



# Ports-to-Plains Corridor Feasibility Study (HB 1079)

**Segment #1, Public Meeting #1  
New Mexico and Oklahoma Borders to  
Hale/Lubbock County Line**

**Amarillo, Texas**



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- 8 Freight Movement



## HB 1079 Overview





House Bill (HB) 1079 requires TxDOT to conduct a comprehensive feasibility study of the Ports-to-Plains (P2P) Corridor, as defined by Texas Transportation Code 225.069.

- The study must evaluate the feasibility of, and costs and logistical matters associated with, improvements to the corridor that create a continuous-flow, four-lane divided highway that meets interstate standards to the extent possible.





- HB 1079 requires TxDOT to establish a **P2P Advisory Committee (committee)**:
  - The committee is required to meet at least twice annually on a rotational basis in Lubbock and San Angelo.
  - Membership of the committee is limited to elected officials or their appointees specifically named in HB 1079.
  - The committee will review and compile reports from segment committees to form full advisory committee report.
  - TxDOT is required to incorporate reports submitted by the committee into the feasibility study.



- Additionally, TxDOT is required to establish **Corridor Segment Committees**. The segment committees are composed of:
  - Volunteers who may represent cities, counties, metropolitan planning organizations (MPOs), ports, chambers of commerce, and economic development corporations along the corridor;
  - The trucking industry;
  - TxDOT representatives; and
  - Other interested parties.



## Quarterly Public Meetings

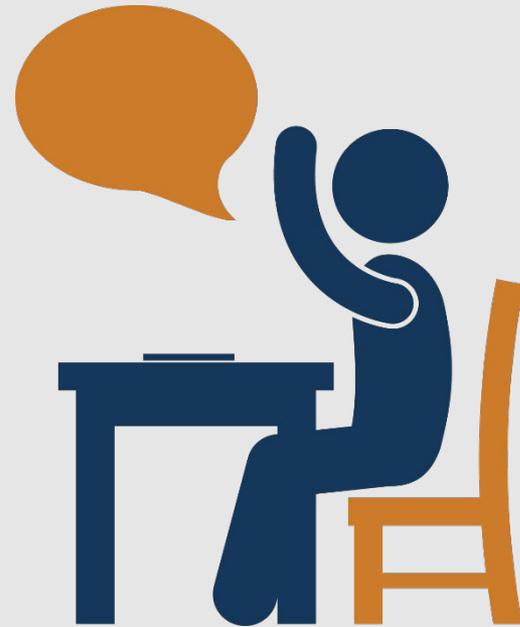
- TxDOT is required to hold **quarterly public meetings** on a rotational basis in Amarillo, Laredo, Lubbock, and San Angelo.
- These meetings will **gather public feedback** on potential improvements or expansions to the P2P Corridor.
- Occurs in conjunction with the study.





Your participation gives you the opportunity:

- **To learn** about the Ports-to-Plains Corridor Feasibility Study
- **To provide input** on needs, challenges, and opportunities for moving people and goods along the corridor





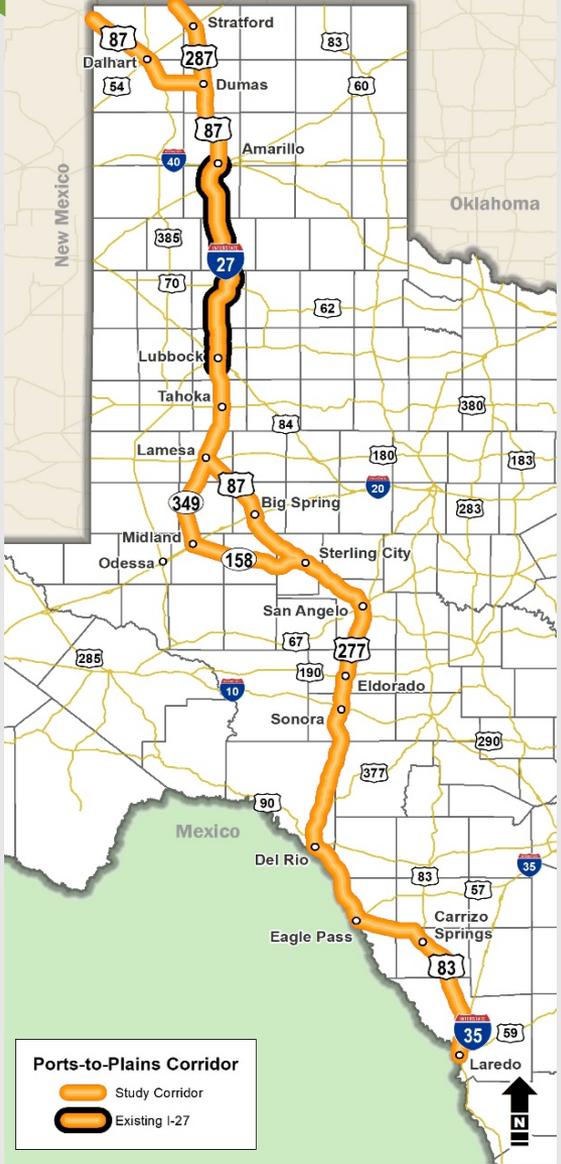
## Feasibility Study Overview



# Ports-to-Plains Corridor and Segments



## Ports-to-Plains Corridor



## Segment 1

New Mexico and Oklahoma borders to Hale/Lubbock County line

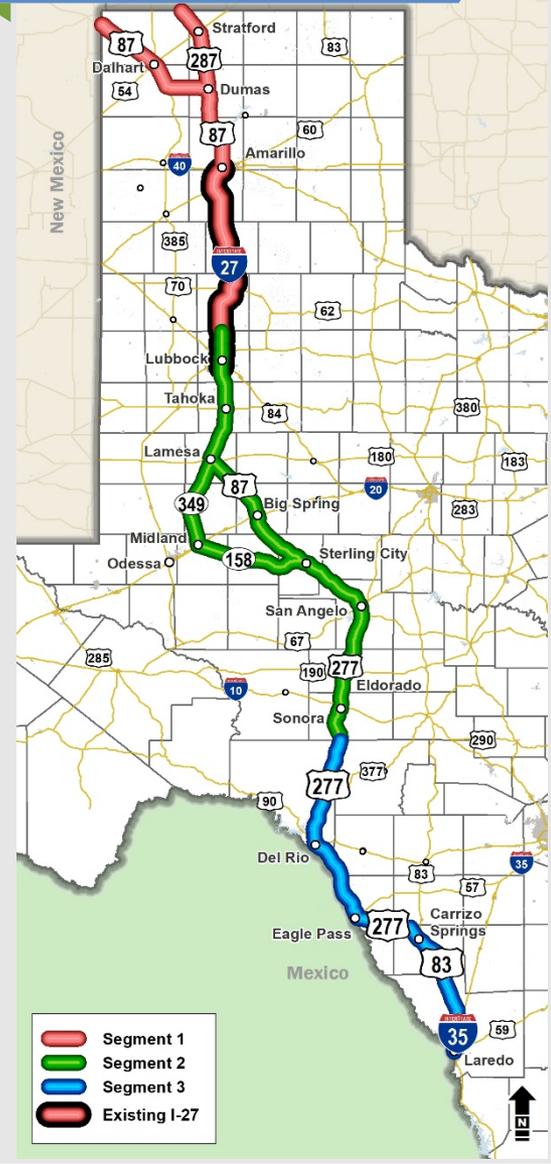
## Segment 2

Hale/Lubbock County line to Sutton/Edwards County line

## Segment 3

Sutton/Edwards County line to I-35/Juarez-Lincoln Bridge in Laredo

## Corridor Segments





## *Verbatim HB 1079, Section 1, Subsection (h)*



An examination of the ability of the energy industry to **transport products** to market



An evaluation of the economic development impacts of the Ports-to-Plains Corridor, including whether the improvement or expansion of the Ports-to-Plains Corridor would create **employment opportunities** in this state



A determination of whether improvements or expansion of the Ports-to-Plains Corridor would **relieve traffic congestion** in the segment



An examination of **freight movement** along the Ports-to-Plains Corridor



A determination and prioritization of improvements and expansion of the Ports-to-Plains Corridor that are warranted in order to promote safety and mobility, while **maximizing the use of existing highways** to the greatest extent possible and **striving to protect private property** as much as possible



A determination of the areas that are preferable and suitable for **interstate designation**



An examination of **project costs** related to the improvement or expansion of the Ports-to-Plains Corridor

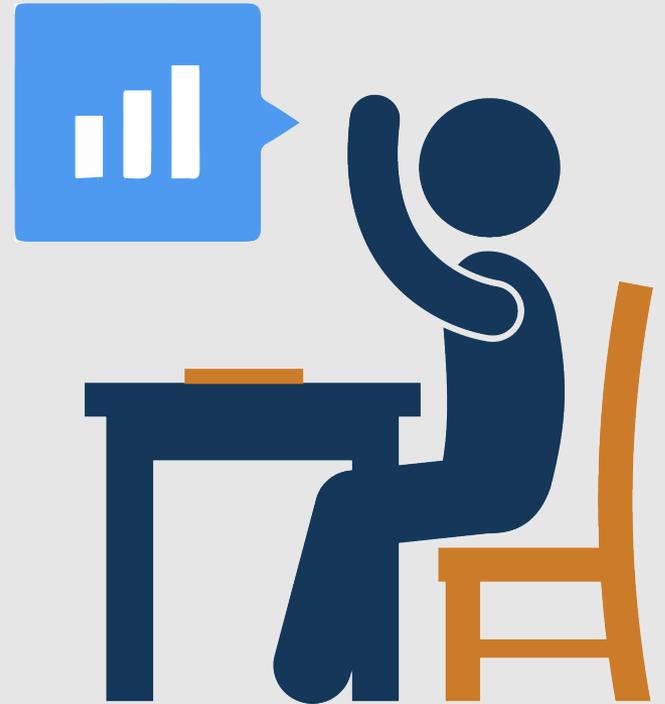


An assessment of federal, state, local, and private **funding sources** for a project improving or expanding the Ports-to-Plains Corridor

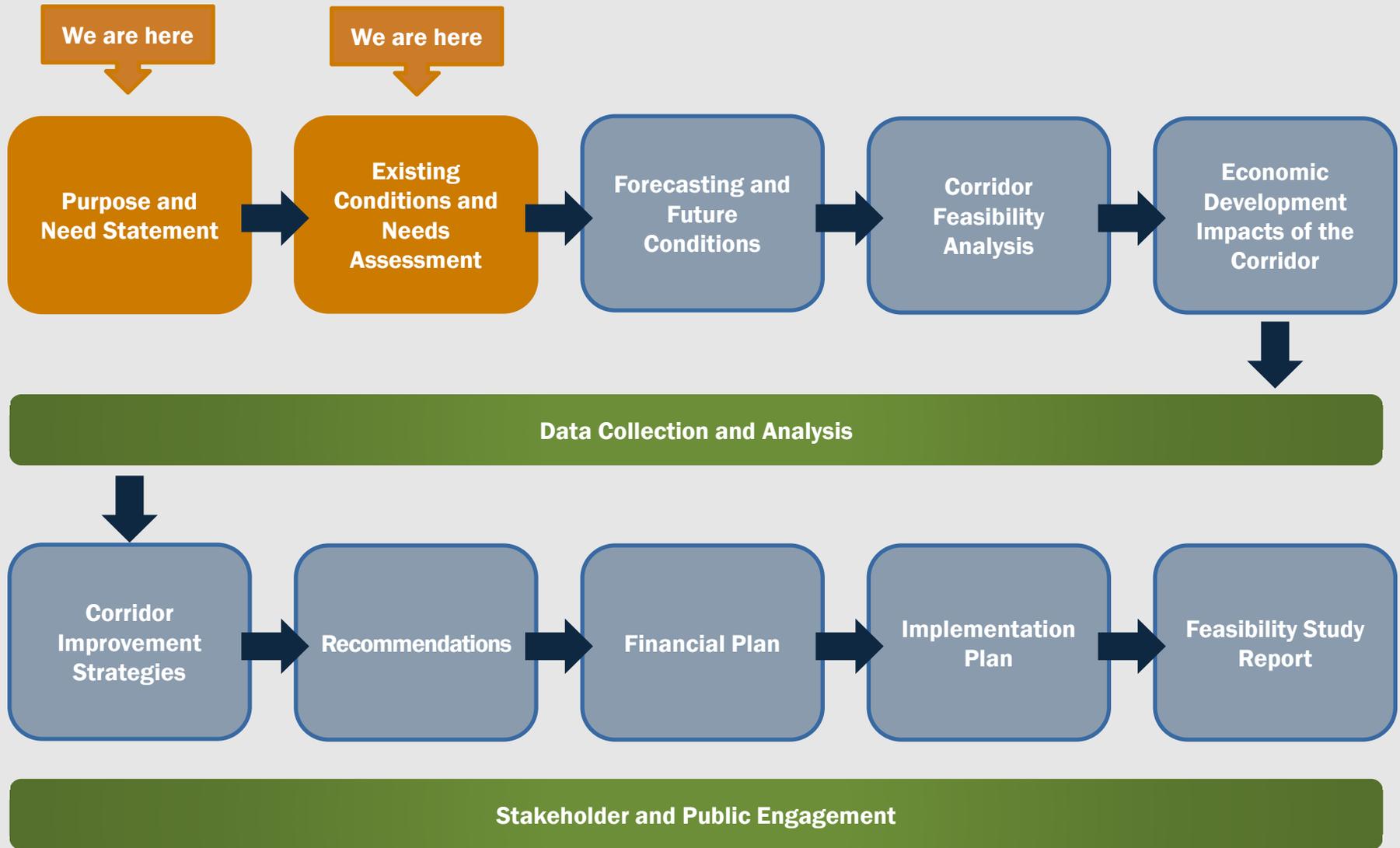


## Public Feedback

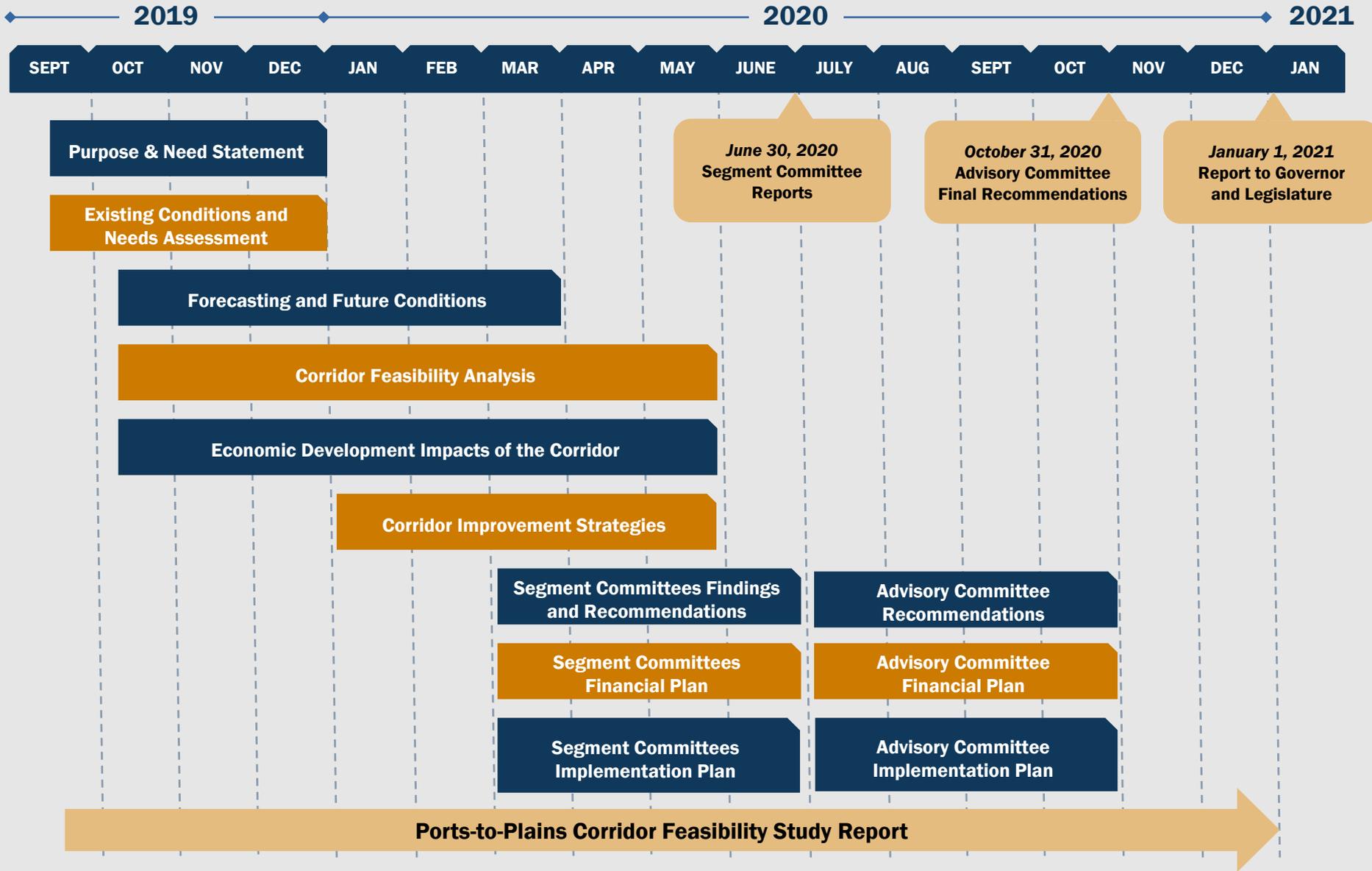
- Which goals of the corridor feasibility study are the most important to you?



# Ports-to-Plains Corridor Feasibility Study Scope



# Ports-to-Plains Corridor Feasibility Study Schedule

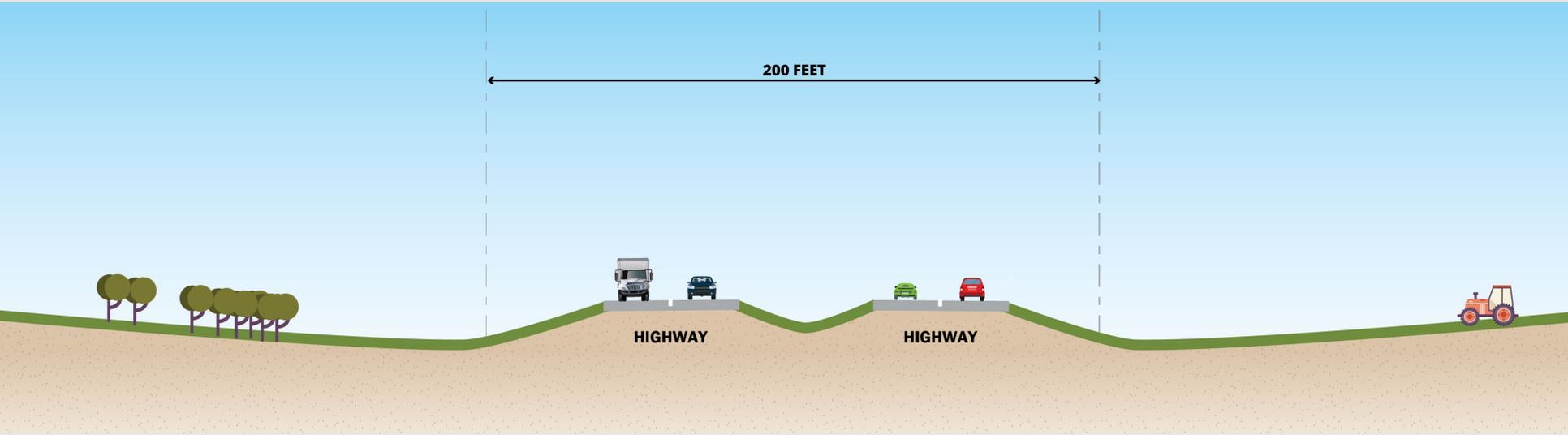




## Study Alternatives



# Four-Lane Divided Highway Cross Section



**Driveway access** to local businesses and residences



**Lower design speeds**

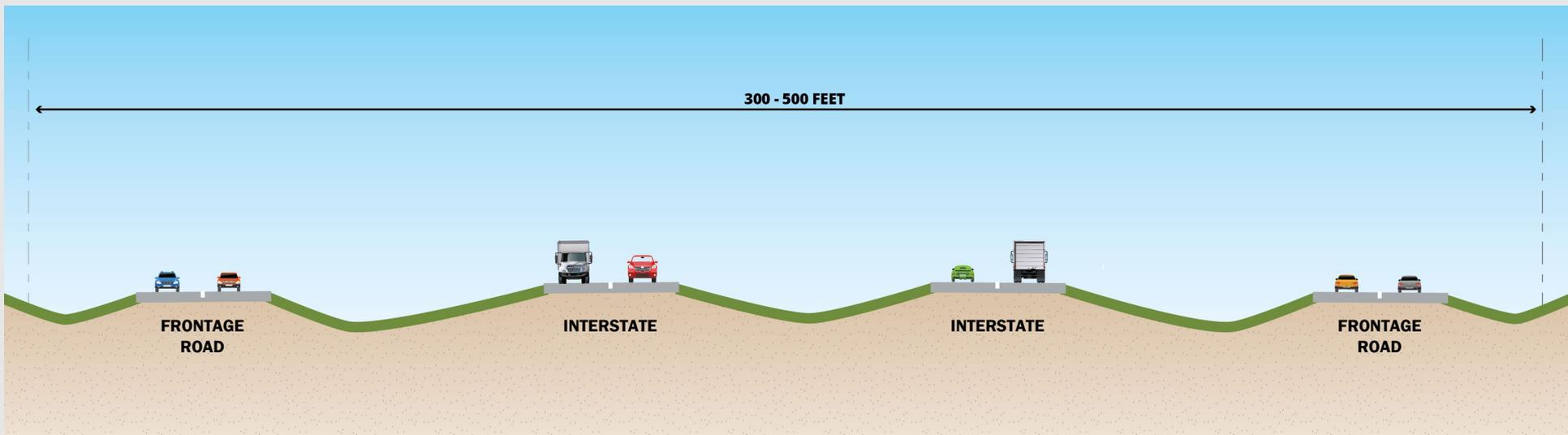


**Smaller right-of-way widths**



**At-grade intersections** with other roadways

# Interstate with Frontage Roads Cross Section



**No driveways** connecting to main lanes.



**No stop signs or traffic signals** on main lanes.



**Higher design speeds**



Traffic will flow uninterrupted from one end of the facility to the other. To accomplish this, **overpasses are necessary.**



**Larger** right-of-way **widths**



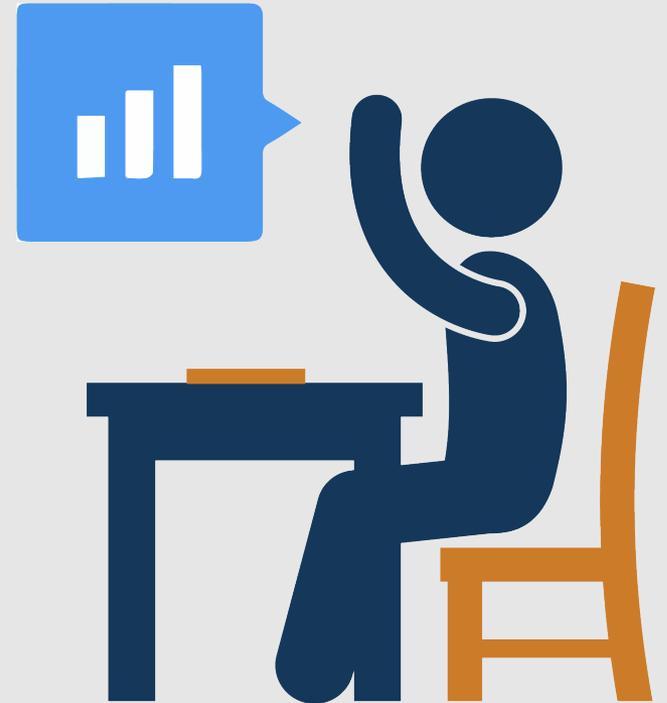
## Existing Conditions and Needs





## Public Feedback

- What are the key needs and challenges in Segment #1?
- What are the potential opportunities in Segment #1?



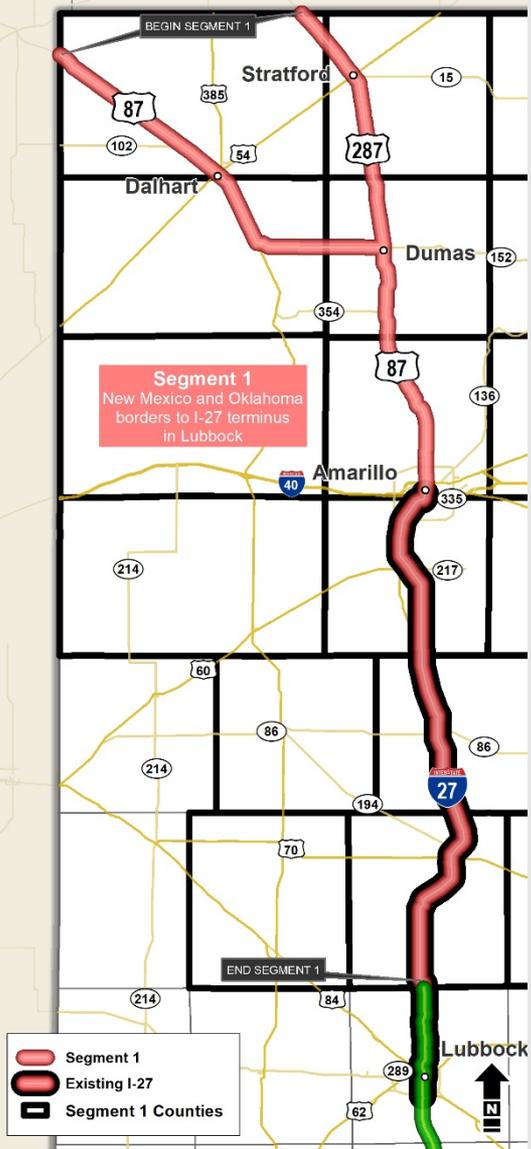


# Current Segment #1 Characteristics



## Segment #1

## Other Modal Facilities



**275 Segment Miles**

**8 Counties**

**2 TxDOT Districts**

Lubbock, Amarillo

**Major Cities and Towns**

Amarillo, Dumas, Dalhart, Stratford

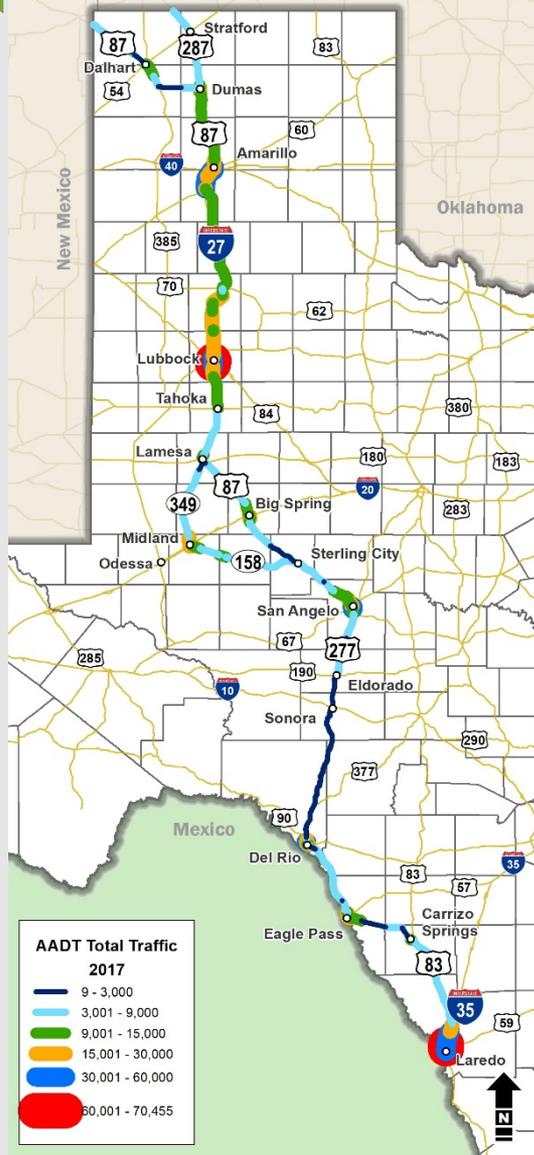
**Corridor Highways**

- I-27 from Lubbock to Amarillo
- US-87 from Amarillo to Dumas
- US-87 from Dumas to New Mexico State Line
- US-287 from Dumas to Oklahoma State Line

# Average Daily Traffic - 2017



Corridor Total Traffic 2017



Segment #1 Total Traffic 2017



## Range - Annual Average Daily Traffic

<3,000 Per day from Eldorado to Del Rio

3,000-9,000 Per day on many rural US Highway segments

9,000-30,000 Per day on rural I-27, north of Amarillo, Midland, Del Rio

30,000-70,000 Per day on Interstate Highways in Laredo, Lubbock, and Amarillo

### Key Takeaways

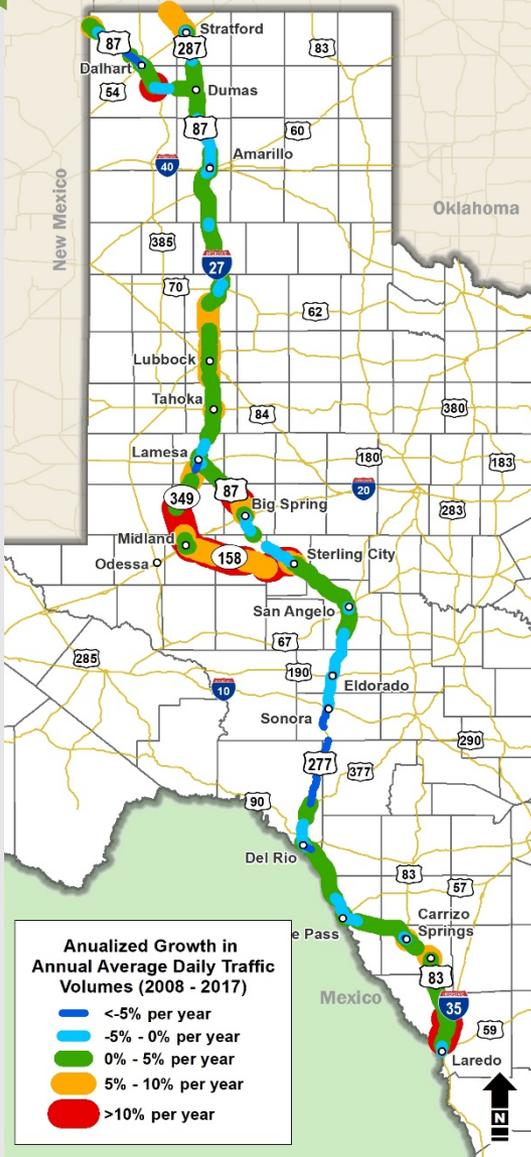
- Traffic volumes in the corridor and Segment #1 vary considerably.
- I-27 ends near downtown Amarillo - resulting 1-way road network carries 35,000 vehicles per day

Source: TxDOT TPP Roadway Inventory 2017

# Growth in Traffic Volumes - 2008 to 2017



Corridor Growth - 10 Years



Segment #1 Growth - 10 years



## Growth Trends

- 5-10%**  
Per year in Midland, Big Spring, **Hartley**, & Laredo
- 0-5%**  
Per year in Carrizo Springs, San Angelo, Lubbock, **rural I-27**, **Dumas**
- <0%**  
Per year in El Dorado, Edwards/Val Verde County, **Amarillo**

## Key Takeaways

- Growth in the corridor and Segment #1 vary considerably.
- Growth is strongest at end points in Segment #1

Source: TxDOT TPP Roadway Inventory 2017

# Corridor Average Daily Truck Traffic - 2017



- The heaviest truck volumes by far are on the I-35 segment from **Laredo**
- Relatively low truck volumes between **Eagle Pass** and **San Angelo**
- Higher truck volumes in **northern portion** of corridor
- Spike in truck volumes at **Midland**, perhaps reflecting Permian Basin traffic
- Truck percentages/freight intensity follow similar pattern to overall truck volumes
- Higher percentages at **southern** and **northern** portions of corridor

Source: TxDOT TPP Roadway Inventory 2017

# Segment #1 Average Daily Truck Traffic - 2017



## Truck Traffic

## Truck Percentage



- Largest Truck Volumes and % of Total Volumes: **Between Amarillo and Dumas**
- **Sherman County** with truck percentages greater than 40%
- **Rural I-27** carries between 10 and 30% trucks per day

Source: TxDOT TPP Roadway Inventory 2017

# Average Speeds - 2018



## Corridor Average Speed



## Segment #1 Average Speed



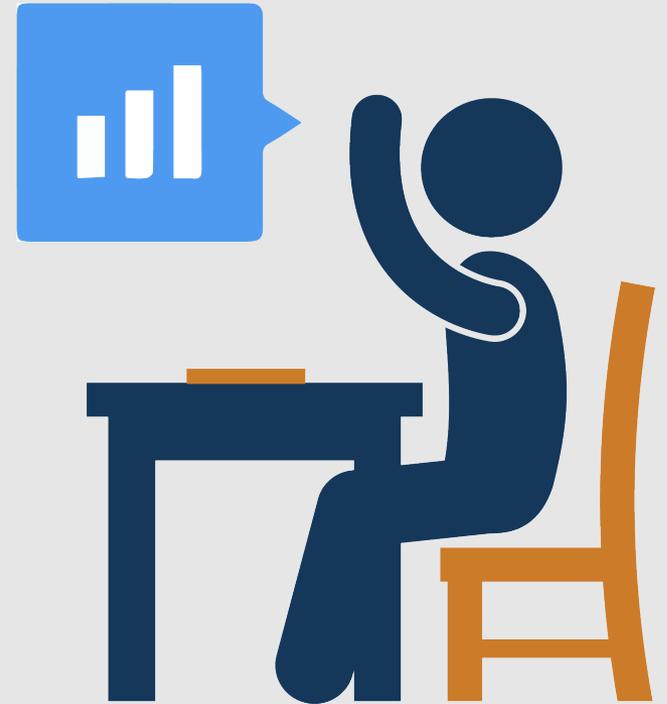
- Map shows **average speeds** along Ports-to-Plains routes
- Majority of corridor with travel speeds **60-70 mph**
- Rural segments **lower than 60 mph** (lack of passing lanes, topography, truck %)
  - North of Dumas, Stratford**
  - Val Verde County, Dimmit County
- City segments are typically **lower than 30 mph** (due to traffic signals, driveways)
  - Dumas, Amarillo**
  - Eagle Pass, Midland, San Angelo

Source: National Performance Management Research Data Set - FHWA



## Public Feedback

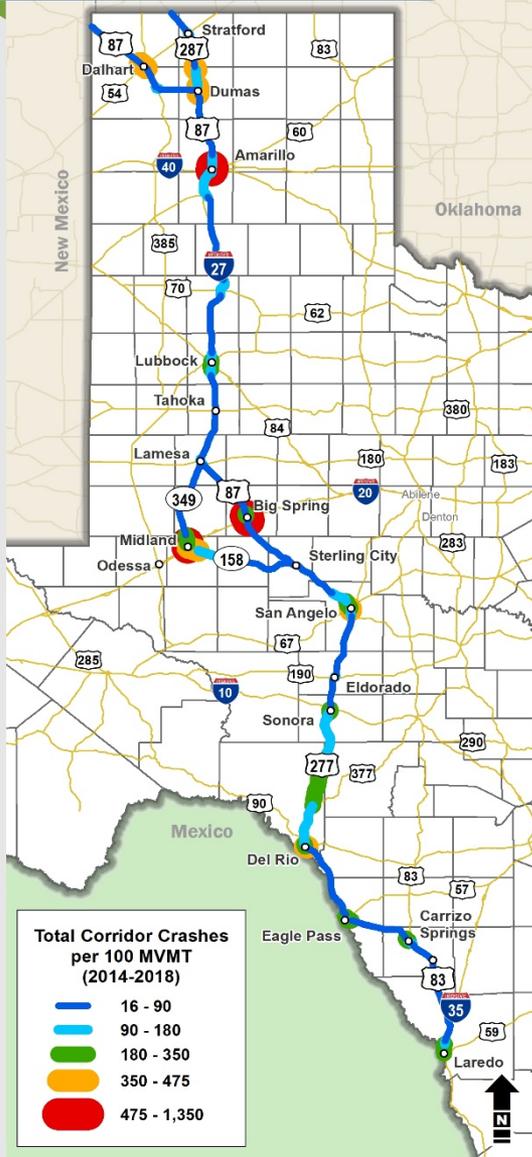
- Where are the bottlenecks for traffic in Segment #1 and what are the causes?
- What do you think will influence future traffic conditions in Segment #1?



# Total Crashes – 2014-2018



## Corridor Total Crashes



## Segment #1 Total Crashes



## Key Corridor Takeaways

- 17,741 Total Crashes
- Highest rates in cities (Midland, Big Spring, Amarillo)
- Low rates in south end of corridor

## Key Segment #1 Takeaways

- 5,716 Total Crashes
- Highest crash rate through downtown Amarillo
- Higher rates in Dumas and Dalhart
- Lower rates on rural I-27

Source: TxDOT Crash Records Inventory

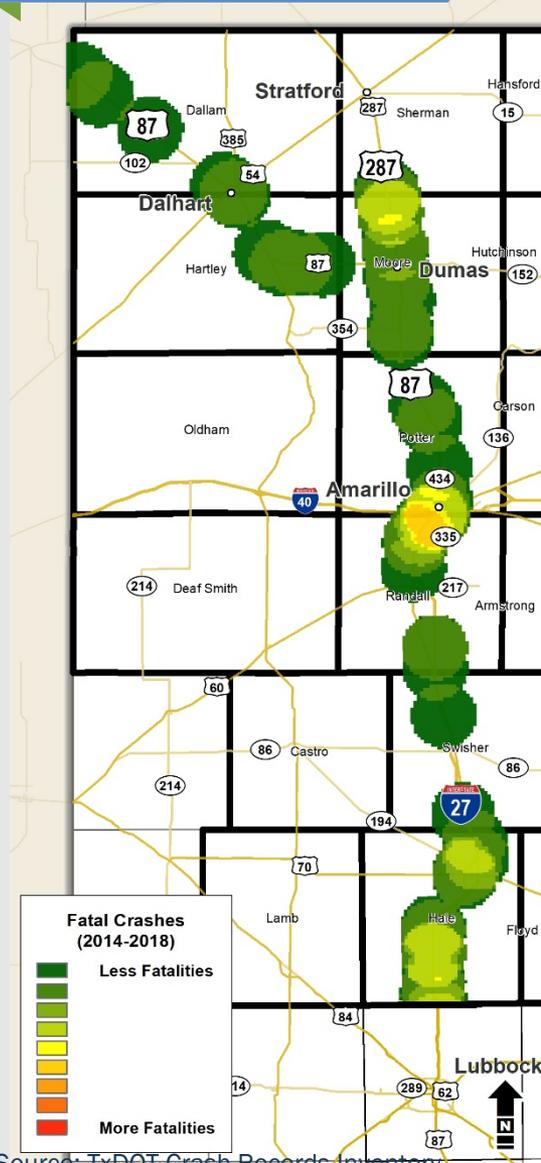
# Fatal Crashes – 2014 to 2018



## Corridor Fatal Crashes



## Segment #1 Fatal Crashes



### Key Corridor Takeaways

- 220 fatal crashes
- Amarillo, Lubbock and Midland exhibit highest number of crashes due to higher traffic volume
- Few fatalities on US 277 near Sonora and Eldorado

### Key Segment #1 Takeaways

- 61 Fatal Crashes
- Higher concentrations near Amarillo and North of Dumas
- No fatal crashes near Stratford

Source: TxDOT Crash Records Inventory



## Corridor Wide



■ **27%**  
Speeding



■ **25%**  
Failure to Stop/Yield



■ **9%**  
Impaired or  
Distracted Driver



■ **9%**  
Improper Use of Lanes

## Segment #1



■ **30%**  
Speeding



■ **26%**  
Failure to Yield



■ **9%**  
Impaired or  
Distracted Driver

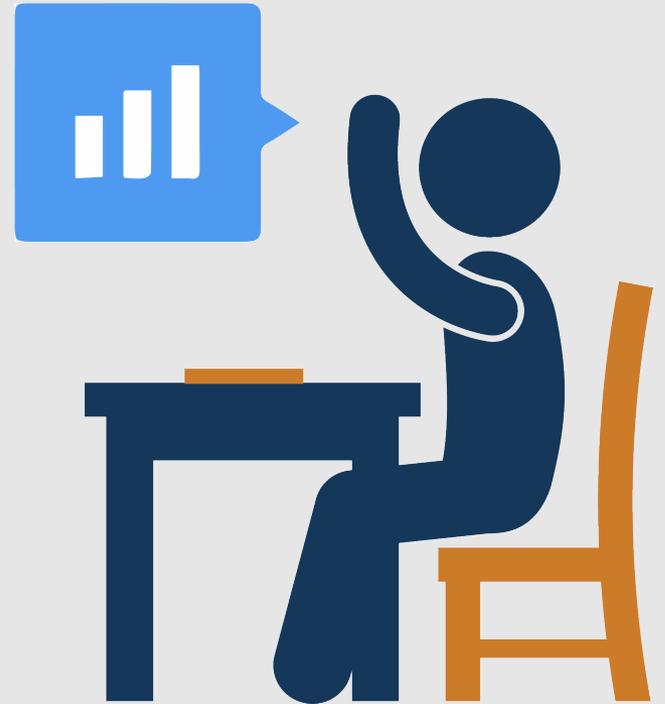


■ **8%**  
Improper Use of Lanes



## Public Feedback

- What areas and issues contribute to safety needs and challenges in Segment #1?



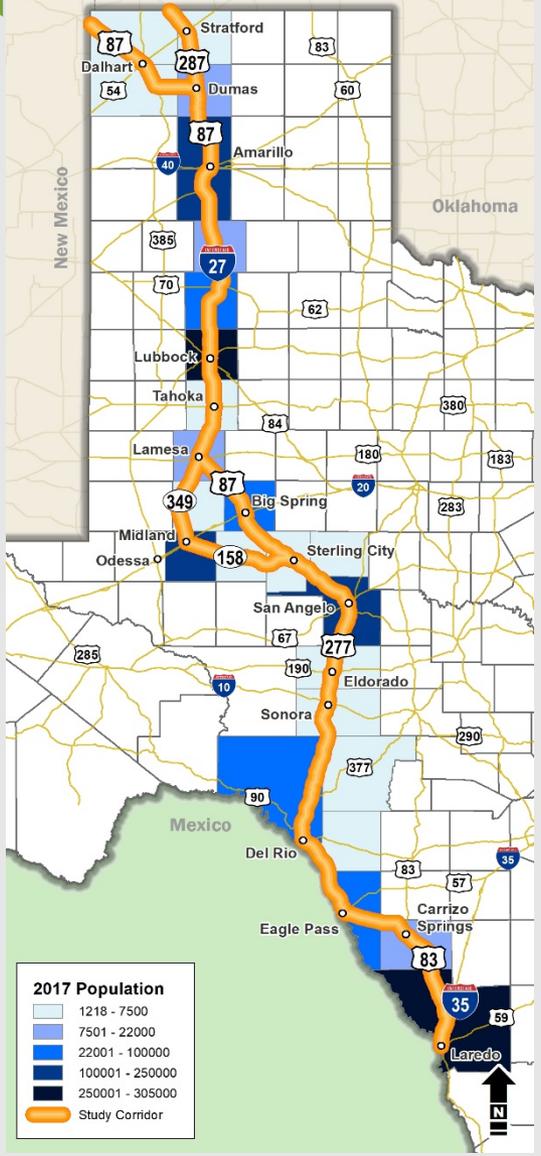
# Corridor Population Growth 1990-2017



1990

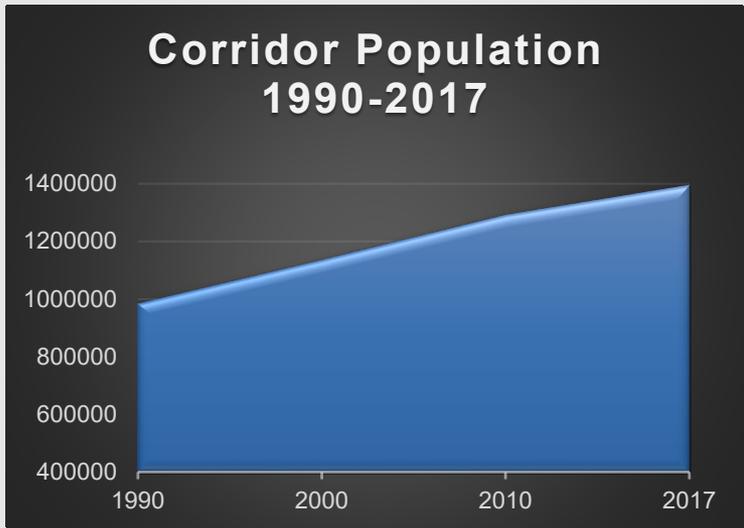


2017



**983,870** (1990)      **1,395,130** (2017)

- Corridor total population increased by **411,260** persons
- Overall corridor population grew by **42%**



Source: Texas Demographic Center, U.S. Census

# Segment #1 Population Growth 1990-2017



1990

2017



## Population 1990-2017

**356,344**

(1990)

**419,186**

(2017)

- Total population **increased** by **62,842** persons
- Overall segment population **grew by 18%**
- **Hartley County** (66%) and **Randall County** (47%) had the highest population growth
- **Floyd County** (-30%) and **Briscoe County** (-19%) had the largest declines in population

Source: Texas Demographic Center, U.S. Census

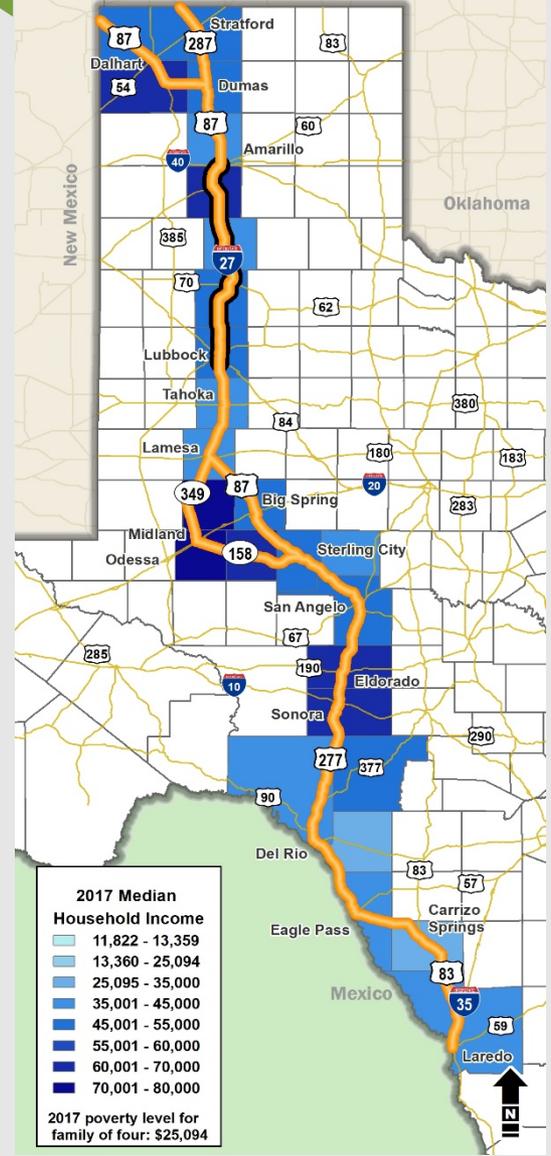
# Corridor Median Household Incomes 1990-2017



1990

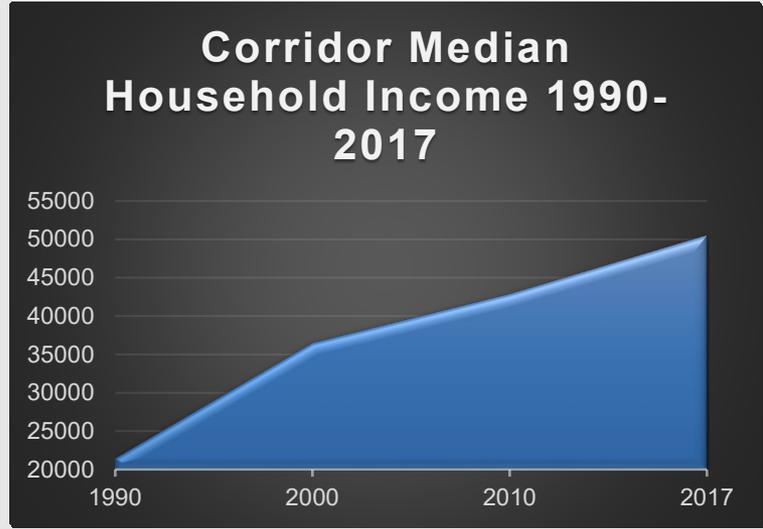


2017



**\$21,517** (1990)      **\$50,491** (2017)

- Corridor total median household income **increased by \$28,974**
- Overall corridor median household income **grew by 135%**



Source: U.S. Census, American Community Survey

# Segment #1 Median Household Incomes 1990-2017



1990

2017

## Average Median Household Income

**\$23,176**

(1990)

**\$51,601**

(2017)

- Total income **increased by \$28,425**
- Overall segment income **grew by 123%**
- **Armstrong County (198%)** and **Floyd County (154%)** had the highest increases in income
- No counties had income declines
- No counties had incomes below the poverty level

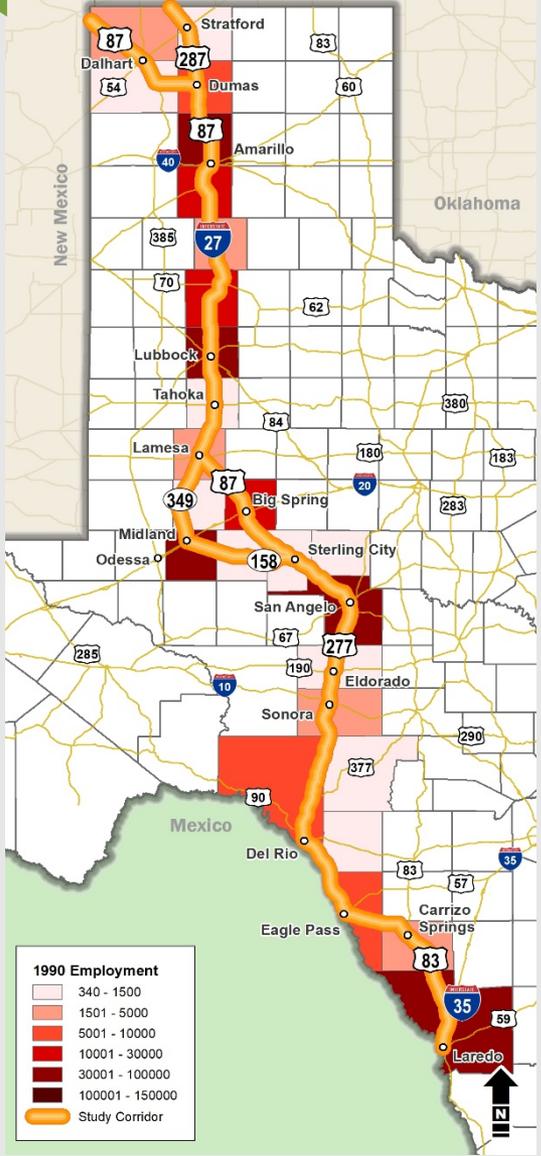


Source: U.S. Census, American Community Survey

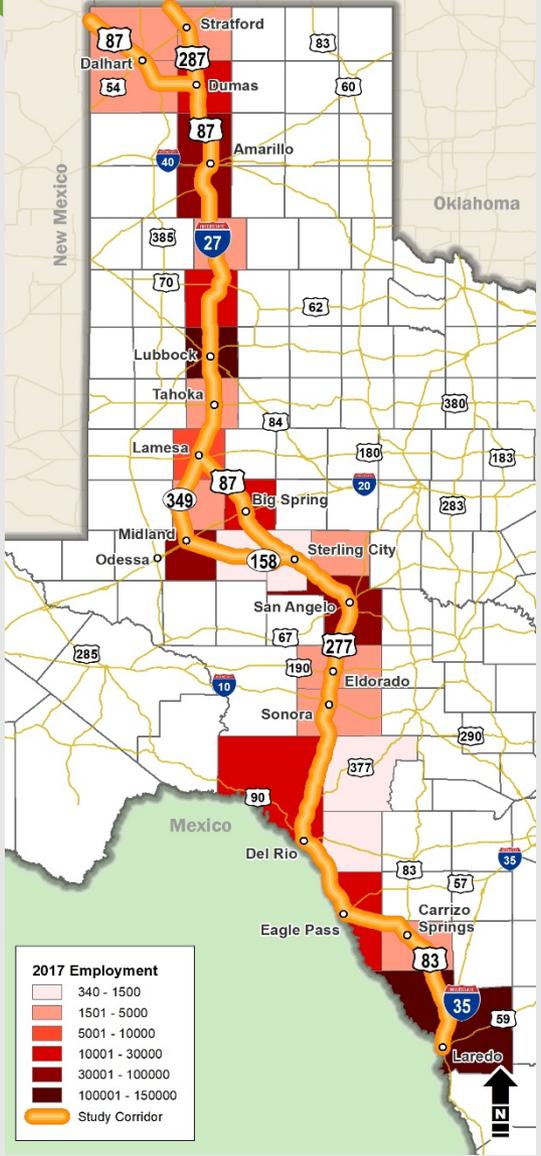
# Corridor Total Employment 1990-2017



1990



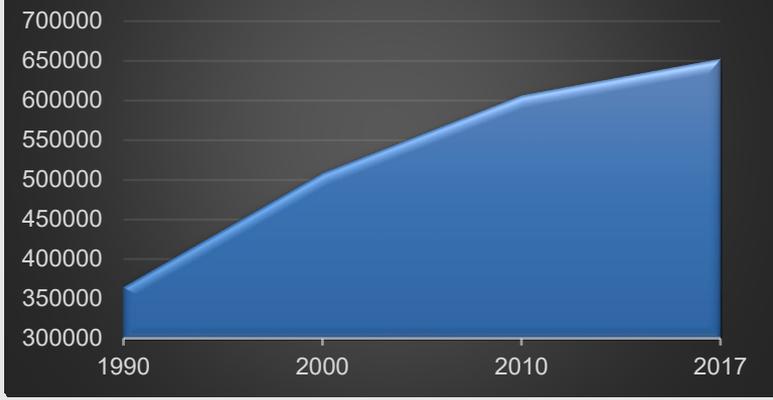
2017



**365,609** (1990)      **651,938** (2017)

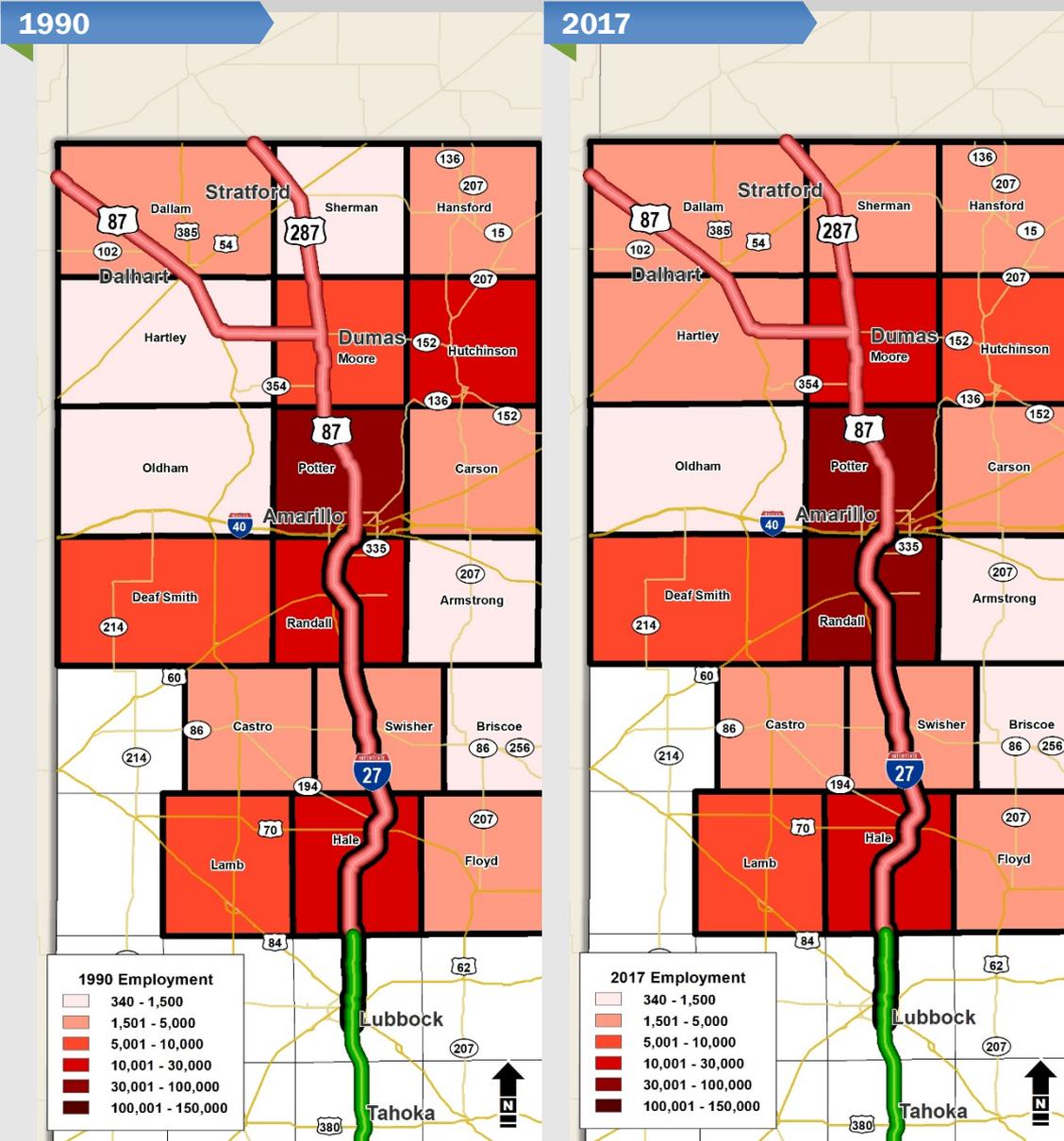
- Corridor total employment **increased by 286,329**
- Overall corridor employment **grew by 78%**

## Corridor Employment 1990-2000



Source: U.S. Census, American Community Survey

# Segment #1 Total Employment 1990-2017



## Employment 1990-2017

**167,608**

(1990)

**201,916**

(2017)

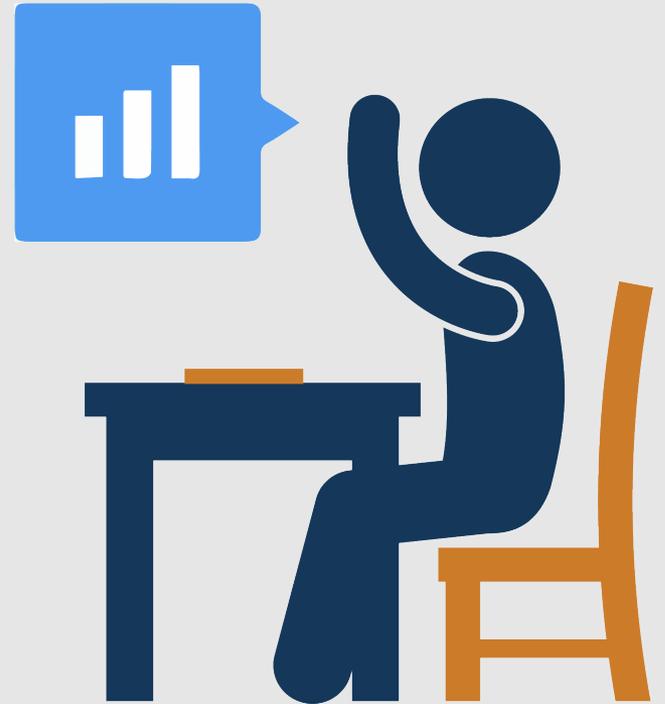
- Total employed population **increased by 34,308** persons
- Overall segment employment **grew by 20%**
- **Dallam and Randall Counties** (48%) had the highest employment growth
- **Floyd County** (-28%) and **Swisher County** (-20%) had the largest declines in employment

Source: U.S. Census, American Community Survey



## Public Feedback

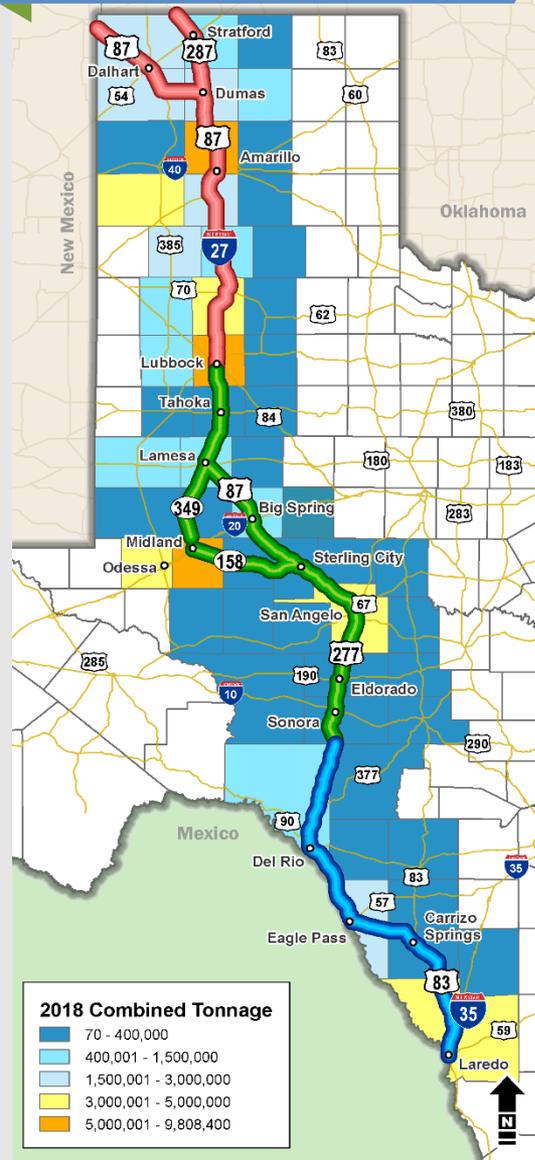
- What factors do you think will influence population, income, and employment in Segment #1 over the next 30 years?



# Corridor Total Freight by County - 2018



## Total Freight Using the Corridor



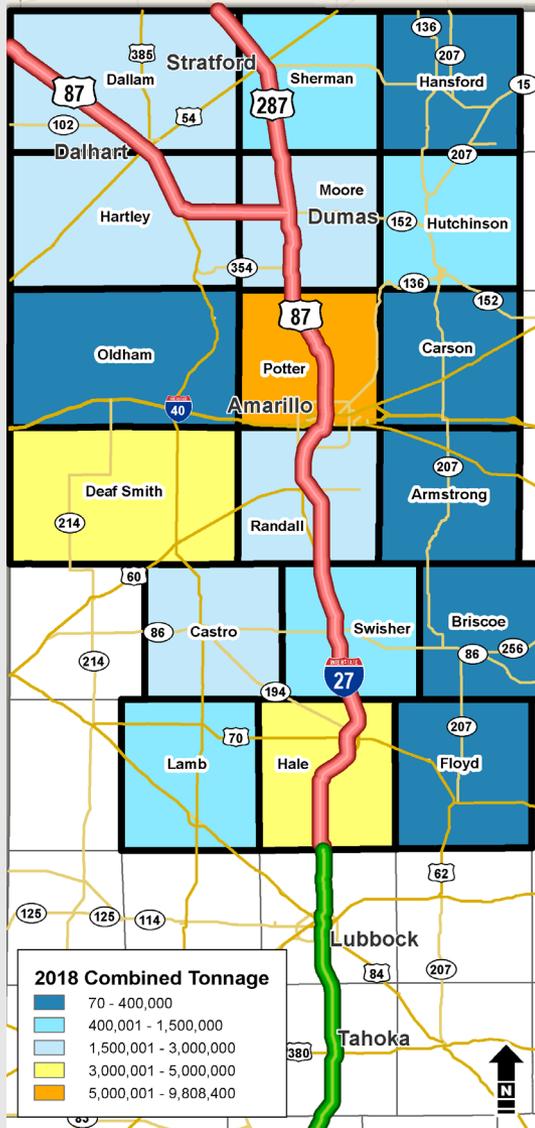
- Map shows the freight traffic from adjacent counties that is **using the Ports-to-Plains Corridor**
- Principal points for truck freight in the corridor are at
  - **Amarillo** (Potter County)
  - **Lubbock** (Lubbock County)
  - **Midland** (Midland County)
  - **Laredo** (Webb County)
- Also existing I-27, Odessa, and San Angelo, northern Panhandle
- Corridor crosses **large rural areas** with light locally produced freight volumes
- Corridor provides **more access to markets** for many nearby counties

Source: TxDOT SAM and TRANSEARCH database

# Segment #1 Total Freight by County - 2018



## Total Freight Using the Segment



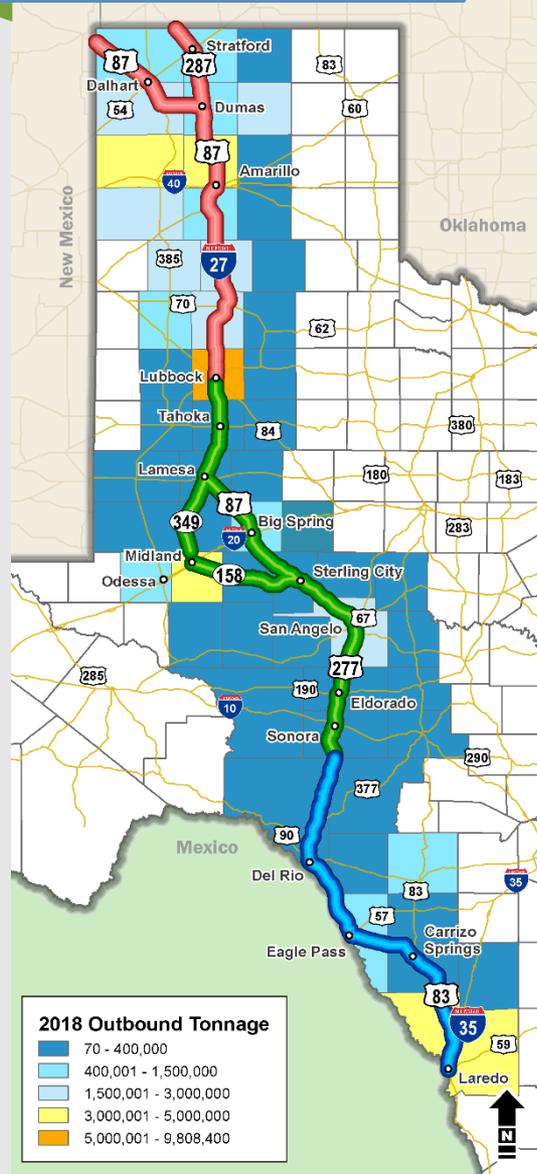
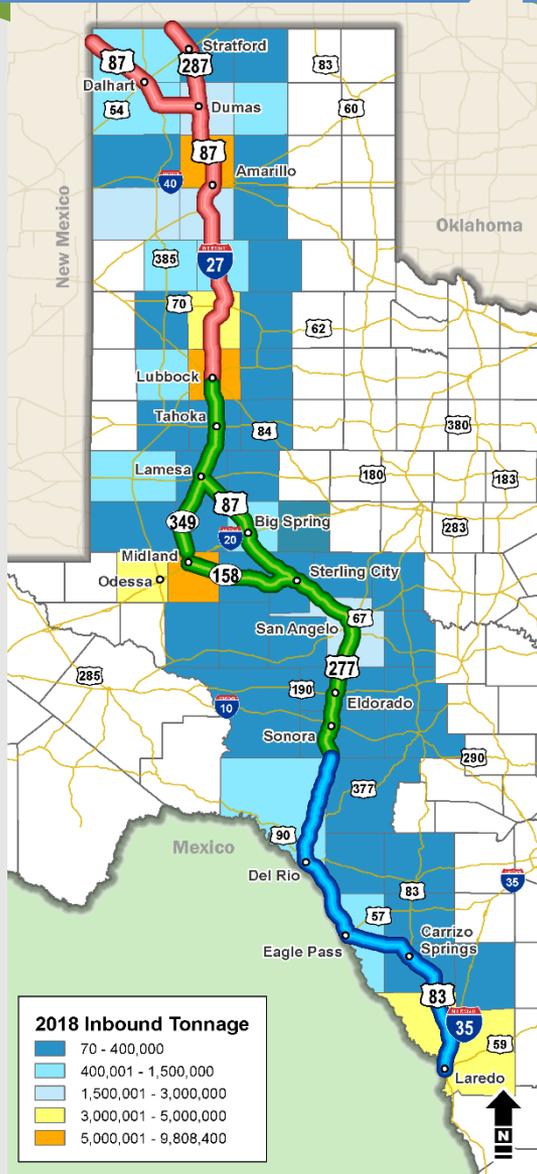
- Map shows the freight traffic from adjacent counties that is **using Segment #1**
- Amarillo (Potter County)** is the principal population center and is responsible for the most freight on the segment
  - Crossroads with **I-40** transcontinental freight route
- Other large tonnage counties are on the corridor or adjacent from the west, notably:
  - Hale County** on I-27
  - Deaf Smith County** west of I-27
- Segment #1 crosses **large rural areas** with small locally produced freight volumes
- Segment #1 provides **more access to markets** for many nearby counties

Source: TxDOT SAM and TRANSEARCH database

# Inbound and Outbound Freight on the Corridor by County - 2018

## Inbound Freight on the Corridor

## Outbound Freight on the Corridor



- **Panhandle** ships more freight than it receives, except:
  - **Amarillo** receives more freight than it ships out
- **Midland/Odessa** receives more freight than it ships out, due to:
  - **Outbound freight traveling by other modes**
  - **Inbound freight supplies industry**
- Port of Entry at **Laredo** is busy in both directions

Source: TXDOT SAM and TRANSEARCH database

# Inbound and Outbound Freight Using Segment #1 by County- 2018

Inbound Freight on the Segment



Outbound Freight on the Segment



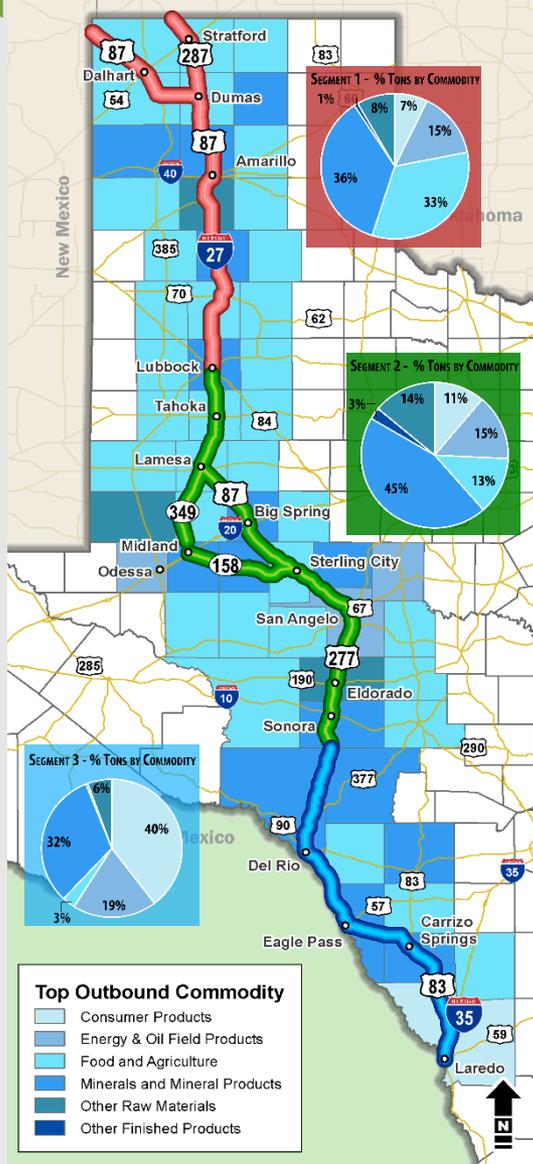
- Freight coming in and out is imbalanced in both directions
- Many counties ship out more than they take in
- Common pattern for production locations in **rural areas**
- Population centers in the segment take in more than they ship out
  - Amarillo (Potter County)**
  - Plainview (Hale County)**
  - Dumas (Moore County)**
- Common pattern in more **urban areas**

Source: TXDOT SAM and TRANSEARCH database

# Corridor Freight Commodities Outbound by County - 2018



## Outbound Commodities on the Corridor

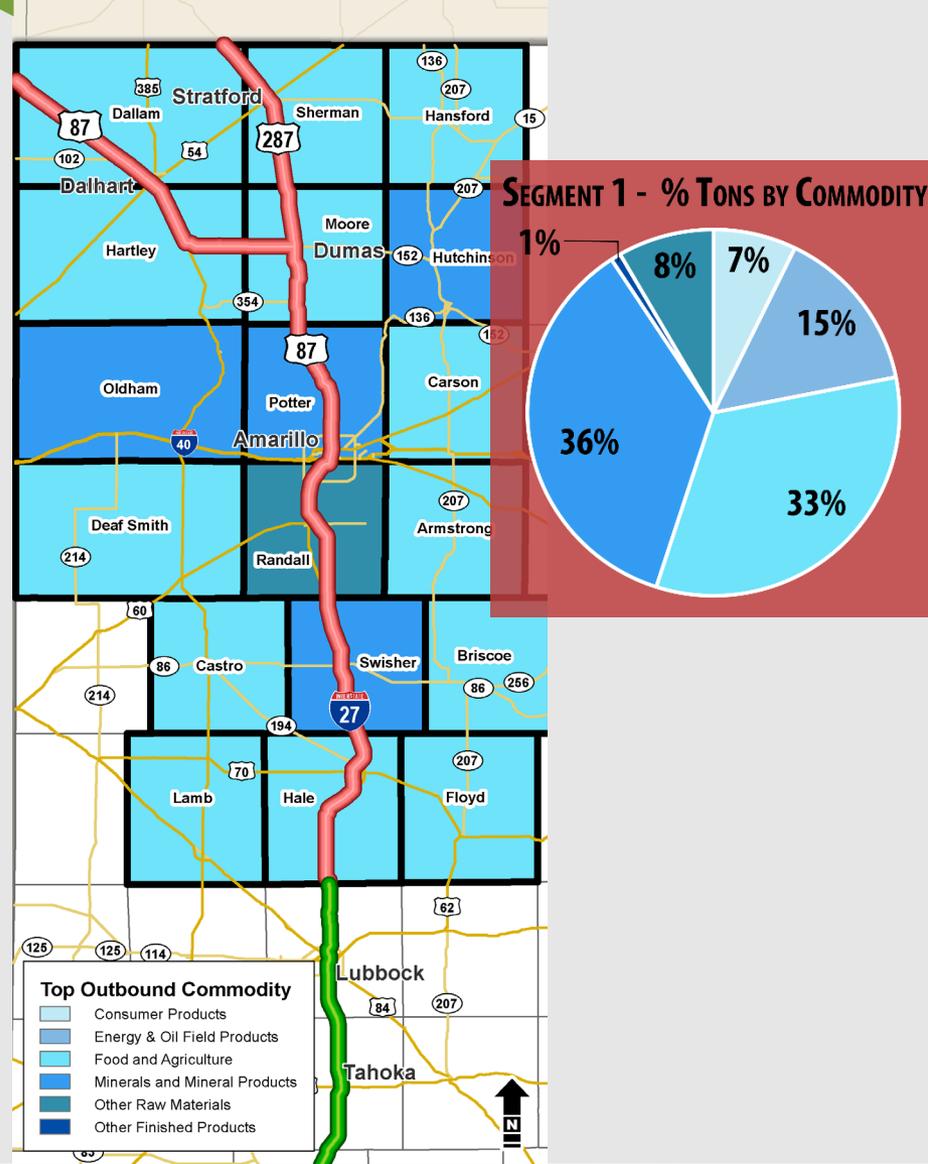


- The mix of **outbound commodities** by truck differs along the corridor:
  - **Food and agriculture** is most prominent in the Panhandle
  - **Mineral products** - including frac sand - are more than half the volume in the Permian Basin
  - **Consumer products** are most prominent further south because of the Laredo gateway
- **Minerals and raw materials** are most often the top commodity in counties on the corridor
- **Food and agriculture** tends to be the top commodity in counties adjacent to the corridor
- **Energy and oil field products** are important across the corridor
  - But truck tonnage is smaller than minerals
  - And other modes also handle outbound shipping

# Segment #1 Freight Commodities: Outbound by County - 2018



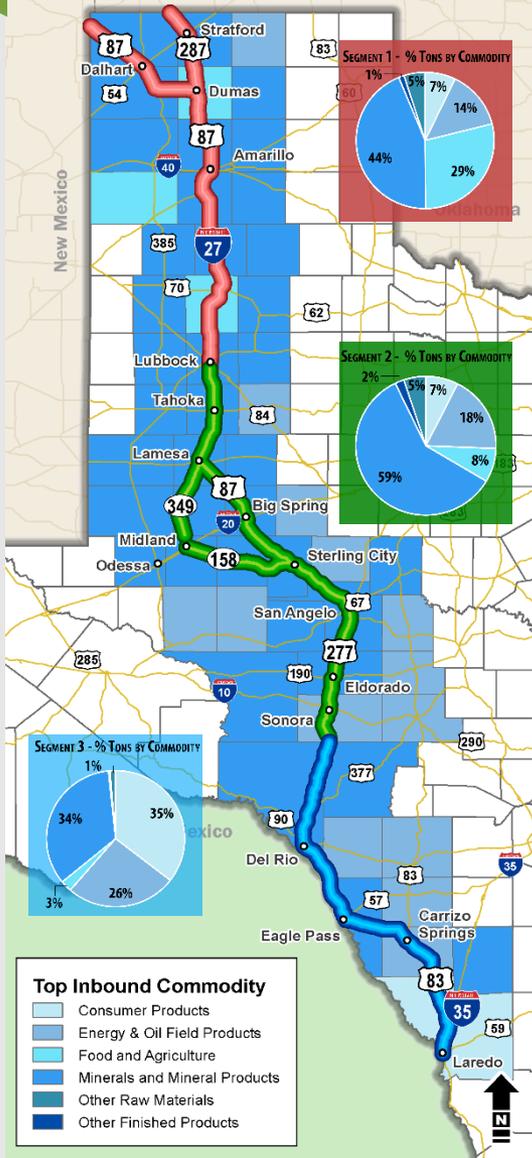
## Outbound Commodities on the Segment



- Highest tonnage of outbound freight on Segment #1:
  - **Mineral/Mineral Products (36%)**
  - **Food and Agricultural Products (33%)**
  - **Energy and Oil Field Products (15%)**
- **Minerals** are the top commodity in four counties (can include frac sand)
- **Agricultural products** (e.g. grain, cotton) have less tonnage than minerals, but are the top commodity in more counties
- **Energy and oil field products** are important, but not at the top
- **Raw Materials** (metals, scrap) are the leading commodity in Randall County

# Distribution of Freight Commodities Inbound by County - 2018

## Inbound Commodities on the Corridor



- **Inbound commodities** is similar to outbound at the corridor level:
  - **Food and agriculture** is most prominent in the Panhandle
  - **Mineral products** - including frac sand - are more than half the volume in the Permian Basin
  - **Consumer products** are most prominent further south because of the Laredo gateway
- The top inbound commodities by county show **less variation** than outbound:
  - The top commodity is either **mineral products** or **energy and oil field products**
  - The biggest exception is **consumer products** at Laredo, mainly concerned with foreign trade

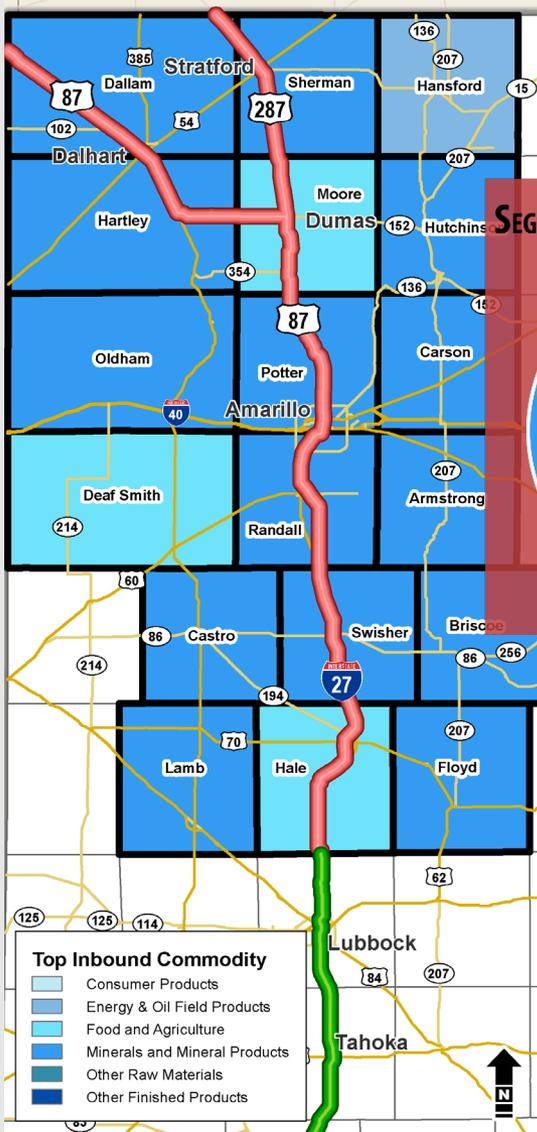
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Source: TXDOT SAM and TRANSEARCH database

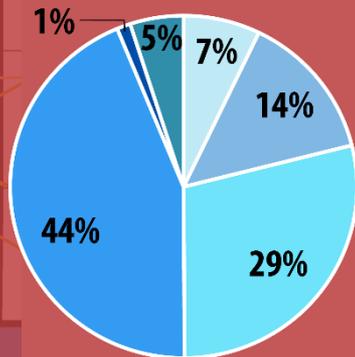
# Segment #1 Freight Commodities: Inbound by County - 2018



## Inbound Commodities on the Segment



SEGMENT 1 - % TONS BY COMMODITY



- Highest tonnage of inbound freight on Segment #1
  - **Mineral/Mineral Products (44%)**
  - **Food and Agricultural Products (29%)**
  - **Energy and Oil Field Products (14%)**
- Mix of commodities coming in by truck on Segment #1 are similar to outbound, but **inbound is more uniform:**
  - **Minerals** are the top inbound commodity in most counties. Importance of minerals related to production input (e.g. fertilizer)
  - **Food/Agriculture** is the leading commodity in Moore, Deaf Smith, and Hale Counties
  - **Energy Products** are the leading type in Hansford County
  - **Consumer Products** (other than food) arrive everywhere, but are smaller by tonnage

Source: TXDOT SAM and TRANSEARCH database

# Foreign Truck Trade Across the Corridor by County - 2018



## Import Freight



## Export Freight



- Foreign trade is chiefly **cross-border trade with Mexico**
  - Also includes Canadian and overseas traffic
- While **Laredo is the top location** for imports and exports, foreign trade appears throughout the corridor
  - Exports from agricultural areas in the **Panhandle** and elsewhere
  - Imports and exports in the **metropolitan** areas
  - Cross-border trucking at **Del Rio and Eagle Pass**
- **Midland/Odessa** receives imports of industrial and consumer supplies
  - Exports also involve other modes

Source: TRANSEARCH database

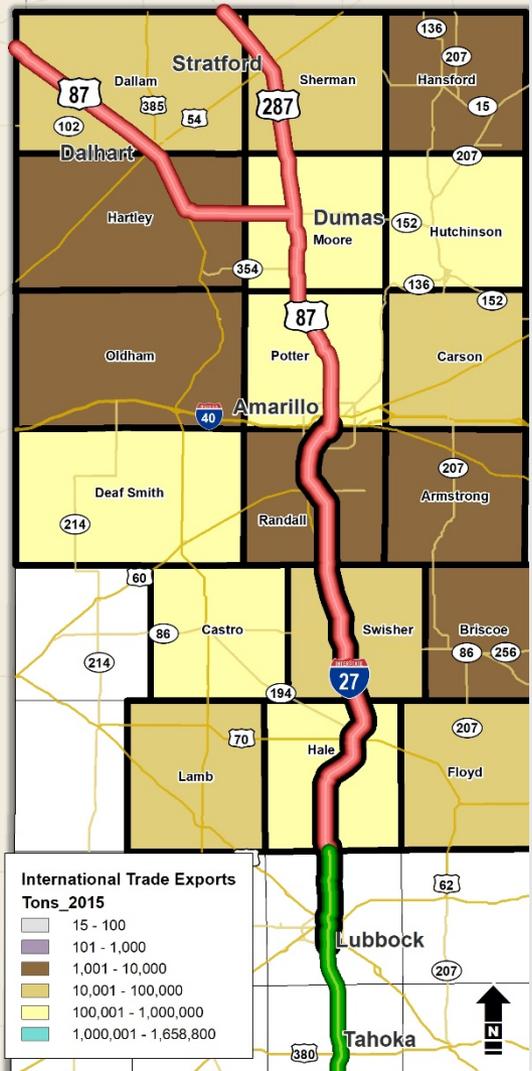
# Segment #1 Foreign Truck Trade by County - 2018



## Import Freight



## Export Freight



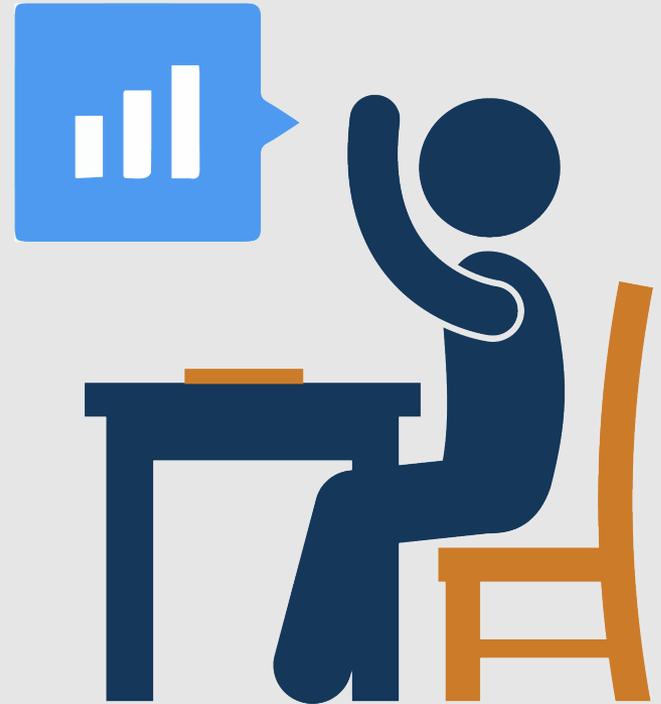
- Foreign trade is chiefly **cross-border trade with Mexico**, with some Canadian and overseas traffic
- Foreign trade appears throughout the segment
- Freight is both **import and export**
- Exports are strong in **agricultural areas**
- Amarillo** has strong imports – due to I-40 and population center
- All counties have some level of involvement in foreign trade

Source: TRANSEARCH database



## Public Feedback

- What are the key needs and challenges for moving people and freight in Segment #1?
- What factors do you think will influence future freight movement in Segment #1?





## **Caroline Mays**

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THANK YOU!