



# Transportation Performance Report

PENNSYLVANIA 2013



## Transportation by the Numbers

### CUSTOMERS

- 8.8 million licensed drivers
- 11.5 million registered vehicles
- 31,000 registered school buses
- 1.5 million students traveling by school bus daily

### ROADS & BRIDGES

- 25,000 state-owned bridges (third-highest number in the U.S.)
- 120,000 miles of roadway (ninth-largest in the U.S.)
  - › 77,500 locally-owned miles
  - › 40,000 state-owned miles (fifth-largest state highway system in the U.S.)
- 14,000 traffic signals

### TRANSIT

- 120 Amtrak trains daily
- 37 urban and fixed-route transit systems
- 58 shared-ride/demand response operators

### RAIL FREIGHT

- 67 short line freight railroads (more than any state in the U.S.)
- 4 Class I freight railroads
- more than 6,000 miles of track

### AIRPORTS

- 7 major airports
- 134 public-use airports

### PORTS

- Pennsylvania has three major ports:
  - › Philadelphia (Atlantic)
  - › Pittsburgh (Inland Port)
  - › Erie (Great Lakes)

# Pennsylvania Transportation Performance Report 2013



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## Message from the Chairman

On behalf of our “Board of Directors,” the Pennsylvania State Transportation Commission (STC), please accept this first edition of the Transportation Performance Report. It provides a snapshot of the transportation system’s current status, performance within current resources, and potential for progress as we move forward. The report showcases various data and trends. It also includes actions taken thus far in response to the Transportation Funding Advisory Commission Report, presented to Governor Corbett in August 2011.

PennDOT and its partners have made significant progress in numerous areas, including improving the condition of our bridges and making our various services and transactions more efficient and customer-friendly. With innovation in the marketplace happening at a lightning pace, our recent Public-Private Partnership (P3) legislation is helping us to take advantage of the latest advancements. We are holding ourselves accountable in every aspect of our enterprise to make the most of the resources we have available.

While we have made progress in areas related to safety and have implemented strategies to enhance mobility, the report also demonstrates that Pennsylvania’s transportation improvement needs are significant—and far greater than the resources currently available. As such, this report highlights the modernization techniques already implemented in an effort to cut costs and realign processes. As you will see, deferred reinvestment in our system will only make our needs grow. New investment will be required to support long-term economic strength and competitiveness, and our communities’ quality of life.

As Chairman of the STC, I hope that this report will help you gain a better understanding of what has been accomplished with the resources available. We believe that meeting the transportation needs of current and future generations of Pennsylvanians requires a strong, performance-based approach and a commitment to positive action.




Sincerely,









Barry J. Schoch, P.E.  
Chairman, State Transportation Commission  
Secretary, PA Department of Transportation













# Summary

 <p>Performance is <b>low</b> due to magnitude of need and limited resources.</p>	 <p>Performance is <b>improving</b>; however, there are opportunities for enhancement and resources needed.</p>	 <p>Performance is <b>good</b> due to current initiatives and resources available.</p>
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## Safety

 <b>Impaired Driving</b>	<p>Safety remains a top priority, and there have been positive improvements across all modes. Targeted safety funds have focused on implementing the most cost-effective countermeasures. Legislation has been enacted to address distracted driving. While technology has created safety challenges, emerging technologies such as connected vehicles and autonomous vehicles may offer opportunities to enhance safety in the future.</p> <p><i><b>Additional legislation is needed to enhance work zone safety and continue to enforce safe driving habits.</b></i></p>
 <b>Unbelted Fatalities</b>	
 <b>Speeding/Aggressive Driving</b>	
 <b>Distracted Driving</b>	
 <b>Pedestrian Safety</b>	
 <b>Work Zone Crash Trends</b>	







## Mobility

 <b>Congestion</b>	<p>Improved mobility and reliability is an expectation of the public and is needed to support economic development within the Commonwealth; however, congestion is growing. Although there have been limited resources available for capacity-adding projects, PennDOT and its partners have focused on improvements that help the existing system handle more traffic more efficiently. Efforts include modernizing traffic signals, better handling of traffic incidents and special events, and providing real-time travel information. PennDOT and other transportation agencies are working with the freight industry to develop a comprehensive freight plan that supports Pennsylvania's economic vitality while not inhibiting our residents' quality of life.</p> <p><i><b>Additional resources are needed to optimize transportation systems operations and add strategic capacity. More formal interagency coordination (PennDOT, Pennsylvania Turnpike Commission, Pennsylvania State Police, etc.) is needed to advance traffic incident management programs.</b></i></p>
 <b>Capacity Enhancements</b>	
 <b>Traveler Information</b>	
 <b>Traffic Signals</b>	
 <b>Traffic Incident Management</b>	
 <b>Airline On-Time Performance</b>	
 <b>Transit Ridership</b>	
 <b>Amtrak Ridership</b>	
 <b>Freight Movement</b>	
 <b>Freight Demand</b>	

 **Preservation and Renewal**

 <b>State Bridges</b>	<p>Pennsylvania’s highway and transit infrastructure is aging significantly, and investment in preservation has fallen short. Due to limited resources, preservation has focused on basic maintenance first. Some progress has been made in reducing deficient bridges; however, the number of deficient bridges is expected to rise. More than 20 percent of the state’s roads have pavement rated as “poor” and in need of rehabilitation or reconstruction.</p> <p><i>Without additional resources, bridge and roadway infrastructure will deteriorate and there will be reductions in transit service, impacting the public and businesses throughout the Commonwealth.</i></p>
 <b>Local Bridges</b>	
 <b>Posted Bridges</b>	
 <b>Pavement Reconstruction</b>	
 <b>Rail Infrastructure</b>	
 <b>Transit Infrastructure</b>	

 **Accountability**

 <b>Next Generation</b>	<p>Pennsylvania’s transportation agencies are holding themselves accountable to most efficiently utilize every dollar. Transit performance reviews and modernization have improved transit system efficiency. PennDOT’s Next Generation initiative is saving \$7 million through its pilot projects, and has the potential to save \$75 million per year. Through related initiatives, PennDOT is enhancing collaboration among state agencies and becoming a better business partner, benefitting the private sector. Additionally, the Commonwealth must be on the forefront of emerging technologies to be efficient and competitive.</p> <p><i>Legislative support is needed to implement some modernization initiatives, such as the use of Alternative Technical Concepts and the use of the Construction Manager/General Contractor as a consultant in the design phase of projects.</i></p>
 <b>State Transportation Innovation Council</b>	
 <b>Transit Performance</b>	
 <b>Transit Modernization</b>	
 <b>Project Delivery</b>	
 <b>Business Partnerships</b>	

**Funding**

Transportation improvement needs are vast, and far greater than the resources available. Transportation agencies must continue to modernize and embrace innovation to control costs; however, new investment will be required to support long-term economic strength and competitiveness, and our communities’ quality of life.

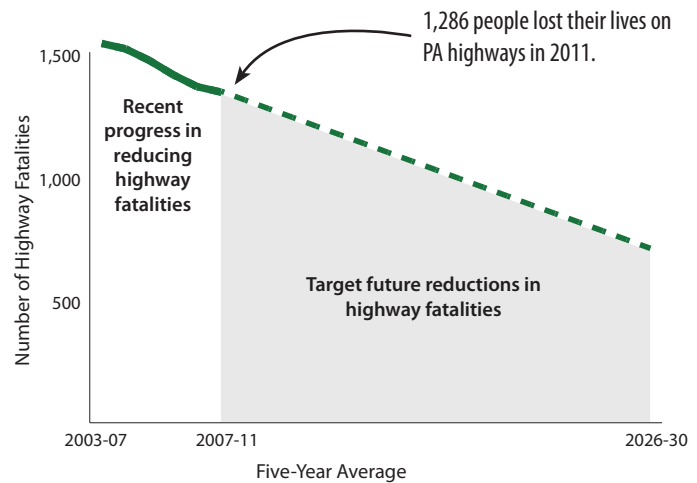
*The Commonwealth should continue to implement multimodal initiatives and funding that result in complete transportation systems that support economic development and quality of life.*

# Safety

- ▶ Highway fatalities have been declining. PennDOT has set an aggressive goal of cutting fatalities and injuries by half over the next two decades.



- **Safety Planning:** PennDOT has established a Strategic Highway Safety Plan, and works with many partners to implement strategies in:
  - › Engineering (infrastructure improvements such as sight distance, clear zone, rumble strips, and safety edge upgrades).
  - › Enforcement (of speeding and other laws).
  - › Education (aimed at improving driver behavior).
  - › Emergency Services (to enhance response time, communications, and coordination).
- **Safety Legislation:**
  - › Act 81, enacted in 2011, includes graduated driver licensing requirements, passenger restrictions for junior drivers, and passenger restraint laws.
  - › An anti-texting law went into effect in 2012.
  - › Legislation expanded the potential use of red light running technology.



**Five-Year Average Highway Fatalities**  
source: PennDOT Strategic Highway Safety Plan, 2012



- **Technology:** Technology has created safety challenges due to distracted driving, however, automakers and others are developing new technologies that will improve safety, such as collision warning systems, lane departure warning systems, blind spot detection, and adaptive headlights.
- **Smart Vehicles:** Government agencies, researchers, and the private sector are working together to develop connected vehicle technologies such that vehicles can communicate to each other and the roadway to improve safety. These advances will eventually lead to autonomous vehicles.

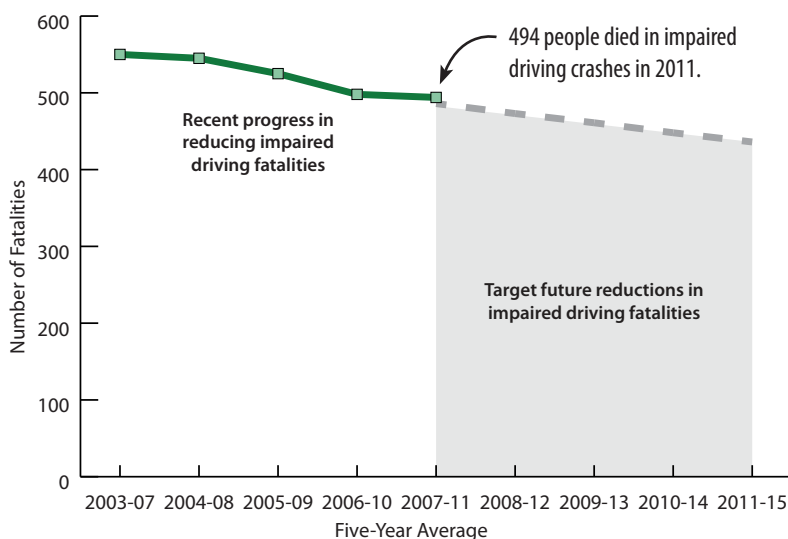


Moving Forward ▶▶

- **Collaboration:** The government, automakers, and researchers must continue to collaborate toward a future in which vehicles can communicate with one another to improve road safety.
- **Enforcement:** Additional enforcement tools need to be considered, including a primary seat belt law, ban on handheld cell phones, and automated speed enforcement in work zones.

Impaired Driving

▶ Impaired driving remains an education and enforcement target.



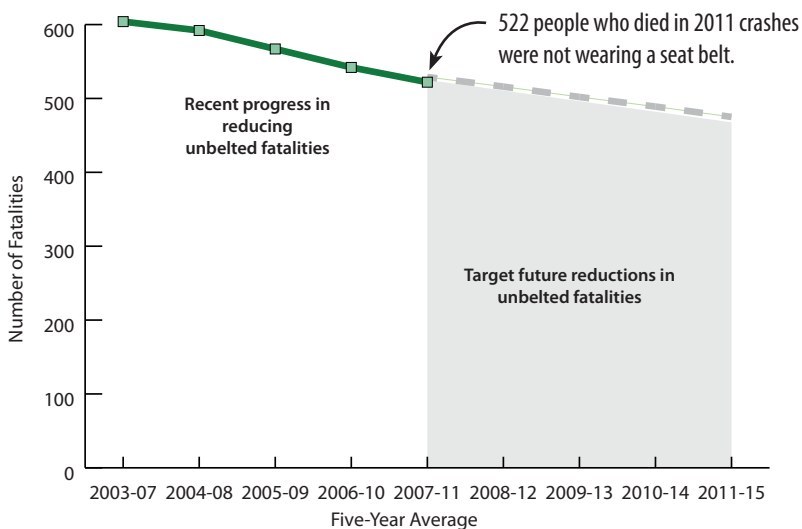
**Five-Year Average Impaired Driving Fatalities**  
 source: PennDOT Strategic Highway Safety Plan, 2012

- Alcohol-related crashes account for one-third of total traffic deaths.
- Strategies include visible enforcement, education, and the ignition interlock program.



Unbelted Fatalities

▶ Seat belts are saving lives.



**Five-Year Average Unbelted Fatalities**  
 source: PennDOT Strategic Highway Safety Plan, 2012

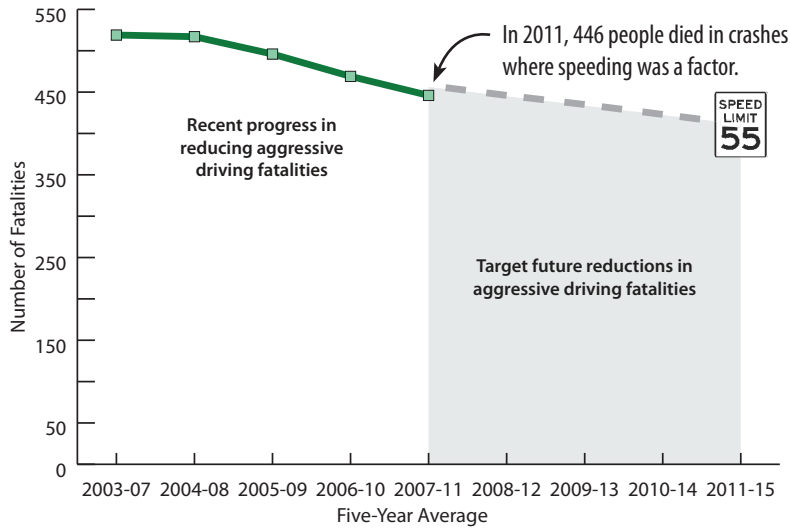
- Nearly 45 percent of fatal crashes between 2007 and 2011 involved an unbelted occupant.
- In 2011, seat belt use was nearly 84 percent due to enforcement and education programs.



Speeding/Aggressive Driving



► Aggressive driving remains a focus.



**Five-Year Average Speeding/Aggressive Driving Fatalities**

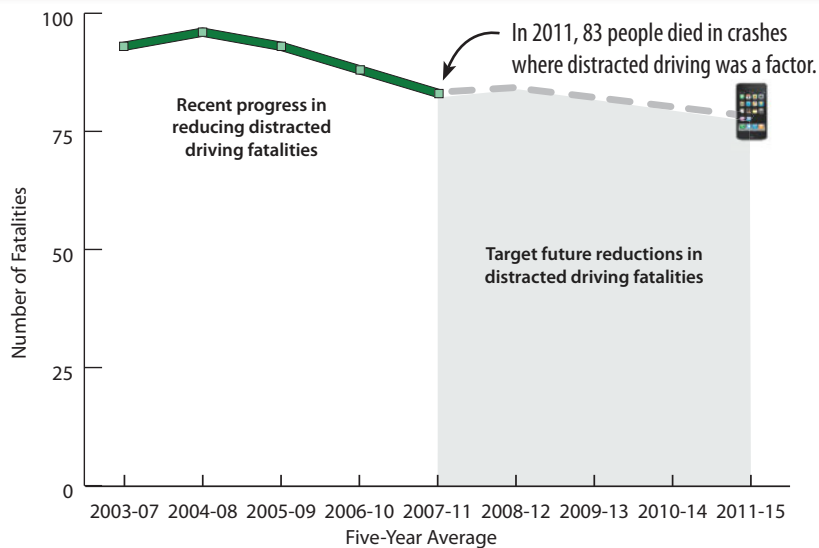
source: PennDOT Strategic Highway Safety Plan, 2012

- One-third of all fatalities are speed-related.
- Targeted enforcement is very effective in improving driver behavior.

Distracted Driving



► Distracted driving is trending down, but remains a critical issue.



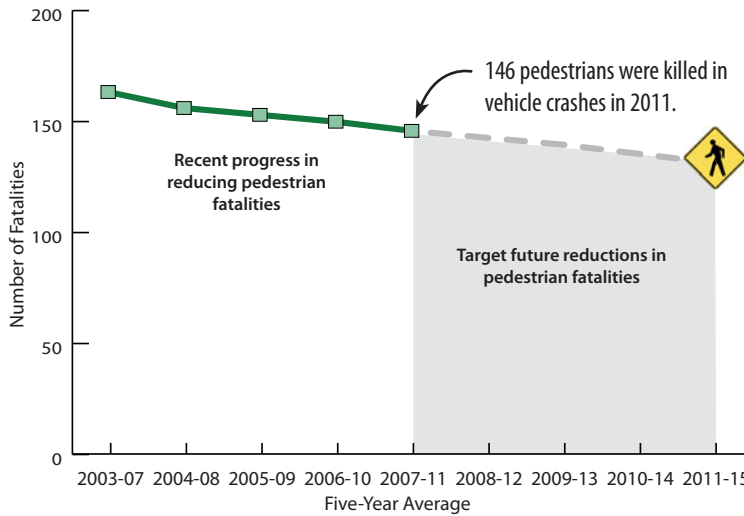
**Five-Year Average Distracted Driving Fatalities**

source: PennDOT Strategic Highway Safety Plan, 2012

- Distracted driving is an evolving concern due to new technology.
- Strategies include highway measures such as centerline and edge-line rumble strips, enforcing the anti-texting law, and public information.

Pedestrian Safety

► The majority of pedestrian crashes occur in crosswalks in urban settings, but the majority of pedestrian fatalities occur in rural areas.



Five-Year Average Pedestrian Fatalities

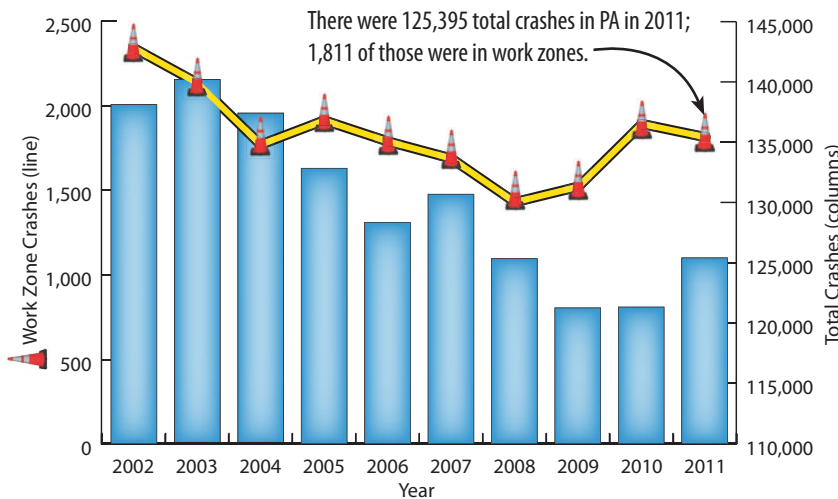
source: PennDOT Strategic Highway Safety Plan, 2012

- Low-cost enhancements include better signs and pavement markings.
- Strategies include educating motorists and pedestrians, enforcing pedestrian safety laws, and better planning by local government and developers.



Work Zone Crash Trends

► Work zone crashes have not followed a predictable pattern.



Pennsylvania Crash Trends, Work Zones and Total

source: Pennsylvania Transportation Advisory Committee, Cameras in Work Zones, 2012

- A 2012 report by the Pennsylvania Transportation Advisory Committee (TAC) recommended cameras in work zones as a means of improving work zone safety through automated enforcement.
- Work zone cameras have been shown to be effective in reducing speeds, crashes, injuries, and fatalities.

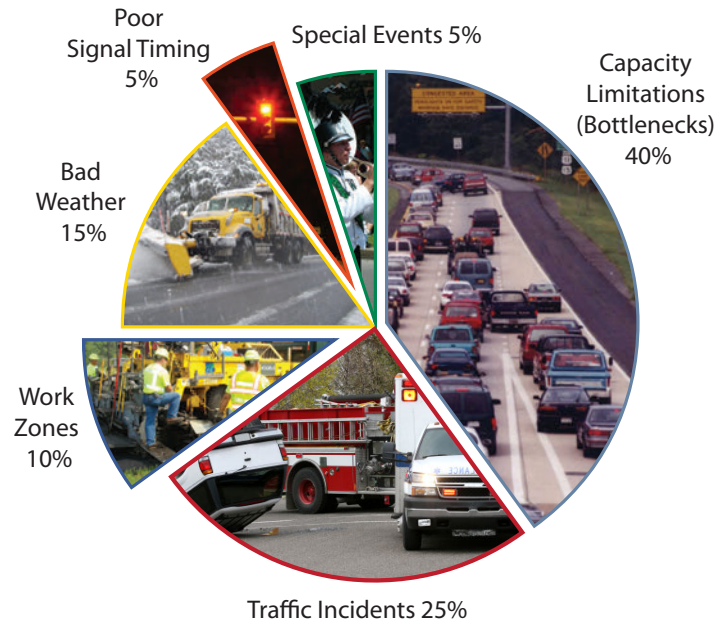


# Mobility

- **Traffic congestion is growing, but transportation agencies are exploring ways to manage demand, operate efficiently, and improve capacity.**



- **Traffic Management:** PennDOT has established Traffic Management Centers in urban areas to monitor traffic, detect incidents, and coordinate responses to return traffic flow to normal as quickly as possible.
- **Traveler Information:** PennDOT has established the PA511 system and deployed dynamic message signs to provide information on traffic conditions.
- **Keystone Corridor:** Improvements to the rail corridor between Harrisburg and Philadelphia have reduced travel time.



**Causes of U.S. Highway Congestion**  
source: Federal Highway Administration



- **Capacity:** Funding and physical constraints will limit additional highway capacity except in strategic locations. It will become more critical to make the best use of all modes and maximize the capacity of existing roadways. This may include shoulder running in peak periods, high occupancy lanes, variable speed limits, and other active traffic demand management strategies.
- **Technology:** Mobility can be enhanced through improving traffic signal systems, providing better traveler information, and implementing intelligent transportation system technology.

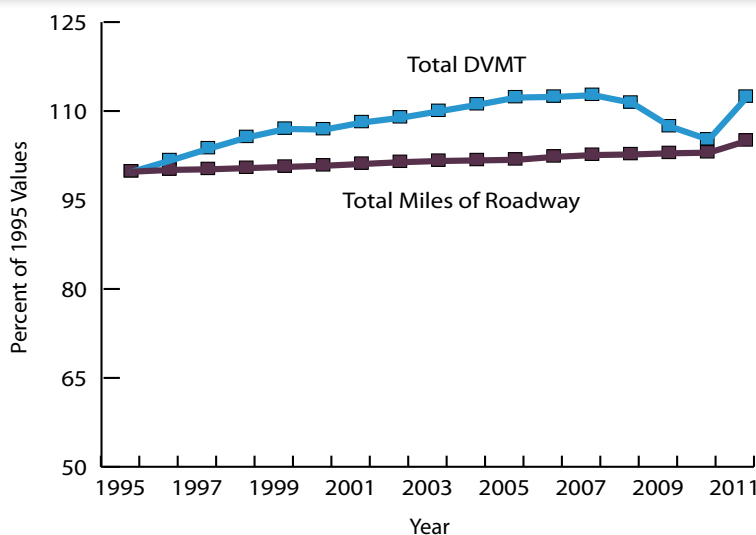


Moving Forward ►

- **Public-Private Partnerships:** PennDOT is soliciting private sector proposals to operate traveler information services, which will encourage innovation.
- **Traffic Signals:** PennDOT is developing a program to modernize traffic signal systems. It is estimated to reduce significant delays by as much as 30 percent, with a 40-to-1 benefit-cost ratio.
- **Regional Transit Consolidation:** PennDOT is partnering with transit agencies and local governments to explore regional consolidation of public transportation to make more money available for transit service.
- **Freight:** PennDOT is developing a comprehensive freight plan that will inform future decisions related to improving goods movement.

Congestion

► Growth in travel demand has far outpaced that of roadway capacity.



Daily Vehicle Miles Traveled and Linear Miles as a Percent of 1995 Values

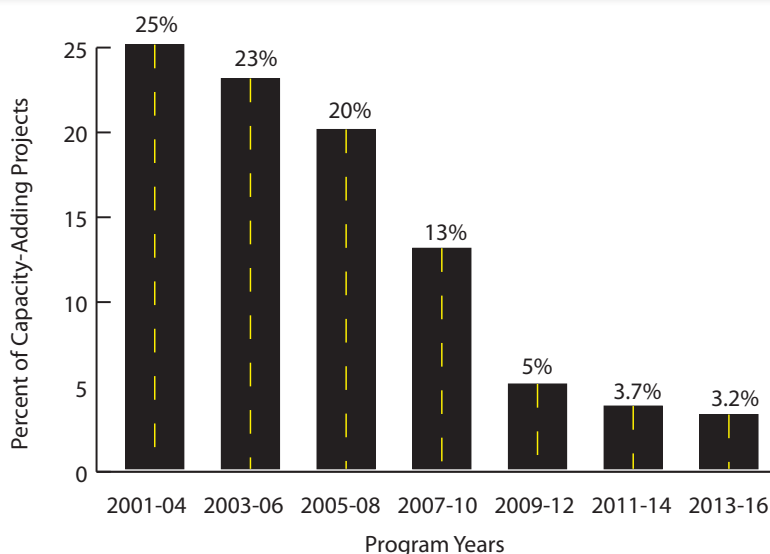
source: Pennsylvania Transportation Advisory Committee, "Congestion Mitigation and Smart Transportation," 2009 (2010 and 2011 data from PennDOT)

- Demand for travel has grown, despite recent declines due to the national recession.
- The average worker in Pittsburgh spends 25 percent of his or her commute in congested traffic. In Allentown/Bethlehem it is 38 percent, and in Philadelphia it is 61 percent.
- Transportation agencies are partnering to better operate roadways/transit systems using technology to make them more efficient.



Capacity Enhancements

► There are limited resources for capacity enhancements.



Capacity-Adding Projects (as a percentage of the total program)

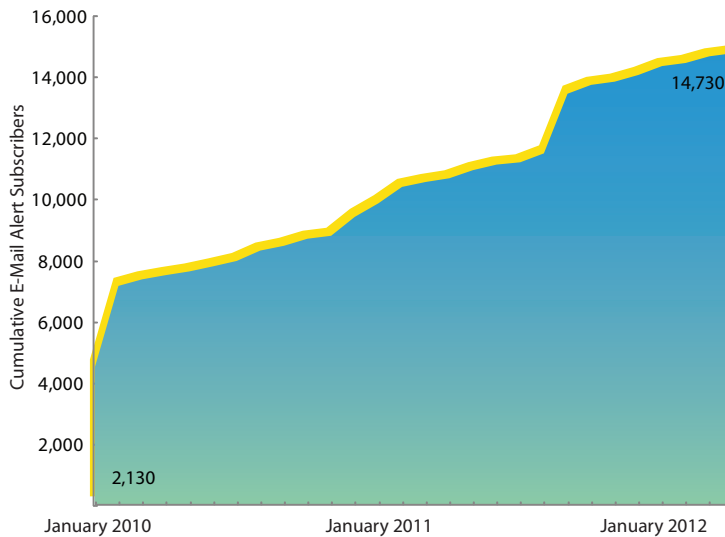
source: PennDOT Center for Program Development and Management

- The last three updates of the State Transportation Improvement Program (STIP) have significantly reduced the share of capacity-adding projects.
- Strategic capacity additions in critical corridors can improve the flow of people and goods.



Traveler Information

► Residents and businesses expect accurate, real-time traveler information for all modes.



Cumulative PA511 E-Mail Alert Subscribers

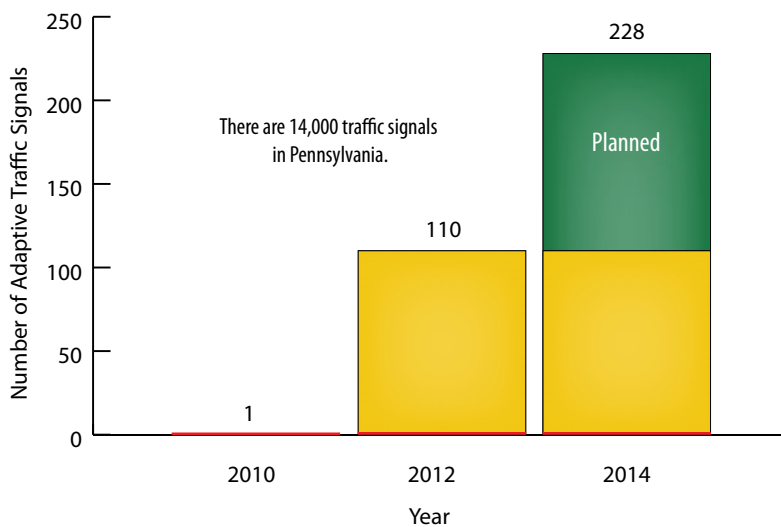
source: PennDOT Bureau of Maintenance and Operations

- There is an array of traveler information available through dynamic message signs, highway advisory radio, and social media.
- The 511 System provides information on traffic conditions, transit, and weather, as well as access to tourism information.
- PennDOT is soliciting private sector proposals to operate its traveler information program.



Traffic Signals

► Pennsylvania has been recognized nationally for its recent efforts to begin to modernize its traffic signals by implementing new technologies on critical corridors.



Total Adaptive Signalized Intersections by Year

source: PennDOT Bureau of Maintenance and Operations

- In Pennsylvania, delay and fuel costs due to traffic signal-related congestion are estimated at \$120 to \$160 million annually.
- Light emitting diode (LED)-equipped signals can save municipalities money in electricity.
- Adaptive signal control technologies use real-time traffic information to reduce congestion by determining which lights should be red and which should be green to keep traffic flowing.



Traffic Incident Management

► Freeway service patrols help motorists get back on the road quickly and safely.



Number of Motorist Assists by Year

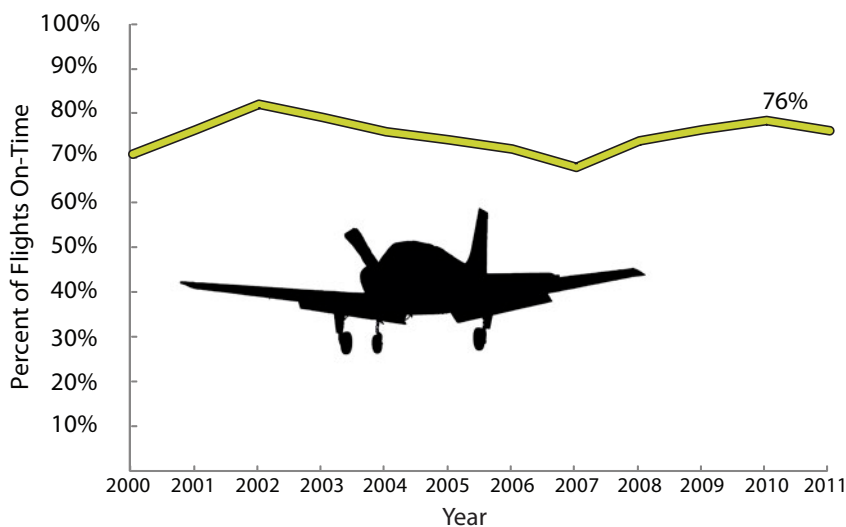
source: PennDOT Bureau of Maintenance and Operations

- A 90-minute incident on a typical interstate results in \$120,000 in lost productivity and fuel.
- Incident management procedures have resulted in road closure times greater than 90 minutes decreasing 13 percent from 2009 to 2010.
- The Pennsylvania Turnpike has offset freeway service patrol costs through sponsorships, and PennDOT is considering the same.
- Quick clearance legislation would allow minor incidents to be removed from the roadway more quickly.



Airline On-Time Performance

► Airlines' on-time performance is improving, but is still lower than national averages.



Percent of On-Time Flights by Year

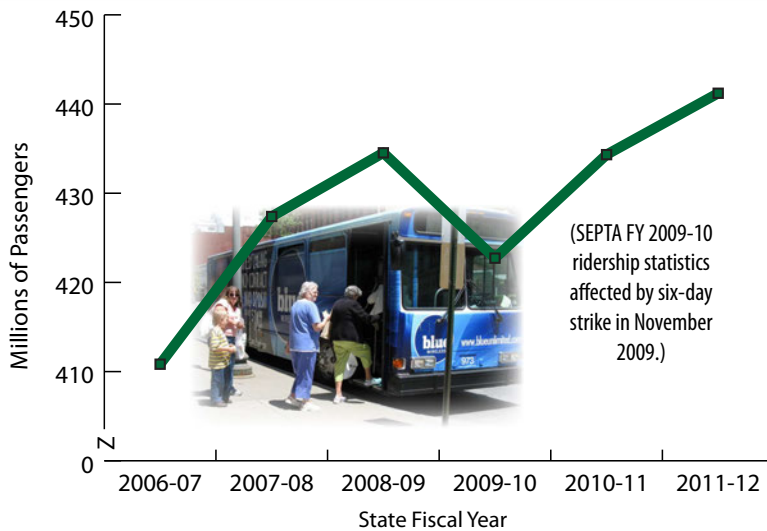
source: PennDOT Bureau of Aviation

- On-time performance at Pennsylvania's key airports has improved from 71 to 76 percent; however, the national average is 80 percent.
- PennDOT administers state and federal funding for improvements to enhance aviation safety, reliability, and mobility.
- Enhancements are being made at Philadelphia to improve on-time performance.



Transit Ridership

▶ Transit ridership has rebounded in recent years.

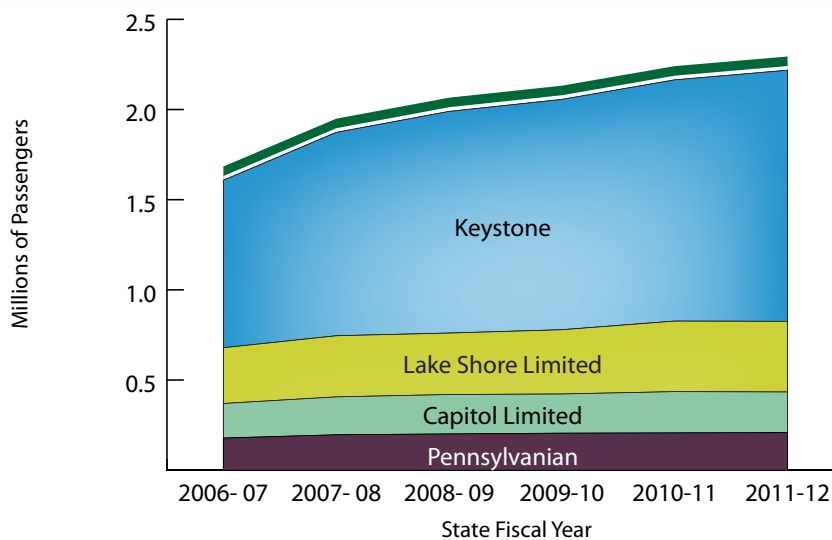


**Act 44 Fixed Route Total Passengers by Year**  
 source: PennDOT Bureau of Public Transportation

- High fuel prices have provided greater incentive to use public transportation, but have increased transit operating costs.
- Implementing technology can improve service while increasing productivity.
- PennDOT is working with transit agencies to control costs through modernization.

Amtrak Ridership

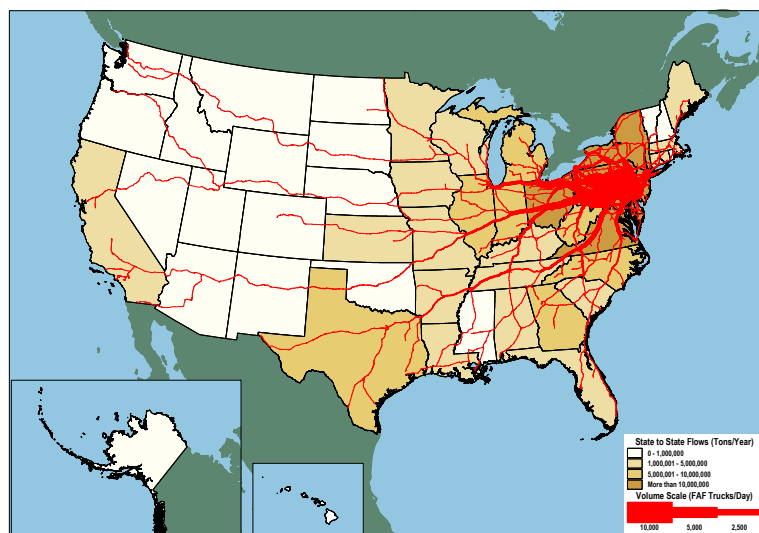
▶ Amtrak ridership has been steadily increasing in recent years.



**Amtrak Ridership (PA) by Service**  
 source: PennDOT Bureau of Public Transportation

- Infrastructure improvements on the Keystone Corridor between Harrisburg and Philadelphia have significantly reduced travel times and improved customer service.
- Ridership on the Keystone Corridor has doubled since 2000, making it Amtrak's fourth-busiest route in the nation.

► Pennsylvania's shippers and receivers rely on the state and national roadway network to access the national market.



Major Flows by Truck To, From, and Within Pennsylvania, 2007

source: FHWA Office of Freight Management and Operations, Freight Analysis Framework, v. 3.1.2, 2011

- Nationally, and in Pennsylvania, freight volume is expected to double in the next 40 years.
- Pennsylvania is truly the Keystone State with regard to freight movement within the northeastern United States.



► Pennsylvania is focusing on intermodal freight initiatives to improve the mobility of business and limit impacts to residents.



- \$500 billion in goods and services travel through PA each year.
- We cannot expect our roadway capacity to grow at the same rate as freight volume. We must have intermodal options to efficiently and economically transport freight.
- PA has been investing in intermodal facilities (such as the Philadelphia Naval Yard) and contributing toward initiatives to accommodate double-stack trains.



# Preservation and Renewal

- ▶ Transportation infrastructure is aging and investment in preservation has fallen short.



- **Maintenance First:** All transportation infrastructure owners (PennDOT, local government, and transit operators) have adopted a basic “maintenance first” approach, but long-term maintenance has been limited.
- **Accelerated Bridge Program:** A three-year initiative has reduced the number of structurally deficient state bridges to its lowest level since 1998, but required borrowing \$800 million and deferring other projects.

- 18 percent of PA’s bridges are structurally deficient, while the national average is 7.3 percent.



**Percent of Structurally Deficient State Bridges**  
source: PennDOT Bridge Management System



- **Construction:** New materials and construction methods will create infrastructure that is more sustainable, longer-lasting, disaster-resilient, and stronger.
- **Technologies:** Tools and technologies will support more effective management of assets including the monitoring and inspection of infrastructure elements.

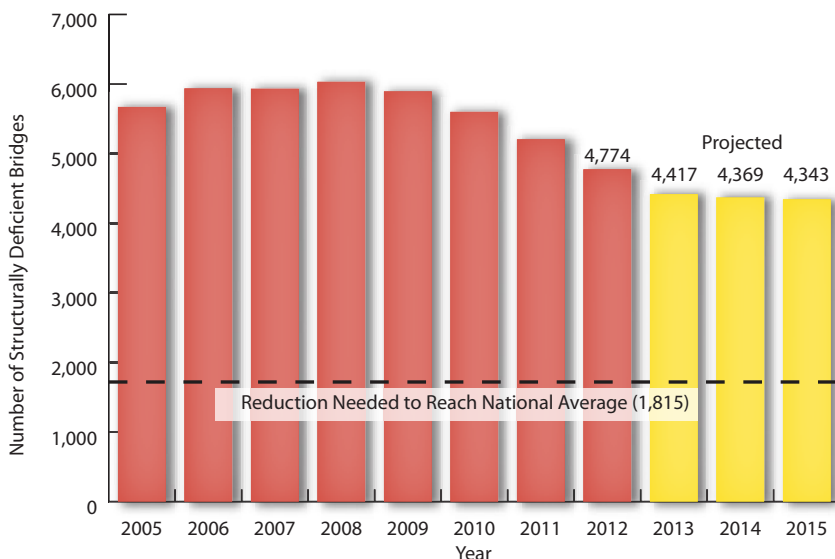


- **Bundling Local Bridge Projects:** PennDOT is piloting a strategy that can reduce costs up to 40 percent and expedite project delivery.
- **Cost-effective Maintenance:** Additional funding is critically needed to perform necessary preventative maintenance to save money in the long run.



State Bridges

► PennDOT has made significant progress in reducing the number of structurally deficient bridges on the state system, but under current funding levels the number will rise.



- The average age of Pennsylvania bridges is over 50 years.
- Additional emphasis has been placed on bridge preservation, to keep good bridges from becoming deficient.
- The 3-year accelerated bridge program addressed an average of 534 bridges per year; however, current funding will support work on only 200 bridges in future years.

**Number of Structurally Deficient State Bridges Greater than 8 Feet Long by Year**  
*source: PennDOT Bridge Management System*



Local Bridges

► Deficiencies on locally-owned bridges have continued to rise in recent years.



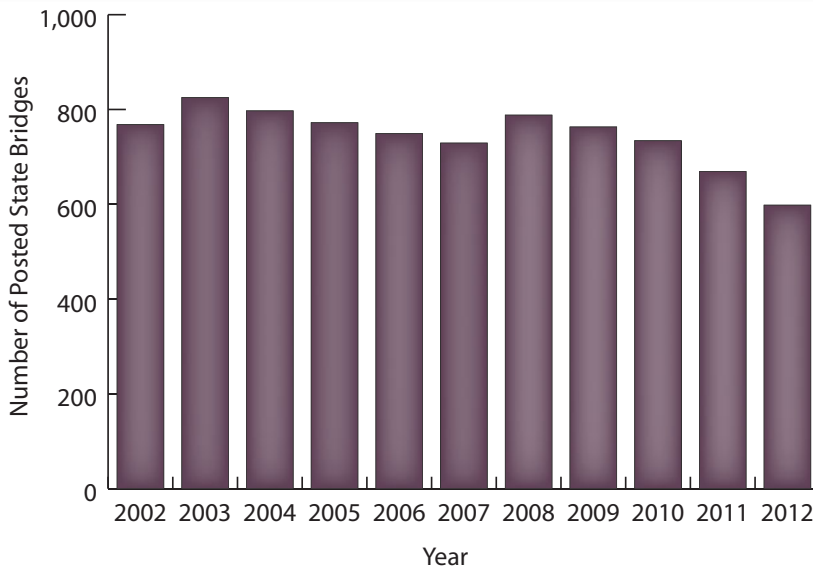
- 35 percent of local bridges are structurally deficient.
- The local bridge bundling pilot is anticipated to reduce average project delivery from 7 years to 3 years.

**Number of Structurally Deficient Local Bridges Greater than 20 Feet Long by Year**  
*source: PennDOT Bridge Management System*



Posted Bridges

► The recent focus on bridge projects has reduced the number of weight-restricted structures.



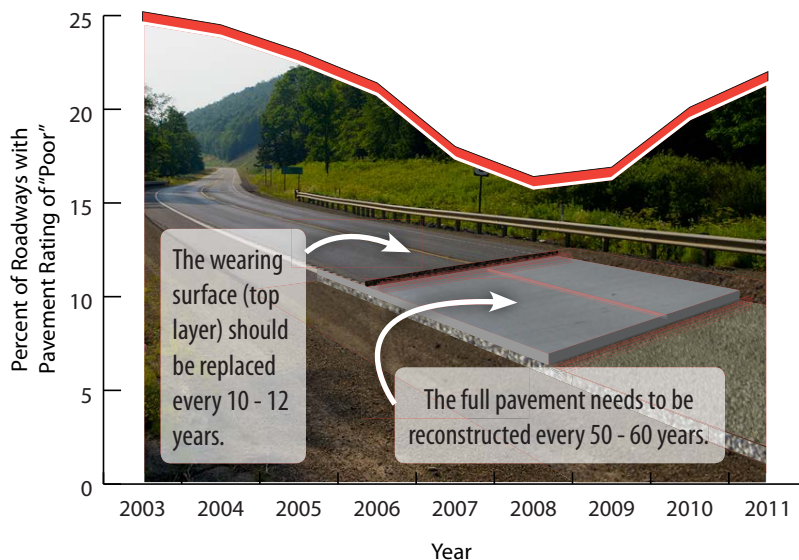
- A posted or closed bridge increases travel times for families, businesses, and emergency responders.

**Number of Posted State Bridges by Year**  
source: PennDOT Bridge Management System



Pavement Reconstruction

► Pavement condition has worsened over time.



- 50 percent of Interstate highways have exceeded their design life.
- 8,517 miles of road have pavement rated as "poor" and in need of rehabilitation or reconstruction.
- Less than one-tenth of the needed roadway reconstruction is being completed each year due to limited funding.

**Percent of Roadways Statewide by Year with Pavement Rating of "Poor"**  
source: PennDOT Bureau of Maintenance and Operations



► In 2012, the state invested \$23 million in 16 rail freight projects.

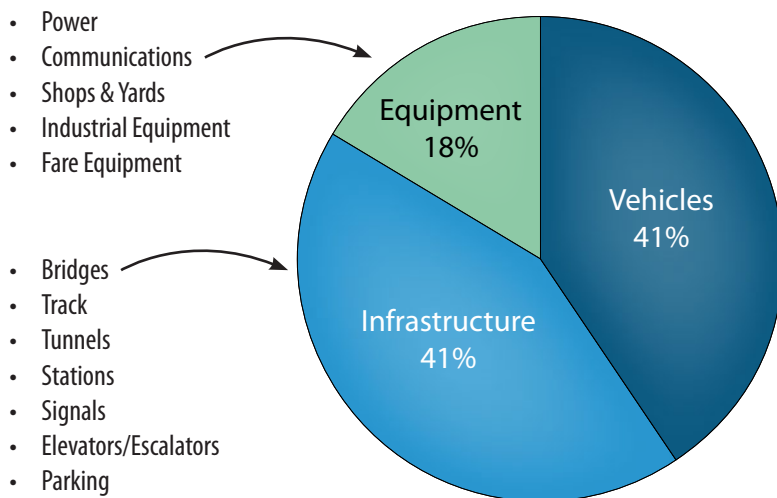


Rail cars carrying hydrofracturing sand, Wellsboro

- The Marcellus Shale industry means more rail revenue but also more rail infrastructure needs.
- An additional \$1 million per year from the Marcellus Shale Impact Fees is being invested in rail.



► The largest transit provider in the state, SEPTA's backlog of infrastructure needs is \$4.7 billion and will grow to \$13.2 billion in 20 years.



- Unmet needs will result in deteriorating vehicles, equipment, and infrastructure.
- Passengers will experience service delays, and system reliability will decrease.
- SEPTA's backlog is illustrative of transit's needs statewide.

SEPTA State of Good Repair Backlog, 2012

source: Southeastern Pennsylvania Transportation Authority (SEPTA)

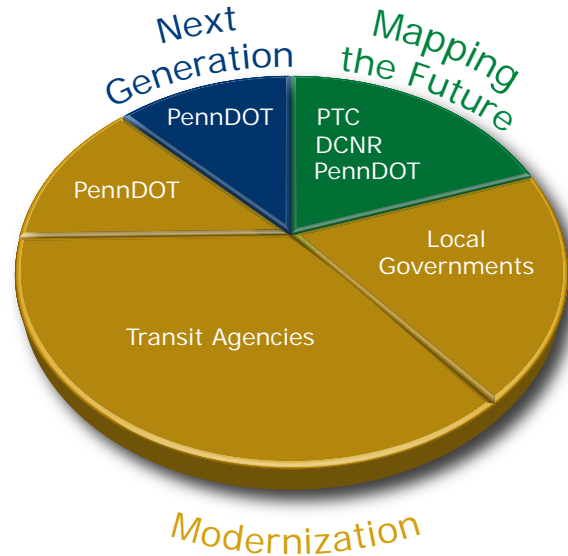


# Accountability

- ▶ Transportation agencies are maximizing resources and modernizing business processes.



- **Next Generation:** In February 2012, PennDOT implemented the PennDOT Next Generation initiative to modernize and optimize processes, policies, and procedures to strengthen how the agency works, shorten project delivery, and improve internal and external customer service while looking for ways to cut costs and realign current resources.
- **Transit Performance Reviews:** In 2007 the Pennsylvania Legislature passed Act 44, establishing a framework to assess transit agency performance through a formal review process. The reviews are intended to identify ways to improve transit system efficiency and effectiveness.
- **NextGen Pilots:** Four initial Next Generation pilot projects yielded \$7 million in annual savings.



**Potential Next Generation Savings: \$50 to \$75 Million per Year**  
*source: PennDOT 2012 Next Generation Progress Report*



- **Modernization:** Government must make the best use of every tax dollar. Agencies must modernize the way they work to efficiently deliver the transportation system on which Pennsylvanians depend.
- **Savings:** Total projected annual savings from PennDOT's Next Generation projects and related efficiency efforts are \$50 to \$75 million across Pennsylvania.

Moving Forward ▶

- **Cost Reduction:** PennDOT must continue to implement cost-saving ideas.
- **Legislation:** Legislative action is needed to sustain innovation:
  - › Use of Alternative Technical Concepts to solicit innovative, cost-effective solutions for design-build projects.
  - › Pilot Construction Manager/General Contractor as a consultant in the design phase of projects to foster innovation, mitigate risk, and improve cost control.



Next Generation

► PennDOT and its employees have embraced the Next Generation challenge to make PennDOT a modern, continually improving agency.

Next Generation is the combination of five distinct initiatives:

**PennDOT Next Generation Projects**

Engage PennDOT management and staff to refresh and advance business practices and technology.

**Mapping the Future**

Coordination among PennDOT, the Pennsylvania Turnpike Commission (PTC), the Department of Conservation and Natural Resources (DCNR), and other agencies to save resources and avoid duplicating efforts.

**Modernization Initiatives**

Delivering on the Transportation Funding Advisory Commission's and PennDOT's modernization recommendations.

**State Transportation Innovation Council (STIC)**

A public/private/institutional approach to adopt and cultivate innovative technologies and techniques to expedite project delivery.

**IdeaLink**

Bottom-up approach that empowers all employees to submit innovative ideas to improve workplace safety and enhance operations.

- Thirty new efficiency projects are currently underway and employees have identified some 200 additional cost-saving ideas to be considered for implementation.



State Transportation Innovation Council

► Government agencies, universities, and businesses are embracing innovation.



- Pennsylvania's State Transportation Innovation Council (STIC) is a cross-section of various stakeholders, state and federal agencies, local governments, and industry partners.
- The STIC is intended to foster collaboration and pride in establishing a process in which ideas, innovative techniques, and processes can be evaluated and implemented quickly and proficiently.



Transit Performance

► PennDOT works with transit providers to identify best practices and opportunities for improvement.



- Transit performance reviews are conducted every five years and include performance targets.
- Alternative fuel vehicles are being implemented to increase efficiency and sustainability.
- Action plans are implemented and monitored.

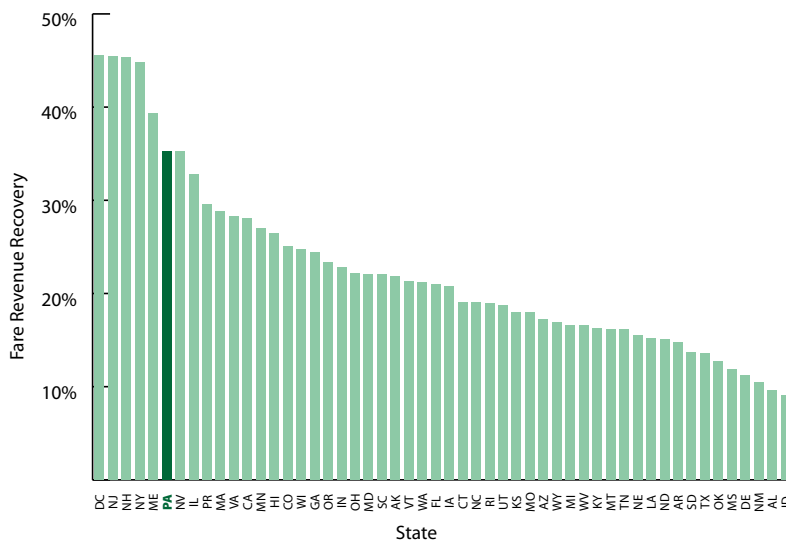
**Transit Agency Performance Review Process**

source: PennDOT Bureau of Public Transportation Annual Performance Report



Transit Modernization

► Pennsylvania's transit operators recover 35 percent of their operating expenses through the farebox—one of the highest such rates in the nation.



**Percentage of Operating Expenses Recovered through Fares**

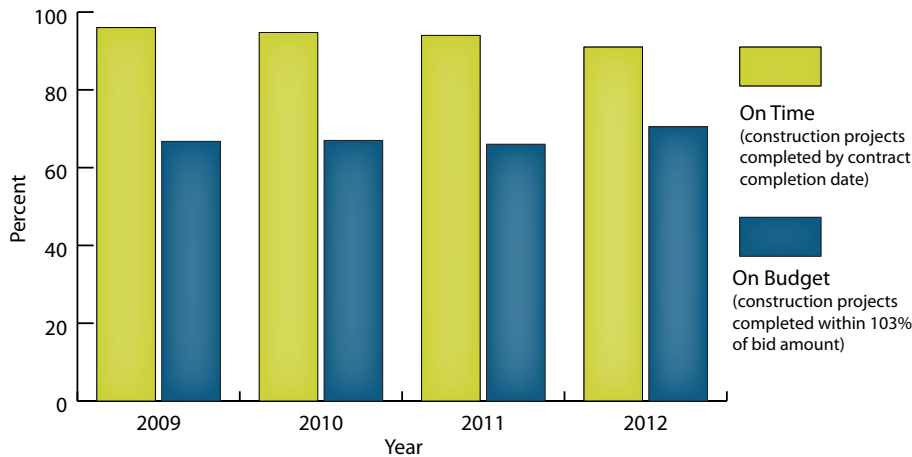
source: Federal Transit Administration, National Transit Database, 2011

- Modernization encompasses regional consolidation and other management strategies to streamline operating expenses.



Project Delivery

► PennDOT is working with staff, consultants, and contractors to be accountable for on-time and within budget project delivery.

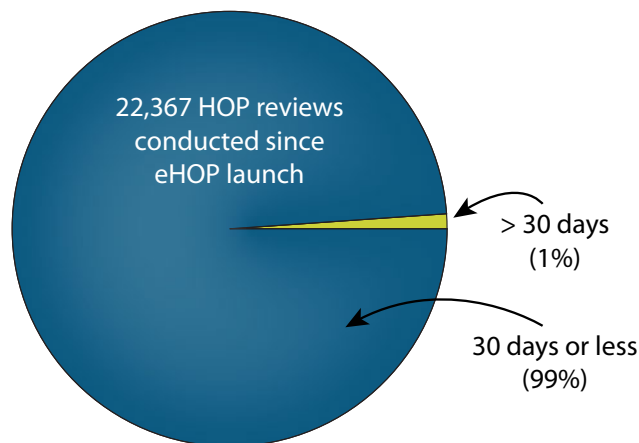


- Projects failing to meet schedules and budget estimates are reviewed and after-actions are taken, if appropriate.

Percent of Highway Construction Projects Completed On Time and On Budget  
 source: PennDOT Bureau of Project Delivery

Business Partnerships

► Transportation agencies and the private sector are working together to improve Pennsylvania.



- PennDOT has reduced review time for Highway Occupancy Permit (HOP) applications from 45 to 10 days.
- Public-private partnerships (P3) will result in accelerated delivery of capacity-adding projects and reduced opportunity for delay.

HOP ePermitting Efficiency  
 source: PennDOT Bureau of Maintenance and Operations

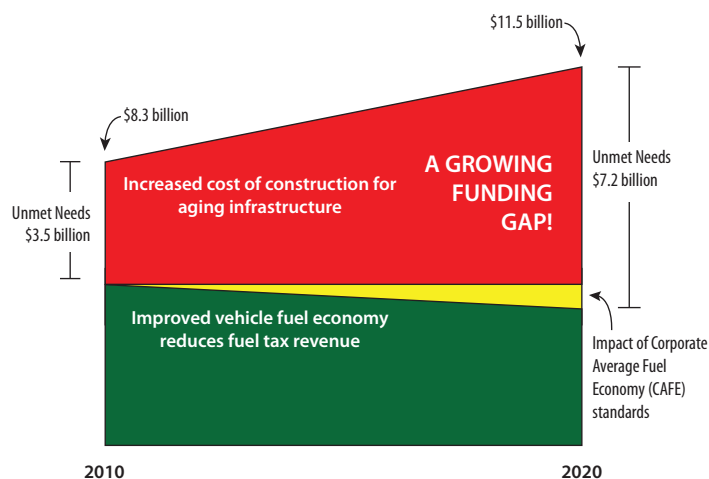
# Funding

- ▶ The gap between transportation funding and needs is estimated at \$3.5 billion annually and will grow to \$7 billion by 2020.



- The General Assembly adopted Act 44 in July 2007; however, the tolling of I-80 was not approved by the federal government. This resulted in a drop in Act 44 funding for highway and transit in SFY 2010 from \$950 million to \$450 million, which will continue until 2047 without additional legislation.
- Act 88 of 2012 authorizes public-private funded transportation projects in Pennsylvania. This tool will allow PennDOT and other transportation providers to enter into agreements with the private sector to participate in the delivery, maintenance, and financing of transportation-related projects that otherwise could not be advanced.
- Act 13 of 2012 (also known as the Impact Drilling Fee) provided new revenue for PennDOT, county government, local municipalities, and the Marcellus Shale Fund.

- Construction cost inflation and increased vehicle fuel efficiency further reduce future buying power.



**The Transportation Funding Gap**

source: Transportation Funding Advisory Commission Report, 2011

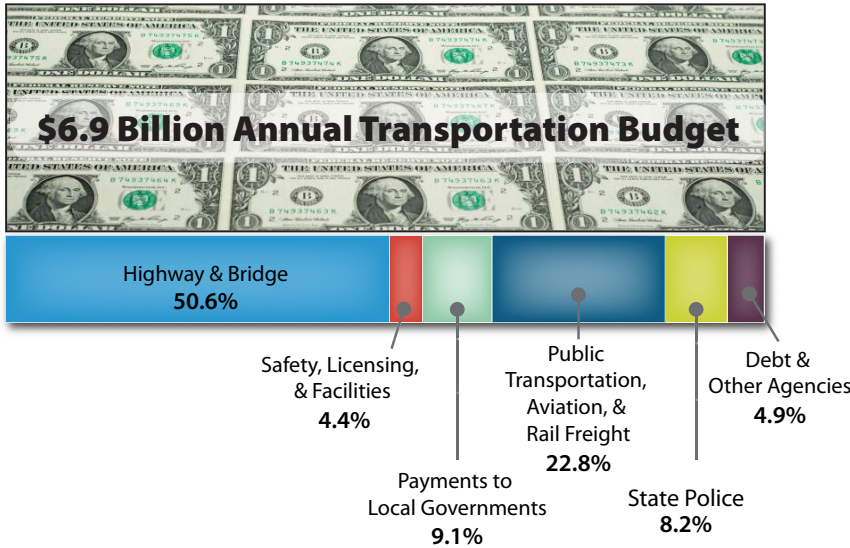


- Pennsylvania now collects less fuel tax revenue per mile traveled than it has at any time in the past due to improved fuel economy. In 10 years, Pennsylvania fuel tax revenue is expected to be \$470 million less per year than it is today, based on the same vehicle miles traveled.
- Buying power is now 50 percent of what it was a decade ago. This trend is expected to continue based on worldwide demand for construction materials.



- **Funding:** Our economy, quality of life, and safety rely on keeping Pennsylvania's transportation system well maintained. However, in recent decades our customary way of funding transportation has fallen short of our needs.
- **Multimodal:** Moving forward, we need to implement a multimodal transportation funding plan that helps to create jobs, preserve public safety, and protect our economy and the commerce that keeps it moving.

► The state transportation budget totals \$6.9 billion.

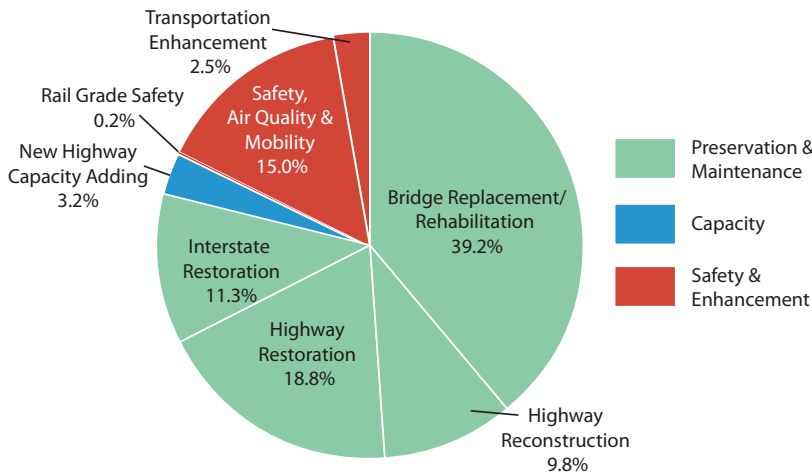


2013 Transportation Program Funding Level Summary

source: PennDOT Bureau of Fiscal Management

- The budget is allocated based on legislative requirements and needs.
- Approximately half of the budget goes to state highways and bridges.
- Federal funds provide 28 percent of the budget; the remainder is from state sources.

► The current 2013-2016 program for highways and bridges totals \$9 billion.



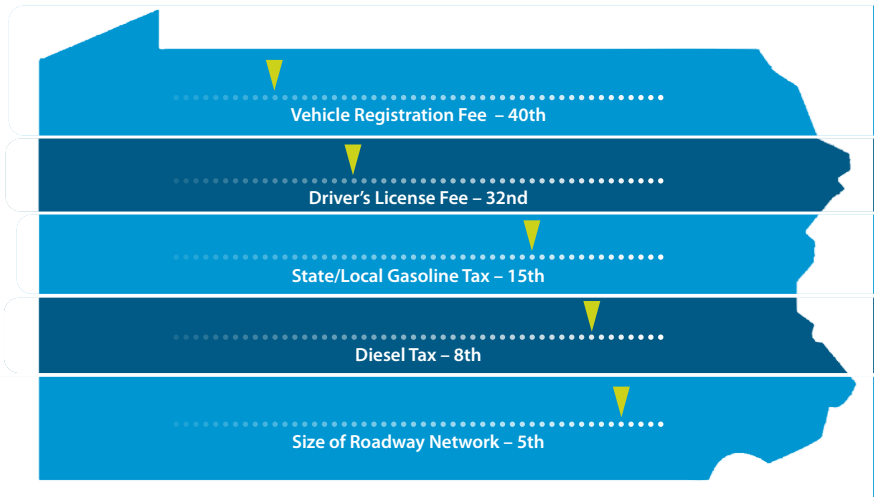
2013 Transportation Improvement Program Distribution, Highways and Bridges

source: PennDOT Center for Program Development and Management

- The 2013 program is \$10 billion less than the 2011 program.
- The program is almost entirely dedicated to preservation of the existing system.
- The most recent federal legislation (MAP-21) provided flat funding for 2013 and 2014.

National Rankings

► Pennsylvania has the fifth-largest roadway network in the nation, but transportation fees and taxes that fund the network rank considerably lower than other states.



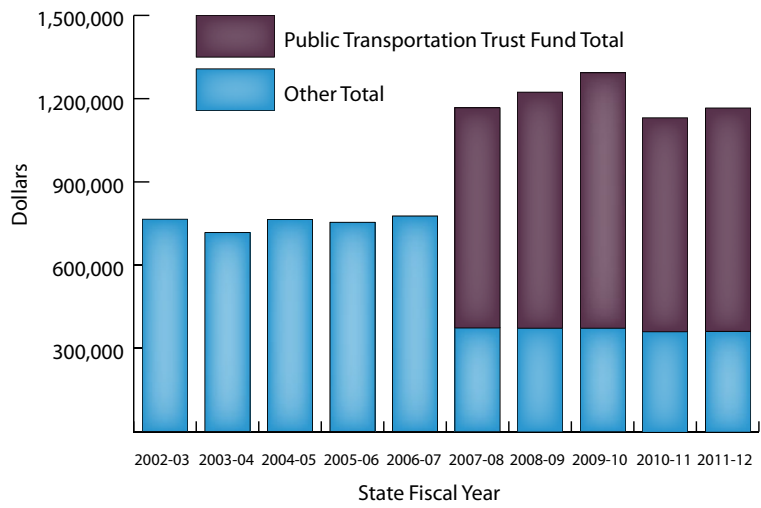
- Pennsylvania transportation usage fees have not been increased since 1997.
- Unlike many other states, Pennsylvania charges a flat registration fee for passenger vehicles, without regard for the vehicle value, age, or weight.

Pennsylvania - National Rankings

sources: American Petroleum Institute; AAA Digest of Motor Vehicle Laws, 2011; State Motor Vehicle Websites

Public Transportation Trust Fund

► Act 44 of 2007 established a Public Transportation Trust Fund that was intended to provide dedicated and growing funding, but the funding sources have not resulted in predictable and growing revenues.



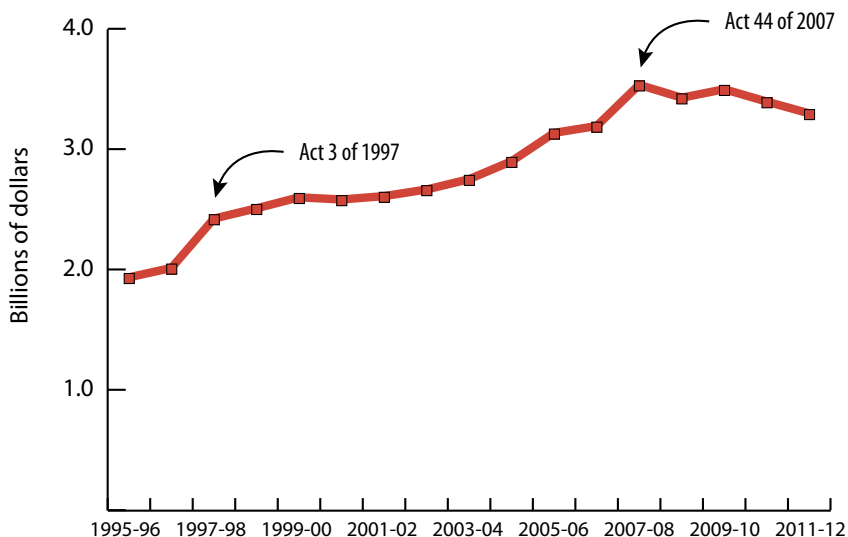
- The key premise of the funding strategy was the tolling of I-80, which was not approved by the federal government.

State Funding of Public Transportation by Year

source: PennDOT Bureau of Fiscal Management

State Motor License Fund

► The Motor License Fund has shown growth over the years based on legislative fee increases, but has now plateaued.

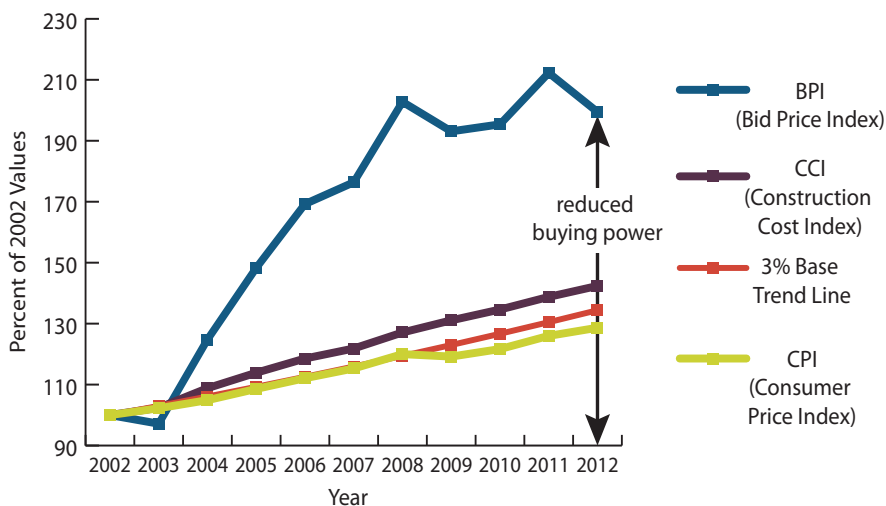


PA Motor License Fund Revenue by Year  
source: PennDOT Bureau of Fiscal Management

- About two-thirds of this amount goes to fund state highways and bridges. The other major uses are enforcement activities by the State Police and payments to local governments for local roads.

Buying Power

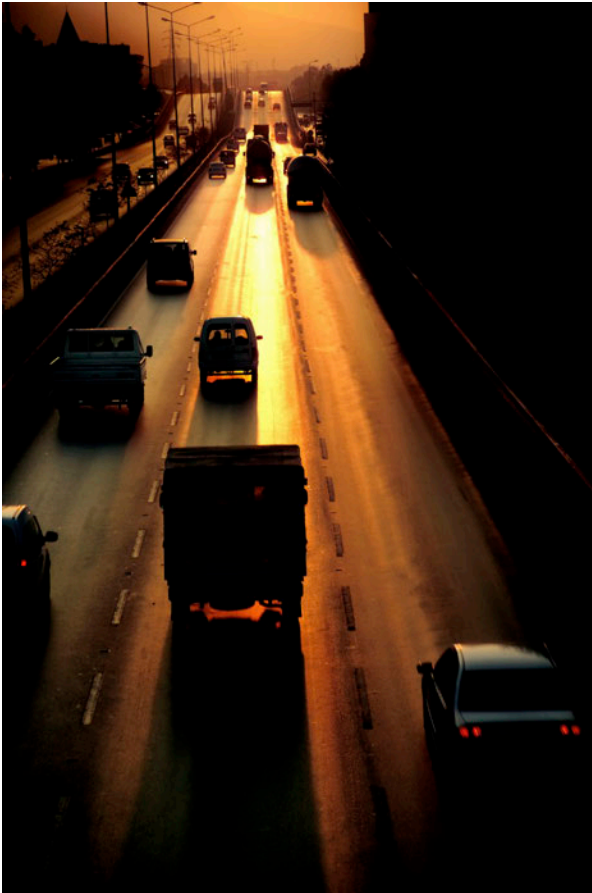
► Sharp increases in the cost of construction materials and labor have reduced buying power.



Cost of Inflation by Year  
source: PennDOT Bureau of Fiscal Management

- Worldwide demand for raw materials such as liquid asphalt, concrete, and steel have increased highway construction costs.
- Maintenance costs generally track with the CCI, and wages for consulting costs typically follow the CPI trend.
- BPI is the best measure for the cost of highway contract work and has been the most volatile.

# Outlook



Pennsylvania's extensive transportation system facilitates the movement of people and goods throughout the Commonwealth. Effective performance of the system is an expectation of the public and is vital to support existing and future economic development.

The State Transportation Commission, the State Transportation Advisory Committee, and PennDOT and its many transportation partners across the state have been committed to directing their efforts to the effective performance of our transportation system.

## Current State of Affairs for PA Transportation

We are seeing improvement in areas related to safety; however, even one fatality is too many and we must continue to use technology, enforcement, and legislation to make our transportation facilities safer. We are implementing initiatives and better using technology to improve mobility in areas related to traffic signal operations and incident management. We are implementing modernization initiatives to improve transit and passenger rail service. We are holding ourselves accountable to other government agencies, private businesses, and our residents. We are gaining ground on our bridge initiative, but there remains a significant need across the Commonwealth. Of course, these successes do not come without challenges for the coming years. The opportunity to address our ongoing pavement, capacity, and congestion issues will require additional investment and efficiency in the way we do business.

### Inquiries can be directed to:

Ms. Julie Harmantzis, Executive Secretary  
Office of the State Transportation Commission and  
Transportation Advisory Committees  
P.O. Box 3633  
Harrisburg, PA 17105-3633

717-787-2913  
RA-PennDOTSTC@pa.gov

## Potential Risks for PA Transportation

Some of the risks of inaction could include the reversal of bridge conditions, accelerated pavement deterioration, and increased congestion. Failure to preserve our transportation system affects how we live and hinders the ability of our business partners to remain competitive.

## PA Transportation Moving Forward

As a means of continuing the successes noted in this report and addressing ongoing challenges, Pennsylvania's transportation industry must continue to modernize and embrace innovation, promote new investment, and support long-term economic strength and competitiveness for our communities' quality of life.

# Acknowledgements

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# Transportation Performance Report

PENNSYLVANIA 2013

