Bureau of Transportation Statistics (BTS): Programs and Career Opportunities

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Agenda

- BTS overview
- Federal and DOT statistical systems
- Selected BTS programs
- Career opportunities
BTS Overview

- Created in 1991’s Intermodal Surface Transportation Efficiency Act (ISTEA)
- BTS activities are guided by Chapter 63 of Title 49 and OMB Statistical Policy Directives that assure objective, credible statistics for government, business, and the public
- Main BTS programs fill data gaps and transcend all transportation modes (e.g., air, surface, water)
- The BTS Director
  - Serves as the Senior Advisor to the Secretary on data and statistics (49 USC 6302)
  - Is USDOT Statistical Official under the Evidence Act.
BTS Organization based on Statistics Life-Cycle

Data Collection and Acquisition
Offices of Data Development, Airline Information and Safety Data and Analysis

Data Curation and Dissemination
Office of Information and Library Sciences

Departmental Responsibilities
• Senior Advisor to the Secretary on Statistics and Data
• Statistical policy development

Modeling and Estimation
Office of Statistical & Economic Analysis

Visual Analytics
Office of Spatial Statistics and Visualization

Data Analysis
Offices of Transportation Analysis and Safety Data and Analysis
Federal Statistical System

Consists of:

- 13 principal statistical agencies
- In addition, 90+ agencies and units engaged in statistical activities (including 7 in USDOT)
- Statistical and Science Policy Office, OMB
Legislative Mandates

- **Transportation Performance and Impacts**
  - The extent, connectivity, condition, economic efficiency, safety, and consequences for human and natural environment of the transportation system

- **Intermodal Transportation Data**
  - Passenger and freight flows
  - Intermodal connections

- **Transportation and Relevant Geospatial Data**
  - Transportation infrastructure, enabling network assignment of passenger and freight flows by all modes
  - Detailed transportation network to measure conditions and performance
  - Linked to social, economic and environmental data
Legislative Mandates (cont’d)

- **Contribution to the Economy**
  - Transportation Services Index
  - Transportation Satellite Accounts

- **Airline Information**
  - Passenger origin-destination and freight volume by segment
  - On-time performance
  - Financial and employment data on air carriers

- **Safety Data Program**
  - Methods for integrating key safety variables across data sources
  - Identify and address data gaps

- **National Transportation (Digital) Library**
  - Created by the government to be the nation’s preeminent repository of transportation information
  - Monitor usage of DOT-funded research results
COVID-19 Impacts on Passenger Travel

Source: Bureau of Transportation Statistics
The difference in the percentages of people staying at home varies greatly from county to county, from state to state.

**Average Daily Percent of People Staying at Home**

**April 2020**

**June 2021**

**Notes:** A person is classified as staying at home if they make no trips with a trip end more than one mile away from home. Trips are movements that include a stay of longer than 10 minutes at an anonymized location away from home.

**Source:** Bureau of Transportation Statistics, Trips by Distance, https://data.bts.gov/Research-and-Statistics/Trips-by-Distance/w96p-f2qv
The U.S. transportation system moves 55 tons of freight per year for every man, woman and child.

**Freight flow database based on:**
- Commodity Flow Survey
- Integration with multiple other data
- Geospatial data
- Network assignment model

**Source:** Bureau of Transportation Statistics, U.S. Department of Transportation
One contributing factor to supply chain challenge is the higher demand on imported goods, imposing greater stress on ports.

Source: U.S. Census Bureau and U.S. Bureau of Economic Analysis, U.S. Imports of Goods by Customs Basis from World
Geospatial data on emerging travel modes

View the extent of docked bikeshare systems in the U.S. since 2015. Zoom in for a station-level view of each system.


Denver 2018

- Launched April 2010
- Number of stations: 87
- e-Scooter fleet(s): Bird, Lime, Lyft

2015 2017 2019

Interactive Bikeshare and e-Scooter Map
### Percentage of US Population with the Potential to be Exposed to Transportation Noise

<table>
<thead>
<tr>
<th>24-hour Average Sound Level ($L_{Aeq}$)</th>
<th>Common Comparable Sounds</th>
<th>Aviation (% of US Population)</th>
<th>Road (Interstate) (% of US Population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 50</td>
<td>Refrigerator humming (~40 dBA)</td>
<td>97.12</td>
<td>98.00</td>
</tr>
<tr>
<td>50 to 59</td>
<td>Quiet office (~50 dBA)</td>
<td>2.65</td>
<td>1.30</td>
</tr>
<tr>
<td>60 to 69</td>
<td>Conversational speech (~60 dBA)</td>
<td>0.21</td>
<td>0.44</td>
</tr>
<tr>
<td>70 to 79</td>
<td>Vacuum cleaner (~70 dBA)</td>
<td>0.01</td>
<td>0.25</td>
</tr>
<tr>
<td>80 or more</td>
<td>Garbage disposal (~80 dBA)</td>
<td>&lt;0.01</td>
<td>0.06</td>
</tr>
</tbody>
</table>

**Source:** Bureau of Transportation Statistics, U. S. Department of Transportation
Navigating **BTS Website**

**Drop down menus include:**

- **major topics** if you are not sure what you are looking for
- **statistical products** if you know the program
- **Job and Internship opportunities**
Career Opportunities at BTS

• Mathematical Statistician
• Spatial Statistician
• Modeler on decision system modeling
• Econometrians
• Data Scientist
• Experts on Specific Topics
  – Freight/Supply Chain
  – Equity
  – Finance