

Texas Department of Transportation Travel Survey Program

Surveys and Survey Procedures



Survey Objectives

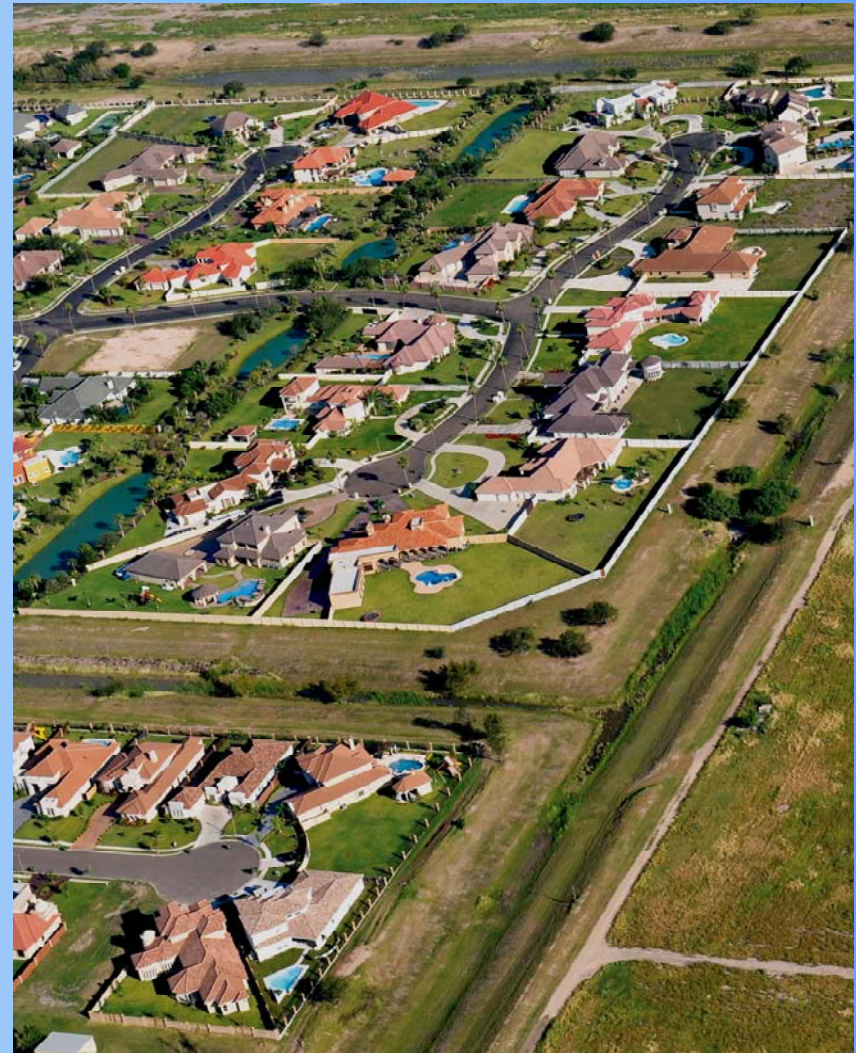
- Provide Data for Travel Demand Models
- Data Profiles for Local MPOs and Elected Officials
- Information for Transportation and Planning Agencies
- Research

Surveys Included in Program

- Household Survey
- Work Place Survey
- Commercial Vehicle Survey
- External Station Survey
- Statewide Border Crossing Survey
- Supporting Data Collection
 - Vehicle classification counts
 - Travel time and delay

Household Survey

- Purpose
 - Trip production rates by trip purpose
 - Trip length frequency distributions by trip purpose
 - Diurnal trip factors



Household Survey

- Design
 - Stratified Sample
 - 2- and 3-way – household size, income, and number employed
 - Subsample participate in GPS data collection
 - Households selected randomly and contacted by telephone
 - Data collected by telephone, completed diary, or Internet

Work Place Survey

- Purpose
 - Trip attraction rates by trip purpose
 - Estimates of non-resident travel



Work Place Survey

- Sample Stratified by Employment Type
- Establishments Selected Randomly
- Special Generators Pre-Selected Cooperatively with MPOs
- Full Survey
- Partial Survey

Commercial Vehicle Survey

- Purpose



- Estimates of total internal commercial vehicle trips
- Trip length frequency distribution for commercial vehicles

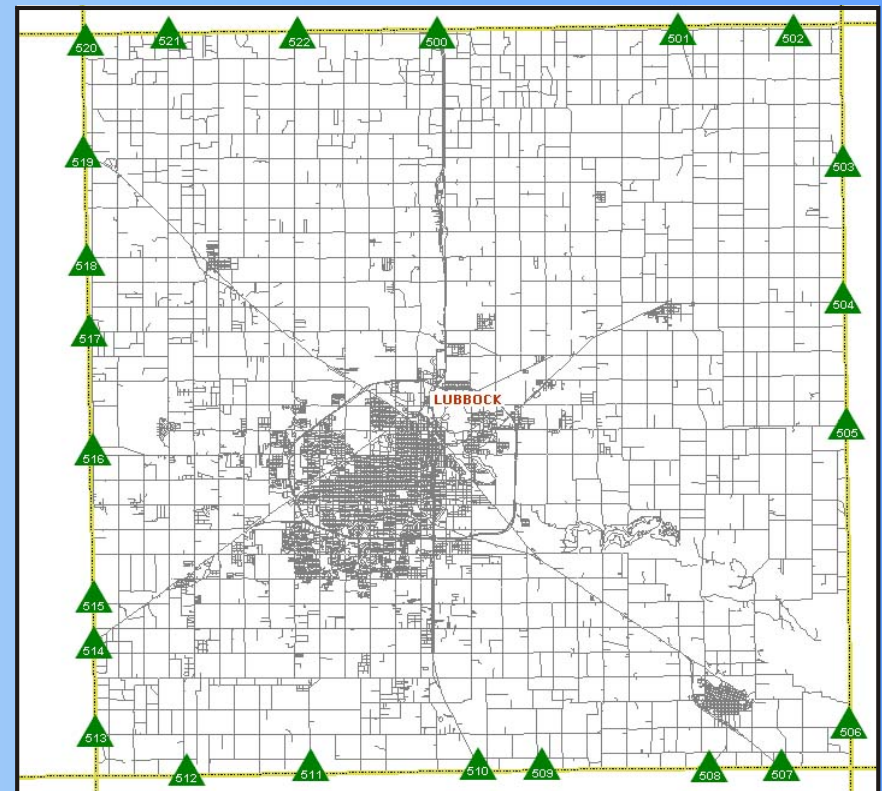
Commercial Vehicle Survey

- Design
 - Sample stratified by vehicle type
 - Cargo transport
 - Service
 - Establishments selected randomly
 - Recruitment verifies owning or leasing vehicles for business purposes
 - Drivers complete one-day diary detailing trips and stops
 - Up to 5 vehicles per establishment

External Station Survey

- Purpose

- External through and local trip tables, non-commercial and commercial
- Percent splits for through and local trips by station
- Trip length frequency distribution for external trips



External Station Survey

- Design
 - Stations selected based on volume and cross section
 - Stations with volumes over 20,000 ADT treated as high volume
 - No intercept survey for non-commercial
 - Commercial surveyed at rest areas and truck stops
 - Video camera used to capture license plates by direction
 - License matching used to estimate through movements

External Station Survey

- Design
 - Stations with volumes less than 20,000 ADT
 - Intercept surveys conducted
 - Outbound direction surveyed except for international crossings
 - Traffic control plans
 - Law enforcement on site entire survey period



Other Data Collection Efforts

- **Vehicle Classification Counts**
 - Purpose
 - Data used in expansion of commercial vehicle surveys
 - Data used by modelers in calculating axle factors
- **Travel Time and Delay**
 - Purpose
 - Data on average speeds by functional class and area types
 - Used in air quality portions of travel demand models
 - Limited to areas with air quality issues

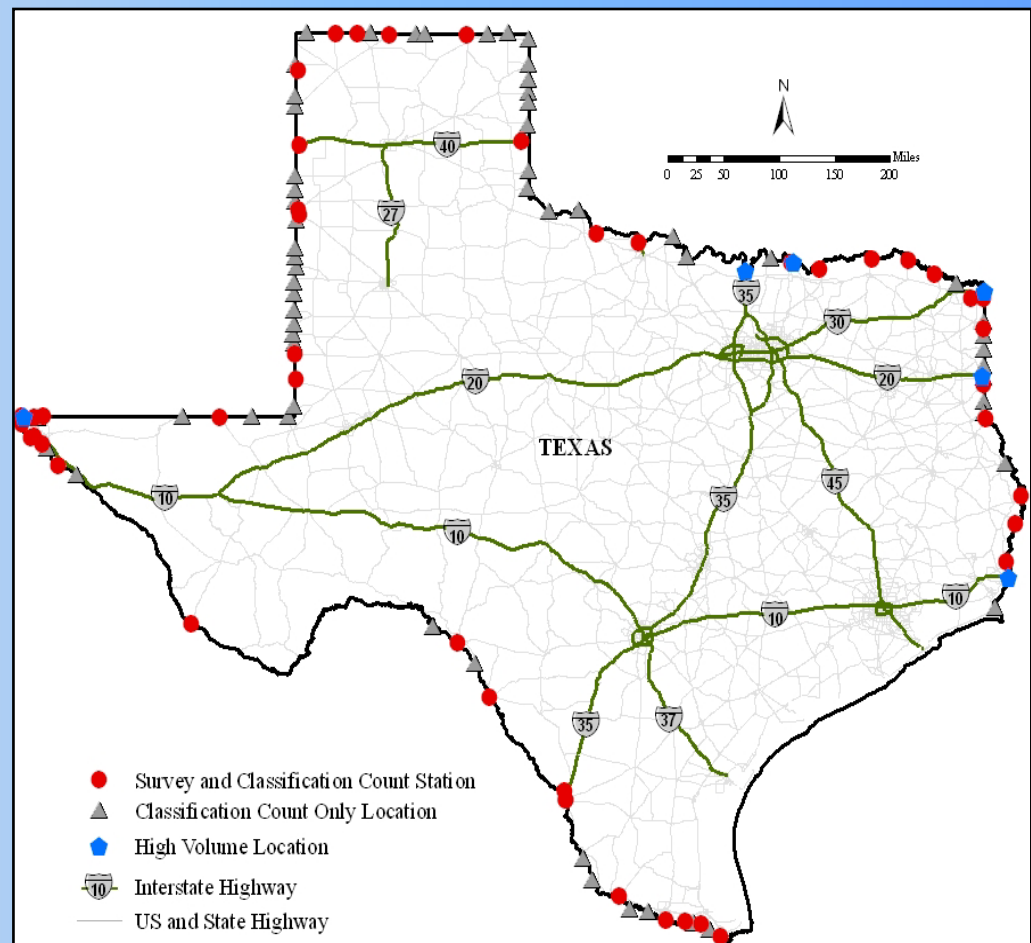
Other Data Collection Efforts

- State Border Crossing Survey

- Purpose

- Data for Statewide Analysis Model (SAM)

- Measures movements in, out, and through state



Evaluation of Surveys

- Data Checking
 - Data submitted monthly during survey
 - Must be reviewed within 21 days
 - Reviews conducted manually and using computer programs
 - Reviews examine
 - Format of data
 - Data values fall within specified ranges
 - Cross checks for logic and reasonableness
 - Geo-coding
 - Meets specification requirements

QUESTIONS

