

# What Moves You Arizona

let's talk. let's listen. let's decide.

## A Transportation Plan for 2035

### Policy Committee II

September 20, 2010





# Agenda

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- Multimodal Needs
- Baseline Revenue Forecast

**Today's Goal** = Provide information about key technical inputs



# Needs Assessment

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Don Vary



# Introduction

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- Investment levels to meet full needs as owner-operator
  - Highway/bridge
  - Aviation
- Potential investment levels to promote goals/objectives as advocate
  - Transit
  - Freight rail
  - Passenger rail



# Approach

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- Definitions:
  - Attain “State of Good Repair” for transportation assets (Preservation)
  - Improve functionality/safety (Modernization)
  - Add capacity to the system to serve anticipated growth (Expansion)
- Focus on ADOT’s system
- Expressed in base 2009 dollars

# 25-Year Needs - Sources

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- Data sources
  - ADOT asset management databases
  - Existing Arizona plans and national studies
- Analysis Tools
  - State Highway Economics Requirements System (HERS-ST)
  - National Bridge Inventory Analysis System (NBIAS)





# Needs Summary

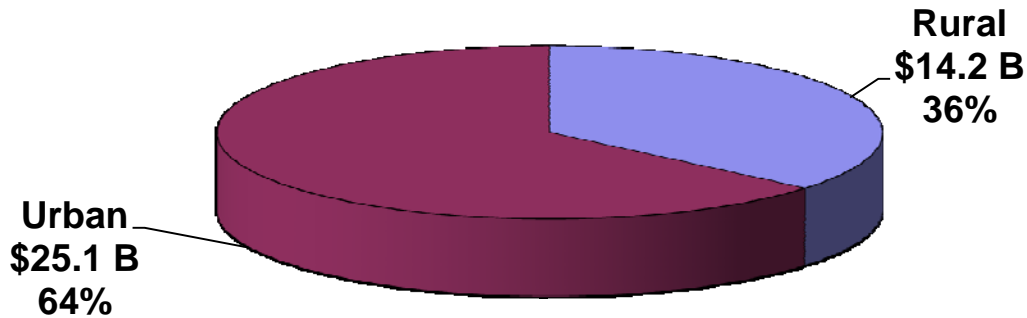
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- Highways -- \$39.3 B
  - Existing roadways -- \$22.6 B
  - New roadways -- \$15.3 B
  - Existing bridges -- \$1.4 B
- Passenger Rail -- \$2.6 B
- Transit -- \$16.0 B
- Freight Rail -- \$0.5 B
- Aviation -- \$9.9 B

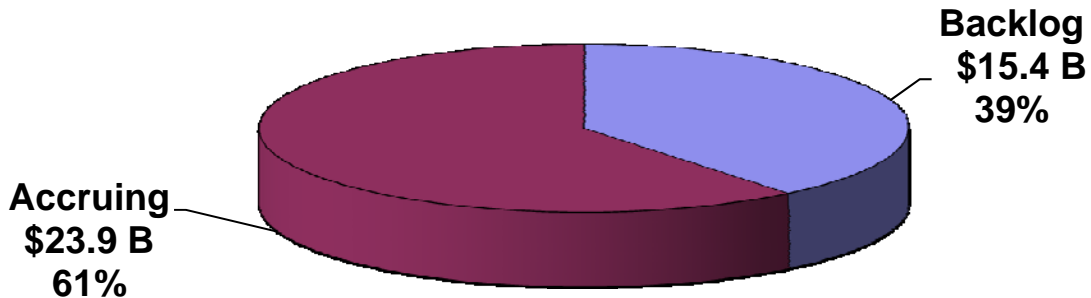
**Total -- \$68.3 B**

# Highway Needs

Highway Needs by Area Type (Cost)  
HERS-ST NEEDS = \$39.3 B



Highway Needs by Backlog/Accruing (Cost)  
HERS-ST NEEDS = \$39.3 B





# Highway Needs New Expansion - \$15.3 B

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- Sources
  - bqAZ
  - Framework studies
  - ADOT Strategic Plan
  - STIP
  - Critical needs studies
  - MPO LRTPs
- Criteria
  - Within 25-year timeframe
  - A “fundamental” need



# Non-Highway Needs

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- Passenger Rail (Advocate)
  - Phoenix-Tucson: \$2.0 B
  - Commuter Rail: \$400 M
  - Amtrak: \$164 M

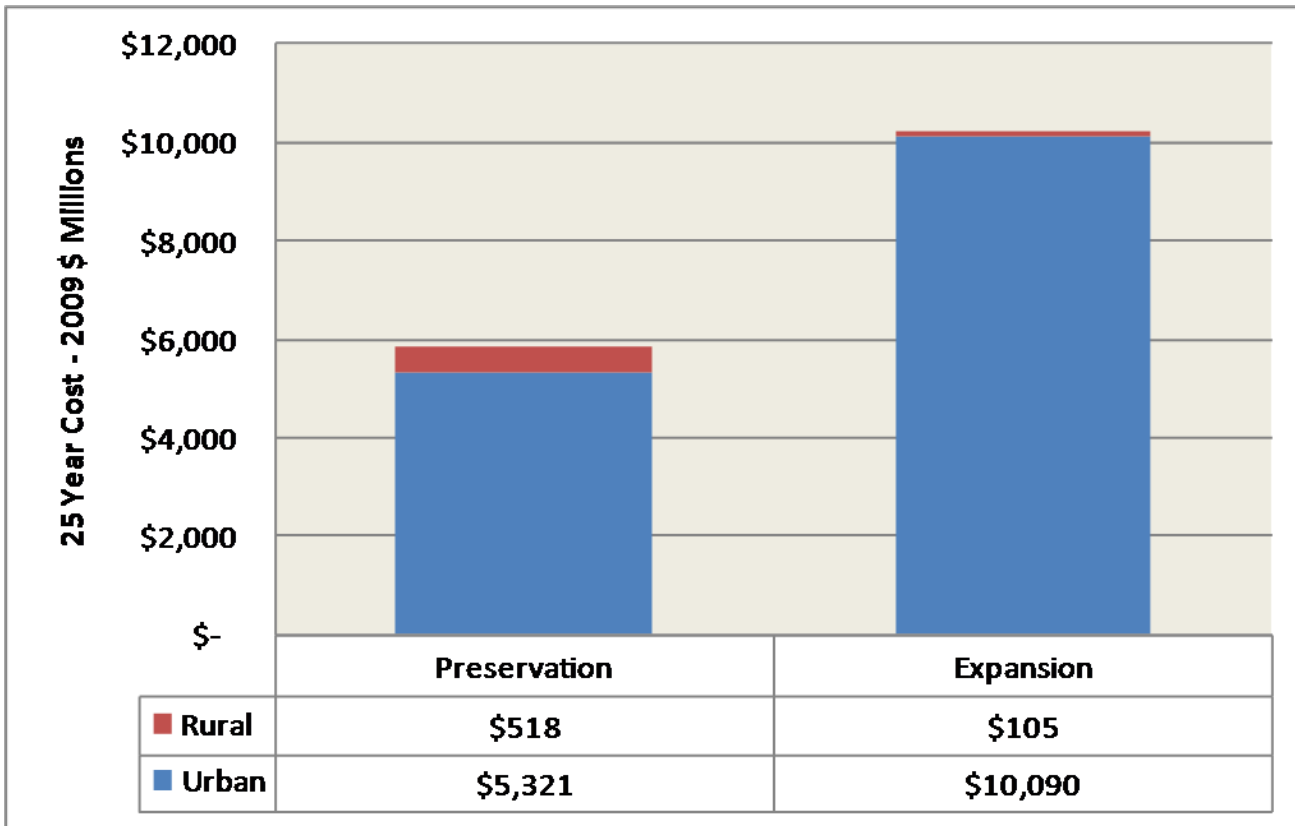


# Non-Highway Needs

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- Freight Rail (Advocate)
  - \$500 M
- Aviation (Advocate)
  - \$9.9 B

# Transit Needs (Advocate)





# Baseline Revenue Forecast

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John Carr



# Baseline Forecast

- Estimates Arizona's future transportation revenues based on historic trends
- Applies conservative growth rates
- Assumes current state revenue-generating structure
- Aggregates funds available for **state system** improvements
- Respects all existing agreements between ADOT and local agencies

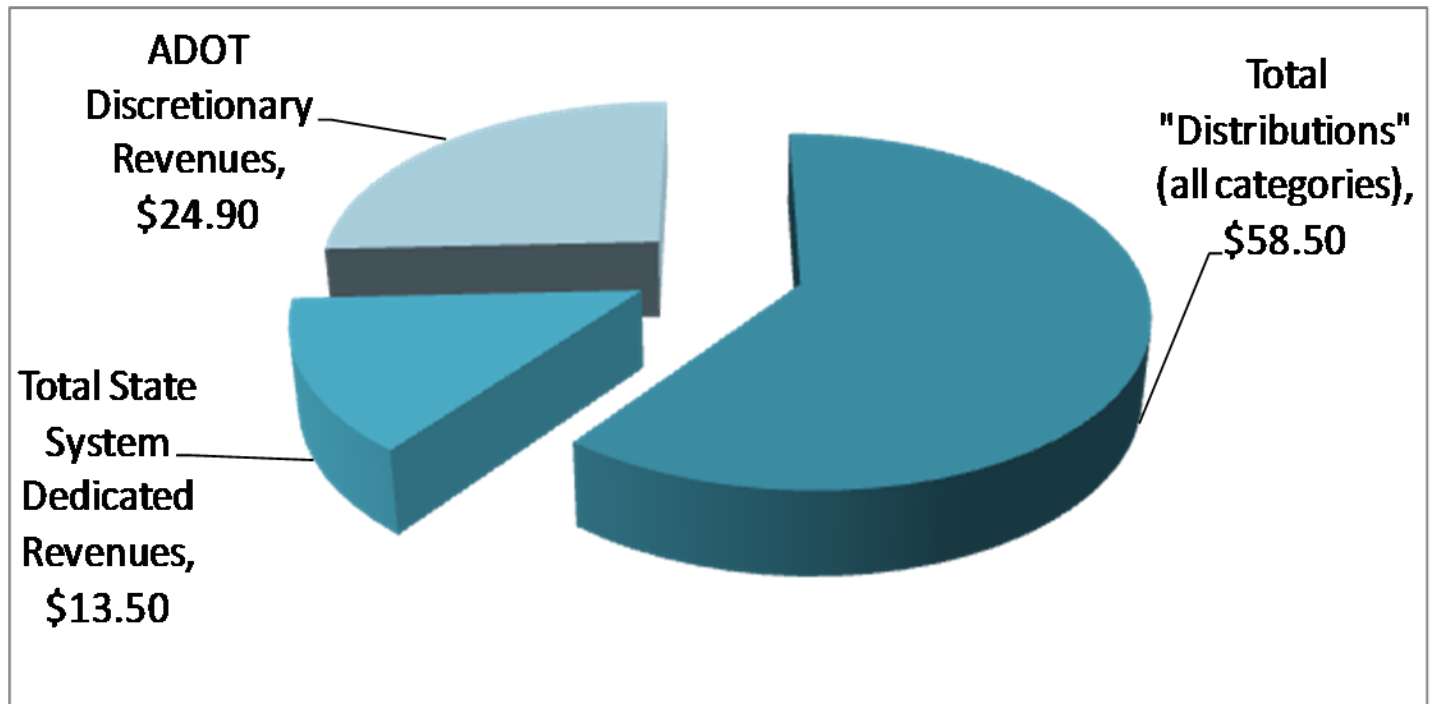
# Forecast Summary

Total Available Transportation Funding (State System)  
 FY 2010 – FY 2035  
 (Current Dollars in Billions)

Revenue Source	Amount
<i>Federal Highway Revenues</i>	\$23.6
<i>Federal Transit Revenues</i>	\$4.0
<i>Federal Aviation Revenues</i>	\$1.9
<b>Total Federal Sources</b>	<b>\$29.5</b>
<i>State Highway Revenues (HURF)</i>	\$48.5
<i>State Aviation Revenues</i>	\$0.8
<i>RARF Revenues (Arterials, Transit, Planning, Local Highways)</i>	\$18.1
<b>Total State Sources</b>	<b>\$67.4</b>
<b>Total Transportation Funds (Federal, State, and Local Revenues; all modes)</b>	<b>\$96.9</b>

# 25-Year Revenues

Total baseline revenues: \$96.9 B (current dollars)



State system baseline revenues: \$24.9 B + \$13.5 B  
= \$38.4 B (current dollars)



# Reduce for Inflation

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- Presents the impact of inflation on buying power for the revenues from 2010 to 2035
- Apply 2.1% annual discount rate for all revenue sources (based on average 1991-2009 CPI)
- Compare constant dollars to current dollars
- Loss of buying power estimated at **28.1%**



# The Bottom Line:

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- \$39.3 B (current dollars) for state system improvements
- Loss of buying power = 28.1%
- Adjusting for inflation, ADOT will have **\$27.6 B** to spend on transportation improvements on the state system in the 2010-2035 period
- Revisions for 2010 RAP adjustments



# 25-Year Revenue Gap

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Highway and Bridge (constant dollars)

Revenue = \$27.6 Billion

Highway & Bridge Needs = \$39.3 Billion



# 25-Year Revenue Gap

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Transit (constant dollars)

Revenue = \$8.4 Billion


Transit Needs = \$16.0 Billion



# 25-Year Revenue Gap

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Aviation (constant dollars)



Revenue = \$1.9 Billion



Aviation Needs = \$9.9 Billion



# 25-Year Revenue Gap

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Rail (constant dollars)

Revenue = \$0

Rail Needs = \$3.1 Billion



# Discussion

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# Alternative Investment Choices (AIC)

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- Menu of investment types
- Not project-specific
- All modes
- Informed by needs analysis, shaped by policy direction, grounded in Goals
- Each AIC “adds” to the same revenue bottom line
- Socioeconomic context
- Each AIC has performance outcomes

# Baseline AIC Examples

	AIC A	AIC B
<b>Hwy. Preservation</b>		
• Maintenance	15%	10%
• Hwy preservation	40%	27%
• Bridge	10%	7%
<b>Hwy. Modernization</b>	10%	12%
<b>Hwy. Expansion</b>		
• Add capacity	25%	30%
• New highways	0%	11%
<b>Intercity Rail</b>	0%	1%
<b>Transit</b>	0%	1%
<b>Freight</b>	0%	1%
<b>Total</b>	100%	100%



# Next Steps

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- Next meeting
- Meeting topics
  - Performance Measures
  - Alternative Investment Choices



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