

Framework Policy Committee



February 18, 2009

Agenda

- Welcome and Introductions
- ADOT Organizational Changes
- Old Business**
- Statewide Modeling
- Statewide Scenarios
- Common Interest Groups Workshops
- Rail Framework
- New Business**
- Complete Streets Workshop
- Statewide Rail Coordination Meeting
- Finance Tools Presentation & Discussion
- Other Items
- Adjourn

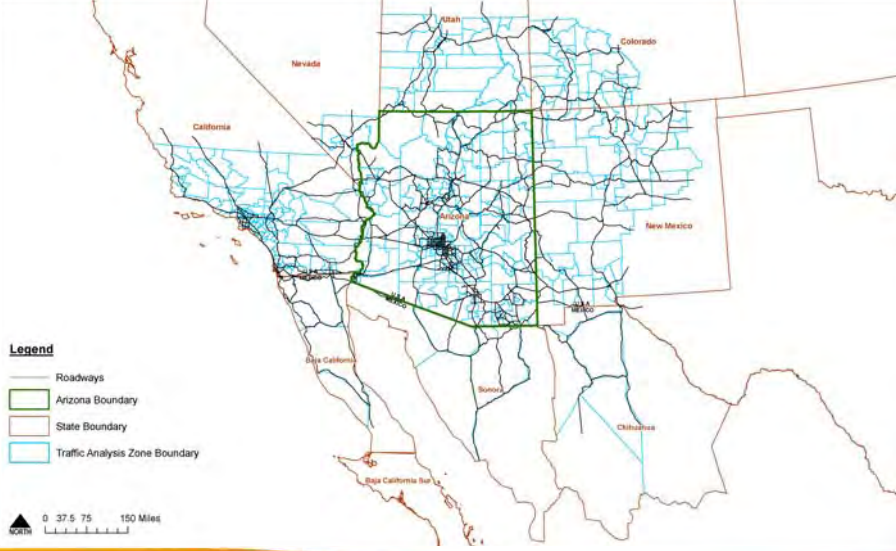
Modeling Update TDM Overview

- Southwest Regional Interaction
- Three-step Model
 - Trip Generation (Person-trips)
 - Trip Distribution
 - Traffic Assignment
- Passenger Vehicle Component
- Commercial Vehicle Component

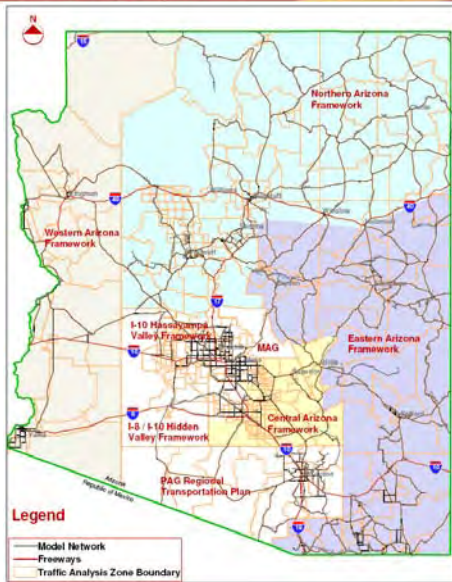
Southwest Regional Sketch Planning Tool

- Six-State and Northern Mexico
- Sketch Planning Tool
- Through Trips and External-Internal Patterns
- Based on Trip Estimates using Traffic Counts

Southwest Sketch Planning Tool -Traffic Analysis Zones



2005 Arizona Statewide Travel Demand Model



Passenger Trip Component

- Six Trip Purposes
 - Home-Based Work (HBW)
 - Home-Based Other (HBO)
 - Non-Home Based (NHB)
 - Long Distance
- Cross-Classification Productions
 - Census Socioeconomic Profile
- Trip Attraction Regression
- Long Trip Model

Commercial Vehicle Component

- Quick Response Freight Manual Methodology
 - Employment-based truck trip generation
 - Trucks (Single-Unit and Multi-Unit)
- ADOT TRANSEARCH Database
 - National/International Commodity Flows
 - Used to establish trip patterns

Base Year 2005, 2030, and 2050 Population and Employment Estimates

- Existing COG and MPO studies
- SATS and Other Planning Studies
- Census 2000 Data
- Arizona Department of Commerce
- Comprehensive and General Plan Future Land Use
- Planned Developments and Growth Areas

Population Estimates

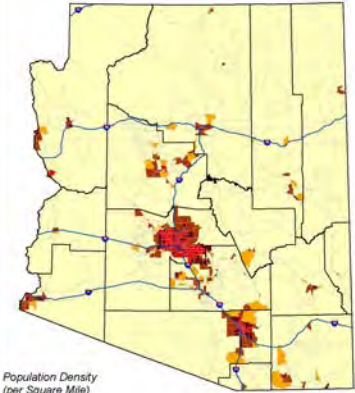
| County | 2005 | 2030 (% Increase) | 2050 (% Increase) |
|--------------|------------------|-------------------------|--------------------------|
| Apache | 74,000 | 103,000 (39%) | 133,000 (78%) |
| Cochise | 133,000 | 245,000 (83%) | 358,000 (168%) |
| Coconino | 127,000 | 166,000 (30%) | 193,000 (52%) |
| Gila | 52,000 | 64,000 (22%) | 74,000 (41%) |
| Graham | 34,000 | 50,000 (49%) | 88,000 (162%) |
| Greenlee | 9,000 | 10,000 (13%) | 12,000 (30%) |
| La Paz | 21,000 | 27,000 (27%) | 32,000 (52%) |
| Maricopa | 3,672,000 | 6,123,000 (67%) | 7,623,000 (108%) |
| Mohave | 199,000 | 324,000 (62%) | 405,000 (103%) |
| Navajo | 104,000 | 252,000 (142%) | 289,000 (177%) |
| Pima | 918,000 | 1,514,000 (65%) | 1,990,000 (117%) |
| Pinal | 262,000 | 1,229,000 (370%) | 2,113,000 (708%) |
| Santa Cruz | 41,000 | 65,000 (58%) | 83,000 (104%) |
| Yavapai | 201,000 | 616,000 (207%) | 1,065,000 (431%) |
| Yuma | 173,000 | 337,000 (95%) | 398,000 (130%) |
| Total | 6,020,000 | 11,125,000 (85%) | 14,856,000 (147%) |

•Percent Increase from Year 2005 Population

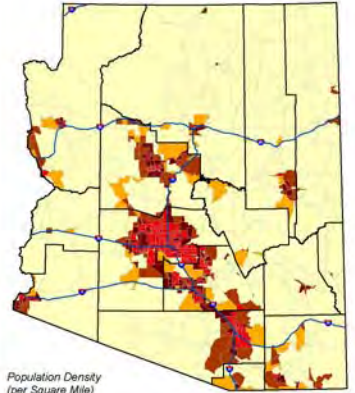
•Vetted through a webinar process that included COGs/MPOs, Counties and Major Cities

Source: ADOT Project Team, August 2008.

Arizona - Year 2005 Estimated Population Density



Arizona - Year 2050 Estimated Population Density



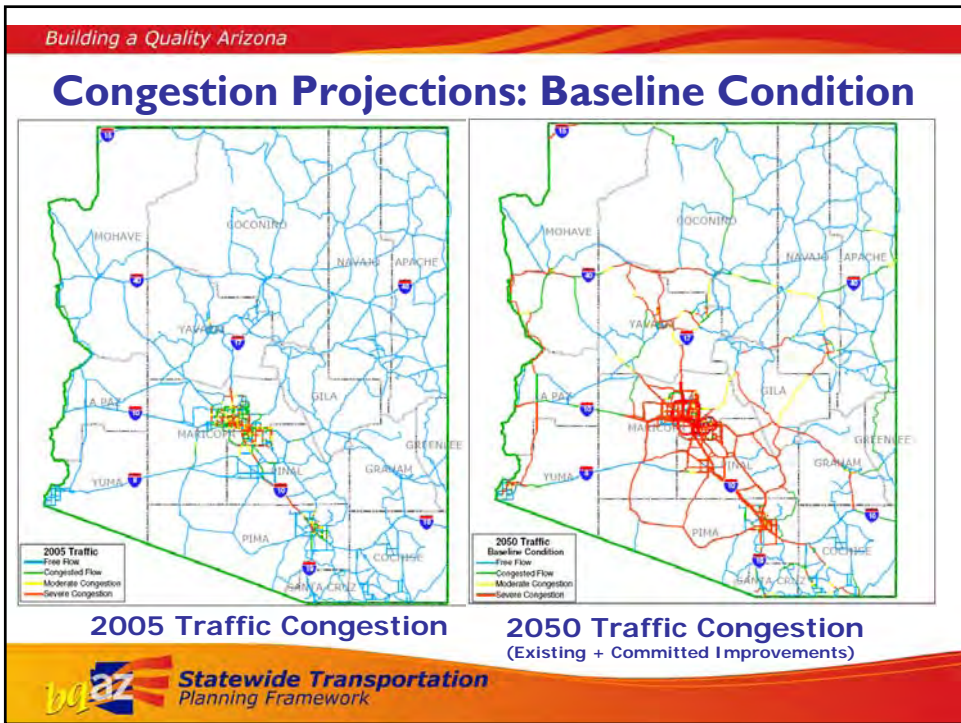
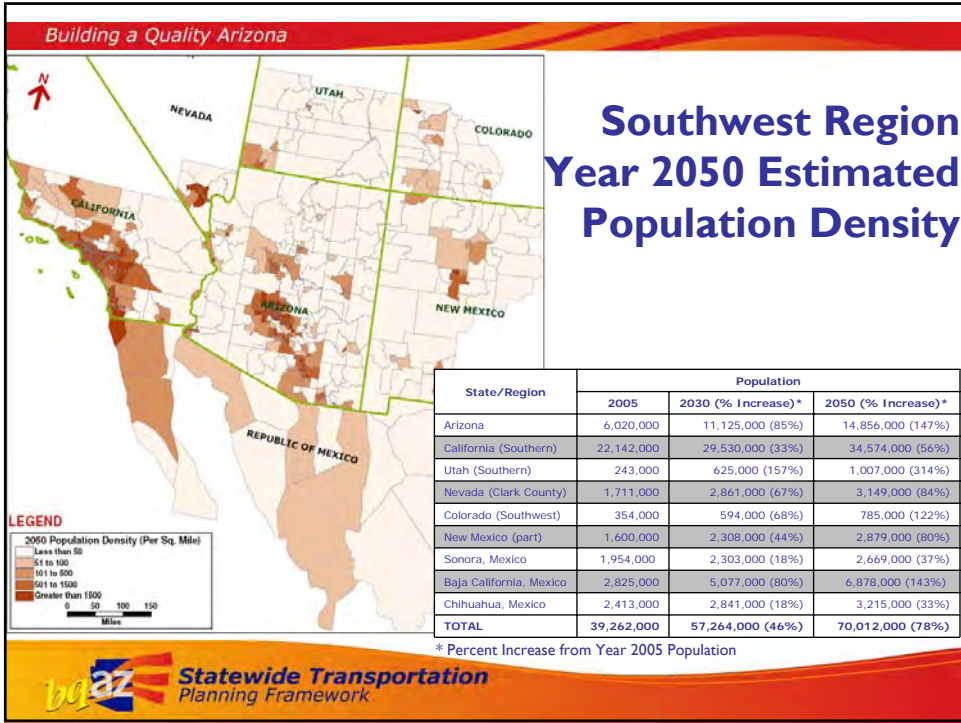
Concentrations of Projected Population



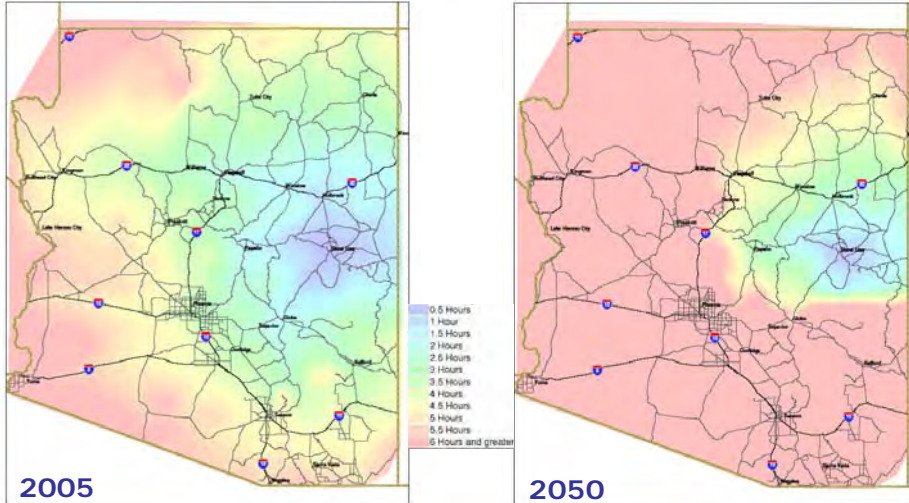
2005 Population
Approximately 6 Million



2050 Population
14-15 Million



Travel Time from Show Low (Existing + Committed Improvements)

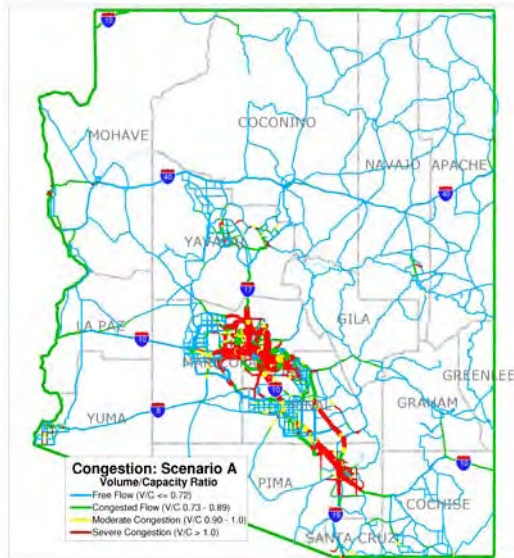


2005

2050

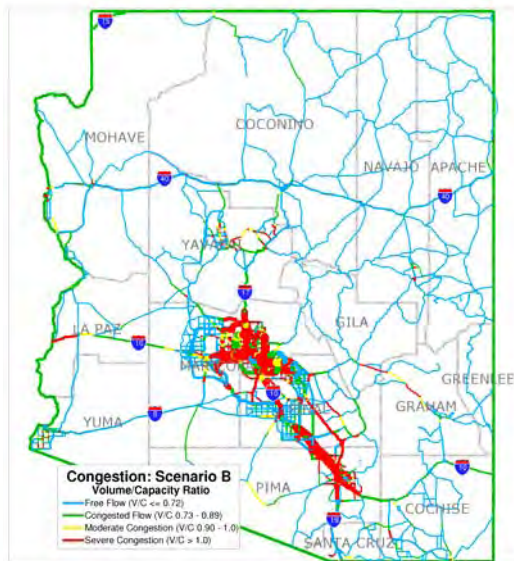
Regional Transportation Scenarios

- Scenario A
 Personal Vehicle Mobility
- Scenario B
 Transit Mobility
- Scenario C
 Focused Growth



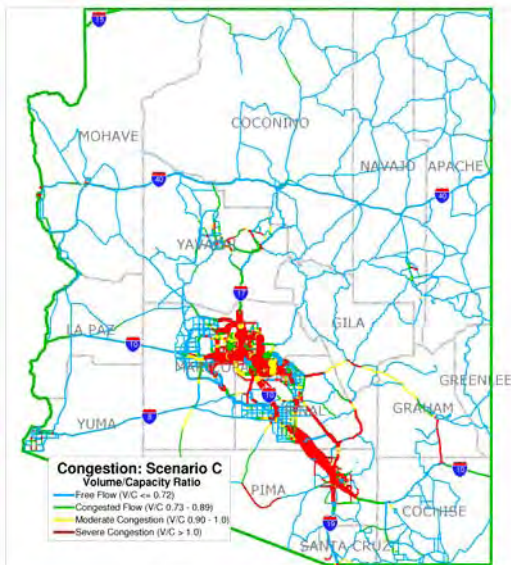
2050 Congestion: Scenario A

Personal Vehicle Mobility Scenario



2050 Congestion: Scenario B

Transit Mobility Scenario



2050 Congestion: Scenario C

Focused Growth Scenario

System Performance Measures

- Roadway Centerline Miles by Functional Classification
- Vehicle Miles of Travel
- Vehicle Hours of Travel
- Vehicle Delay
- Vehicle Emissions

Framework Observations

- Scenario A has Most Centerline Miles; Scenario B has Least Centerline Miles
- Scenario B has Least Overall VMT; however, Lack of Roadway Capacity Constrains Travel Demand
- Scenario A Provides Lowest Overall Delay with Highest Travel Speeds
- Non-Auto Trip Reduction (2% to 16%) Reduces Travel Demand in Scenario B and Scenario C

Regional Framework Scenarios Status

- Gather Community Issues and Document Ideas (big picture; February-May 2008)
- Develop Evaluation Criteria to Compare Scenarios (June-August 2008)
- Develop Framework Scenarios (September-November 2008)
- Present Scenarios and Evaluation Framework to Community (mid-November 2008)
- Modeling and Evaluation of Regional Scenarios (December 2008-January 2009)
- **Preparation and Evaluation of Statewide Scenarios (February 2009)**

Scenario Planning Goals

- Foster Safe and Efficient Mobility
- Achieve Sustainable Urban Development Patterns
- Reduce Greenhouse Gas Production
- Support Energy Independence (Security)
- Improve Overall Quality of Life
- Integration of bqAZ into the Long-range Transportation Plan

Baseline Condition

- ADOT 5-Year Program and Long-Term Maintenance (existing plus committed network)
- Local and Regional CIPs and TIPs
- Proposition 400 Program Implementation – MAG Region
- RTA Program Implementation – PAG Region

Scenario A: Personal Vehicle Mobility



- Baseline Condition
- Selection of Appropriate Project Elements From Statewide Transportation Investment Strategy (STIS)
- Alternative Vehicular Technologies With Clean and Affordable Fuels Become Pervasive in Fleet
- Land Use Consistent With Current Plans

Scenario B: Transit Mobility



- Baseline Condition
- Selection of Appropriate Project Elements from STIS
- Fuel Costs Continue to Increase and Vehicle Technology Improves Somewhat
- Major Emphasis on Use of Public Transit for Regular Trip-making
- Land Use Consistent with Current Plans

Scenario C: Focused Growth



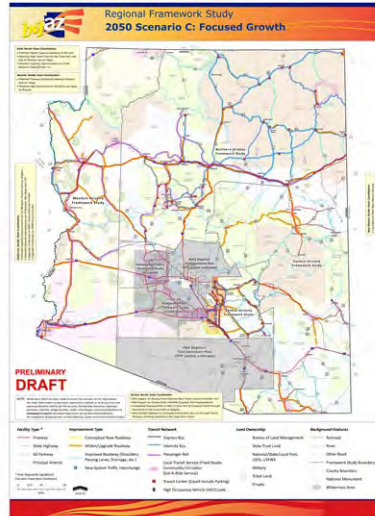
- Baseline Condition
- Selection of Appropriate Project Elements from STIS
- Combines Mix of Technology Improvement and Increased Public Transit Use
- Intensification of Land Use Densities Resulting in More Compact Urban Form Tested in Larger Communities, with Land Use Remaining Constant in Smaller Communities

Status of Statewide Scenarios

- Currently, Four Regional Framework Scenarios Combined to Form:
 - Statewide Scenario A
 - Statewide Scenario B
 - Statewide Scenario C
- Network Inconsistencies and Framework Border Issues Continuing to be Resolved and Incorporated
- MAG and PAG Recommendations From Respective RTPs, Framework Studies and Other Regional Planning Efforts to be Incorporated (Meetings Completed week of February 9, 2009)

Statewide Scenarios Next Steps

- Regional Scenarios Normalization
- Border States Input
- Interest Groups Input
 - Economic Development
 - Environmental/Natural Resources
 - Tribal Communities
 - Planning Professionals
 - Resources Agencies
 - Development Community
 - Major Freight Users
- Committee Inputs
 - RAT/Management Committee
 - Framework Policy Committee
 - Regional Technical Advisory Teams
- Travelshed Refinements based on Modeling and Transit Propensity Analysis



New Business

Complete Streets Workshop

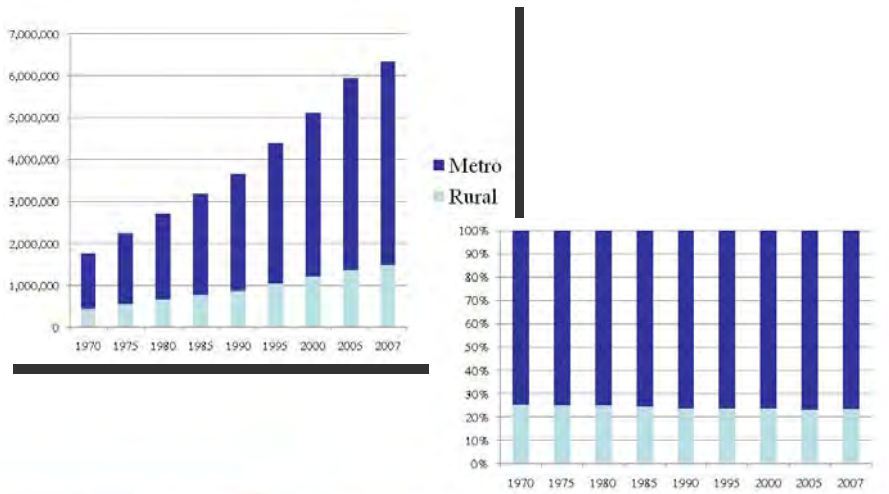
Statewide Rail Coordination Meeting

An Introduction to **TRANSPORTATION FUNDING SOURCES AND FUNDING OPTIONS FOR ARIZONA**

Overview

- Arizonans demand an efficient transportation system
 - Supports economic development
 - Supports our “Western” lifestyle
 - Enhances Quality of Life
- Transportation funding is a shared effort
 - Federal, state, local government
 - Private sector
- Information obtained from several sources
 - ADOT, Federal Highway Administration, Federal Transit Administration, National Impact Fee Roundtable, US Census Bureau, Dept of Commerce
 - All available on the internet

Arizona Population Growth



Transportation Challenges

- Issues can be defined as urban, urbanizing, and rural; no agreement on something so fundamental
 - For this presentation – all counties except Maricopa and Pima are considered rural areas
- Multiple modes of travel
 - Highways
 - Local Public Transit, Intercity Bus
 - Alternate modes Bike and Pedestrian
 - Passenger Rail, Freight (Rail and Truck), Aviation

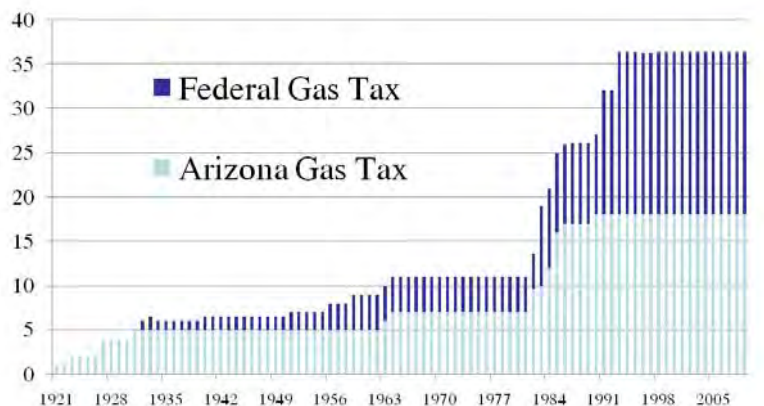
Where Does the Funding Come From?

- Federal Sources
 - Gas tax, primarily
- State Taxes and Fees
 - Heavy reliance on HURF
- Local Revenues
 - Options are limited by Statute
- Private Funding, Dedications, and Exactions
- Note – Bonding is NOT a revenue source
 - It's a "credit card" needing to be repaid

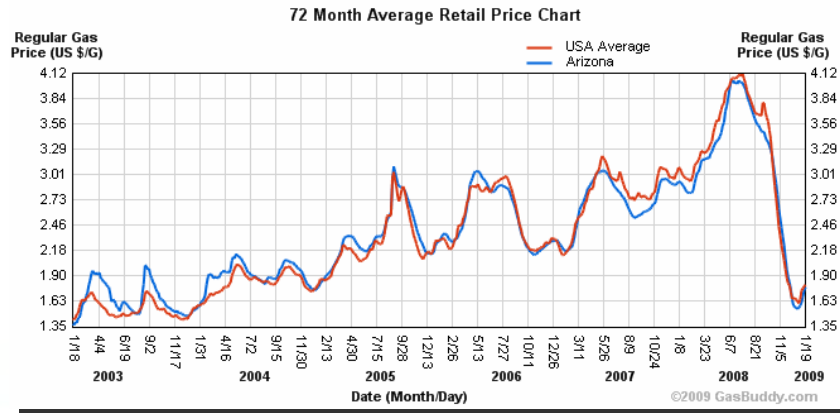
State and Federal Gas Tax Rates Over Time

(¢/Gallon, Actual)

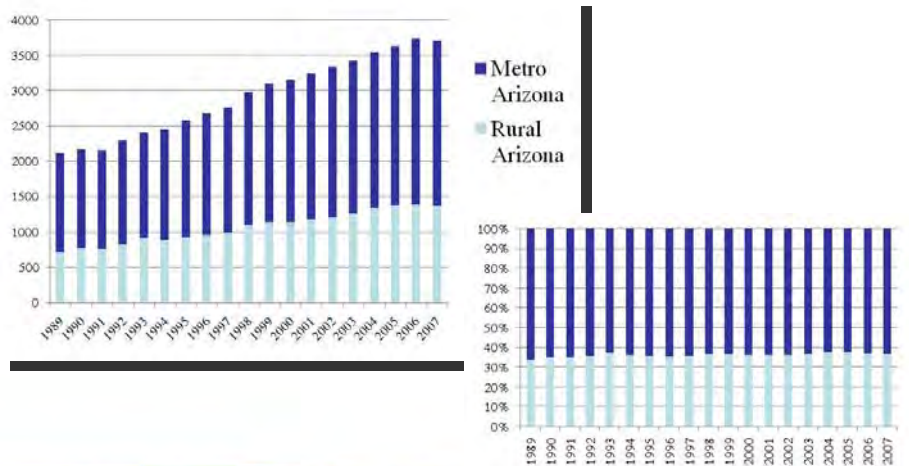
Stacked Bar Chart, Excludes 1¢ Underground Storage Tank Tax



Retail Gas Prices, 2003 to 2009 (US\$)



Gasoline Consumption (Million Gal/Yr)



Existing Major Revenue Sources

Public Funds, Primarily from Gas Taxes and User Fees

- Federal – Highway Trust Fund, allocated by formula
- State – Highway User Revenue Fund, allocated by formula
- Local (County, municipal) – sales taxes, and impact fees; primary and secondary property taxes
- Discretionary funds, special appropriations; Federal and State
- All transportation funding sources, except general funds, have use limitations

Existing Major Sources

Private Sources

- Exactions, during development process
- Dedications (right-of-way, for example)
- Roadway construction and other in lieu fees
- Improvement Districts
- Community Facility Districts

Federal Funding Overview

Federal

- Gas Tax (18.4 cents/gallon), Diesel Fuel Tax (24.4 cents/gallon)
- Major Categories of Federal Transportation Program:
 - Surface Transportation Program
 - Congestion Mitigation and Air Quality Improvement Program
 - Bridge Replacement and Rehabilitation
 - Interstate Maintenance
 - National Highway System

Federal Overview

- Federal Funds are programmed by ADOT and/or Metropolitan Planning Organizations and Councils of Government
- There is competition between counties and between local jurisdictions within counties for Federal funding
- Federal funding to Arizona currently
 - \$3.25 Billion total for FY '05 to FY '09 (\$650 M/yr)
 - 92% return on \$ collected in Arizona
 - Majority is under control of State

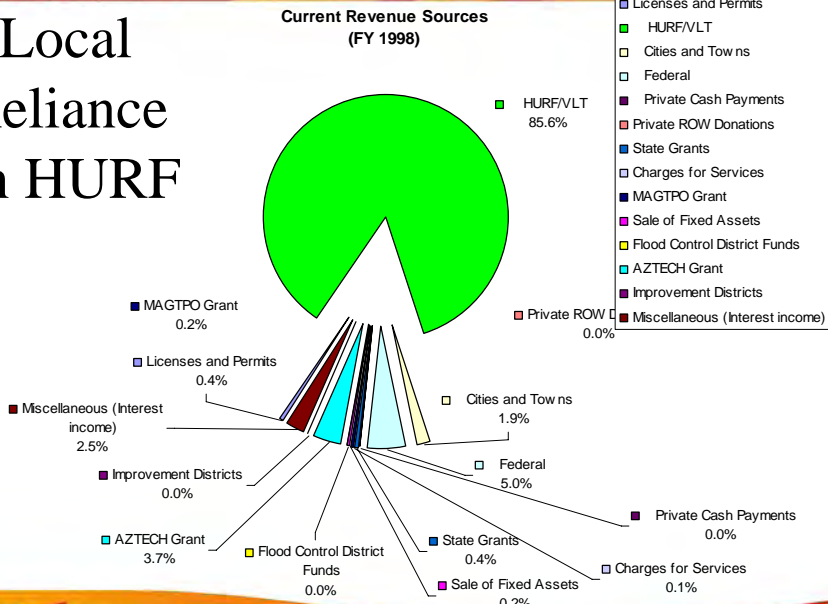
Arizona Funding Overview

- Gas Tax and Use Fuel Tax not raised since 1990
 - The last 1¢ increase was earmarked for DPS
- All revenues deposited in the Highway User Revenue Fund (HURF)
- State statutes determine allocation formulas of HURF revenues to State Highway Fund, cities/towns, and counties
- HURF revenues allocated to cities/towns based upon:
 - County origin of fuel sales
 - Proportional Population
- Local Transportation Assistance Fund (LTAF) I and II (Lottery based, mostly for transit)

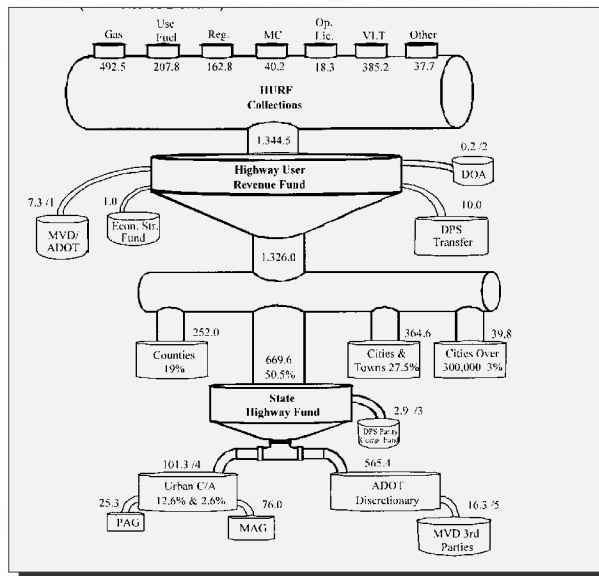
State Funding Overview

- Use of HURF revenues governed by **Arizona State Constitution, Title 9, Section 14** restricts the use of HURF revenues to “highway and street purposes”
- HURF cannot be used for transit capital or operation, but can be used for things like
 - Bus pullouts
 - Pedestrian access to bus stops
- City of Phoenix vs. Popkin 1963 AZ Sup Ct

Local Reliance on HURF



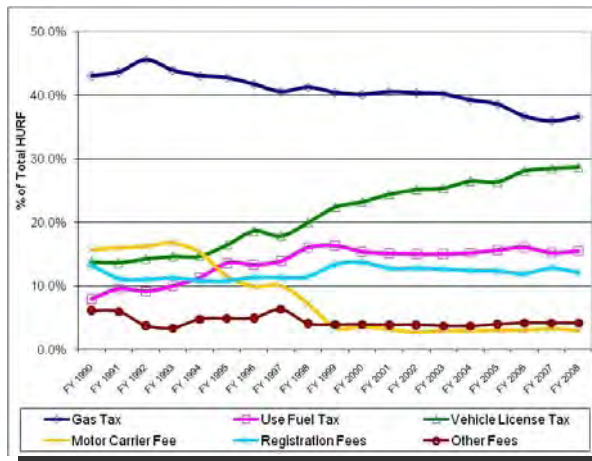
HURF Collections (FY 2008, Actual Chart)



HURF FY 2008, Actual, \$ Millions

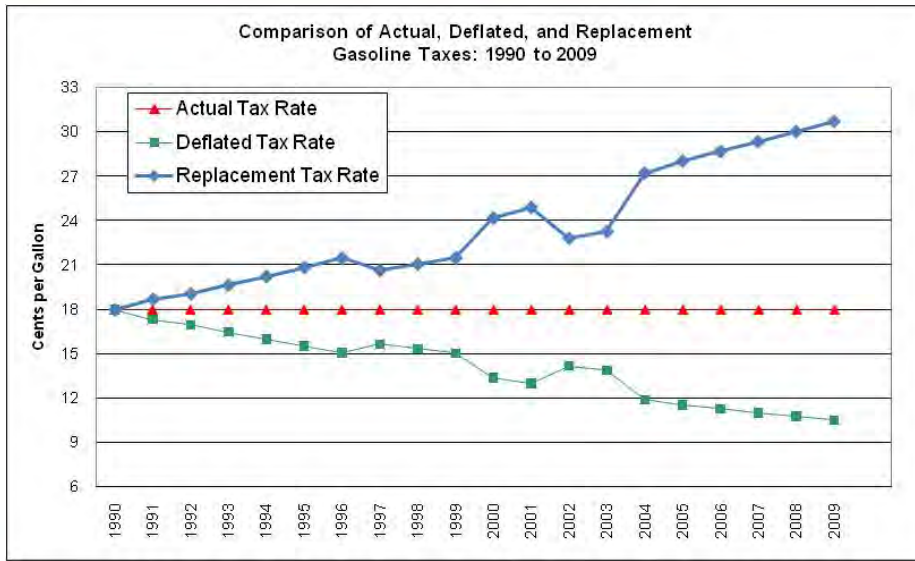


Source of HURF Collections, FY 1990 to 2008 (Percent)



Inflation's Effect on State Revenues

- Federal and state gasoline tax rates not changed since the early 1990s
- Effective tax rate has been reduced to about 10 cents/gallon (in terms of 1990 dollars)
- Replacement tax rate would be 31 cents/gallon
- Erosive effect of inflation shown on following graph

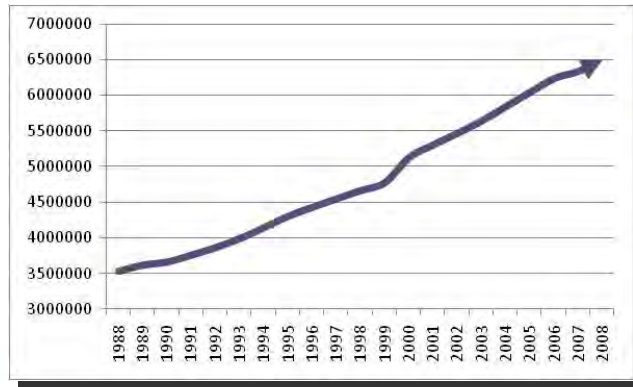


Let's look at several factors combined ...

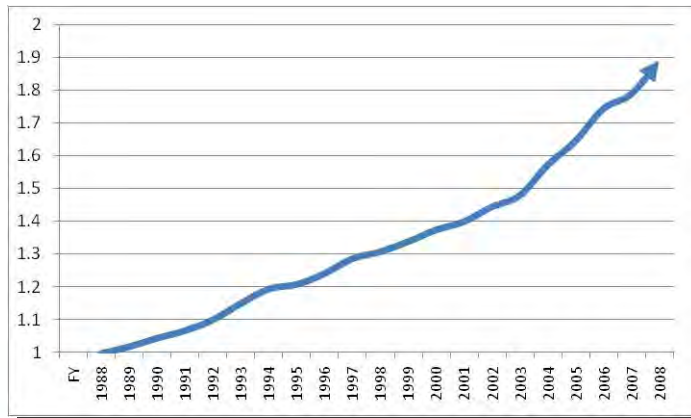
HURF Collections (Actual, Millions)

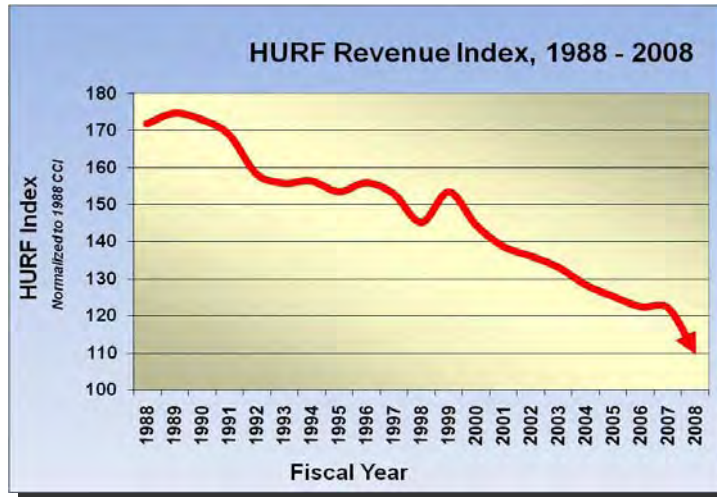


System Demand (Proxy = Arizona Population Growth)



Construction Cost Index (Normalized to 1988)





A Word about New Technology

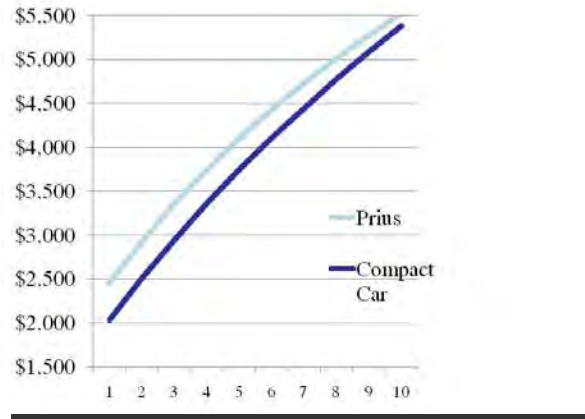


| | Prius | Non-hybrid Economy Car |
|---------------------------|-----------------|------------------------|
| Base Price | \$22,474 | \$17,650 |
| Fuel Consumption (MPG) | 45 | 30 |
| Miles Per Year | 18,000 | 18,000 |
| Gallons Per Year | 400 | 600 |
| Initial Sales Tax | \$1,933 | \$1,518 |
| Fuel Tax (\$ per gallon) | \$0.36 | \$0.36 |
| Fuel Tax / Year | \$146 | \$218 |
| Fuel Tax, 10 Years | \$1,456 | \$2,184 |

Vehicle License Tax

| | | |
|---------------------------|----------------|----------------|
| Year 1 | \$378 | \$297 |
| Year 2 | \$326 | \$256 |
| Year 3 | \$282 | \$222 |
| Year 4 | \$244 | \$192 |
| Year 5 | \$211 | \$166 |
| Year 6 | \$182 | \$143 |
| Year 7 | \$158 | \$124 |
| Year 8 | \$136 | \$107 |
| Year 9 | \$118 | \$92 |
| Year 10 | \$102 | \$80 |
| Ten Year Total VLT | \$2,136 | \$1,678 |
| Grand Total | \$5,525 | \$5,379 |

Prius vs Compact Car Cumulative Taxes Paid Years 1 through 10



Potential Revenue Sources

- Sources considered in three general categories
 - Expansion of current sources
 - Authorized sources not currently used
 - New sources requiring authorization
- Sources can then be screened for further consideration in the study based on criteria such as incremental revenue, public acceptance and ease of implementation.



Expansion of Current Sources

Current Sources

- Development Exactions
- Federal Funds
- Gas Tax, Flat
- Grants, roads and transit
- Improvement Districts (IDs)
- Community Facilities Districts (CFDs)
- Utility Fees in Right-of-way Corridors
- Vehicle License Tax (VLT)
- Transit fares, transit advertising
- Increase and dedicate city sales tax

Countywide Sales Tax MAG Example

- Countywide Transportation Sales Tax, voter approved
- First enacted in 1986 for 20 Years
 - Would have expired in 2006
- Voters extended for another 20-years in 2005 election
Regional Area Road Fund (RARF) II
- Expenditures set by Regional Transportation Plan
- Projected revenues through Fiscal Year 2026
 - \$8.5 billion
- \$3.0 billion bonding
- \$5.5 billion net after debt service



Countywide Sales Tax Pinal County Example

- Countywide Transportation Sales Tax, narrowly approved by voters on second attempt - ½ ¢ Rate
- First enacted in 1987 for 20 Years
 - Would have otherwise expired in 2006
- Voters reauthorized for another 20 years in 2005 election - Transportation Excise Tax
- Expenditures set by Transportation Advisory Committee
- Revenue shared with cities through funded projects
- Projected revenues through Fiscal Year 2026
 - \$836 million (Source: Pinal County/ Rural Transportation Summit 2009)

Local Sales Taxes

- Adopted by local communities
 - Typically ½ per cent
- Often dedicated for bus and light rail
 - Flagstaff elections for transit
 - Exception – Marana's preemptive ½ ¢ tax
 - Scottsdale; Glendale
- Buckeye, for example, has 3% construction sales tax
- New push for increased local sales taxes?

Development Impact Fees

- Counties and cities/towns can establish impact fees on new development to cover the proportional costs of new infrastructure demands from new development
 - Counties A.R.S. 11-1102
 - Cities/towns A.R.S. 9-463.05
- Fees can be collected from residential and nonresidential development
- Statutes permit many uses of impact fees, including for transportation

Impact Fees, continued

- Many cities and counties already impose impact fees
- Maricopa County and Santa Cruz are considering DIF for transportation and other uses
- Goodyear imposes modest impact fees for transportation and higher fees for other purposes
- Pima County is more than doubling fees in the Southwest Infrastructure Plan Area (from \$4,500 to \$10,700 est.)

Authorized Sources, Unused

Authorized Sources, not Currently Used

- Development Impact Fees (County)
- General Funds (Most jurisdictions)
- Transportation Property Tax (Countywide authorization)
- Municipal Transit Authority/ County property tax
- Special Allocations/Appropriations
- Toll Roads
 - State/county OK
 - Cities -- Need legal opinion on this matter

Sources Requiring Legislation

New Sources (requiring authorization)

- There are many, many options!
- Discretionary Sales Tax
- Gas Tax, Indexed against Inflation
- Sales Tax on Gas Sale
- Local Option Gas Tax
- Vehicle Miles Traveled (VMT) fees
- Employer taxes
- And the list goes on

State Tax Increases

- Proposition 108, which voters approved in 1992 requires a two-thirds majority of the Legislature to raise taxes.
- If an increase is vetoed by Governor, three-quarter majority needed to override
- "Enough lawmakers in the Republican majority have signed 'no tax' pledges to make this hurdle impossibly high" (AZ Republic)

State Tax Increase, continued

- Supermajority requirement can be changed only be another initiative (legislature can't change force of initiatives)
- Possible workaround (See State Constitution Article 9, Sec 22(c))
 - Constitutional exemptions
 - Effects of Inflation
 - Non prescriptive, and set by staff
 - Imposed by counties, cities, towns
- Legal debate about what is/is not covered by this provision

Potential Legislation

- **H2396:** ADOT; Transportation Facility Pilot Projects
- **S1261:** Public-Private Partnerships in Transportation
- **S1359:** Roll Road Authority; Cities; Towns
- **S1463:** Public Infrastructure; Public-Private Partnerships

Discussion

Other Items

Thank You Very Much

For more information, please visit:

Statewide Transportation Planning Framework Program

www.bqaz.gov