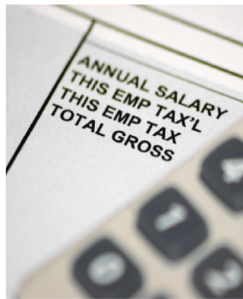


fostering sustainability, equity and innovation

CONNECTIONS **2040**

tracking progress



2040



The Delaware Valley Regional Planning Commission is dedicated to uniting the region's elected officials, planning professionals, and the public with a common vision of making a great region even greater. Shaping the way we live, work, and play, DVRPC builds consensus on improving transportation,

promoting smart growth, protecting the environment, and enhancing the economy. We serve a diverse region of nine counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey. DVRPC is the federally designated Metropolitan Planning Organization for the Greater Philadelphia Region — leading the way to a better future.



The symbol in our logo is adapted from the official DVRPC seal and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole while the

diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

DVRPC is funded by a variety of funding sources including federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), the Pennsylvania and New Jersey departments of transportation, as well as by DVRPC's state and local member governments. The authors, however, are solely responsible for the findings and conclusions herein, which may not represent the official views or policies of the funding agencies.

DVRPC fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. DVRPC's website (www.dvrpc.org) may be translated into multiple languages. Publications and other public documents can be made available in alternative languages and formats, if requested. For more information, please call (215) 238-2871.

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Introduction

The Delaware Valley Regional Planning Commission (DVRPC) adopted *Connections – The Regional Plan for a Sustainable Future* in July 2009. *Connections* is a comprehensive blueprint that identifies important regional policies and planning objectives to maintain the region's infrastructure and promote a sustainable future.

As part of the long-range planning effort, DVRPC utilizes meaningful, reliable, and easy-to-replicate data to track the region's progress toward the goals of the Long-Range Plan, and compiles the data in the *Tracking Progress* report. Regional indicator data is used to highlight successful initiatives and to identify which initiatives should be reviewed for effectiveness. Ultimately, *Tracking Progress* is meant to be used as a tool to align DVRPC's planning and implementation activities and to serve as a guide for the region's investment strategies.

The indicators included in this *Tracking Progress* report will help inform the policies and objectives of the *Connections* Long-Range Plan, which is currently being updated and expected to be adopted in July 2013.

Purpose

The main purpose of the *Tracking Progress* report is to measure the degree that the objectives of the current Long-Range Plan are being met. The performance measures tracked in the report were selected to be reproducible over time and yet comprehensive enough to evaluate the effective implementation of DVRPC's Long-Range Plan goals.

Tracking Progress is designed to collect and compile meaningful time series data that can help DVRPC and its planning partners make more effective decisions. *Tracking Progress* will provide feedback into the Long-Range Plan update and the indicators will be revised as the objectives of the Long-Range Plan evolve.

Besides providing systematic measures to evaluate the progress toward the Long-Range Plan goals, *Tracking Progress* will accomplish several additional goals, including:

- Providing an inventory of major performance measure systems and available databases in the region to promote their integration and share resources.
- Considering ways to optimize regional investment priorities that are consistent with Long-Range Plan policies and coordinating this approach with other agencies and organizations.
- Coordinating DVRPC efforts in Long-Range Plan development, the Transportation Improvement Program, the Congestion Management Process, and other tasks.
- Educating residents of the region about the importance and function of the region's Long-Range Plan.
- Benefiting residents of the region by ensuring ongoing improvements and integration among Long-Range Plan functional areas.

Methodology

The work done for the *Tracking Progress* report for the *Connections Plan* draws upon previous efforts and technical work by DVRPC staff, and incorporates data from new sources that fit the criteria of being meaningful, reliable, and reproducible over time. Where feasible, specific indicators have been maintained from previous *Tracking Progress* reports, while in some cases, more appropriate measures have been adopted and incorporated into the effort.

The indicators in this report are also posted on the DVRPC *Connections 2040 Plan* website (www.dvrpc.org/trackingprogress) and have been updated for this publication to include the most recent data available. Most notably, new data is available from the U.S. Census and 2010 DVRPC land use files.

Development of Indicators

The selection of indicators involved adopting a set of meaningful and practical performance measures that can track the *Connections Plan* goals. As previously stated, many of these measures were carried over from the *Tracking Progress to 2030 Regional Indicators Report*. In some cases, sources of data for indicators were no longer available or discontinued. In other cases, new sources of data became available that were more appropriate to tracking progress for the *Connections Plan*'s goals.

Based upon a review of the literature, including best practices by other Metropolitan Planning Organizations across the nation, and extensive interdepartmental discussion, staff formulated an initial set of questions and indicators for each goal. Staff reviewed the existing set of indicators from the previous *Tracking Progress* report and determined which of those indicators were still appropriate for this effort. Staff also reviewed new data sources that were available to track progress toward a specific goal.

Staff then used an established set of criteria to select indicators. Ideally, indicators should:

1. Cover the entire nine-county DVRPC region;
2. Be readily obtainable;
3. Have a plausible prospect of being updated regularly and frequently in the future. The year 2000 serves as the baseline, and additional time series data is chosen based on data availability and appropriateness. When 2000 data is not available, the next closest data set is used;
4. Measure results rather than inputs and processes, and focus on real numbers rather than simulations; and
5. Focus, where reasonable, on subjects where DVRPC and its partners have some ability to affect the outcome. This version of *Tracking Progress* worked within the four core planning principles identified in the *Connections Plan*

The four core planning principles of the *Connections Plan* are:

Modernizing the Transportation System;
Building an Energy-Efficient Economy;
Creating Livable Communities; and
Managing Growth and Protecting Resources

In all, 31 indicators were selected across the core planning principles identified in the *Connections Plan*. These indicators also include aspects of equity and opportunity within each of the principal areas. It is important to remember that the subjects of the Long-Range Plan are interrelated, and that an indicator may relate to multiple subject areas.

Interpreting the Indicators

The indicators are summarized using a dashboard dial with five possible outcomes. Red and orange signifies a negative trend, yellow signifies mixed results, and light green and green signifies a positive trend.

Overall, 17 of 31 trends show either mixed results or are moving in a positive direction. More positive trends can be seen in economic indicators in the region, such as employment, workforce education, and in efforts to protect open spaces. The region still continues to see growth in land development but the rate of growth has slowed considerably between 1990 and 2010. More negative trends continue in indicators for transportation infrastructure maintenance, percentage of people driving alone, commute time, equity between core cities and suburban areas, and environmental indicators that are influenced by land use (such as water quality and productive farmland).

Historically, the region has shown strong positions with regards to regional employment, workforce education, and average annual pay. While these trends continue, there is a disparity between growth in these factors between the Core Cities and Developed Communities, and the Growing Suburb and Rural Area planning areas. These disparities are further demonstrated by negative trends or slower growth for population, employment, and residential tax base in the older developed areas.

Open space preservation continues to be a success story in the region, with both public and privately held open spaces increasing. Land development in the region is still increasing at a faster rate in Growing Suburbs and Rural Areas and this trend is reflected in the loss of productive farmland. Both of these indicators play a role in the declining surface water quality in the region.

The trends for the Transportation indicators are largely mixed. At a policy level, the region is successful at programming Transportation Improvement Program funds in Plan Centers to support Long-Range Plan goals. This trend also supports increases in transit ridership in the region. A continuing lack of sufficient transportation funding is reflected in negative trends for bridge and road maintenance. While the number of Vehicle Miles Traveled is trending in a positive manner; commute time and the percentage of commuters that drive alone is increasing in a negative direction.

A number of indicators are reflective of the economic recession between 2008 and 2010. When compared to the nation as a whole, the region fared well, or at least comparably, with other large metro areas during this time period. Indicators that were influenced by the recession include employment, freight movements, air passengers, land development, and mortgage lending. These indicators warrant monitoring as economic activity increases in the region and across the nation.

Trends for these thirty-one regional indicators are reflective of a resilient region that is still working towards economic, transportation, and environmental sustainability, especially when considering the severe economic recession beginning in 2008. Efforts to revitalize Core Cities and Developed Communities are starting to show improvement as residential building permits and population increased in these planning areas, while employment losses in those areas during the recession were less severe than the region as a whole. The indicators show that there is still work to be done to improve complex issues such as land development, the environment, equity, and maintaining transportation infrastructure, which remain challenges for the region.

Next Steps

The areas of concern highlighted in this report will receive priority consideration during the development of the *Connections 2040* Long-Range Plan. Considering such trends and relationships also reveals those areas where policy intervention may be necessary. Finally, these indicators create the foundation for targeting specific numerical benchmarks to gauge progress toward selected goals over time.

DVRPC staff will continue to update the indicators as new data becomes available. Some indicators will be updated annually, while others can only be updated with the release of the decennial Census data. An updated report, including revised and updated indicators, will be issued as part of the Long-Range Plan development cycle in an approximately four-year cycle.









TRANSPORTATION:






Modernizing the
Transportation System



TRANSPORTATION: Modernizing the Transportation System

What We Track	How is the DVRPC Region Performing?	Trend
<p>Are people driving less?</p>	<p>The number of Vehicle Miles Traveled (VMT) has declined regionally by 5.6 percent since its 2007 peak due in large part to higher gas prices and the economic recession. As the economy recovers, VMT is expected to rebound.</p>	
<p>Is transit ridership increasing?</p>	<p>In 2010 the region's transit ridership was 384 million unlinked trips. This continues a steady increase that began in 2000, following a decade of declining ridership.</p>	
<p>Have vehicle fatalities declined?</p>	<p>Between 2001 and 2010, the DVRPC region experienced a 34 percent decrease in fatalities per hundred million VMT and a 15.5 percent decline in fatalities per 100,000 people. During this period, the total number of fatalities declined by 33.8 percent, even as VMT increased by 0.6 percent.</p>	
<p>Is congestion getting worse?</p>	<p>INRIX Data shows that 12 percent of the region's freeway miles experience greater than 20 minutes of delay during the 5 to 6 PM peak hour. This is the first time that this data has been collected and will serve as a baseline for future comparison.</p>	
<p>Are fewer people driving to work alone?</p>	<p>More than 72 percent of commuters travel to work by single-occupant vehicle. The growth of commuters who drive alone was higher than the growth of the total number of commuters between 2000 and 2010.</p>	
<p>Is commute time decreasing?</p>	<p>From 2000 to 2010, the region's average commute time lengthened by nearly 1 minute. This was a 2.5 percent increase in commute time.</p>	

TRANSPORTATION: Modernizing the Transportation System

What We Track	How is the DVRPC Region Performing?	Trend
<p>Has the number of deficient bridges decreased?</p>	<p>Between 2000 and 2009, the number of deficient bridges in the region has been reduced by 6.6 percent. However, both states remain far from their desired state-of-good repair goal and the region has one of the highest percentages of functionally obsolete and structurally deficient bridges in the nation.</p>	
<p>Are roads better maintained?</p>	<p>The region reduced its backlog of deficient lane miles of pavement by 11 percent from 2005 to 2009. The states remain well below their stated maintenance goals.</p>	
<p>Is the transit system being maintained?</p>	<p>The average rail vehicle age for the region (30.5 years) and both subregions (31.4 years in Pennsylvania and 25.8 years in New Jersey) UFY considerably older than the state-of-good-repair goal of a 20-year average fleet age.</p>	
<p>Is TIP investment in Plan Centers increasing?</p>	<p>Transportation Improvement Program (TIP) expenditures in Plan Centers in the region have increased by 7.6 percent between Fiscal Year (FY) 2003 and FY 2012/13.</p>	
<p>Are freight shipments in the region increasing?</p>	<p>Freight movement in the region declined in both tons of freight (-16.3%) and value (-7.9%) between 2007 and 2010.</p>	
<p>Is airline passenger traffic increasing?</p>	<p>Despite a severe economic downturn, passenger traffic at Philadelphia International Airport (PHL) remained stable between 2007 and 2011, decreasing by 4.5 percent.</p>	



ARE PEOPLE DRIVING LESS?



HOW IS THE DVRPC REGION PERFORMING?

The number of Vehicle Miles Traveled (VMT) has declined regionally by 5.6 percent since its 2007 peak, due in large part to higher gas prices and the economic recession. As the economy recovers, VMT is expected to rebound. The extent that the region is able to utilize more efficient vehicles, provide transportation alternatives, and slow the rate of VMT growth will determine how sustainable the region will be in the future.

INDICATOR

VEHICLE MILES TRAVELED

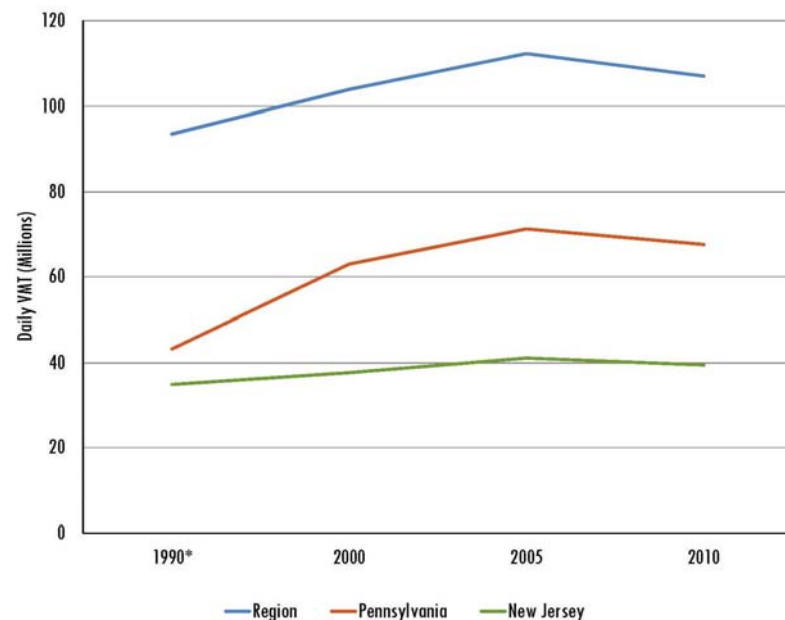
The number of Vehicle Miles Traveled (VMT) increased regionally by 11 percent from 1990 to 2000, while it increased by only three percent from 2000 to 2010. There has been a corresponding nine percent increase in auto ownership since 2000, a slightly higher rate than population growth. Miles driven by each vehicle has decreased by almost six percent, and VMT per capita has decreased by 1.4 percent in the region.

In 2010, annual VMT per capita was 45 percent lower in the Pennsylvania subregion than in New Jersey. Likewise, per capita car ownership is 13 percent higher in New Jersey. Reasons for these discrepancies may reflect a larger population in urban areas and more

transit opportunities on the Pennsylvania side of the river.

Regional VMT reached a peak in 2007, at 41.4 billion miles traveled. From 2007 to 2010, this figure decreased by 5.6 percent. This decline initially correlated with higher gas prices, but was accelerated during the economic recession that began in 2007. It is expected that VMT will increase again as the economy recovers from recession. The region can become more sustainable in the future by providing more transportation alternatives, increasing the fuel efficiency of vehicles, and further reducing the rate at which VMT grows.

DVRPC REGION ANNUAL VMT (BILLIONS OF MILES)



*1990 data presented for informational purposes only
Source: PennDOT, NJDOT, US Census

TOTAL AND PER CAPITA VMT AND AUTOMOBILES, 1990-2010

	1990*	2000	2005	2007	2010	PERCENT CHANGE 2000 TO 2010**
NEW JERSEY SUBREGION						
Annual VMT (Millions)	12,800	13,800	15,000	15,100	14,425	4.5%
Automobiles (Millions)	0.86	0.94	0.98	1.04	1.03	9.6%
Annual VMT/Automobile	14,800	14,700	15,300	14,500	14,024	-4.6%
Automobiles/1,000 Capita	594	610	613	642	636	4.3%
Annual VMT/Capita	8,780	8,950	9,380	9,300	8,920	-0.3%
PENNSYLVANIA SUBREGION						
Annual VMT (Millions)	21,400	24,200	26,000	26,300	24,636	1.8%
Automobiles (Millions)	1.91	2.08	2.15	2.20	2.25	8.2%
Annual VMT/Automobile	11,200	11,600	12,100	11,900	10,924	-5.8%
Automobiles/1,000 Capita	513	540	550	558	563	4.3%
Annual VMT/Capita	5,740	6,280	6,630	6,670	6,145	-2.2%
DVRPC REGION TOTAL						
Annual VMT (Millions)	34,100	37,900	41,000	41,400	39,061	3.1%
Automobiles (Millions)	2.78	3.01	3.14	3.24	3.28	9.0%
Annual VMT/Automobile	12,300	12,600	13,100	12,900	11,895	-5.6%
Automobiles/1,000 Capita	536	559	568	580	584	4.5%
Annual VMT/Capita	6,590	7,040	7,430	7,500	6,943	-1.4%
NATIONAL TOTALS						
Annual VMT (Millions)	2,147,500	2,746,900	2,989,400	3,029,800	2,985,095	8.7%
Automobiles (Millions)	154	178	197	200	202	13.5%
Annual VMT/Automobile	13,960	15,400	15,200	15,170	14,851	-3.6%
Automobiles/1,000 Capita	619	634	665	663	655	3.3%
Annual VMT/Capita	8,640	9,760	10,110	10,060	9,668	-0.9%

*1990 data presented for informational purposes only

**Figures have been rounded for ease of presentation; percent change was calculated before rounding

Source: PennDOT, NJDOT, U.S. Census

The number of Vehicle Miles Traveled has declined by 5.6 percent, regionally, since its peak in 2007.



IS TRANSIT RIDERSHIP INCREASING?



HOW IS THE DVRPC REGION PERFORMING?

In 2010, the region's transit ridership was 384 million unlinked trips. This continues a steady increase that began in 2000, following a decade of declining ridership.

INDICATOR

UNLINKED PASSENGER TRIPS

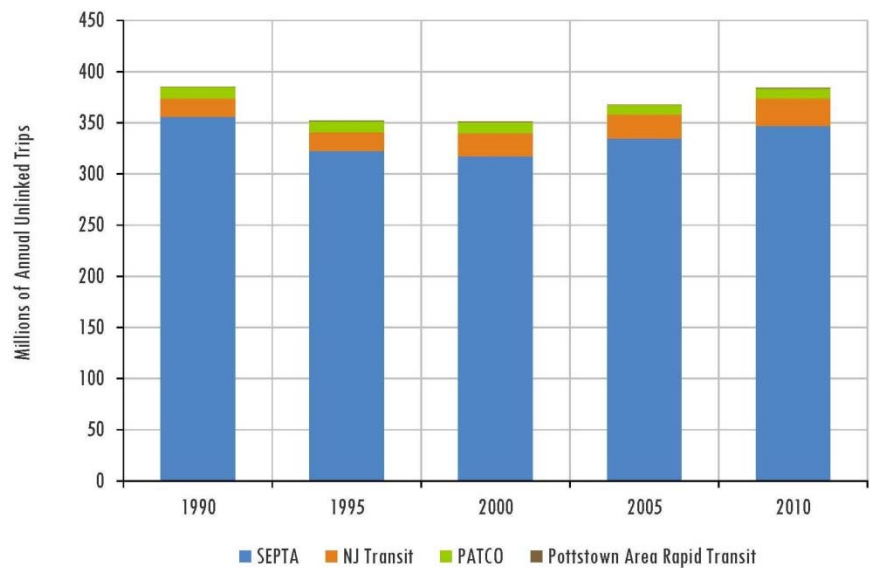
DVRPC tracks transit ridership in the region through unlinked passenger trips, with data provided by each of the region's four transit operators: SEPTA, NJ Transit, PATCO, and Pottstown Area Rapid Transit (PART). Unlinked passenger trips count each passenger boarding, regardless of fare paid. Thus, a trip with a transfer would count as two boardings. Transit ridership does not include Amtrak or private bus passengers.

NJ Transit's ridership figures are for the nine-county Greater Philadelphia region only. These are based on southern New Jersey bus routes, Northeast Corridor line ridership at Trenton, Hamilton, and Princeton Junction stations, the Atlantic City Line, and the RiverLine.

Regionally, transit ridership has been on an upswing since 2000. In 2009, transit ridership returned to 1990 levels, with 385 million unlinked trips. This matches the highest total during this 20-year period. Between 2000 and 2010, ridership is up 9.3 percent on SEPTA and 17.5 percent on NJ Transit, while ridership on DRPA/PATCO is down by five percent and on PART by 9.5 percent.

SEPTA service has been stopped twice in the last decade by transport union strikes. Service was suspended for seven days in 2005, and for six days in 2009. These strikes generally have short-term negative ridership impacts; thus, ridership on SEPTA would likely have been higher if the strikes had been averted.

DVRPC REGION ANNUAL TRANSIT RIDERSHIP (UNLINKED TRIPS)



Sources: National Transit Database, 2012, and Pottstown Urban Transit Corporation, 2012
*1990 and 1995 data are presented for informational purposes only

Ridership growth correlates with increased economic activity and residential development in and around Center City, the focal point of the regional transit system. Recent ridership increases

were driven by rising gas prices in 2006 and 2007, during which the price of oil reached \$147 per barrel. The sluggish economy, as a result of the economic recession that began in 2007, has likely

both hurt and helped transit ridership. Individuals have curtailed unnecessary travel, but at the same time have turned to transit as a way to save money.

DVRPC REGION TRANSIT RIDERSHIP (MILLIONS OF UNLINKED TRIPS)

	1990*	1995*	2000	2005	2010	PERCENT CHANGE 2000 TO 2010**
SEPTA	355.9	322.2	317.3	334.5	346.9	9.3%
NJ Transit	17.7	18.8	22.8	23.5	26.8	17.5%
PATCO	11.4	10.7	10.6	9.4	10.1	-4.7%
Pottstown Area Rapid Transit	0.3	0.3	0.3	0.3	0.2	-9.5%
DVRPC Region	385.3	352.0	351.0	367.7	385.3	9.4%

Sources: National Transit Database, 2012, and Pottstown Urban Transit Corporation, 2012

*1990 and 1995 data are presented for informational purposes only

**Figures have been rounded for ease of presentation; percent change was calculated before rounding



Transit ridership grew by over nine percent from 2000 to 2010.



HAVE VEHICLE FATALITIES DECLINED?



HOW IS THE DVRPC REGION PERFORMING?

Between 2001 and 2010, the DVRPC region experienced a 34 percent decrease in fatalities per hundred million VMT and a 15.5 percent decline in fatalities per 100,000 people. During this period, the total number of fatalities declined by 33.8 percent, even as VMT increased by 0.6 percent.

INDICATORS

FATALITIES PER HUNDRED MILLION VEHICLE MILES TRAVELED, AND FATALITIES PER 100,000 PEOPLE

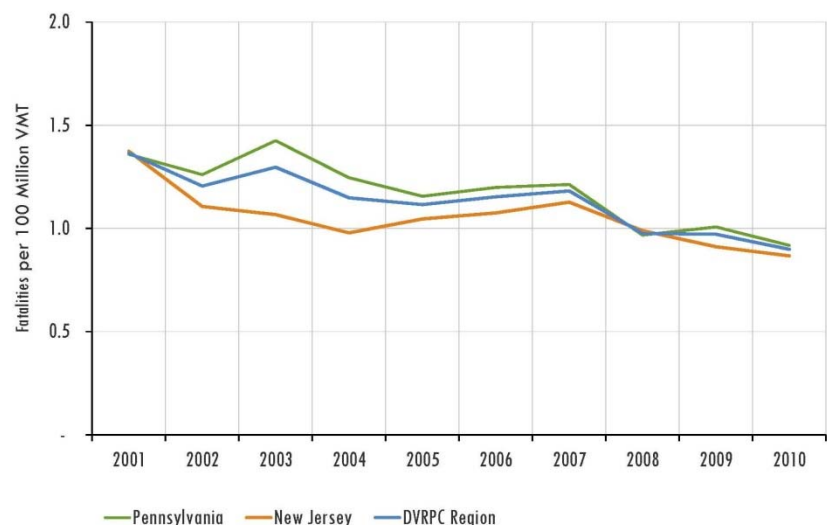
Tracking the region's fatality rate over time will show whether highway safety has improved or diminished. The U.S. Department of Transportation defines a fatality as death from injuries sustained in a vehicle crash within 30 days of the crash. Fatalities include those that occur in crashes between a vehicle and a pedestrian, a vehicle and a motorcycle, or a vehicle and a bicyclist.

Tracking Progress Toward 2030 also identified total crashes and the crash rate per million vehicle miles traveled (VMT). These indicators were not included in this update, as the Federal Highway Administration has focused its safety efforts on reducing injuries and fatalities that occur on the nation's highways. This version of *Tracking Progress* also considers roadway fatalities per 100,000 people. Vehicle crashes are the single leading cause of death in the United States for all

persons between one and 34 years of age. The per-capita indicator is added because an increase in driving under safer conditions (such as on limited-access freeways, which tend to have lower crash rates) can reduce the fatality rate per hundred million VMT. This can mask the fact that driving more miles still increases the overall risk of being involved in a fatal accident.

Seatbelts save lives, and the *2009 Annual Crash Data Bulletin for the Delaware Valley* notes that primary seatbelt laws improve compliance by 15 percent on average. New Jersey's primary seatbelt law allows police to pull over drivers for not wearing a belt. Pennsylvania's seatbelt law is secondary, which means that a driver can only be cited for not wearing a belt after being pulled over for a primary violation, like speeding.

DVRPC REGION FATALITIES PER HUNDRED MILLION VEHICLE MILES TRAVELED



Source: PennDOT, NJDOT

The DVRPC region experienced a 34 percent decrease in fatalities per million VMT between 2001 and 2010. In Pennsylvania, this measure has declined from 1.36 fatalities per 100 million VMT in 2001 to 0.92 in 2010, a nearly 33 percent decrease. In New Jersey, fatalities per 100 million VMT have declined from 1.37 in 2001 to 0.87 in 2010, a nearly 37 percent decrease.

Fatalities per 100,000 people have decreased by 35.5 percent in the Pennsylvania subregion and 37.8 percent in the New Jersey

subregion. However, it remains higher in New Jersey, where residents tend to be exposed to increased risk of incident by driving more VMT annually than in Pennsylvania. Overall, the region reduced its fatality rate to 6.2 per 100,000 people in 2009, a 36.3 percent decrease since 2001.

The region meets the Federal Highway Administration's Safety Program goal of less than one fatality per hundred million VMT. The reduction in total fatalities could be attributed to many factors, such as the economic

recession, unemployment, improvements in vehicle design, reduced VMT, and highway safety programs. Both subregions and the region as a whole have considerably lower fatality rates than the nation, which had 1.01 fatalities per 100 million VMT and 9.8 fatalities per 100,000 people in 2010.

DVRPC REGION FATALITIES 2001 TO 2010

	2001	2003	2005	2007	2010	PERCENT CHANGE 2001 TO 2010*
NEW JERSEY SUBREGION						
Number of Fatalities	193	153	157	170	125	-35.2%
Fatalities per Hundred Million VMT	1.37	1.07	1.05	1.13	0.87	-36.9%
Fatalities per 100,000 people	12.4	9.6	9.8	10.5	7.7	-37.8%
PENNSYLVANIA SUBREGION						
Number of Fatalities	337	366	300	319	226	-32.9%
Fatalities per Hundred Million VMT	1.36	1.42	1.16	0.97	0.92	-32.5%
Fatalities per 100,000 people	8.7	9.5	7.7	8.0	5.6	-35.5%
DVRPC REGION TOTAL						
Number of Fatalities	530	519	465	489	351	-33.8%
Fatalities per Hundred Million VMT	1.36	1.30	1.12	1.18	0.90	-34.1%
Fatalities per 100,000 people	9.8	9.5	8.3	8.8	6.2	-36.3%
NATIONAL TOTAL						
Number of Fatalities	42,196	42,884	43,510	41,259	30,196	-28.4%
Fatalities per Hundred Million VMT	1.51	1.48	1.46	1.36	1.01	-33.0%
Fatalities per 100,000 people	14.8	14.8	14.7	13.7	9.78	-33.9%

* Figures have been rounded for ease of presentation; percent change was calculated before rounding
 Source: PennDOT, NJDOT, National Highway Traffic Safety Administration



IS CONGESTION GETTING WORSE?



HOW IS THE DVRPC REGION PERFORMING?

INRIX Data shows that 12 percent of the region's freeway miles experience greater than 20 minutes of delay during the 5 to 6 PM peak hour. About five percent of the New Jersey subregion's freeway lane miles experience this level of congestion, while almost 21 percent of the Pennsylvania subregion's freeway miles experience over 20 minutes of congestion during the peak hour.

INDICATOR

DURATION OF CONGESTION

Duration of congestion is used to determine congestion levels in the region. This measure is defined as the number of minutes that the average speed falls below 70 percent of the posted speed limit. This analysis indicates both the duration and location of the region's congested freeways. Speed and travel information is collected by INRIX, which is a private firm that collects data from GPS-enabled vehicles and mobile devices, traditional road sensors, and other sources to provide real-time and historical travel-time information nationwide and in other countries. It is provided to DVRPC by the I-95 Corridor Coalition Vehicle Probe Project (VPP).

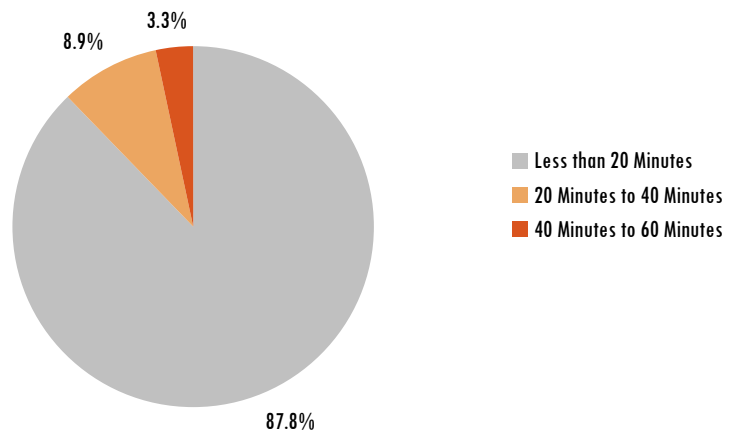
In *Tracking Progress to 2030*, DVRPC used a measure for congestion based on its own regularly conducted traffic counts. This approach will provide improved analysis. DVRPC jointly developed this measure with NJDOT as part of the Congestion

Management Process (CMP). The next CMP update will work with PennDOT to add another measure of congestion in the Greater Philadelphia region.

DVRPC analyzed VPP data on the region's freeways to determine the length, location, and percentage of the region's freeway lane miles that experience 0 to 20 minutes, 20 to 40 minutes, and 40 to 60 minutes of congestion during the 5 to 6 PM daily peak travel hour. Results shown here are for all weekdays during 2009 and indicate the average number of minutes that a facility falls below 70 percent of the posted speed limit.

Congestion in the Pennsylvania subregion's freeways appears to be significantly higher than on the freeways in the New Jersey subregion. As might be expected, congested freeway miles are along the major routes into and out of Philadelphia and the region's core.

PERCENT OF REGIONAL LANE MILES EXPERIENCING CONGESTION



Source: INRIX, I-95 Corridor Coalition, PennDOT, NJDOT, and DVRPC

Nationally, the Texas Transportation Institute (TTI) puts out an annual Urban Mobility Report, which looks at congestion in each of the nation's 101 major metro areas. In 2009, this report found that the average auto commuter in the United States wasted 34 hours per year in congested conditions. In comparing metro areas, Philadelphia ranked 15th worst, with 39 hours of congested time annually per auto commuter.

In March 2010, CEOs for Cities released a report that primarily considered total peak-hour travel time per auto commuter. This analysis focused on peak-period travel time based on trip distance, whereas TTI focuses on the amount of time spent in congestion. This report found Philadelphia to have only the 39th longest commute time out of 51 major metro areas in the United States.

GREATER PHILADELPHIA CONGESTION IN 2009

	2009
NEW JERSEY SUBREGION	
Total Freeway Analysis Miles	339.2
Total Miles with Less than 20 Minutes' Congestion	323.2
Percent of Miles with less than 20 Minutes' Congestion	95.3%
Total Miles with 20 to 40 Minutes' Congestion	11.2
Percent of Miles with 20 to 40 Minutes' Congestion	3.3%
Total Miles with 40 to 60 Minutes' Congestion	4.8
Percent of Miles with 40 to 60 Minutes' Congestion	1.4%
PENNSYLVANIA SUBREGION	
Total Freeway Analysis Miles	299.0
Total Miles with Less than 20 Minutes' Congestion	237.2
Percent of Miles with less than 20 Minutes' Congestion	79.3%
Total Miles with 20 to 40 Minutes' Congestion	45.3
Percent of Miles with 20 to 40 Minutes' Congestion	15.2%
Total Miles with 40 to 60 Minutes' Congestion	16.5
Percent of Miles with 40 to 60 Minutes' Congestion	5.5%
DVRPC REGION TOTAL	
Total Freeway Analysis Miles	638.2
Total Miles with Less than 20 Minutes' Congestion	560.4
Percent of Miles with less than 20 Minutes' Congestion	87.8%
Total Miles with 20 to 40 Minutes' Congestion	56.6
Percent of Miles with 20 to 40 Minutes' Congestion	8.9%
Total Miles with 40 to 60 Minutes' Congestion	21.2
Percent of Miles with 40 to 60 Minutes' Congestion	3.3%

Source: INRIX, I-95 Corridor Coalition, PennDOT, NJDOT, and DVRPC



ARE FEWER PEOPLE DRIVING TO WORK ALONE?



HOW IS THE DVRPC REGION PERFORMING?

More than 72 percent of commuters travel to work by single-occupant vehicle. The growth of commuters who drove alone was higher than the growth of the total number of commuters between 2000 and 2010 (6.2 and 5.9 percent, respectively). During this period, public transit, bicycle and other modes, and working at home have increased in commute modeshare, while carpooling has decreased. The number of people taking transit, bicycling and other modes, and working at home has increased at a faster rate than the growth in the total number of commuters.

INDICATOR

PERCENT OF TOTAL COMMUTE TRIPS BY MODE

A majority of commuters travel to work by single-occupant vehicle. In 2000, 72.2 percent of regional commuters traveled to work alone. By 2010, that figure increased to 72.4 percent of commuters. When factoring the increase in commuters during this time period due to employment growth, it represents a 6.2 percent increase in the number of single-occupant vehicle commuters.

Since 2000, the number of commuters carpooling has decreased by 9.1 percent, and walking to work by 0.6 percent, while transit commuting increased by 9.9 percent. Also during this time period, significant growth has occurred in bicycle commuting and other modes (such as motorcycles or taxi cabs, with 48.6 percent increase), though each of these commuting modes remains a very

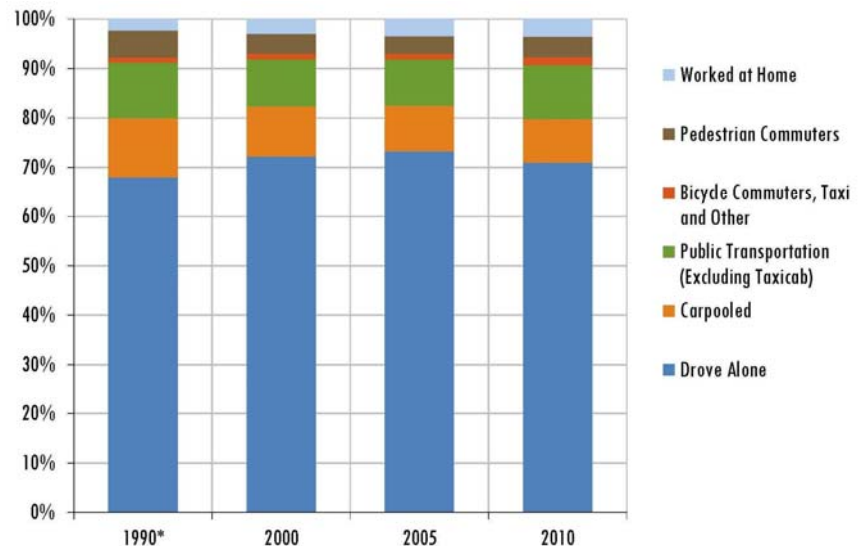
low percentage of all commuters.

In New Jersey, commuters are more likely to drive alone, carpool, or telecommute compared to the region as a whole. In comparison, Pennsylvania commuters within the region are more likely to take transit or walk.

Rising fuel prices, along with increased congestion on the region's highways, may have contributed to the increases in commuters using alternative transportation (transit, walking, and biking) to get to work and in the number of people working from home.

Compared to national commuting patterns in 2010, Greater Philadelphia has a lower rate of driving alone, carpooling, and working at home, while a higher ride public transportation.

GREATER PHILADELPHIA COMMUTE MODESHARE 1990 – 2010



* 1990 data presented for informational purposes only
Source: US Census 1990 to 2000, American Community Survey 2010

REGIONAL AND NATIONAL COMMUTE MODESHARE 1990 – 2010

	1990*	2000	2010	NUMBER OF COMMUTERS PERCENT CHANGE 2000 TO 2010
NEW JERSEY SUBREGION				
Total Commuters (In Millions)	0.71	0.72	0.77	5.9%
Drove Alone	74.7%	77.7%	77.9%	6.2%
Carpooled	12.7%	10.4%	9.4%	-4.6%
Public Transit (Excluding Taxicab)	5.4%	5.5%	5.4%	3.4%
Bicycle Commuter, Taxi, and Other	1.1%	1.0%	1.4%	45.3%
Pedestrian Commuter	3.9%	2.6%	2.4%	-3.3%
Worked at Home	2.1%	2.7%	3.5%	37.9%
PENNSYLVANIA SUBREGION				
Total Commuters (In Millions)	1.73	1.73	1.83	5.9%
Drove Alone	65.3%	69.9%	70.1%	6.2%
Carpooled	11.6%	10.0%	8.4%	-11.4%
Public Transit (Excluding Taxicab)	13.6%	11.2%	11.8%	11.3%
Bicycle Commuter, Taxi, and Other	0.3%	0.4%	1.5%	47.3%
Pedestrian Commuter	6.1%	4.7%	4.6%	3.1%
Worked at Home	2.4%	3.0%	3.5%	25.2%
DVRPC REGION TOTAL				
Total Commuters (In Millions)	2.44	2.45	2.59	5.9%
Drove Alone	68.0%	72.2%	72.4%	6.2%
Carpooled	12.0%	10.2%	8.7%	-9.1%
Public Transit (Excluding Taxicab)	11.2%	9.5%	9.9%	9.9%
Bicycle Commuter, Taxi, and Other	1.1%	1.1%	1.5%	48.6%
Pedestrian Commuter	5.5%	4.1%	2.4%	0.6%
Worked at Home	2.3%	2.9%	3.5%	29.2%
NATIONAL TOTAL				
Total Commuters (In Millions)	115.07	143.91	139.24	-3.2%
Drove Alone	73.2%	78.3%	76.0%	-6.1%
Carpooled	13.4%	10.9%	10.4%	-7.4%
Public Transit (Excluding Taxicab)	5.1%	4.1%	4.9%	16.3%
Bicycle Commuter, Taxi, and Other	0.4%	0.3%	1.7%	36.7%
Pedestrian Commuter	3.9%	2.6%	2.8%	3.7%
Worked at Home	3.0%	2.9%	4.1%	36.5%

* 1990 data presented for informational purposes only
 Source: US Census 1990 to 2000, American Community Survey 2010



IS COMMUTE TIME DECREASING?



HOW IS THE DVRPC REGION PERFORMING?

The rate of increase in commute time between 2000 and 2010 (2.6 percent) was considerably less than the period between 1990 and 2000 (15.4 percent).

This change in rate of increase of commute time reflects the decline of the housing market and the slowing of development in outlying suburbs, as well as a period of high unemployment between 2007 and 2010.

INDICATOR

COMMUTE TIME IN MINUTES
BY *CONNECTIONS*
PLANNING AREA

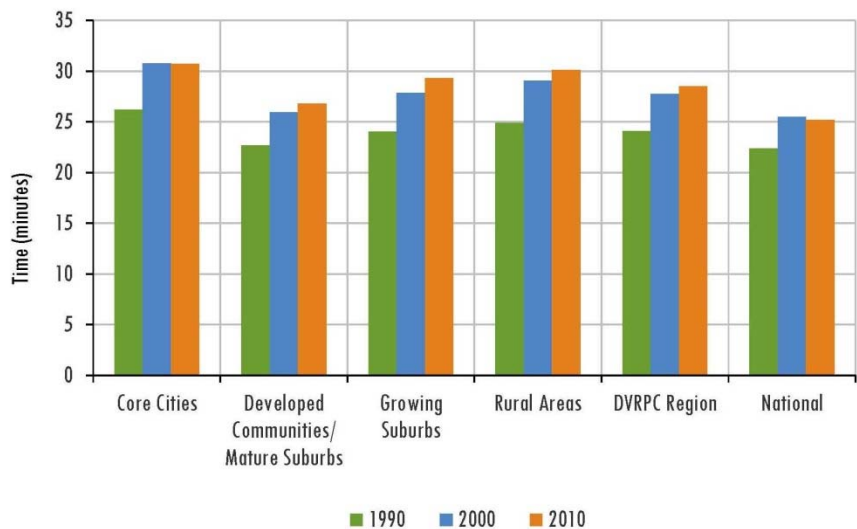
Each municipality in the region has been classified as a Core City, Developed Community/Mature Suburb, Growing Suburb, or Rural Area in the *Connections* plan. This indicator compares average commute time for the various planning areas. Average commute time was computed for the aggregate commute time for the sum of all commuters in a particular planning area in the region, as reported in the Census, and averaged by the number of commuters in that particular planning area.

In both 2000 and 2010, Core Cities had the longest average commute time, while Developed Communities/Mature Suburbs had the shortest. Average commute time was more than one minute longer in the Pennsylvania subregion than in the New Jersey subregion.

From 2000 to 2010, the region's average commute time lengthened by nearly one minute, and actually decreased slightly in Core Cities. In the Pennsylvania subregion, commute time increased the most in Rural Areas (2.5 minutes), while in the New Jersey subregion, commute time increased the greatest in Growing Suburbs (almost one minute).

The rate of increase in commute time between 2000 and 2010 (2.6 percent) was considerably less than the period between 1990 and 2000 (15.4 percent). This change in rate of increase of commute time reflects the decline of the housing market and the slowing of development in outlying suburbs, as well as a period of high unemployment between 2007 and 2010.

DVRPC REGION COMMUTE TIME BY PLANNING AREA (MINUTES)



Source: U.S. Census, 2010 ACS
*1990 included for informational purposes

DVRPC REGION COMMUTE TRAVEL TIME BY PLANNING AREA, 2000-2010

	1990*	2000	2010	PERCENT CHANGE 2000 TO 2010
NEW JERSEY SUBREGION				
Core Cities	20.3	24.8	24.0	-3.4%
Developed Communities/Mature Suburbs	22.5	26.3	26.7	1.6%
Growing Suburbs	25.6	29.3	30.2	3.0%
Rural Areas	25.2	29.7	28.8	-2.9%
New Jersey Subregion	23.1	27.1	27.5	1.5%
PENNSYLVANIA SUBREGION				
Core Cities	26.8	31.3	31.3	0.0%
Developed Communities/Mature Suburbs	22.8	25.8	26.8	4.0%
Growing Suburbs	23.3	27.2	28.9	6.2%
Rural Areas	24.7	28.6	31.1	8.7%
Pennsylvania Subregion	24.5	28.1	29.0	3.4%
DVRPC REGION TOTAL				
Core Cities	26.2	30.8	30.7	-0.2%
Developed Communities/Mature Suburbs	22.7	26.0	26.8	3.2%
Growing Suburbs	24.0	27.9	29.3	5.2%
Rural Areas	24.9	29.1	30.1	3.6%
DVRPC Region	24.1	27.8	28.5	2.6%
NATIONAL TOTAL				
National Total	22.4	25.5	25.2	-1.2%

Source: U.S. Census, 2010 ACS

*1990 included for informational purposes



HAS THE NUMBER OF DEFICIENT BRIDGES DECREASED?



HOW IS THE DVRPC REGION PERFORMING?

Since 2000, the number of deficient bridges in the region has been reduced by 6.6 percent. However, both states remain far from their desired state-of-good-repair goal, and the region has one of the highest percentages of functionally obsolete and structurally deficient bridges in the nation.

INDICATORS

TOTAL NUMBER OF BRIDGES AND DECK AREA OF BRIDGES IN DEFICIENT CONDITION

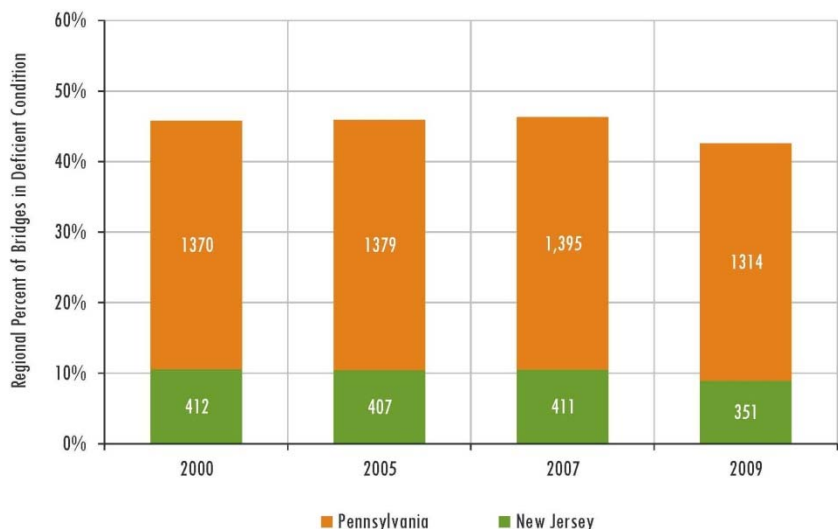
Both the New Jersey and Pennsylvania Departments of Transportation (DOT) track deficiency as required by federal regulations for state-maintained and National Highway System (NHS) bridges. Sufficiency ratings for bridges are determined through inspections that occur every two years. If the deck, superstructure, or substructure is given a low rating, or if certain culvert materials do not meet requirements, the bridge is considered structurally deficient. Depending on the overall sufficiency rating, a bridge may be repairable or, if the rating is too low, the bridge will need replacement. Structurally deficient bridges indicate maintenance needs that do not pose safety issues as long as they are resolved in a timely manner.

A bridge may be considered functionally obsolete if waterway adequacy, deck geometry, under-clearances, roadway alignment, or structural evaluation do not meet standards. These bridges are also

included in the DVRPC region's determination of deficient bridges. The determination includes all bridges in the region, regardless of ownership or maintenance responsibility. Thus, local, state, federal highway, other federal agency, public agency, and privately held bridges are included in this analysis.

PennDOT has identified a state-of-good-repair goal to reduce the number of deficient bridges to 10 percent of total deck area. NJDOT defines a state of good repair as each bridge having a 10-year or greater remaining useful life. The acceptable percent of bridges with less than 10 years of useful life varies for each class of bridge based on how critical it is to the overall system. NJDOT desires to achieve a state-of-good-repair goal of 89 percent of major viaducts, 67 percent of movable bridges, 93 percent of standard bridges (greater than 20 feet in length), and 95 percent of minor bridges (less than 20 feet in length, also known as culverts).

DVRPC REGION BRIDGES IN DEFICIENT CONDITION



Source: NJDOT and PennDOT

After the 2007 collapse of the I-35W Bridge in Minneapolis, bridges became a focus for DOT's around the country. Both PennDOT and NJDOT devoted substantial additional investment in bridge maintenance in the following years. This additional investment has helped the region to cut its backlog of bridges in disrepair by 91 bridges from 2007 to 2009, representing the first significant

decline in the backlog since the region began tracking bridge deficiency in 2000. Overall, the region's deficient bridges have been reduced by 6.6 percent since 2000. However, the region remains far from its desired state-of-good-repair goal.

The Commonwealth of Pennsylvania has the highest number of deficient bridges of all

states in the nation. Likewise, the region does not fare well compared to national figures. In 2009, just under 25 percent of the nation's total bridges and 26 percent of its deck area were deficient. This is about 18 percent lower by total bridges and 20 percent lower by deck area than in Greater Philadelphia.

STRUCTURALLY DEFICIENT AND FUNCTIONALLY OBSOLETE BRIDGES

	2000	2005	2007	2009	PERCENT CHANGE 2000 TO 2009
NEW JERSEY SUBREGION					
Total Deficient Bridges	412	407	411	351	-14.8%
Percent of Total Bridges	34.9%	34.4%	31.9%	31.2%	-
Total Deficient Deck Area (In Millions of Square Feet)	N/A	N/A	4.9	5.1	
Percent of Total Deck Area	N/A	N/A	35.7%	34.3%	
PENNSYLVANIA SUBREGION					
Total Deficient Bridges	1,370	1,379	1,395	1,314	-4.1%
Percent of Total Bridges	50.5%	50.9%	51.4%	48.3%	-
Total Deficient Deck Area (In Millions of Square Feet)	14.6	15.0	14.9	13.7	-6.2%
Percent of Total Deck Area	60.8%	61.4%	59.2%	54.1%	-
DVRPC REGION TOTAL					
Total Deficient Bridges	1,782	1,786	1,806	1,665	-6.6%
Percent of Total Bridges	45.8%	45.9%	46.3%	42.7%	-
Total Deficient Deck Area (In Millions of Square Feet)	N/A	N/A	19.8	18.8	N/A
Percent of Total Deck Area	N/A	N/A	50.9%	46.8%	-
NATIONAL TOTAL					
Total Deficient Bridges	167,581	156,177	152,316	149,647	-10.7%
Percent of Total Bridges	28.5%	26.3%	25.4%	24.8%	-
Total Deficient Deck Area (In Millions of Square Feet)	86.5	89.0	90.4	91.1	5.3%
Percent of Total Deck Area	27.9%	27.1	26.6%	26.2%	-

Source: PennDOT, NJDOT, Federal Highway Administration



ARE ROADS BETTER MAINTAINED?



HOW IS THE DVRPC REGION PERFORMING?

The region reduced its backlog of deficient lane miles of pavement by 11 percent from 2005 to 2009.

The Pennsylvania subregion reduced deficient lane miles by seven percent during this time period, while in the New Jersey subregion, they were reduced by 15 percent. However, both state subregions remain well below their state-of-good-repair goals.

INDICATOR

LANE MILES OF PAVEMENT IN DEFICIENT CONDITION

Both the New Jersey and Pennsylvania Departments of Transportation track pavement condition as required by federal regulations for state-maintained and National Highway System (NHS) roadways. PennDOT uses the International Roughness Index (IRI) to determine deficiency based on roadway functional class and traffic volume. NJDOT uses both the IRI and the Surface Distress Index (SDI) to determine deficiency. A roadway segment is considered deficient if it fails either test.

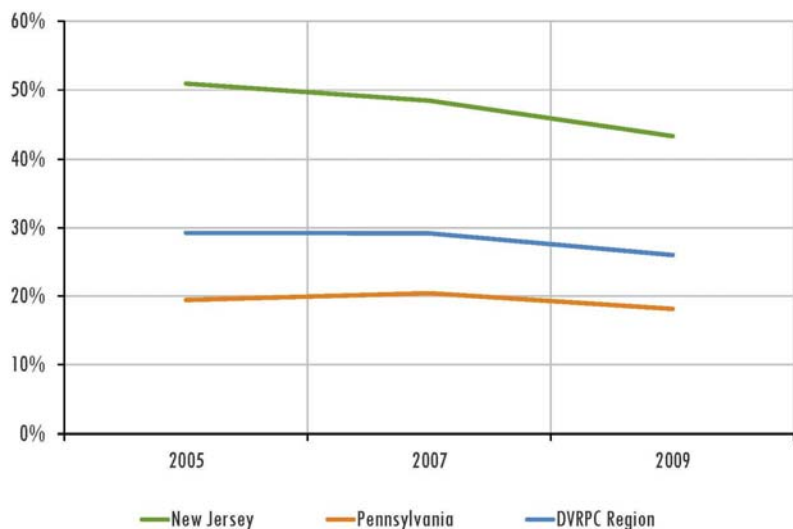
PennDOT's state-of-good-repair (SOGR) goal for pavement is reducing lane miles in deficient condition to 10 percent of the total. NJDOT has an SOGR goal to reduce total lane miles in deficient condition to less than 20 percent.

DVRPC used 2005 as a baseline for this measure because NJDOT revised its pavement rating standards between 2000 and 2005. NJDOT made its standards more stringent. In order to ensure a fair comparison, data before 2005 has been dropped from the analysis.

Both state DOTs reduced the backlog of deficient pavement by 102 lane miles from 2007 to 2009. This has helped the region to reduce the lane miles in deficient condition from 29 percent in the baseline to 26 percent. However, both state subregions remain well below their stated SOGR goals.

National comparisons are difficult to make. Each state and region has its own definition of what is a deficient highway, and no entity maintains a regularly updated national database of road condition.

DVRPC REGION PERCENT OF LANE MILES IN DEFICIENT CONDITION



Source: NJDOT and PennDOT
*NJDOT standards changed between 2000 and 2005

DVRPC REGION TOTAL AND PERCENT OF LANE MILES IN DEFICIENT CONDITION

	2005	2007	2009	PERCENT CHANGE 2005 TO 2009
NEW JERSEY SUBREGION				
Total Deficient Lane Miles	997	954	852	-14.6%
Percent of Total Lane Miles	50.9%	48.4%	43.3%	-
PENNSYLVANIA SUBREGION				
Total Deficient Lane Miles	829	872	770	-7.1%
Percent of Total Lane Miles	19.4%	20.4%	18.1%	-
DVRPC REGION TOTAL				
Total Deficient Lane Miles	1,826	1,826	1,622	-11.2%
Percent of Total Lane Miles	29.3%	29.2%	26.1%	-

Source: NJDOT and PennDOT



The region reduced its backlog of deficient lane miles by 11 percent between 2005 and 2009. Lack of secured transportation funding in the future may jeopardize attainment of the region's maintenance goals.



IS THE TRANSIT SYSTEM BEING MAINTAINED?



HOW IS THE DVRPC REGION PERFORMING?

The average rail vehicle age for the region (30.5 years) and both subregions (Pennsylvania 31.4 years and New Jersey 25.8 years) is considerably older than the state-of-good-repair (SOGR) goal of a 20-year average fleet age. The average bus age (7.4 years) for the region and both subregions (New Jersey 6.9 years and 7.5 years Pennsylvania) is slightly older than the SOGR goal of a 6.5-year average fleet age. Older trains and buses are more prone to breakdowns, less comfortable for riders, less energy efficient, require more maintenance, and have higher operating costs than newer vehicles.

INDICATOR

AVERAGE TRANSIT VEHICLE AGE

Rail vehicles have an expected 40-year lifespan, while buses have an expected 13-year lifespan. Maintaining a state-of-good-repair (SOGR) for transit vehicles generally means keeping an average fleet age of half the expected lifespan, or 20 years for rail vehicles and 6.5 years for buses. Rail vehicles in this indicator include light rail, heavy rail, and regional rail cars. Often, one of these fleets will all turn over at once because transit providers usually purchase rail vehicle replacements in bulk to help reduce the cost per vehicle. Thus, a slightly higher average vehicle age is less of a concern for rail. By contrast, bus purchases need to occur more regularly in order to maintain an SOGR. Older vehicles are more prone to breaking down, less comfortable for riders, less energy efficient, and require more maintenance.

The Pennsylvania subregion's rail

fleet has an average age of more than 31 years. SEPTA's regional rail vehicles are the oldest in their system, dating mostly from the mid-1960s to mid-1970s. SEPTA had the first delivery of new Silverliner V's in 2010 to begin replacing them. New Jersey's rail fleet has an average vehicle age of just under 26 years, mostly due to PATCO's average vehicle age of 37 years. PATCO's fleet is evenly divided between New Jersey and Pennsylvania for this analysis; however, it still makes up nearly half of all New Jersey rail vehicles (60 out of 143). Total overhaul of the PATCO fleet, which will result in like-new conditions, began in 2011. Both subregions' bus fleets are also slightly above the SOGR goal.

DVRPC chose transit vehicle age as an indicator because transit vehicles require more regular and frequent replacement than other components of rail infrastructure.

DVRPC REGION TRANSIT VEHICLE AGE (YEARS)

	2010		2010
NEW JERSEY SUBREGION			
Total Buses	528	Total Rail Vehicles	143
Average Bus Age (Years)	6.9	Average Rail Vehicle Age (Years)	25.8
PENNSYLVANIA SUBREGION			
Total Buses	1,511	Total Rail Vehicles	888
Average Bus Age (Years)	7.5	Average Rail Vehicle Age (Years)	31.4
DVRPC REGION TOTAL			
Total Buses	2,039	Total Rail Vehicles	1,031
Average Bus Age (Years)	7.4	Average Rail Vehicle Age (Years)	30.5
NATIONAL TOTAL			
Total Buses	69,504	Total Rail Vehicles	N/A
Average Bus Age (Years)	7.4	Average Rail Vehicle Age (Years)	N/A

Source: American Public Transportation Association, SEPTA, NJ Transit, PATCO, and Pottstown Area Rapid Transit



IS TIP INVESTMENT IN PLAN CENTERS INCREASING?



HOW IS THE DVRPC REGION PERFORMING?

Transportation Improvement Program (TIP) expenditures in Plan Centers in the region have increased by 8.3 percent between Fiscal Year (FY) 2003 and FY 2012/13.

INDICATORS

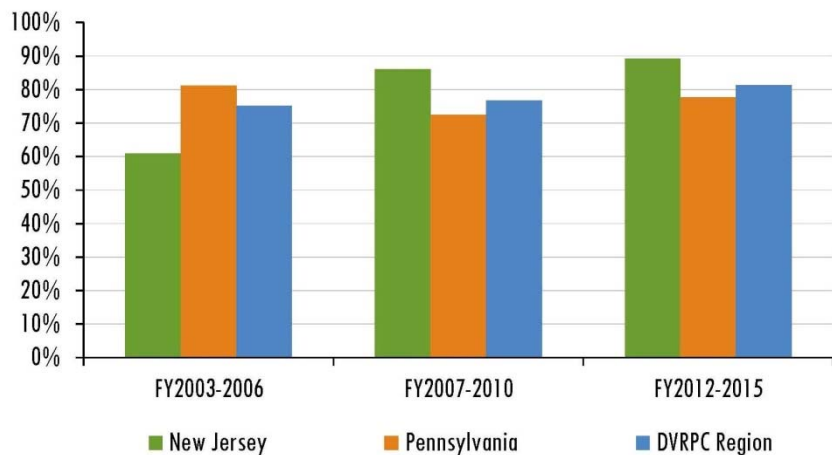
PERCENTAGE AND DOLLAR AMOUNT OF MAPPED TIP INVESTMENT IN PLAN CENTERS

The *Connections* long-range plan identifies over 100 Centers. Centers provide a focal point in the regional landscape that can reinforce or establish a sense of community for local residents, while recognizing their regional and local significance. Centers provide a focus for new development, including revitalization, infill, and adaptive reuse. By concentrating new growth in Centers, the region can both preserve open space and reduce the cost of infrastructure maintenance and expansion.

The Pennsylvania and New Jersey subregions have separate Transportation Improvement Programs (TIPs). This analysis considered the Fiscal Year 2013 to 2016 TIP (FY 2013 TIP) for Pennsylvania and the Fiscal Year 2012 to 2015 TIP for New Jersey (FY 2012 TIP). In the FY 2012 and 2013 TIPs, investment in Plan Centers represented over 80

percent of the mappable TIP projects. TIP investment in Plan Centers, as a total of available funding between the FY 2003 TIP and the FY 2012 TIPs, improved by 46.6 percent in New Jersey, while Pennsylvania TIP investment in Plan Centers decreased by 4.4 percent between the FY 2003 and the FY 2013 TIPs. TIP expenditures in Plan Centers in the region have increased by 8.3 percent between FY 2003 and FY 2012/13. Since the Pennsylvania TIP has substantially more funding than the New Jersey TIP, the Pennsylvania TIP value slightly skews the regional figure. The minor decrease in TIP investment in Centers in Pennsylvania may be accounted for by expenditures on the interstate and freeway system, such as US 202, PA 611, and I-476, as well as a commitment to repair and maintain bridges, which may benefit Plan Centers, but are not in geographic proximity to the Centers.

PERCENT OF TIP INVESTMENT IN CENTERS (MAPPABLE PROJECTS)*



Source: DVRPC FY 2003, FY 2007 TIPS for PA and NJ, FY 2012 TIP for NJ, and FY 2013 TIP for PA

This indicator was developed using a Geographic Information System analysis. This analysis selected TIP projects that were within or intersected Plan Centers. Values of these projects were then summed and the percentage of TIP investment serving Plan Centers was calculated.

Some qualifications apply:

- These figures are for projects that are able to be mapped.

- Between 24 percent and 49 percent of TIP projects are not mapped. Nonmapped projects include all funding for studies, statewide programs, and other such line items. While many such projects support Plan goals, they can not be expressed in a geographic context. Approximately 49 percent of the projects in the FY 2003 TIPs were not mapped, 34 percent in the FY 2007 TIPs were not mapped, and 24 percent in the FY 2012

and FY 2013 TIPs were not mapped. These projects were not included in these calculations.

- A one-mile buffer was placed around Plan Centers because improvements in the transportation network often benefit a larger area. The buffer also helps to capture bridge projects, which are critical links between Plan Centers and the transportation network.

PERCENTAGE OF TIP INVESTMENT IN PLAN CENTERS* (2003–2012)

NEW JERSEY SUBREGION FUNDING (IN THOUSANDS \$\$)	FY 2003-2005 TIP	FY 2007-2010 TIP	FY 2012-2015 TIP	% CHANGE AS PERCENTAGE OF TIP FUNDING)
Within Plan Center	\$ 398,000	\$ 730,000	\$ 997,000	46.7%
Outside Plan Center	\$ 256,000	\$ 118,000	\$ 120,000	
Percent within Plan Centers	60.9%	86.1%	89.3%	
PENNSYLVANIA SUBREGION FUNDING (IN THOUSANDS \$\$)	FY 2003-2005 TIP	FY 2007-2010 TIP	FY 2013-2016 TIP	% CHANGE (AS PERCENTAGE OF TIP FUNDING)
Within Plan Center	\$ 1,251,229	\$ 1,358,411	\$ 1,831,088	-4.4%
Outside Plan Center	\$ 290,180	\$ 525,022	\$ 528,453	
Percent within Plan Centers	81.2%	72.5%	77.6%	
DVRPC REGION FUNDING (IN THOUSANDS \$\$)	FY 2003 TIPS	FY 2007 TIPS	FY 2012, 2013TIPS	% CHANGE (AS PERCENTAGE OF TIP CFUNDING)
Within Plan Center	\$1,649,229	\$2,088,411	\$2,828,088	8.3%
Outside Plan Center	546,180	633,022	648,453	
Percent within Plan Centers	75.1%	76.7%	81.3%	

Source: DVRPC FY 2003, FY 2007 TIPS for PA and NJ, FY 2012 TIP for NJ, and FY 2013 TIP for PA
 *Percentage of TIP funds spent on Mappable TIP Projects that are invested in Plan Centers

The Region has programmed over \$2.8 Billion in Transportation Improvement Projects in Plan Centers in the 2012-2013 TIPs.



ARE FREIGHT SHIPMENTS IN THE REGION INCREASING?



HOW IS THE DVRPC REGION PERFORMING?

Freight movement in the region declined in both tons of freight (-16.3%) and value (-7.9%) between 2007 and 2010. The decline in tons of freight was substantially higher in the Delaware Valley region while declines in value were consistent with other east coast regions including Baltimore and Savannah.

INDICATOR

TOTAL SHIPMENTS BY WEIGHT AND VALUE BY MODE

Freight shipments are the economic lifeblood of a region. The Delaware Valley region hosts an array of active manufacturing warehouses, ports, a busy international airport, an extensive interstate highway system and network of class 1 and short-line railroads. The measure of total domestic shipments reflects both the health of the economy and multimodal transportation system of the region.

This data comes from the Federal Highway Administration's Freight Analysis Framework (FAF) and is based on the Philadelphia Consolidated Statistical Area (CSA). The CSA is a close, but not exact, match to the DVRPC region, adding Cumberland and Salem counties, but not including Mercer County, in New Jersey. The FAF uses multiple data sources to estimate freight commodity movements through international gateways, major metropolitan areas, regions, and states.

In 2010, 362 million tons of goods worth an estimated \$450 billion, moved through, in, and out of the region. The bulk of the region's freight movement in 2010, by weight and value, was completed by truck. This underscores the role that highway conditions play in the region's economic competitiveness, and roadways in poor condition and congestion both act as chokepoints on our region's economy; particularly in this era of globalization and just-in-time delivery.

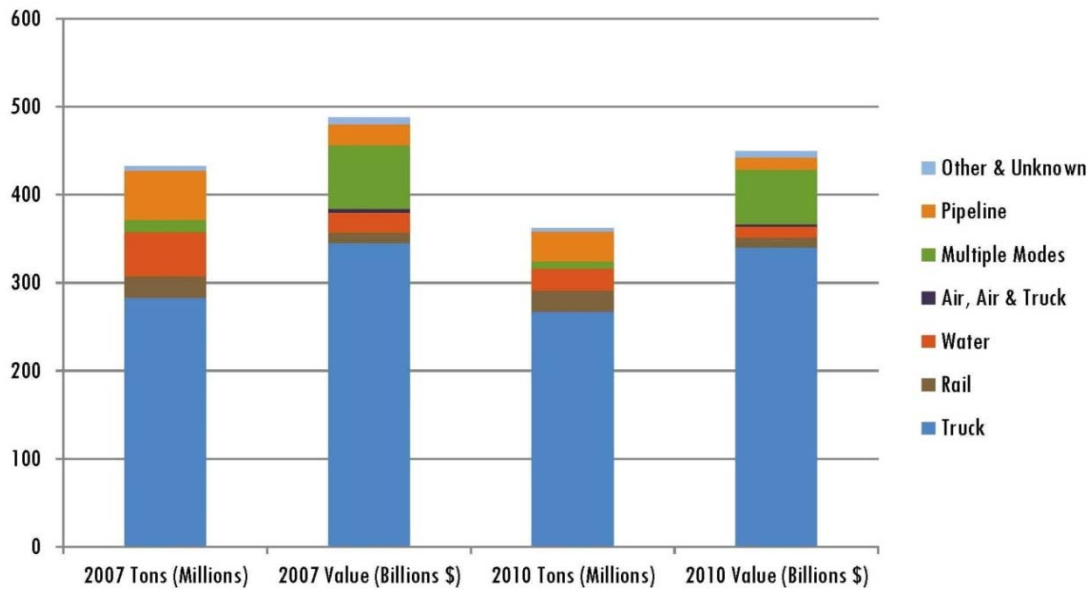
Freight movement in the region declined in both tons of freight (-16.3%) and value (-7.9%) between 2007 and 2010. These trends echo national trends caused by economic recession. The decline in tons of freight was substantially higher in the Delaware Valley region while declines in value were consistent with other east coast regions including Baltimore and Savannah.

TOTAL SHIPMENTS BY WEIGHT AND VALUE BY MODE

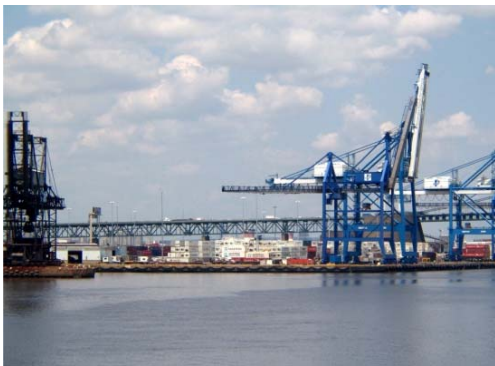
ALL FIGURES IN MILLIONS	2007	2007	2010	2010
MODE	TONS	VALUE	TONS	VALUE
Truck	283.1	\$345,279	267.6	\$ 340,258
Rail	24.5	\$12,369	23.8	\$11,344
Water	50.1	\$22,694	24.7	\$12,367
Air/Air and Truck	<1.0	\$4,874	<1.0	\$2,304
Multiple Modes	13.6	\$72,118	8.5	\$62,267
Pipeline	56.5	\$23,778	33.5	\$14,138
Other and Unknown	4.9	\$7,322	3.9	\$6,831
Total	432.7	\$488,434	362.0	\$ 449,508

Source: US Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework Version 3

TOTAL DOMESTIC SHIPMENTS BY WEIGHT AND VALUE BY MODE



Source: US Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework Version 3
 Note: 2010 FAF data is considered provisional



Over 362 million tons of freight moved within, from, and through the region in 2010.



IS AIRLINE PASSENGER TRAFFIC INCREASING?



HOW IS THE DVRPC REGION PERFORMING?

Despite a severe economic downturn, passenger traffic at Philadelphia International Airport (PHL) remained fairly stable between 2007 and 2011, decreasing by 4.5 percent. This decrease came after PHL saw a 27.5 percent increase between 2003 and 2005 that coincided with Southwest Airlines initiating service to Philadelphia.

INDICATOR

TOTAL PASSENGER TRAFFIC AT PHILADELPHIA INTERNATIONAL AIRPORT

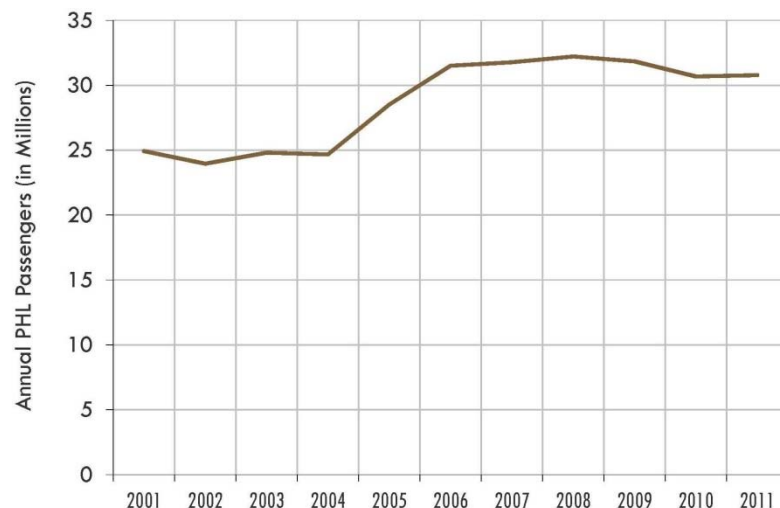
Airline passenger traffic generally reflects economic trends in the nation. Passenger traffic correlates with increased disposable income and economic activity. Philadelphia International Airport (PHL) is ranked as one of the world's busiest airports in terms of aircraft movements, but future growth is currently constrained because the physical lay-out of the runways limits the number of take-offs and landings. A plan has recently been approved by the Federal Aviation Administration (FAA) to increase capacity and improve the runway configuration at the airport.

In 2011, 30.8 million passengers flew through PHL, the same number

of passengers as in 2010, after two years of decreasing traffic. PHL remains 4.5 percent below its peak year for traffic, in 2007 (32.2 million). This decrease is attributable to the severe economic downturn. Prior to the downturn, PHL saw a significant increase (27.5 percent) in passengers between 2003 and 2005. This increase coincided with Southwest Airlines initiating service to Philadelphia.

PHL ranks as the ninth busiest airport in the nation with regard to aircraft movements and 18th in the nation in passenger movements.

ANNUAL PASSENGERS AT PHILADELPHIA INTERNATIONAL AIRPORT

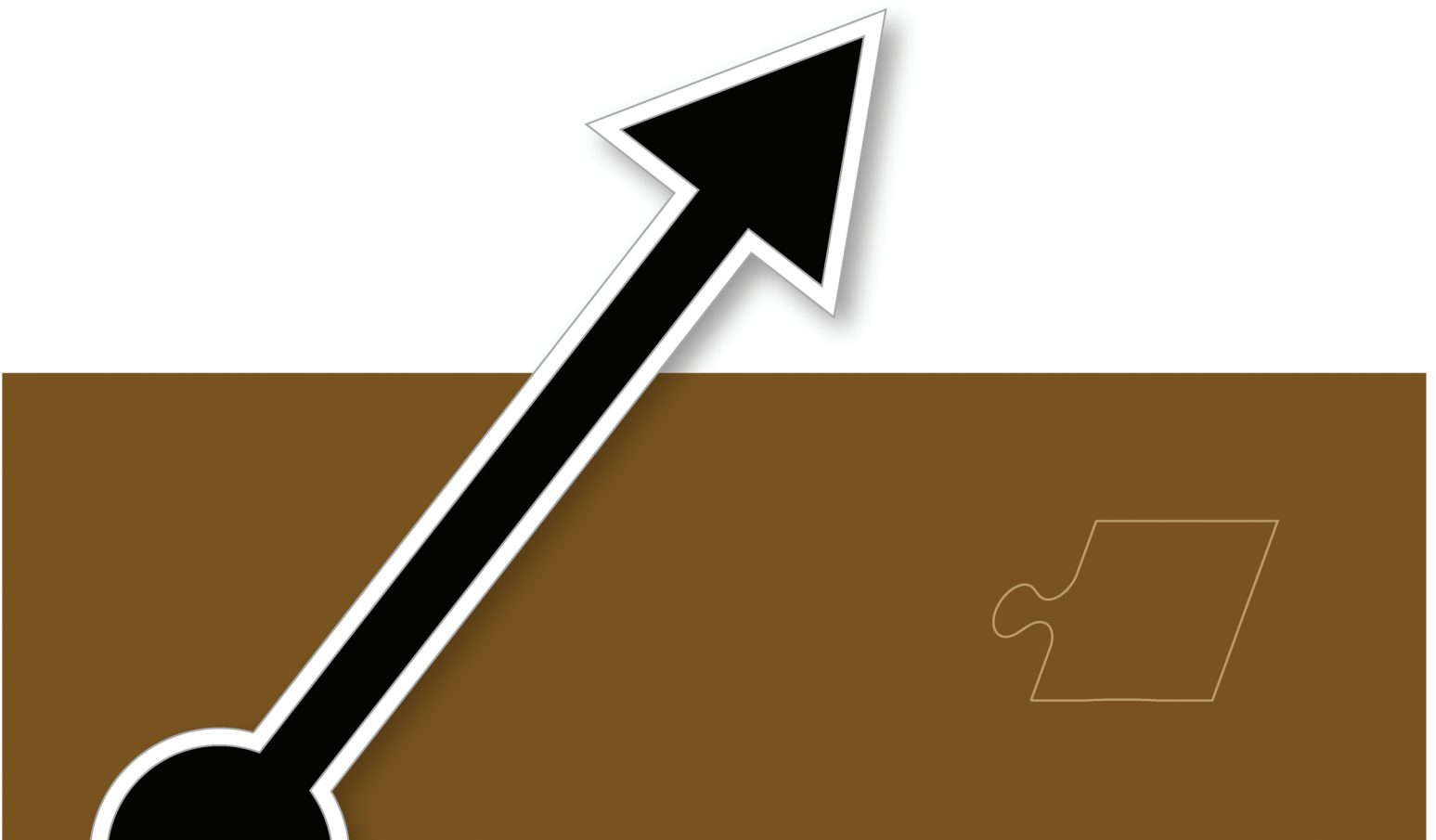


Source: Philadelphia International Airport.



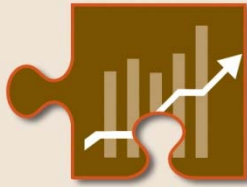
ECO-ECONOMY:

**Building an Energy
Efficient Economy**



ECO-ECONOMY: Building an Energy Efficient Economy

What We Track	How is the DVRPC Region Performing?	Trend
<p>Has the number of jobs in the region increased?</p>	<p>The number of employees in the DVRPC region remained relatively stable between 2001 and 2011, declining by approximately one percent (about 30,000 employees), despite the recession. The region's diverse economy protects the region from dramatic fluctuations in employment experienced by less diverse economies.</p>	
<p>Has average annual pay in the region increased?</p>	<p>Between 2001 and 2011 the average annual pay in Greater Philadelphia increased by 35 percent (from \$40,799 to \$55,036) which compares favorably to a national average increase of 33 percent.</p>	
<p>Is the workforce becoming more educated?</p>	<p>The percentage of the region's adult population with associates', bachelors', graduate, or professional degrees has increased steadily since 1990, and educational attainment in the region is significantly higher than that of the nation as a whole.</p>	
<p>Is housing becoming more affordable?</p>	<p>Approximately 25 percent of homeowners and 45 percent of renters pay 35 percent or more of their income toward housing costs.</p>	
<p>Are greenhouse gas emissions lower?</p>	<p>In 2005, total regional greenhouse gas emissions were 87.66 MMTCO₂E. The region's emissions are comparable to those of Austria and Portugal, which have roughly twice the population as Greater Philadelphia. This is the first year for which DVRPC has calculated this indicator and 2005 data will serve as a benchmark for future comparisons.</p>	
<p>Are we using less energy?</p>	<p>In 2005, total regional energy use was 947,924 BBTU. This is the first year for which DVRPC has calculated this indicator and 2005 data will serve as a benchmark for future comparisons.</p>	



HAS THE NUMBER OF JOBS IN THE REGION INCREASED?



HOW IS THE DVRPC REGION PERFORMING?

The number of employees in the DVRPC region remained relatively stable between 2001 and 2011, declining by approximately one percent (about 30,000 employees), despite the recession. The region's diverse economy protects the region from dramatic fluctuations in employment experienced by less diverse economies.

INDICATOR

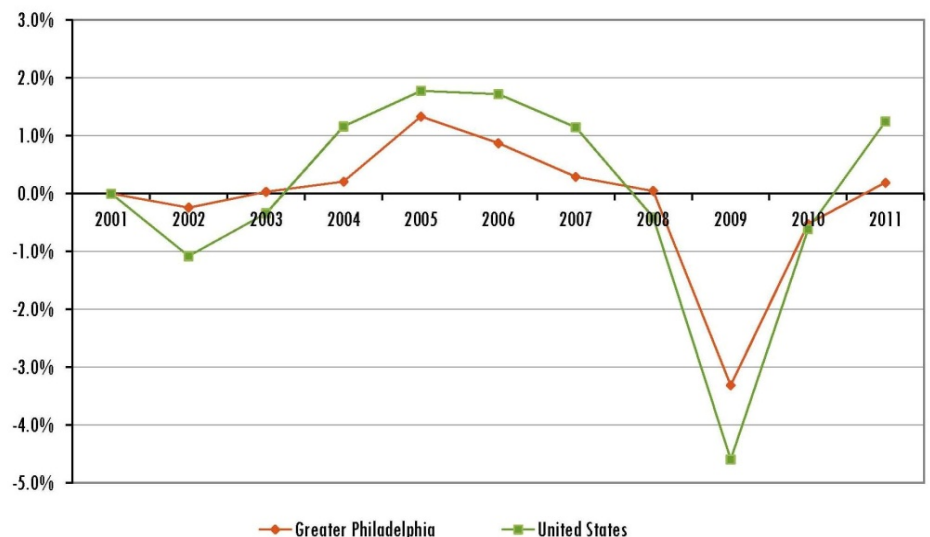
NUMBER OF EMPLOYEES

Between 2001 and 2011, the number of employees in Greater Philadelphia remained relatively stable, despite the worsening economic climate, declining by approximately one percent over the decade. This loss is slightly higher than the national loss of 0.17 percent. The greatest single-year decrease occurred between 2008 and 2009, when the DVRPC region's employment declined by over three percent. This period compared favorably to a national decline of over four and one-half percent. Since the beginning of the economic recovery in 2009, job growth has been slower than in the nation as a whole, however, the region's job loss during the recession was also not as severe. The diversity of the region's economy has historically protected the region from the dramatic increases and declines experienced in other less diverse economies.

The region's economy has transitioned from industrial

manufacturing to professional services, with over 80 percent of the region's workforce currently employed in service-providing sectors. Since 2000, construction and manufacturing employment has declined by 32 percent, while the number of nonmanufacturing jobs has increased dramatically. Fast-growing service sectors include professional, business, and management services; education and health-related services; and arts, entertainment, and recreation services. While the region's economy was once dominated by manufacturing, knowledge-based industries are now prominent, with life sciences, information technology, professional services, and chemicals ranking among the region's top industries. Sectors such as education and health services, professional and business services, financial activities, and information technology require highly educated and skilled workers, and now make up over 40 percent of the region's employment.

PERCENT ANNUAL CHANGE IN EMPLOYMENT, 2001-2011



Source: U.S. Bureau of Labor Statistics, Census of Population and Wages

TOTAL EMPLOYMENT, DVRPC REGION VERSUS THE UNITED STATES, 2001-2011

YEAR	EMPLOYMENT		PERCENT CHANGE SINCE 2001		PERCENT ANNUAL CHANGE	
	DVRPC REGION	UNITED STATES	DVRPC REGION	UNITED STATES	DVRPC REGION	UNITED STATES
2001	2,514,788	129,635,800	--	--	--	--
2002	2,508,658	128,233,919	-0.24%	-1.08%	-0.24%	-1.08%
2003	2,509,407	127,795,827	-0.21%	-1.42%	0.03%	-0.34%
2004	2,514,540	129,278,176	-0.01%	-0.28%	0.20%	1.16%
2005	2,548,018	131,571,623	2.52%	1.49%	1.33%	1.77%
2006	2,570,131	133,833,834	2.20%	3.24%	0.87%	1.72%
2007	2,577,542	135,366,106	2.50%	4.42%	0.29%	1.14%
2008	2,578,664	134,805,659	2.54%	3.99%	0.04%	-0.41%
2009	2,493,177	128,607,842	-0.86%	-0.79%	-3.32%	-4.60%
2010	2,480,051	127,820,442	-1.38%	-1.40%	-0.53%	-0.61%
2011	2,484,730	129,411,095	-1.20%	-0.17%	0.19%	1.24%

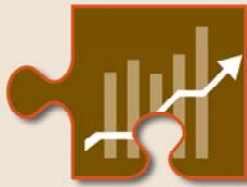
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Population and Wages. Includes only employment covered by unemployment insurance; excludes members of the armed services, self-employed workers, single proprietors, domestic workers, unpaid family workers, and railroad workers covered by the railroad unemployment insurance system

TOTAL EMPLOYMENT BY SECTOR, DVRPC REGION, 2000-2010

SECTOR	2000	2010	ABSOLUTE CHANGE	PERCENT CHANGE
Agriculture, forestry, fishing, and hunting	16,121	13,148	-2,973	-18%
Mining and utilities	14,274	12,263	-2,461	-17%
Construction and manufacturing	422,280	288,142	-134,138	-32%
Wholesale and retail trade	466,535	426,887	-39,648	-8%
Transportation and warehousing	84,850	81,045	-3,805	-4%
Information technology	80,244	59,592	-20,652	-26%
Finance, insurance, and real estate	233,067	216,205	-16,862	-7%
Professional, scientific, and technical services	209,763	223,710	13,947	7%
Management of companies and businesses	40,312	61,078	20,766	52%
Waste management and remediation	179,550	160,954	-18,596	-10%
Educational services	117,932	142,532	24,600	21%
Health care and social assistance	375,731	455,052	79,321	21%
Arts, entertainment, and recreation	35,807	44,899	9,092	25%
Accommodation and food services	170,062	186,331	16,269	10%
Other services (except public administration)	118,540	128,623	10,083	9%
Federal, state, and local government	393,101	410,907	17,806	5%
Total Regional Employment	2,958,619	2,911,368	-47,251	-2%

Source: IHS Global Insight, Business Market Insight database, September, 2011. This data includes employment not included in the data available from the U.S. Bureau of Labor Statistics, such as railroad workers, members of the armed services, and farm workers.

*2011 Data on Employment by Sector was not available at the time of this report publication.



HAS AVERAGE ANNUAL PAY IN THE REGION INCREASED?



HOW IS THE DVRPC REGION PERFORMING?

Between 2001 and 2011, the average annual pay in Greater Philadelphia increased by 35 percent (from \$40,799 to \$55,036), which compares favorably to a national average increase of 33 percent.

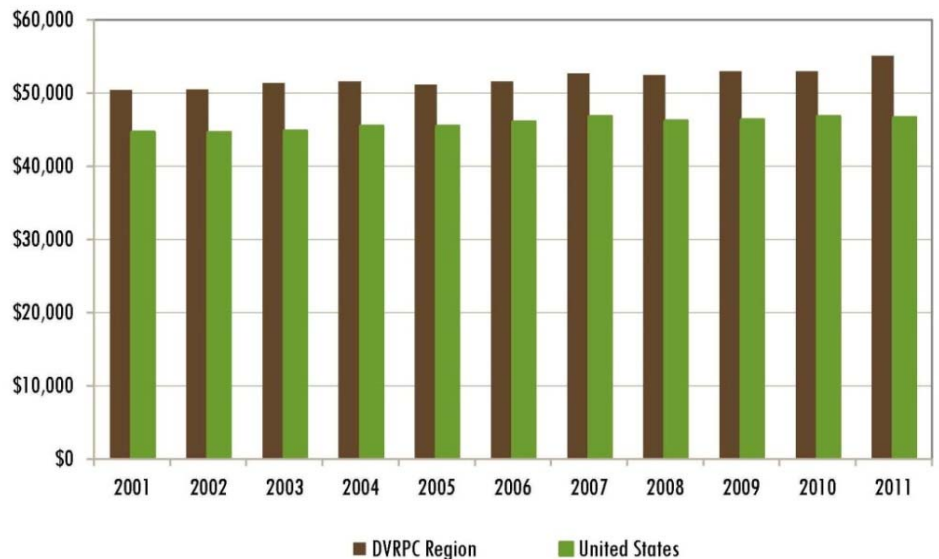
INDICATORS

AVERAGE ANNUAL WAGE AND PER CAPITA PERSONAL INCOME

Average wages in the DVRPC region have historically tracked higher than those in the nation overall. Between 2001 and 2011, the average annual pay in the DVRPC region increased by 35 percent, from \$40,799 to \$55,036. This compares favorably to a national increase of 33 percent, from \$36,219 to \$48,043. When converted to 2011 dollars, the four percent regional increase between 2010 and 2011 compares favorably to the 0.4 percent decrease in wages realized nationally.

Higher wages may reflect the higher level of education attained by workers in the region, the types of jobs available in the region's leading employment sectors, the higher cost of living in the region, or most likely, a composite of all of these factors. The fact that the wages in the region continued to grow faster through the economic downturn of the second half of the decade, compared to the nation as a whole, reflects the diversity of the region's economy and strength of the region's knowledge-based industries.

AVERAGE ANNUAL WAGE PER EMPLOYEE, 2001-2011 (IN 2011 DOLLARS)



Source: U.S. Bureau of Labor Statistics, Economic Analysis and Information Branch

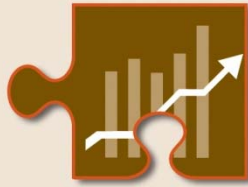
AVERAGE ANNUAL WAGE PER EMPLOYEE IN THE DVRPC REGION AND THE UNITED STATES, 2001-2011

YEAR	AVERAGE ANNUAL WAGE DVRPC REGION	AVERAGE ANNUAL WAGE UNITED STATES	AVERAGE ANNUAL WAGE IN 2011 DOLLARS, DVRPC REGION	AVERAGE ANNUAL WAGE IN 2011 DOLLARS, UNITED STATES
2001	\$40,799	\$36,219	\$50,365	\$46,003
2002	\$41,708	\$36,764	\$50,485	\$45,973
2003	\$43,321	\$37,765	\$51,354	\$46,178
2004	\$45,284	\$39,354	\$51,577	\$46,862
2005	\$46,613	\$40,677	\$51,089	\$46,850
2006	\$48,849	\$42,535	\$51,545	\$47,459
2007	\$50,987	\$44,458	\$52,649	\$48,231
2008	\$52,500	\$45,563	\$52,424	\$47,602
2009	\$52,851	\$45,559	\$52,975	\$47,768
2010	\$53,847	\$46,751	\$52,924	\$48,227
2011	\$55,036	\$48,043	\$55,036	\$48,043

Source: U.S. Bureau of Labor Statistics, Economic Analysis and Information Branch



The annual average wage in the DVRPC Region is more than \$5,000 higher than the national average.



IS THE WORK FORCE BECOMING MORE EDUCATED?



HOW IS THE DVRPC REGION PERFORMING?

The percentage of the region's adult population with associate's, bachelor's, graduate, or professional degrees has increased steadily since 1990, and educational attainment in the region is significantly higher than that of the nation as a whole. However, the urban core lags in educational attainment compared to the suburbs.

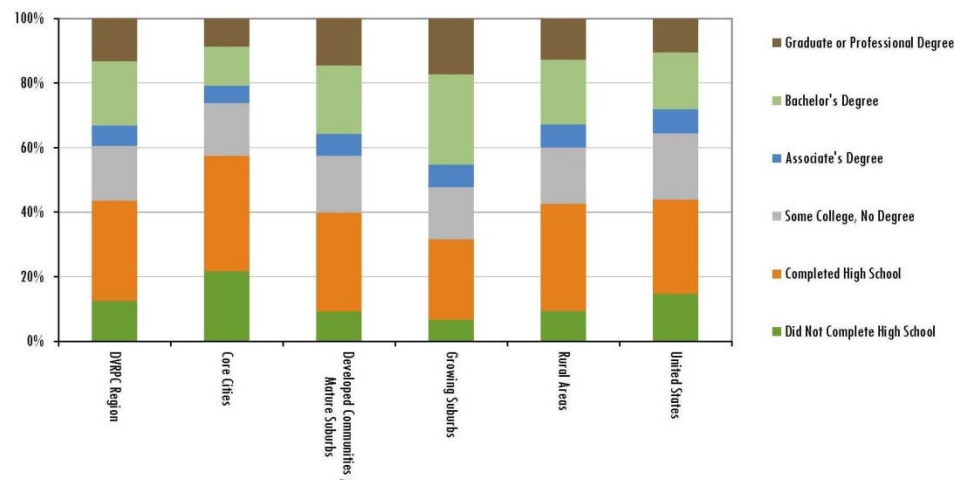
INDICATOR

EDUCATIONAL ATTAINMENT
BY CONNECTIONS PLANNING AREA

The percentage of the region's adult population with associate's, bachelor's, graduate, or professional degrees has increased steadily since 1990. Educational attainment in the region is also significantly higher than that of the nation as a whole. Thirty-three percent of the region's adults aged 25 or older have earned at least a bachelor's degree, compared to 28 percent nationally. The percent of college graduates in the region also compares favorably to the nation's other top metropolitan areas. Of the 10 largest metropolitan areas, only Washington, D.C., Boston, New York, Atlanta, and Baltimore had a higher percentage of adults with college degrees.

When considering educational attainment by *Connections* planning area, however, it is clear that the region's greatest challenge lies in resolving the disparity between educational levels attained in the region's urban core versus suburban areas. In the four Core Cities, over 22 percent of the adult population did not complete high school as of 2010, compared to 12.5 percent region-wide, seven percent in the Growing Suburbs, and nine percent in the other two *Connections* planning areas. Similarly, only 21 percent of the adult residents in Core Cities have received at least a four-year bachelor's degree, compared to 45 percent in Growing Suburbs and 33 percent region-wide.

EDUCATIONAL ATTAINMENT OF THE POPULATION AGE 25 AND OLDER BY DEGREE, 2006-2010



Source: U.S. Census Bureau, American Community Survey, five-year estimates, 2006-2010

On a positive note, the percent of adult residents in the region's Core Cities that, at a minimum, completed high school increased by 1.5 percent between 2008 and 2010, slightly higher than the gain realized in the region as a whole.

The DVRPC region has over 100 colleges and universities that offer associate's degrees or higher, which continue to fuel and develop the region's highly skilled workforce. Almost 400,000 full-time and part-time students were enrolled in the region's colleges

and universities in the fall of 2010, and over 80,000 certificates and degrees were awarded at all levels (of which approximately 79 percent are bachelor's degrees or higher). According to Select Greater Philadelphia, the top five areas of study include business, management, and marketing; health professions; education; liberal arts, sciences and humanities; and social sciences. When compared to the top 25 metropolitan statistical areas (MSAs), the DVRPC region ranks third in the number of certificates

and degrees awarded per 10,000 residents. According to *US News & World Report*, the region is home to two of the nation's most elite universities—Princeton University in Mercer County, New Jersey, and the University of Pennsylvania in Philadelphia, Pennsylvania.

HIGHEST EDUCATIONAL LEVEL ATTAINED BY CONNECTIONS PLANNING AREA, 2006-2010

	DVRPC REGION	CORE CITIES	DEVELOPED COMMUNITIES/ MATURE SUBURBS	GROWING SUBURBS	RURAL AREAS	UNITED STATES
Adults Aged 25 and Older	3,705,263	1,082,874	1,661,133	736,438	224,818	199,726,659
Did Not Complete High School	12.5%	21.8%	9.4%	6.8%	9.5%	14.9%
Completed High School	31.1%	35.8%	30.5%	24.8%	33.2%	29.0%
Completed High School Plus Some College But No Degree	17.0%	16.3%	17.7%	16.2%	17.4%	20.6%
Associate Degree	6.4%	5.3%	6.7%	7.0%	7.2%	7.5%
Bachelor's Degree	19.9%	12.2%	21.3%	28.0%	20.2%	17.6%
Graduate or Professional Degree	13.2%	8.6%	14.5%	17.2%	12.5%	10.30%

Source: U.S. Census Bureau, American Community Survey, 2006-2010 five-year estimates



IS HOUSING BECOMING MORE AFFORDABLE?



HOW IS THE DVRPC REGION PERFORMING?

Approximately 25 percent of homeowners and 45 percent of renters pay 35 percent or more of their income toward housing costs, the commonly accepted threshold for housing affordability.

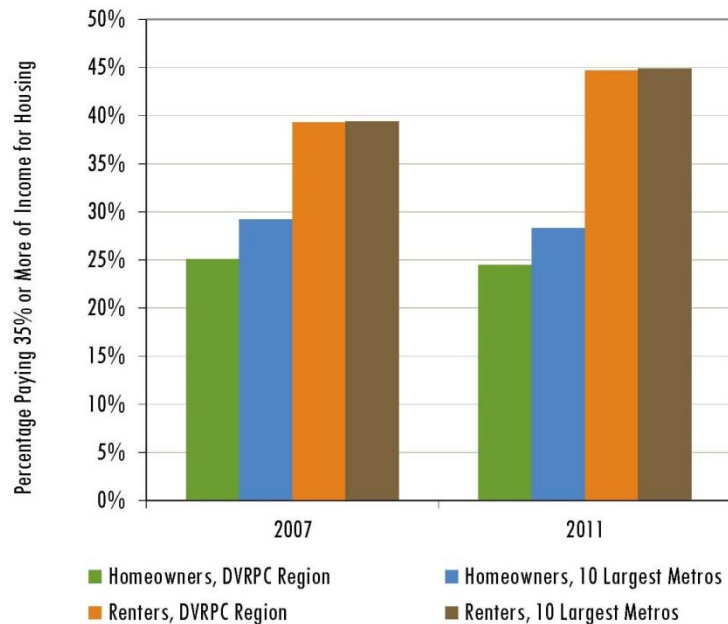
INDICATOR

THE PERCENTAGE OF HOUSEHOLDS PAYING 35 PERCENT OR MORE OF THEIR INCOME FOR SELECTED HOUSING COSTS

Maintaining a diverse supply of housing at all price points is critical to attracting a sufficient labor force and maintaining economic competitiveness. Based on American Community Survey data, 25 percent of homeowners and almost 45 percent of renters in Greater Philadelphia pay 35 percent or more of their income toward housing, the commonly accepted threshold for housing affordability. Although housing in the Philadelphia region is generally less affordable than the nation as a whole, these regional percentages compare favorably with the nation's other 10 largest metropolitan areas. Greater Philadelphia is generally more affordable for homeowners, while for renters, the percentage paying 35 percent or more of their income for housing is approximately the same as in other large metro areas. The exception is the relative

affordability for homeowners without a mortgage, where the regional percentage paying 35 percent or more of their income toward housing is slightly higher than either the national average or the average in other large metros. This is probably related to both the older average age of the region's population (and consequent higher percentage of retired homeowners on fixed incomes) and relatively high local property taxes. When considering housing affordability by Connections Planning Area, the region's greatest challenges are in its Core Cities, where a higher percentage of residents pay 35 percent or more of their income toward housing. This is in spite of the fact that these areas generally have the lowest actual housing costs, due to concentrations of lower-income households.

HOUSING AFFORDABILITY, 2007-2011 DVRPC REGION VERSUS THE NATION'S 10 LARGEST METROS



Source: U.S. Census Bureau, American Community Survey

AVERAGE PERCENTAGE OF HOUSEHOLDS PAYING 35 PERCENT OR MORE OF THEIR INCOME TOWARD HOUSING COSTS, 2007-2011

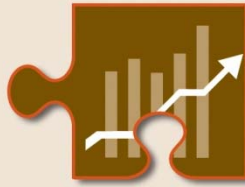
	ALL HOMEOWNERS	HOMEOWNERS WITH A MORTGAGE	HOMEOWNERS WITHOUT A MORTGAGE	RENTERS
DVRPC REGION	25.4%	28.6%	17.7%	44.7%
DVRPC PLANNING AREAS				
Core Cities	27.0%	32.5%	18.4%	49.3%
Developed Communities/Mature Suburbs	25.5%	28.3%	18.5%	41.2%
Growing Suburbs	23.4%	25.9%	15.5%	39.6%
Rural Areas	25.5%	29.5%	15.5%	42.0%
NATION'S 10 LARGEST METROS	28.3%	32.9%	16.8%	44.9%
UNITED STATES	24.1%	28.5%	12.8%	44.6%

Note: The nation's 10 largest metros include Boston-Cambridge-Quincy, Chicago-Naperville-Joliet, Dallas-Fort Worth-Arlington, Detroit-Warren-Livonia, Houston-Sugarland-Baytown, Los Angeles-Long Beach-Santa Ana, New York-Northern New Jersey-Long Island, Philadelphia-Camden-Wilmington, San Francisco-Oakland-Fremont, and Washington-Alexandria-Arlington

Source: U. S. Census Bureau, American Community Survey



Approximately 25 percent of homeowners in the region pay 35 percent or more of their income on housing costs.



ARE GREENHOUSE GAS EMISSIONS LOWER?



HOW IS THE DVRPC REGION PERFORMING?

In 2005, total regional greenhouse gas emissions were 87.66 MMTCO₂E. The region's emissions are comparable to those of Austria and Portugal, which have roughly twice the population as Greater Philadelphia. This is the first year for which DVRPC has calculated this indicator, and 2005 data will serve as a benchmark for future comparison

INDICATOR

GREENHOUSE GAS EMISSIONS IN MILLION METRIC TONS OF CO₂ EQUIVALENT (MMTCO₂E).

The *Connections Plan* calls for reducing the region's greenhouse gas (GHG) emissions by 50 percent from 2005 to 2035. Reducing the region's GHG emissions by 50 percent is a formidable challenge requiring a concerted effort at the global, national, state, regional, county, local, neighborhood, household, and individual levels.

In 2005, total regional GHG emissions were 87.7 Million Metric Tons (MMT). The region's GHG emissions were slightly higher than Austria's emissions and slightly lower than Portugal's. Both of these countries have roughly twice the population as the Greater Philadelphia region.

In 2005, per capita GHG emissions were 15.9 metric tons (MT). On this basis, emissions are about one-third lower than in the United States as a whole. In 2005, commercial and industrial sector GHG emissions were 39.48 MMT, or 36.6 percent of the total GHG emissions. The *Connections Plan* promotes three strategies for reducing GHG emissions and separate indicators for each are discussed below.

(1) Providing services with less GHG emissions. This is being measured by commercial and industrial energy use per employee, currently 14.22 MT per employee. Future decreases in this measure would show that the region is delivering services more efficiently.

(2) Reducing the demand for services that use energy. This is being measured by Gross Metropolitan Product (GMP) per commercial and industrial energy use emissions, currently \$7,465 per MT. A higher GMP per MT likely indicates that the region is reducing demand for energy and services.

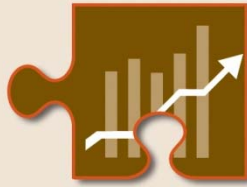
(3) Producing energy with less CO₂. This is measured by GHG emissions per unit of energy used, currently 84.86 Metric Tons per Billion British Thermal Units (MT/BBTU). Future decreases in this measure could be the result of the region producing energy with less CO₂.

2005 is the first year for which DVRPC has calculated this indicator and the 2010 figures are expected in 2013.

DVRPC REGION GREENHOUSE GAS EMISSIONS (2005)

GREENHOUSE GAS EMISSIONS BY SOURCE (In MMTCO ₂ E Except Where Noted)	2005
Residential Energy Use	21.1
Commercial and Industrial Energy Use	32.1
Transportation Energy Use	27.2
Other	7.3
Total	87.7
Total Per Capita (MT)	15.9
Due to Commercial and Industrial Energy Use Per Employee (MT)	14.2
GMP per Emissions from Commercial and Industrial Energy Use (\$/MT)	\$7,465
Per Energy Use (MT/BBTU)	84.9

Source: DVRPC GHG Inventory



ARE WE USING LESS ENERGY?



HOW IS THE DVRPC REGION PERFORMING?

In 2005, total regional energy use was 947,924 BBTU. This is the first year for which DVRPC has calculated this indicator, and 2005 data will serve as a benchmark for future comparison.

INDICATOR

TOTAL ENERGY USE IN BILLIONS OF BRITISH THERMAL UNITS (BBTUs)

Energy costs make up a significant percentage of household and business budgets. Reducing the amount of energy consumed will save money for residents and businesses, thereby making the region more competitive and attractive. Reducing energy consumption will also help to reduce greenhouse gas emissions. In 2005, total regional energy use was 947,924 billion British Thermal Units (BBTU).

In 2005, commercial and industrial sector energy use was 427,654

BBTU. This is 7.5 BBTU per employee. Comparing the region's Gross Metropolitan Product (GMP) to this energy use reveals that \$689,204 of GMP are created for every BBTU of energy expended. Tracking energy use on a per-employee and GMP basis allows the region to determine if it is becoming more energy efficient.

This is the first year for which DVRPC has calculated this indicator. We expect to release a 2010 value for total regional energy use by the spring of 2013.

COMMERCIAL AND INDUSTRIAL ENERGY USE (2005)

ENERGY USE (In BBTU, Except Where Noted)	2005
Commercial and Industrial Energy	427,654
Commercial and Industrial Energy Per Employee	7.5
GMP per Commercial and Industrial Energy Use (\$/BBTU)	\$689,204

Source: DVRPC



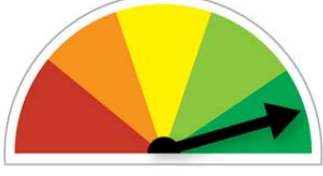


COMMUNITY:

Create Livable
Communities



COMMUNITY: Creating Livable Communities

What We Track	How is the DVRPC Region Performing?	Trend
<p>Is the population in Core Cities and Developed Communities / Mature Suburbs increasing?</p>	<p>Between 2000 and 2010, the region's population grew by 4.6 percent, with most of this growth occurring in Growing Suburbs and Developed Communities/Mature Suburbs. For the first time since the 1950's, however, the City of Philadelphia gained residents during the decade.</p>	
<p>Is employment in Core Cities and Developed Communities / Mature Suburbs increasing?</p>	<p>Despite an overall decrease in the region's employment of 14 percent between 2000 and 2010, employment in Core Cities declined by only 10 percent during the decade, compared to a decline of over 18 percent in Growing Suburbs.</p>	
<p>Has the tax base in Core Cities and Developed Communities / Mature Suburbs increased?</p>	<p>Between 2002 and 2009, the tax base per capita increased by 69 percent regionally, while increasing by only 25 percent in Core Cities.</p>	
<p>Has residential construction activity increased in Core Cities and Developed Communities / Mature Suburbs?</p>	<p>Over 53 percent of the region's residential construction permits issued between 2007 and 2011 were in Core Cities and Developed Communities/Mature Suburbs.</p>	
<p>Has mortgage lending activity increased in Core Cities and Developed Communities / Mature Suburbs?</p>	<p>Over 69 percent of the region's home purchase loans were issued in the Core Cities and Developed Communities/ Mature Suburbs in 2010, compared to 55 percent in 2000.</p>	
<p>Do development patterns support expanded transit options?</p>	<p>Between 2000 and 2010, the percentage of Traffic Analysis Zones with High or Medium-High Transit Scores increased from 51.5 percent to 51.7 percent.</p>	



IS THE POPULATION IN CORE CITIES AND DEVELOPED COMMUNITIES/MATURE SUBURBS INCREASING?



HOW IS THE DVRPC REGION PERFORMING?

Between 2000 and 2010, the region's population grew by 4.6 percent, with most of this growth occurring in Growing Suburbs and Developed Communities/Mature Suburbs. For the first time since the 1950's, however, the City of Philadelphia gained residents during the decade.

INDICATOR

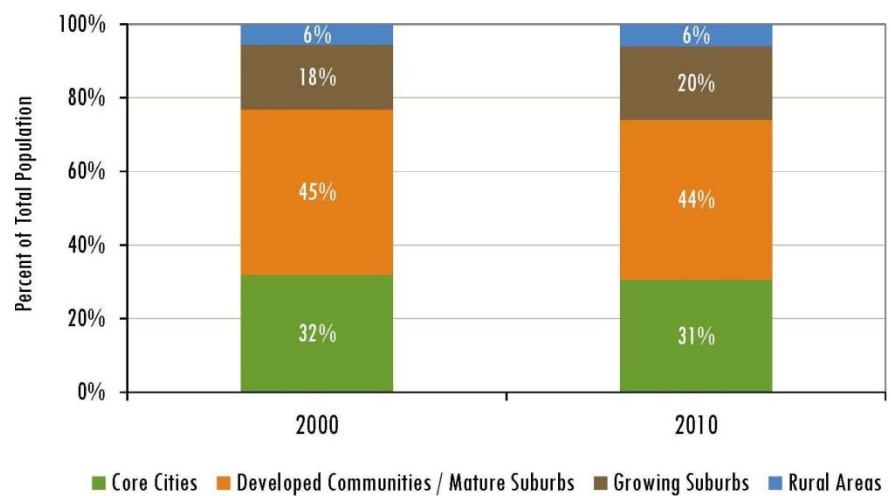
POPULATION BY *CONNECTIONS* PLANNING AREA

A key goal of *Connections* is to sustain and target growth to existing development centers. These areas can accommodate development in ways that can revitalize distressed communities, provide employment within an easy commute of those most in need of work, maintain the region's development fabric, and make maximum use of existing road and rail transportation infrastructure. In addition, concentrated development patterns have lower energy demands, which will become increasingly important to regional competitiveness as the availability and price of energy become less certain. Residents have access to necessary services (including transit), and these centers take advantage of proximity to institutions of higher learning and promote knowledge density, which is viewed as an

important driver of innovation. Between 2000 and 2010, the region's population grew by 4.6 percent. Most of the region's population growth continues to occur in Growing Suburbs and Rural Areas, which realized population increases of approximately 18 percent and 13 percent, respectively.

On a positive note, the population of the City of Philadelphia increased for the first time since the 1950s. This gain is attributable primarily to a large increase in the city's Hispanic population (which grew by almost 46 percent) and an increasing Asian population (which grew by 42 percent). Areas of the city that experienced the greatest population increases include the Central, Lower Northeast, Central Northeast, and North Delaware planning districts.

REGIONAL POPULATION DISTRIBUTION BY *CONNECTIONS* PLANNING AREA, 2000 AND 2010



Source: U.S. Census Bureau

Although the population of the region's Core Cities and Developed Communities/Mature Suburbs remained relatively stable during the decade, simultaneous population increases in the region's Growing Suburbs and Rural Areas resulted in a

decrease in the share of the region's population living in Core Cities and Developed Communities/Mature Suburbs, from 77 percent in 2000 to 75 percent in 2010.

POPULATION BY CONNECTIONS PLANNING AREA, 2000-2010

	2000	PERCENT OF REGION, 2000	2010	PERCENT OF REGION, 2010	PERCENT CHANGE 2001-2010
DVRPC Region	5,377,132	100%	5,626,186	100%	4.6%
DVRPC Planning Areas					
Core Cities	1,719,711	32%	1,722,235	31%	0.1%
Developed Communities/ Mature Suburbs	2,413,554	45%	2,447,949	44%	1.4%
Growing Suburbs	942,864	18%	1,116,444	20%	18.4%
Rural Areas	301,003	6%	339,558	6%	12.8%

Source: U.S. Census Bureau



Between 2000 and 2010, population in Philadelphia grew for the first time in over 50 years.



IS EMPLOYMENT OF THE CORE CITIES AND DEVELOPED COMMUNITIES/MATURE SUBURBS INCREASING?



HOW IS THE DVRPC REGION PERFORMING?

Despite an overall decrease in the region's employment of 14 percent between 2000 and 2010, employment in Core Cities declined by only 10 percent during the decade, compared to a decline of over 18 percent in Growing Suburbs. As a result, the share of the region's employment located in Core Cities increased slightly, from 28 percent in 2000 to 29 percent in 2010.

INDICATOR

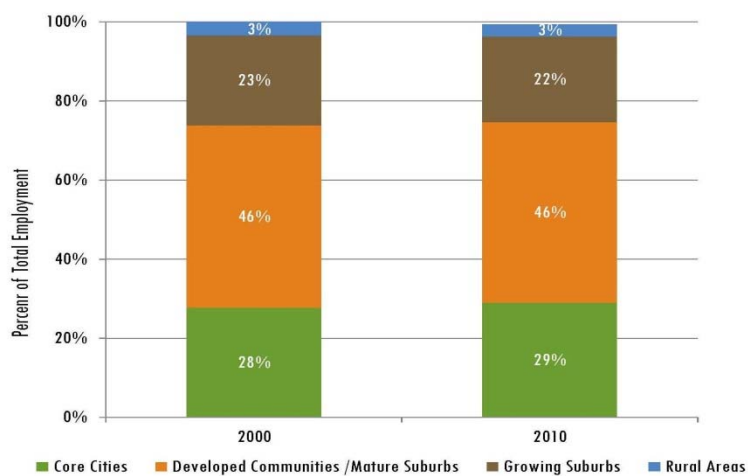
EMPLOYMENT BY *CONNECTIONS* PLANNING AREA

A key goal of the *Connections* Plan is to sustain and target growth to existing development centers. These areas can accommodate both population and employment in ways that can revitalize distressed communities, provide employment within an easy commute of those most in need of work, maintain the region's development fabric, and make maximum use of the region's existing road, rail, and utility infrastructure. Concentrated development patterns also have lower energy demands, an increasingly important component of regional competitiveness. Employers located in development centers are more likely to have access to a qualified labor force, and concentrating in centers allows employers to take advantage of proximity to institutions of higher

learning and promotes knowledge density, an important driver of innovation.

Between 2000 and 2010, the region's employment decreased by 14 percent overall, primarily due to the regional and national economic recession. Employment in the region's Core Cities, however, declined by only 10 percent during the decade, while declining by over 18 percent in the Growing Suburbs. As a result, the share of the region's employment located in Core Cities increased slightly, from 28 percent in 2000 to 29 percent in 2010. Employment in the region's Rural Areas was least affected by the ongoing recession, having decreased by only seven percent between 2000 and 2010.

REGIONAL EMPLOYMENT DISTRIBUTION BY *CONNECTIONS* PLANNING AREA, 2000 AND 2010

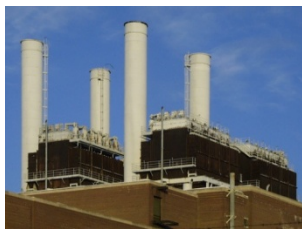


Source: National Establishments Time Series (NETS) database, as revised by DVRPC, 2012

EMPLOYMENT BY CONNECTIONS PLANNING AREA, 2000-2010

	2000	PERCENT OF REGION 2000	2010	PERCENT OF REGION 2010	PERCENT CHANGE 2000-2010
DVRPC Region	3,425,121	100%	2,950,387	100%	-14%
DVRPC Planning Areas					
Core Cities	954,463	28%	856,040	29%	-10%
Developed Communities/ Mature Suburbs	1,582,321	46%	1,347,726	46%	-15%
Growing Suburbs	782,993	23%	638,804	22%	-18%
Rural Areas	115,344	3%	107,817	3%	-7%

Source: National Establishments Time Series (NETS) database as revised by DVRPC, 2012



The share of the region's employment located in Core Cities increased slightly, from 28 percent in 2000 to 29 percent in 2010.



HAS THE TAX BASE OF CORE CITIES AND DEVELOPED COMMUNITIES/MATURE SUBURBS INCREASED?



HOW IS THE DVRPC REGION PERFORMING?

Between 2002 and 2009, the tax base per capita increased by 69 percent regionally, while increasing by only 25 percent in Core Cities.

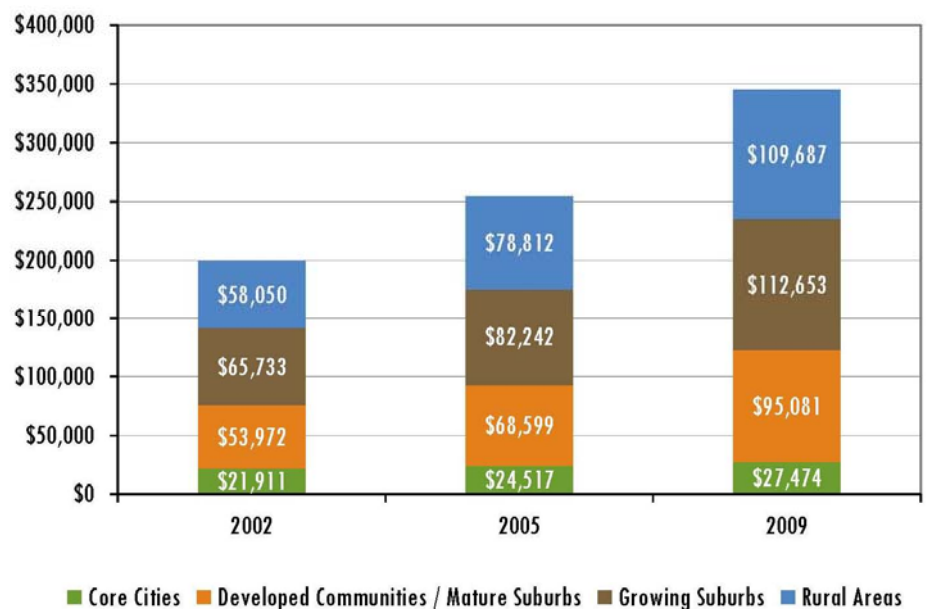
INDICATORS

TOTAL EQUALIZED TAX VALUATION AND TAX BASE PER CAPITA (EQUALIZED PROPERTY TAX VALUATION PER PERSON)

Given the region's reliance on property taxes as the primary source of local revenue, the overall strength of the local tax base directly impacts the ability of local governments to maintain their infrastructure and provide quality services, including education. The tax bases of most of the region's Core Cities and Developed Communities/Mature Suburbs are stagnant or declining, although, ironically, the number of low-income and dependent residents requiring an increasing level of services continues to rise in these same areas. Increasing the property tax rate to pay for additional services places an unfair burden on current homeowners and also makes these places less attractive to moderate and upper income households and employers, perpetuating the cycle of decline evident in many of these communities in recent years.

In 2009, the equalized tax valuation per capita in Developed Communities/Mature Suburbs was approximately \$95,000, compared to over \$112,000 in Growing Suburbs and \$109,000 in Rural Areas. The tax base per capita in Core Cities averaged only \$27,474 in 2009, although these areas typically have additional funding options not available to suburban municipalities (such as Philadelphia's wage tax). Although the tax base per capita of the Core Cities increased by 25 percent between 2002 and 2009, the region's Developed Communities/Mature Suburbs saw their tax bases per capita increase an average of 93 percent, higher than either the regional increase of 69 percent or that in Growing Suburbs, where growth in the overall tax base was often offset by simultaneous population growth.

EQUALIZED TAX BASE PER CAPITA BY PLANNING AREA, 2002-2009



Sources: Pennsylvania State Tax Equalization Board, New Jersey Department of Taxation

The total equalized tax base of the region's Core Cities increased by 30 percent between 2002 and 2009 compared to an increase of 79 percent in Developed Communities/Mature Suburbs, which was slightly higher than the regional average of 77 percent, but lower than either Growing Suburbs or Rural Areas (at 90

percent and 108 percent, respectively). The tax valuation in Core Cities and Developed Communities/Mature Suburbs continues to decline, though, as a percentage of the region's total tax valuation. In 2009, 63 percent of the region's total equalized tax valuation was located in Core Cities or Developed Communities/Mature Suburbs,

compared to 67 percent in 2002 and 65 percent in 2005.

PROPERTY TAX DATA BY CONNECTIONS PLANNING AREA, 2002-2009

	DVRPC REGION	CORE CITIES	DEVELOPED COMMUNITIES/MATURE SUBURBS	GROWING SUBURBS	RURAL AREAS
TOTAL EQUALIZED VALUATION (in \$1,000s)					
2002	\$250,294,146	\$37,010,002	\$129,948,442	\$65,369,640	\$17,966,062
2005	\$321,212,087	\$40,808,407	\$166,937,111	\$87,576,737	\$25,889,832
2009	\$441,896,765	\$47,982,280	\$231,992,734	\$124,525,116	\$37,396,636
Percent change 2002-2009	77%	30%	79%	90%	108%
PERCENT OF REGIONAL TOTAL					
2002	100%	15%	52%	26%	7%
2005	100%	13%	52%	27%	8%
2009	100%	11%	52%	28%	8%
TAX BASE PER CAPITA					
2002	\$46,344	\$21,911	\$49,244	\$67,567	\$57,834
2005	\$58,494	\$24,517	\$60,644	\$86,944	\$78,877
2009	\$78,452	\$27,474	\$95,081	\$112,653	\$109,687
Percent change 2002-2009	69%	25%	93%	67%	90%

Sources: Pennsylvania State Tax Equalization Board, New Jersey Department of Taxation



HAS RESIDENTIAL CONSTRUCTION ACTIVITY INCREASED IN CORE CITIES AND DEVELOPED COMMUNITIES/MATURE SUBURBS?



HOW IS THE DVRPC REGION PERFORMING?

The number of residential building permits issued in Growing Suburbs declined by over 62 percent from 2007 to 2011 compared to 2002 to 2006, while declining by only 19 percent in Core Cities. Over 53 percent of the region's residential construction permits issued between 2007 and 2011 were in Core Cities and Developed Communities/Mature Suburbs.

INDICATOR

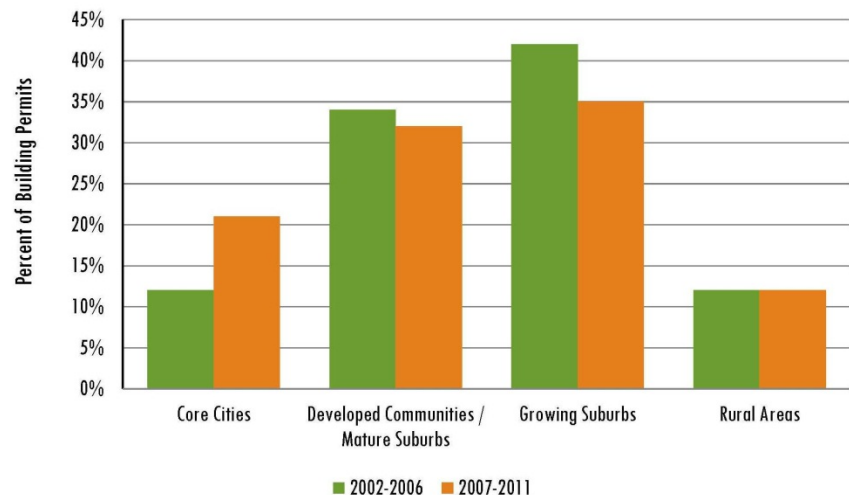
RESIDENTIAL BUILDING PERMITS ISSUED BY *CONNECTIONS* PLANNING AREA

Although dependable and consistent data on nonresidential construction activity is not readily available, tracking residential permits can help predict future population trends. Almost 41,000 residential permits were issued region-wide between 2007 and 2011, a decrease of over 54 percent from the previous five-year time period. This decline is not unexpected, given the downturn in the housing market regionally and nationally. Over 53 percent of the region's total residential construction permits issued between 2007 and 2011 were issued in Core Cities and Developed Communities/ Mature Suburbs,

compared to 45 percent between 2002 and 2007. Twenty-one percent were authorized in the region's Core Cities (compared to only 12 percent of the regional total issued in these areas during the previous five-year time period), and an additional 32 percent were issued in Developed Communities/Mature Suburbs.

Although 35 percent of the region's permits were issued in Growing Suburbs between 2007 and 2011, the number of permits issued over the five-year time period declined by over 62 percent in these areas, compared to a decline of only 20 percent in Core Cities.

DISTRIBUTION OF RESIDENTIAL BUILDING PERMITS BY CONNECTIONS PLANNING AREA, 2002-2006 VERSUS 2007-2011



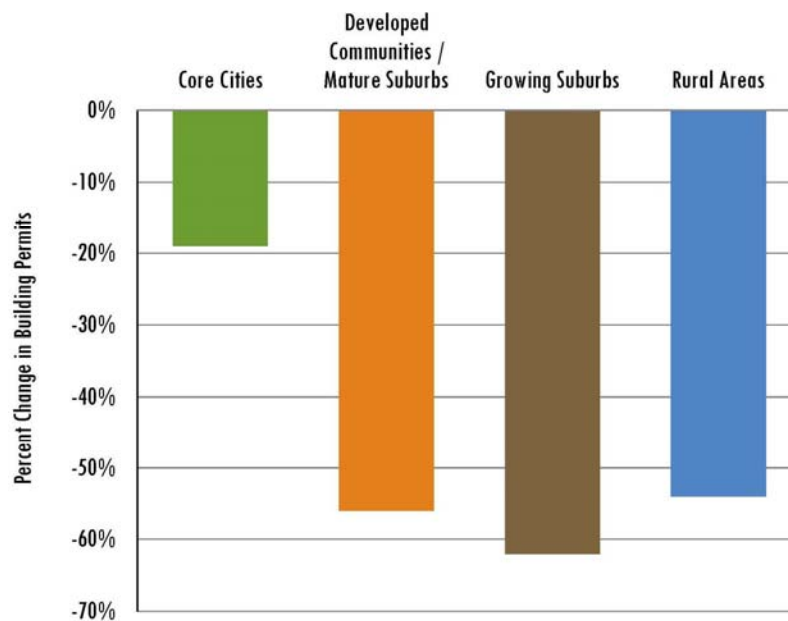
Source: United States Census Bureau, Construction Statistics Division

**RESIDENTIAL BUILDING PERMITS BY CONNECTIONS PLANNING AREA,
2002-2006 vs. 2007-2011**

	2002-2006	2007-2011	Percent Change, 2002-06 vs. 2007-11	Percent of Total, 2002-06	Percent of Total, 2007-11
DVRPC Region	89,151	40,723	-54.3%	100%	100%
DVRPC Planning Areas					
Core Cities	10,582	8,523	-19.5%	12%	21%
Developed Communities/Mature Suburbs	29,972	13,111	-56.3%	34%	32%
Growing Suburbs	37,625	14,141	-62.4%	42%	35%
Rural Areas	10,972	4,948	-54.9%	12%	12%

Source: United States Census Bureau, Construction Statistics Division

**PERCENT DECREASE IN RESIDENTIAL BUILDING PERMITS BY
CONNECTIONS PLANNING AREA, 2002-2006 vs. 2007-2011**



Source: United States Census Bureau, Construction Statistics Division



HAS MORTGAGE LENDING ACTIVITY INCREASED IN CORE CITIES AND DEVELOPED COMMUNITIES/MATURE SUBURBS?



HOW IS THE DVRPC REGION PERFORMING?

Over 69 percent of the region's home purchase loans were issued in the Core Cities and Developed Communities/ Mature Suburbs in 2010, compared to 55 percent in 2000. The value of loans increased in both Core Cities and Developed Communities/ Mature Suburbs between 2000 and 2010, with 64 percent of the total regional value of home purchase loans in 2010 in Core Cities and Developed Communities/ Mature Suburbs compared to only 44 percent in 2000.

INDICATOR

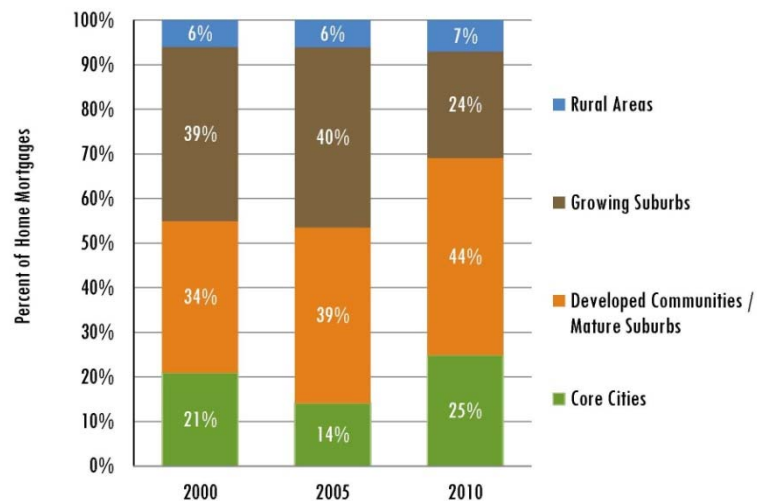
MORTGAGE LENDING ACTIVITY BY *CONNECTIONS* PLANNING AREA

Despite a regional and national decline in the housing market, mortgage lending activity in the region's Core Cities and Developed Communities/Mature Suburbs has improved over the last decade. Between 2000 and 2010, the Core Cities saw the annual number of home purchase loans decrease by over 6,700 and home improvement mortgage loans decrease by almost 3,000. Similarly, the number of home purchase loans decreased by over 9,000 in Developed Communities/Mature Suburbs during the same time period and home improvement loans decreased by over 4,500. The percent decrease in home purchase loans in both Core Cities and Developed Communities/Mature Suburbs, however, was less than the overall regional decline of 49 percent and significantly less than the 69 percent decline realized in the region's Growing Suburbs. Over 69 percent of the region's home purchase loans

were issued in the Core Cities and Developed Communities/Mature Suburbs in 2010, compared to 55 percent in 2000.

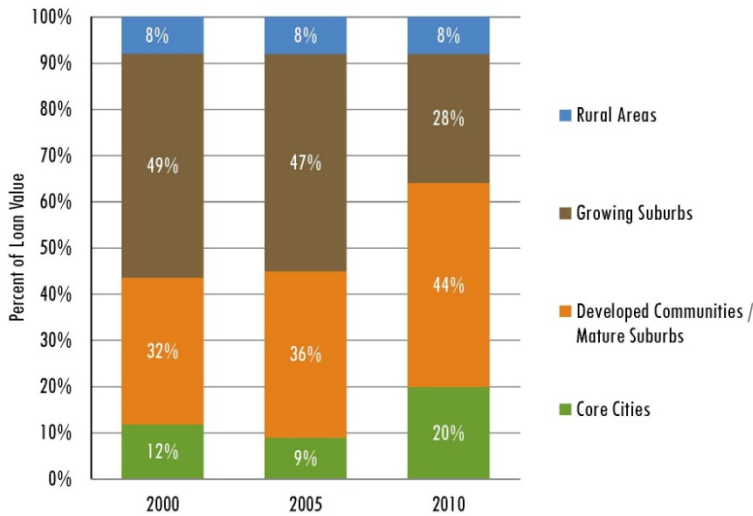
The value of loans increased significantly in both Core Cities and Developed Communities/Mature Suburbs between 2000 and 2010, with 64 percent of the total value of home purchase loans in 2010 being in Core Cities and Developed Communities/Mature Suburbs compared to 44 percent in 2000. The average value of home purchase loans increased by over 150 percent in Core Cities (from \$72,993 in 2000 to \$183,124 in 2010) and by 95 percent in Developed Communities/Mature Suburbs, compared to a region-wide increase of 89 percent. The average value of home improvement loans also increased in both Core Cities and Developed Communities/Mature Suburbs.

PERCENT OF HOME PURCHASE LOANS BY *CONNECTIONS* PLANNING AREA, 2000-2010



Source: Federal Financial Institutions Examination Council (FFIEC) Home Mortgage Disclosure Act (HMDA Data Files)

PERCENT OF HOME PURCHASE LOAN VALUE BY CONNECTIONS PLANNING AREA, 2000-2010



Source: Federal Financial Institutions Examination Council (FFIEC) Home Mortgage Disclosure Act (HMDA Data Files)

TOTAL NUMBER OF HOME PURCHASE LOANS BY CONNECTIONS PLANNING AREA, 2000-2010

	2000	PERCENT OF REGION, 2000	2010	PERCENT OF REGION, 2010	PERCENT CHANGE 2001-2010
DVRPC Region	80,643	100%	41,314	100%	-49%
DVRPC Planning Areas					
Core Cities	16,881	21%	10,163	25%	-40%
Developed Communities/ Mature Suburbs	27,430	34%	18,342	44%	-33%
Growing Suburbs	31,619	39%	10,116	25%	-68%
Rural Areas	4,713	6%	2,693	6%	-43%

Source: Federal Financial Institutions Examination Council (FFIEC) Home Mortgage Disclosure Act (HMDA Data Files)

VALUE OF HOME PURCHASE AND HOME IMPROVEMENT LOANS BY CONNECTIONS PLANNING AREA, 2000-2010

	2000				2010			
	TOTAL* VALUE HOME PURCHASE LOANS	AVG. HOME PURCHASE LOAN	TOTAL* VALUE HOME IMPROVEMENT LOANS	AVG. HOME IMPROVEMENT LOAN	TOTAL* VALUE HOME PURCHASE LOANS	AVG. HOME PURCHASE LOAN	TOTAL* VALUE HOME IMPROVEMENT LOANS	AVG. HOME IMPROVEMENT LOAN
DVRPC Region	\$10,131.1	\$125,629	\$627.1	\$25,111	\$9,442.4	\$228,551	\$1,961.9	\$87,605
DVRPC Planning Areas								
Core Cities	\$1,232.2	\$72,993	\$108.3	\$18,629	\$1,861.1	\$183,124	\$177.2	\$47,554
Developed Communities/ Mature Suburbs	\$3,211.4	\$117,076	\$222.3	\$24,918	\$4,185.4	\$228,185	\$800.9	\$95,413
Growing Suburbs	\$4,924.2	\$155,734	\$247.9	\$29,011	\$2,674.9	\$264,419	\$796.9	\$122,223
Rural Areas	\$763.3	\$161,966	\$48.6	\$28,686	\$721.0	\$267,741	\$186.9	\$92,322

Note: Total values are in \$1,000,000. Source: Federal Financial Institutions Examination Council (FFIEC) Home Mortgage Disclosure Act (HMDA Data Files)



DO DEVELOPMENT PATTERNS SUPPORT EXPANDED TRANSIT OPTIONS?



HOW IS THE DVRPC REGION PERFORMING?

DVRPC's Transit Score is a tool to gauge the appropriateness of transit investment in a geographic area. Between 2000 and 2010 the percentage of Traffic Analysis Zones with High or Medium-High Transit Scores increased from 51.5 percent to 51.7 percent. This change is more likely due to changes in TAZ geography based on the 2010 census than an increase in Transit Score.

INDICATOR

PERCENT OF TRAFFIC ANALYSIS ZONES WITH HIGH OR MEDIUM-HIGH TRANSIT SCORE

DVRPC's Transit Score Tool is a method to assess the appropriateness of various modes and intensities of transit service throughout the DVRPC region. Transit Score calculations are based on population density, employment density, and the concentration of zero car households and enable quick and easy comparisons and illustrations of the relative transit supportiveness of different development patterns.

A Traffic Analysis Zone (TAZ) is a geographic area used for transportation modeling. The TAZ is typically assembled by grouping socio-economic data to help understand how trips are generated by and attracted to the TAZ.

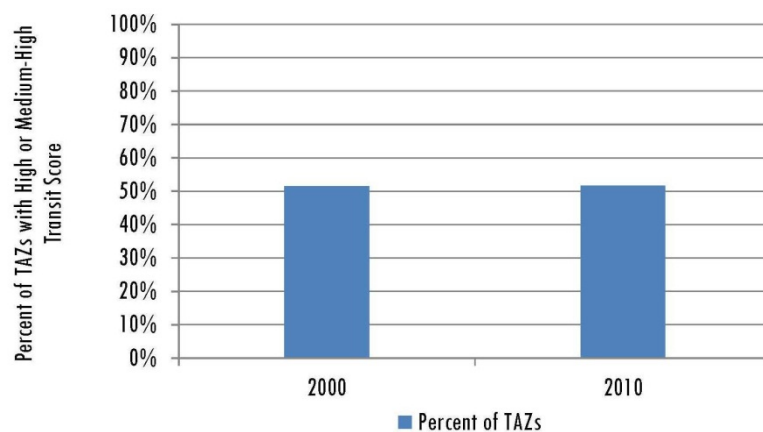
Numerical Transit Scores are assigned a category ranging from Low to High. Each category is associated with transit service investments that would be broadly appropriate in that geographic area.

By looking at the percentage of TAZ's with Medium-High and High Transit Scores, DVRPC gets a sense of whether land development is occurring in patterns that can support a greater diversity of transit service options.

It is worth noting that since TAZ's are based on socio-economic data, TAZ boundaries change over time as demographic characteristics change. In order to compare the historical percentage of TAZ's with current data, DVRPC used the year 2000 TAZ boundaries in order to keep a consistent geography while comparing changes in the data.

In 2000, out of 1,875 Traffic Analysis Zones (TAZs) in the region, 966, or 51.5%, were classified as having a High or Medium-High Transit Score. In 2010, this percentage remained essentially unchanged at 51.7%. (965 tracts out of 1867). This slight difference is more likely a result of changing demographics and TAZ geography than a real change in the Transit Score of these zones.

PERCENTAGE OF DVRPC TRAFFIC ANALYSIS ZONES WITH HIGH OR MEDIUM HIGH TRANSIT SCORE



Source: DVRPC Land Use Files, US Census



ENVIRONMENT:

**Managing Growth and
Protecting Resources**



ENVIRONMENT: Managing Growth and Protecting Resources

What We Track	How is the DVRPC Region Performing?	Trend
<p>Is Land Development /Land Consumption Slowing?</p>	<p>Between 2000 and 2010, approximately 64,000 additional acres were developed region-wide, an increase of seven percent since 2000. Land consumption per person continues to increase, although at a significantly lower rate than seen in previous decades (from 10 percent between 1990 and 2000 to a little more than two percent between 2000 and 2010).</p>	
<p>Did Growth Occur in Appropriate Areas?</p>	<p>Between 2000 and 2005, 60.4 percent, or 24,000 acres, of new development occurred on lands that were deemed “appropriate” for new development. Between 2005 and 2010, this trend seemed to have reversed, with only 42.6 percent, or 10,000 acres, of new growth occurring in Existing Development and Future Growth Areas.</p>	
<p>Have Acres of Public Open Space Increased?</p>	<p>Between 2000 and 2011, the DVRPC region experienced a 30 percent increase in the amount of protected public open space, reflecting a continuing effort to preserve public open space in the region.</p>	
<p>Have Acres of Privately Protected Open Space Increased?</p>	<p>Between 2002 and 2011, the DVRPC region experienced an 80 percent increase in the amount of private land that is permanently preserved.</p>	
<p>Has the Amount of Farmland in Production Increased?</p>	<p>The region lost 92,286 acres of farmland in production between 1997 and 2007. This is a 20.8 percent decrease in farmland, well above the national 3.4 percent decrease in cropland and pastureland over the same period.</p>	
<p>Is Air Quality Improving</p>	<p>The number of annual days of NAAQS violations for ozone or fine particle pollution (PM_{2.5}) trended downward, even while the federal health standards were tightened.</p>	
<p>Has Surface Water Quality Improved?</p>	<p>Pennsylvania and New Jersey use different measurements of surface water quality. Both measurements showed an increase in impaired surface water quality between 2006 and 2010.</p>	



IS LAND DEVELOPMENT/ LAND CONSUMPTION SLOWING?



HOW IS THE DVRPC REGION PERFORMING?

Between 2000 and 2010, approximately 64,000 additional acres were developed region-wide, an increase of seven percent since 2000. Land consumption per person continues to increase, although at a significantly lower rate than seen in previous decades (from 10 percent between 1990 and 2000 to a little more than two percent between 2000 and 2010).

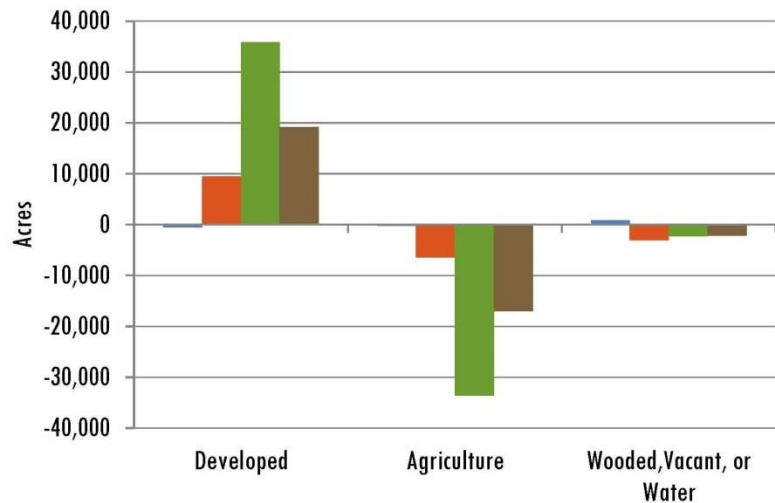
INDICATORS

DEVELOPED ACRES AND DEVELOPED
ACRES PER CAPITA BY
CONNECTIONS PLANNING AREA

Developed lands continue to increase in the region, specifically in those communities designated as Growing Suburbs and Rural Areas. The rate of development, however, has slowed significantly in recent years, in large part due to the ongoing economic recession. Between 1990 and 2000, over 117,000 acres were developed in the region (a 15 percent increase). Between 2000 and 2010, the region's developed area increased by only seven percent (slightly less than 64,000 additional acres). Between 1990 and 2000, an average of one acre of land was developed every 45 minutes; between 2000 and 2010, that rate declined to one acre every 82 minutes. This decrease in development activity has occurred primarily in the more recent years.

Developed acres increased by five percent between 2000 and 2005, but by only an additional two percent between 2005 and 2010. Acres lost to development continue to be primarily agricultural, with almost 90 percent of the additional land developed between 2000 and 2010 (over 57,000 acres) being previously farmed. In 2010 each resident consumed almost 13 percent more land than in 1990. This increase, however, has slowed considerably since the 1990s. In 1990, each resident consumed approximately 0.15 acres of land. By 2000 that number increased by over 10 percent, to 0.17 acres per person. Between 2000 and 2010, developed acres per person increased by only two percent regionally and declined by over five percent in the region's Growing Suburbs.

CHANGE IN DEVELOPED AND UNDEVELOPED ACRES, 2000-2010



■ Core Cities ■ Developed Communities/Mature Suburbs ■ Growing Suburbs ■ Rural Areas

Source: DVRPC, 2012

DEVELOPED ACRES AND DEVELOPED ACRES PER CAPITA, 2000-2010

	DVRPC REGION	CORE CITIES	DEVELOPED COMMUNITIES/ MATURE SUBURBS	GROWING SUBURBS	RURAL AREAS
Developed Acres, 1990	802,360	88,365	376,965	233,139	103,891
Developed Acres, 2000	919,373	87,688	403,136	295,394	133,155
Developed Acres, 2010	983,322	87,145	412,638	331,218	152,321
Absolute Change, 2000-2010	63,950	-543	9,502	35,823	19,167
Percent Change, 2000-2010	7%	-1%	2%	12%	14%
Developed Acres, 1990 (Per Capita)	0.15	0.05	0.16	0.30	0.39
Developed Acres, 2000 (Per Capita)	0.17	0.05	0.17	0.31	0.44
Developed Acres, 2010 (Per Capita)	0.17	0.05	0.17	0.30	0.45
Absolute-Change, 2000-2010	0.00	-0.01	0.01	-0.05	0.01
Percent Change, 2000-2010	2.2%	-0.8%	0.9%	-5.3%	1.4%

Source: DVRPC, 2012



Almost 64,000 acres have been developed in the DVRPC Region between 2000 and 2010, mostly in Growing Suburbs. The rate of development has decreased between 2000 and 2010.



DID GROWTH OCCUR IN APPROPRIATE AREAS?



HOW IS THE DVRPC REGION PERFORMING?

Between 2000 and 2005, 60.4 percent, or 24,000 acres, of new development occurred on lands that were deemed “appropriate” for new development. Between 2005 and 2010, this trend seemed to have reversed, with only 42.6 percent, or 10,000 acres, of new growth occurring in Existing Development and Future Growth Areas.

INDICATORS

ACRES OF NEW DEVELOPMENT BY LAND USE CATEGORY

The DVRPC Land Use Plan map conceptually depicts areas appropriate to accommodate the region’s forecasted increase in population and jobs. These areas are shown as Existing Development and Future Growth Areas. The Land Use Plan map also identifies areas where limited development or preservation should occur (Rural Lands and the Greenspace Network). Comparing new footprint development (development on vacant, wooded or agricultural lands) with the map provides a generalized indication of whether growth is occurring in appropriate areas.

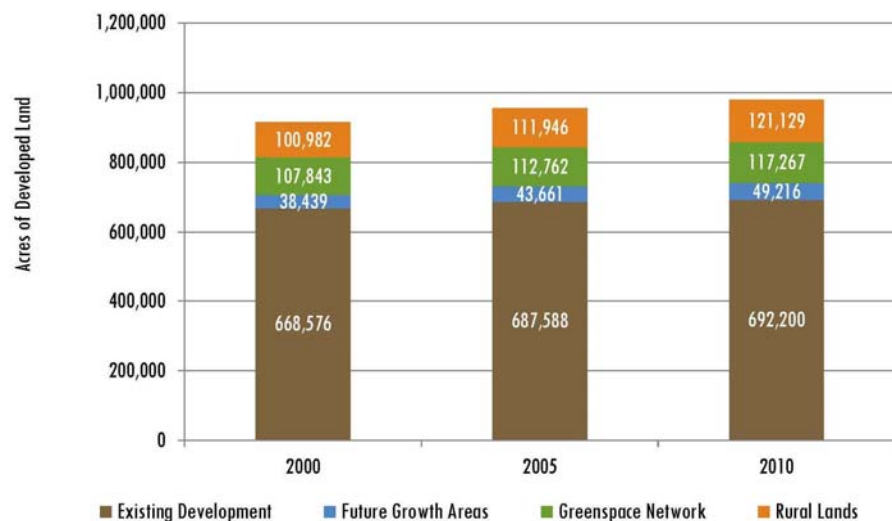
Overall, new development slowed during the second half of the 2000 to 2010 decade due to the economic recession. Between 2000 and 2005, 40,000 acres were developed in the region, while between 2005 and 2010, 24,000

acres were developed. This represents a 40.5 percent decline in development in the latter half of the decade.

As overall growth slowed, new footprint development in “Rural Lands” remained consistent, while development of vacant land within “Existing Development” planning areas drastically decreased.

Between 2000 and 2005, 60.4 percent, or 24,000 acres, of new development occurred on lands that were deemed “appropriate” for new development in the DVRPC Land Use Plan. During the latter half of the decade, this trend seemed to have reversed, with 57.4 percent, or 14,000 acres, of the new growth occurring in Rural Lands and the Greenspace Network, and only 19.3 percent of this new growth occurring in Existing Development Areas.

DVRPC REGION DEVELOPMENT BY LAND USE CATEGORY 2000 TO 2010



Source: DVRPC Land Use Files, 2012

ACRES OF DEVELOPMENT BY LAND USE CATEGORY (2000-2010)

DVRPC REGION	2000	2005	2010	PERCENT OF GROWTH 2000 TO 2005	PERCENT OF GROWTH 2005 TO 2010
Rural Lands	101,982	111,941	121,129	27.3%	38.5%
Greenspace Network	107,843	112,762	117,267	12.3%	18.9%
Future Growth Areas	38,439	43,161	49,216	13.0%	23.3%
Existing Development	668,576	687,588	692,200	47.4%	19.3%

Source: DVRPC Land-Use Files, 2012



Development in the “Existing Development” and “Future Growth Area” land use categories accounted for less than 50 percent of new development between 2005 and 2010.



HAVE ACRES OF PUBLIC OPEN SPACE INCREASED?



HOW IS THE DVRPC REGION PERFORMING?

Between 2000 and 2011, the DVRPC region experienced a 30 percent increase in the amount of publically protected open space, reflecting a continuing effort to preserve public open space in the region.

INDICATOR

ACRES OF PROTECTED OPEN SPACE HELD BY FEDERAL, STATE, COUNTY, AND MUNICIPAL ENTITIES

The amount of protected open space held by public entities increased 30 percent between 2000 and 2011. This includes lands held by federal, state, county, and municipal government agencies.

The greatest growth in public open space was in municipal-held lands, which grew by over 39,000 acres over the 11 years, an increase of 88 percent. Municipal open space grew by 15,000 acres in New Jersey and 24,000 acres in Pennsylvania. Bucks County saw the greatest increase in municipal open space, which more than tripled in this time period, from over 7,000 to over 23,000 acres.

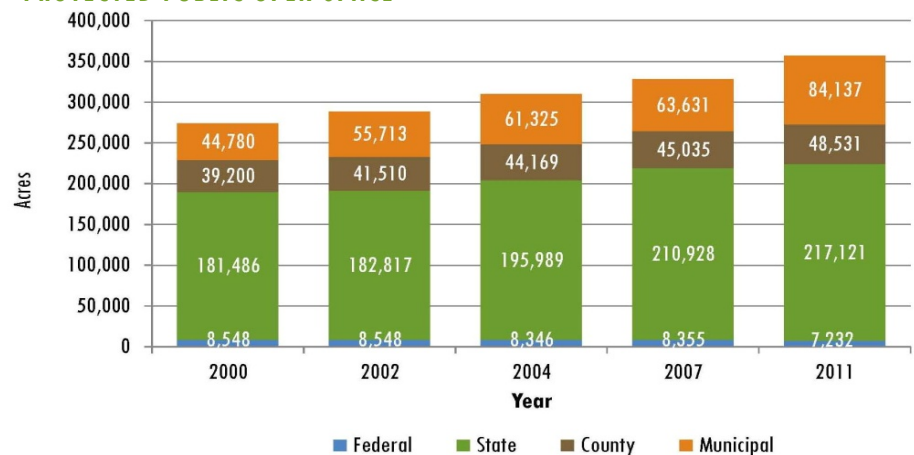
County-owned open space increased by 9,000 acres, or 24 percent, from 2000 to 2011. The greatest growth rate was in Burlington County, whose county lands more than doubled in

size, from over 1,000 to nearly 3,000 acres.

State-owned open space grew by over 35,000 acres, or 20 percent, between 2000 and 2011. Nearly all of this growth was in New Jersey, which grew by over 34,000 acres. Much of the new state lands are located in Burlington County, which alone grew by 28,000 acres.

At just 7,000 acres in 2011, federal lands account for the smallest portion of public open space. Federal open space declined by over 1,300 acres in the region between 2000 and 2011 due to their reclassification in DVRPC's protected lands file to privately held land. This occurred in Burlington County on lands located adjacent to federal lands.

PROTECTED PUBLIC OPEN SPACE



Source: DVRPC Open Space Files 2012



HAVE ACRES OF PRIVATELY PROTECTED OPEN SPACE INCREASED?



HOW IS THE DVRPC REGION PERFORMING?

Between 2002 and 2011, the DVRPC region experienced an 80 percent increase in the amount of private land that is permanently preserved.

INDICATOR

ACRES OF PRESERVED FARMLAND AND OTHER PRIVATELY HELD PROTECTED OPEN SPACE

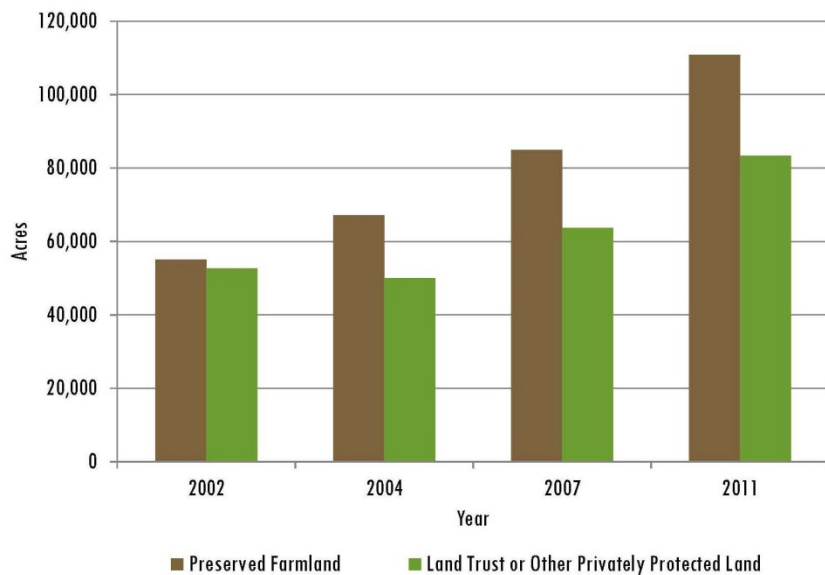
Privately held open space in the region grew as a whole by 80 percent between 2002 and 2011, increasing from a total of 107,708 to 194,122 acres. Preserved farmland had the greatest increase, doubling in size over nine years. Other privately held lands increased by 58 percent in that time period.

The number of acres of preserved farmland in the region increased from 55,070 to 110,851 between 2002 and 2011. This growth was nearly evenly split between Pennsylvania and New Jersey, which both saw approximately 28,000 acres of newly preserved farms. The counties with the greatest growth in preserved farms were Burlington and Chester, which both grew by nearly 15,000 acres. Camden County saw the greatest percent increase in preserved farms, increasing from just 47 acres

in 2002 to about 1,900 acres in 2011.

Privately held open space also includes lands other than farms that are owned and have easements held by land trusts and other organizations. Nonfarm privately held open space increased from 52,638 to 83,271 acres between 2002 and 2011. The vast majority of this land is located in Pennsylvania, which has 70,625 acres, compared to 12,647 acres in New Jersey. Over half (approximately 49,000 acres) of all nonfarm privately held open space is located in Chester County alone. However, the rate of growth was greater in New Jersey, which saw its acreage of nonfarm privately held open space quadruple between 2002 and 2007. Comparatively, these lands grew by 59 percent in Pennsylvania.

PROTECTED PRIVATELY HELD OPEN SPACE



Source: DVRPC, 2012



HAS THE AMOUNT OF FARMLAND IN PRODUCTION INCREASED?



HOW IS THE DVRPC REGION PERFORMING?

The region lost 92,286 acres of farmland in production between 1997 and 2007. This is a 20.8 percent decrease in farmland, well above the national 3.4 percent decrease in cropland and pastureland over the same period.

INDICATORS

ACRES OF LAND IN AGRICULTURAL PRODUCTION

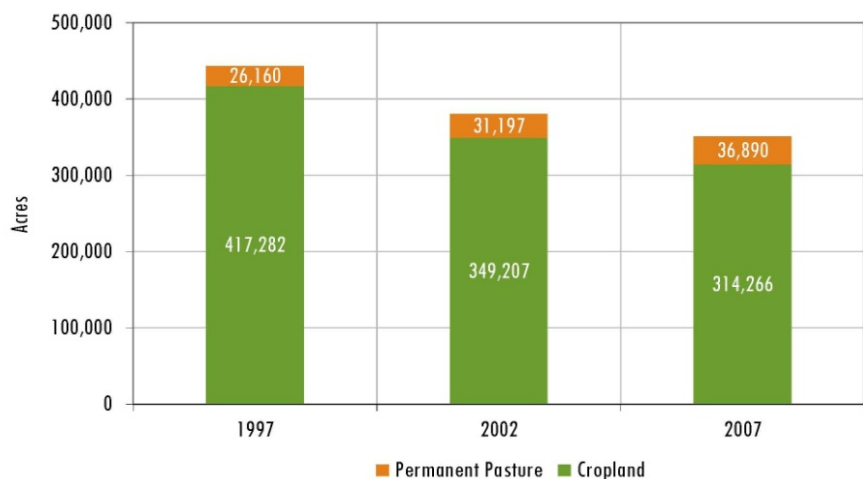
The amount of farmland in production serves as both a measure of farmland capacity and farm economics. A decrease in land from production can result from decisions to keep certain lands out of production, but can also indicate farmland loss due to development. To construct this indicator, DVRPC used data from the United States Department of Agriculture's (USDA) Census of Agriculture, which asks farmers for information about their farms and total acreage in cropland and permanent pastures. The USDA defines "land in farms" as agricultural land used for crops, pasture, or grazing, as well as woodland and wasteland not actually under cultivation or used for pasture or grazing. Land in farms also includes land enrolled in conservation programs, and therefore not in production, as well as land with farm buildings.

Both New Jersey and Pennsylvania have experienced a reduction in farmland in production, which is defined as cropland and permanent pastureland, but excludes woodlands and land underlying

farm buildings. The nine-county DVRPC region lost 92,286 acres of land in production between 1997 and 2007, dropping from 443,442 to 351,156 acres. This 20.8 percent is significantly higher than the national 3.4 percent decrease in cropland and pastureland. Most of this decrease results from permanent loss of farmland to development.

Cropland decreased significantly between 1997 and 2007. Cropland dropped from 417,282 to 314,266 acres, a decrease of 103,016 total acres, or 24.7 percent. Permanent pastureland actually increased in the region from 26,160 to 36,890 acres, or 41 percent, from 1997 to 2007. This increase may have resulted from the conversion of some farms from crop production to less-intensive forms of production, such as hay cultivation, and the rise of "retirement farms" and "country estates" on the region's farmland. Owners of these "estates" often lease land for production, but the production is usually less intense than it was with the former farm owners.

CROPLAND AND PERMANENT PASTURE IN DVRPC REGION



Source: U.S. Department of Agriculture National Agricultural Statistics Service Quick Stats, U.S. Department of Agriculture National Agriculture Statistics Service



IS AIR QUALITY IMPROVING?



HOW IS THE DVRPC REGION PERFORMING?

For the five-year period from 2001 to 2005, the region averaged nearly 50 days of National Ambient Air Quality Standards (NAAQS) violations, while from 2006 to 2011, the region averaged 30 days of NAAQS violations. The number of annual days of NAAQS violations for ozone or fine particle pollution ($PM_{2.5}$) trended downward, even while the standards were tightened.

INDICATOR

NUMBER OF DAYS EACH YEAR THAT VIOLATE THE NATIONAL AMBIENT AIR QUALITY STANDARDS FOR OZONE AND $PM_{2.5}$ (AQI > 100)

The DVRPC region does not meet the National Ambient Air Quality Standards (NAAQS) for ground level ozone or fine particle pollution ($PM_{2.5}$). Ground level ozone is the principal pollutant in the region.

Both ozone and $PM_{2.5}$ levels are generally higher during the summer months, when weather conditions are conducive to ozone formation and local accumulation of $PM_{2.5}$ pollution. However, elevated levels of $PM_{2.5}$ have also occurred during the winter months.

Air quality is greatly influenced by weather conditions, but the long-term trend indicates that pollution concentrations in the air are decreasing. Air quality monitoring shows that the frequency and duration of poor air quality episodes is also decreasing.

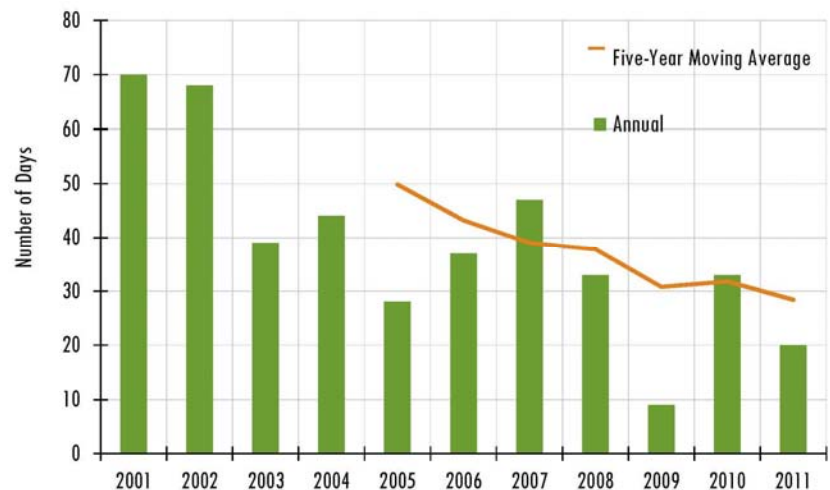
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The DVRPC region has met the 1997 NAAQS for ozone and $PM_{2.5}$ in 2012, but will not meet the revised and more stringent NAAQS for ozone that were implemented in 2008.

The number of days that are shown to violate the NAAQS, on the graph below, has been standardized to the most current air-quality standards. Since pollution concentrations in all years are compared against the most current NAAQS, the number of days shown to violate the air-quality standards may be higher than the actual number of days that violated the standards that were in place during a given year. Exceedances are shown for the Philadelphia-Camden-Wilmington Core Based Statistical Area.

DAYS EXCEEDING THE NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)



Source: US EPA, DVRPC 2011



HAS SURFACE WATER QUALITY IMPROVED?



HOW IS THE DVRPC REGION PERFORMING?

Surface water quality has declined in Pennsylvania, with the number of waterbodies and watersheds impaired for aquatic life increasing from 1,205 stream miles in 2006 to 1,441 stream miles in 2010. Similarly, in New Jersey, the number of waterbodies and watersheds assessed as impaired for aquatic life increased from 695,650 subwatershed acres in 2006 to 790,226 subwatershed acres in 2010.

INDICATORS

PERCENTAGE OF MONITORED WATERBODIES AND WATERSHEDS IMPAIRED FOR AQUATIC LIFE

The Federal Clean Water Act was established to restore and maintain the chemical, physical, and biological integrity of the nation's water bodies. Water quality standards have been established by federal and state governments to ensure that waterbodies attain their designated uses. Designated uses are those human uses and ecological conditions that are officially recognized and protected by the Clean Water Act. These uses include aquatic life (general), aquatic life (trout), recreation, drinking water supply, industrial water supply, agricultural water supply, shellfish harvesting, and fish consumption.

As mandated by the Clean Water Act, water quality in all states is monitored and assessed on a biennial basis. Water quality is assessed based on whether or not a waterbody attains its designated use(s). The designated use of aquatic life (general) is the most indicative of overall water quality and is the most comprehensively monitored across the region. Therefore, aquatic life is used as the indicator of regional water quality.

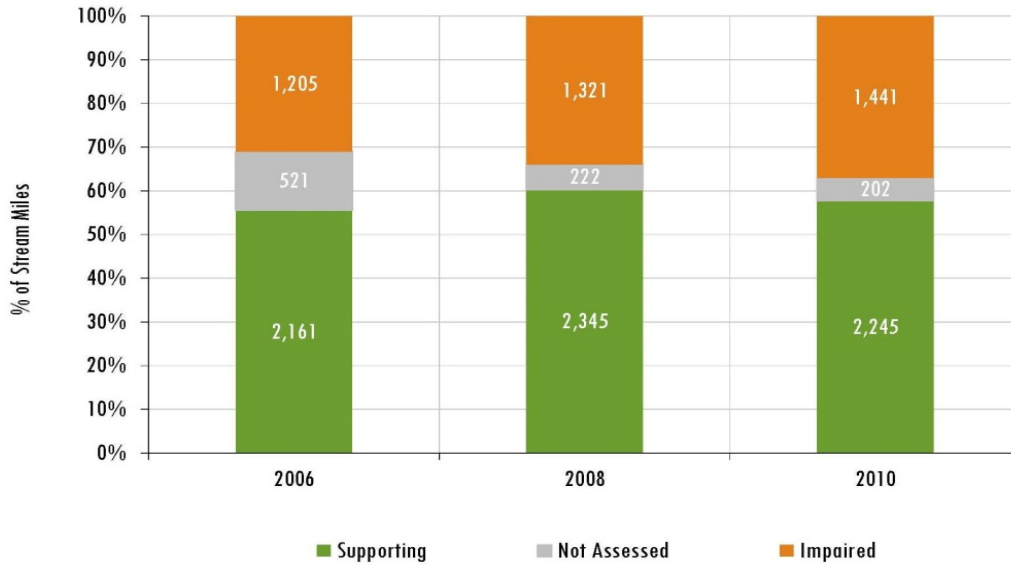
Water quality in Pennsylvania is assessed based on stream segments, and attainment is measured by the number of stream miles within the region that support aquatic life. Biennial water-quality data for Pennsylvania is available for 2006, 2008, and 2010.

For the DVRPC Pennsylvania subregion, the number of stream miles impaired for aquatic life increased from 1,205 (2006) to 1,321 (2008) to 1,441 (2010). The 19.5 percent increase in impaired stream miles can be examined in two ways. First, the Pennsylvania Department of Environmental Protection increased the total number of stream miles actually assessed. Second, water quality impairments increased over the time period. The percentage of impaired stream miles increased from 36 percent of assessed miles (31 percent of total miles) in 2006 to 39 percent of assessed miles (37 percent of total miles) in 2010.

Since the 2006 reporting period, New Jersey has assessed water quality on the subwatershed scale, and attainment is measured by the acres within the region that fall within a subwatershed that supports aquatic life. The percentage of impaired subwatershed acres increased from 83 percent of assessed subwatersheds (67 percent of total acres) in 2006 to 84 percent of assessed subwatersheds (77 percent of total acres) in 2010.

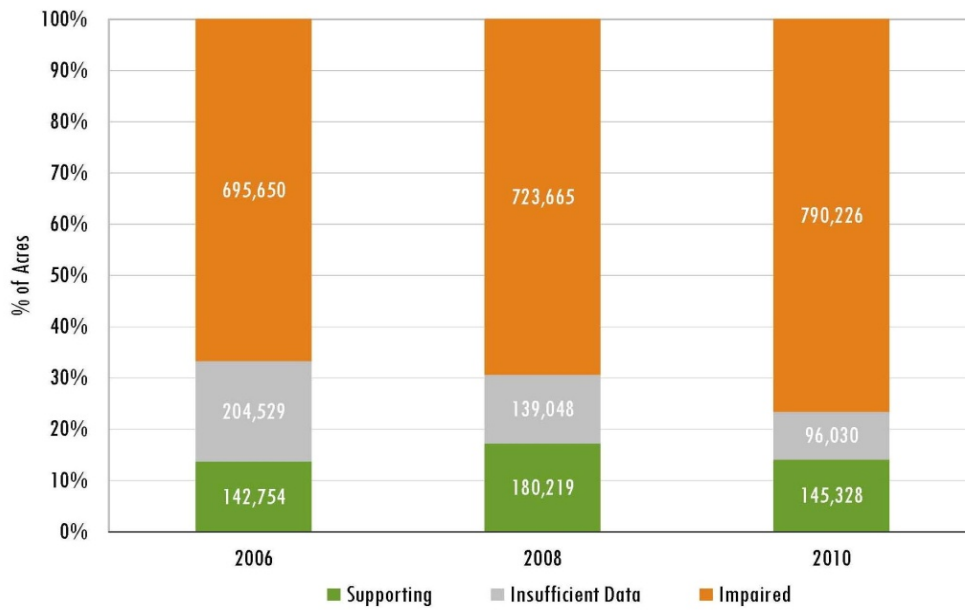
In the DVRPC New Jersey subregion, the amount of land that falls within a subwatershed that is identified as "impaired" for aquatic life increased from about 696,000 acres in 2006 to about 790,000 acres in 2010. The amount of land that falls within a subwatershed identified as "supporting" aquatic life also increased from about 143,000 acres to about 145,000 acres during the same reporting period.

STREAM MILES ASSESSED FOR AQUATIC LIFE - PENNSYLVANIA SUBREGION



Source: PA DEP, 2011

SUBWATERSHED ACRES ASSESSED FOR AQUATIC LIFE - NEW JERSEY SUBREGION



Source: NJ DEP, 2012

Abstract Page

Title:	Connections 2040 Tracking Progress
Publication Number:	13044
Date Published:	March 2013
Geographic Area Covered:	The nine-county DVRPC Planning Area, which covers the counties of Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey.
Key Words:	<i>Connections 2040</i> , Long-Range Plan, Planning Areas, Core Cities, Developed Communities, Growing Suburbs, Rural Areas, Plan Centers, inventories, databases, criteria, performance measures, transportation, land use, environment, economic development, growth management, equity and opportunity, water and air quality, investment, employment, population, congestion, mobility, safety, <i>Connections – The Regional Plan for a Sustainable Future</i> .
Abstract:	The purpose of the Tracking Progress project is to determine whether the adopted Long-Range Plan goals are being met. While there are several exercises of performance indicators that have been undertaken by various entities within the region for various purposes, none have been systematically comprehensive to evaluate the effectiveness of DVRPC's Long-Range Plan goals. Tracking Progress is designed to collect and compile meaningful time series data sets that can help DVRPC and its partners make more effective decisions. Tracking Progress is an ongoing, outcome based effort to align DVRPC's planning and implementation activities, and it will guide the region's investment strategy to help achieve the vision and goals set forth in <i>Connections – The Regional Plan for a Sustainable Future</i> . It will also help identify priority initiatives for the <i>Connections 2040</i> Long-Range Plan.

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