts for 80% of NOx emissions in the county.
- **Power Generation:** Power Generation in Dauphin County is mainly nuclear – Three Mile Island (805 MW) -- although the county also has three smaller fossil fuel facilities:
  - PPL Martins Creek LLC Harrisburg (56 MW, Distillate)
  - Harrisburg Facility (21 MW, Solid Waste)
  - Paxton Creek Cogeneration (12 MW, Gas)

**Delaware County**, west of Philadelphia, contains the 185,000 bpd Trainer Refinery; the county also has significant fossil power generating capacity (2,235 MW).

### County Map

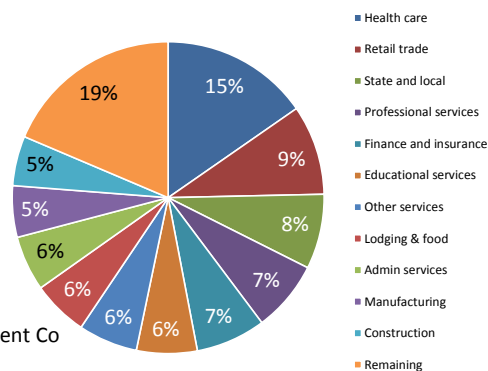


### Employment Highlights

#### Top Employers

- The Boeing Company
- Crozer-Chester Medical Center
- Delaware County
- Villanova University
- Amerihealth Mercy Services LLC
- Wawa Inc
- United Parcel Service Inc
- Elwyn
- SAP of America Inc
- Federal Government
- Upper Darby School District
- United Healthcare Services
- Harrah's Chester Downs Management Co
- Giant Food Stores LLC
- State Farm Mutual Automobile Ins Co

#### Employment by Sector



### Summary Statistics

Population (2014) <sup>1</sup>	562,960
Households (2009-2013) <sup>2</sup>	204,771
Total Employment (2013) <sup>3</sup>	301,725
Manufacturing Employment (2013) <sup>3</sup>	16,116
Unemployment Rate (2014) <sup>4</sup>	5.5%
Employee Compensation (2014\$) <sup>5</sup>	\$16.0 Bn
GDP estimate (2014\$) <sup>6</sup>	\$37.2 Bn
Median Household Income (2014\$) <sup>7</sup>	\$66,526
Poverty Rate <sup>8</sup>	10.9%
2011-2013 Average Ozone <sup>9</sup>	76

### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 5% of employment in Delaware County.
- **Power Generation:** Delaware County has several fossil fuel fired generating plants, totaling 2,235 MW.
  - FPL Energy Marcus Hook LP (727 MW, Gas)
  - Eddystone (760 MW, Residual Fuel Oil; 60 MW Distillate)
  - Liberty Electric (541 MW, Gas)
  - Covanta Delaware Valley (80 MW Solid Waste)
  - Chester Operations (67 MW, Waste Coal)
- **Oil Refining:**
  - Trainer Refinery has a capacity of 185,000 barrels per day.
  - The Marcus Hook refinery (175,000 barrels per day) closed in 2011.

**Elk County** is the least populous of the non-attainment counties, but a very large percentage of employment is in manufacturing (34%). Elk County also is a large producer of oil.

County Map



Summary Statistics

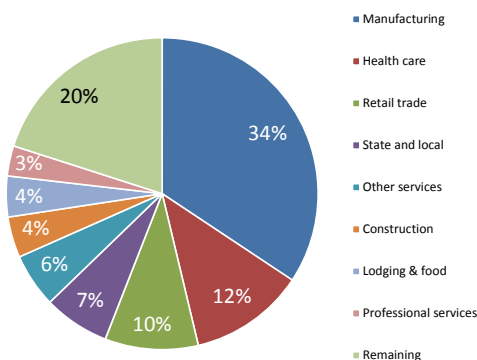
Population (2014) <sup>1</sup>	31,194
Households (2009-2013) <sup>2</sup>	13,478
Total Employment (2013) <sup>3</sup>	18,840
Manufacturing Employment (2013) <sup>3</sup>	6,469
Unemployment Rate (2014) <sup>4</sup>	5.1%
Employee Compensation (2014\$) <sup>5</sup>	\$0.8 Bn
GDP estimate (2014\$) <sup>6</sup>	\$1.4 Bn
Median Household Income (2014\$) <sup>7</sup>	\$47,543
Poverty Rate <sup>8</sup>	9.8%
2011-2013 Average Ozone <sup>9</sup>	66

Employment Highlights

#### Top Employers

- Elk Regional Health Center Inc
- Metaldyne Sintered Ridgeway LLC
- Keystone Powdered Metal Co
- Domtar Paper Company LLC
- Osram Sylvania Inc
- Walmart Associates Inc
- St Mary's Area School District
- Eastern Sintered Alloys Inc
- Metaldyne Sinterfordged Products
- Clarion Sintered Metals Inc
- SGL Carbon LLC
- Morris Compressors Inc
- Alpha Sintered Metals Inc
- GE Thermometrics Inc
- Mersen USA St Mary's-PA Corp

#### Employment by Sector



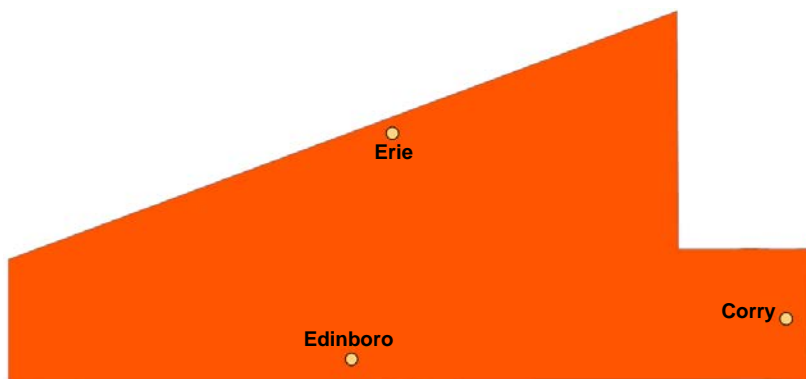
#### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 34% of employment in Elk County, including Metaldyne Sintered Ridgeway, Keystone Powered Metal and Domtar Paper.
  - This indicates that a large number of jobs in the county could potentially be affected by regulations.
  - Domtar Paper is a significant emitter of NOx. <sup>11</sup>
- **Oil & Gas Production:** Elk County accounts for 6.7% of oil production and 0.4% of natural gas production in Pennsylvania.



**Erie County** has an economy with a strong manufacturing presence (14% of employment); the transportation sector accounts for 82% of NOx emissions.

### County Map



### Summary Statistics

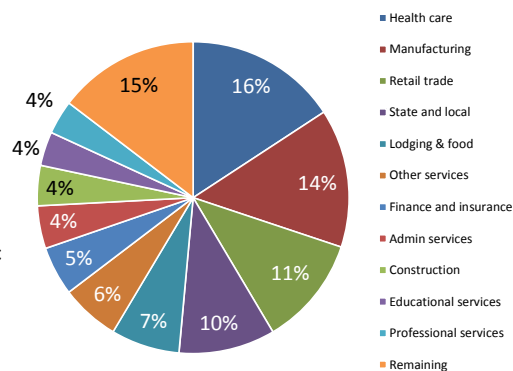
Population (2014) <sup>1</sup>	278,443
Households (2009-2013) <sup>2</sup>	109,675
Total Employment (2013) <sup>3</sup>	160,457
Manufacturing Employment (2013) <sup>3</sup>	23,021
Unemployment Rate (2014) <sup>4</sup>	6.1%
Employee Compensation (2014\$) <sup>5</sup>	\$7.0 Bn
GDP estimate (2014\$) <sup>6</sup>	\$10.8 Bn
Median Household Income (2014\$) <sup>7</sup>	\$46,956
Poverty Rate <sup>8</sup>	17.9%
2011-2013 Average Ozone <sup>9</sup>	74

### Employment Highlights

#### Top Employers

- General Electric Company
- Erie Indemnity Co
- UPMC Hamot
- Saint Vincent Health Center
- State Government
- Walmart Associates Inc
- School District of the City of Erie
- Federal Government
- Erie County
- Dr Gertrude A Barber Center Inc
- Millcreek Town School District
- Presque Isle Downs Inc
- Lord Corporation
- City of Erie
- The Tamarkin Company

#### Employment by Sector

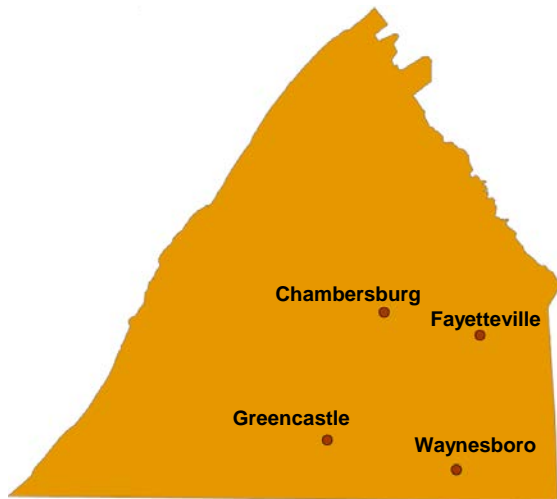


### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 14% of employment in Erie County, including General Electric, the largest employer in the county.
- **Transportation:** The transportation sector (including both roadway vehicles and commercial marine vessels) accounts for 82% of NOx emissions in the county.

**Franklin County**, in south central PA, has a manufacturing-focused economy (13% of employment); the transportation sector accounts for 83% of NOx emissions.

### County Map

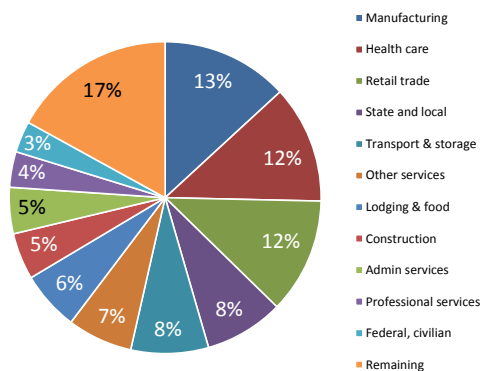


### Employment Highlights

#### Top Employers

- Federal Government
- The Chambersburg Hospital
- Grove US LLC
- Chambersburg School District
- Volvo Const Equip North America
- Food Lion, LLC
- Franklin County Courthouse
- Aerotek, Inc
- State Government
- Target Corporation
- Walmart Associates Inc
- York International Corporation
- Menno-Haven Inc
- Summit Physician Services
- World Kitchen LLC

#### Employment by Sector



### Summary Statistics

Population (2014) <sup>1</sup>	152,892
Households (2009-2013) <sup>2</sup>	58,273
Total Employment (2013) <sup>3</sup>	75,571
Manufacturing Employment (2013) <sup>3</sup>	9,944
Unemployment Rate (2014) <sup>4</sup>	5.3%
Employee Compensation (2014\$) <sup>5</sup>	\$3.1 Bn
GDP estimate (2014\$) <sup>6</sup>	\$5.4 Bn
Median Household Income (2014\$) <sup>7</sup>	\$54,679
Poverty Rate <sup>8</sup>	11.8%
2011-2013 Average Ozone <sup>9</sup>	68

### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 13% of employment in Franklin County, including Volvo Construction Equipment.
- **Transportation:** The transportation sector accounts for 83% of NOx emissions in the county.
- **Power Generation:** Franklin County gets 89% of its generation capacity from natural gas plants:
  - Allegheny Energy Units 12 & 13 (88 MW, Gas)
  - Orchard Park (23 MW, Gas)
  - Falling Spring (7 MW, Gas)

**Greene County** accounts for 11% of the state's natural gas production. The Hatsfield Ferry Power Station coal-fired power plant closed in 2011.

County Map

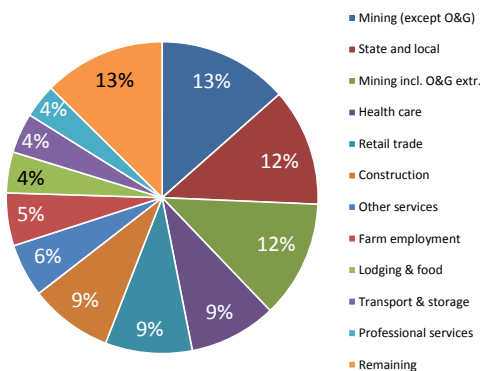


Employment Highlights

#### Top Employers

- Consol Pennsylvania Coal Company
- State Government
- Emerald Coal Resources LP
- Cumberland Coal Resources LP
- County of Greene
- Consolidation Coal Company
- GMS Mine Repair & Maintenance
- Southwest Regional Medical
- Calfrac Well Services Corp.
- The Waynesburg University
- Walmart Associates Inc
- Halliburton Energy Services Inc
- Central Greene School District
- TCB Pipeline LLC
- Dana Mining Company of PA

#### Employment by Sector



Summary Statistics

Population (2014) <sup>1</sup>	37,843
Households (2009-2013) <sup>2</sup>	14,417
Total Employment (2013) <sup>3</sup>	20,384
Manufacturing Employment (2013) <sup>3</sup>	399
Unemployment Rate (2014) <sup>4</sup>	5.4%
Employee Compensation (2014\$) <sup>5</sup>	\$1.2 Bn
GDP estimate (2014\$) <sup>6</sup>	\$2.1 Bn
Median Household Income (2014\$) <sup>7</sup>	\$46,110
Poverty Rate <sup>8</sup>	16.3%
2011-2013 Average Ozone <sup>9</sup>	67

Ozone Challenges

- **Manufacturing:** Manufacturing makes up 2% of employment in Greene County.
- **Oil & Gas Production:** Greene County accounts for 0.7% of oil production and 10.8% of natural gas production in Pennsylvania.
- **Power Generation:** A large coal-fired power plant (Hatsfields Ferry Power Station, 1,590 MW) closed in 2013. This plant accounted for 84% of the county's NOx emissions in 2011.

**Indiana County** has 4,100 MW of coal-fired power generation capacity.

County Map

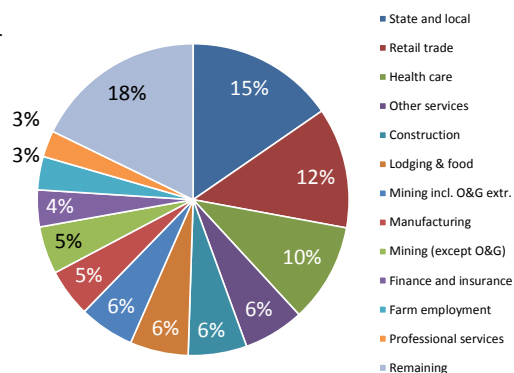


Employment Highlights

**Top Employers**

- PA System of Higher Education
- Indiana Regional Medical Center
- State Government
- Diamond Drugs Inc
- Genon Energy Services LLC
- Kiewit Power Constructors Co
- Walmart Associates Inc
- Aramark
- S&T Bank
- Indiana County
- Halliburton Energy Services Inc
- First Commonwealth Bank
- Marion Center School District
- Gorell Enterprises Inc
- Indiana Area School District

**Employment by Sector**



Summary Statistics

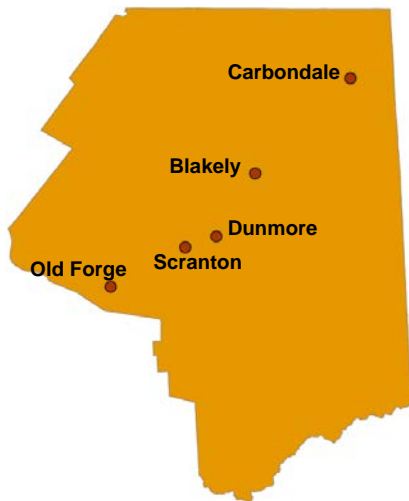
Population (2014) <sup>1</sup>	87,706
Households (2009-2013) <sup>2</sup>	34,310
Total Employment (2013) <sup>3</sup>	48,151
Manufacturing Employment (2013) <sup>3</sup>	2,393
Unemployment Rate (2014) <sup>4</sup>	5.9%
Employee Compensation (2014\$) <sup>5</sup>	\$2.1 Bn
GDP estimate (2014\$) <sup>6</sup>	\$3.7 Bn
Median Household Income (2014\$) <sup>7</sup>	\$45,704
Poverty Rate <sup>8</sup>	14.7%
2011-2013 Average Ozone <sup>9</sup>	75

Ozone Challenges

- **Manufacturing:** Manufacturing makes up 5% of employment in Indiana County.
- **Oil & Gas Production:** Indiana County accounts for 2.8% of Natural Gas production in Pennsylvania.
- **Power Generation:** Indiana County has four power generation facilities, (including three large coal-fired plants) all powered by fossil fuels:
  - Conemaugh (1,700 MW, Coal; 11 MW, Distillate)
  - Homer City Station (1,884 MW, Coal)
  - Seward (521 MW, Waste Coal)
  - Indiana University of Pennsylvania (24 MW, Gas)

**Lackawanna County** has a moderate manufacturing base (8% of employment). 83% of NOx emissions come from the transportation sector.

### County Map

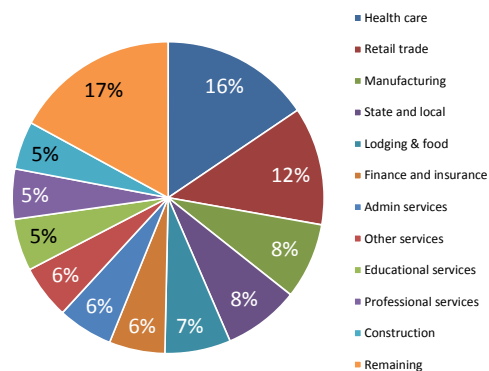


### Employment Highlights

#### Top Employers

- State Government
- Allied Services Foundation
- Community Medical Center
- Scranton School District
- Lackawanna County
- Bank of America
- Scranton Hospital Company
- Moses Taylor Hospital
- Federal Government
- Walmart
- University of Scranton
- TMG Health Inc
- Marywood University
- OneSource Inc
- Keystone Community Resources

#### Employment by Sector



### Summary Statistics

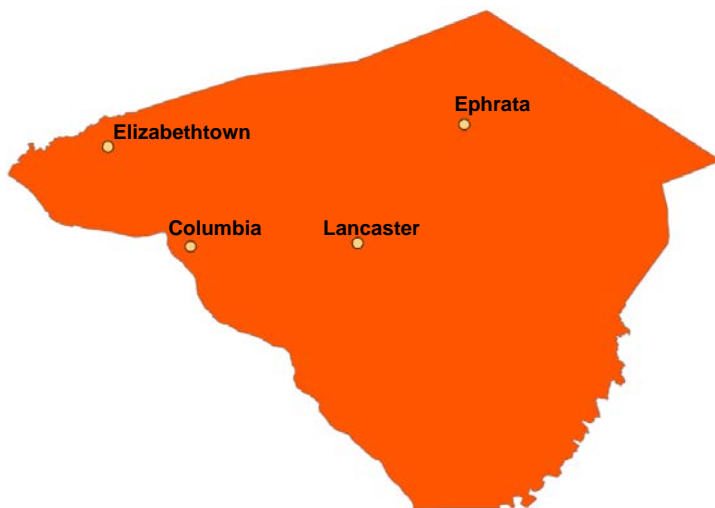
Population (2014) <sup>1</sup>	212,719
Households (2009-2013) <sup>2</sup>	85,769
Total Employment (2013) <sup>3</sup>	127,651
Manufacturing Employment (2013) <sup>3</sup>	10,049
Unemployment Rate (2014) <sup>4</sup>	6.6%
Employee Compensation (2014\$) <sup>5</sup>	\$5.2 Bn
GDP estimate (2014\$) <sup>6</sup>	\$8.3 Bn
Median Household Income (2014\$) <sup>7</sup>	\$47,831
Poverty Rate <sup>8</sup>	14.8%
2011-2013 Average Ozone <sup>9</sup>	70

### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 8% of employment in Lackawanna County.
- **Transportation:** The transportation sector accounts for 83% of NOx emissions in the county.
- **Power Generation:** Lackawanna County gets 57% of its generation capacity from a small natural gas plant, with the remainder coming from landfill gas:
  - Archibald Power Station (44 MW, Gas; 28 MW Landfill Gas)

**Lancaster County** has a manufacturing-focused economy (13% of employment). 78% of NOx emissions come from the transportation sector.

### County Map

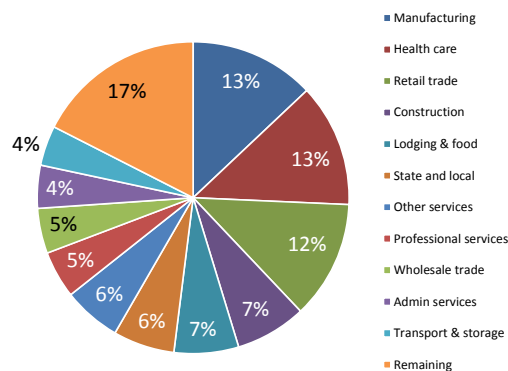


### Employment Highlights

#### Top Employers

- Lancaster General Hospital
- Mutual Assistance Group
- County of Lancaster
- Ephrata Community Hospital
- RR Donnelley & Sons Company
- THLP Co
- Manheim Remarketing,
- Lancaster School District
- Armstrong World Industries
- Masonic Villages of the Grand Lodge
- Dart Container Corporation
- CNH America LLC
- Giant Food Stores
- Lancaster Lebanon Intermediate
- Federal Government

#### Employment by Sector



### Summary Statistics

Population (2014) <sup>1</sup>	533,320
Households (2009-2013) <sup>2</sup>	194,082
Total Employment (2013) <sup>3</sup>	303,024
Manufacturing Employment (2013) <sup>3</sup>	39,254
Unemployment Rate (2014) <sup>4</sup>	4.6%
Employee Compensation (2014\$) <sup>5</sup>	\$12.7 Bn
GDP estimate (2014\$) <sup>6</sup>	\$24.2 Bn
Median Household Income (2014\$) <sup>7</sup>	\$58,675
Poverty Rate <sup>8</sup>	10.5%
2011-2013 Average Ozone <sup>9</sup>	75

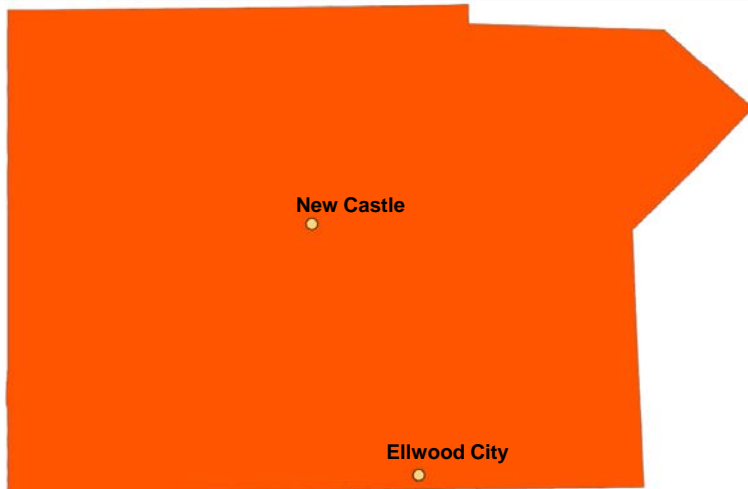
### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 13% of employment in Lancaster County, including RR Donnelley, Armstrong and Dart.
- **Transportation:** The transportation sector accounts for 78% of NOx emissions in the county.



**Lawrence County** has a moderate manufacturing base (10% of employment). The New Castle coal-fired power plant closed in April and is being converted to natural gas.

County Map



Summary Statistics

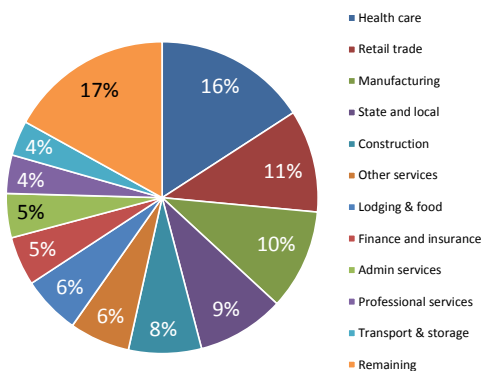
Population (2014) <sup>1</sup>	88,771
Households (2009-2013) <sup>2</sup>	36,823
Total Employment (2013) <sup>3</sup>	39,837
Manufacturing Employment (2013) <sup>3</sup>	4,142
Unemployment Rate (2014) <sup>4</sup>	6.2%
Employee Compensation (2014\$) <sup>5</sup>	\$1.6 Bn
GDP estimate (2014\$) <sup>6</sup>	\$2.8 Bn
Median Household Income (2014\$) <sup>7</sup>	\$45,236
Poverty Rate <sup>8</sup>	13.8%
2011-2013 Average Ozone <sup>9</sup>	73

Employment Highlights

**Top Employers**

- Jameson Health System, Inc.
- State Government
- Liberty Mutual
- The Tamarkin Company
- New Castle Area School District
- Westminster College
- Ellwood Group
- ESB Bank
- Dairy Farmers of America
- Walmart Associates Inc
- County of Lawrence
- Ellwood City Hospital
- Federal Government
- Cennial Co
- Sanitors Services Inc

**Employment by Sector**

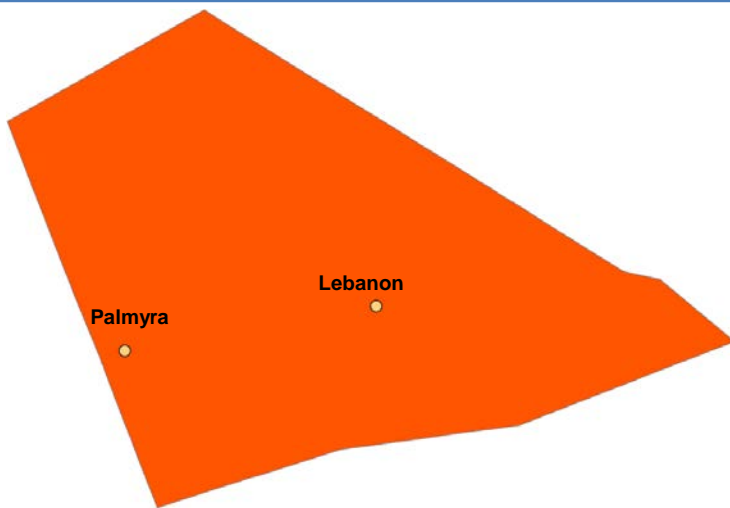


**Ozone Challenges**

- **Manufacturing:** Manufacturing makes up 10% of employment in Lawrence County, including Ellwood.
- **Power Generation:** Lawrence County's only power generator is the New Castle Plant (305 MW, Coal; 5 MW, Distillate) which closed in April 2015. It is being converted to natural gas and scheduled to reopen by May 2016.

**Lebanon County** has an manufacturing-focused economy. It also has large (660 MW) natural gas power plant.

County Map



Summary Statistics

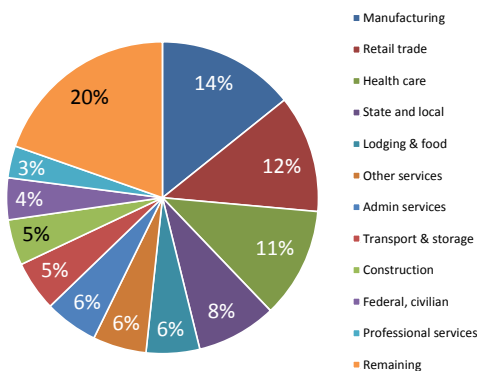
Population (2014) <sup>1</sup>	136,359
Households (2009-2013) <sup>2</sup>	52,023
Total Employment (2013) <sup>3</sup>	65,416
Manufacturing Employment (2013) <sup>3</sup>	9,325
Unemployment Rate (2014) <sup>4</sup>	4.9%
Employee Compensation (2014\$) <sup>5</sup>	\$2.7 Bn
GDP estimate (2014\$) <sup>6</sup>	\$8.1 Bn
Median Household Income (2014\$) <sup>7</sup>	\$56,945
Poverty Rate <sup>8</sup>	11.2%
2011-2013 Average Ozone <sup>9</sup>	76

Employment Highlights

#### Top Employers

- Fort Indiantown Gap
- Lebanon VA Medical Center
- Good Samaritan Health System
- Farmer's Pride, Inc.
- County of Lebanon
- Philhaven
- Ingram Micro
- Cornwall-Lebanon School Distr.
- North East Consolidated Patient Account Center
- TE Connectivity Corporation
- Pennsylvania State Gov.
- Walmart
- Swift Transportation Co., Inc
- Bayer Healthcare
- Hershey plant

#### Employment by Sector

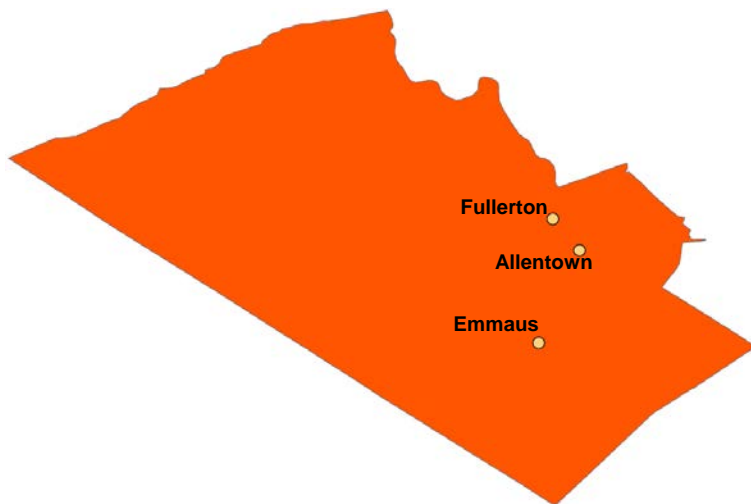


#### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 14% of employment in Lebanon County, including Farmer's Pride, Inc. Carmeuse has a lime plant in Annville that is a significant emitter of NOx. <sup>11</sup>
- **Power Generation:** Nearly all of Lebanon County's generation capacity comes from the PPL Ironwood LLC Facility (660 MW, Gas).
- **Transportation:** The transportation sector accounts for 76% of NOx emissions in the county.

**Lehigh County** has a moderate manufacturing sector. 83% of NOx emissions come from the transportation sector.

### County Map



### Summary Statistics

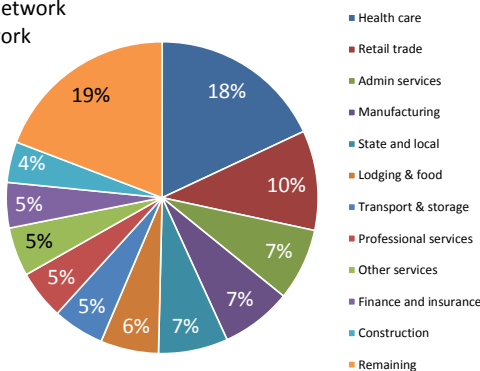
Population (2014) <sup>1</sup>	357,823
Households (2009-2013) <sup>2</sup>	133,289
Total Employment (2013) <sup>3</sup>	226,944
Manufacturing Employment (2013) <sup>3</sup>	16,639
Unemployment Rate (2014) <sup>4</sup>	6.0%
Employee Compensation (2014\$) <sup>5</sup>	\$11.9 Bn
GDP estimate (2014\$) <sup>6</sup>	\$15.4 Bn
Median Household Income (2014\$) <sup>7</sup>	\$57,054
Poverty Rate <sup>8</sup>	14.2%
2011-2013 Average Ozone <sup>9</sup>	74

### Employment Highlights

#### Top Employers

- Lehigh Valley Hospital and Health Network
- St. Luke's Hospital and Health Network
- Air Products
- Giant Food Stores
- PPL
- Sands Casino Resort Bethlehem
- Sodexo
- B. Braun Medical
- Amazon.com
- Mack Trucks
- Lehigh University
- Wegman's
- Guardian Life Insurance Co.
- Weis Markets
- Northampton Community College

#### Employment by Sector



### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 7% of employment in Lehigh County. LaFarge has a cement plant in Whitehall that is a significant emitter of NOx. <sup>11</sup>
- **Transportation:** The transportation sector accounts for 83% of NOx emissions in the county.
- **Power Generation:** Lehigh County gets 97% of its generation capacity from PPL Martin Creek LLC Allentown (56 MW, Distillate).

**Lycoming County** has a strong manufacturing base (12% of employment). It also accounts for 6% of the State's natural gas production.

### County Map



### Summary Statistics

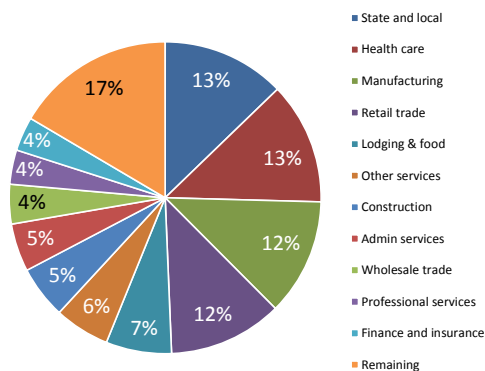
Population (2014) <sup>1</sup>	116,508
Households (2009-2013) <sup>2</sup>	46,046
Total Employment (2013) <sup>3</sup>	69,769
Manufacturing Employment (2013) <sup>3</sup>	8,456
Unemployment Rate (2014) <sup>4</sup>	6.1%
Employee Compensation (2014\$) <sup>5</sup>	\$3.0 Bn
GDP estimate (2014\$) <sup>6</sup>	\$5.1 Bn
Median Household Income (2014\$) <sup>7</sup>	\$47,193
Poverty Rate <sup>8</sup>	14.0%
2011-2013 Average Ozone <sup>9</sup>	66

### Employment Highlights

#### Top Employers

- Susquehanna Health System
- State Government
- Pennsylvania College of Technology
- Williamsport Area School District
- Weis Markets Inc
- Lycoming County
- Halliburton Energy Services Inc
- West Pharmaceutical Services Inc
- CS Group Payroll Services LLC
- Hope Enterprises Inc
- Primus Technologies Corp
- Aramark Management Services LP
- Walmart Associates Inc
- Wirerope Works Inc
- Brodart Co

#### Employment by Sector

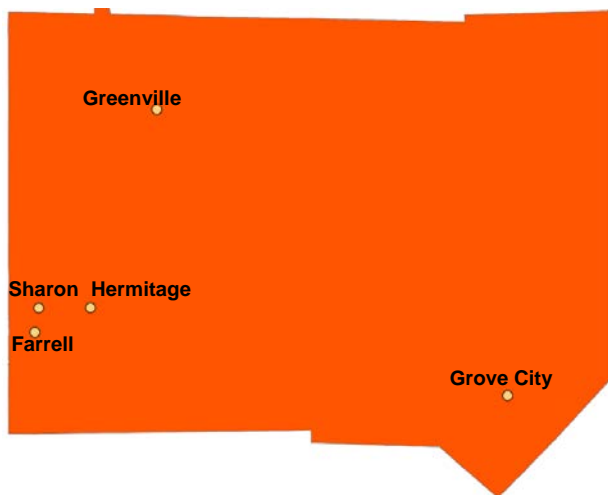


### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 12% of employment in Lycoming County, including Halliburton Energy Services Inc. and Brodart Co.
- **Oil & Gas Production:** Lycoming County accounts for 6.1% of Natural Gas production in Pennsylvania.
- **Power Generation:** Lycoming County has two small fossil fuel fired generation facilities:
  - PPL Martins Creek LLC Williamsport (27 MW, Distillate)
  - PPL Martins Creek LLC Lock Haven (14 MW, Distillate)

**Mercer County** has a strong manufacturing base, which was the second largest employer in 2013 at 14% of total employment.

### County Map



### Summary Statistics

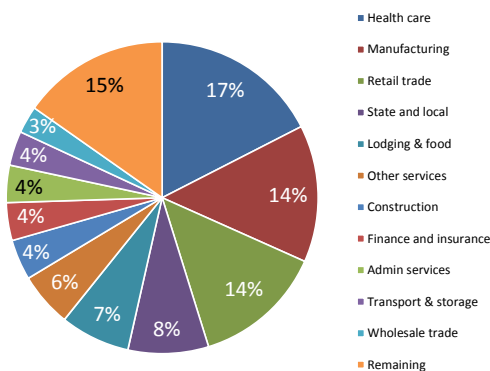
Population (2014) <sup>1</sup>	114,884
Households (2009-2013) <sup>2</sup>	46,187
Total Employment (2013) <sup>3</sup>	61,864
Manufacturing Employment (2013) <sup>3</sup>	8,790
Unemployment Rate (2014) <sup>4</sup>	5.9%
Employee Compensation (2014\$) <sup>5</sup>	\$2.5 Bn
GDP estimate (2014\$) <sup>6</sup>	\$4.5 Bn
Median Household Income (2014\$) <sup>7</sup>	\$46,020
Poverty Rate <sup>8</sup>	14.1%
2011-2013 Average Ozone <sup>9</sup>	77

### Employment Highlights

#### Top Employers

- Sharon Regional Health System
- General Electric Company
- UPMC Horizon
- State Government
- John Maneely Co
- Walmart Associates Inc
- George Junior Republic in PA
- NLMK Pennsylvania Corp
- US Investigations Svcs LLC
- Grove City College
- FNB Payroll Services LLC
- Grove City Medical Center
- Joy Cone Company
- St Paul Homes
- Estes Express Lines

#### Employment by Sector

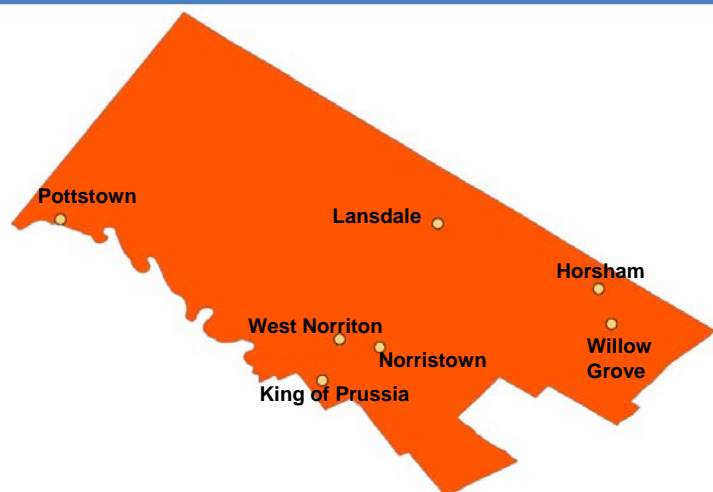


### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 14% of employment in Mercer County, including General Electric, which has a small distillate fired plant (4 MW).
- **Oil & Gas Production:** Mercer County accounts for 0.8% of Oil Production and 0.6% of Natural Gas production in Pennsylvania.

**Montgomery County**, north of Philadelphia, has nearly 44,000 manufacturing employees. The transportation sector represents 77% of NOx emissions.

County Map



Summary Statistics

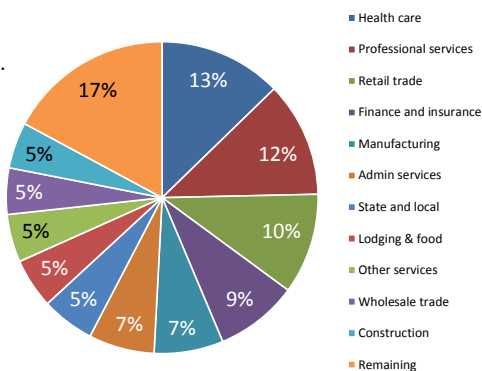
Population (2014) <sup>1</sup>	816,857
Households (2009-2013) <sup>2</sup>	307,488
Total Employment (2013) <sup>3</sup>	613,059
Manufacturing Employment (2013) <sup>3</sup>	43,899
Unemployment Rate (2014) <sup>4</sup>	4.6%
Employee Compensation (2014\$) <sup>5</sup>	\$40.3 Bn
GDP estimate (2014\$) <sup>6</sup>	\$53.9 Bn
Median Household Income (2014\$) <sup>7</sup>	\$82,255
Poverty Rate <sup>8</sup>	6.8%
2011-2013 Average Ozone <sup>9</sup>	74

Employment Highlights

#### Top Employers

- Merck & Company, Inc.
- Main Line Health
- Siemens Medical Solutions USA, Inc.
- Abington Health
- Sodexo
- Wyeth Pharmaceuticals
- NHS Human Services
- Pfizer
- Lockheed Martin Corporation
- PNC Financial Services Group, Inc.
- Quest Diagnostics
- Citizens Bank of PA
- Propoco, Inc.
- Aetna, Inc.
- MDS Pharma Services

#### Employment by Sector



#### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 7% of employment in Montgomery County, including Merck & Company, Inc. , the largest employer in the county.
- **Transportation:** The transportation sector accounts for 77% of NOx emissions in the county.
- **Power Generation:** The majority of power generation in Montgomery County comes from the Limerick Nuclear Plant (2,296 MW, Nuclear), but there are four small plants that are fired by fossil fuels:
  - West Point (71 MW, Gas; 6 MW, Distillate)
  - Moser Generating Station (51 MW, Distillate)
  - Whitmarsh Central Utility Plant (1.6MW, Gas)



**Northampton County** has a strong manufacturing sector (10% of employment). The county also has over 4,000 MW of fossil fuel capacity.

### County Map

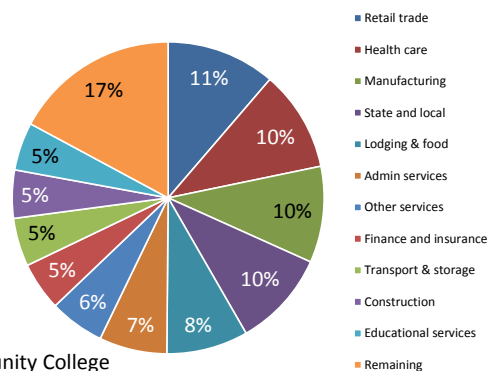


### Employment Highlights

#### Top Employers

- Northampton County
- Sands Bethworks Gaming LLC
- Lehigh University
- Guardian Life Ins Co of America
- Bethlehem Area School District
- Easton Area School District
- Crayola LLC
- Federal Government
- Giant Food Stores LLC
- Northampton Hospital Co LLC
- Wegman's Food Markets Inc
- City of Bethlehem
- Colonial Intermediate Unit No 20
- Northampton County Area Community College
- Victaulic Company

#### Employment by Sector



### Summary Statistics

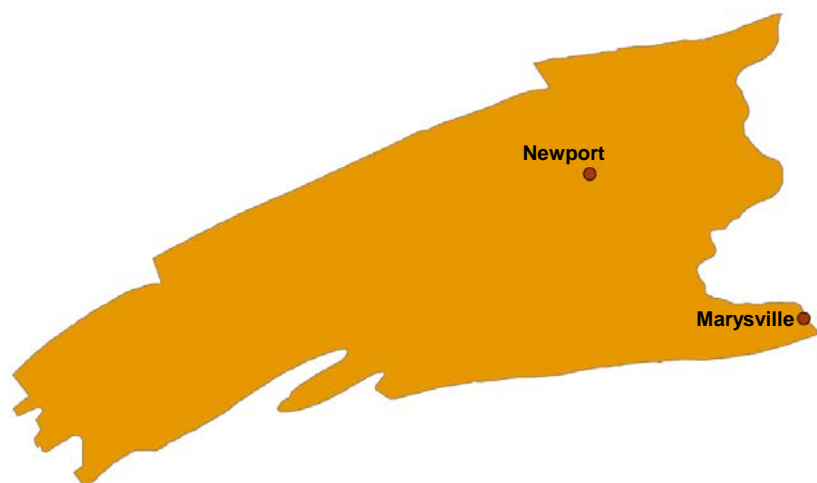
Population (2014) <sup>1</sup>	300,654
Households (2009-2013) <sup>2</sup>	112,189
Total Employment (2013) <sup>3</sup>	138,229
Manufacturing Employment (2013) <sup>3</sup>	13,793
Unemployment Rate (2014) <sup>4</sup>	5.9%
Employee Compensation (2014\$) <sup>5</sup>	\$6.5 Bn
GDP estimate (2014\$) <sup>6</sup>	\$13.0 Bn
Median Household Income (2014\$) <sup>7</sup>	\$62,429
Poverty Rate <sup>8</sup>	10.1%
2011-2013 Average Ozone <sup>9</sup>	71

### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 10% of employment in Northampton County, including Crayola LLC and Victaulic Company. Cement manufacturing was responsible for roughly 25% of NOx emissions in 2011.
- **Power Generation:** Northampton County has 3 fossil fuel fired plants that account for 96% of generation capacity in the county:
  - PPL Martins Creek (1,772 MW, Gas)
  - Bethlehem Power Plant (1,130 MW, Gas)
  - Lower Mount Bethel Energy (559 MW, Gas)
  - Northampton Generating Co (112 MW, Waste Coal)
  - Portland (335 MW, Coal; 164 MW, Distillate) -- converting coal capacity in 2015 to distillate.

**Perry County** has small manufacturing sector. The transportation sector accounts for 79% of NOx emissions.

### County Map



### Summary Statistics

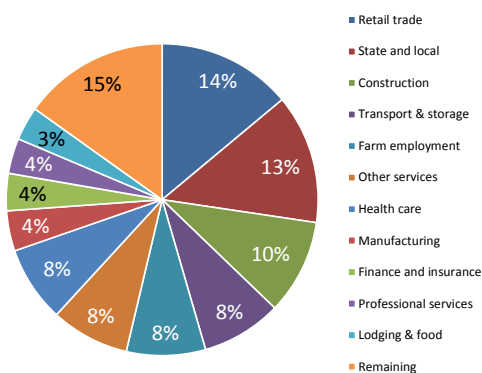
Population (2014) <sup>1</sup>	45,634
Households (2009-2013) <sup>2</sup>	18,173
Total Employment (2013) <sup>3</sup>	13,692
Manufacturing Employment (2013) <sup>3</sup>	570
Unemployment Rate (2014) <sup>4</sup>	5.1%
Employee Compensation (2014\$) <sup>5</sup>	\$0.4 Bn
GDP estimate (2014\$) <sup>6</sup>	\$2.7 Bn
Median Household Income (2014\$) <sup>7</sup>	\$59,601
Poverty Rate <sup>8</sup>	10.2%
2011-2013 Average Ozone <sup>9</sup>	68

### Employment Highlights

#### Top Employers

- H E Rohrer Inc
- State Government
- West Perry School District
- Susquenita School District
- Perry County Commissioners
- Specialty Bakers LLC
- Newport School District
- Mutzabaugh's Market Inc
- Greenwood School District
- Angels On Call LTD
- Giant Foods Stores LLC
- Kinkora Pythian Home Corporation
- The Manor at Perry Village
- Tuscarora Hardwoods Inc
- Karn's Prime & Fancy Food LTD

#### Employment by Sector



### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 4% of employment in Perry County including H E Rohrer Inc., the largest employer in the county.
- **Transportation:** The transportation sector accounts for 79% of NOx emissions in the county.

**Philadelphia County** has a relatively small manufacturing sector, but is has the largest oil refinery on the east coast. The transportation sector accounts for 70% of NOx emissions.

### County Map

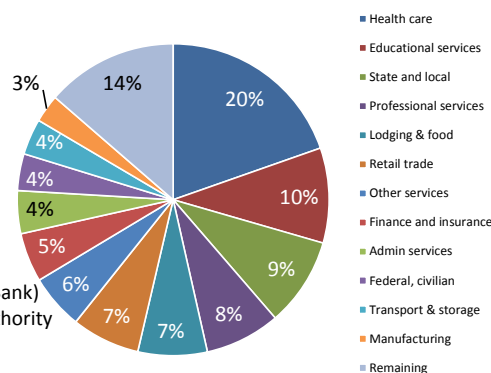


### Employment Highlights

#### Top Employers

- Jefferson Health System Inc
- University of Pennsylvania
- Univ. of Pennsylvania Health System
- Temple University
- Comcast Corp.\*
- UPS
- Bank of America Corp.
- Drexel University
- Verizon Communications Inc.
- Einstein Healthcare Network
- Temple University Health System
- Wells Fargo (inc. former Wachovia Bank)
- Southeastern PA Transportation Authority
- Wal-Mart
- CVS Caremark Corp.

#### Employment by Sector



### Summary Statistics

Population (2014) <sup>1</sup>	1,560,297
Households (2009-2013) <sup>2</sup>	580,017
Total Employment (2013) <sup>3</sup>	803,636
Manufacturing Employment (2013) <sup>3</sup>	23,199
Unemployment Rate (2014) <sup>4</sup>	8.0%
Employee Compensation (2014\$) <sup>5</sup>	\$52.3 Bn
GDP estimate (2014\$) <sup>6</sup>	\$103.0 Bn
Median Household Income (2014\$) <sup>7</sup>	\$38,635
Poverty Rate <sup>8</sup>	26.0%
2011-2013 Average Ozone <sup>9</sup>	80

### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 3% of employment in Perry County.
- **Transportation:** The transportation sector (including both roadway vehicles and commercial marine vessels) accounts for 70% of NOx emissions in the county.
- **Power Generation:** Philadelphia County has 6 generation facilities, all fossil fuel fired :
  - Delaware Generating Station (56 MW, Distillate)
  - Grays Ferry Cogeneration (150 MW, Gas)
  - Newman (2 MW, Gas)
  - Richmond Generating Station (98 MW, Distillate)
  - Schuylkill Generating Station (30 MW, Distillate)
  - Southwark (52 MW, Distillate)
- **Oil Refining:** The PES Philadelphia Refining Complex is the largest refinery on the east coast with capacity of 335,000 barrels per day. It includes a 20 MW generator.

**Tioga County** has a strong manufacturing sector (11% of employment). The county also accounts for 9.6% of state's natural gas production.

### County Map



### Summary Statistics

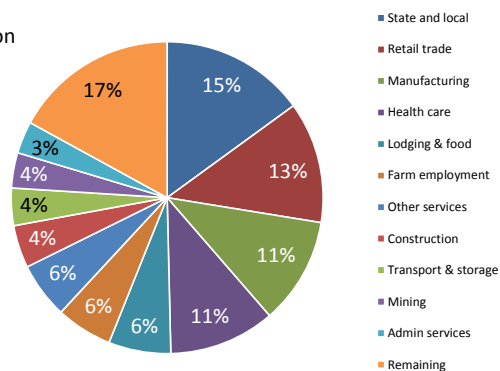
Population (2014) <sup>1</sup>	42,274
Households (2009-2013) <sup>2</sup>	17,058
Total Employment (2013) <sup>3</sup>	19,650
Manufacturing Employment (2013) <sup>3</sup>	2,175
Unemployment Rate (2014) <sup>4</sup>	6.8%
Employee Compensation (2014\$) <sup>5</sup>	\$0.7 Bn
GDP estimate (2014\$) <sup>6</sup>	\$1.3 Bn
Median Household Income (2014\$) <sup>7</sup>	\$45,901
Poverty Rate <sup>8</sup>	13.2%
2011-2013 Average Ozone <sup>9</sup>	69

### Employment Highlights

#### Top Employers

- Susquehanna Health System
- PA State System of Higher Education
- Ward Manufacturing LLC
- Northern Tioga School District
- Hitachi Metals Automotive Comp
- Walmart Associates Inc
- Southern Tioga School District
- Truck-Lite Co Inc
- State Government
- Wellsboro Area School District
- Tioga County Commissioners
- Medplast Engineered Products
- TapCo International Corporation
- National Oilwell Varco LP
- Broad Acres Nursing Home Assoc

#### Employment by Sector

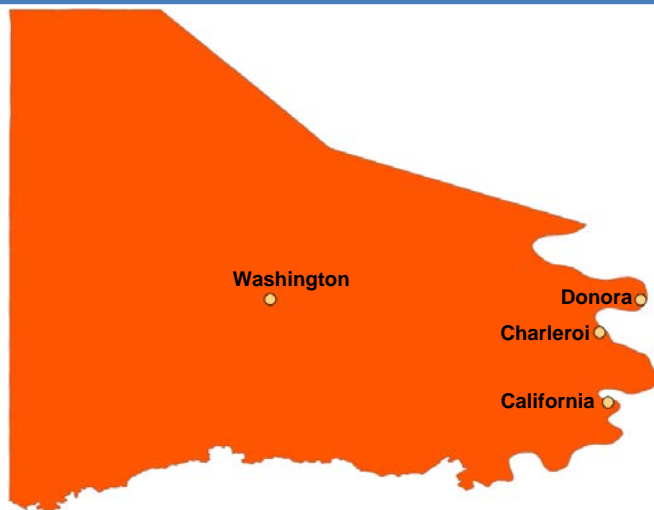


### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 11% of employment in Tioga County, including Ward Manufacturing and Hitachi Metals Automotive Components.
- **Oil & Gas Production:** Tioga County accounts for 9.6% of natural gas production in Pennsylvania.
- **Power Generation:** Tioga County gets most of its generation from wind power, but has the 16 MW natural gas-fired Blossburg plant.

**Washington County** accounts for 28% of State's oil production and 12.6% of the State's natural gas production. Its two coal power plants were closed in 2012 and 2013.

County Map



Summary Statistics

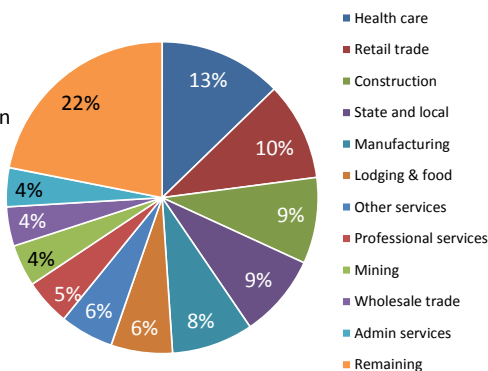
Population (2014) <sup>1</sup>	208,187
Households (2009-2013) <sup>2</sup>	84,098
Total Employment (2013) <sup>3</sup>	114,487
Manufacturing Employment (2013) <sup>3</sup>	9,680
Unemployment Rate (2014) <sup>4</sup>	5.7%
Employee Compensation (2014\$) <sup>5</sup>	\$5.9 Bn
GDP estimate (2014\$) <sup>6</sup>	\$12.0 Bn
Median Household Income (2014\$) <sup>7</sup>	\$55,776
Poverty Rate <sup>8</sup>	10.9%
2011-2013 Average Ozone <sup>9</sup>	71

Employment Highlights

#### Top Employers

- The Washington Hospital
- Washington Trotting Assoc.
- Monongahela Valley Hospital Inc.
- Washington County
- PA State System of Higher Education
- Giant Eagle Inc.
- Crown Castle USA Inc.
- Consol PA Coal Company
- Canon Mcmillan School District
- State Government
- Peters Township School District
- Mylan Inc.
- Wal-mart Associates Inc.
- 84 Lumber Company
- Ringgold School District

#### Employment by Sector

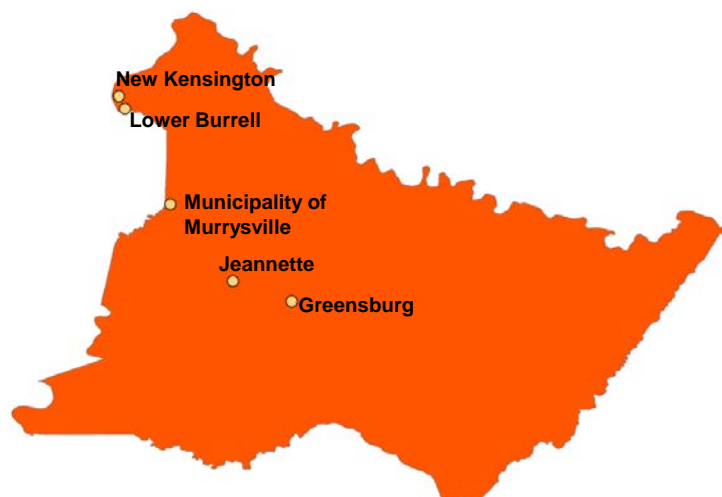


#### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 8% of employment in Washington County, including Mylan Inc. The Dyno Noble chemical plant in Donora was a large emitter of NOx before it closed down in May 2015.<sup>11</sup>
- **Oil & Gas Production:** Washington County accounts for 28.1% of Oil Production and 12.6% of Natural Gas production in Pennsylvania.
- **Power Generation:** Washington County has no remaining fossil fuel fired plants. Elrama Power Plant (460MW, Coal) and FirstEnergy Mitchell Power Station (278MW, Coal; 82MW, Distillate) closed in 2012 and 2013 respectively.

**Westmoreland County** has a strong manufacturing base (10% of employment). The county also has a modest amount of oil and natural gas production.

### County Map



### Summary Statistics

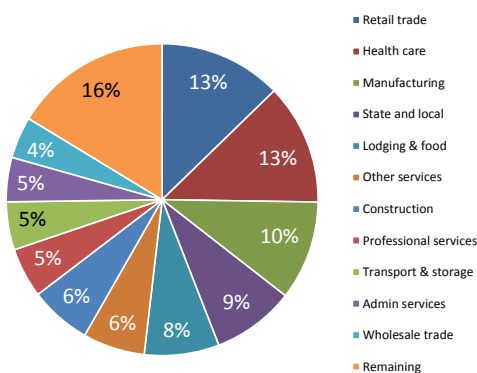
Population (2014) <sup>1</sup>	359,320
Households (2009-2013) <sup>2</sup>	152,109
Total Employment (2013) <sup>3</sup>	173,354
Manufacturing Employment (2013) <sup>3</sup>	17,857
Unemployment Rate (2014) <sup>4</sup>	5.7%
Employee Compensation (2014\$) <sup>5</sup>	\$7.5 Bn
GDP estimate (2014\$) <sup>6</sup>	\$20.8 Bn
Median Household Income (2014\$) <sup>7</sup>	\$52,705
Poverty Rate <sup>8</sup>	10.7%
2011-2013 Average Ozone <sup>9</sup>	73

### Employment Highlights

#### Top Employers

- Excela Health
- First Energy
- United Parcel Service
- Philips Respironics
- SUPERVALU Inc
- Wal-Mart Stores Inc
- Westmoreland Comm. College
- Westinghouse Electric Co LLC
- County of Westmoreland
- Tribune Review Publishing Co
- The Elliott Company
- Leedsworld Inc
- Kennametal Exports Inc
- Alcoa Inc
- County of Westmoreland

#### Employment by Sector



### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 10% of employment in Westmoreland County, including Philips Respironics, and The Elliott Company.
- **Oil & Gas Production:** Westmoreland County accounts for 1.1% of Oil Production and 3.0% of Natural Gas production in Pennsylvania.



**York County** has a strong manufacturing base (14% of employment). The county also has a large coal-fired plant and over 2,000 MW of fossil fuel generation capacity.

### County Map



### Summary Statistics

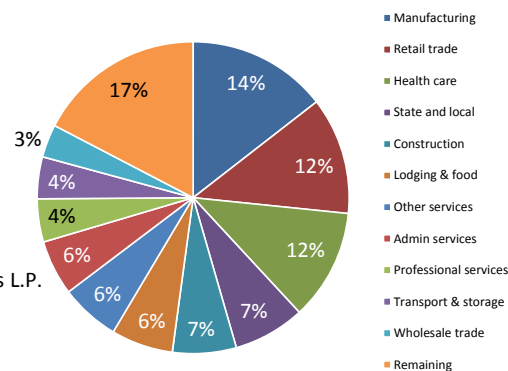
Population (2014) <sup>1</sup>	440,755
Households (2009-2013) <sup>2</sup>	167,592
Total Employment (2013) <sup>3</sup>	221,944
Manufacturing Employment (2013) <sup>3</sup>	32,157
Unemployment Rate (2014) <sup>4</sup>	5.3%
Employee Compensation (2014\$) <sup>5</sup>	\$10.4 Bn
GDP estimate (2014\$) <sup>6</sup>	\$17.4 Bn
Median Household Income (2014\$) <sup>7</sup>	\$61,024
Poverty Rate <sup>8</sup>	10.8%
2011-2013 Average Ozone <sup>9</sup>	74

### Employment Highlights

#### Top Employers

- York Hospital
- Federal Government
- York County
- Walmart Associates Inc
- Giant Food Stores LLC
- Wellspan Medical Group
- UTZ Quality Foods Inc
- Harley Davidson
- Hanover Hospital Inc
- ES3 LLC
- BAE Systems Land & Armaments L.P.
- Kinsley Construction Inc
- Wellspan Health
- CHR Corp
- P H Glatfelter Co

#### Employment by Sector



### Ozone Challenges

- **Manufacturing:** Manufacturing makes up 14% of employment in York County, such as UTZ Quality Foods and Harley Davidson. Magnesita Refractories is a significant emitter of NOx.<sup>11</sup>
- **Industrial Co-Generation:** P H Glatfelter (58 MW, Coal; 31 MW Black Liquor) has been a significant emitter of NOx.<sup>11</sup> It is converting its coal capacity to natural gas.
- **Power Generation:** About half the generation capacity in York County comes from fossil fuel fired facilities. The other half comes from the Peach Bottom Nuclear Plant (2,250 MW, Nuclear):
  - PPL Brunner Island (1,437 MW, Coal; 8 MW Distillate)
  - York Energy Center (545 MW, Gas)
  - York Generation Company LLC (49 MW, Gas)
  - Tolna (36 MW, Distillate)

## End Notes

- <sup>1</sup> U.S. Census Population estimates, July 1, 2014, accessed at <http://www.census.gov/quickfacts/>
- <sup>2</sup> U.S. Census Household 5-Year estimates 2009 - 2013, American Community Survey, accessed at <http://www.census.gov/quickfacts/>
- <sup>3</sup> BEA 2013 Employment estimates, accessed at <http://bea.gov/index.htm>.
- <sup>4</sup> U.S. Department of Labor, Bureau of Labor Statistics, 2014 unemployment rate, accessed at <http://data.bls.gov/map/>
- <sup>5</sup> U. S. Bureau of Economic Analysis 2013 Compensation of Employees by NAICS Industry adjusted to 2014 dollars, accessed at <http://bea.gov/itable/iTable.cfm?ReqID=70&step=1#reqid=70&step=1&isuri=1>
- <sup>6</sup> BEA 2013 GDP by State and MSA adjusted to 2014 dollars; U. S. Bureau of Economic Analysis 2013 Compensation of Employees by NAICS Industry adjusted to 2014 dollars and applied a GDP multiplier, accessed at <http://bea.gov/itable/iTable.cfm?ReqID=70&step=1#reqid=70&step=1&isuri=1>
- <sup>7</sup> U.S. Census Median Household Income estimates 2009-2013 in adjusted to 2014 dollars, accessed at <http://www.census.gov/quickfacts/>
- <sup>8</sup> U.S. Census Persons in poverty, percent, accessed at <http://www.census.gov/quickfacts/>
- <sup>9</sup> U.S. EPA Counties Violating the Primary Ground-level Ozone Standard, accessed at <http://www.epa.gov/groundlevelozone/pdfs/20141126-20112013datatable.pdf>
- <sup>10</sup> U.S. EIA Pennsylvania Quick Facts accessed at <http://www.eia.gov/state/print.cfm?sid=PA>
- <sup>11</sup> US. EPA 2013 Greenhouse Gas Emissions from Large Facilities at <http://ghgdata.epa.gov/ghgp>