Transportation Planning and Analysis & Census Bureau Data in 2010 and beyond

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The United States Census

• For many years, a decennial source of socio-economic and transportation behavior data.
  – Other than population, race and housing unit counts, all data came from a sample-based “long form” survey.
  – Data has been the basis of the Census Transportation Planning Products program (CTPP)
    • Home- and Work-Based Profiles
    • Journey to Work and Worker Flow
Franklin County Commuting Data, 2000

<table>
<thead>
<tr>
<th>County of Work</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Franklin Co.</td>
<td>14,420</td>
<td>63.9</td>
</tr>
<tr>
<td>Chittenden Co.</td>
<td>7,292</td>
<td>32.3</td>
</tr>
<tr>
<td>Lamoille Co.</td>
<td>280</td>
<td>1.2</td>
</tr>
<tr>
<td>Out of State</td>
<td>223</td>
<td>1.0</td>
</tr>
<tr>
<td>Washington Co.</td>
<td>144</td>
<td>0.6</td>
</tr>
<tr>
<td>Orleans Co.</td>
<td>61</td>
<td>0.3</td>
</tr>
<tr>
<td>Addison Co.</td>
<td>59</td>
<td>0.3</td>
</tr>
<tr>
<td>Grand Isle Co.</td>
<td>49</td>
<td>0.2</td>
</tr>
<tr>
<td>Caledonia Co.</td>
<td>18</td>
<td>0.1</td>
</tr>
<tr>
<td>Rutland Co.</td>
<td>16</td>
<td>0.1</td>
</tr>
<tr>
<td>Orange Co.</td>
<td>13</td>
<td>0.1</td>
</tr>
<tr>
<td>Windsor Co.</td>
<td>3</td>
<td>0.0</td>
</tr>
<tr>
<td>Bennington</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Essex</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Windham</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>22,578</strong></td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td><strong>Commute Outside County</strong></td>
<td><strong>8,158</strong></td>
<td><strong>36.1</strong></td>
</tr>
</tbody>
</table>

Towns where Top 75% of Resident Workforce is Employed

<table>
<thead>
<tr>
<th>Workplace</th>
<th>Count</th>
<th>%</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Albans city Franklin Co.</td>
<td>5,043</td>
<td>22.3</td>
<td>22.3</td>
</tr>
<tr>
<td>St. Albans town Franklin Co.</td>
<td>2,489</td>
<td>11.0</td>
<td>33.4</td>
</tr>
<tr>
<td>Essex town Chittenden Co.</td>
<td>1,883</td>
<td>8.3</td>
<td>41.7</td>
</tr>
<tr>
<td>Swanton town Franklin Co.</td>
<td>1,686</td>
<td>7.5</td>
<td>49.2</td>
</tr>
<tr>
<td>Burlington city Chittenden Co.</td>
<td>1,560</td>
<td>6.9</td>
<td>56.1</td>
</tr>
<tr>
<td>South Burlington city Chittenden Co.</td>
<td>1,217</td>
<td>5.4</td>
<td>61.5</td>
</tr>
<tr>
<td>Enosburg town Franklin Co.</td>
<td>1,057</td>
<td>4.7</td>
<td>66.1</td>
</tr>
<tr>
<td>Williston town Chittenden Co.</td>
<td>806</td>
<td>3.6</td>
<td>69.7</td>
</tr>
<tr>
<td>Colchester town Chittenden Co.</td>
<td>692</td>
<td>3.1</td>
<td>72.8</td>
</tr>
<tr>
<td>Richford town Franklin Co.</td>
<td>690</td>
<td>3.1</td>
<td>75.8</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2000 Census of Population and Housing
FRANKLIN COUNTY
Commuter Flow to Towns Where Top 75 Percent of County Resident Workforce Is Employed

Percent of Franklin County Resident Workforce Employed
- 3.1 - 4.7%
- 4.7 - 8.3%
- 11.0% (St. Albans Town)
- 22.3% (St. Albans City)

SOURCES:
- Commuting Data: U.S. Census Bureau, 2000 Census of Population and Housing
- Road Centerlines: Vermont Agency of Transportation
- Political Boundaries: Vermont Center for Geographic Information

nvm.edu/crs
Towns by Net Imported Daily Workers (according to 1990 categories)

-3,000 to -830
-829 to -1
0 to 3,000
3,001 to 10,200

County Boundaries

1990

2000

SOURCES
Worker Data: U.S. Census Bureau, 1990 and 2000 Censuses of Population and Housing
Political Boundaries: Vermont Center for Geographic Information
Changes in 2010

2010 Census
- “Short Form” Only
- Counts of People and Housing Units
- Basic Demographics

American Community Survey
- Since 2005
- Annual Data Releases
- Replacing the “Long Form”
- Characteristics of the Population: Income, Poverty, Transportation, Disability, Employment, Housing Conditions, etc.
The 2010 Census

Collected April-July 2010
“Short Form” only
- Population, Race and Housing Unit Counts

Release Schedule Summary:
- Dec 2010: State Population Counts
- May 2011: Demographic Profiles
- Jun-Aug 2011: Full data to block level
- Oct 2012: Urban/Rural delineations
- Jul-Aug 2013: CBSAs redefined
American Community Survey

• Annual Data Releases
• Replaces the Census “Long Form”
• Income, Poverty, Transportation, Disability, Employment, Ancestry, Education, Housing Conditions...
• Year-long enumeration of 3+ million U.S. households.
• Focus on Characteristics, not counts.
Some Key Differences

• Margins of Error Included
• “Residence Rule” = more than 2 months
• Smaller geographies receive multi-year estimates
• Suppression of “unreliable” tables
American Community Survey

Data in Multi-Year Period Estimates

- Combine more than one year’s sample
- First 5-year estimate planned for December 2010

<table>
<thead>
<tr>
<th>Data Product</th>
<th>Population Threshold</th>
<th>Year of Data Release</th>
<th>Year(s) of Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2006 2007 2008 2009</td>
<td>2005 2006 2007 2008 2009</td>
</tr>
<tr>
<td>1 - year Estimates</td>
<td>65,000+</td>
<td>2010 2011 2012</td>
<td>2010-2012</td>
</tr>
<tr>
<td>3 - year Estimates</td>
<td>20,000+</td>
<td>2011 2012</td>
<td>2011-2012</td>
</tr>
<tr>
<td>5 - year Estimates</td>
<td>All Areas*</td>
<td>2012</td>
<td>2012</td>
</tr>
</tbody>
</table>

*All legal, administrative and statistical geographic areas down to the tract and block group level.
Margins of Error
Median Age, Vermont, 2008

<table>
<thead>
<tr>
<th></th>
<th>Vermont</th>
<th>Margin of Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total:</td>
<td>41.5</td>
<td>+/-0.3</td>
</tr>
<tr>
<td>Male</td>
<td>40.3</td>
<td>+/-0.3</td>
</tr>
<tr>
<td>Female</td>
<td>42.8</td>
<td>+/-0.4</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2008 American Community Survey

- Data actually in ranges
- Allow tests for statistical significance
American Community Survey

The Residence Rule

- Decides where you are counted

**How many people are living or staying at this address?**
- **INCLUDE** everyone who is living or staying here for more than 2 months.
- **INCLUDE** yourself if you are living here for more than 2 months.
- **INCLUDE** anyone else staying here who does not have another place to stay, even if they are here for 2 months or less.
- **DO NOT INCLUDE** anyone who is living somewhere else for more than 2 months, such as a college student living away or someone in the Armed Forces on deployment.

**Number of people**

- Includes seasonal residents
Percentage of Omaha Population in Poverty (Individuals)

Source: American Community Survey, U.S. Census Bureau, 1997-2005

Note: The ACS only surveyed households and does not include the group quarters population.
3-Year Census Transportation Planning Products Release

What is the CTPP?
* A set of special tabulations from the American Community Survey tailored for the data needs of transportation planners

*Produced by the Census Bureau, sponsored and owned by American Association of State Highway Transportation Officials (AASHTO)

Slide prepared by U.S. Census Bureau and CTPP partners.
3-year CTPP Data Product

Available Late Nov. 2010
20,000 Pop. Areas

http://trbcensus.com/products

Slide prepared by U.S. Census Bureau and CTPP partners.
3-year CTPP Product Summary

• Based on CTPP2000 Tables
• Many NEW Univariate Tables
• More Age, Race, Household-level Tables
• Several Flow Tables Included
• Tables Include MOEs
• Reduced Number of Crosstabs with Mode
  • -- Travel time
  • -- Household income
  • -- Vehicle availability
  • -- Age
  • -- Time leaving home

• Tables will have Suppression
  • -- Means based on at least 3 values
  • -- At least 3 records in Flow

Slide prepared by U.S. Census Bureau and CTPP partners.
The 3-year Product Design

### Based on 2000 Geography

<table>
<thead>
<tr>
<th>Geographic Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nation (US Total)</td>
</tr>
<tr>
<td>State</td>
</tr>
<tr>
<td>State-County</td>
</tr>
<tr>
<td>State-County-MCD</td>
</tr>
<tr>
<td>State-Place</td>
</tr>
<tr>
<td>State-PUMA</td>
</tr>
<tr>
<td>State-POW PUMA</td>
</tr>
<tr>
<td>Metropolitan Statistical Area</td>
</tr>
<tr>
<td>MSA – EACH Principal City</td>
</tr>
</tbody>
</table>

### Product Structure

3-Parts

- **Part 1** - Place of Residence
- **Part 2** - Place of Work
- **Part 3** - Flows between Home and Work

Product documentation available at:
Accessing the 3-year data

- All tables available for download online
  - Free, but you must register
  - Online tutorials available

- User Friendly Features:
  - Search for tables by keyword
  - Click on a map to select geography

- Early release of county-to-county flows:

Slide prepared by U.S. Census Bureau and CTPP partners.
Other Forthcoming Commuting Products based on the ACS

- County-to-county home-to-work flows based on 5-year ACS 2006-2010
- Produced to support development of new metro area definitions

Slide prepared by U.S. Census Bureau and CTPP partners.
Key CTPP Contact

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http://ctpp.transportation.org

Slide prepared by U.S. Census Bureau and CTPP partners.
Thank you!

...resources and expertise to support rural people and communities

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