

Transportation Funding Sources and Alternatives in the Southeastern States Now and in the Future

BRYAN GIBSON, PH.D.
RESEARCH ASSOCIATE
BRYAN.GIBSON@UKY.EDU

CANDICE WALLACE, MPA
RESEARCH ASSOCIATE
CANDICE.WALLACE@UKY.EDU

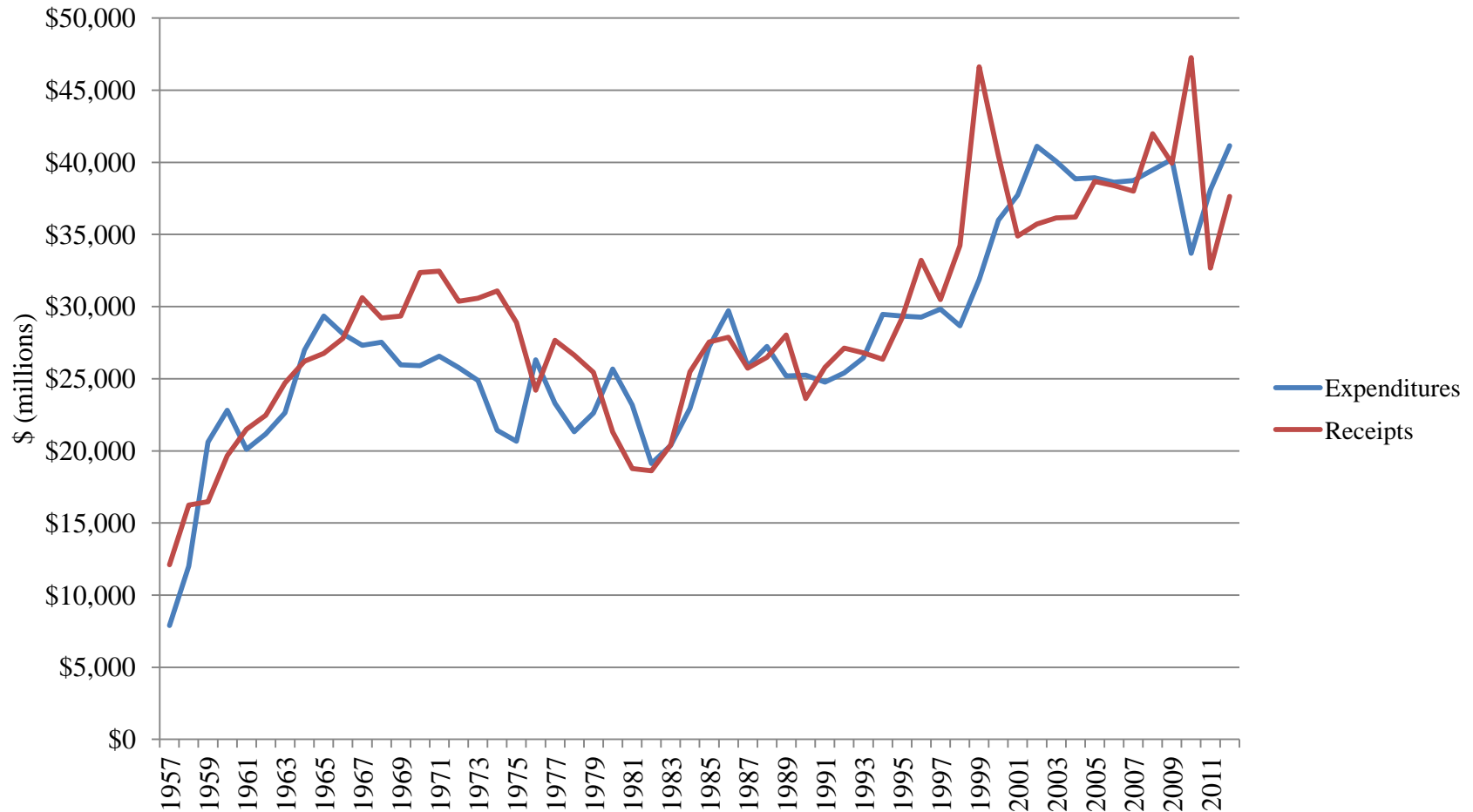


Federal Funding

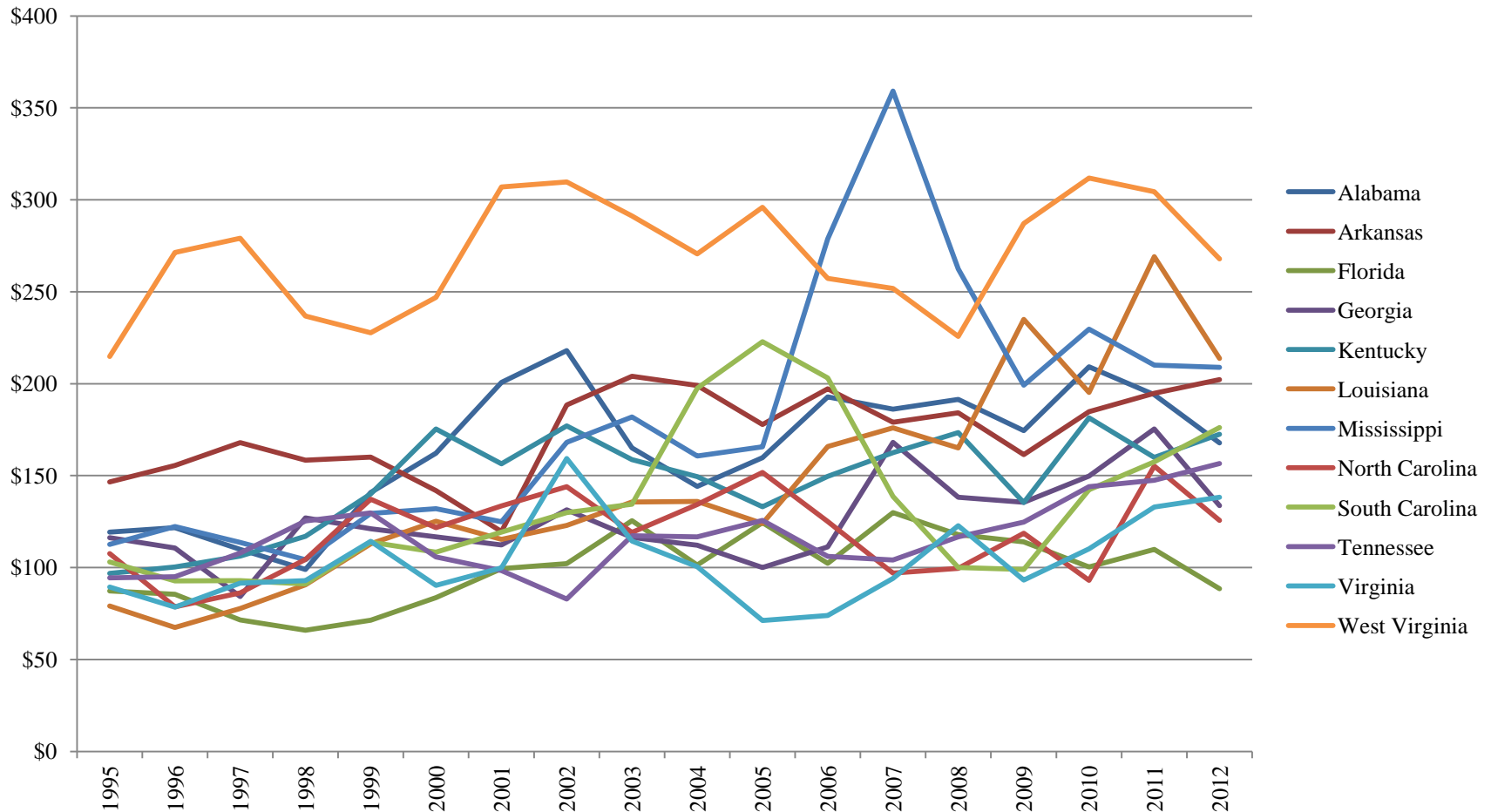
- Federal Highway Trust Fund: general funds needed to replenish HTF
- Concerns over Federal Highway Trust Fund and its ability to provide states with funding
- What changes might a new transportation authorization bill entail?



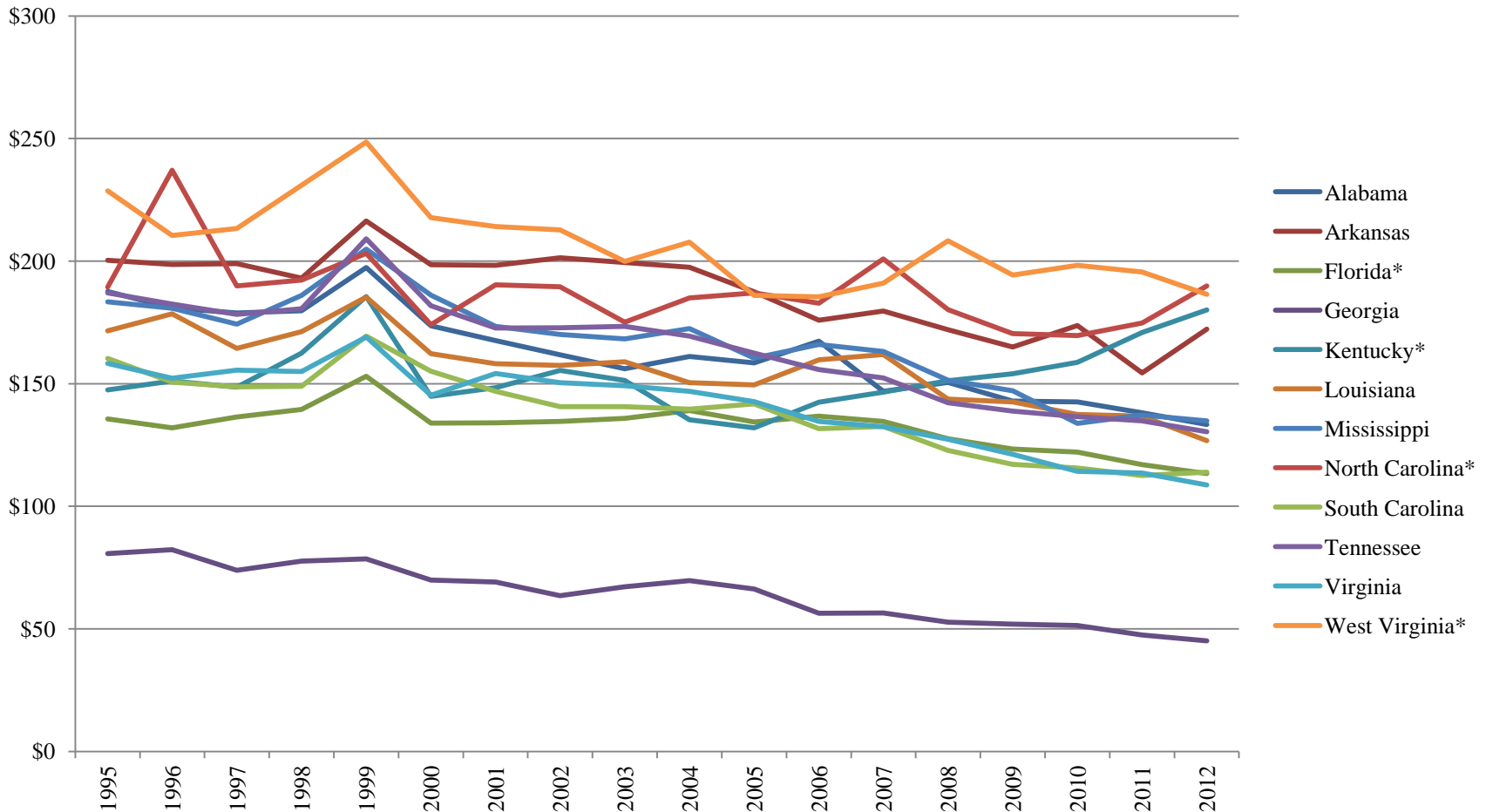
HTF Expenditures and Receipts



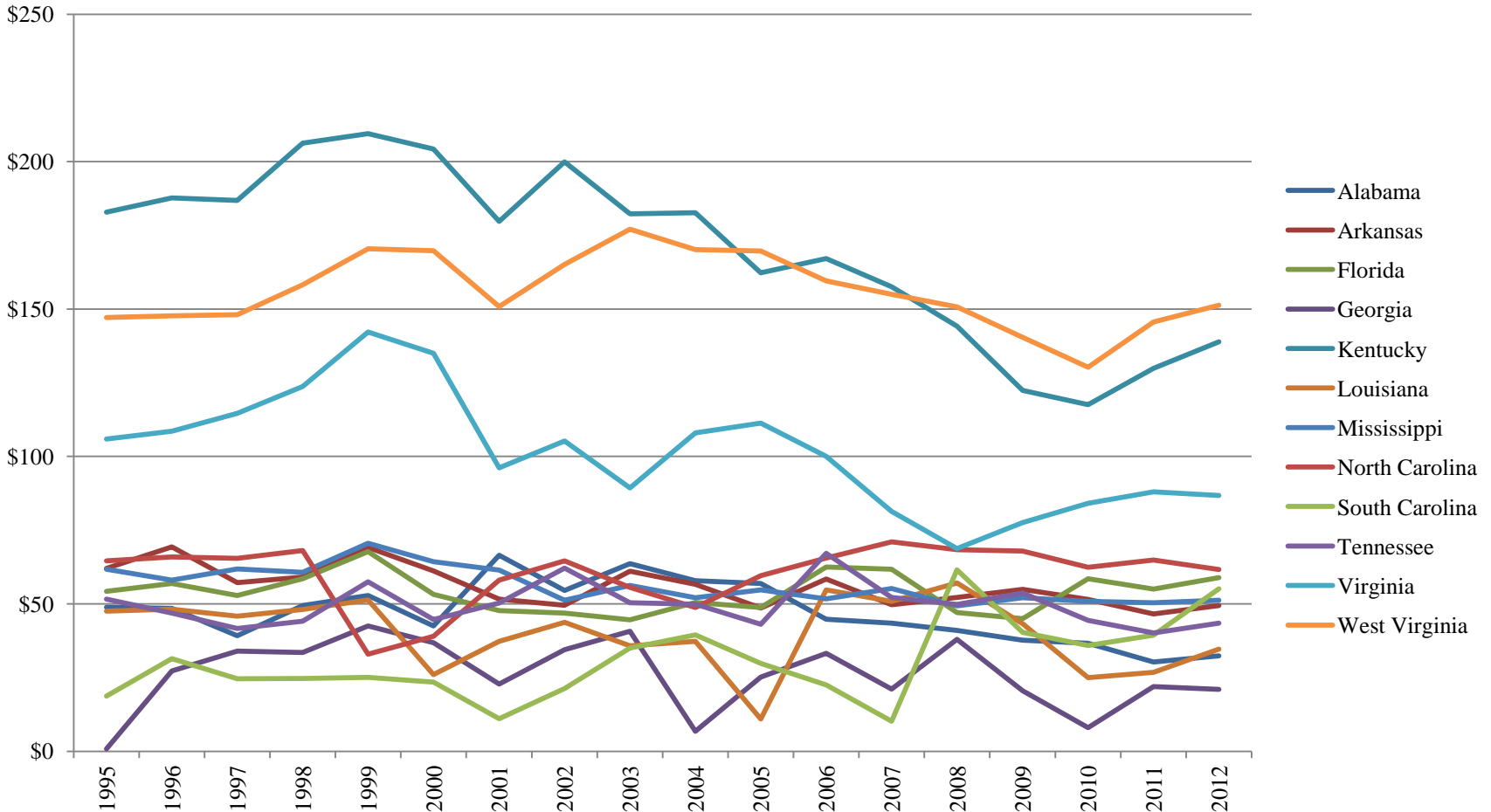
Federal Transfers



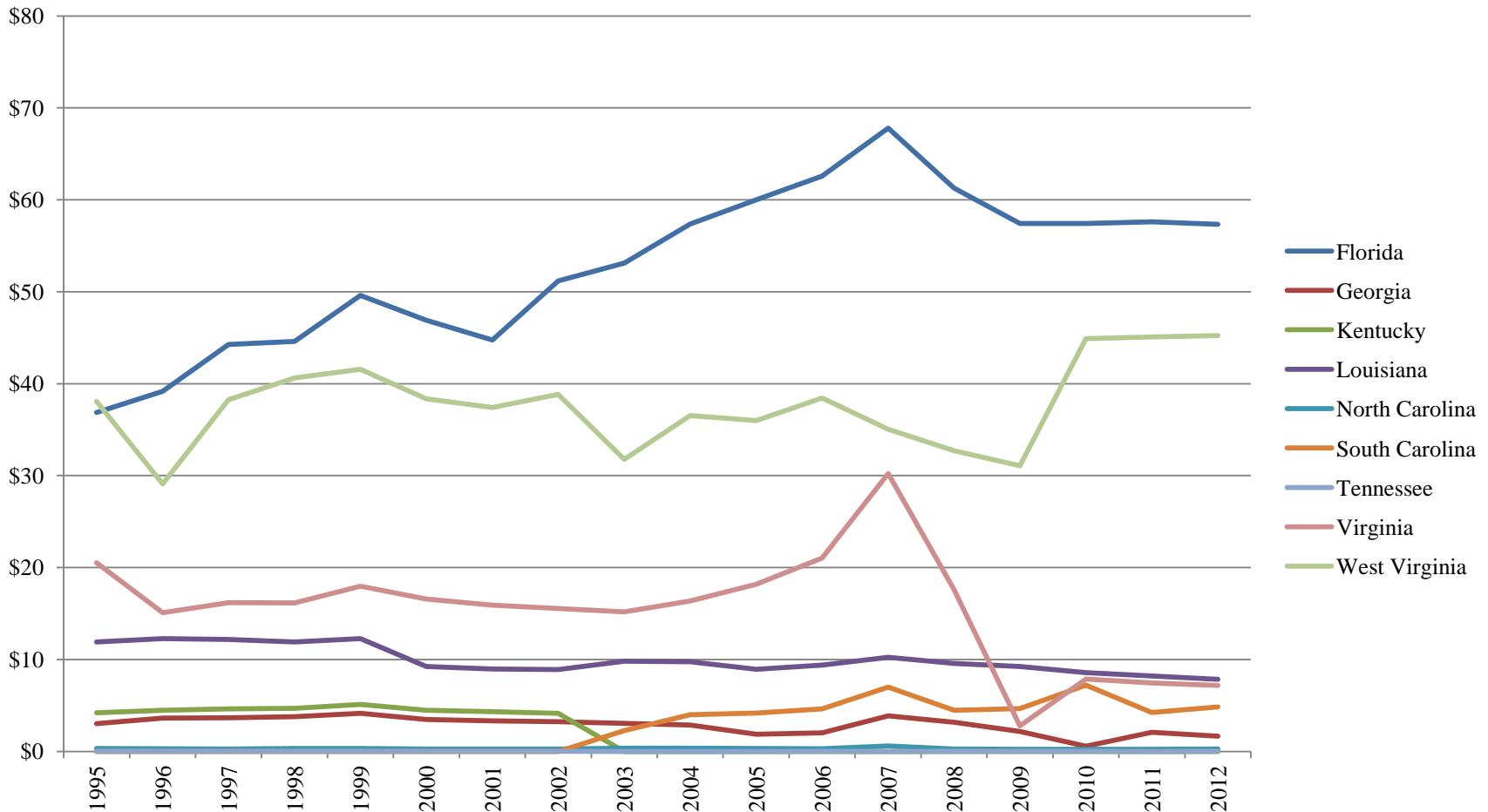
Net Motor Fuels Tax Receipts Per Capita



Motor Vehicle and Motor Carrier Tax Receipts Per Capita



Toll Receipts Per Capita

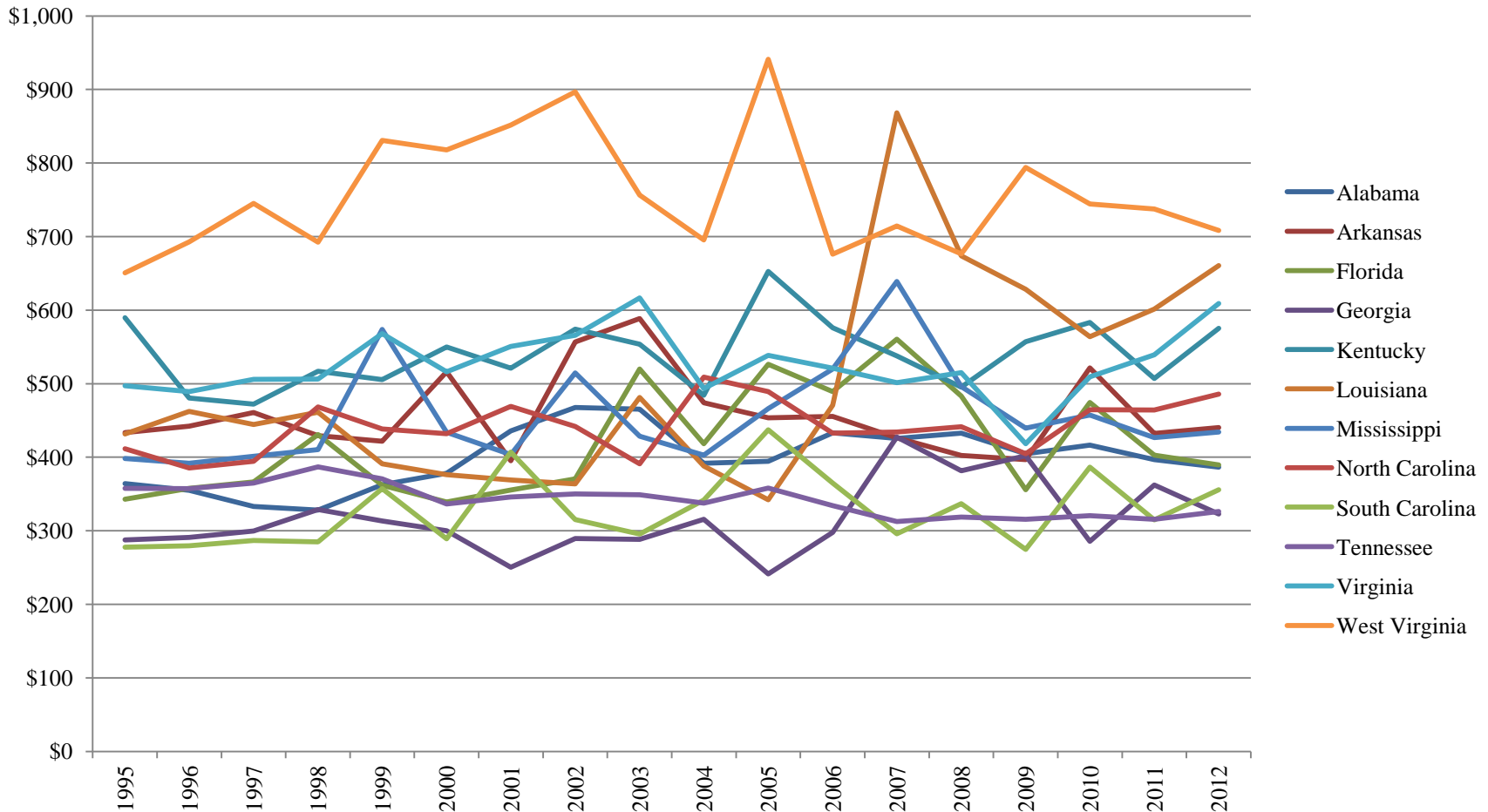


Other Revenue Sources

- General Funds
- Other State Imposts
- Miscellaneous
- Bond Issues
- Local Transfers



Total Revenues Per Capita



Future Revenue Trends

- Motor fuels taxes, federal transfers, and motor vehicle and motor carrier taxes are the major sources of transportation revenues in the Southeast
- Future revenue trends will mostly be driven by factors that influence these sources.
 - Economic conditions, fuel efficiency, the number of vehicles, etc.
 - Potential changes in a new federal transportation authorization?



Forecasts of Current Revenue Structures

- Time trend regressions to forecast future variability in the three major revenue categories, individual categories over five percent, and total revenues
- Five year period
- Motor fuel taxes for most states showed a slight decline over the forecast period (indexed states showed incremental increases)
- Motor vehicle and motor carrier taxes also indicated declines
- Federal transfers showed incremental increases based on historical data
- Total revenues also showed incremental increases (generally <5% annually)
- Expected future revenue shares from each category similar to current composition



Alternative Revenues

Criteria for new revenues (Whitty, 2007)

- Users paying for the infrastructure
- Local government autonomy over traditionally local revenue sources
- Sufficient revenues to replace the current revenue structure
- Transparency
- Minimize the burden placed on citizens and those business entities that may be required to collect taxes or fees
- Minimize evasion
- Public opinion should be favorable.

Evaluation criteria/questions (Rufolo, Bertini, & Kimpel, 2001)

- Should an alternative pricing system continue utilizing the fuel tax or discontinue it
- Whether out of state mileage should be taxed
- Accounting for social costs such as pollution in pricing
- Length of time for conversion to alternative scheme
- Instituting variable pricing during periods of increased travel
- Level of desired administrative costs
- Technology needed and privacy concerns.

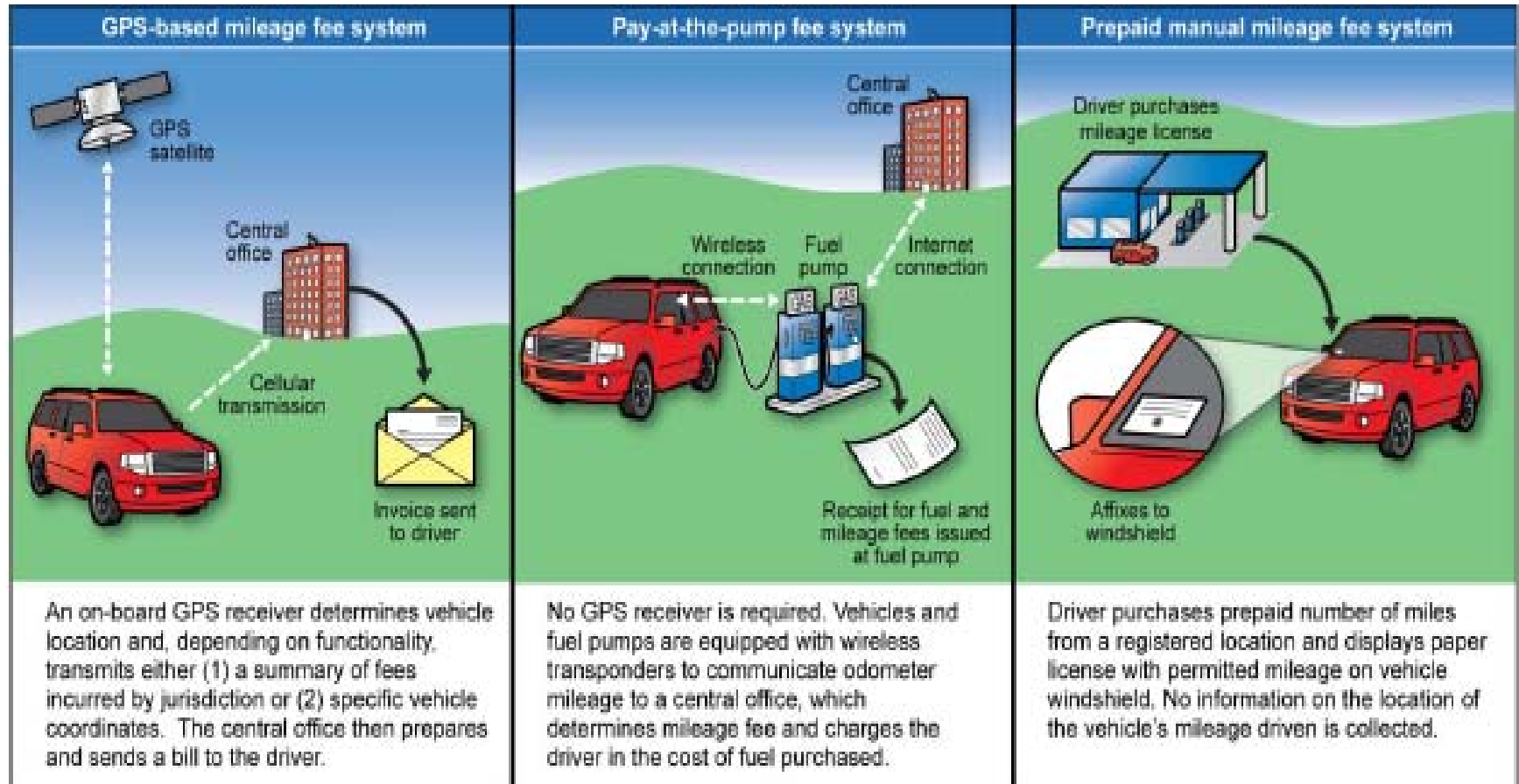


VMT Fees

- Flat/variable rates; variable can account for time and/or location assuming appropriate technology (congestion)
- Other factors: vehicle weight, urban/rural
- Simplest form: odometer readings (registration)
- GPS devices (onboard plugin), gas station transponders, etc.
- Concerns: privacy, determining appropriate mileage rate, monitoring, cost



VMT Fees



VMT Fees

At the Pump

Leathers Fuels
11421 SE Powell Blvd
Portland, OR 97266

06/09/06 12:45 PM

Card: VISA

Batch# 00 Seq # 001

Account# 0007

TESTCARD/TEST

Approval 00000N

Trans# 882317

Unit# 00011661166

T# 091181206

Pump# 1 Unleaded

Gallons 19.50

Price/Gal \$ 2.549

1 ST Fuel Tax \$ (4.68)

3 Sale Total \$ 45.03

*** ODOT VMT ***

2 VMT Fee : 5.12

4 Rush Hour : 40.0

In_Oregon : 280.6

Non-Oregon : 0

No Signsl : 0

Thank You!

Mileage Fee Receipts

1 "ST Fuel Tax"

This is a credit for the state gas tax of 24 cents/gallon

2. "VMT Fee"

This is the mileage fee calculated for this vehicle. This amount is deducted from this driver's endowment account and not included in the transaction payment.

3. "Sale Total"

This is the the total amount that this driver must pay at the pump. The price of gas and all taxes minus the state gas tax.

4. "Rush Hour/In-Oregon/Non-Oregon/No Signal"

These are the zones the miles are being counted in. The numbers here represent miles counted since this vehicle's last mileage reading.

In the Store

csr

R# 1 S# 1 T# 882316 10:55 AM

06/09/06

Leathers Fuels
11421 SE Portland Blvd
Portland, OR 97266

Pump# 1 Unleaded

19.50 @ 2.549 49.71

1 ST Fuel Tax (4.68)

2 VMT Fee : 5.1224

4 Rush Hour : 40

In_Oregon : 280.6

Non-Oregon : 0

No Signal : 0

Subtotal 45.03

3 Total 45.03

Cash 45.03

Thank You!



Implementation

- Privacy concerns
- Administrative
- Data collection and usage
- Rate determination
- Travel across state lines



Tolls

- “Since the 1990s, several factors have led to resurgent interest in tolling. These include (1) revenues from fuel taxes rising more slowly than program costs, (2) widespread adoption of technological advances in electronic toll collection systems, and (3) the interest in pricing schemes to reduce demand and improve system performance by efficiently allocating scarce road space” (Burwell & Puentes, 2009)
- More widely used and accepted
- Ensures users are charged
- Legislation needed?
- Cost pricing, value pricing, HOT lanes



Congestion Pricing

- Subset of tolling
- Setting price to accurately reflect demand
- Can be levied on an entire road, an existing lane, new lanes, and a cordoned area i.e. a city center
- Variably priced lanes such HOT lanes, variable highway tolls (based on time of day and traffic volumes), cordon charges, and area-wide charges



Public Private Partnerships

- “Public-private partnerships (P3s) are contractual agreements formed between a public agency and a private sector entity that allow for greater private sector participation in the delivery and financing of transportation projects.”
- “A Public-Private Partnership (P3) is a contractual arrangement between a public agency (federal, state or local) and a private sector entity. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility.”
- Enabling legislation



Public Private Partnerships

- Design Build Finance and Design Build Finance Operate Maintain (funding/revenue component)
- Examples



Implementation

- The NCPP lists seven factors that they consider to be best practices that are important to the success of P3's: 1) having a public official as a proponent, 2) statutory environment for each P3 implementation, 3) dedicated public sector team to monitor the progress of P3's from start to finish, 4) detailed contract, 5) defined revenue stream, 6) support from stakeholders and the public, and 7) careful screening of potential P3 partners.



Other Options

- Arkansas Blue Ribbon Committee on Highway Finance
- South Carolina: London et al. (2003) Clemson University
- Kentucky: Hackbart et al. (2005) University of Kentucky
- North Carolina: Williams (2006)



Public Opinion

- Themes from public opinion on highway pricing (NCHRP Synthesis 377)
 - 1) Value and benefits from projects
 - 2) Seeing specific examples and choices of roadway use
 - 3) Specificity of revenue usage
 - 4) Learning via experience using different pricing schemes
 - 5) Public uses knowledge and information to inform initial opinions of tolling
 - 6) Belief in equity, desire for fairness by only tolling new capacity or providing untolled alternatives
 - 7) Simplicity builds public support for road pricing
 - 8) Public favors tolls over taxes due to revenues being used locally and the freedom to choose tolled routes.



Public Opinion

Option	Level of Support
10 cent increase in gas tax; revenue used to maintain roads	67%
10 cent increase in gas tax; revenue used for projects to improve safety	62%
10 cent increase in gas tax; revenue used to improve technology	58%
10 cent increase in gas tax; revenue used to reduce local air pollution	53%
0.5 cent sales tax	51%
10 cent increase in gas tax; revenue used to reduce global warming	50%
2 cent increase in gas tax for 5 years	42%
10 cent increase in gas tax; information on average driver's annual cost	40%
Mileage tax (average 1 cent per mile); varies by vehicle's pollution	39%
10 cent increase in gas tax	23%
Mileage tax with flat rate of 1 cent per mile	19%



State		Bill	Status	Summary
Georgia	2013	H 211	Enacted	From 7/1/13 through 6/30/15; motor fuel tax exemption for operating public school buses
North Carolina	2013	H 998	Enacted	Cap fuel tax rate from 10/1/13 through 6/30/15
Virginia	2013	H 2313*	Enacted	Replaced 17.5 cent per gallon fuel tax with 3.5 % wholesale tax (rises to 5.1% if Congress does not pass internet sales tax legislation), \$64 fee for hybrid vehicles, raised state sales tax for transportation from 0.5% to 0.675% over 5 years (sales tax increases from 5% to 5.3%, automobile sales tax increase from 3% to 4.15% over 3 years
Florida	2014	S 156	Enacted	Reduces registration fee, service charge for license plate, license taxes for motorcycles
Kentucky	2014	H 445	Enacted	Increases minimum average wholesale price of fuel on a quarterly basis from \$1.786 to \$2.878
South Carolina	2014	H 3360	Enacted	Transfer of \$50 million to state infrastructure bank for bridges' revenues from sales taxes on vehicles to be used to secure bonding



State		Bill	Status	Summary
North Carolina	2014	S 402	Enacted	\$100 fee on electric vehicles
Virginia	2014	H 975	Enacted	Repealed annual license tax on hybrid electric vehicles from 2013 (H 2313)
South Carolina	2013	H 3645	Pending	Fee for hybrid, plug in, or electric vehicles
West Virginia	2013	S 354	Failed	Study of alternative revenue mechanisms for the state
Georgia	2014	SR 598	Adopted	Created the Senate Public-Private Partnerships Study Committee
Louisiana	2014	HCR 166	Adopted	Established Transportation Funding Task Force to study all potential funding mechanisms
North Carolina	2014	H 159/S102	Pending	Establish Joint Legislative Public Infrastructure Oversight Commission; research on meeting infrastructure needs
North Carolina	2014	S 218	Pending	Prohibits tolling on I-95 for 10 years with approval from General Assembly thereafter
Mississippi	2013	S 2515	Failed	Study of toll road feasibility
Virginia	2013	HJR 753	Failed	Study of tolling policies



Conclusions/Recommendations

- Alternatives focus on VMT fees, tolling, public private partnerships
- Criteria such as revenue potential, sustainability, a user pays approach, transparency, implementation and administrative costs and issues
- Public opinion matters; focus on public outreach/education
- Determine most feasible option (s), test with pilot program(s)
- Develop revenue forecasts under new regime(s)

