

# PLAN 2035

*Regional Transportation Plan for Northern New Jersey*



**NORTH JERSEY TRANSPORTATION PLANNING AUTHORITY**



*August, 2009*

# NJTPA Region

Bergen

Essex

Hudson

Hunterdon

**Jersey City**

Middlesex

Monmouth

Morris

**Newark**

Ocean

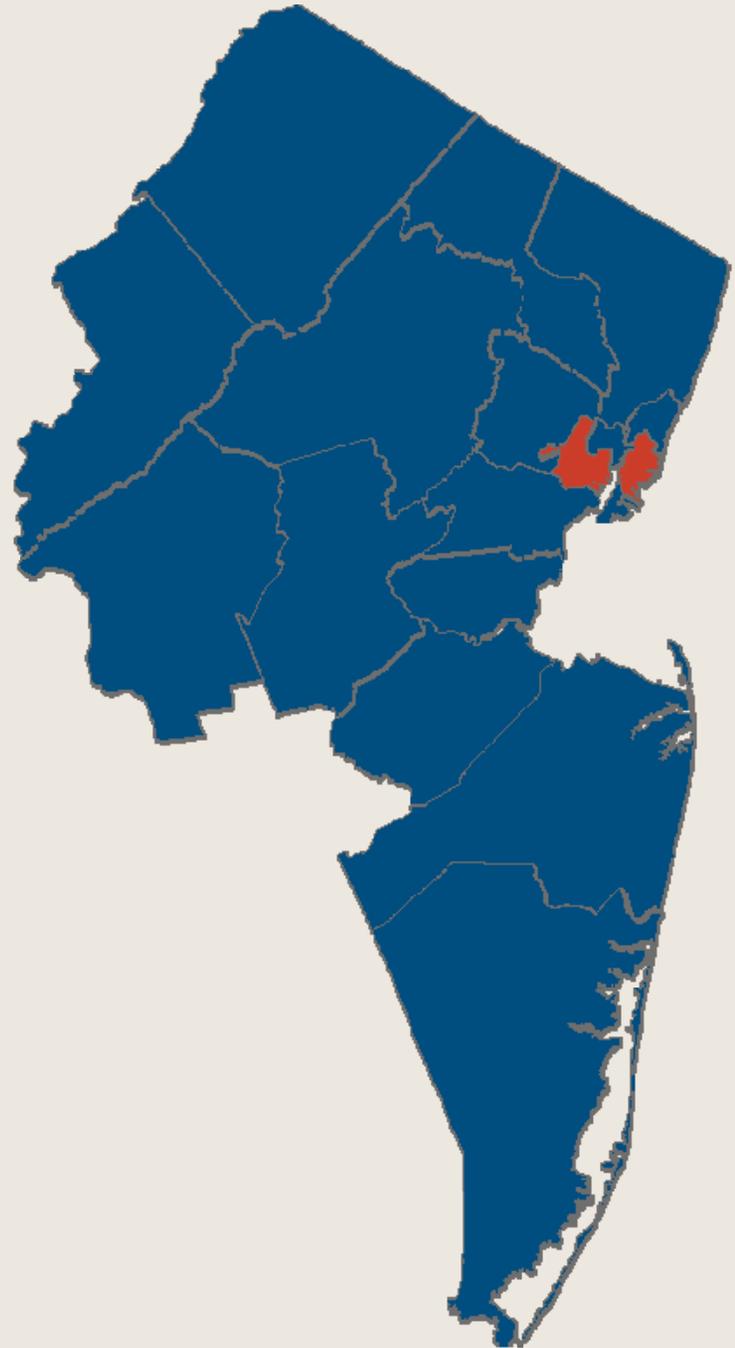
Passaic

Somerset

Sussex

Union

Warren



# North Jersey

## Transportation Planning Authority

The Metropolitan Planning Organization for Northern New Jersey



### STANDING COMMITTEES

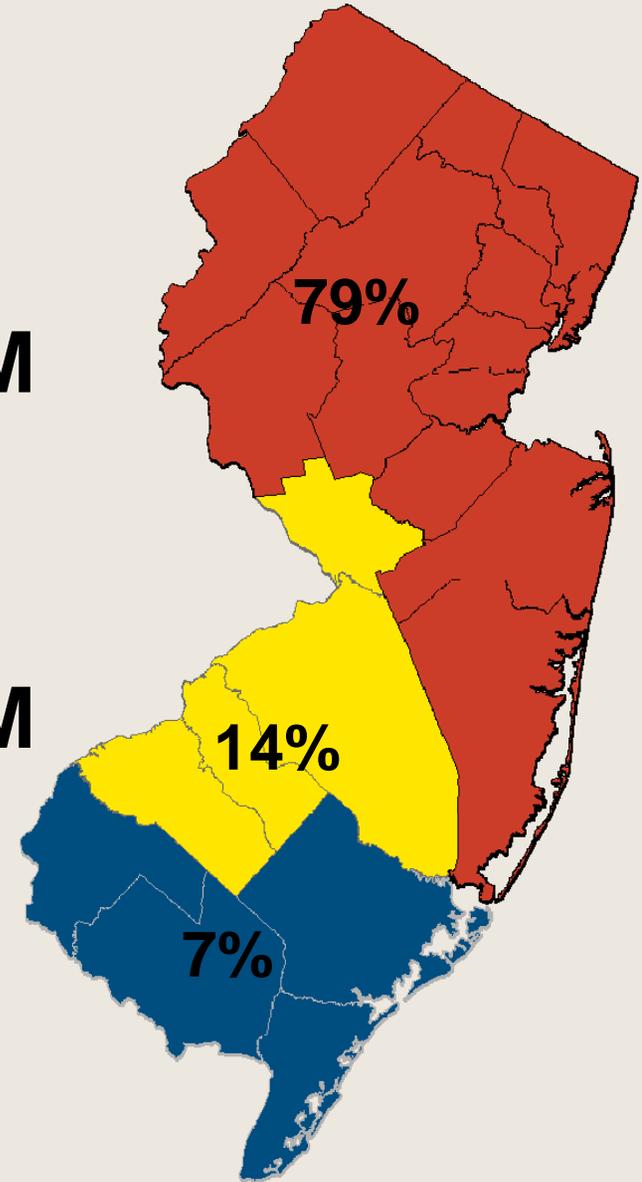
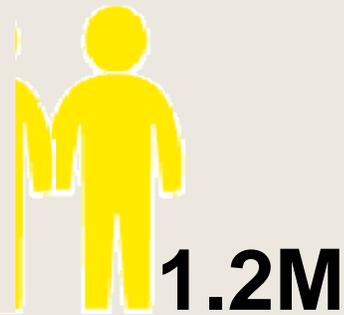
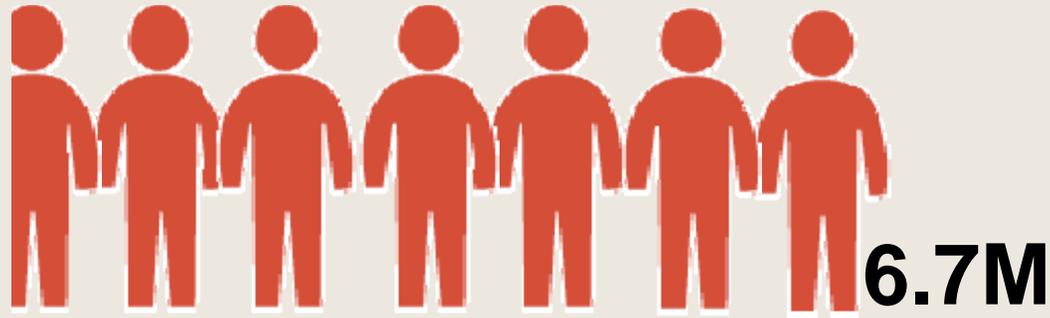
Planning & Economic Development Committee

Project Prioritization Committee

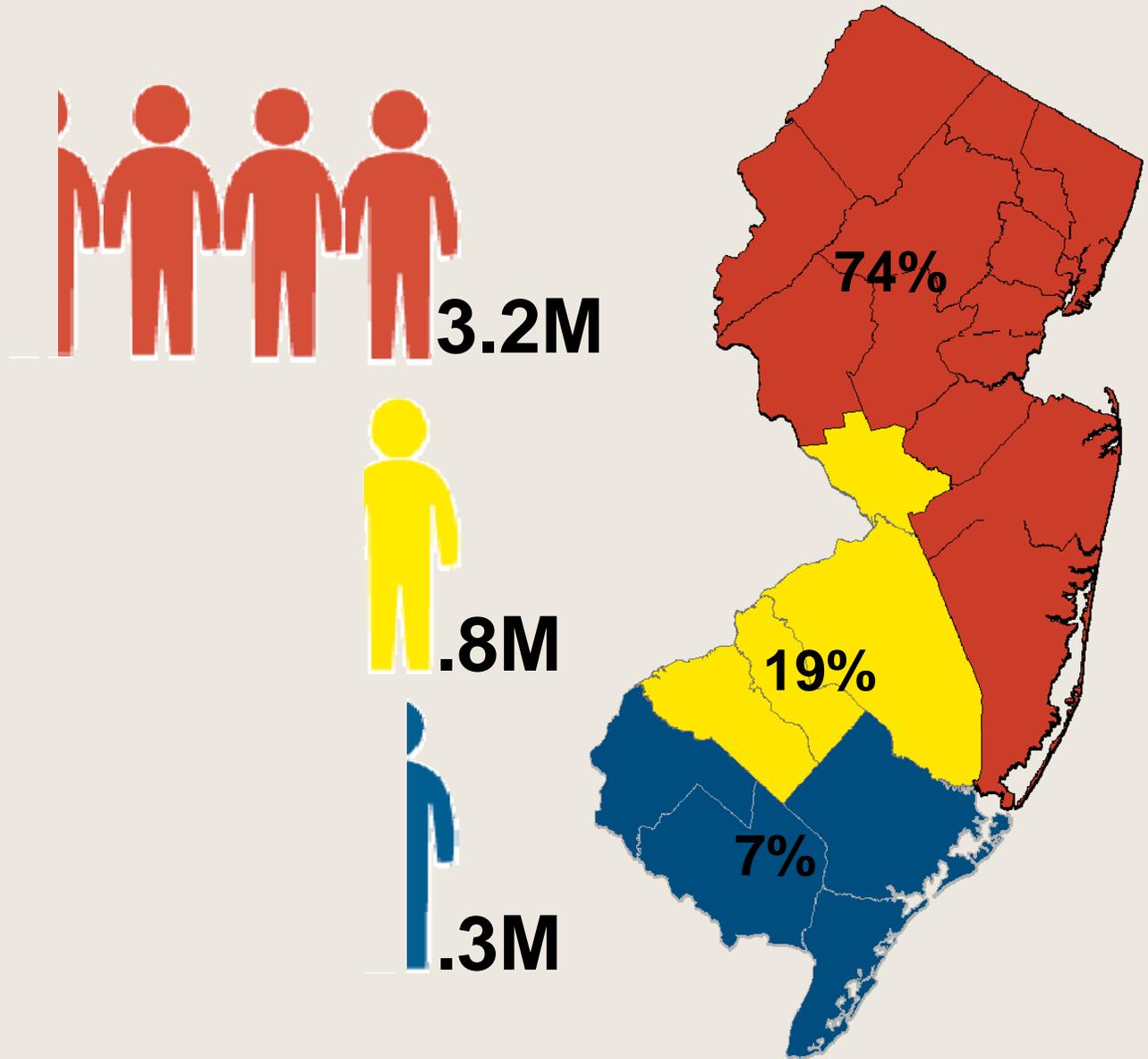
Freight Initiatives Committee

Regional Transportation Advisory Committee

# Population Distribution



# Employment Distribution



# Regional Transportation Network

## Road Network

19,000 miles

177 miles of toll roads

## 250 bus routes

Local

Express

Intercity

Park-And-Rides

Paratransit

Truck Freight

## Commuter Rail

10 Lines

150 Stations

390 Miles

PATH

Light Rail

EWR Monorail

## Freight Rail

Port Express Rail

Intermodal facilities

## Waterborne Traffic

Port of NY/NJ

Cross Harbor Freight Connection

3 Passenger Ferry Operators

## Bicycle and Pedestrian

Sidewalks

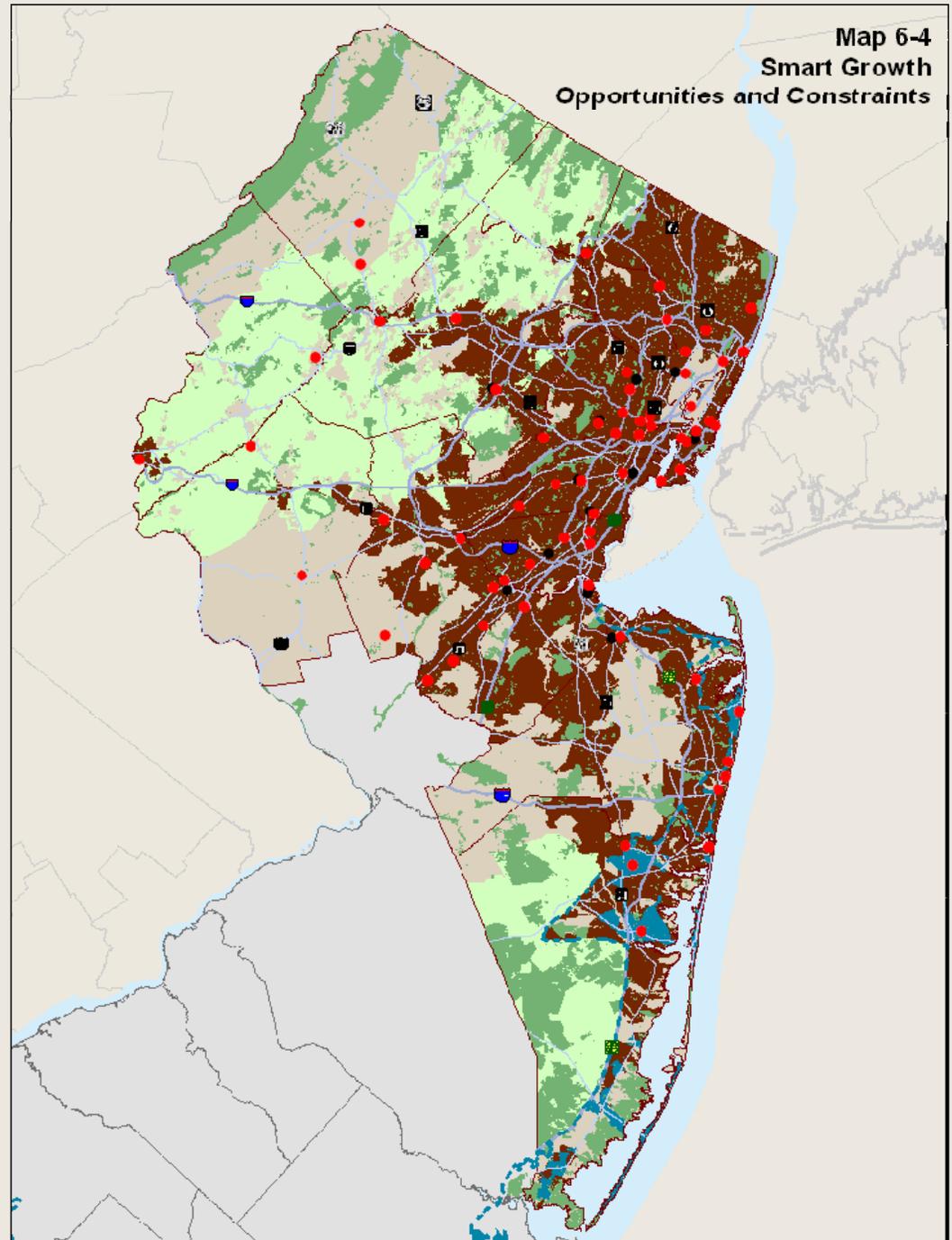
Bike Paths

Transit Station Bike Lockers

# Smart Growth Opportunities and Constraints

## Legend

- ! NJTPA\_Transit\_Villages
- Interstates/Toll Roads
- US/State Highways
- Preserved Land
- Highlands/Pinelands
- Coastal CAFRA Centers
- ! Potential Growth Focus Areas
- Planning Areas 1&2
- County Boundary



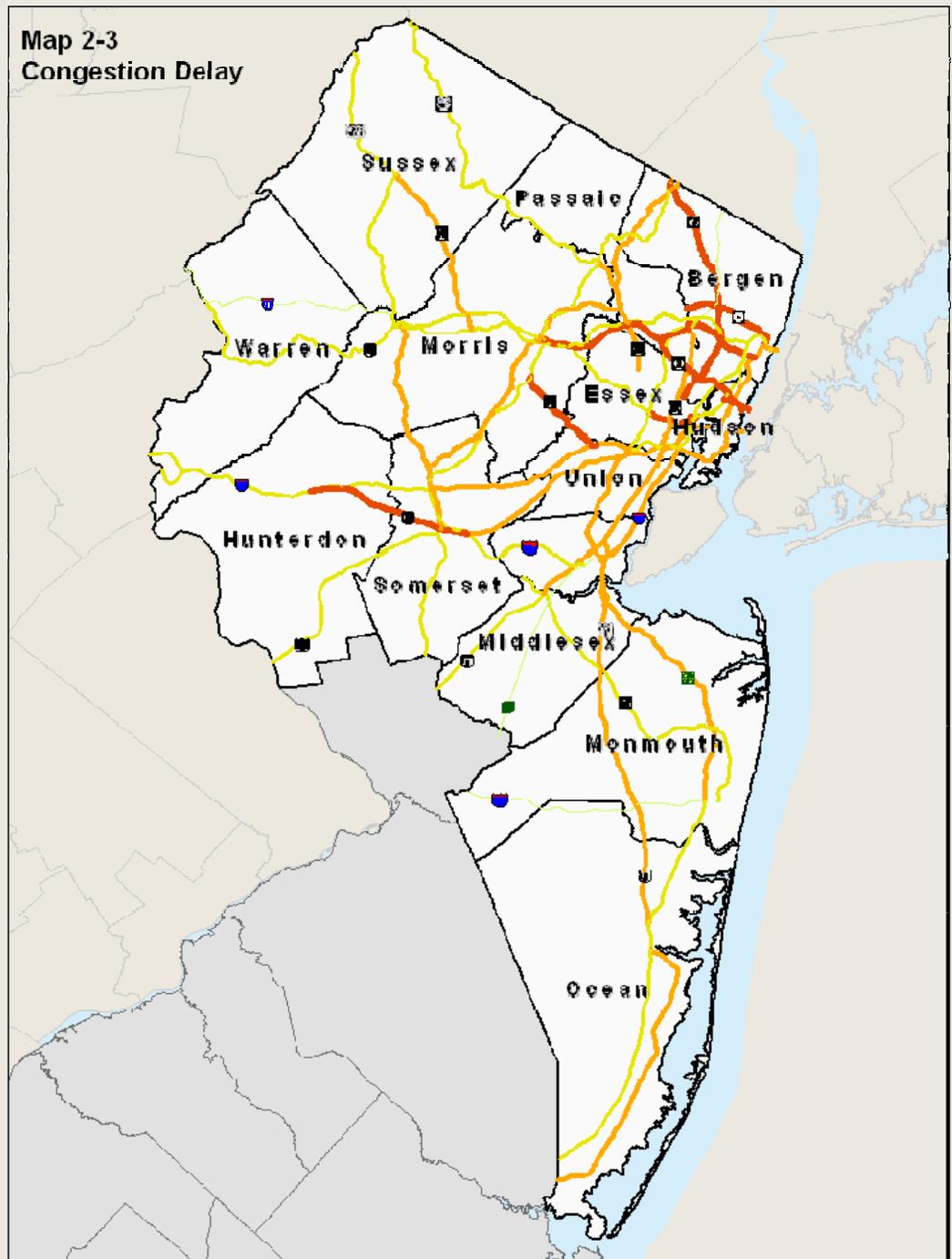
# Congestion

## Delay Ratio on Regional Roadways

Delay is the added travel time that results from traveling in congested conditions. The delay ratio is the amount of delay that vehicles experience while traveling on a road, as percentage of their total travel time on that road. This map shows the delay ratio for travel in the peak period.

### Delay Ratio

-  > 75%
-  50% to 75%
-  25% to 50%
-  < 25%



# Looking Ahead to 2035



**Population** 16% growth

**Jobs** 17% growth

**Vehicle-Miles Traveled** 14 - 16% increase

**Transit Trips** 45 - 60% increase

**Freight Traffic** 100% increase

**Traffic Congestion** 44% to 52% increase

**Median Travel Time** 11 - 13% increase

**Accidents/Crashes** Decline on a per-capita basis

# High Cost Bridges



***Route 1&9 Pulaski Skyway:***  
Reconstruction cost estimated at \$1.2 billion. Interim repairs will cost at least \$100 million/year (over 7-8 years).



***Route 7 bridge over the Hackensack River (Wittpenn Bridge):*** Construction cost estimated at \$452 million.

# Bridge Conditions

NJTPA Bridge Conditions by Owner and Deck Area				
Owner	Total Deck Area (Sq Ft)	Not Deficient	Structurally Deficient	Functionally Obsolete
NJDOT	25,197,314	57%	17%	26%
<b>Counties</b>	<b>5,675,794</b>	<b>66%</b>	<b>15%</b>	<b>19%</b>
Cities and Towns	267,858	50%	26%	24%
NJ TRANSIT	554,652	30%	17%	53%
Turnpike	19,467,655	58%	1%	41%
All Other (incl. Unknown)	743,960	52%	13%	35%
<b>Total</b>	<b>51,907,233</b>			

# Pavement Conditions

Rating	Miles	Share
Good	366	11.0%
Fair or Mediocre	1,409	42.4%
Deficient - Roughness	434	13.1%
Deficient - Distress	700	21.1%
Deficient - Both	<u>414</u>	12.4%
<b>Total</b>	<b>3,323</b>	
<i>Rating Not Available</i>	230	

# Regional Transportation Planning Goals

Protect and Improve the Quality of Natural Ecosystems and the Human **Environment**

Provide **Affordable**, **Accessible** and Dynamic Transportation Systems **Responsive** to Current and Future Customers

Select **Transportation** Investments that Support the Coordination of **Land Use** with Transportation Systems

Retain and Increase **Economic** Activity and Competitiveness

Enhance System **Coordination**, Efficiency, and Intermodal Connectivity

Maintain a **Safe** and **Reliable** Transportation System in a State of Good Repair

# *Access and Mobility 2030/Plan 2035*

## Capital Investment Strategy

### Investment Principles

Help Northern New Jersey Grow Wisely

*Focus on Climate Change*

Make Travel Safer

Fix it First

Expand Public Transit

Improve Roads but Add Few

Move Freight More Efficiently

Manage Incidents and Apply Technology

Support Walking and Bicycling

*Emphasis on Livable Communities*

# *Plan 2035's* Development Process

Created a *Plan 2035* website and 1-800 line

Held Symposium to explore emerging issues

Discussed critical issues with Board of Trustees and broad Technical Advisory Committee

Created an interactive visioning tool and used it at regional workshops

Used the results, feedback & comments to develop a vision for the future of the region

Performed Technical Analysis and Scenario Planning



NORTH JERSEY TRANSPORTATION PLANNING AUTHORITY

# SCENARIO PLANNING INTERACTIVE EXERCISE

Regional  
Transportation

# PLAN 2035



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## SELECT YOUR COUNTY:



You Selected Hudson County



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## THREE DIFFERENT STORIES AND THEIR LIKELY IMPACTS:



### STORY A

This story of the future is based on the assumption that current trends will continue into the future and the region will grow in terms of jobs and population in line with the adopted forecasts.

Detailed Explanation

Select this Story



### STORY B

This story of the future is one of robust economic growth and technological advancement. The region will grow in terms of jobs and population well above the adopted forecasts.

Detailed Explanation

Select this Story



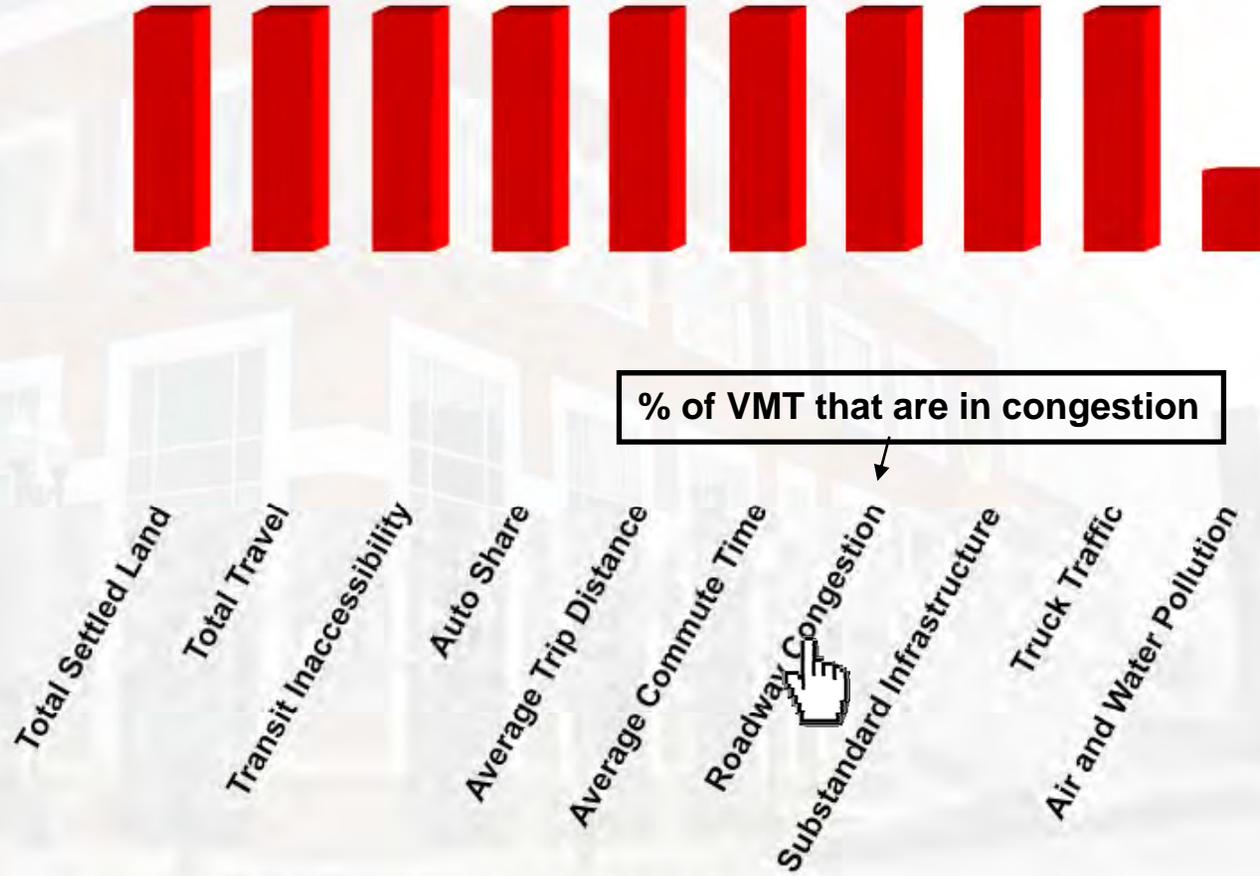
### STORY C

This story of the future is one of slow economic growth with conspicuous effects of global warming evident in the region. The region will grow in terms of jobs and population well below adopted forecasts.

Detailed Explanation

Select this Story

# STORY IMPACTS:



% of VMT that are in congestion

*Hover over indicator names to receive a brief description.*

To see the impacts of another story, click here.

## TRANSIT-ORIENTED DEVELOPMENT OR TRANSIT VILLAGES

Transit-oriented development (TOD) refers to residential and commercial development with a design that maximizes access to public transit. The typical design is a mixed-use, walkable village-type development. TOD tends to decrease automobile use and increase use of transit, walking, and bicycling.

Please select your preference for the future extent of Transit-Oriented Development in the region.

<p><b>LOW</b></p> <input type="checkbox"/>	<p>Continue with current market-oriented approach, driven largely by developer interest, with some public support, e.g., Transit Village program.</p>	
<p><b>MEDIUM</b></p> <input checked="" type="checkbox"/>	<p>Actively promote TOD at stations with a focus along existing and proposed commuter rail and light rail lines.</p>	
<p><b>HIGH</b></p> <input type="checkbox"/>	<p>Adopt an aggressive program to plan for TOD at all stations along existing and proposed commuter rail, light rail, BRT, and major bus lines.</p>	

Same Level Expanded Level

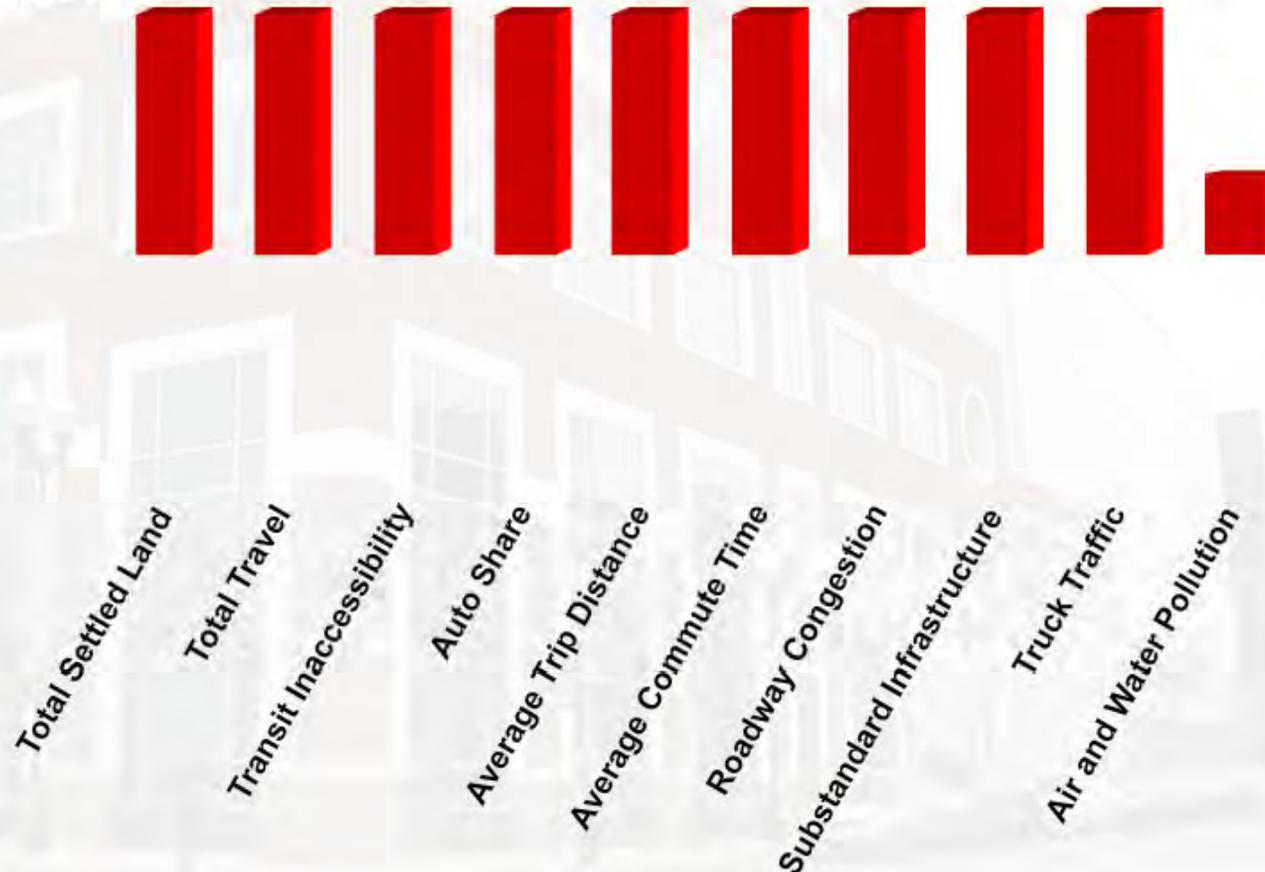


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# SUMMARY OF STORY, LAND USE AND TRANSPORTATION IMPACTS:

Hover over

ts.



- Story
- Land
- vision

Hover over indicator names to receive a brief description.

To see the impacts of another story, click here.

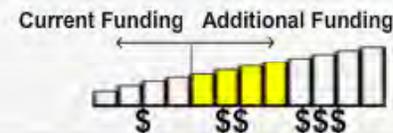
# TRANSPORTATION STRATEGIES:

Please indicate the level of investment you would make in:

## Transit Enhancements

Details

<p><b>LOW</b></p> <input type="checkbox"/>	<p>Low investments in transit enhancements focusing largely on improvements to local and commuter bus services (route extensions and new bus routes). Additional transit operating subsidy will be needed to cover the new services.</p>	
<p><b>MEDIUM</b></p> <input type="checkbox"/>	<p>Medium investments in transit enhancements to include the above but also improvements to streets and highways to give preferential treatment for buses to allow them to travel at the posted speed limit all the time rather than being caught in congestion (shoulder lanes for buses, queue by-pass lanes with signal priority). Additional transit operating subsidy will be needed to cover the new services.</p>	
<p><b>HIGH</b></p> <input checked="" type="checkbox"/>	<p>Large investments in transit enhancements to include the above but also investments in Bus Rapid Transit (premium buses on exclusive lanes with rail-like stations) and additional investments in light rail and commuter rail. Additional transit operating subsidy will be needed to cover the new services.</p>	



# TRANSPORTATION STRATEGIES:

Please indicate the level of investment you would make in:

## Roadway Improvements

Details

<p><b>LOW</b></p> <input type="checkbox"/>	<p>Low investments in roadway improvements focusing predominantly on operational improvements at existing intersections and ramps (turn lanes, signal timing, acceleration and deceleration lanes) and access management improvements.</p>	
<p><b>MEDIUM</b></p> <input type="checkbox"/>	<p>Medium investments in roadway improvements to include the above but also interchange improvements (improvements at existing interchange ramps, construction of new interchanges, and grade-separation of existing intersections) and investments in Intelligent Transportation Systems.</p>	
<p><b>HIGH</b></p> <input checked="" type="checkbox"/>	<p>Large investments in roadway improvements to include all of the above but also new lanes on existing highways and the construction of new highways and connector roadways.</p>	



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# SUMMARY OF STORY, LAND USE AND TRANSPORTATION IMPACTS:

Hover over

ts.



- Story
- Land
- Transportation

Hover over indicator names to receive a brief description.

To see the impacts of another story, click here.

## ESTIMATED FUNDING GAPS

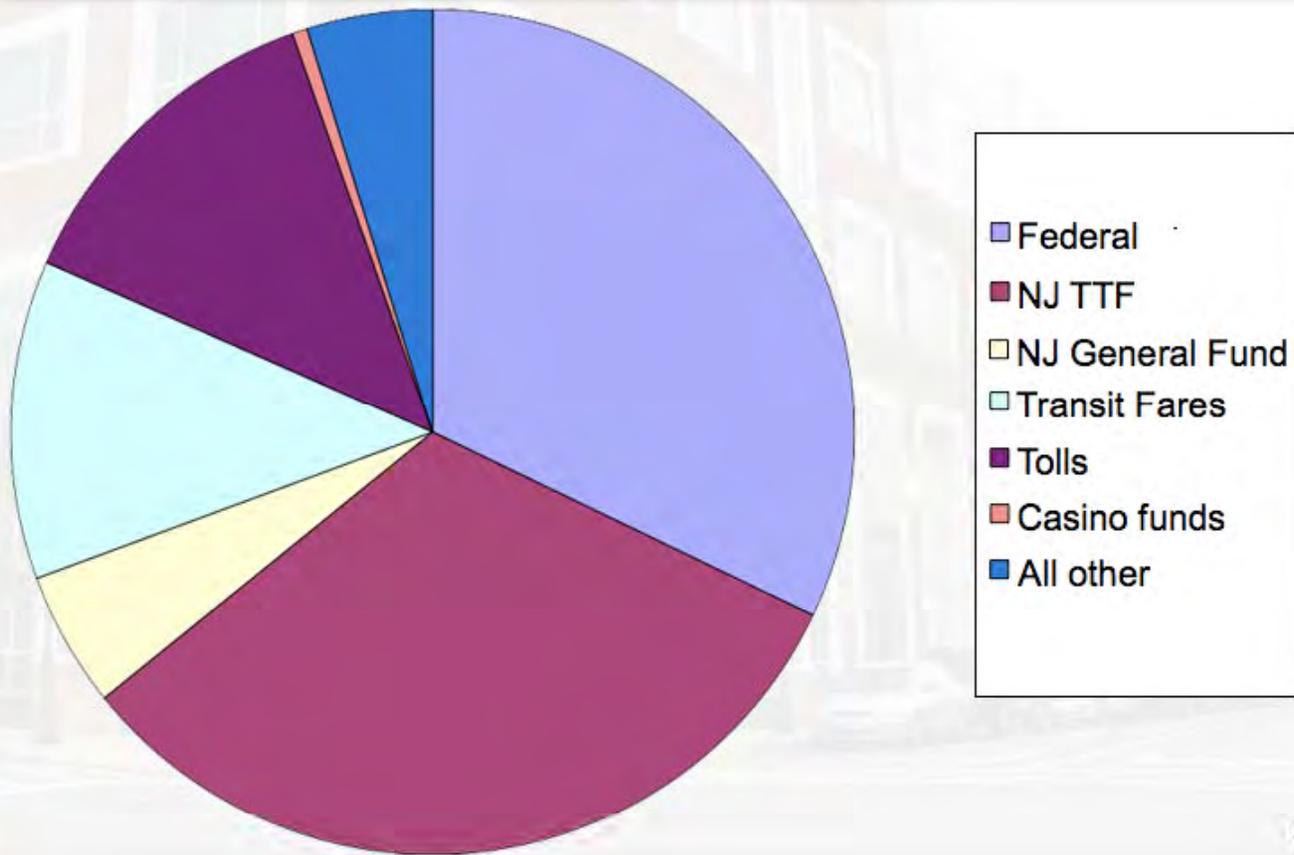
Based upon your preferred transportation investment strategies, the following are the estimated funding gaps for each category of transportation investments.

Transportation Strategy	Your Choice	Above the Current Funding Level?	Annual Estimated Gap for Region
Roadway Improvements	Medium	Yes	+ \$300 Milion
Transit and Ridesharing Support improvements	Medium	Yes	+ \$10 Million
Freight Improvements	Medium	Yes	+ \$50 Million
Public Transit Enhancements	Medium	Yes	+ \$300 Milion
Infrastructure Maintenance and Preservation	Medium	Yes	+ \$300 Milion

Total Add'l Funding Needed = \$960 Million

# CURRENT FUNDING SOURCES FOR THE NJTPA REGION

Funding for transportation capital and operating costs comes from seven major funding sources. Each year, the region sees approximately \$2.5 billion in transportation investment.



# Funding Options

		Action Needed to Raise Given Amount of NJTPA Region Funding Per Year (2009 Dollars)	
Option	Current Status	\$400 Million	\$800 Million
Gas/Carbon Tax Increase	14.5¢ state gas tax generates approximately \$50 million per penny statewide	Increase by 10¢ per gallon	Increase by 20¢ per gallon
Baseline Toll Increase	\$750 million in GSP and NJ Turnpike toll revenue in 2008 (statewide)	Increase tolls by ~80%	Increase tolls by ~160%
Transit Fare Increase	\$700 million in transit fare revenue last year (statewide)	Raise fares by 2.4x	n/a
VMT Tax	146 million daily VMT in NJTPA region, growing to 182 million in 2035	Institute roughly 1¢ per mile tax	Institute roughly 2¢ per mile tax
Sales Tax	7% total sales tax generates revenues of \$8.5 billion statewide in FY08	Slightly less than 0.5% (half penny)	Slightly less than 1% (one penny)

# Recurring Themes: What We've Heard

Develop Smarter: Focus development and redevelopment around transit and in livable mixed-use communities.

Prioritize maintenance and preservation of the existing transportation system, a.k.a. Fix It First.

Need to spend more, but little agreement about where new funding should come from.

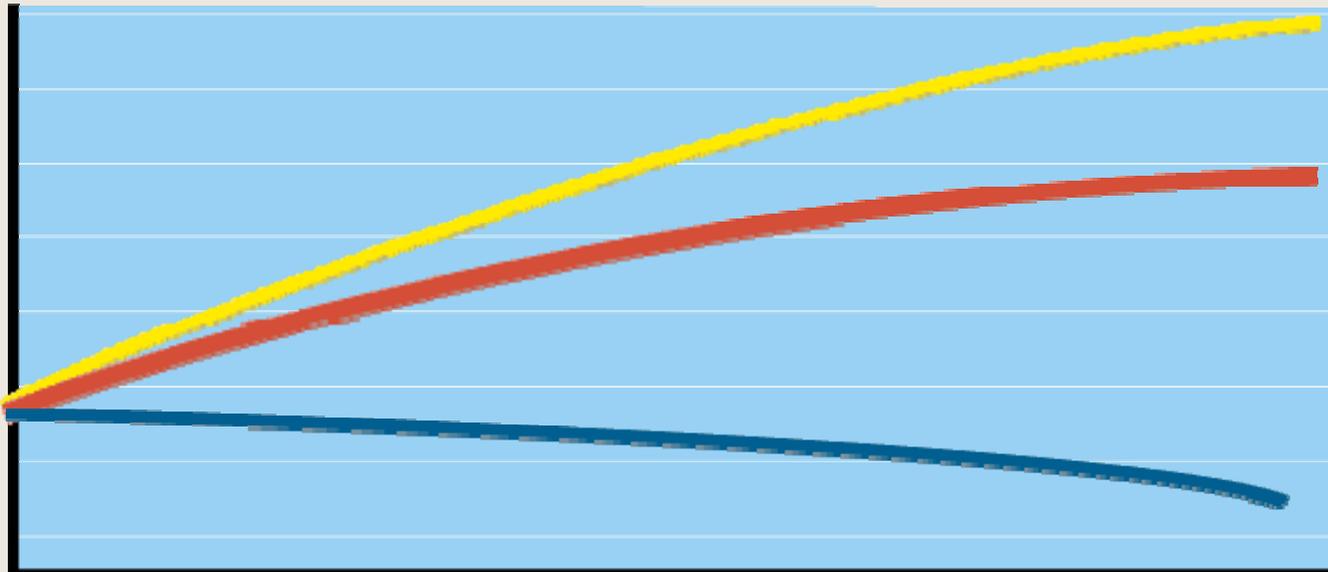
## Focus investments:

- New transit services and in transit system capacity
- More frequent transit services
- Transit services that focus on the “last mile”
- Making bus service more competitive to the auto (preferential treatments and BRT)

# What is Scenario Planning?

Three Scenarios Explored:

- **Baseline:** Flat Funding; Existing Growth Patterns Continue
- **Plan 2035:** Additional Funding; New Growth in Centers
- **Aspirational:** More Additional Funding; Most New Growth in Centers



# *Plan 2035 Scenario*

The cornerstone scenario of *Plan 2035*.

Assumes that some additional new funding is available to the region:

- To maintain its existing infrastructure
- To add a few critical new links to improve capacity and system performance

Assumes improved land use policies: more regional growth in development and redevelopment around transit stations/stops and in mixed-use centers.

# *Plan 2035* Modeling Results

<b>Indicators (per weekday)</b>	<b>2009</b>	<b><i>Plan</i> 2035</b>
<b>Population (millions)</b>	<b>6.7</b>	<b>7.8</b>
<b>Employment (millions)</b>	<b>3.2</b>	<b>3.7</b>
<b>Auto Trips (millions)</b>	<b>17.2</b>	<b>19.8</b>
<b>Transit Trips (millions)</b>	<b>1.0</b>	<b>1.5</b>
<b>Non-motorized trips (millions)</b>	<b>1.8</b>	<b>2.2</b>
<b>Average Delay (minutess)</b>	<b>5.1</b>	<b>7.5</b>
<b>Vehicle Miles Traveled (millions)</b>	<b>144.0</b>	<b>167.0</b>
<b>VMT Per Capita</b>	<b>21.5</b>	<b>21.4</b>
<b>VMT @ LOS F (millions)</b>	<b>25.0</b>	<b>37.0</b>
<b>Vehicle Hours Traveled (millions)</b>	<b>4.9</b>	<b>6.3</b>

*All indicators are per weekday*

# Summary of *Plan 2035*

## Capital Funding Assumptions

*(in 2009 Billions of Dollars)*

	<b>Baseline</b>	<b>Plan 2035</b>
<b>Total Funding Available (2010-2035)</b>	\$62.6	\$91.4
<b>State Funding Average Annual Growth</b>	-0.2%	1.2%
<b>Federal Program Funding Annual Growth</b>	-1.9%	2%

1- Average growth rates are over plan period from 2010 to 2035.

2- Federal program growth shown is average annual rate, though funding increases occur every six years.

# What The Region Must Do

Bring infrastructure to a state of good repair and keep it there.

Make major investments in public transit.

Insist on smart development and redevelopment.

Make targeted corridor improvements:

- Apply ITS
- Address bottlenecks and problematic intersections
- Improve safety
- Accommodate bicyclists and pedestrians
- Advance freight-specific improvements

# Multiregional Projects and Issues

- Access to the Region's Core / MTT
- Bayonne Bridge Clearance
- Cross Harbor Freight Initiative
- NJTPA / NYMTC / CTDT Truck Parking Study
- Tappan Zee Bridge / I-287

# Implementing the Plan

## Actions, Coordination and Consultation

**NJTPA Board/Committee Oversight**

**NJTPA Central Staff  
Operating Agencies**

**NJDOT**

**NJ Transit**

**PANYNJ**

**Other MPOs**

**NJTPA RTAC**

**Stakeholder Groups**

**Local, Public Input**

**Federal Partners**



# Thank You!

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