Go Ohio System Designation
Ohio Futures Statewide Plan

presented to
Conference on Performance Measures for Transportation/ Livable Communities

presented by
Cambridge Systematics, Inc.
Elizabeth Sanford

September 8, 2011

Transportation leadership you can trust.
Goal of Transportation Investment: Increase Economic Prosperity
Go OHIO Policy Plan

Economic Growth and Prosperity

- Increase Ohio’s Competitiveness
- Connect Transportation System Investment to Targeted Industries
- Link Land Use and Transportation Decision-Making
- Advance a Green Economy
Strategy 1: Increase Economic Competiveness

Strategy 2: Connect Transportation Investment to Targeted Industries

Transportation network is glue that binds the Ohio economy together…

It allows:

- People to reach their workplaces,
- Corporations to receive supplies and ship products
- Visitors to reach attractions
- Students to attend college
- Businesses to have face-to-face meetings (beneficial for sales)
- Restaurants and stores to draw customers
Transportation investment can be a tool for ensuring future economic development while minimizing the cost of growth.

Ohio’s Population and Developed Land
Strategy 4 - Advance a Green Economy

- Transportation options provide redundancy, reduce demand on all modes, and allow for efficiencies to be incorporated into the system, which leads to:
  - Congestion reduction
  - Air quality improvements
  - Potential reductions to VMT

- Encouraging modal diversity can be a tool for ensuring economic development while minimizing environmental impacts.
From Policy Plan to Analysis Framework

- Policy Plan provides foundation (goal and objectives) and

- Strategic focus areas for analysis
  
  • develop efficient, advanced, high-value transportation solutions that attract and grow business in Ohio.

  • identify high priority transportation needs that have the potential to dramatically grow business and elevate Ohio’s position as a national transportation leader.

  • ensure the safe mobility of the State’s residents, support the long-term vitality of communities, and incorporate green principles while improving its transportation assets.

  • identify the most strategic elements of the state’s transportation system and specific performance measures that will improve accountability regarding future investments.
Go OHIO Overarching Analysis

Go OHIO Strategies
- Increase Ohio’s Competitiveness
- Connect Transportation System Investment to Targeted Industries
- Link Land Use and Transportation Decision-Making
- Advance a Green Economy

Motivates...

Overarching Analyses
- General Economic Analysis
- Targeted Industry Goods Movement Analysis
- Targeted Industry People Movement Analysis
- Livability Analysis

Applied to...

Modal Evaluation & System Designation
- Aviation
- Maritime
- Highway
- Freight Rail
- Intercity Passenger Service
- Bicycle/Pedestrian
- Transit
## Go OHIO – Overarching Analysis Components

<table>
<thead>
<tr>
<th>Analytic Strategy</th>
<th>Targeted Industries</th>
<th>All Industries (general)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on Goods Movement</td>
<td>Examine freight supply chains</td>
<td>Examine factors of each county to indicate economic development readiness</td>
</tr>
<tr>
<td>Focus on People Movement</td>
<td>Examine how transportation system links people to jobs and businesses to key trading partners</td>
<td>Examine criteria to indicate livability of communities (census tracts) and how multimodal options contribute to <strong>livability</strong></td>
</tr>
</tbody>
</table>
Overarching Analysis Components

- Overarching Analysis Components include:
  - Targeted Industry People Movement
  - Targeted Industry Goods Movement
  - General Economic Analysis
  - Livability Analysis

- Livability analysis best used as an integrated facet of overarching analysis, not a stand-alone analysis.
General Economic Analysis

Business Attraction Criteria

- Transportation
- Labor
- Land/Buildings
- Business Climate
- Utility Infrastructure and Costs
- Livability
Livability Analysis: Five Building Blocks

- Economic and Social Vitality
- Housing Choice
- Transportation Choice
- Environment
- Safety and Security
Livability Analysis - Approach

1. Identify range of factors that contributes to each building block;

2. Refine factors to a manageable set of indicators that can be measured statewide;

3. Determine whether statewide datasets are available to support these indicators;

4. Develop individual methodologies to measure each indicator;
Livability Analysis - Approach

5. Collect and synthesize data;

6. Analyze data and evaluate findings;

7. Aggregate the individual indicators under each building block into a single metric for the building block; and

8. Develop a livability index that weighs the relative contributions of each indicator to livability.
<table>
<thead>
<tr>
<th>Livability Indices</th>
<th>Jobs-housing balance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Retail, dining, and related establishment density</td>
</tr>
<tr>
<td></td>
<td>Vacancy rate</td>
</tr>
<tr>
<td></td>
<td>Community growth or decline</td>
</tr>
<tr>
<td></td>
<td>Population per square mile</td>
</tr>
<tr>
<td><strong>Economic and Social Vitality</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dwelling units to households ratio</td>
</tr>
<tr>
<td></td>
<td>Housing units by value</td>
</tr>
<tr>
<td></td>
<td>Housing affordability index</td>
</tr>
<tr>
<td><strong>Housing Choice</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Transportation Choice</strong></td>
<td>Transit availability</td>
</tr>
<tr>
<td></td>
<td>Relative transit accessibility</td>
</tr>
<tr>
<td></td>
<td>Street grid density</td>
</tr>
<tr>
<td></td>
<td>Bicycle Level of Service</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Air Quality</td>
</tr>
<tr>
<td></td>
<td>Water Quality</td>
</tr>
<tr>
<td></td>
<td>Park Space</td>
</tr>
<tr>
<td><strong>Safety &amp; Security</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Crashes on the road network</td>
</tr>
<tr>
<td></td>
<td>Modified index of crime per capita per county</td>
</tr>
</tbody>
</table>
## Livability Analysis – Data Sources

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Data Source(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economic and Social Vitality</strong></td>
<td></td>
</tr>
<tr>
<td>Retail and Dining Establishment Density</td>
<td>Harris data; U.S. Census Bureau tract boundaries</td>
</tr>
<tr>
<td><strong>Housing Choice</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Transportation Choice</strong></td>
<td></td>
</tr>
<tr>
<td>Transit Availability</td>
<td>Transit network data, Ohio Transit Agencies, ODOT Report on Transit</td>
</tr>
<tr>
<td>Relative Transit Accessibility</td>
<td>Harris data; 2003 Tele Atlas USA StreetMap; Transit network data; Census Bureau tract boundaries</td>
</tr>
<tr>
<td>Street Grid Density</td>
<td>ODOT road network data</td>
</tr>
<tr>
<td>Bicycle Level of Service</td>
<td>ODOT road network data</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td></td>
</tr>
<tr>
<td>Park Space</td>
<td>Park GIS data, U.S. Bureau of the Census</td>
</tr>
<tr>
<td><strong>Safety and Security</strong></td>
<td></td>
</tr>
<tr>
<td>Crashes on the Road Network</td>
<td>Ohio Department of Public Safety, OHIO Traffic Crash Facts, 2008</td>
</tr>
<tr>
<td>Crime per Capita</td>
<td>Ohio Department of Public Safety, Office of Criminal Justice Services: Crime Statistics and Crime Reports, Crime by County, 2008</td>
</tr>
</tbody>
</table>
Go OHIO Analysis Results – Transit Availability

Legend

Transit Availability
- Low
- Medium
- High

Supporting Infrastructure
- Interstate Highways
- Principal Arterial Roadways
- Waterways
- County Boundaries
Go OHIO Analysis Results – Transit Accessibility

Legend
Transit Accessibility
- Low
- Medium
- High

Supporting Infrastructure
- Interstate Highways
- Principal Arterial Roadways
- Waterways
- County Boundaries
Go OHIO Analysis Results – Road Density

Legend
Road Density per Square Mile
- Very Sparse Roadway Network
- Sparse Roadway Network
- Average Roadway Network
- Dense Roadway Network
- Very Dense Roadway Network

Supporting Infrastructure
- Interstate Highways
- Principal Arterial Roadway
- Waterways
- County Boundaries
Go OHIO Analysis Results – Livability Summary
Lessons Learned
Transportation and Livability Analysis

- Basic tension between two competing issues.
  - Geographic Scale: Statewide Study but Livability more naturally defined at community or neighborhood level
  - Data Availability: Most of the indicators are calculated for census tracts to allow for measurement at the neighborhood level, where livability is naturally experienced, while also allowing for clearly defined statewide roll-up.

- Need for creative approaches.
  - Integrated planning (transportation and livability as components of overarching analysis)
  - Representative set of indicators
Go OHIO System Designation

For more information:
Elizabeth Sanford, Cambridge Systematics
esanford@camsys.com
404-460-2615
www.camsys.com