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 axel 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
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