

# **MOBILITY 2025: THE METROPOLITAN TRANSPORTATION PLAN 2004 UPDATE**



**Summary Presentation  
January 2004**

**North Central Texas Council of Governments  
Transportation Department  
[www.nctcog.org/trans](http://www.nctcog.org/trans)**

# WHAT IS THE METROPOLITAN TRANSPORTATION PLAN?

**Represents Blueprint for Multimodal  
Transportation System**

**Responds to Adopted Goals**

**Mobility**

**Quality of Life**

**Financial/Air Quality**

**Identifies Policies, Programs, and Projects for  
Continued Development**

**Guides Expenditures of Federal and State Funds**

# **MOBILITY 2025 – 2004 UPDATE**

**Adopted January 2004**

**Identifies \$45 Billion of Policies, Programs, and Projects**

## **Multimodal System**

Light Rail/Commuter Rail  
HOV/Managed Facilities  
Freeways/Tollways

## **Management and Operations**

Transportation System Management  
Intelligent Transportation System  
Travel Demand Management  
Bike/Pedestrian Facilities

## **Major Programs/Policies**

Sustainable Development  
Transportation Enhancements  
Air Quality Initiatives  
Elderly and Persons with Disabilities Public Transportation  
Intermodal/Freight

# **MOBILITY 2025 – 2004 UPDATE**

## **Goal Summary**

### **Transportation**

- Accommodate Expected Demographic Growth
- Reduce Traffic Congestion
- Provide Multimodal Options
- Improve Travel Efficiency

### **Quality of Life**

- Provide for Continued Economic Development
- Provide Increased Transportation Accessibility
- Reduce Environmental and Community Impacts

### **Financial**

- Pursue Stable, Long-Term Revenue Options
- Reduce Transportation System Costs

**Mobility 2025 Identifies Projects and Programs Which  
Balance These Goals**

# MOBILITY 2025 – 2004 UPDATE





## Cost Summary

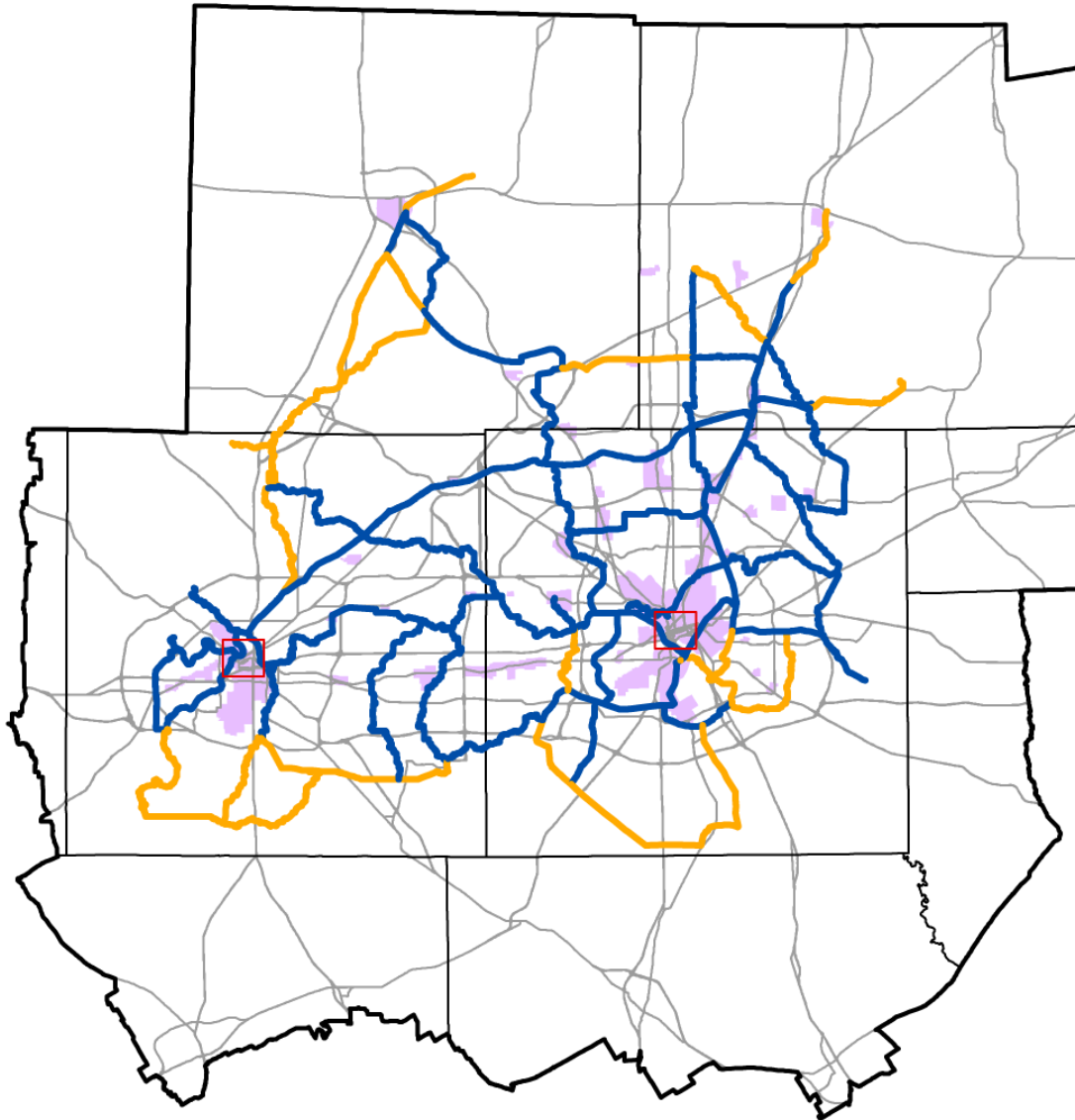
<b>Metropolitan Transportation System Components</b>	<b>Cost (Millions/2004\$)</b>	<b>% TOTAL</b>
Operation & Maintenance	\$14,097	31%
Congestion Mitigation Strategies	\$1,925	4%
Bicycle & Pedestrian Facilities and Transportation Enhancements	\$966	2%
Rail and Bus Transit System	\$8,875	20%
HOV and Managed Facilities	\$1,448	3%
Freeway and Toll Road System	\$11,925	27%
Regional Arterial and Local Thoroughfare System	\$5,811	13%
<b>TOTAL</b>	<b>\$45,047</b>	<b>100%</b>

# Mobility 2025: The Metropolitan Transportation Plan, 2004 Update

## Bicycle and Pedestrian System

### Legend

-  **Bicycle-Pedestrian Transportation Districts**  
Within all rail corridors all existing and planned stations are bicycle and pedestrian districts
-  **Recommended Veloweb Routes**
-  **Candidate Veloweb Routes**
-  **Area Roads**



Fort Worth CBD



Dallas CBD

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

All Veloweb routes should be targeted for right of way preservation.



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## Intelligent Transportation System

### Freeway System Components

-  Mobility Assistance Patrols
-  Communication Systems
-  Advanced Traffic Management
-  TxDOT Transportation Management Center (TMC)
-  Freeways/Parkways
-  City Transportation Management Center
-  Transit Management Centers



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## Rail System Legend

- Future Light Rail
- Existing Light Rail
- Future Regional Rail
- Existing Regional Rail
- Future Rail
- Special Events
- Future Intercity Rail
- Existing Intercity Rail
- North Crosstown Corridor Study \*
- Possible Eastern Terminus
- Roadway
- Existing Rail Corridors

Corridor specific design and operational characteristics for the Rail System will be determined through ongoing project development.

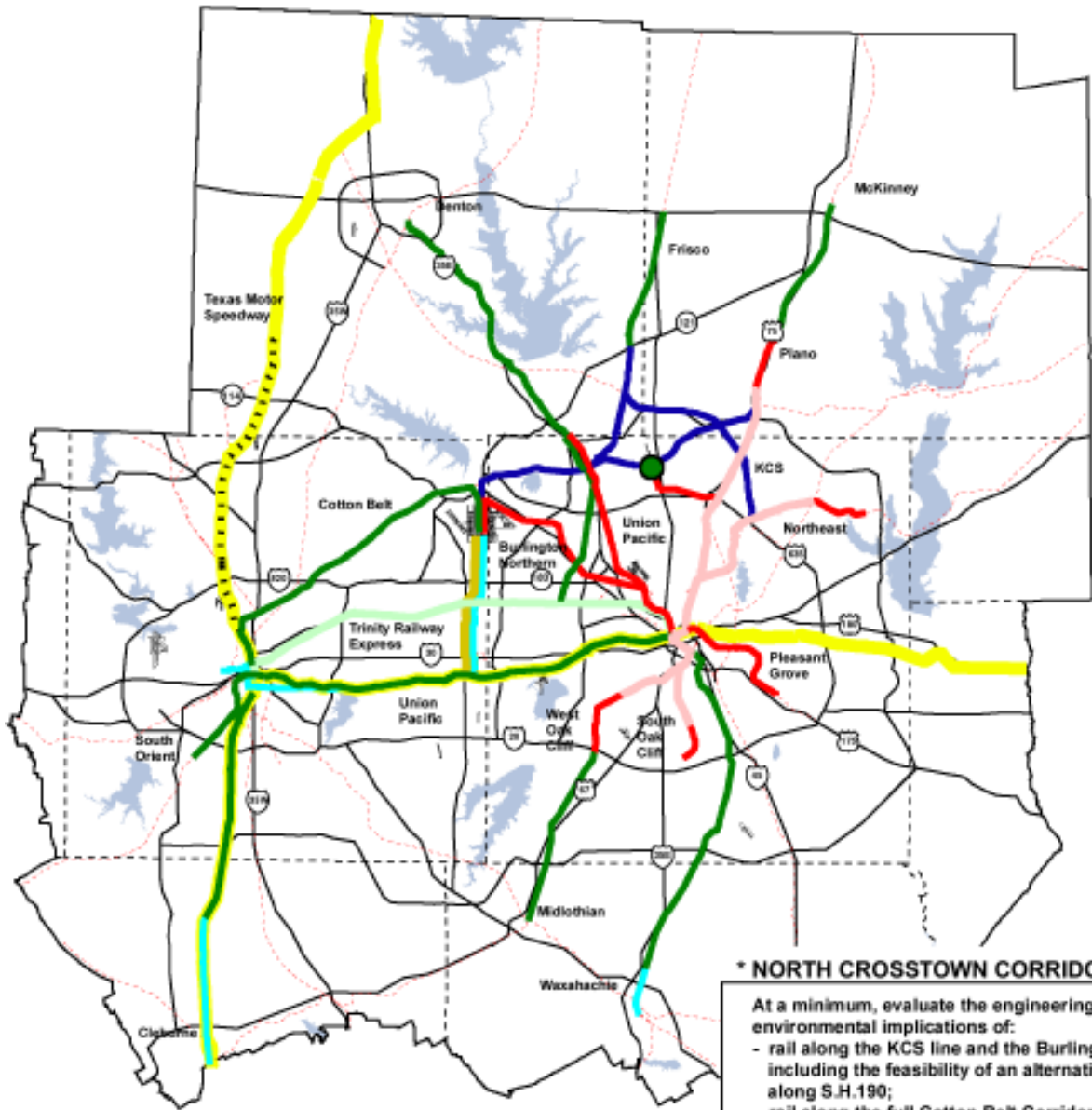
New facility locations indicate transportation needs and do not represent specific alignments.

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

Refined rail forecasts are necessary to determine technology and alignment in Future Rail 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 intermodal centers will be monitored.



### \* NORTH CROSSTOWN CORRIDOR STUDY AREA

At a minimum, evaluate the engineering feasibility and environmental implications of:

- rail along the KCS line and the Burlington Northern line, including the feasibility of an alternative connection along S.H.190;
- rail along the full Cotton Belt Corridor, from Parker Road to DFW Airport; and
- rail along the Cotton Belt Corridor from DFW Airport with an eastern transition to light rail along LBJ Freeway at an Addison Intermodal Center.



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## HOV and Managed Facility System

### Legend

- Reversible
- Managed HOV/Integrated Tollway
- Two-Way
- Roadways

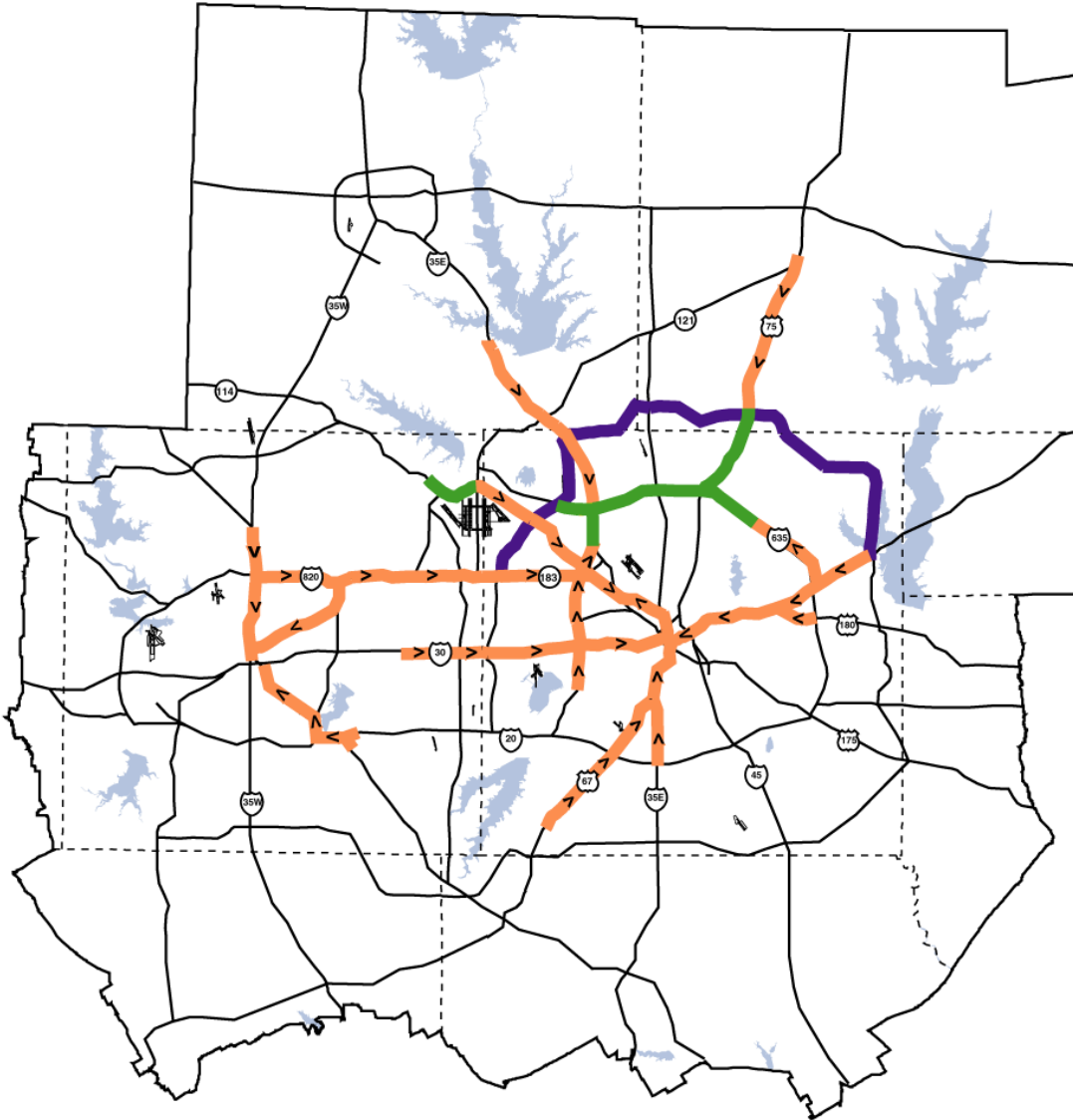
Corridor specific design and operational characteristics for the HOV and managed lane recommendations, such as occupancy requirements and reversibility, will be determined through ongoing project development.

Arrows represent the direction of travel demand during the morning peak period but do represent specific design recommendations. Direction of travel demand is reversed during the afternoon peak period.

All HOV and tollway facilities will be managed for mobility efficiency. Operational strategies to manage the flow of traffic should be considered in corridors where additional freeway or tollway lanes are being proposed.

Right-of-Way preservation should be encouraged in all freeway/tollway corridors to accommodate potential future HOV facilities.

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





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# Mobility 2025: The Metropolitan Transportation Plan, 2004 Update

## Freeway / Tollway System

### Legend

-  Improve Existing Freeway/Tollway
-  New Staged Freeway
-  New Staged Tollway
-  New Staged Parkway
-  Upgrade to Parkway
-  Preserve ROW
-  Truck Lane Demonstration Corridor \*
-  Roadways

Dallas CBD



Fort Worth CBD



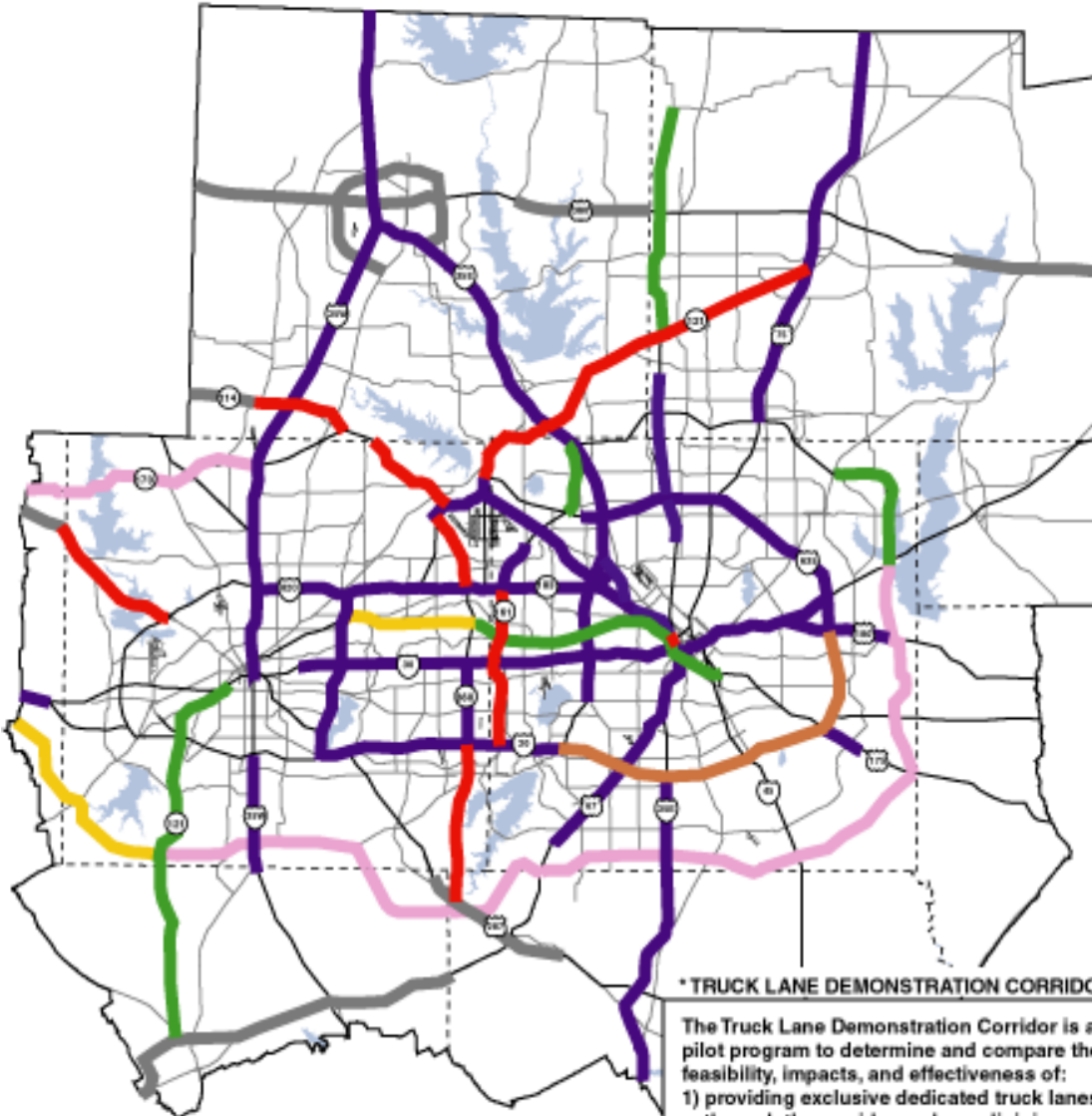
Corridor specific design and operational characteristics for the Freeway/Tollway system will be determined through ongoing project development.

Additional and improved freeway/tollway interchanges and service roads should be considered on all freeway/tollway facilities in order to accommodate a balance between mobility and access needs.

Operational strategies to manage the flow of traffic should be considered in corridors where additional freeway or tollway lanes are being proposed.

All freeway/tollway corridors require additional study for capacity, geometric, and safety improvements related to truck operations.

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



### \* TRUCK LANE DEMONSTRATION CORRIDOR

The Truck Lane Demonstration Corridor is a pilot program to determine and compare the feasibility, impacts, and effectiveness of:

- 1) providing exclusive dedicated truck lanes through the corridor and on adjoining access/egress lanes and ramps, and
- 2) restricting trucks to operating only in certain lanes in the corridor.



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# **RTC Toll Road Policy**

## **Summary**

**Adopted Policy - All New Freeways on New Rights-of-Way  
Should be Studied as Potential Toll Roads  
(February 1993 Policy Position)**

**Adopted Short List of New Freeways on New ROW and  
Express Lanes for Toll Road Consideration  
(March 1994, R94-03)**






**Agreement with NTTA to Consider Value Pricing  
(May 1994) and Adopted Managed HOV/Integrated Toll  
Road Concept as Contained in Mobility 2020  
(January 1998)**

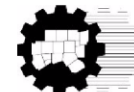
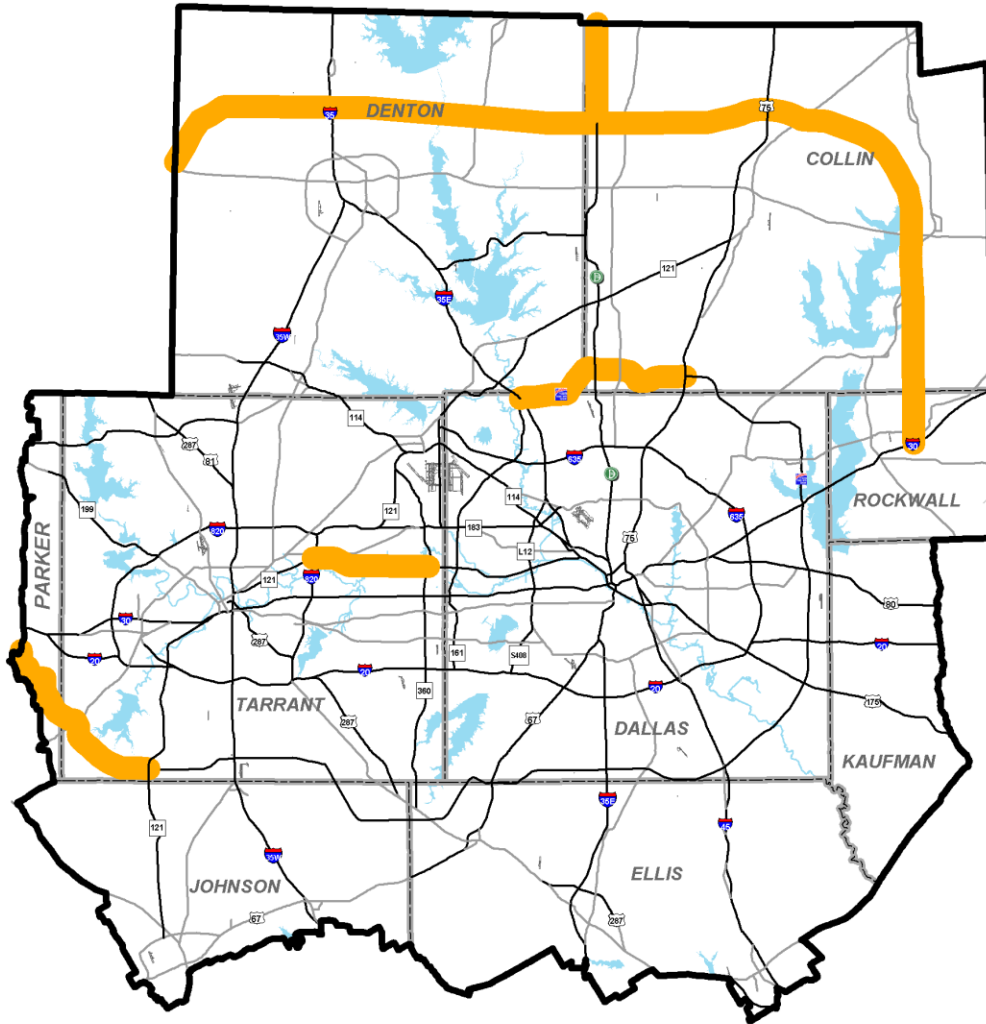
**RTC Does Not Support Converting Existing Free Non-  
HOV/Managed Lanes to Toll Roads (October 2003)**

# Mobility 2025: The Metropolitan Transportation Plan, 2004 Update

## Corridors Requiring Further Evaluation

### Legend

-  Corridor Requiring Further Evaluation Before Placeholder Included in the Plan
-  Year 2025 Freeway Network
-  Other Highways
-  County Boundary
-  Metropolitan Planning Area Boundary



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# Mobility 2025: The Metropolitan Transportation Plan, 2004 Update

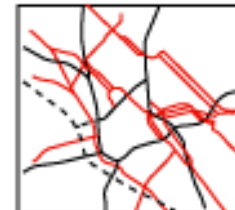
## Regional Arterial System

### Legend

- Regional Arterials
- Existing Freeways and Tollways
- - - Proposed Freeways and Tollways
- - - Preserve Right of Way
- Local government thoroughfare plans vary in these corridors

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

Based on NCTCOG's Regional Thoroughfare Plan



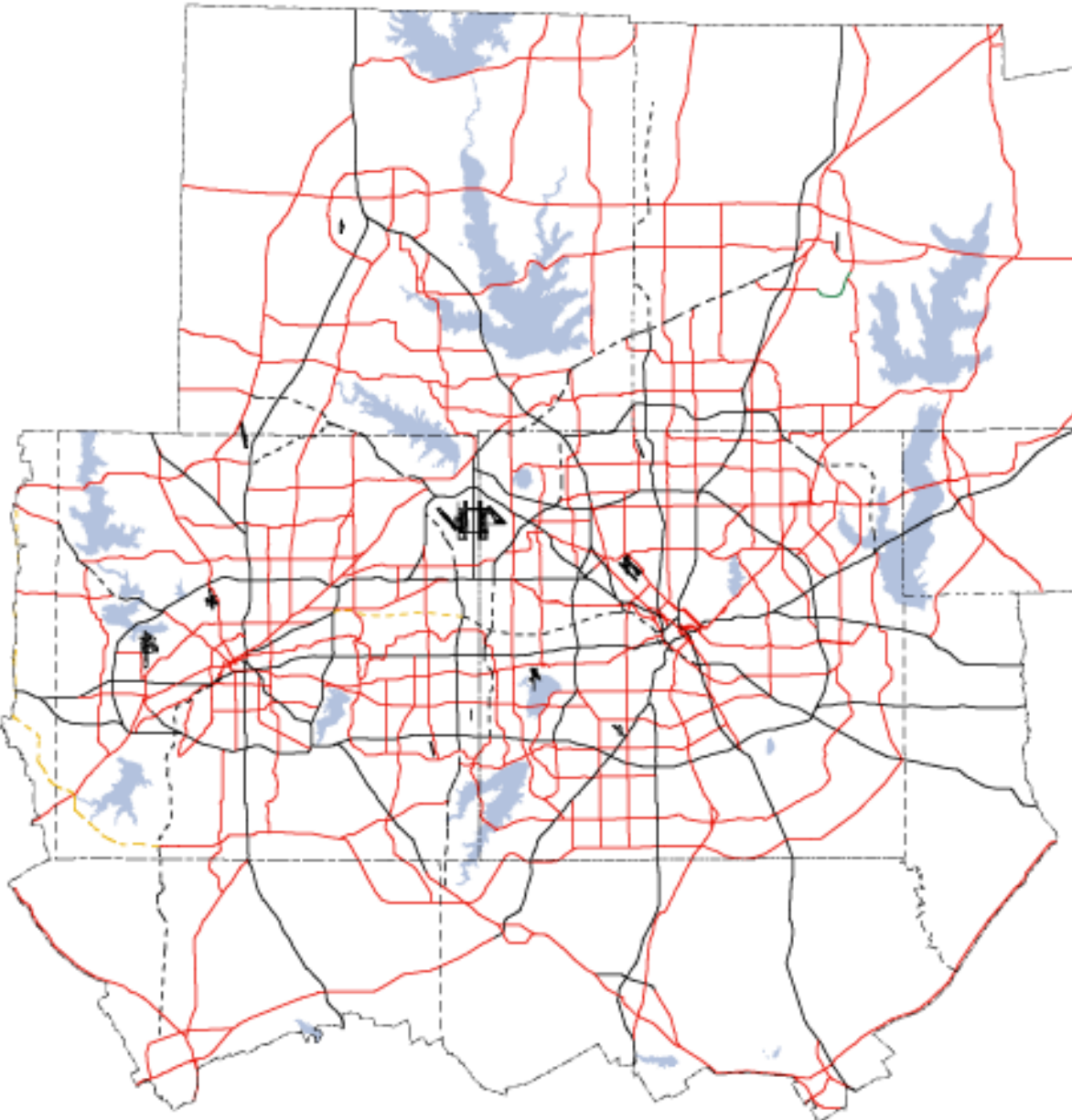
Dallas CBD



Fort Worth CBD






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# Mobility 2025: The Metropolitan Transportation Plan, 2004 Update

## Goods Movement Corridors Technology Deployment

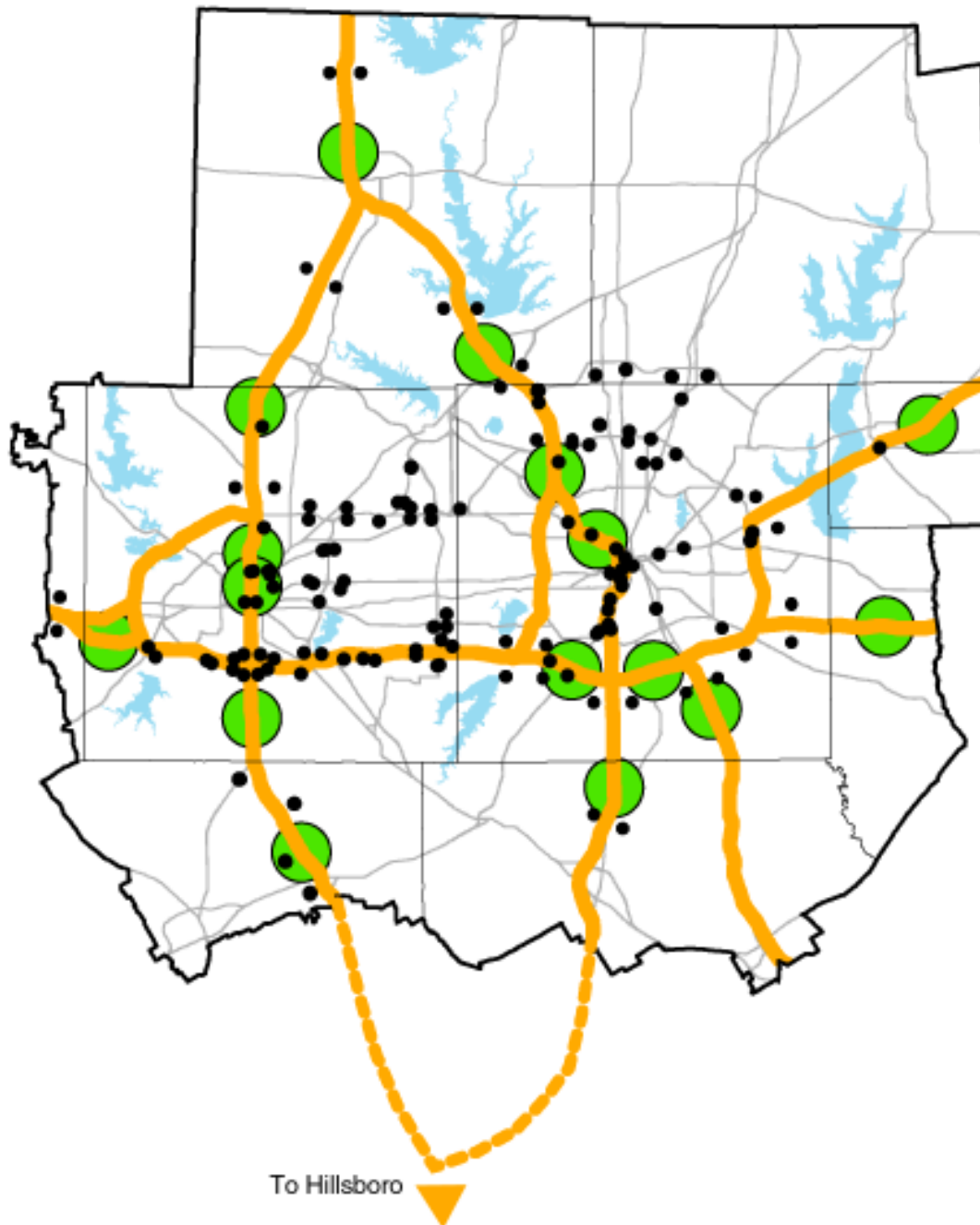
### System Components

-  Speed Detection/ITS
-  Dynamic Message Signs  
(Potential/Existing Sites)
-  Truck Stop/NAFTA Kiosk  
(Potential Sites)

All freeway/tollway corridors require additional study for capacity, geometric and safety improvements related to truck operations.

I.H. 35 E/W routes extend to Hillsboro with additional dynamic message signs and truck stops/NAFTA kiosks.

ITS coordinated through TxDOT Transportation Management Centers.



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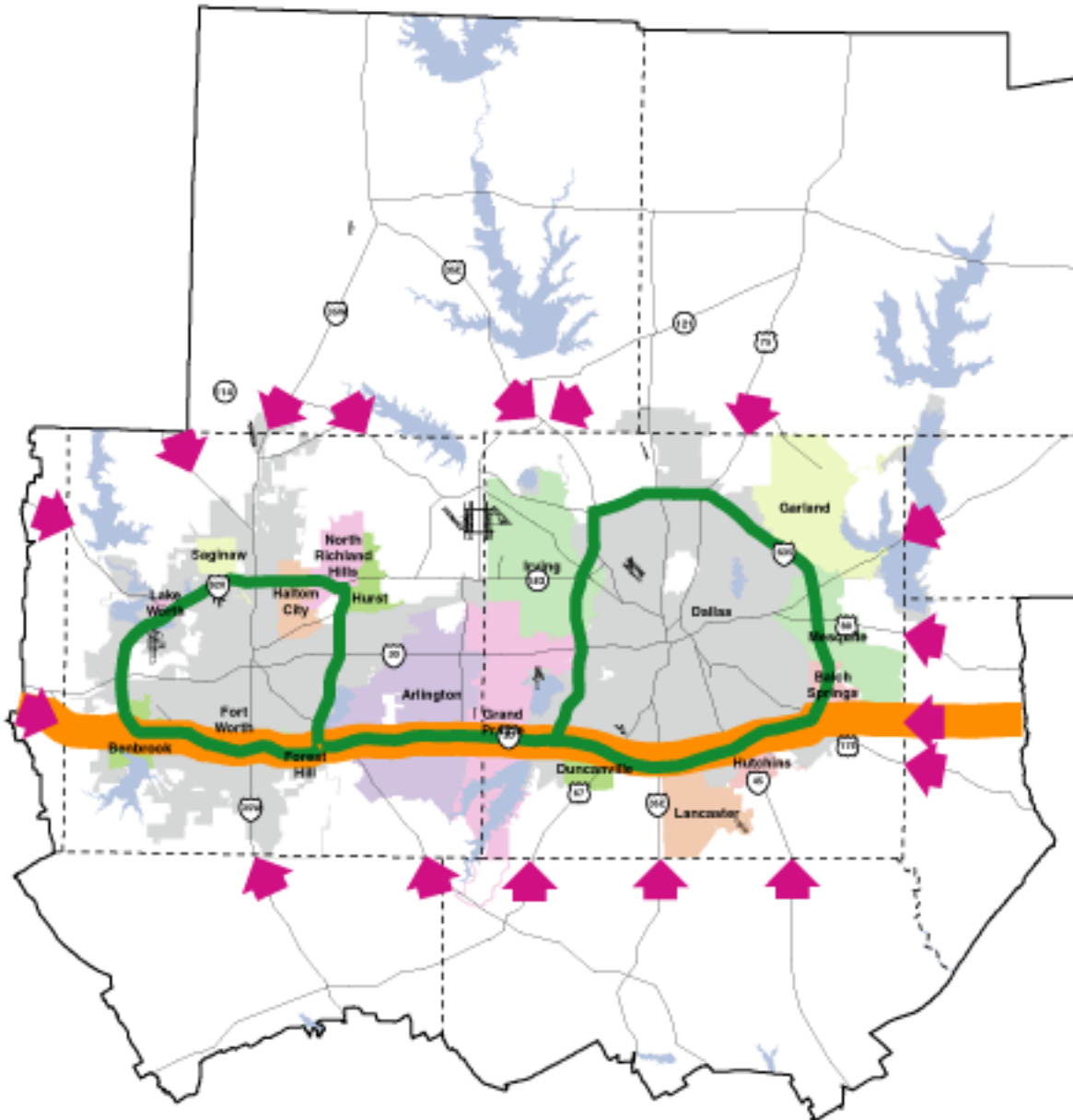
# Hazardous Materials Truck Route

## Legend

- Freeways/Parkways
- Hazardous Cargo Route
- Transuranic Radioactive Waste Cargo Route
- ▲ Primary Access Points for Through Shipments

## Member Cities

- Arlington
- Balch Springs
- Benbrook
- Dallas
- Duncanville
- Forest Hill
- Fort Worth
- Garland
- Grand Prairie
- Haltom City
- Hurst
- Hutchins
- Irving
- Lake Worth
- Lancaster
- Mesquite
- North Richland Hills
- Saginaw



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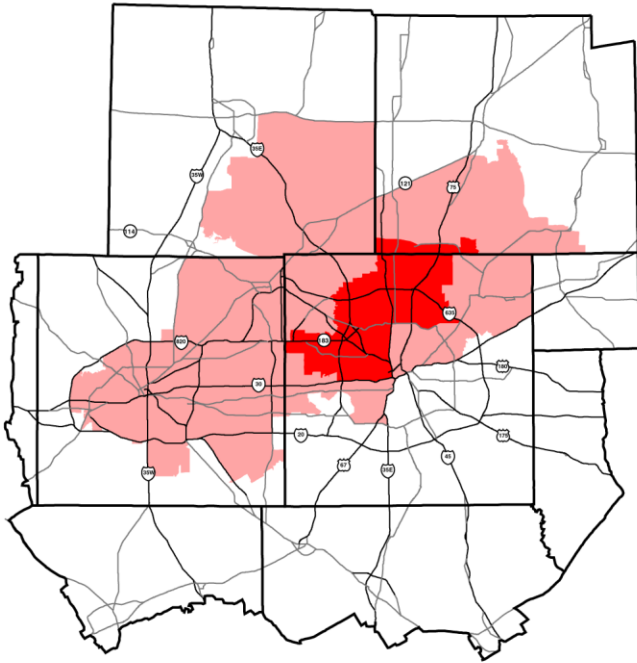
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1999 Congestion Levels

Legend

- Areas of Moderate Peak-Period Congestion
- Areas of Severe Peak-Period Congestion

Annual Cost of Congestion = \$5.3 Billion



	1999	2025	% Change
<b>Population</b>	4.5 M	8.0 M	75%
<b>Employment</b>	2.7 M	4.9 M	84%



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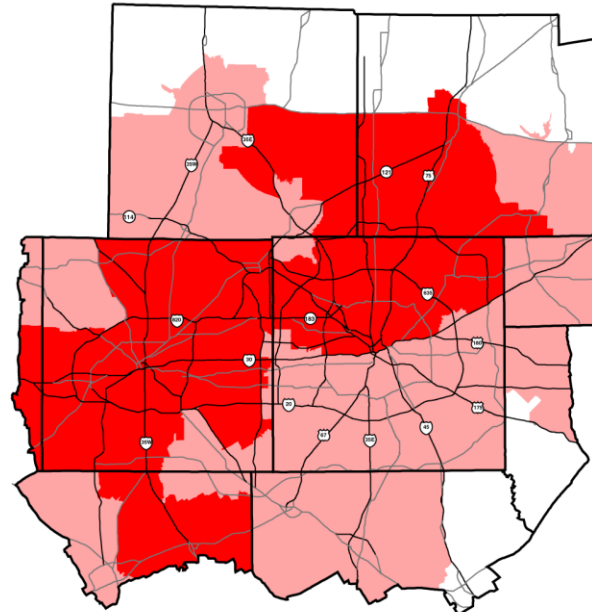
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2025 Congestion Levels

Legend

- Areas of Moderate Peak-Period Congestion
- Areas of Severe Peak-Period Congestion

Annual Cost of Congestion = \$11.8 Billion



	1999	2025	% Change
<b>Vehicle Miles Traveled</b>	125 M	235 M	87%
<b>Roadway Capacity (Lane Miles)</b>	23.2 M	34.8 M	50%
<b>Total Delay (Veh Hrs)</b>	1.3 M	2.9 M	120%
<b>% Roadways Congested</b>	38%	54%	42%



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## Financial Constraint Summary (Millions, 2004 \$)

Metropolitan Transportation System Components	System Cost	Traditional Revenue	Revenue Initiative Program	Mobility Needs Not Met
Roadway Infrastructure	\$5,699	\$5,699	\$0	-
Transit Operations	\$8,398	\$8,398	\$0	-
Congestion Mitigation Strategies	\$1,925	\$1,925	\$0	-
Bicycle & Pedestrian Facilities & Transportation Enhancements	\$966	\$966	\$0	-
Rail and Bus Transit System	\$8,875	\$5,888	\$2,987	-
HOV and Managed Facilities	\$1,448	\$1,448	\$0	-
Freeway and Toll Road System	\$11,925	\$9,935	\$1,990	\$17,230
Regional Arterial and Local Thoroughfare System	\$5,811	\$5,811	\$0	\$3,316
<b>TOTAL</b>	<b>\$45,047</b>	<b>\$40,070</b>	<b>\$4,977</b>	<b>\$20,546</b>

# **MOBILITY 2025 – 2004 UPDATE**

## **Revenue Initiative Program**

**Continue Regional Transportation Council (RTC)/Transportation Commission Partnership Program to Leverage Available Funding**

**Pursue Innovative Project Financing Using Tools Made Available by State Legislature, Including the Texas Mobility Fund and Bonding Authority**

**Pursue Value Pricing Opportunities Through Managed Facilities in Specific Corridors Identified Through Feasibility Studies**

**Decrease Project Costs Through Streamlining the Project Development Process and Value Engineering Initiatives**

**Continue to Pursue Legislative Actions Aimed at Increasing Revenue Through Additional Initiatives Identified by the RTC Mobility Plan Finance Subcommittee**

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## Title VI Environmental Justice Analysis

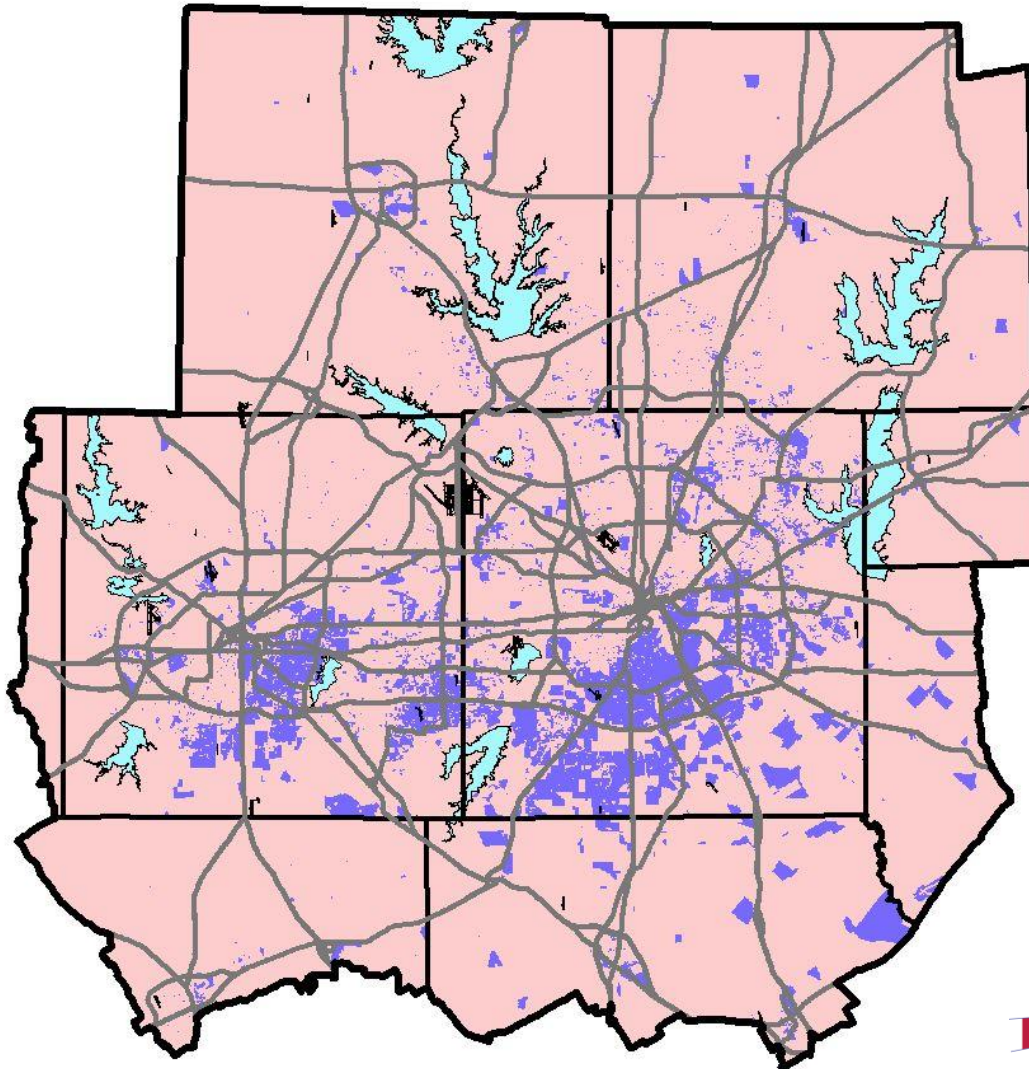
Populations	Census Year	Job Accessibility				Roadway	
		By Auto		By Transit		Level of Service	
		1999	2025	1999	2025	1999	2025
Black	2000	+	+	+	+	+	+
Hispanic	2000	+	+	+	+	+	+
Asian American	2000	+	+	-	+	-	O
American Indian/Alaskan Native	2000	O	O	+	O	+	O
Under Poverty Line (Low Income)	2000	+	+	+	+	+	+
Over 65 Years Old	2000	+	+	+	+	+	+
Under 14 Years Old	2000	-	-	-	-	O	-
Persons with Disabilities	2000	+	+	+	+	+	+
Females (Head of Household)	2000	+	+	+	+	+	+

- = Protected Population is Five Percent Less Relative To Unprotected Population

O = Protected Population is Within Five Percent of Unprotected Population

+ = Protected Population is Five Percent Greater Relative To Unprotected Population

## Black Population Distribution \*



Percent Black Population by Blocks  
Compared to Regional Average

Regional Average = 14.3% Black

### Legend

-  Above Regional Average
-  Below Regional Average

Based on 2000 Census

*\*Protected population areas are  
blocks with percent Black population  
greater than the regional average*



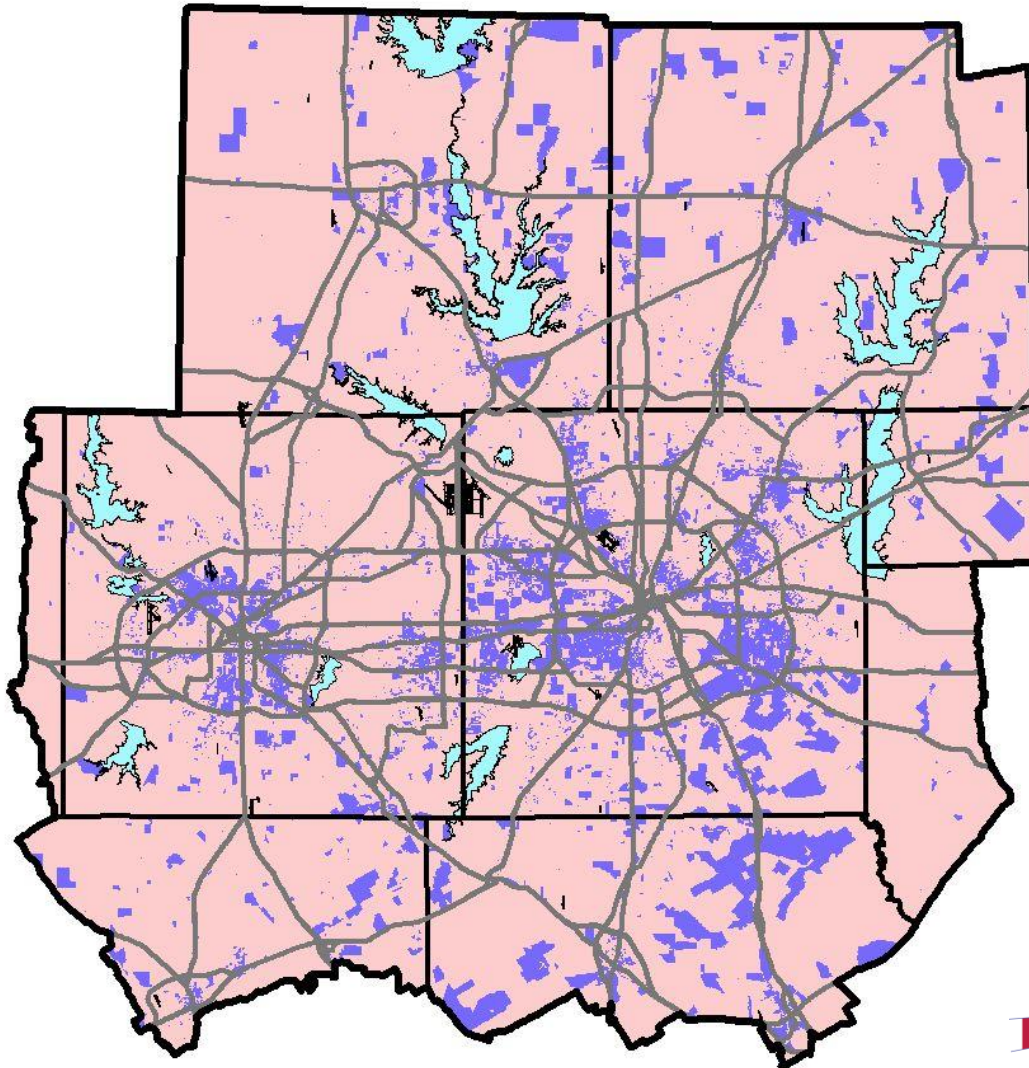
0 10 20 Miles

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# Hispanic Population Distribution \*



Percent Hispanic Population by Blocks Compared to Regional Average

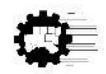
Regional Average = 22.4% Hispanic

### Legend

-  Above Regional Average
-  Below Regional Average

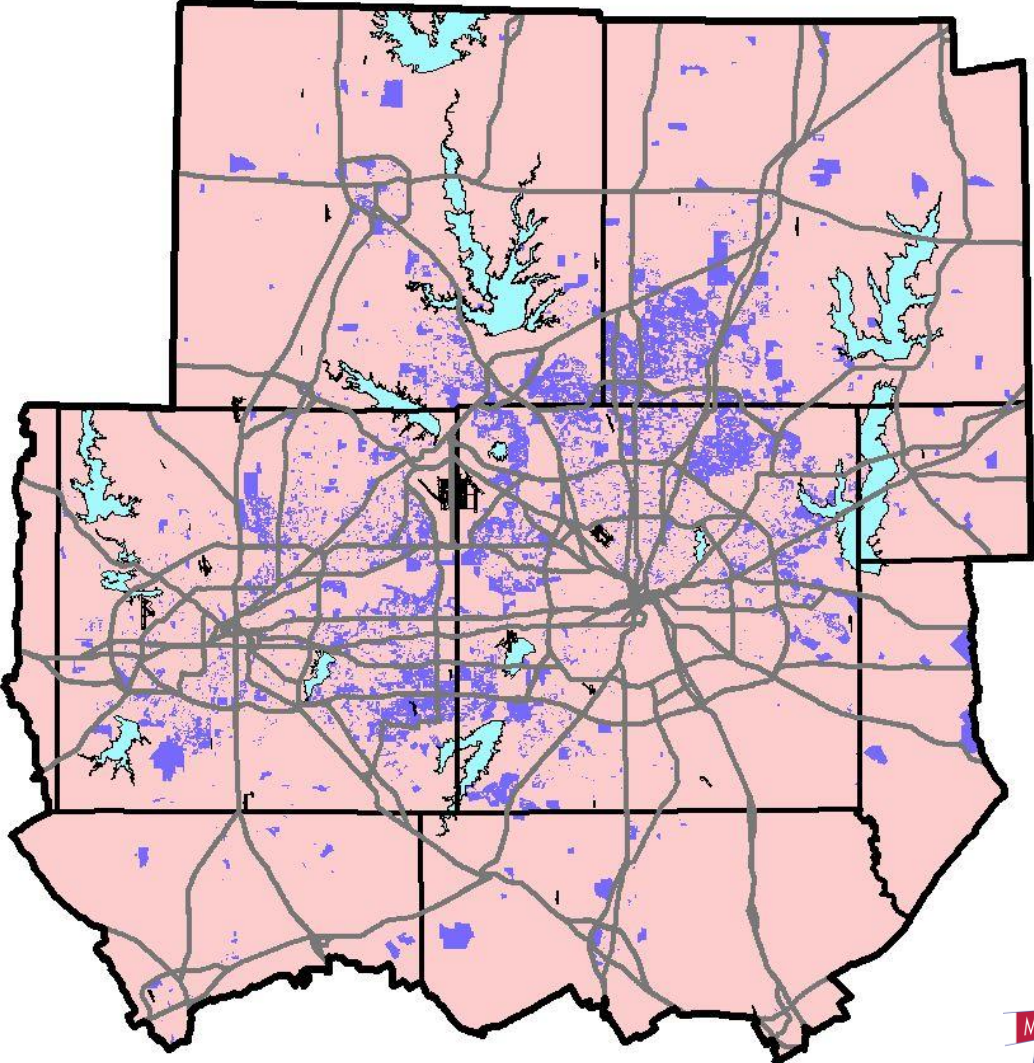
Based on 2000 Census

*\*Protected population areas are blocks with percent Hispanic population greater than the regional average*



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# Asian American Population Distribution \*



Percent Asian American Population by Blocks Compared to Regional Average

Regional Average = 4% Asian American

**Legend**

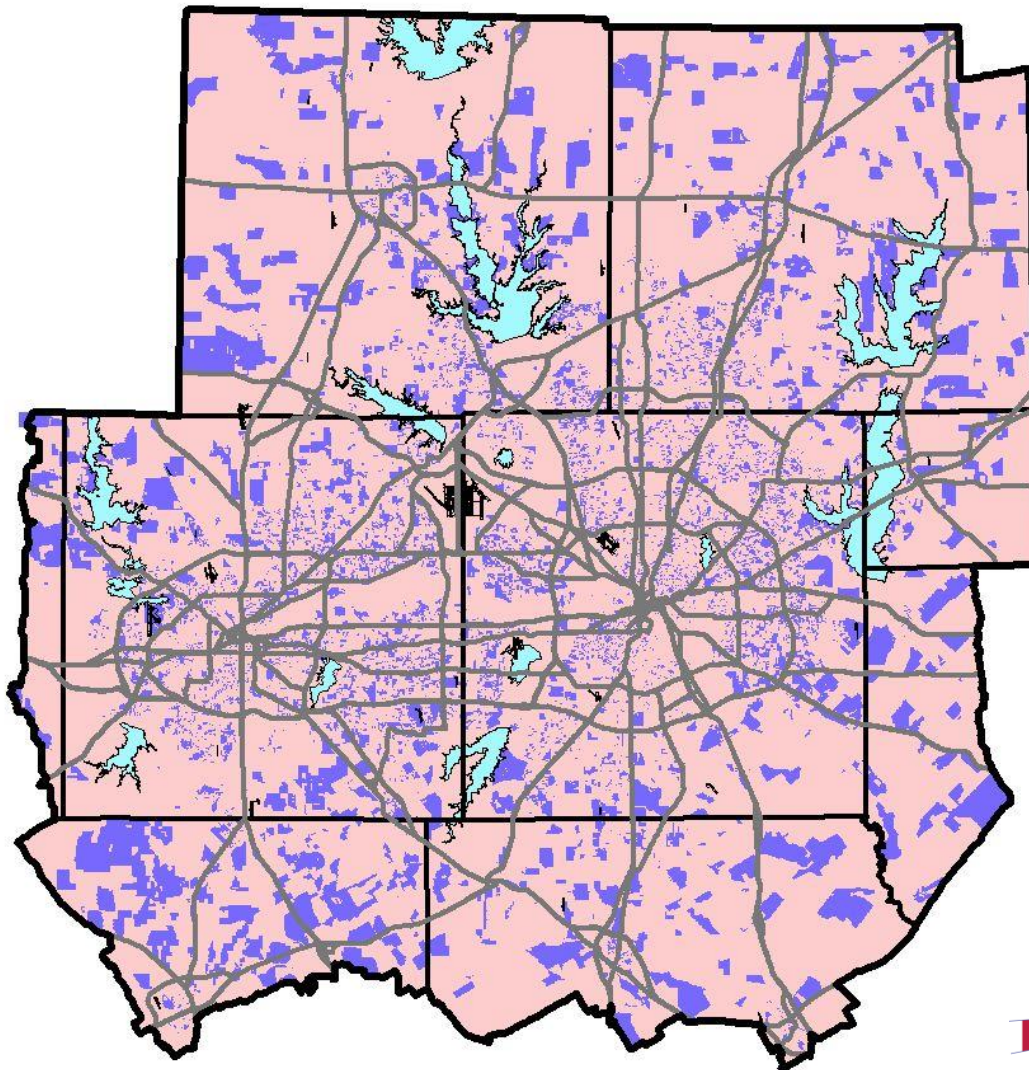
- Above Regional Average
- Below Regional Average

Based on 2000 Census

*\*Protected population areas are blocks with percent Asian American population greater than the regional average*



# American Indian / Alaska Native Populations Distribution \*



Percent American Indian / Alaskan Native Populations by Blocks Compared to Regional Average

Regional Average = 0.6% American Indian / Alaska Native

### Legend

- Above Regional Average
- Below Regional Average

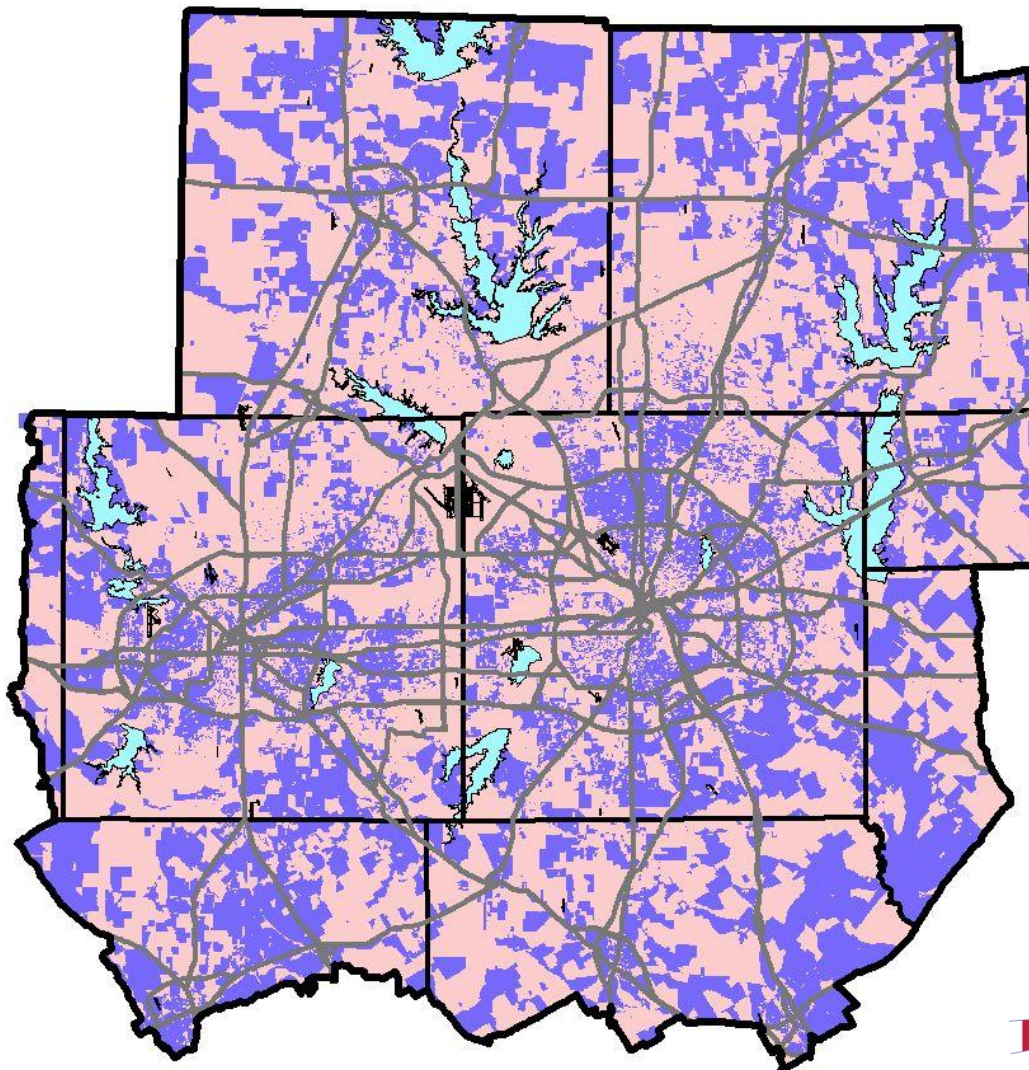
Based on 2000 Census

*\*Protected population areas are blocks with percent American Indian / Alaska Native populations greater than the regional average*



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## Age 65 and Over Population Distribution \*



Percent Age 65 and Over Population by Blocks Compared to Regional Average

Regional Average = 7.7% Age 65 and Over

### Legend

-  Above Regional Average
-  Below Regional Average

Based on 2000 Census

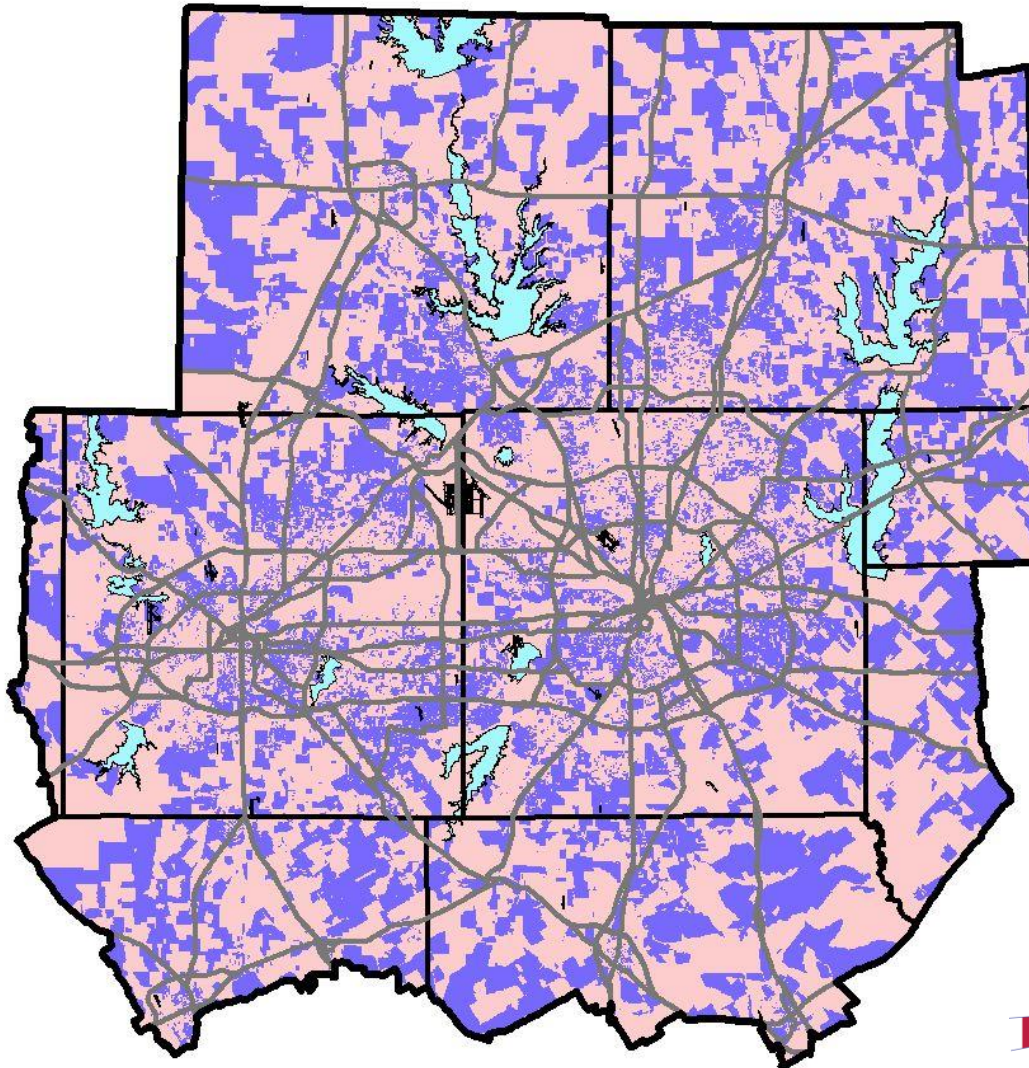
*\*Protected population areas are blocks with percent age 65 and over population greater than the regional average*



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## Age 14 and Under Population Distribution \*



Percent Age 14 and Under Population  
by Blocks Compared to Regional  
Average

Regional Average = 23.8% Age 14 and  
Under

### Legend

- Above Regional Average
- Below Regional Average

Based on 2000 Census

*\*Protected population areas are  
blocks with percent age 14 and  
under population greater than the  
regional average*

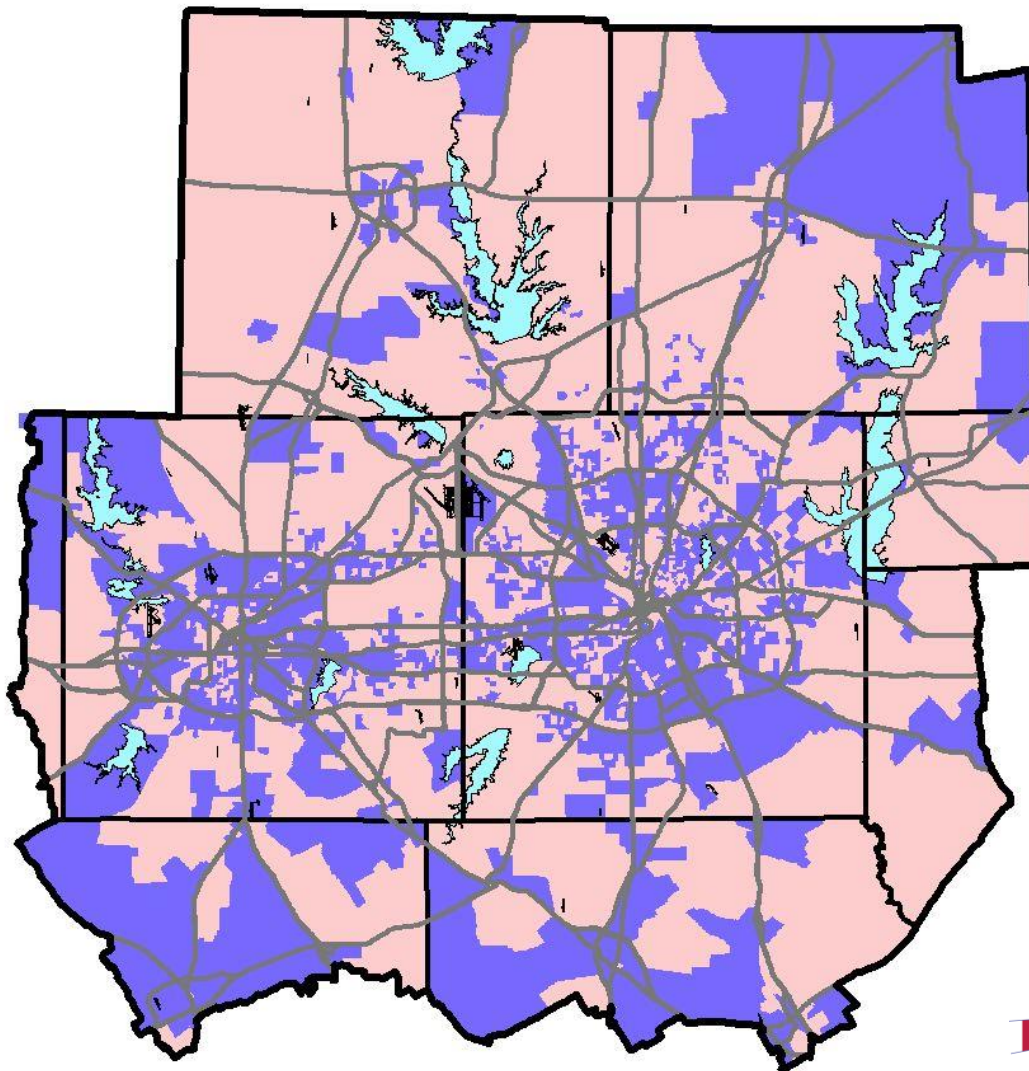


0 10 20 Miles



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## Disabled Population Distribution \*



Percent Disabled Population by Block Groups Compared to Regional Average

Regional Average = 6.9% Disabled

### Legend

- Above Regional Average
- Below Regional Average

Based on 2000 Census

*\*Protected population areas are block groups with percent disabled population greater than the regional average*



0 10 20 Miles

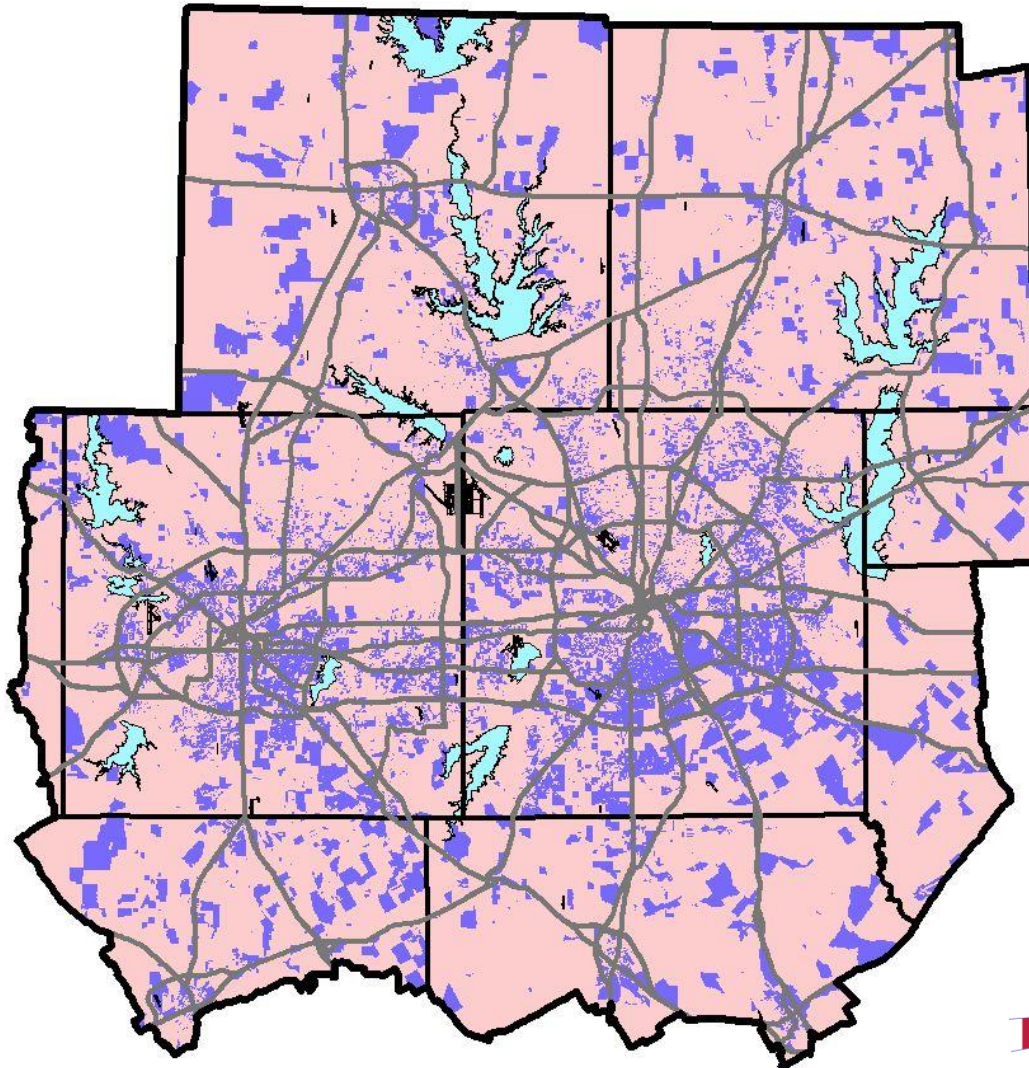
A horizontal scale bar with markings at 0, 10, and 20 miles.

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# Female Head of Household Population Distribution \*



Percent Female Head of Household Population by Blocks Compared to Regional Average

Regional Average = 12.1% Female Head of Household

### Legend

-  Above Regional Average
-  Below Regional Average

Based on 2000 Census

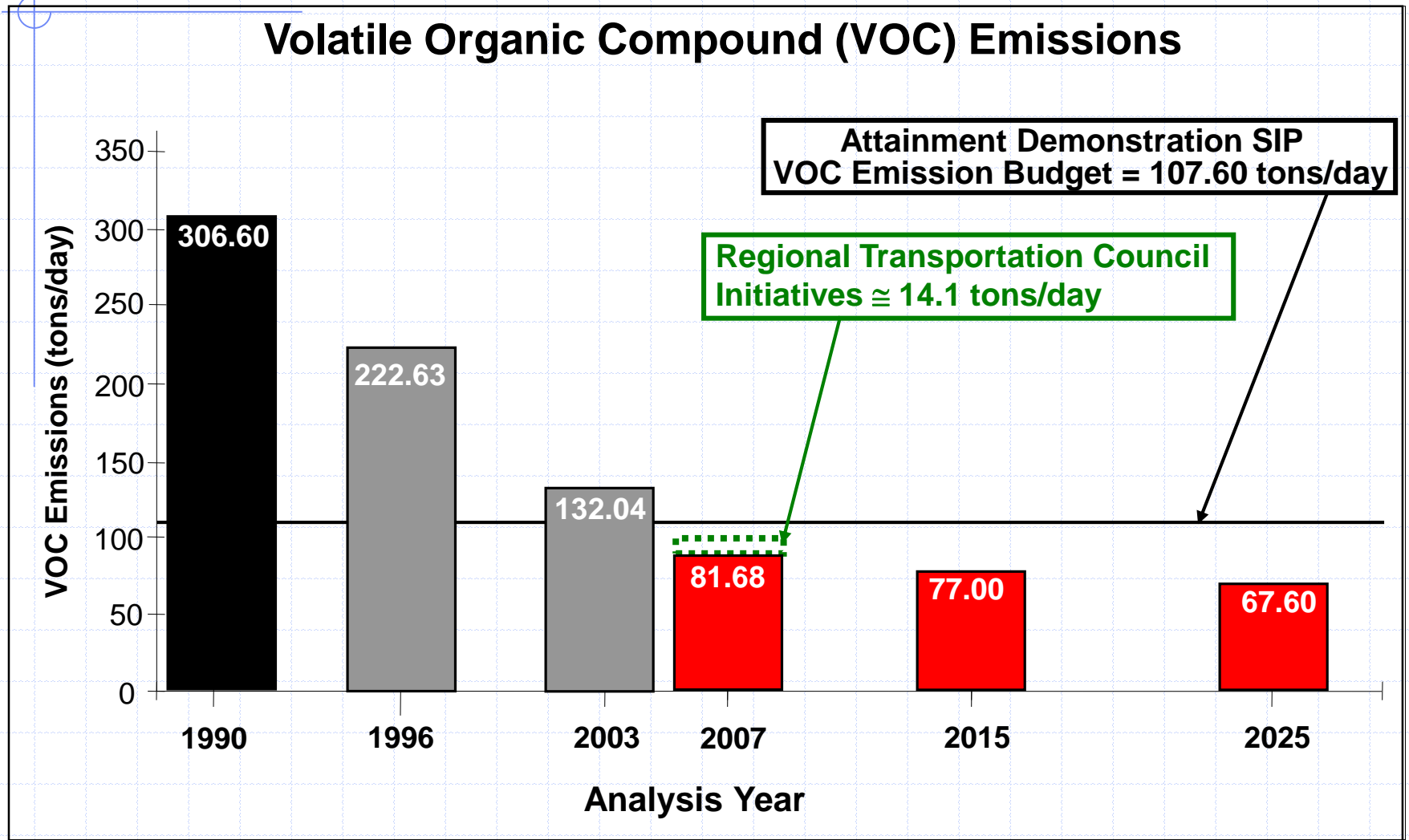
*\*Protected population areas are blocks with percent female head of household population greater than the regional average*



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# TRANSPORTATION CONFORMITY

## 2004 CONFORMITY ANALYSIS Vehicle Emission Charts



# TRANSPORTATION CONFORMITY

## 2004 CONFORMITY ANALYSIS Vehicle Emission Charts

