Interactive Web Mapping Applications for Planning

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2017 Local Employment Dynamics (LED) Partnership Annual Workshop
H-GAC serves:

- 13 counties
- 134 cities
- 6.9 million people
- 3 million jobs
- MPO for 8-county metro area
Application 1

Commuting Patterns Tool
Houston- Employment Centers
Overview

- Analyzes workers commuting patterns between home and workplace


- Geographic-level: Hexagon Grids, Census Tracts, Zip Codes, Regional Sections, and County

- Update: Annual

- Software/Tools: SAS, GIS, and Tableau
Example 1: The Woodlands
Example 2: Pearland
Example 3: Katy
Example 4: Sector 12

**Sector Details (Where Most Workers Work)**
- Sector 12: 155,288 (100.0%)

**Sector Details (Where Most Workers Live)**
- Sector 12: 19,506 (12.6%)
- Sector 14: 11,892 (7.7%)
- Sector 8: 11,395 (7.3%)
- Sector 22: 11,002 (7.1%)
- Sector 1: 7,181 (4.6%)
- Sector 11: 5,446 (3.5%)
- Sector 23: 4,372 (2.8%)
- Sector 5: 4,158 (2.7%)
- Sector 17: 3,997 (2.6%)
- Sector 9: 3,452 (2.2%)
- Sector 19: 3,445 (2.2%)
- Sector 4: 2,772 (1.8%)
- Sector 25: 2,359 (1.5%)
- Sector 6: 2,219 (1.4%)
- Sector 18: 1,962 (1.3%)
- Sector 21: 1,770 (1.1%)
Example 5: Workforce Characteristics
Example 6: Commute Patterns Trend
Application 2

ACE Tool: Activity-Connectivity Explorer
Overview

- Identify existing activity center(s) based on density and connectivity index using hexagonal grid system.
- Measure neighborhood accessibility to population, jobs, and amenities
- **Density Indicators**: Household Population, Household, Employment, Activity Population (Population + Employment), Jobs/Housing balance
- **Connectivity Indicators**: Intersections
- **Accessibility Indicators**: Amenities (Ped-bike destinations), Activity Population, Intersections
- **Accessibility Score** = Activity Index (40%) + Connectivity Index (20%) + Amenity Index (40%)
- **Source**: US Census 2000 and 2010, US Census LEHD, Metropolitan Transit Authority of Harris County, County Appraisal Districts, and H-GAC.
"Activity & Connectivity"

- Top 10% Intersection Density
- Top 10% Activity Population
“Activity, Connectivity, & Amenities”

- Top 10% Connectivity
- Top 10% Amenity Concentration
- Top 10% Activity
“Mixed Use Neighborhoods”

Jobs to Households ratio between 0.76 and 1.5
“In Top 10% of Accessibility Score”
Employment Density Comparison (2002-2016)
DEMO

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