VTEN | Vermont Transportation Efficiency Network
January 26, 2016
Vermont Agency of Transportation
Montpelier, Vermont

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.

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

VTEN | Vermont Transportation Efficiency Network 2016

Data Set	Institution	Data type	To obtain data	Comments
Travel Behavior				
National Household Travel Survey	Federal Highway Administration	Stated opinions or tendencies and a travel log from a sample	nhts.ornl.gov/tools.shtml	All daily travel via a trip log SEE DETAILS IN "MORE ABOUT" BELOW
American Community Survey	U.S. Census	Stated opinions or tendencies	factfinder.census.gov/faces/nav/jsf/pages/index.xhtml	Stated tendency for mode and distance of commute. SEE DETAILS IN "MORE ABOUT" BELOW
Claritas Data	Claritas	Population characteristics and behaviors from proprietary models	claritas.com/sitereports/demographic-reports.jsp	Private company - all data must be purchased
Public Transit and Special Services	American Public Transit Association	Ridership		National ridership totals and more info about CCTA ridership & revenue (along with other U.S. urban area services)
Fatality Analysis Reporting System Encyclopedia	National Highway Traffic Safety Administration	Tally and description of fatal and/or injury crashes	www-fars.nhtsa.dot.gov//QueryTool/QuerySection/SelectYear.aspx	
Vermont Crash Data	Vermont Agency of Transportation	Tally and description of reported crashes	highwaysafety.vermont.gov/data	
Vermont AmTrak Ridership	Vermont Legislative Joint Fiscal Office	Tally	leg.state.vt.us/jfo/transportation.aspx	
Public Transit Route Ridership	Vermont Agency of Transportation	Ridership	publictransit.vermont.gov/policies_reports	Report with 2015 data expected in February 2016
Travel in Your Life	UVM Transportation Research Center	Stated opinion or tendency from a sample	Available through the UVM TRC	SEE DETAILS IN "MORE ABOUT" BELOW
New England Transportation Survey	UVM Transportation Research Center	Stated opinion or tendency from a sample	Available through the UVM TRC	SEE DETAILS IN "MORE ABOUT" BELOW

Data Set	Institution	Data type	To obtain data	Comments
Vermont State Data Center	Center for Rural Studies (UVM)	Easy-to-access ACS data on village, town, county or state level	uvm.edu/crs/sdc/	
Fuels and System Characteristics				
Gasoline and Diesel Fuel Sales for Transportation in Vermont	Vermont Legislative Joint Fiscal Office	Tally	leg.state.vt.us/jfo/transportation.aspx	
Vermont Park-and-Ride Summary Data	Vermont Agency of Transportation	Tally of vehicles parked in park-and-ride lots	Contact Wayne Davis at VTrans	
Vermont Motor Vehicle Registration Database	Vermont Department of Motor Vehicles	Tally	Contact DMV	
Highway Statistics	Federal Highway Administration	Tally	fhwa.dot.gov/policyinformation/statistics.cfm	
Highway Statistics	Vermont Agency of Transportation	Tally	VCGI (shapefiles)	
State Energy Data System (SEDS)	U.S. Energy Information Administration	Tally	eia.gov/state/?sid=US	
Physical Activity				
Behavioral Risk Factor Surveillance System	Centers for Disease Control	Population characteristics and behaviors	cdc.gov/brfss/brfssprevalence/index.html	
National Health Interview Survey	Centers for Disease Control	Population characteristics and behaviors	cdc.gov/nchs/fastats/exercise.htm	
General Social Survey	National Opinion Research Center	Population characteristics and behaviors	https://gssdataexplorer.norc.org/variables/vfilter	
People for Bikes Statistics Library	People for Bikes	Economic, environmental, health, infrastructure and other numbers about bicycle transportation	peopleforbikes.org/statistics	

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
- Table Designer - nhts.ornl.gov/tools.shtml 1995, 2000 and 2009, massive amount of data, average Vermonter travel day. Can do 2- and 3-way cross tabulation. Clunky, but great!
- Peer states for comparison are Maine, West Virginia, North/South Dakota, and Alaska (though AK has less pass-through traffic than does Vermont).