Using Transportation Data to Help Advance Our TDM Efforts

Action Steps

Data Collection and a VTEN Database:
1) Partners can submit a data need/question to Bethany
2) Annotated list of data needs and resources will go on VTEN website
3) Future: develop a clearinghouse of distilled and relevant Vermont data and resources?
4) Please submit new data needs, data sources, or ideas for developing any of this
5) Jim Sullivan at UVM-TRC will continue to be a resource

Steering Committee
1) If you're interested in helping guide the direction of VTEN, please e-mail Bethany about joining the VTEN steering committee. It's a small time commitment but very important!

What Transportation Data Exist and How Can We Get Them?  
(Jim Sullivan)

Jim provided a quick overview of several important sources of transportation data. (See accompanying “Sources of Transportation Data for TDM in Vermont” that combines Jim’s handout and presentation.)

Partners need data but are busy and aren't fluent with database search tools. For example, Jason uses the “People for Bikes” statistics library for quick bicycle facts since it's more accessible than the American Community Survey.
- Can we have a Vermont-specific statistics and data library/clearinghouse containing synthesized and distilled information?
- How would this be created and maintained?
- Would it be useful to have step-by-step instructions on how to use the more complex searchable databases, like ACS?
- Need a way to understand assumptions and make sure we're accurately interpreting the data we find.

Several partners said that they would like better employment data – names of major employers, where employees live, when and how employees get to work, etc. – to help tailor TDM outreach. (Note: the VTEN website currently houses survey templates that can be used to survey employees or town residents.)

There may be a gap between what TRC can provide and what VTEN partners need, because UVM-TRC focuses on research and modeling data, whereas VTEN partners tend to seek data to help with funding applications and public outreach. Regardless, a closer partnership between VTEN and the UVM Transportation Research Center would be helpful.

Jim said that from his perspective in the data world, getting people to fill up single occupancy vehicles would be the TDM activity with the most “bang for the buck.”
**Case Studies: Using Data to Improve Outcomes and Steer Program Growth**

**CAPITAL COMMUTERS** (Deb Sachs & Aaron Brown)
Pilot began July 1, 2013. Goal: alleviate parking demand in Montpelier and improve access to smart transportation options for state employees. Participation in program = 50% off bus passes, carpool and vanpool parking, discount rewards card, guaranteed ride home, raffle prize drawings.

Need data to validate the success and improve program:
- Annual surveys to all employees (regardless of participation in program)
- Collect data through user registration and e-mails to participants
- Data characterizes the commuter population, understand how people are commuting
- Includes quantitative and qualitative data: trip reductions, transit passes, number of parking spaces, satisfaction of the program, ease of use, why people are or aren’t participating in program, how people learned about program

Future: Determine how many parking spaces are opened through this program.

**CARSHARE VERMONT** (Annie Bourdon & Alicia Taylor)
“Be Car Conscious” calculator determines people’s perception of costs associated with car ownership and allows people to test their perceptions. About 600 people have used this tool. This is a great mechanism to help people change their perceptions and, consequently, behavior.

Expanding CarShare Vermont to Montpelier:
Organization knew from experience in Burlington that a dedicated group of community volunteers was crucial to success in a new town. Mapped pockets of population density. High level assessment, included census. Two-year pilot, two vehicles (Ford Focus and Honda Civic with bike racks).

Using Data to Understand Membership:
Members care about cost savings and convenience. Convenience is very personal. Some people are willing to pay for the convenience of having a vehicle ¼ mi away.

**CarSharing is everyday life. 87% of CarShare Vermont members are 0 or 1 car households.**

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**Update on Rutland (Host of Winter 2015 VTEN meeting)**
(Bethany Fleishman & Susan Schreibman)

**West Street:** Pedestrian Assessment in collaboration with VTrans and federal government.
Outcomes: good response to survey on safety perceptions; physical assessment of walk infrastructure by community, businesses, and town officials; **still no bike lanes.**

**Dorr Drive:** Street with designated bike route was reclaimed, complete resurfacing.
Outcomes: Strong community support for widening but end result was added fog lines **without added shoulder.** Why did it not get widened? There are no real consequences of not adhering to suggested performance criteria of Complete Streets. However, the City is now developing a Complete Streets plan, which may show a commitment toward future adherence to principles of complete streets.

**Vermont Walk/Bike Summit:** April 1 & 2 in downtown Rutland. See walkbikesummitvt.com
Future Meeting

Next VTEN meeting will be in the late spring, location TBD (possibly Ludlow).

Possible Topic: Many towns are trying out new ways of thinking about TDM – Ludlow, for example, has merged school and transit buses – and many VTEN folks are partnering more with local entities (such as energy committees) on TDM activities. How can we learn to work more closely and effectively on the town level – with town governments, energy committees, schools, residents, businesses, and others.

Background: Vermont Energy and Climate Action Network (VECAN) is a statewide network of organizations helping Vermont communities reduce energy costs and climate impacts through conservation, efficiency, and conversion to renewable energy sources. Several VECAN partners are developing a plan for how to better serve towns. This may include delivering a comprehensive approach to local energy work, including transportation, in several pilot communities across the state. If this work moves forward, VTEN is a natural partner to help connect those pilot towns (and others!) with transportation strategies at the local level.

Question: Which municipalities have TDM ordinances, aside from Burlington? What specific TDM policies do these towns have?

Partner News

Local Motion is working on a half-time business outreach job description for someone to lead bike workshops and be a bike rack sales representative.

April 1 & 2: Bike Walk Summit in Rutland, www.walkbikesummitvt.com, registration open February 1st

April 28: CATMA ETC Event at Champlain College, details TBD

September 2016: Way to Go Commuter Challenge
### Sources of Transportation Data for TDM in Vermont

<table>
<thead>
<tr>
<th>Data Set</th>
<th>Institution</th>
<th>Data type</th>
<th>To obtain data</th>
<th>Comments</th>
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<tbody>
<tr>
<td><strong>Travel Behavior</strong></td>
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<tr>
<td>National Household Travel Survey</td>
<td>Federal Highway Administration</td>
<td>Stated opinions or tendencies and a travel log from a sample</td>
<td>nhts.ornl.gov/tools.shtml</td>
<td>All daily travel via a trip log SEE DETAILS IN “MORE ABOUT” BELOW</td>
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<td>American Community Survey</td>
<td>U.S. Census</td>
<td>Stated opinions or tendencies</td>
<td>factfinder.census.gov/faces/nav/jsf/pages/index.xhtml</td>
<td>Stated tendency for mode and distance of commute. SEE DETAILS IN “MORE ABOUT” BELOW</td>
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<tr>
<td>Claritas Data</td>
<td>Claritas</td>
<td>Population characteristics and behaviors from proprietary models</td>
<td>claritas.com/sitereports/demographic-reports.jsp</td>
<td>Private company - all data must be purchased</td>
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<tr>
<td>Public Transit and Special Services</td>
<td>American Public Transit Association</td>
<td>Ridership</td>
<td></td>
<td>National ridership totals and more info about CCTA ridership &amp; revenue (along with other U.S. urban area services)</td>
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<tr>
<td>Fatality Analysis Reporting System Encyclopedia</td>
<td>National Highway Traffic Safety Administration</td>
<td>Tally and description of fatal and/or injury crashes</td>
<td>www-fars.nhtsa.dot.gov//QueryTool/QuerySection/SelectYear.aspx</td>
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<tr>
<td>Vermont Crash Data</td>
<td>Vermont Agency of Transportation</td>
<td>Tally and description of reported crashes</td>
<td>highwaysafety.vermont.gov/data</td>
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<td>Vermont AmTrak Ridership</td>
<td>Vermont Legislative Joint Fiscal Office</td>
<td>Tally</td>
<td>leg.state.vt.us/jfo/transportation.aspx</td>
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<td>Public Transit Route Ridership</td>
<td>Vermont Agency of Transportation</td>
<td>Ridership</td>
<td>publictransit.vermont.gov/policies_reports</td>
<td>Report with 2015 data expected in February 2016</td>
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<td>Travel in Your Life</td>
<td>UVM Transportation Research Center</td>
<td>Stated opinion or tendency from a sample</td>
<td>Available through the UVM TRC</td>
<td>SEE DETAILS IN “MORE ABOUT” BELOW</td>
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<td>New England Transportation Survey</td>
<td>UVM Transportation Research Center</td>
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<td>Vermont State Data Center</td>
<td>Center for Rural Studies (UVM)</td>
<td>Easy-to-access ACS data on village, town, county or state level</td>
<td>uvm.edu/crs/sdc/</td>
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<td><strong>Fuels and System Characteristics</strong></td>
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<td>Gasoline and Diesel Fuel Sales for Transportation in Vermont</td>
<td>Vermont Legislative Joint Fiscal Office</td>
<td>Tally</td>
<td>leg.state.vt.us/jfo/transportation.aspx</td>
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<td>Vermont Park-and-Ride Summary Data</td>
<td>Vermont Agency of Transportation</td>
<td>Tally of vehicles parked in park-and-ride lots</td>
<td>Contact Wayne Davis at VTrans</td>
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<td>Vermont Motor Vehicle Registration Database</td>
<td>Vermont Department of Motor Vehicles</td>
<td>Tally</td>
<td>Contact DMV</td>
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<td>Highway Statistics</td>
<td>Federal Highway Administration</td>
<td>Tally</td>
<td>fhwa.dot.gov/policyinformation/statistics.cfm</td>
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<td>Highway Statistics</td>
<td>Vermont Agency of Transportation</td>
<td>Tally</td>
<td>VCGI (shapefiles)</td>
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<td>State Energy Data System (SEDS)</td>
<td>U.S. Energy Information Administration</td>
<td>Tally</td>
<td>eia.gov/state/?sid=US</td>
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<td><strong>Physical Activity</strong></td>
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<td>Behavioral Risk Factor Surveillance System</td>
<td>Centers for Disease Control</td>
<td>Population characteristics and behaviors</td>
<td>cdc.gov/brfss/brfssprevalence/index.html</td>
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<tr>
<td>National Health Interview Survey</td>
<td>Centers for Disease Control</td>
<td>Population characteristics and behaviors</td>
<td>cdc.gov/nchs/fastats/exercise.htm</td>
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<tr>
<td>General Social Survey</td>
<td>National Opinion Research Center</td>
<td>Population characteristics and behaviors</td>
<td><a href="https://gssdataexplorer.norc.org/variables/vfilter">https://gssdataexplorer.norc.org/variables/vfilter</a></td>
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<td>People for Bikes Statistics Library</td>
<td>People for Bikes</td>
<td>Economic, environmental, health, infrastructure and other numbers about bicycle transportation</td>
<td>peopleforbikes.org/statistics</td>
<td></td>
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Timeframes for Population Surveys

• Demographics
  – U.S. Census – every 10 years
  – U.S Census Bureau’s Population Estimates Program – every year
  – Vermont Department of Labor – every quarter
  – Vermont Department of Motor Vehicles – every quarter

• Demographics & Travel Behavior
  – American Community Survey – every year
  – Travel In Your Life Survey – one time only
  – New England Travel Survey – one time only
  – National Household Travel Survey – every 8 years

More about: AMERICAN COMMUNITY SURVEY

• Annual federal survey. Weighted every five years. No seasonality; it rolls.
• The Census is an actual count of every single person in a jurisdiction and a description of households, and occurs every 10 years. In non-Census years, the Census Bureau does population estimates, which are reflected in the ACS.
• Demographics (home and work) of 9,097 Vermonters in 2014. Weighted to represent the entire state
• Questions about commuting to work
• FactFinder - factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Questions about housing situation, how many automobiles and how they are fueled, employment status of people in household, where they work and how they commute. Caution: understand the data limits especially how questions/answers are presented.
• Department of Labor is updated every quarter and includes employee counts by county. Nice categories, some caveats, no seasonal data.
• Department of Motor Vehicles includes data on all vehicles. UVM-TRC synthesizes and develops an energy data profile with this and other info. Note that raw data needs to be cleaned up significantly.
• Demographics and Travel Behavior (this source we can learn something about how people move).
• You can get the raw data by County and Town. Data weighted, can’t see it very well. Some of the margin of error will come out in the report out table.
• ACS Data is recruited by mail, and a form is online. UVM Center for Rural Studies hosts the State Data Center, where packaged Vermont-specific census and ACS data can be found: uvm.edu/crs/sdc/
More about: NEW ENGLAND TRAVEL SURVEY

- 1,417 respondents from Maine, Vermont, and New Hampshire
- Survey included:
  - Questions about travel tendencies, attitudes & feelings about your community
  - Attempts to measure unserved travel demand
- “Panel” survey was repeated 4 times over the course of 1 year from May 2009 to May 2010
  - 654 people responded all 4 times
- Reports BMI and income too.

More about: TRAVEL IN YOUR LIFE

- 1,209 Vermonters responded between February and April of 2010
- TRC/UVM Center for Rural Studies
- Survey included:
  - Questions about travel tendencies, attitudes & feelings about your community
  - Height and weight questions for BMI determination
  - Trip log – 3,460 trips

More about: NATIONAL HOUSEHOLD TRAVEL SURVEY

- 1,690 Vermont households (over 3,500 people) in 2009
- Weighted to represent the entire state
- Survey includes:
  - Questions about travel tendencies and attitudes
    - Safe Routes to School subsection (140 households)
  - Questions about household vehicles Makes and models, how many vehicles, how often you use each, how many miles go on each year.
  - One-day trip log for every member of the household – 13,120 trips
- Peer states for comparison are Maine, West Virginia, North/South Dakota, and Alaska (though AK has less pass-through traffic than does Vermont).