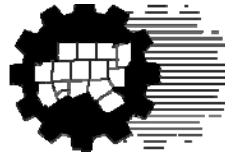


Demographic Sensitivity Analysis

**Regional Transportation Council
Workshop
November 9, 2006**



**North Central Texas Council of Governments
Transportation Department**

Mobility 2030

Demographic Basics

Mobility 2030 will be based on the official 2030 Forecast approved by NCTCOG's Executive Board in April 2003.

Alternative Future Scenarios are being used to test various potential market scenarios.

Existing Scenarios

Scenario Descriptions

Rail Scenario

Redistributed population and employment growth occurring between 2010 and 2030, while maintaining the regional control total. Growth was taken from rural areas of the region and added primarily to rail oriented zones.

Infill Scenario

Redistributed population and employment growth occurring between 2010 and 2030, while maintaining the regional control total. Growth was taken from rural areas of the region and added primarily to infill areas along existing freeways/tollways.

Rail with County Control Totals (RCCT) Scenario

Redistributed population and employment growth occurring between 2010 and 2030, while maintaining the regional control total and county control totals. Growth was taken from rural areas of the region and added primarily to rail oriented zones.

VNT Scenario

Redistributed population and employment growth occurring between 2000 and 2030, while maintaining the regional control total. Growth was distributed based on overall participant feedback.

ForwardDallas! Scenario

Redistributed population and employment growth based on the final alternative demographic dataset created during the Forward Dallas Comprehensive Plan process.

Existing Scenarios

Statistics

Data of Interest	Rail Scenario	Infill Scenario	RCCT Scenario	VNT Scenario	Forward Dallas!
MPA Average Trip Length	- 8%	- 3%	-0.01%	-10.85%	-2.9%
MPA Rail Transit Boardings	+ 52%	+ 9%	+8%	+11.13%	+7.4%
MPA Non-Rail Transit Boardings	+ 29%	+ 11%	+5%	+15.98%	+11%
MPA Vehicle Miles Traveled	- 6%	- 5%	-1.2%	-9.43%	-2.2%
MPA Vehicle Hours Traveled	- 9%	- 7%	-1.7%	-14.31%	-5.7%

MPA - Metropolitan Planning Area

Existing Scenarios

Transportation System Benefits

Data of Interest	Rail Scenario	Infill Scenario	RCCT Scenario	VNT Scenario	Forward Dallas!
Total Vehicle Hours of Delay	- 24.0%	- 19.0%	-4.0%	- 32.5%	-14.5%
Lane Mile Needs	- 13.0%	- 10.0%	-13.3%	- 30.90%	-32.1%
Financial Needs (billions)	- \$9.5	- \$6.7	- \$2.9	- \$15.6	-\$7
Roadway Pavement Needs	- 8.3 sq. mi.	- 6.5 sq. mi.	-0.7 sq. mi.	-19.8 sq. mi.	-1.6 sq. mi.
NOx Emissions (Nitrogen Oxides)	- 4.1%	- 3.9%	- 1.2%	- 8.47%	-2.4%
VOC Emissions (Volatile Organic Compounds)	- 5.1%	- 5.1%	-1.5%	-11.02%	-3%

New Scenario

Combination Scenario Basics

Maintain regional population and employment control totals.

Redistribute population and employment growth occurring between 2010 and 2030.

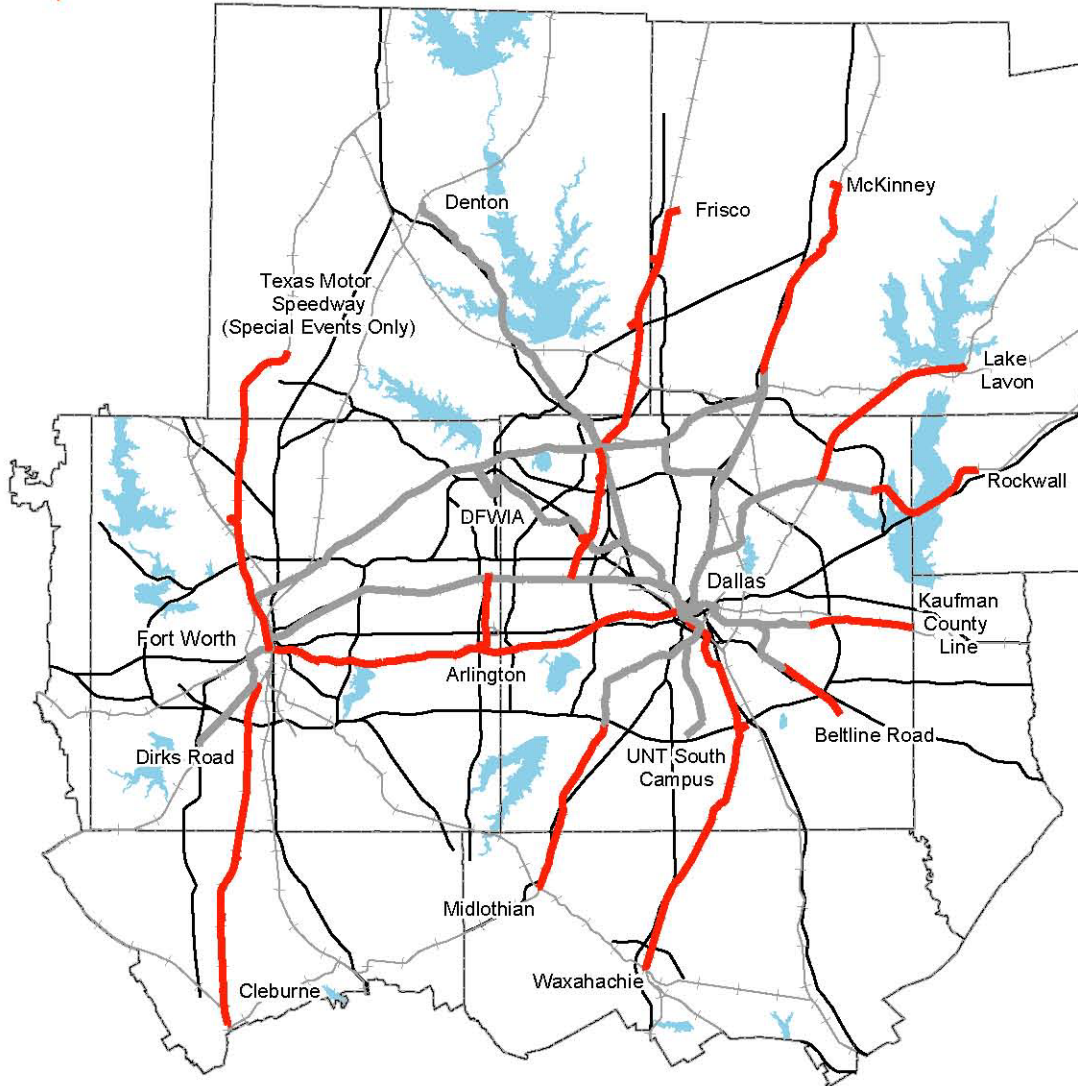
Population and employment growth moved from suburban and rural areas to rail oriented areas and infill areas.

Uses updated Mobility 2030 rail network.

Infill areas identified using previous infill scenario.

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2030 Rail Recommendations Dependent on Regional Transit Initiative Funding



Legend

- Existing Service, Programmed Projects, and Projects Currently Under Development
- Projects Pending Alternative Funding
- Existing Rail Corridors

Downtown Fort Worth



Downtown Dallas



Corridor specific design and operation characteristics for the Intercity Passenger, Regional Passenger and Freight Rail Systems will be determined through capacity evaluation and ongoing project development. Refined rail forecasts are necessary to determine technology and alignment in Future Rail corridors.

New facility locations represent transportation needs and do not reflect specific alignments.

All existing railroad rights-of-way should be monitored for potential future transportation corridors.

Institutional structure being reviewed for the region.

The need for additional rail capacity within the Dallas CBD, Fort Worth CBD, DFW International Airport, and other inter-modal centers will be monitored. A grade separation is needed for the Dallas CBD second alignment.

Mobility 2030: The Metropolitan Transportation Plan



North Central Texas
Council of Governments
Transportation

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New Scenario

Transit Performance Measures

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	2005 Baseline	Mobility 2025 Amended April 2005	Mobility 2030* Committed Projects	Mobility 2030 All Projects
Number of Riders	329,000	594,000	445,000	564,000
Number of Transit Trips	194,000	296,000	242,000	291,000
Rail Stations	42	176	82	160
Population within 1 Mile of a Rail Station	645,000	2,440,000	1,146,000	2,614,000
Employment within 1 Mile of a Rail Station	936,000	2,788,000	1,961,000	2,863,000

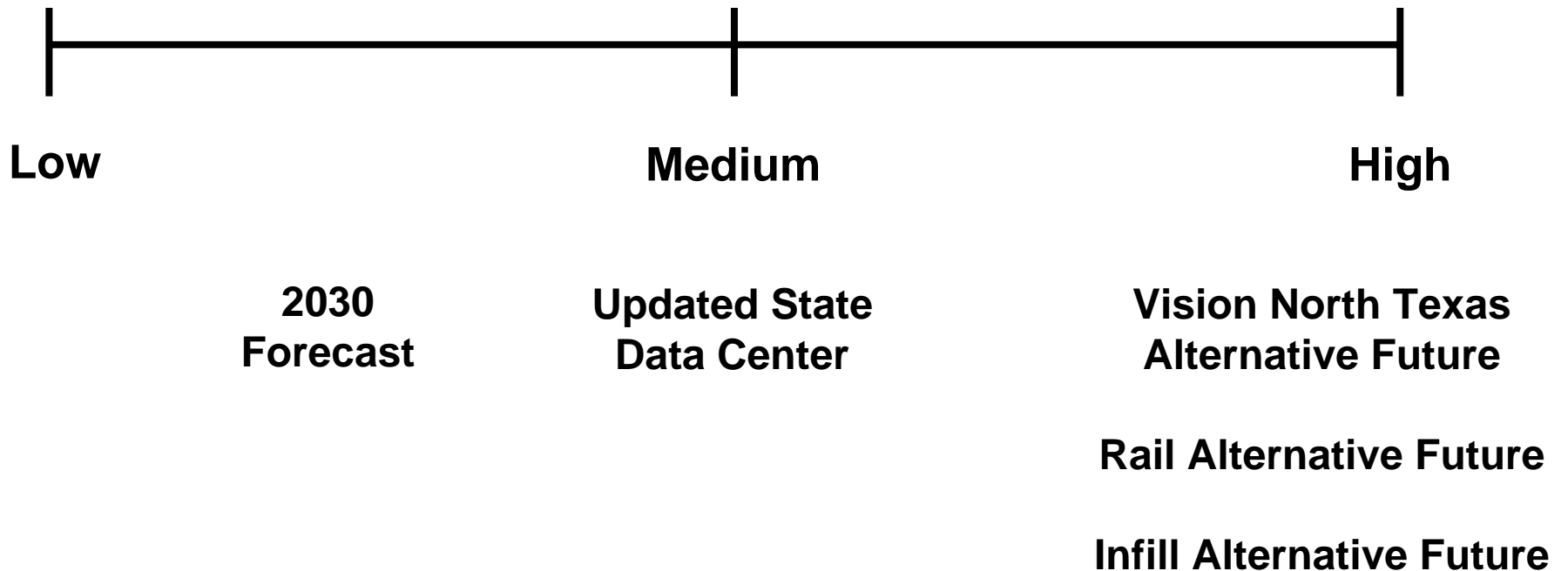
* Does not include RRCS/RTI projects

New Scenario

Decision One

Determine how much population and employment to redistribute between counties.

Long-Term Population Growth Rate in the Region's Core



New Scenario

Decision One

Determine how much population and employment to redistribute between counties.

Examples:

Move growth from eastern Ellis County to Dallas County.

Move growth from northern Denton County to Tarrant County.

Move growth from Rockwall County to Dallas County.

New Scenario

Decision Two

Determine how much population and employment to redistribute within each county.

Examples:

Move growth from northwest Denton County to downtown Denton.

Move growth from northeast Collin County to downtown Frisco.

Move growth from western Johnson County to Cleburne.

Move growth from western Tarrant County to central Tarrant County.

New Scenario

Official NCTCOG 2030 Forecast

County	2010 Population		2010-2030 Growth in Population		2030 Population
Collin	766,009		421,597		1,187,606
Dallas	2,500,485		329,095		2,829,580
Denton	663,747		438,404		1,102,151
Ellis*	174,838		206,693		381,531
Johnson*	155,126	+	222,309	=	377,435
Kaufman*	37,719		64,787		102,506
Parker*	25,257		39,490		64,747
Rockwall	82,149		65,002		147,151
Tarrant	1,774,694		535,745		2,310,439
Total	6,180,024		2,323,122		8,503,146

*Partial County

New Scenario

Official NCTCOG 2030 Forecast

County	2010 Employment		2010-2030 Growth in Employment		2030 Employment
Collin	303,059		224,794		527,853
Dallas	2,080,656		459,420		2,540,076
Denton	237,210		186,083		423,293
Ellis*	63,727		85,040		148,767
Johnson*	51,169	+	74,749	=	125,918
Kaufman*	8,406		18,326		26,732
Parker*	7,623		12,556		20,179
Rockwall	23,539		26,851		50,390
Tarrant	1,090,559		302,900		1,393,459
Total	3,865,948		1,390,719		5,256,667

*Partial County

Alternative Future Policy Program

Regional Sustainable Development Benefits

Ability to program funding for the most beneficial development projects for the region.

Encourage sustainable development through incentives.

Reduce/eliminate obstacles to developing sustainable projects.

Reduction in vehicle miles of travel.

Increased options for residents.

Increased local government implementation due to model ordinances and ability to mix and match policies within an ordinance.

Alternative Future Policy Program

RTC approves Alternative Future Policy Program in Mobility Plan



Staff/Local Governments develop draft model ordinances



RTC approves alternative future model ordinances



Local Government adopts alternative future model ordinances

Alternative Future Policy Program

Policy Topics

Transit Oriented Development

Infill Development

Freight Oriented Development

Rural Preservation

Redevelop South Dallas/Southeast Fort Worth

Bicycle/Pedestrian Tied to Land Use

Mixed Use Development

Access Management

Alternative Future Policy Program

Policy Topics

Policy Topic: Transit Oriented Development

Policy Goal: Increase population and employment at potential future rail stations both inside and outside of current rail authorities.

Potential Ordinance Elements:

Zoning changes

Subdivision and development rule changes

Local area public improvement financing

Increase allowable densities for elderly/retirement living and medical facilities by rail, by right

Site-specific infrastructure needs for safety, congestion relief, and pedestrian/bicycle access

Development Incentives

Design guidelines

Alternative Future Policy Program

Policy Topics

Policy Topic: Infill Development

Policy Goal: Increase population and employment in local infill areas. ¹

Potential Ordinance Elements:

Zoning changes

Subdivision and development rule changes

Local area public improvement financing

**Support site specific infrastructure needs for safety,
congestion relief, and pedestrian/bicycle access**

Development incentives

Increase allowable densities by right

Design guidelines

1. Local infill is defined as 1) a developed area with a concentration of unemployed persons, high emitting vehicles or low income households; 2) an historic downtown with multiple contiguous street block frontage with pedestrian oriented developments, or 3) existing high-density, mixed-use employment centers

Alternative Future Policy Program

Policy Topics

Policy Topic: Redevelop areas with a high level of low income households/unemployment.

Policy Goal: Support redevelopment that provides for housing/income match.

Potential Ordinance Elements:

Development incentives

Local area public improvement financing

Zoning changes

Increase allowable densities by right

Design guidelines

Alternative Future Policy Program

Policy Topics

Policy Topic: Preservation of Aviation Zones

Policy Goal: Support strategies that support the preservation of land around aviation facilities for uses compatible with aviation.

Potential Ordinance Elements:

Zoning changes

Restrict land use types

Alternative Future Policy Program

Policy Topics

Policy Topic: Preserve Rural/Agricultural Areas

Policy Goal: Support large lots/farms/ranches in areas without planned new roadway capacity.

Potential Ordinance Elements:

Zoning changes

Subdivision and development rule changes

Minimum lot sizes

Large lots allowable by right

Increased densities allowed by right in “rural villages”

Design guidelines for “rural villages”

Alternative Future Policy Program

Policy Topics

Policy Topic: Freight Oriented Development

Policy Goal: Support increased competitiveness of freight rail to reduce the maintenance costs, safety impacts, and emission of freight trucks on the roadway system.

Potential Ordinance Elements:

Preserve current freight rail lines for, at a minimum, local freight rail access

Build new freight rail corridors to accommodate local freight movements and adjacent rail-served freight oriented developments

Encourage big box retail/warehouses to locate adjacent to rail spurs

Zone selected areas adjacent to freight rail for goods movement facilities with required spur track access

Alternative Future Policy Program

Policy Topics

Policy Topic: Bicycle/Pedestrian tied to land use

Policy Goal: Support building and street forms that improve pedestrian and bicycle safety and access.

Potential Ordinance Elements:

Design guidelines

Local area public improvement financing

Development Incentives

Existing bicycle/pedestrian facilities determine requirements for right-of-way preservation during development

Alternative Future Policy Program

Policy Topics

Policy Topic: Mixed Use Development

Policy Goal: Support building and street forms that create mixed use developments.

Potential Ordinance Elements:

Zoning changes to allow mixed use developments by right

Subdivision and development rule changes

Local area public improvement financing

Support site specific infrastructure needs for safety, congestion relief, and pedestrian/bicycle access

Development incentives

Increase allowable densities by right

Design guidelines

Alternative Future Policy Program

Policy Topics

Policy Topic: Affordable Housing

Policy Goal: Support housing-income match.

Potential Ordinance Elements:

Development incentives

Local area public improvement financing

Increase allowable densities by right

Demographic Sensitivity Analysis

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