

# USING CENSUS DATA AT THE REGIONAL AND TOWN LEVEL

June 11, 2014  
 VT Mapping Forum

Presented by Katharine Otto (Southern Windsor County Regional Planning Commission)

# Outline

- How we've used Census data in our Region and Towns
  - ▣ Understanding basic characteristics of your area
  - ▣ Going further – example of Affordability Analysis
- Useful tips
  - ▣ “Deep linking” – clever bookmarks!
  - ▣ Vermont scale quirks!
- Other interesting sources of information

# Common Abbreviations

- ACS – American Community Survey
- CTPP – Census Transportation Planning Products
- LEHD/ LODES – Longitudinal Employer-Household Dynamics/ LEHD Origin-Destination Employment Statistics (LODES). Also sometimes referred to as LEHD “On The Map”/ OTM

# How we've used Census Data

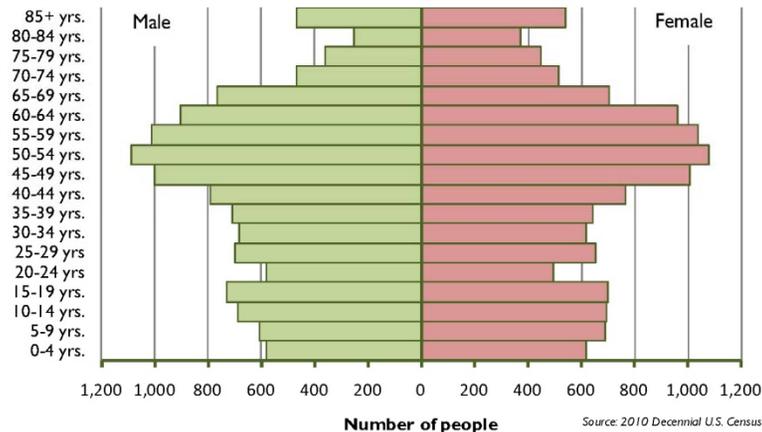
# Understanding the basic characteristics

Population Age data

Place	Median Age		Under 18		Under 20	20-34	36-49	50-64	Over 65	
	2000	2010	Number	%					Number	%
ANDOVER	44.6	51.8	70	15.0	77	48	94	132	116	24.8
BALTIMORE	37.0	42.6	54	22.1	61	33	69	51	30	12.3
CAVENDISH	42.3	47.5	268	19.6	294	173	279	362	259	18.9
CHESTER	41.9	47.3	632	20.0	715	422	571	877	569	18.0
LUDLOW	43.2	49.5	329	16.8	358	299	344	511	451	23.0
READING	41.2	47.9	125	18.8	138	80	143	175	130	19.5
SPRINGFIELD	41.6	43.8	1,937	20.7	2,119	1,590	1,915	2,083	1,666	17.8
WEATHERSFIELD	43.5	49.0	484	17.1	541	339	583	774	588	20.8
WEST WINDSOR	45.3	49.8	200	18.2	216	92	245	325	221	20.1
WINDSOR	40.8	42.9	714	20.1	784	659	677	793	640	18.0
<b>Southern Windsor County Region</b>			<b>4,813</b>	<b>19.5</b>	<b>5,303</b>	<b>3,735</b>	<b>4,920</b>	<b>6,083</b>	<b>4,670</b>	<b>18.9</b>
VERMONT	37.7	41.5	129,233	20.7	150,255	113,473	128,469	142,466	91,078	14.6
UNITED STATES	35.3	37.2		24						13

Source: 2010 Decennial U.S. Census

Age-sex pyramid for the Southern Windsor County Region



- Compare 1990, 2000 and 2010 Decennial Census data
- Be careful when comparing ACS data (5 year average) to Decennial (1 year) – avoid if possible
- Carefully check grant requirements – what year and data sources are they looking for?

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www.swcrpc.org

Technical Bulletin - July 2011

# Going further – example of Regional Affordability Analysis

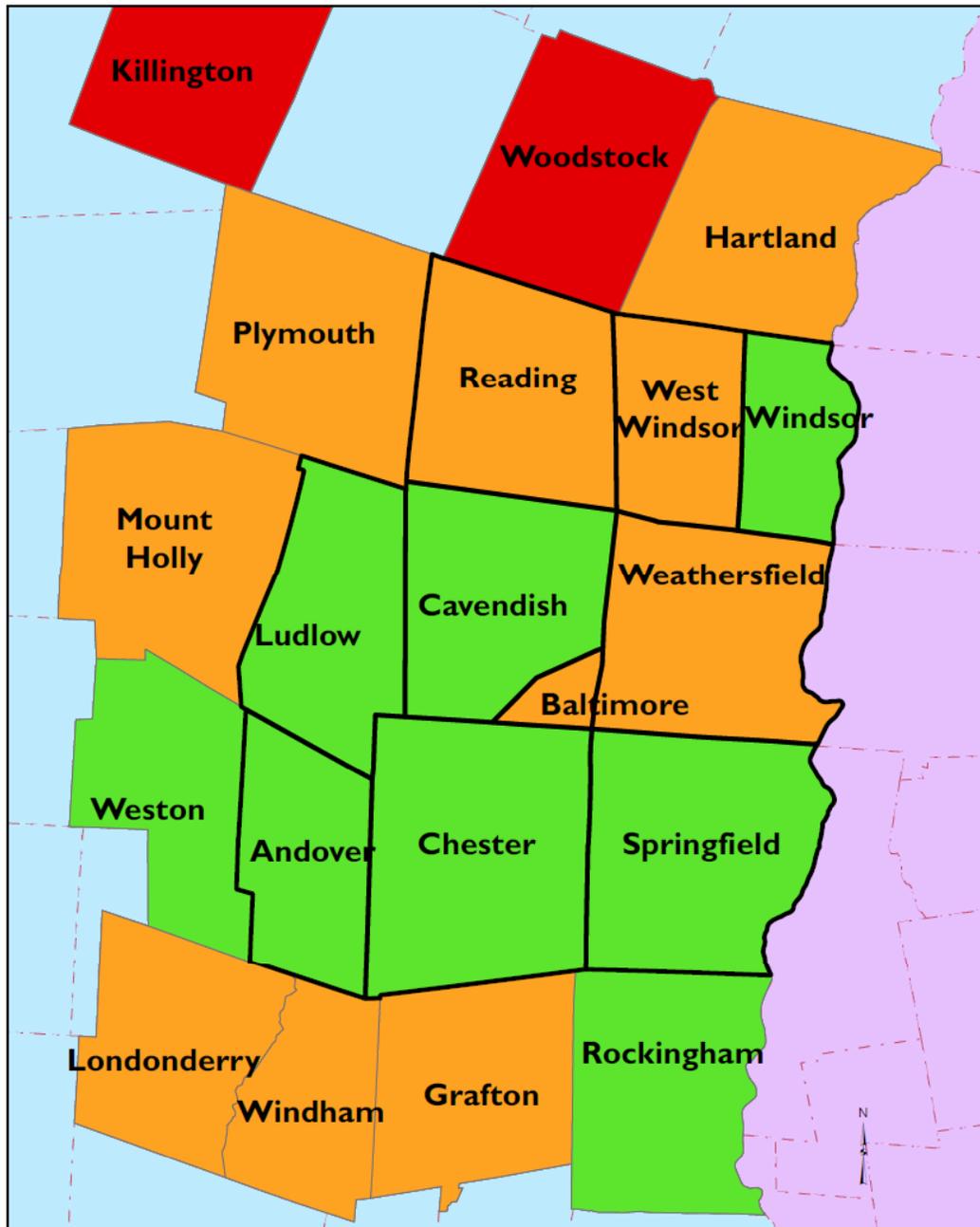
## Data used

- ACS 2006-2010
- 2010 LEHD/ LODES
- 2009 National Household Travel Survey
- AAA costs per mile for a vehicle
- Other local information

## Some of the Census data inputs

- County Median Household Income
- Selected Monthly Owner Costs (ie for renters and homeowners)
- No of vehicles used for commuting
- Commuters and workers per household





# Regional Housing Affordability

(Estimated costs as % of median household income)

- Affordable (Under 30% of income)
- Unaffordable (30% - 40% of income)
- Very unaffordable (40% or more of income)

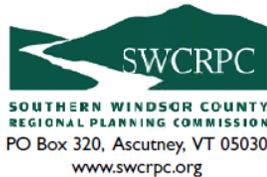
- Towns within Southern Windsor County
- Town Boundary (remainder of Vermont)
- Town Boundary (New Hampshire)



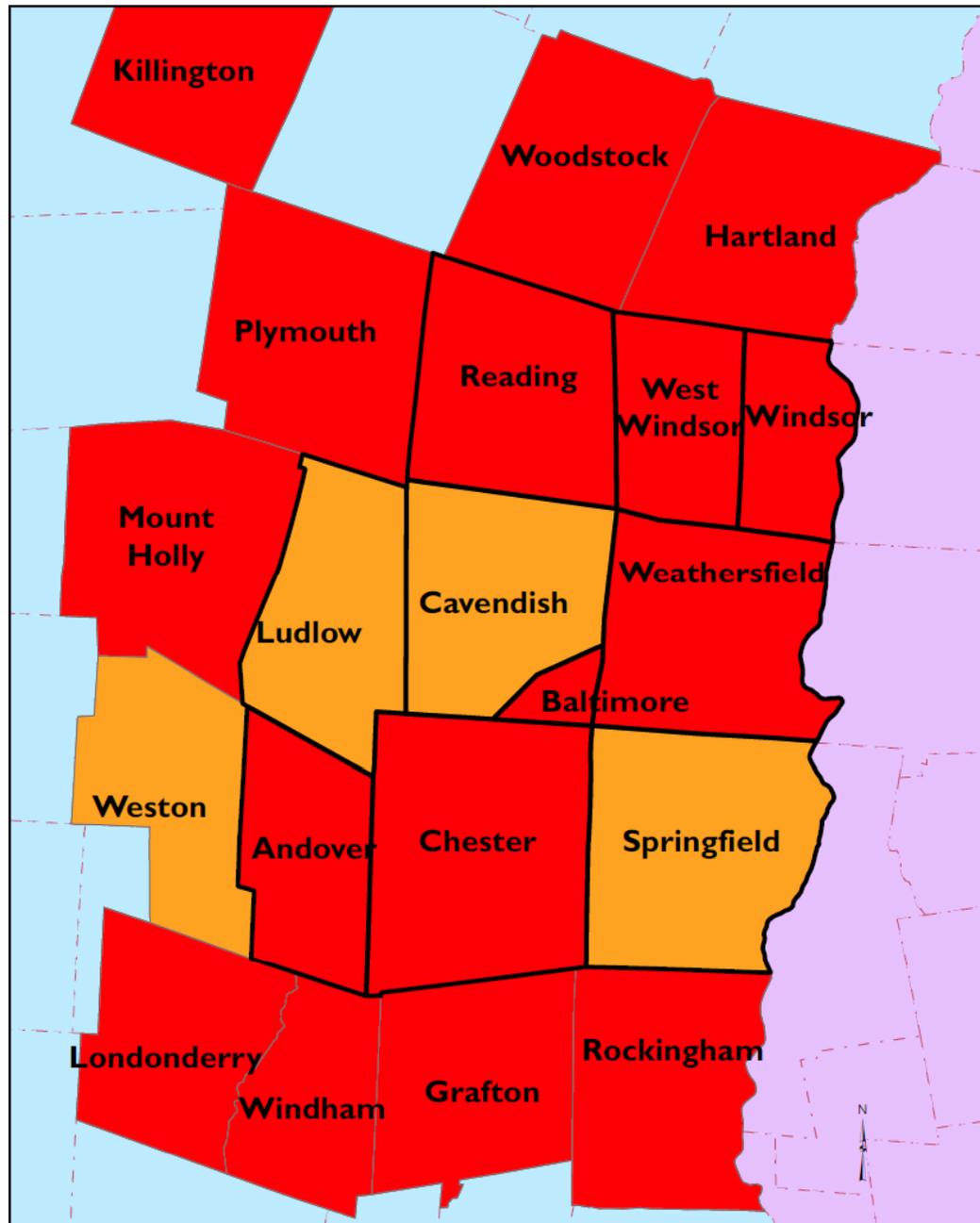
80% of the Windsor County median household income is \$40,714.

VT State Plane, NAD 83 (meters). Map for planning purposes only. Not for regulatory interpretation.

Map drawn May 16, 2012



Geographic data sources: Road centerline (VTrans 2011, NHDOT 2011) and Town boundary (VCGI 2010, NHGranit 2009). Housing and transportation affordability data compiled and manipulated by SWCRPC from the 2006-2010 American Community Survey, 2010 Longitudinal Employer-Household Dynamics from the US Census Bureau, 2009 National Household Travel Survey, 2010 AAA (American Automobile Association) costs per mile for cars, and local information about distances to key locations such as healthcare, schools, grocery stores and other essential domestic needs.)

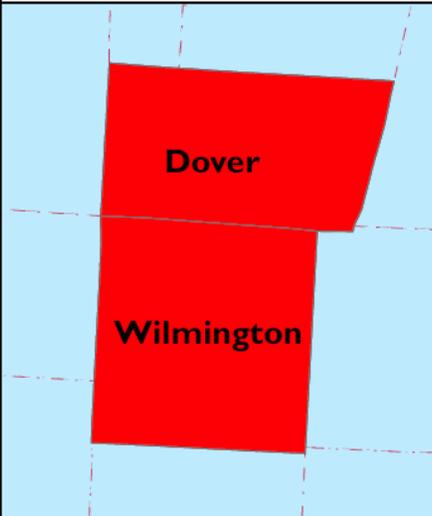


# Transportation Affordability

(Estimated costs as % of median household income)

- Affordable (Under 45% of income)
- Unaffordable (45% - 55% of income)
- Very unaffordable (55% or more of income)

- Towns within Southern Windsor County
- Town Boundary (remainder of Vermont)
- Town Boundary (New Hampshire)



80% of the Windsor County median household income is \$40,714.

VT State Plane, NAD 83 (meters). Map for planning purposes only. Not for regulatory interpretation.

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## Useful tips

# “Deep linking” – clever bookmarks!

- Easy way to store your queries and share with others

- Example bookmark

[http://factfinder2.census.gov/bkmk/table/1.0/en/ACS/12\\_5YR/DP02/0600000US5002701300|0600000US5002712250|](http://factfinder2.census.gov/bkmk/table/1.0/en/ACS/12_5YR/DP02/0600000US5002701300|0600000US5002712250|)

English > ACS > 2012 5 Year > Summary table DP02  
(Selected Social Characteristics) > Geographies of Andover  
and Baltimore VT

- Get geography codes by creating a bookmark

- For more info see

[http://factfinder2.census.gov/files/AFF\\_deep\\_linking\\_guide.pdf](http://factfinder2.census.gov/files/AFF_deep_linking_guide.pdf)

**Search** - Use the options on the left (topics, geographies, ...) to narrow your search results

**Your Selections**  
"Your Selections" is empty

*To search for tables and other files in American FactFinder:*

1 Enter search terms and an optional geography and click GO

Select Geographies

List	Name	Address	Map
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Select geographies to add to Your Selections ?

Select from:  most requested geographic types  all geographic types

Select a geographic type:  
..... County Subdivision - 060

Select a state:  
Vermont

Select a county:  
Windsor

Select one or more geographic areas and click **Add to Your Selections**:

- All County Subdivisions within Windsor County, Vermont
- Andover town, Windsor County, Vermont
- Baltimore town, Windsor County, Vermont
- Barnard town, Windsor County, Vermont
- Bethel town, Windsor County, Vermont
- Bridgewater town, Windsor County, Vermont
- Cavendish town, Windsor County, Vermont
- Chester town, Windsor County, Vermont
- Hartford town, Windsor County, Vermont
- Hartland town, Windsor County, Vermont

**ADD TO YOUR SELECTIONS**

**Normal method to find your data.**



**Search** - Use the options on the left (topics, geographies, ...) to narrow your search results

**Your Selections**

**Search using...**

- County Subdivision
- Andover town, Windsor County, Vermont ✕
- Cavendish town, Windsor County, Vermont ✕
- Chester town, Windsor County, Vermont ✕
- Ludlow town, Windsor County, Vermont ✕
- Reading town, Windsor County, Vermont ✕
- Springfield town, Windsor County, Vermont ✕

**Search using the options below:**

**Topics**

(age, income, year, dataset, ...)

**Geographies**

(states, counties, places, ...)

**Race and Ethnic Groups**

(race, ancestry, tribe)

**Industry Codes**

(NAICS industry, ...)

**EEO Occupation Codes**

(executives, analysts, ...)

**Search Results: 1-25 of 5,822 tables and other products match 'Your Selections'**

Refine your search results:

topics  race/ancestry  industries  occupations

**1 Selected:**

Show results

	ID	Table, File or Document Title	Data
<input checked="" type="checkbox"/>	DP02	SELECTED SOCIAL CHARACTERISTICS IN THE UNITED STATES	2012 estim
<input type="checkbox"/>	DP03	SELECTED ECONOMIC CHARACTERISTICS	2012 estim
<input type="checkbox"/>	DP04	SELECTED HOUSING CHARACTERISTICS	2012 estim
<input type="checkbox"/>	DP05	ACS DEMOGRAPHIC AND HOUSING ESTIMATES	2012 estim
<input type="checkbox"/>	S0101	AGE AND SEX	2012 estim
<input type="checkbox"/>	S0102	POPULATION 60 YEARS AND OVER IN THE UNITED STATES	2012 estim
<input type="checkbox"/>	S0103	POPULATION 65 YEARS AND OVER IN THE UNITED STATES	2012 estim
<input type="checkbox"/>	S0501	SELECTED CHARACTERISTICS OF THE NATIVE AND FOREIGN-BORN POPULATIONS	2012 estim
<input type="checkbox"/>	S0502	SELECTED CHARACTERISTICS OF THE FOREIGN-BORN POPULATION BY PERIOD OF ENTRY INTO THE UNITED STATES	2012 estim
<input type="checkbox"/>	S0503	SELECTED CHARACTERISTICS OF THE FOREIGN-BORN POPULATION BY REGION OF BIRTH: EUROPE	2012 estim
<input type="checkbox"/>	S0504	SELECTED CHARACTERISTICS OF THE FOREIGN-BORN POPULATION BY REGION OF BIRTH: AFRICA, NORTHERN	2012



**Advanced Search** - Search all data in American FactFinder

1 Advanced Search | **2 Table Viewer**

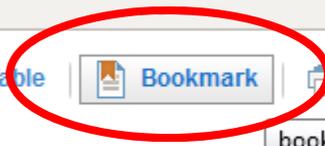
Result 1 of 1

DP02 | **SELECTED SOCIAL CHARACTERISTICS IN THE UNITED STATES** ⓘ  
 2008-2012 American Community Survey 5-Year Estimates

Table View

BACK

Actions: [Modify Table](#) | [Bookmark](#) | [Print](#) | [Download](#) | [Create a Map](#)



bookmark this table

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

<< 1 - 18 of 36 >>

Subject	Andover town, Windsor County, Vermont				Cavendish town, Windsor County, Vermont				Chester town, Windsor County, Vermont		
	Estimate	Margin of Error	Percent	Percent Margin of Error	Estimate	Margin of Error	Percent	Percent Margin of Error	Estimate	Margin of Error	Percent
<b>HOUSEHOLDS BY TYPE</b>											
Total households	161	+/-37	161	(X)	617	+/-61	617	(X)	1,526	+/-121	1,526
Family households (families)	118	+/-34	73.3%	+/-11.2	413	+/-56	66.9%	+/-7.3	934	+/-106	61.2%
With own children under 18 years	48	+/-26	29.8%	+/-14.2	135	+/-35	21.9%	+/-5.4	349	+/-101	22.9%
Married-couple family	102	+/-33	63.4%	+/-13.3	325	+/-54	52.7%	+/-8.1	757	+/-117	49.6%
With own children under 18 years	40	+/-23	24.8%	+/-12.8	91	+/-29	14.7%	+/-4.6	202	+/-85	13.2%

**Enhanced method to find your data.**



Advanced Search - Search all data in American FactFinder

1 Advanced Search 2 Table Viewer

Result 1 of 1 VIEW ALL AS PDF

DP02 SELECTED SOCIAL CHARACTERISTICS IN THE UNITED STATES  
2008-2012 American Community Survey 5-Year Estimates

Table View

Actions: Modify Table Bookmark

**Bookmark**

Click "Create Bookmark" or copy the url below and paste into email or browser. ?

**CREATE BOOKMARK** <http://factfinder2.census.gov/bkmk/table/1>

- or -

Use the "Save Query" button to save the viewed products's geography and table selections to a file on your local drive. This option does not save the data but only the selections for the currently viewed result.

To retrieve a saved query, use the "Load Query" button from the Main Page.

**SAVE QUERY**

**CLOSE**

Although the American Community Survey (ACS) produces estimates of the population for the nation, states, counties, cities and

<< 1 - 18 of 36 >>

		Andover town, Windsor County, Vermont								Ludlow town, Windsor County, Vermont							
Subject		Estimate	Margin of Error	Percent									Estimate	Margin of Error	Percent	Percent Margin of Error	
HOUSEHOLDS BY TYPE																	
Total households		161	+/-37	161	(X)	617	+/-61	617	(X)	1,526	+/-121	1,526	(X)	902	+/-78	902	(X)
Family households		118	+/-34	73.3%	+/-11.2	413	+/-56	66.9%	+/-7.3	934	+/-106	61.2%	+/-9.5	558	+/-67	61.9%	+/-5.8

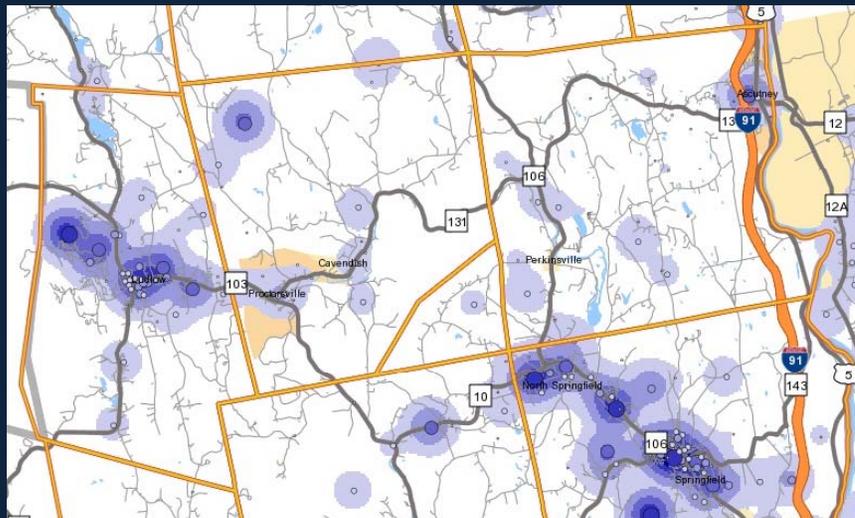
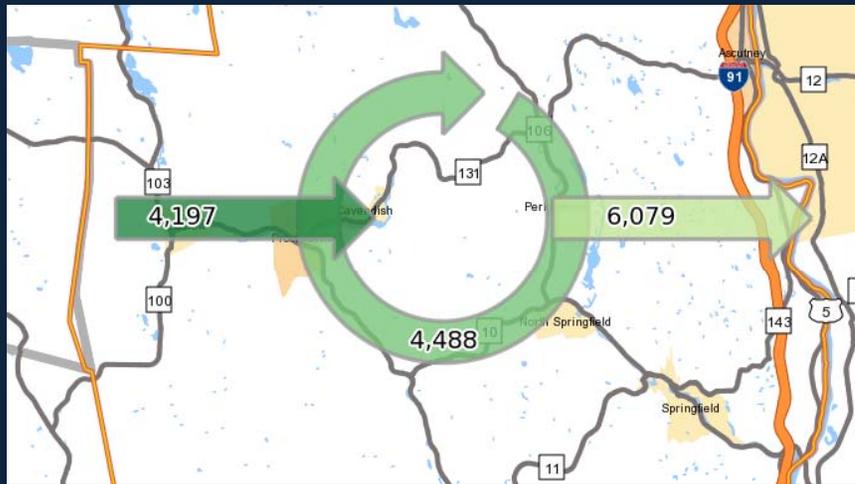
http://factfinder2.census.gov/bkmk/table/1.0/en/ACS/12\_5YR/DP02/0600000US5002701300|0600000US5002712250|0600000US5002713675|0600000US5002741275|0600000US5002758375|0600000US5002769550|0600000US5002777500|0600000US5002783050|0600000US5002784925

# Vermont scale quirks

- Some towns are combined into one Census Tract – especially if population under 3,000
- Big margins of error. They were big in the past, but were hidden. Now they are disclosed we should pay attention.
- Big difference between population estimates for ACS 2005-2009 and ACS 2006-2010 – eg ski towns

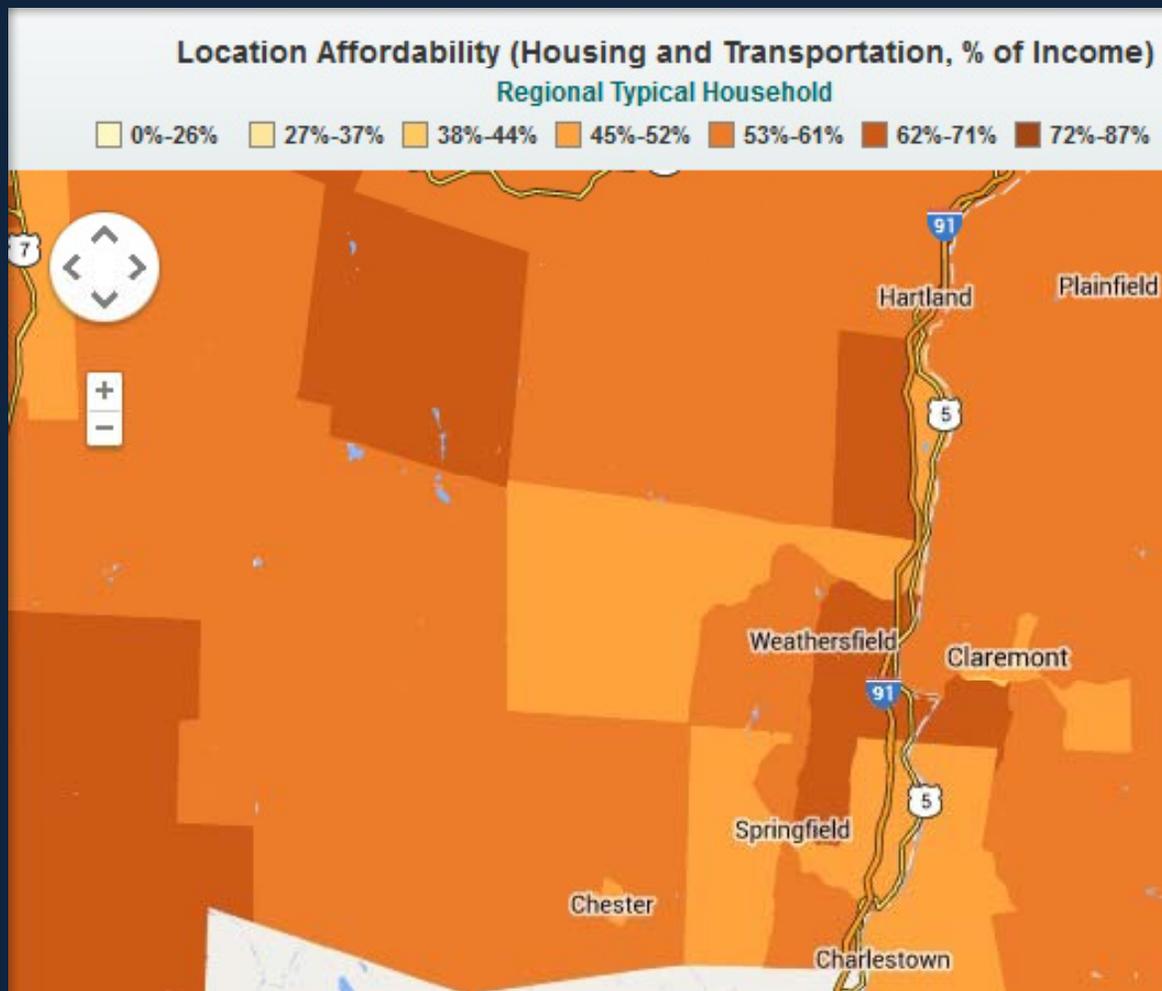
Other interesting sources of info

# Commuting Data – LEHD On the Map



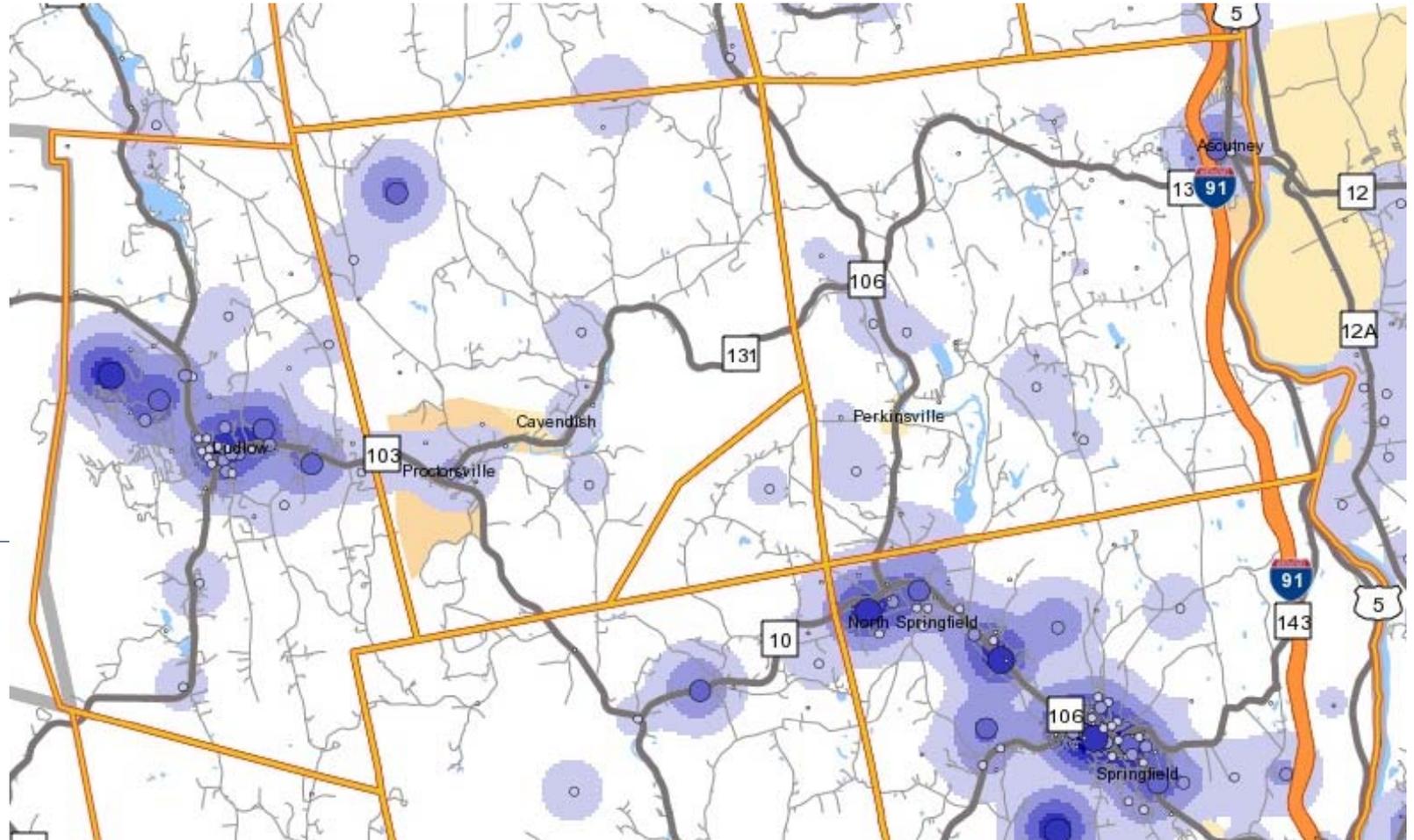
- <http://lehd.ces.census.gov/>
- Uses Tax form W-2 – so about 90% of people are included!
- Can import shapefiles to perform analysis for particular geographies.
- Can export shapefiles of resulting data
- Can explore data in online map

# HUD's Location Affordability Model



- <http://locationaffordability.info/>
- Can join spreadsheets to shapefiles of block groups to visualize data
- Can explore data in online





Exported map from <http://lehd.ces.census.gov/>

Questions?



SOUTHERN WINDSOR COUNTY  
REGIONAL PLANNING COMMISSION

Contact:

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Southern Windsor County Regional Planning Commission

[www.swcrpc.org](http://www.swcrpc.org)