

# The Brookings Institution

Metropolitan Policy Program  
Robert Puentes, Fellow



## Paying for Transportation: Trends and Opportunities

January 28, 2005

Transportation Finance Forum

Civic Federation and Chicago Metropolis 2020



# Paying for Transportation: Trends and Opportunities

I

What is the context for the discussion of transportation finance?

II

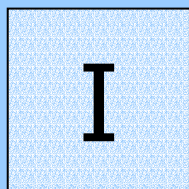
What is happening on the federal level?

III

What is happening on state and local levels?

IV

Where is transportation finance headed?



What is the context for the discussion of transportation finance?

Federal transportation policy is at a crossroads

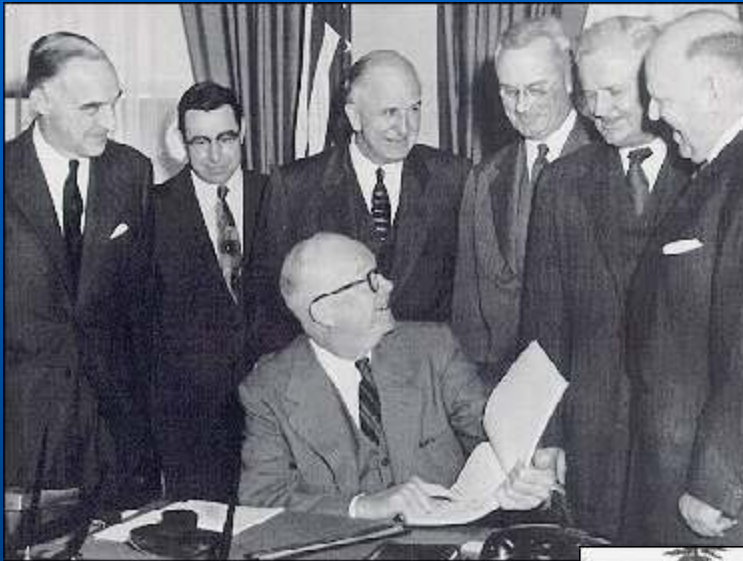
Realities on the ground have changed dramatically

Significant transportation challenges still exist

Traditional finance structure is running out of gas



# Eisenhower-era policies had clear goals and intent.

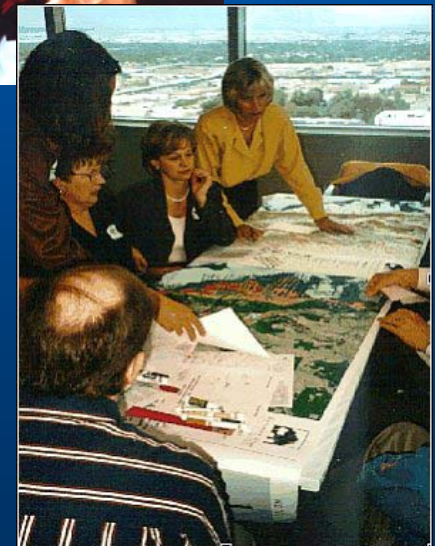
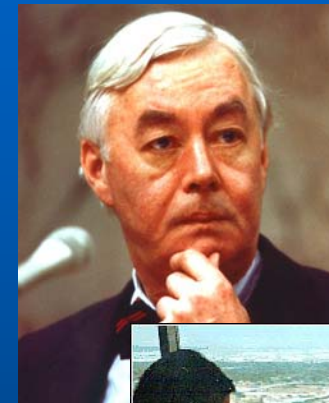


*“A network of modern roads is as necessary to defense as it is to our national economy and personal safety.” – President Eisenhower (1952)*



# Architects of 1991's Intermodal Surface Transportation Efficiency Act (ISTEA) offered a compelling new framework.

*"It is the policy of the United States to develop a ... transportation system that is economically efficient and environmentally sound... Social benefits must be considered with particular attention to the external benefits of reduced air pollution, reduced traffic congestion and other aspects of the quality of life." – ISTEA Preamble*







# The current debate about our nation's transportation laws is largely about money: how much and who gets it.

~~"It is the policy of the United States to develop a ... transportation system that is economically efficient and environmentally sound... Social benefits must be considered with particular attention to the external benefits of reduced air pollution, reduced traffic congestion and other aspects of the quality of life." – ISTEA Preamble~~

**dropped from TEA-21**

*"[T]he national transportation program is adrift and sinking under the weight of parochialism and greed."*

– Thomas Downs, former associate administrator of FHWA, & executive director of FTA.

*American Society of Civil Engineering, October 2004*

*"[T]he federal-aid highway program is ... functioning as a cash transfer, general purpose grant program..."*

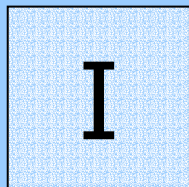
– U.S. Government Accountability Office

*GAO-04-802, August 2004*

*"I see no broad agreement about the appropriate Federal transportation role."*

– Emil Frankel, assistant secretary for transportation policy, U.S. DOT

*Innovation Briefs, July 2004*



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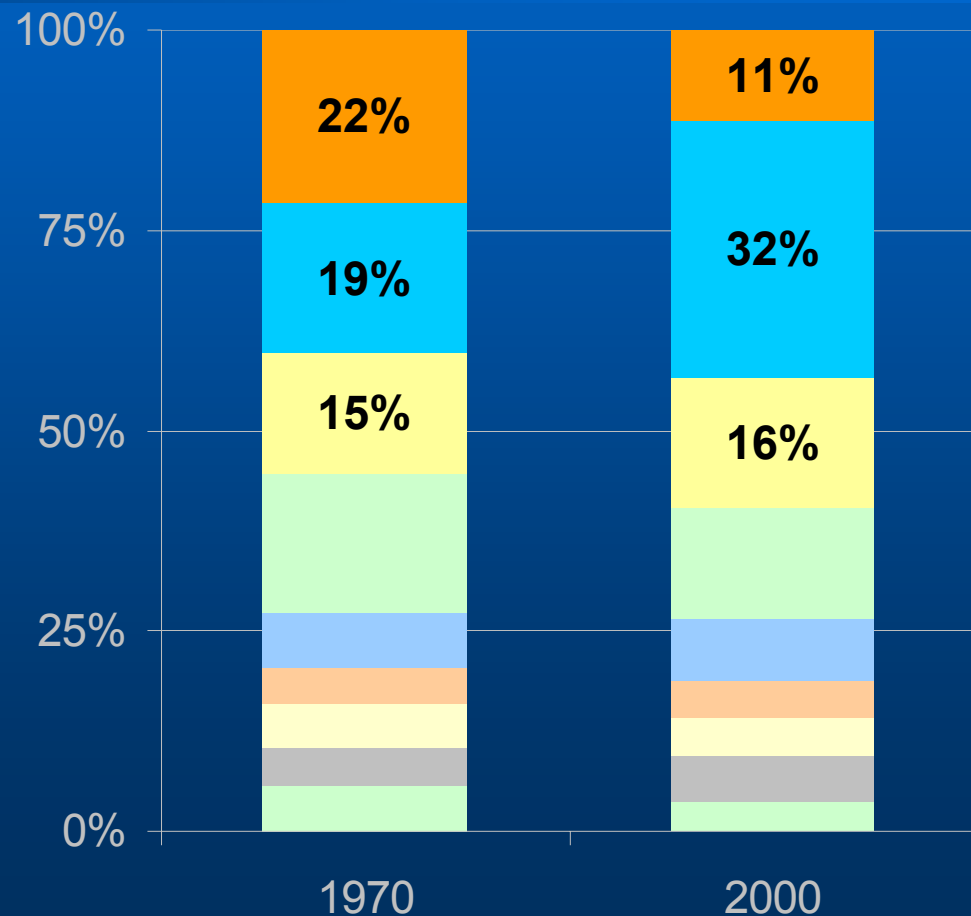


The nation's economy has shifted away from manufacturing and toward the service sector, resulting in a markedly different industry composition.

## Employment by sector, US, 1970-2000

Source: Bureau of Economic Analysis

- Manufacturing
- Services
- Retail
- Government
- FIRE
- Wholesale
- Transportation/Utilities
- Construction
- Agriculture/Mining







Major demographic forces are changing the United States



Population Growth

Immigration

Aging

Internal Migration

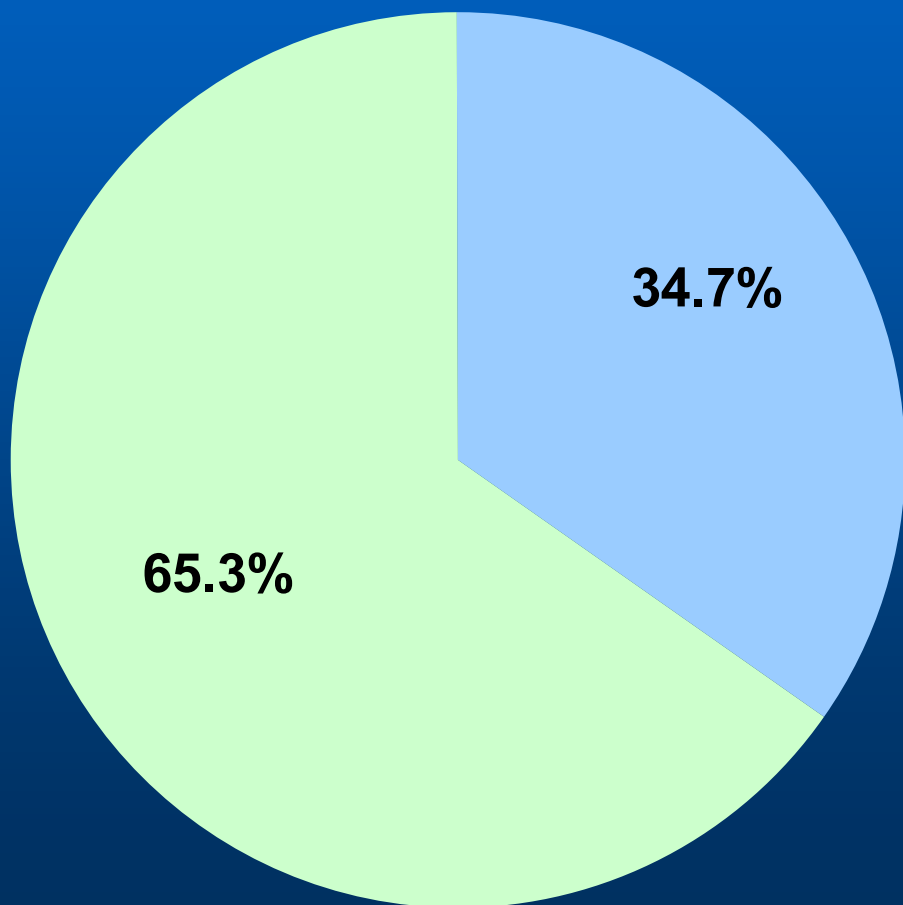


The 1990s presented the strongest growth in four decades. More than 1/3 of this population growth was driven by immigration

Components of population change, 1990-2000

Source:  
U.S. Census Bureau

- Net Immigration
- Natural Increase

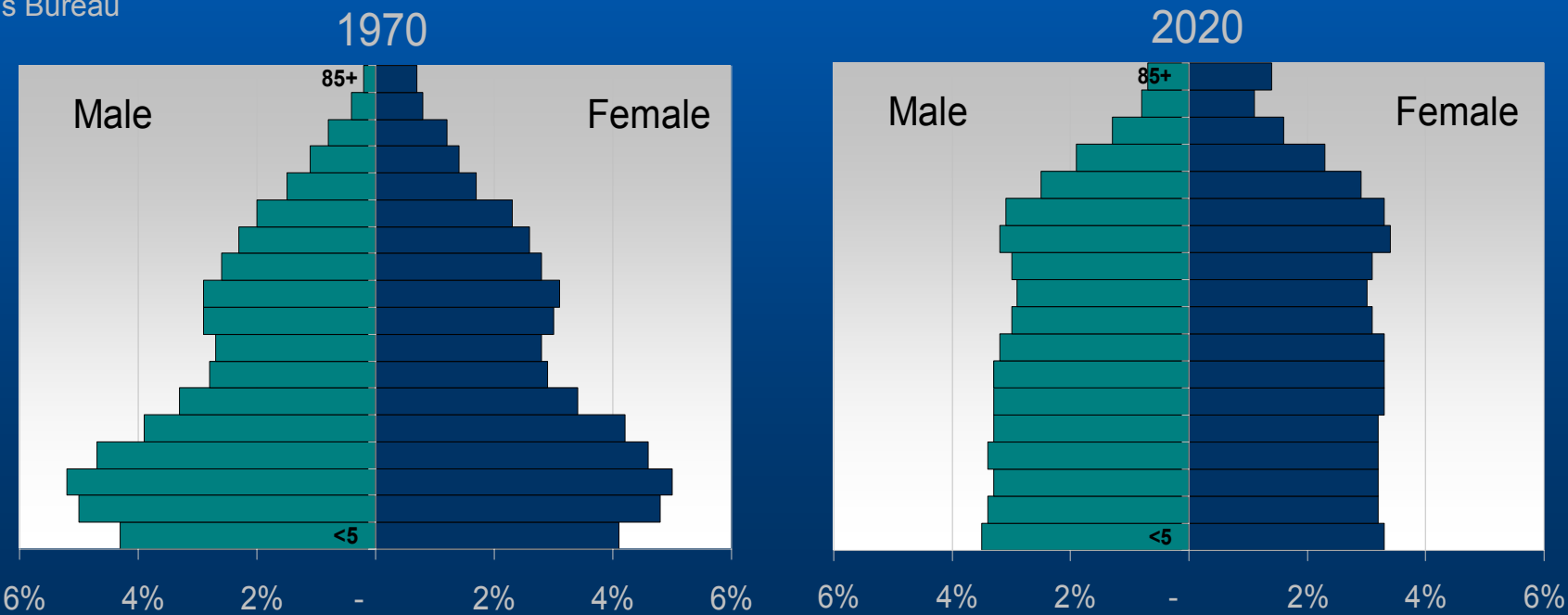




# At the same time, the US population is aging

US Age Distribution, 1970 vs. 2020

Source: U.S. Census Bureau

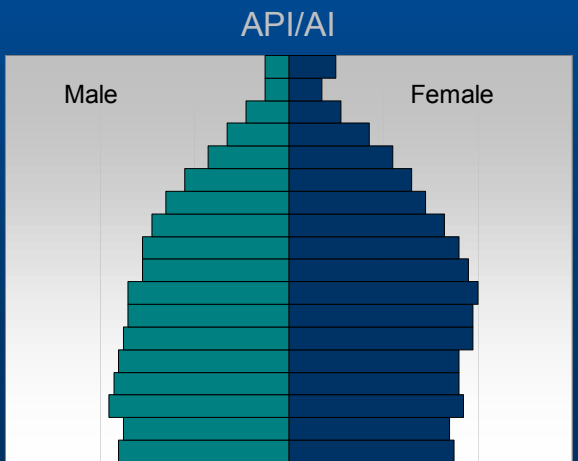
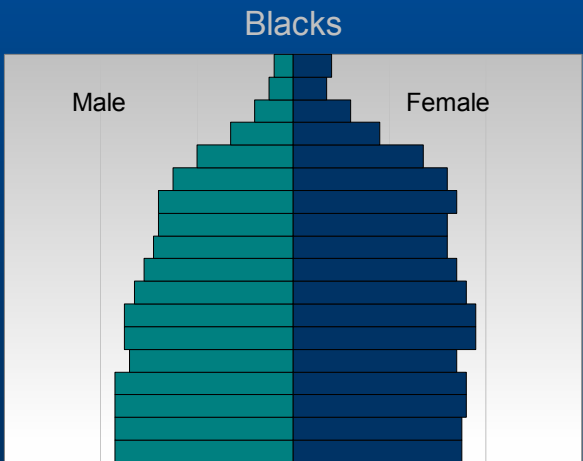
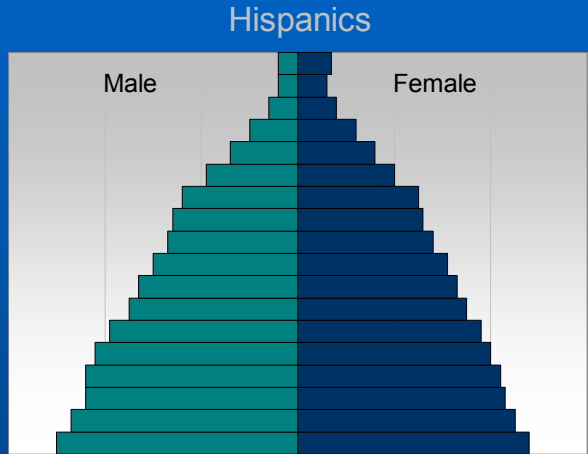
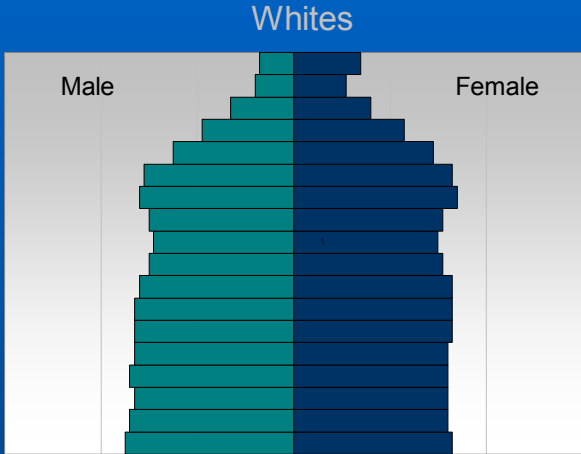




# Minorities, however, have younger age structures than whites

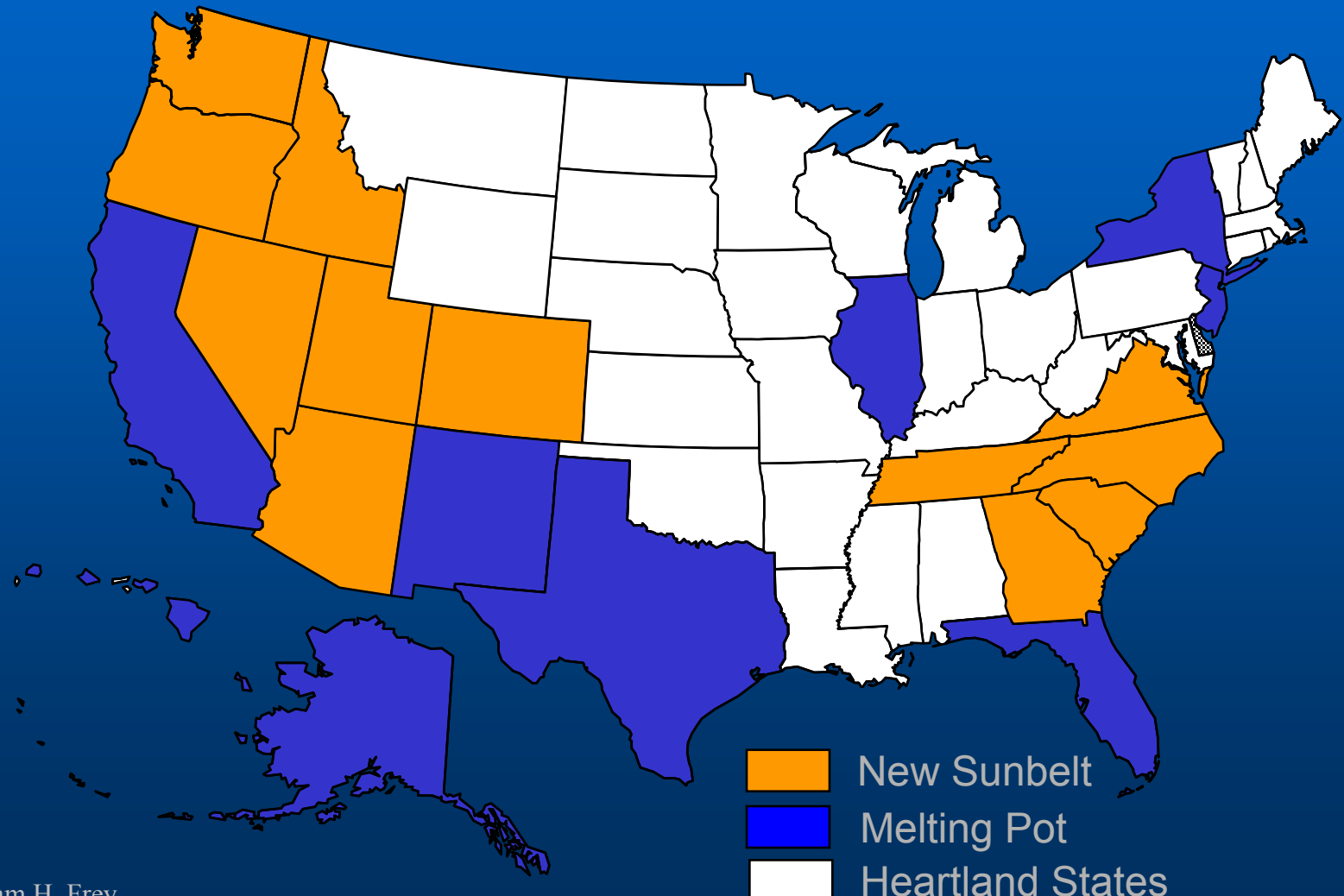
US Age Distribution, 2020

Source: U.S. Census Bureau

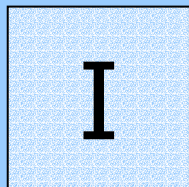




# America's New Demographic Regions



-  New Sunbelt
-  Melting Pot
-  Heartland States



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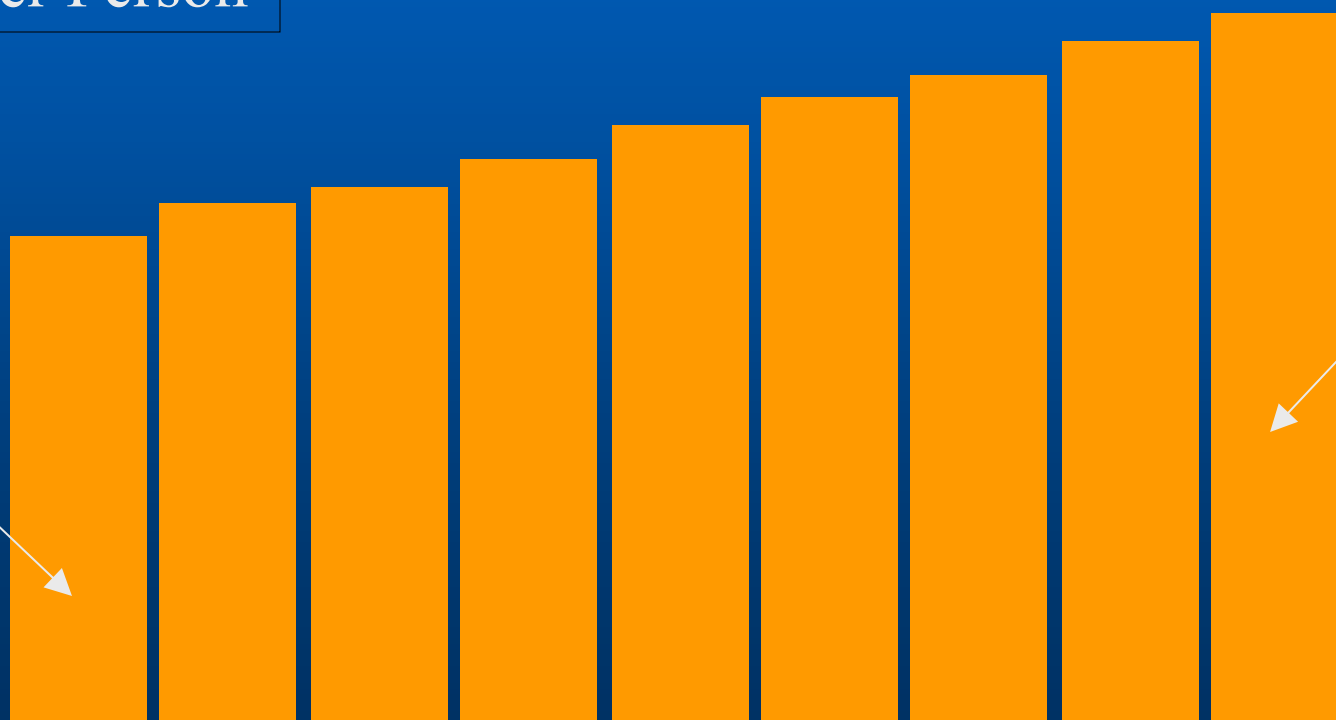


# A pervasive desire for congestion relief

Annual Delay in  
Hours per Person

21.9 in  
1992

31.9 in  
2000

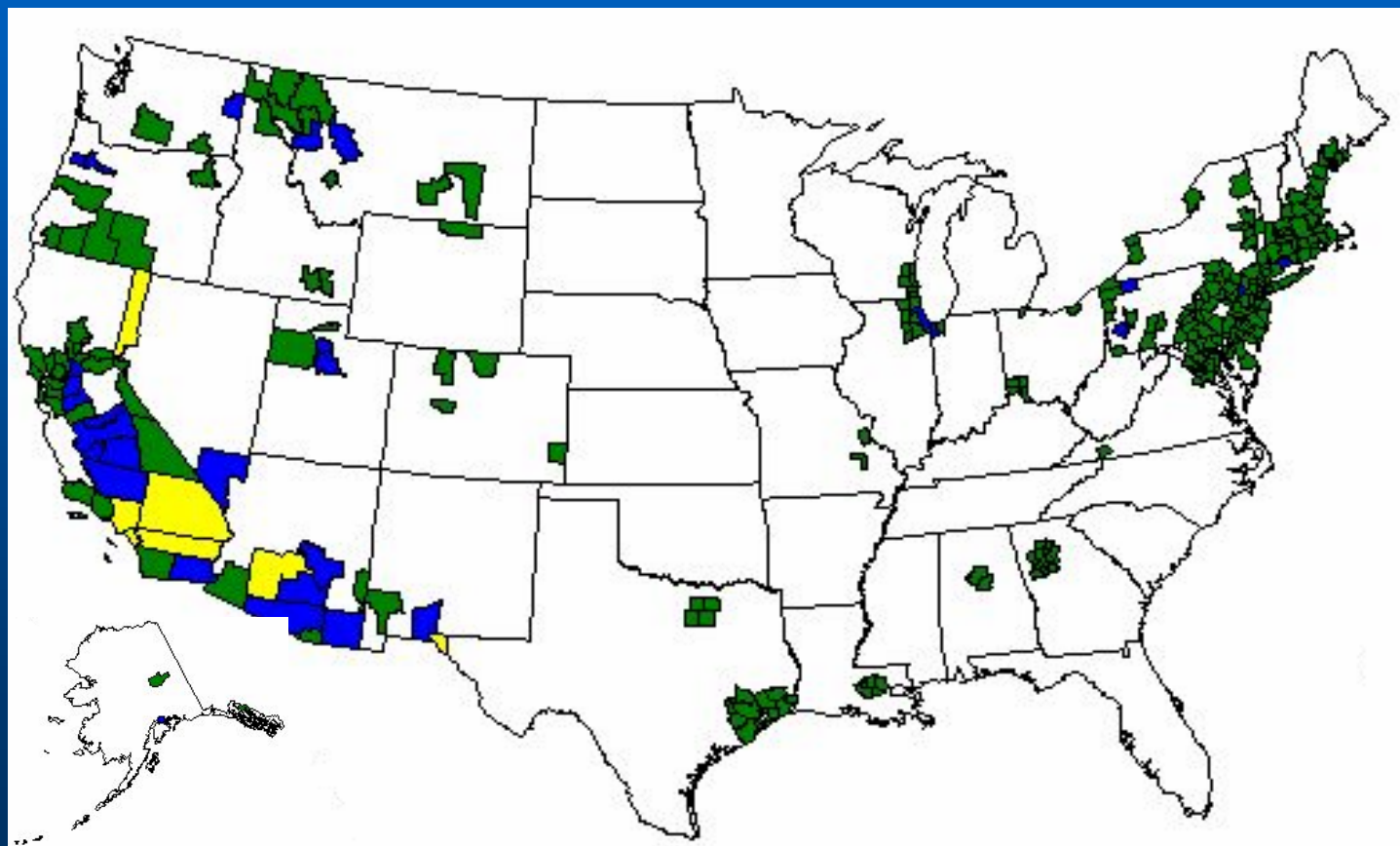
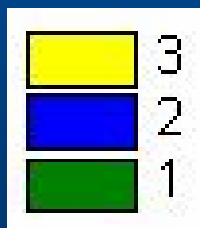


Source: FHWA  
FY 2003  
Performance  
Plan



# Deteriorating metropolitan air quality

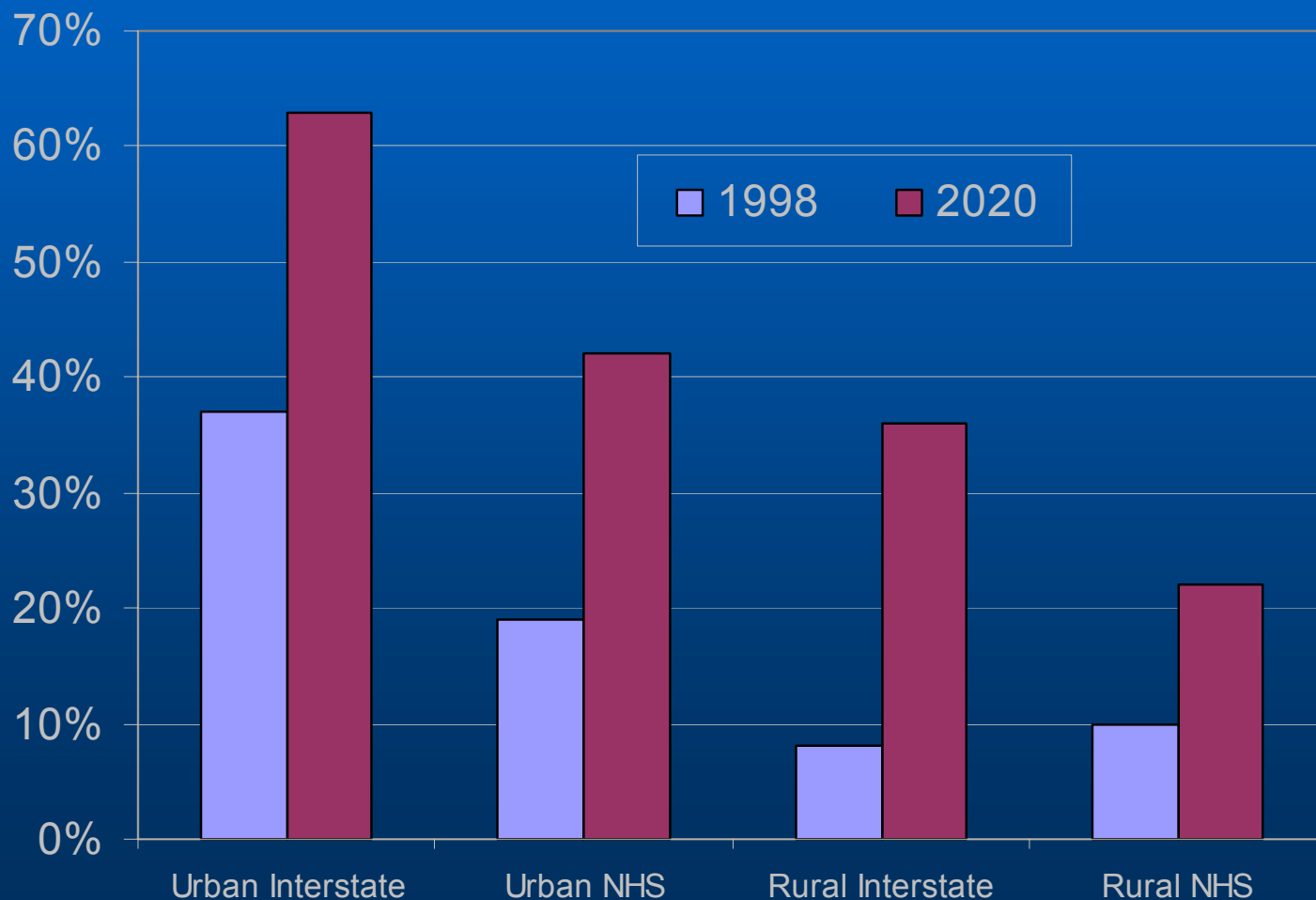
Number of  
pollutants by  
county  
designated  
non-attainment



Pollutants include: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, lead



# Large increases in truck and commercial traffic



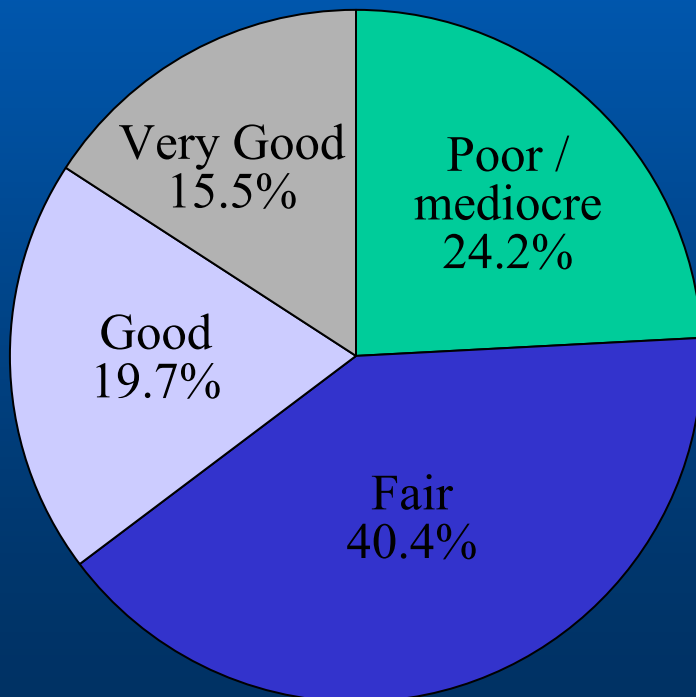
% of Highway Segments with over 10,000 Trucks Per Day

Source: Traffic Congestion and Reliability: Linking Solutions to Problems, FHWA, 2004

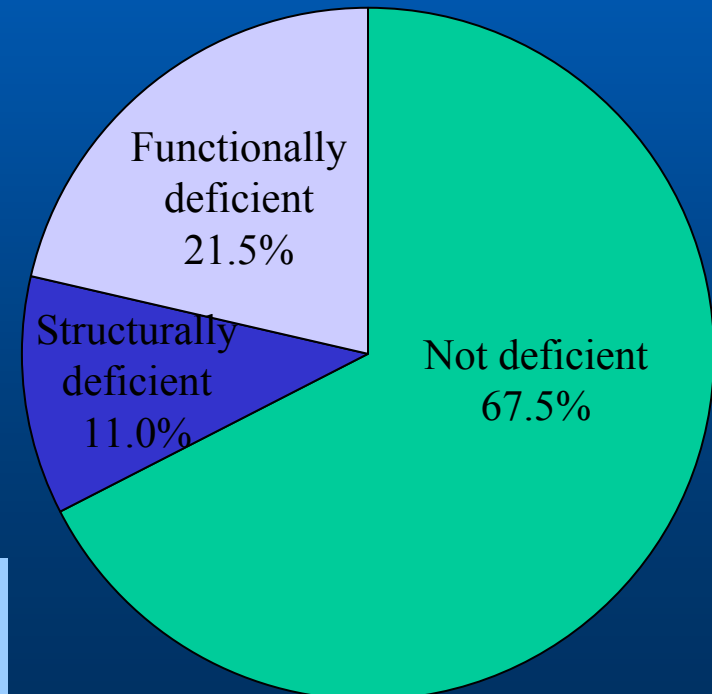


# Crumbling metropolitan infrastructure and functional obsolescence

## Urban Pavement Conditions



## Urban Bridge Conditions

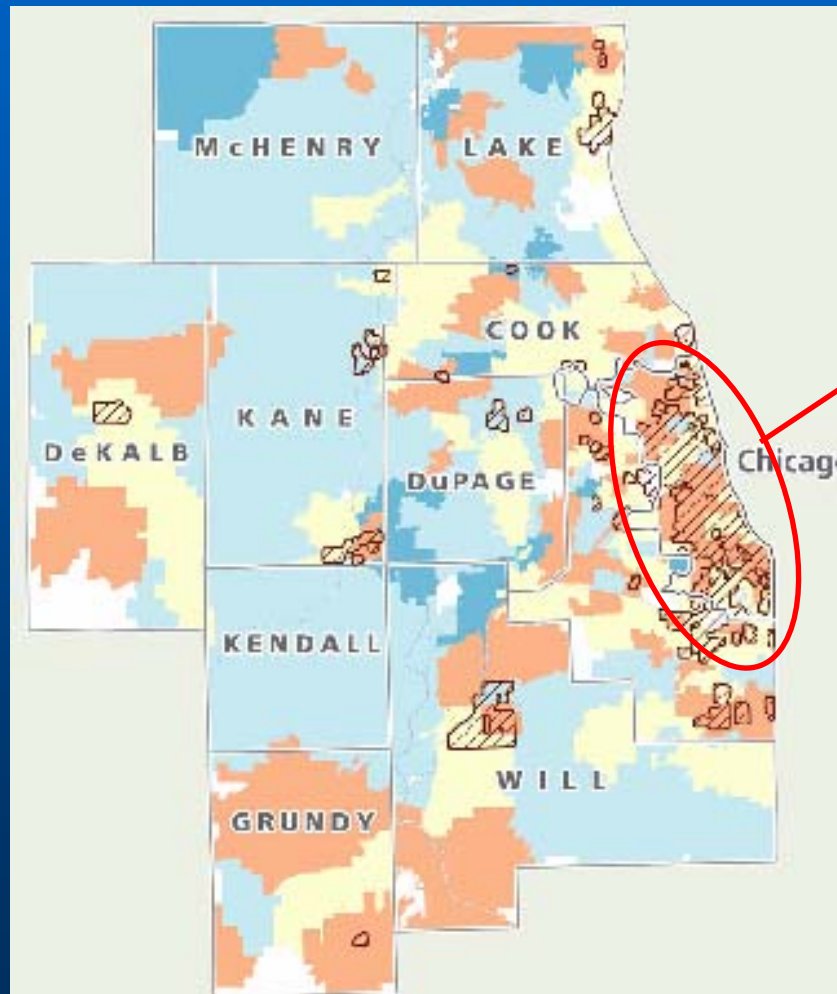
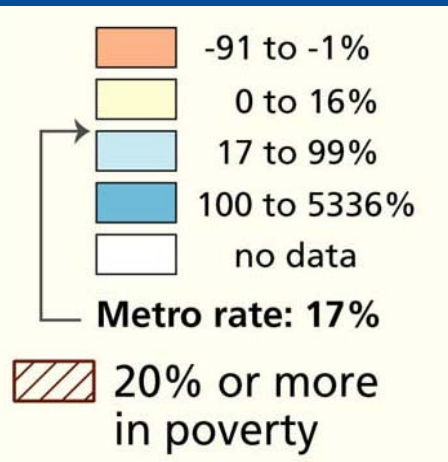


Source: FHWA  
1999 Conditions  
and Performance  
Report

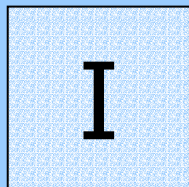


# Continued spatial mismatch between poor urban residents and suburban job opportunities

Percent growth in jobs 1994-2001, poverty rates by census block group, 2000



Job losses are high where jobs are most needed



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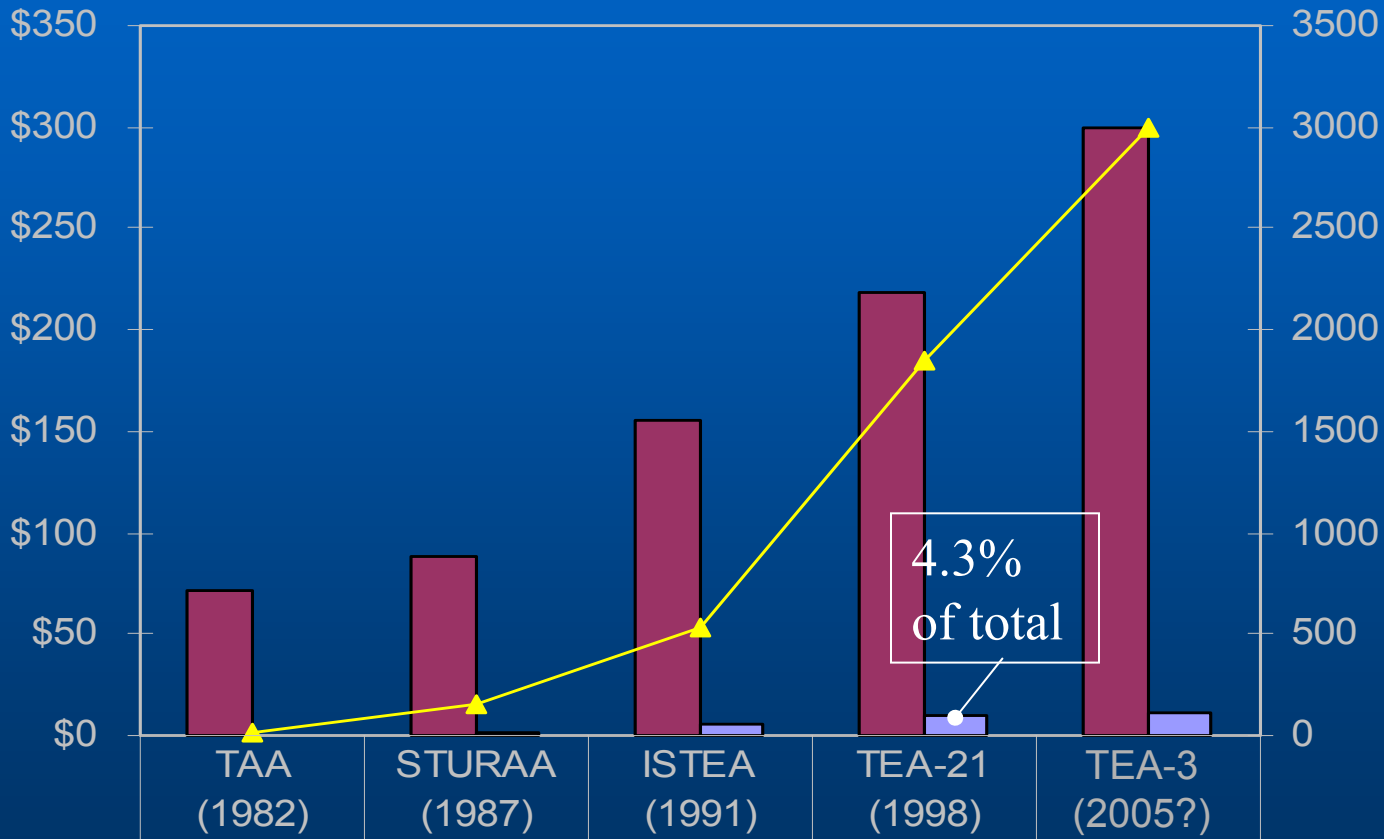
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The federal law is characterized by regular, large increases in funding.

Overview of Recent Federal Transportation Laws



Total Amount (in billions)	\$72	\$88	\$155	\$218	\$300 +/-
\$ of earmarks (in billions)	\$0.3	\$1.4	\$6.2	\$9.3	\$11.10
Number of earmarks	10	152	538	1,850	3,000



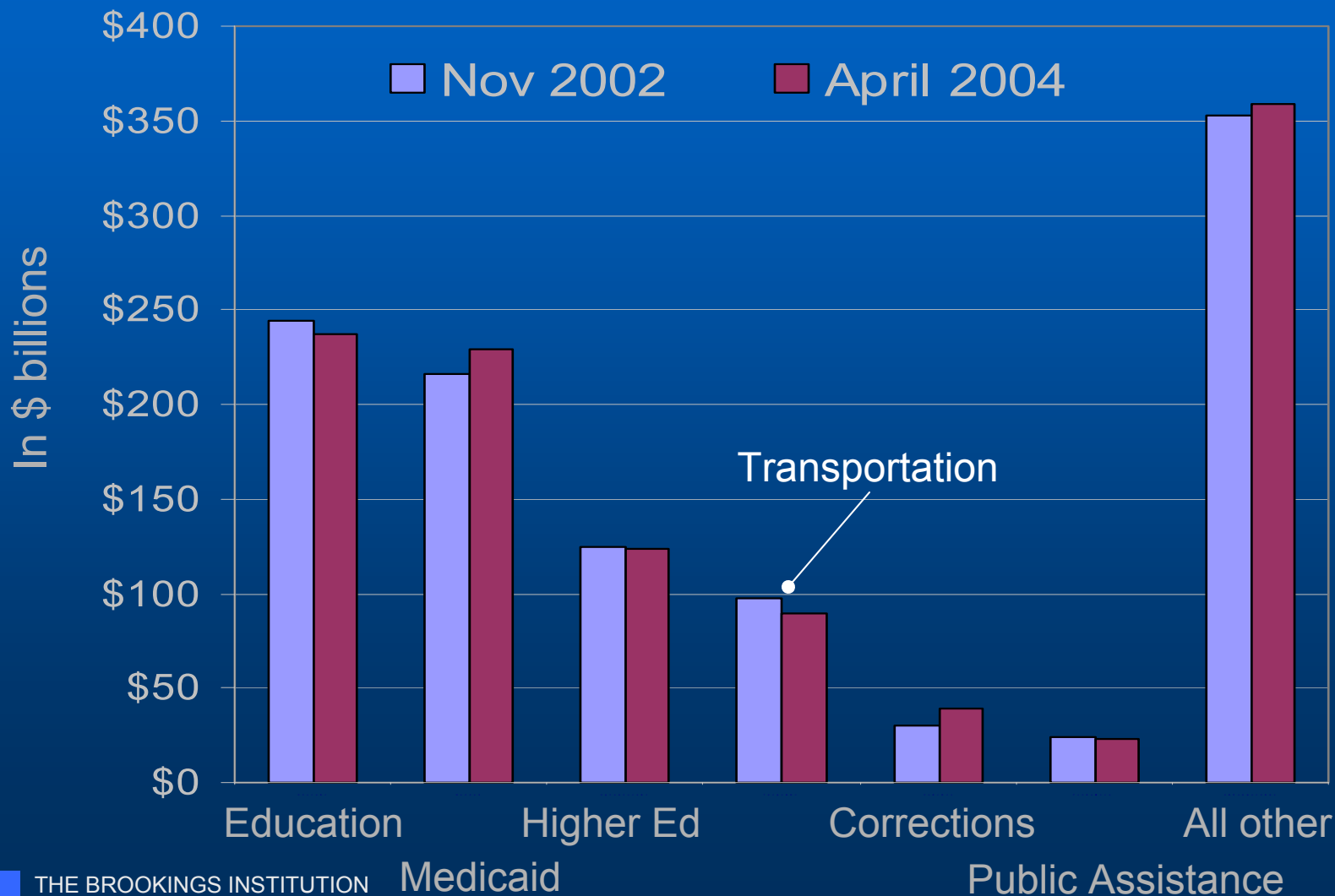
All three reauthorization plans propose significant spending increases.

Overview of TEA-21 Reauthorization Proposals

TEA-21 Reauthorization Proposals	Proposer	Date	Total Amount (in billions)	Increase from Previous		Proposed Demonstration / High Priority Projects	
				\$	%	Number	Total Amount (in billions)
SAFETEA	DOT	May-03	\$256	\$38	17.4%	-	-
SAFETEA	Senate	Feb-04	\$318	\$100	45.9%	-	-
TEA-LU	House	Apr-04	\$284	\$66	30.3%	2881+	\$11.10 +



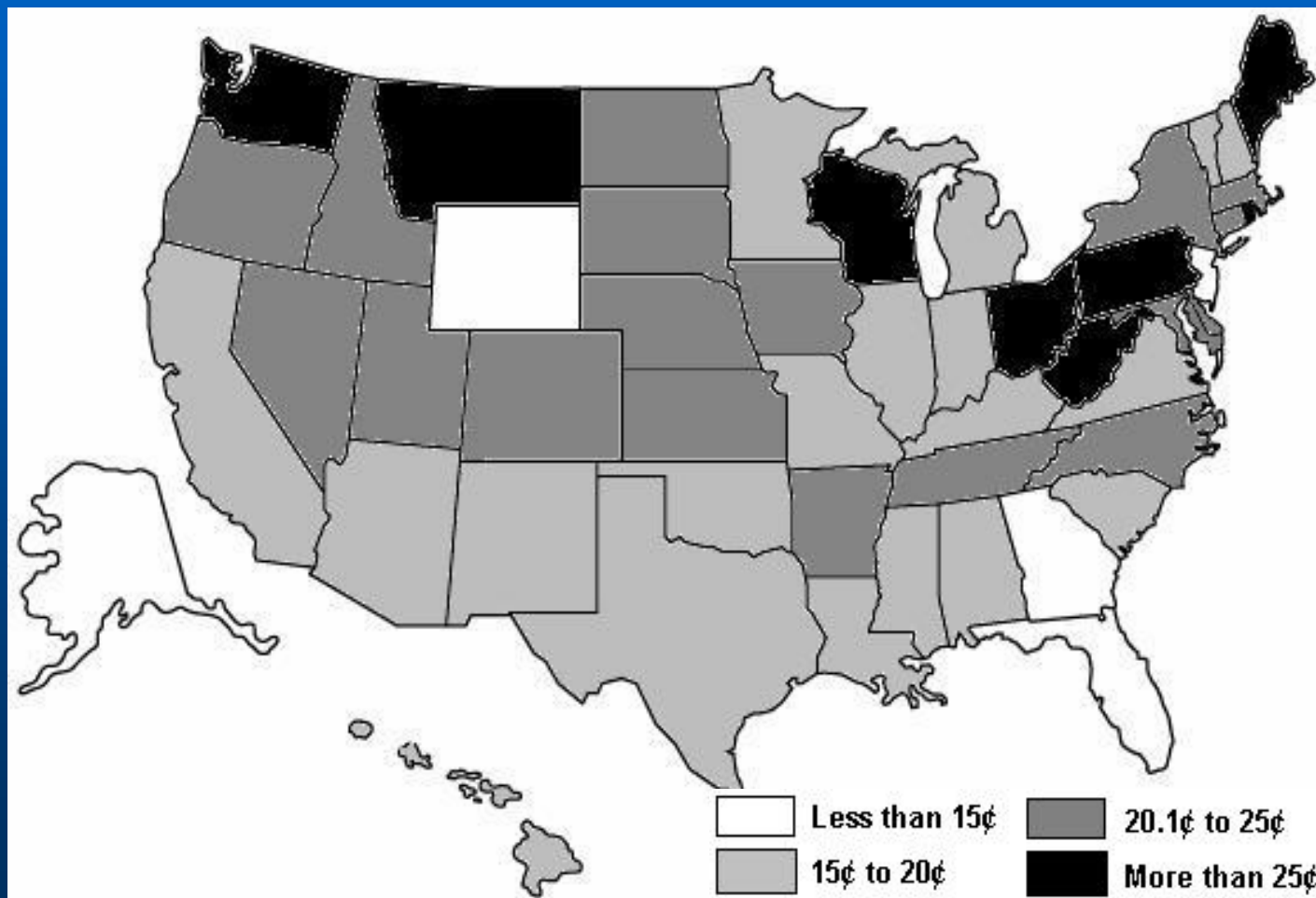
But spending on the state level is declining. Since 2002, state spending on transportation decreased by nearly \$9 billion.



Source: Nat'l Association of State Budget Officers



Of the 32 states that have increased their gas tax since 1991, only one\* raised it as fast or faster than inflation



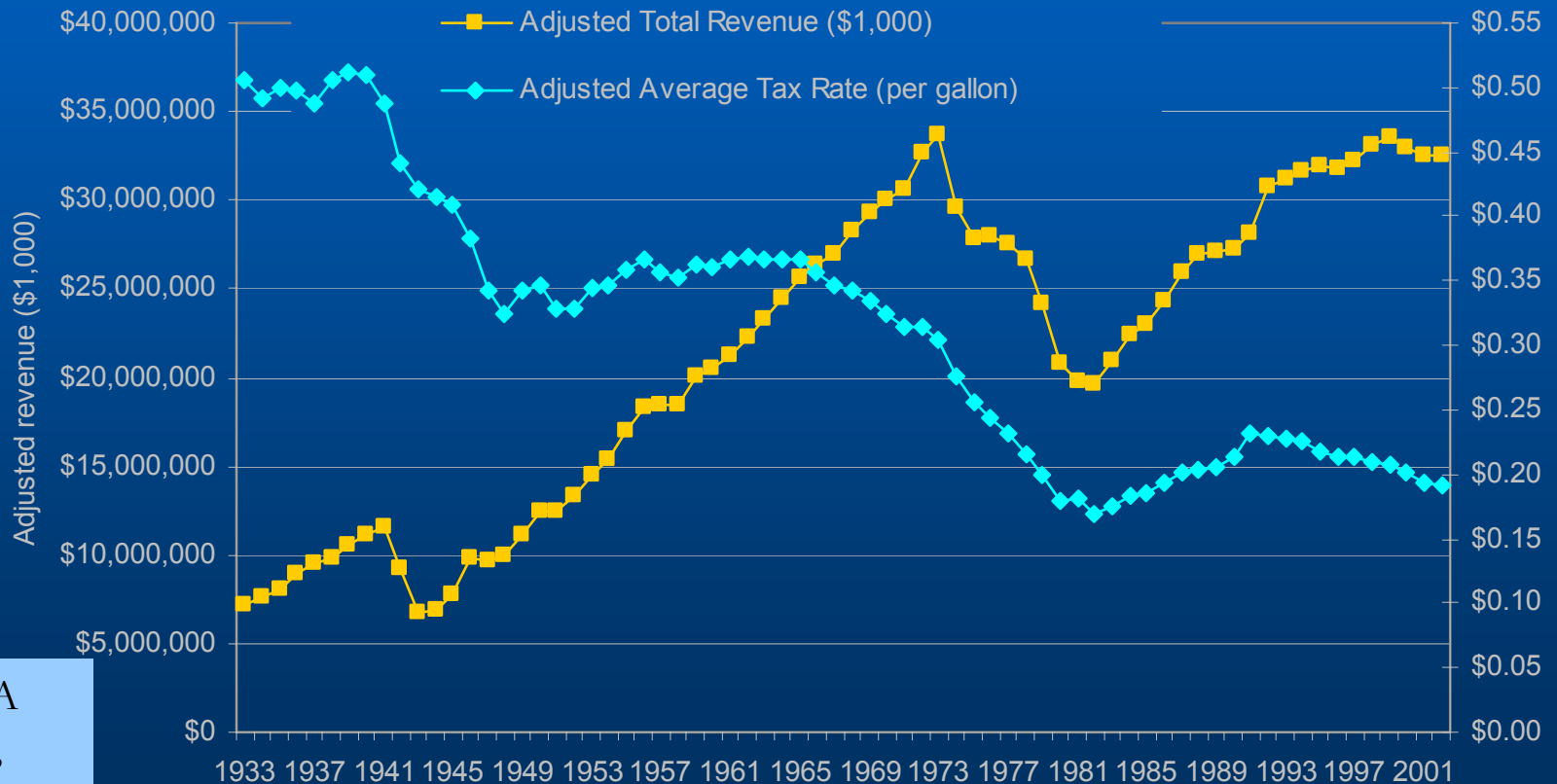
State gas tax rates.  
Source: Puentes,  
Prince, 2003

\* Wyoming,  
which started  
out with the  
3rd lowest rate



After a precipitous decline in the 1970's and 1980's, "real" state gas tax receipts are again leveling off.

## Inflation-adjusted state revenues and gas tax rate



Source: FHWA  
2002; Puentes,  
Prince 2003



## Local governments are taking up the slack left by the stagnation of fuel tax revenues on the state and federal level

→ Voters approved 2/3<sup>rd</sup>s of the 70 ballot measures for transportation spending in 2000 and 41 in 2002.

Myers and Puentes, 2001 and STPP, 2002

→ In 2004, voters approved 23 of 31 ballot measures to launch or expand bus and rail lines in 11 states worth more than \$40 billion.

Center for Transportation Excellence, 2004

→ In 2004, voters also approved 19 of 24 other tax or bond measures for roads and bridges.

El Nasser, 2004





The share of user fees as a percent of transportation revenues is either declining or growing very slowly

		△ 95-98	△ 98-03	△ 95-03
<b>Federal</b>	Highway Trust Fund	79.6%	-14.4%	53.7%
<b>State</b>	Fuel & vehicle taxes	18.0%	3.5%	22.0%
	Tolls	24.2%	15.7%	43.7%
	General funds	37.4%	54.2%	111.8%
	Bonds	92.2%	14.8%	120.7%
<b>Local</b>	Fuel & vehicle taxes	13.8%	35.7%	54.5%
	Tolls	11.2%	91.0%	112.4%
	General funds	14.1%	39.0%	58.6%
	Bonds	20.1%	15.0%	38.2%
	Property taxes	-6.3%	63.9%	53.6%

Changes in  
transportation  
revenue

Source: Federal  
Highway Statistics



# Political debates about “donor” and “donee” states dominate the national legislative discussion

		% of Apportionments to Payments 1998-2003	Cumulated % since July 1956	Rank, Population change 90-00
Top 5 states	Alaska	640.0%	667.3%	17
	South Dakota	236.8%	208.7%	44
	Rhode Island	232.0%	224.1%	47
	Montana	230.9%	236.3%	42
	North Dakota	227.8%	205.5%	50
Bottom 5 states	New Jersey	91.6%	98.7%	14
	Arizona	91.1%	108.6%	5
	Florida	90.1%	89.6%	3
	Georgia	90.1%	91.8%	4
	Texas	89.5%	86.3%	2



# Paying for Transportation: Trends and Opportunities

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# Transportation finance efforts on the federal level are uneven

Federal efforts can generically be lumped into a couple categories:

Traditional user fees/gas tax

Innovative finance

Increased use of tolls

Efforts to encourage private investments





## There is little appetite for increasing the federal gas tax to raise additional revenues

Some House members had been calling for a 5¢ increase and indexing the tax to keep pace with inflation. Another coalition of House members are strongly opposed.

Senate's proposal is \$34 billion higher than House. No tax increase proposed.

Bush administration has threatened to veto any gas tax increase. "Some people have wacky ideas, like taxing gasoline more -- so people will drive less."



Innovative finance generally refers to a financing strategy different from traditional federal aid through grants.

### Innovative Management of Federal Funds

- Advance Construction
- Tapered Match
- Flexible Match
- Toll Credits
- Off-System Bridge Credits

### Credit Assistance

- State Infrastructure Banks
- Transportation Infrastructure Finance and Innovation Act (TIFIA)

### Debt Financing

- Grant Anticipation Revenue Vehicles (GARVEEs)

Source: FHWA, “Innovative Finance Primer”, 2002





Several initiatives illustrate the federal interest in encouraging a variety of tolling strategies.

**Toll Provisions for Federal-Aid Highways:**

Provides states the discretion to levy tolls on most non-Interstate Federal-aid highways.

**Interstate Reconstruction and Rehabilitation Pilot Project:**

Permits states to toll interstates for the purpose of financing their reconstruction or rehabilitation

**Value Pricing Pilot Project:**

May be extended to all facilities/states. Funds are used to pay debt service, private returns & O&M on the facility. Intended to manage traffic, more than to raise revenues.



Private activity bonds have surfaced in the Senate and DOT proposals, but face opposition in House

IRS Code currently limits tax-exempt private-activity infrastructure bonds to: airports, docks, wharfs, mass commuting facilities, high-speed inter-city rail facilities and a range of other publicly oriented projects



Senate and DOT propose up to \$15 billion in Private Activity Bonds and extend authorize highway and surface freight intermodal projects.



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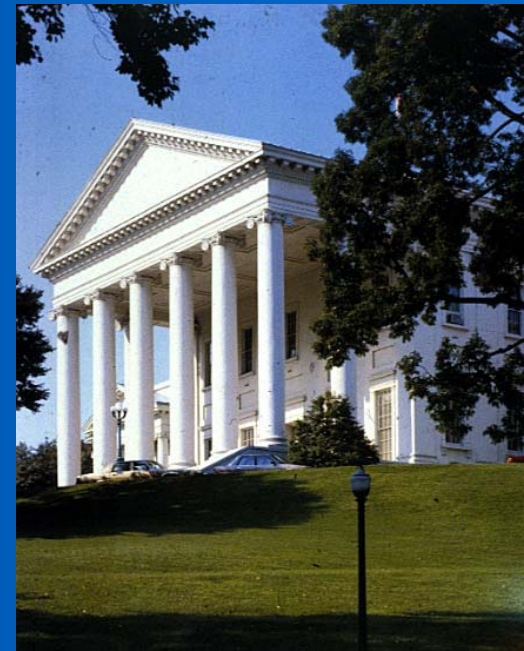
States and localities are leveraging federal flexibility and pursuing additional options for transportation finance.

User fees / gas tax

Borrowing / bond issuances

Public / private toll roads

Privately constructed roads





States are reluctant to pursue increases in all types of user fees – not just gas taxes.

States are not raising their gas taxes and only 12 “index” the tax rate to inflation.

7 states generate a higher % of their revenues from the gas tax in 2003 than in 1995.

7 states have a higher % coming from vehicle taxes or registration fees.

5 states have a higher % coming from tolls (CA, IL, NY, OH, WA).

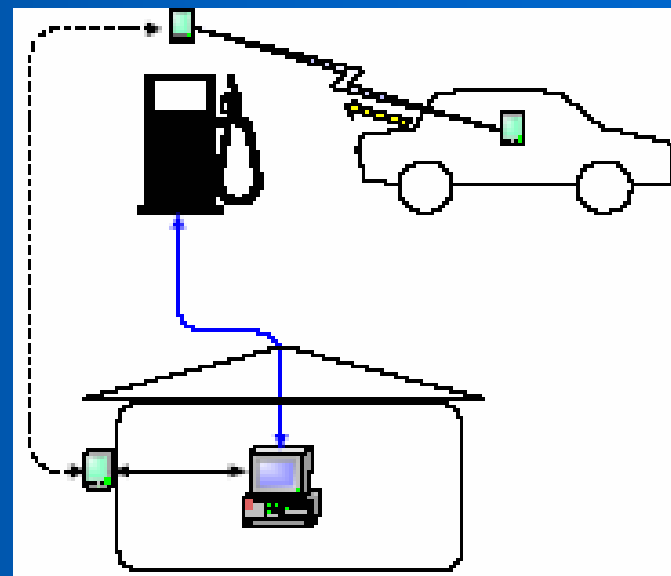
A higher % of funds are coming from: general funds (26 states), bond proceeds (24), FHWA (34).



Oregon is pursuing innovative *Mileage Fees* as part of a legislative mandate to think of other revenue options.

→ A per-mile charge based on Vehicle Miles Traveled (VMT) within a state

→ Designed to replace the fuel tax for participating motorists



Source: Betsy Imholt, "Oregon's Mileage Fee Pilot Program" 2005.





## State borrowing is the fastest growing source of transportation “revenue.”

→ From 1995-2003 revenue from state bond proceeds increased by 120%. Local bond proceeds increased 38%

Federal Highway Statistics, multiple years

→ In 2003, 9 states' principal source of highway revenue was from bond proceeds. By contrast, only 3 states' principal source was the state gas tax

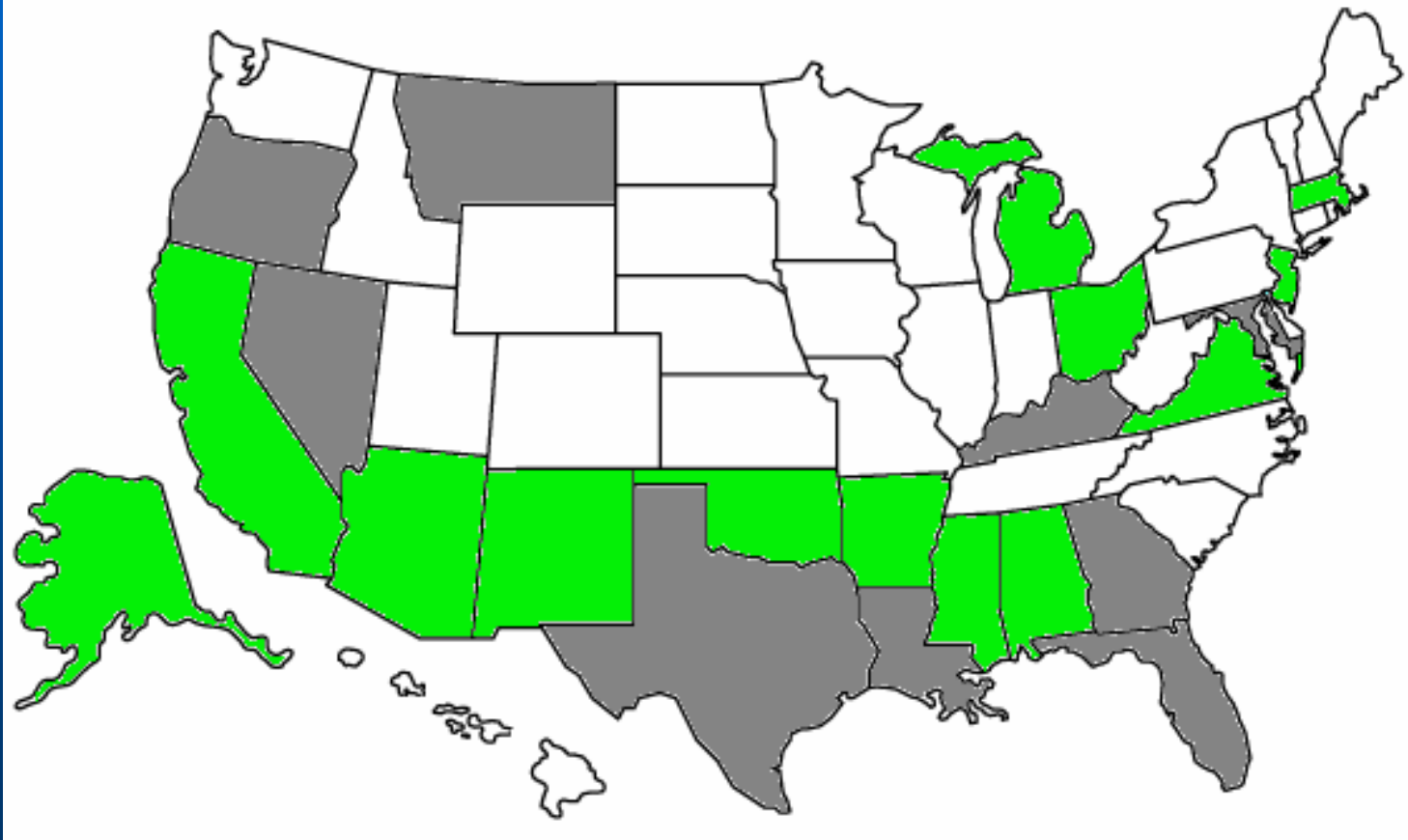
Federal Highway Statistics, 2003

→ Since they were granted the authority to do so, 15 states have issued GARVEE-style bonds worth \$7.5 billion.

Puentes, *forthcoming*



Since 1998, 15 states have issued GARVEE-style bonds worth \$7.5 billion.



State has issued GARVEEs (plus PR and VI)

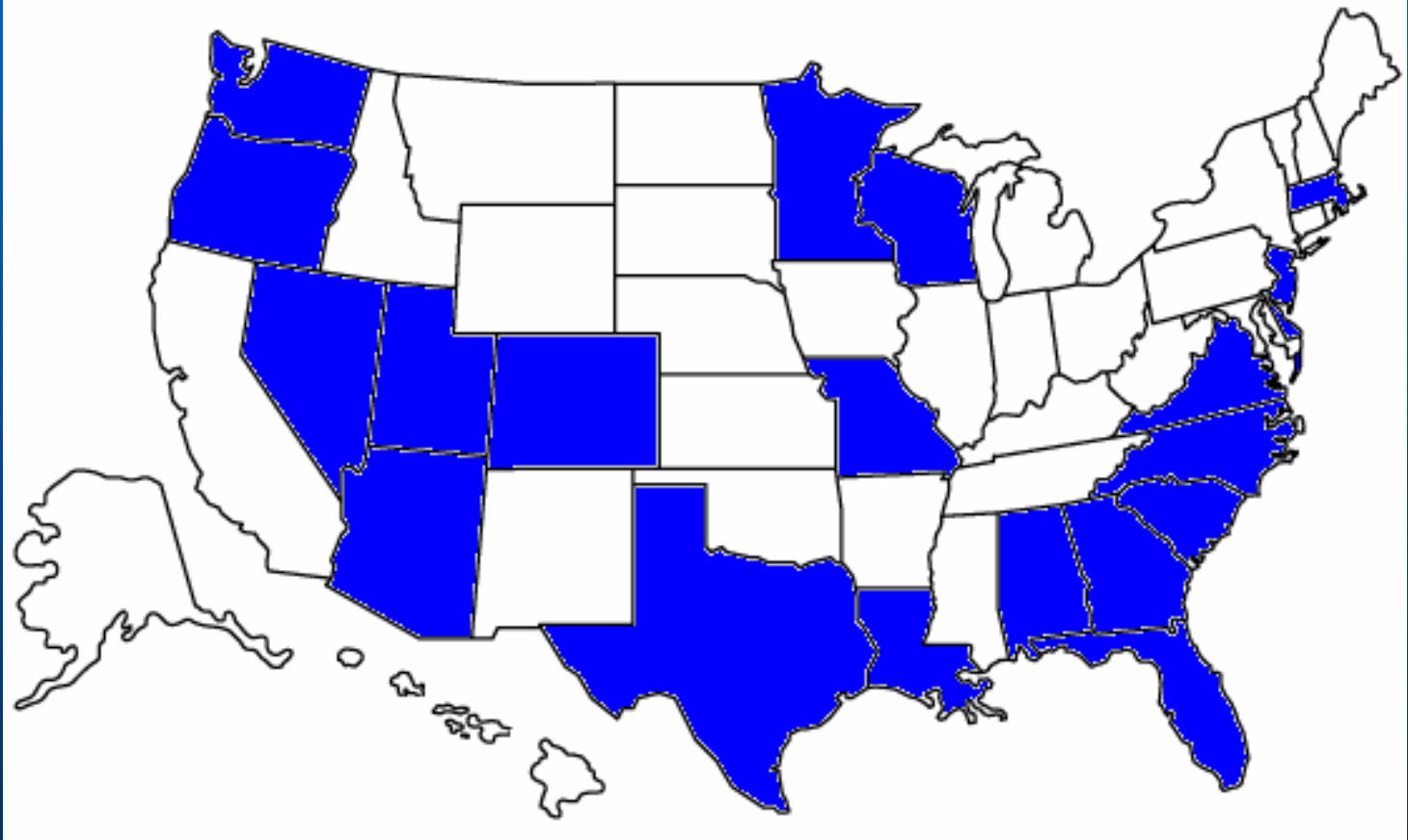
State has authority to issue GARVEEs

States GARVEE and Related Bonds Issuances  
Source: Puentes, forthcoming





As of December 2004, 20 states have enabling laws for public-private partnerships



Source: “An Analysis of the Evolution of the Public-Private Transportation Act of 1995,” Regimbal, 2004

 State has public-private enabling law



As of December 2004, 20 states have enabling laws for public-private partnerships

**VIRGINIA:**

**Two express toll lane projects in the DC metro area and a \$3-4 billion tunnel near Norfolk. Focus is congestion relief.**

**\$13 billion proposal to construct 325 miles of tolled truck lanes construct dedicated truck lanes on I-81 in Virginia. Focus is on moving freight.**

 State has public-private enabling law

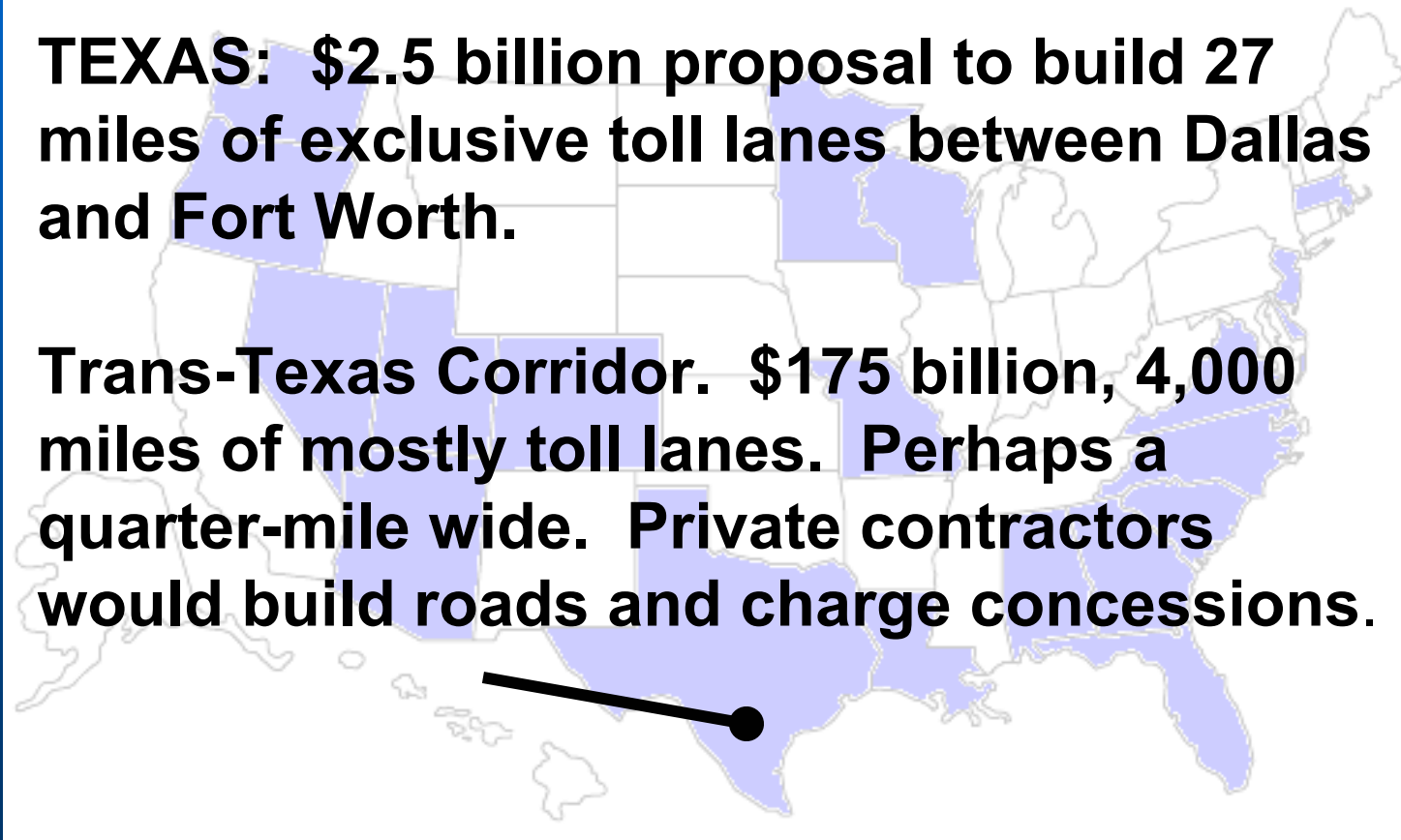
Source: “An Analysis of the Evolution of the Public-Private Transportation Act of 1995,” Regimbal, 2004



As of December 2004, 20 states have enabling laws for public-private partnerships

**TEXAS: \$2.5 billion proposal to build 27 miles of exclusive toll lanes between Dallas and Fort Worth.**

**Trans-Texas Corridor. \$175 billion, 4,000 miles of mostly toll lanes. Perhaps a quarter-mile wide. Private contractors would build roads and charge concessions.**



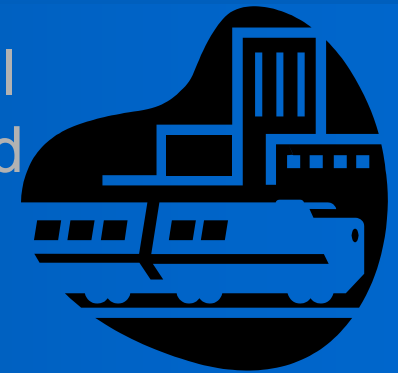
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Source: “An Analysis of the Evolution of the Public-Private Transportation Act of 1995,” Regimbal, 2004



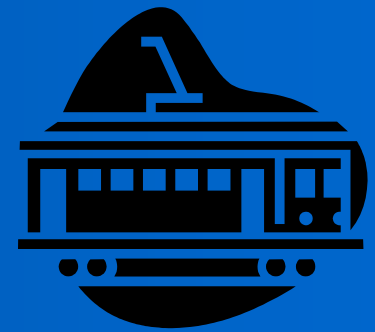
Rail and freight projects have used a variety of public/private partnership regimes.

→ Alameda corridor, a 20-mile freight rail expressway between Los Angeles and Long Beach. Debt is paid with fees from the railroads.



→ In June 2004, Virginia signed an agreement with a private builder to engineer, design and build the 23-mile Metrorail extension to Dulles Airport.

→ Several areas (Los Angeles, Miami, Denver) use special assessments around transit stops to capture the increase in land value.





Development proffers can work in very hot housing and commercial markets

A developer in Virginia have volunteered over \$200 million + in controversial road improvements in exchange for a rezoning.

Builders near Las Vegas build not only the neighborhood roads, but trunk roads leading to the development.





It is not clear how much public/private partnerships will fill the financing void.



- Could speed up construction.
- Could result in cost savings.
- Presents a different model for how transportation facilities are acquired, constructed or improved.
- Market pricing and other approaches are promising.



- How much will be absorbed by tolls?
- How do new lanes stay uncongested?
- How is the confidentiality of some project details handled?
- How are risks shared with private partners?
- What is the affect on regional transportation plans?



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## Where is transportation finance headed?

→ Gas tax increases on federal and state levels are possible but unlikely.

→ As budgets get tighter, donor / donee debate between *and within* states will intensify.


→ GARVEEs and other forms of borrowing will continue to be tapped – but concerns over debt financing persist.

→ In the near term tolling will remain focused on congestion management, for which it has great potential.

→ Public/private partnerships will continue to get lots of attention and may have an impact on specific facilities and on the metro or local level.







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September 15, 2004

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### REGIONAL ANALYSIS

## Losing Ground: Income and Poverty in Upstate New York

In recent decades Upstate New York has transitioned from a stable middle-income region to one with serious income and economic problems. This paper, the fourth in a Metropolitan Policy Program series on the region, examines these trends in detail and proposes a number of policy responses.

- read the paper
- Special Series on the Health of Upstate New York

### METROVIEW

**Battleground State Demographics Diverge**, by William Frey

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**External Affairs/Budget Coordinator**

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### ANALYSIS & COMMENTARY

## West Michigan: Building a Competitive Future

This powerpoint by Robert Puentes was presented at a summit in Grand Rapids, MI focusing on how that region can meet the economic development goals of West Michigan by fostering regional cooperation, collaboration, and communication.

### COMMUNITY AND NEIGHBORHOOD DEVELOPMENT

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