Project Summary

Texas Department of Transportation

0-5930: Potential Development of an Intercity Passenger Transit System in Texas

Background

Highway and air transportation have accounted for the overwhelming majority of intercity travel in Texas for the past several decades. Expansion of roadways or adding additional intercity flights has been a relatively straightforward way to address intercity travel demand growth. Texas may need to shift some investments to intercity passenger rail or express bus transit service to maintain and maximize mobility and efficient operation of the overall transportation system as highway construction becomes more costly, additional highway right-of-way in urban areas becomes scarce, aviation fuel and operational costs rise, and airport/airspace capacity is consumed due to an increasing number of flights.

What the Researchers Did

This research project studied the potential for development of an intercity rail and express bus system for the state. The project examined long distance intercity and interregional corridors to determine which are most likely to need additional intercity travel capacity in the coming decades. Specific corridor characteristics for 18 intercity corridors were examined. Ranking of the corridors based upon these characteristics indentified those that may need added intercity transit capacity in the future, as shown in Figure 1.

Rank	Reference	Corridor Description
1	DFWSAT	Dallas-Fort Worth to San Antonio
2	DFWHOU	Dallas-Fort Worth to Houston
3	DFWELP1	Dallas-Fort Worth to El Paso via Abilene
4	DFWLBB	Dallas-Fort Worth to Lubbock via Abilene
5	HOUSAT	Houston to San Antonio
6	HOUAUS	Houston to Austin
7	HOUBMT	Houston to Beaumont
8	DFWLOU	Dallas-Fort Worth to Louisiana Border
9	DFWELP2	Dallas-Fort Worth to El Paso via San Angelo
10	DFWAMA	Dallas-Fort Worth to Amarillo via Wichita Falls
11	DFWTXK	Dallas-Fort Worth to Texarkana
12	HOUBVN	Houston to Brownsville via Corpus Christi
13	HOUWAC	Houston to Waco via Bryan/College Station
14	SATLRD	San Antonio to Brownsville via Laredo
15	HOUTXK	Houston to Texarkana
16	SATELP	San Antonio to El Paso
17	SATBVN	San Antonio to Brownsville via Corpus Christi
18	AMALBB	Amarillo to Midland (Odessa) via Lubbock

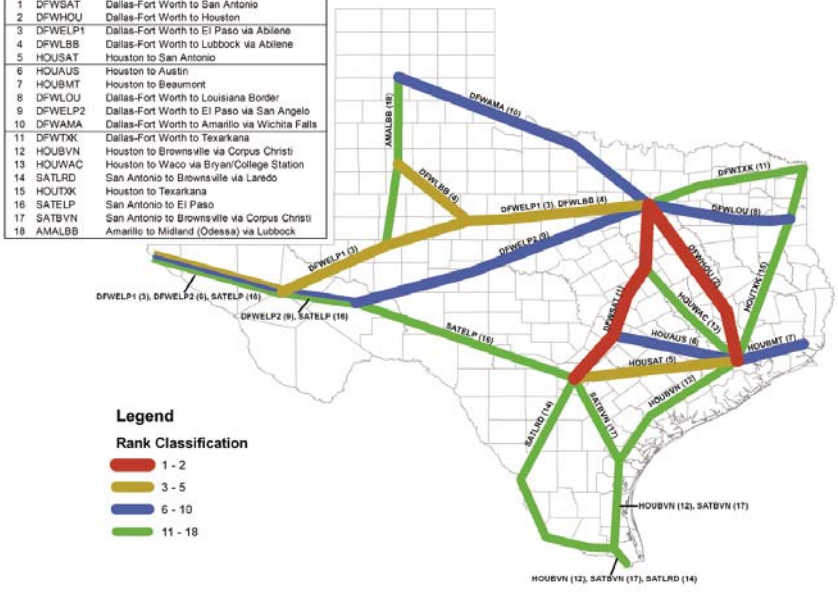

Figure 1. Statewide Intercity Travel Corridor Rankings Based upon 0-5930 Evaluation Criteria.

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The underlying analysis of corridors is based upon several factors related to:

- current and future population and demographic projections along 18 intercity corridors in the state, as shown in Figure 2,
- projected future demand based upon forecasts by the Texas State Demographer and other state agencies, and
- current transportation network capacity and routes for intercity highway, bus, air, and rail travel.

A preliminary concept plan was developed during the first year of the project, and the second year focused on determination of potential costs and benefits of implementing the concept plan or individual system components along each corridor.

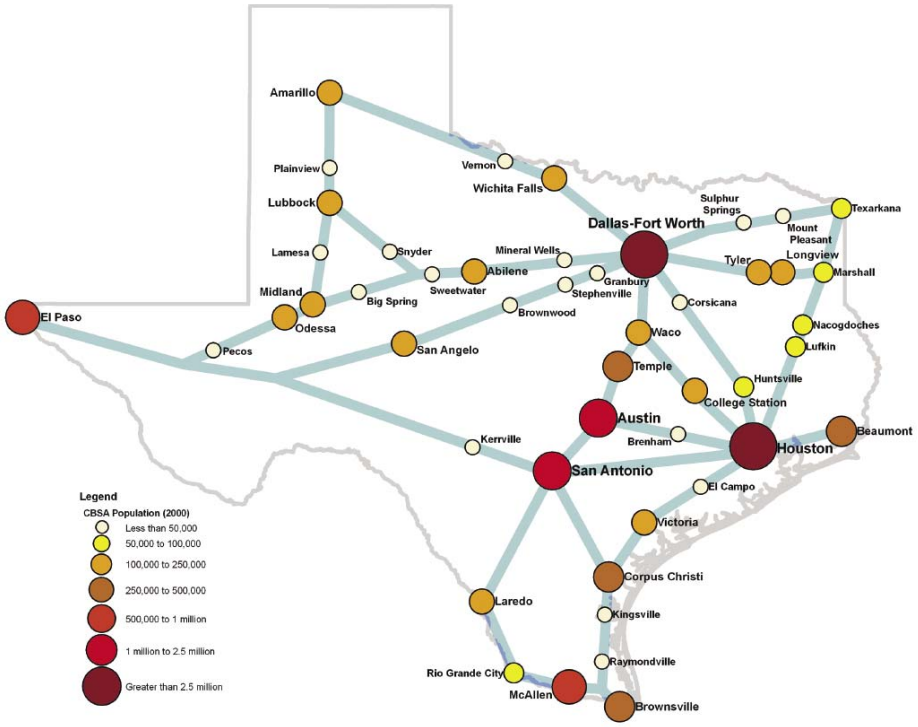

Figure 2. Distribution of Population Centers along 0-5930 Study Corridors.

What They Found

Texas will need to spend billions of dollars on transportation infrastructure in the coming decades in order to keep pace with expected population growth and the resulting increase in intercity travel demand. Of the 18 study corridors, 13 are projected to meet or exceed their corridor-calculated volume to capacity ratios by 2040 based on projected traffic growth. This study examined and ranked interregional transportation corridors, based on current travel patterns, and identified those that might be the subject of future detailed ridership and/or engineering studies for rail or express bus transit service.

What This Means

Graphics showing study corridor characteristics, tabular data discussing travel times at various operating speeds, and a discussion of the methodology used in identification, evaluation, and estimated funding needs of potential corridors are included in the full project report (TxDOT report 0-5930-2). These findings can be used by state and regional planners as a basis for updating intercity transportation plans and state/regional passenger and freight rail planning.

For More Information:

0-5930-1 Potential Development of an Intercity Passenger Transit System in Texas – Report on Tasks 1-5

0-5930-2 Potential Development of an Intercity Passenger Transit System in Texas – Final Project Report

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