

Land Use Trends in Vermont

House Committee on Environment and Energy

John E. Adams

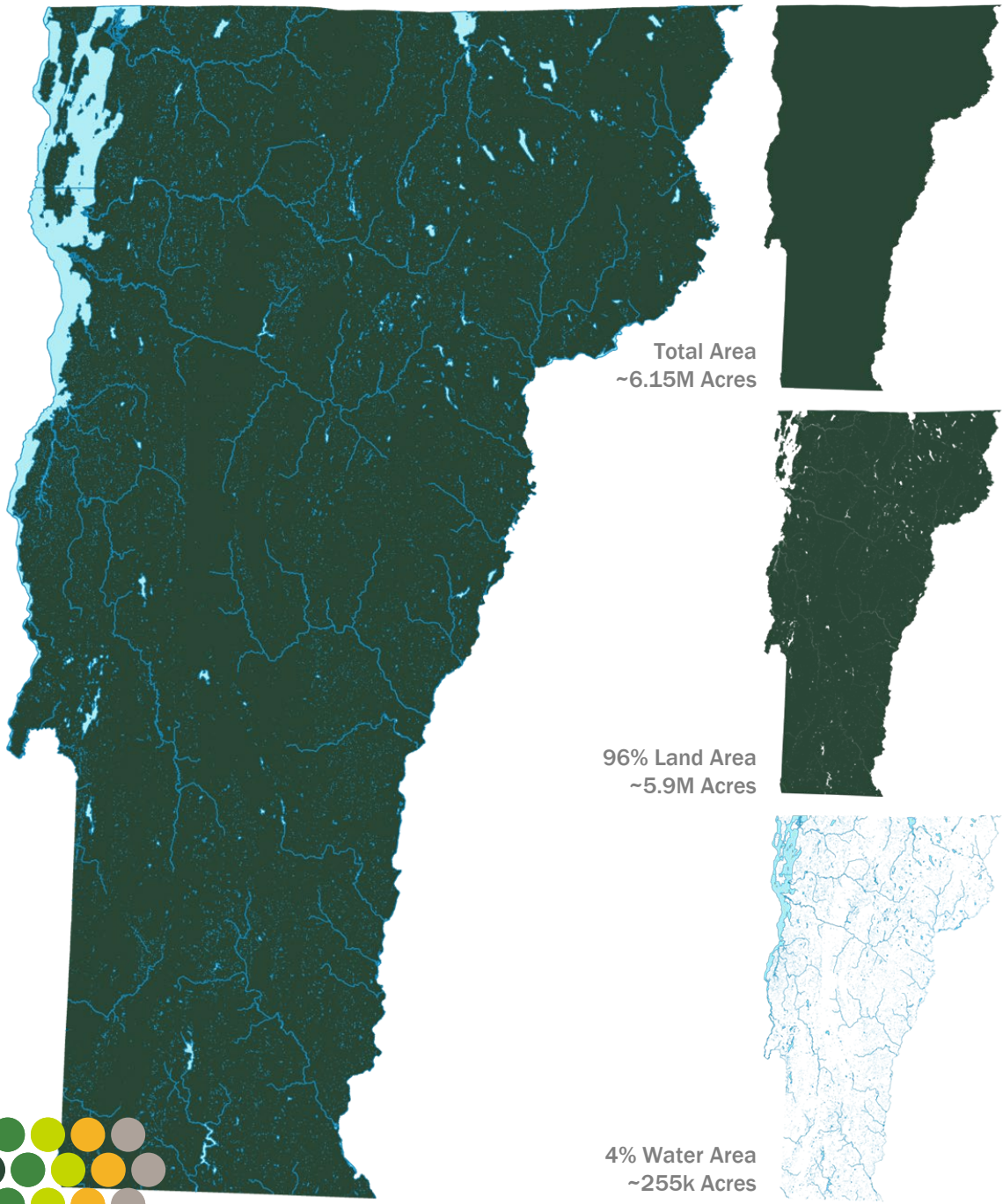
Vermont Center for Geographic Information

January 31, 2024

Note: Calculation on Slide 10
updated on 3/12/2024



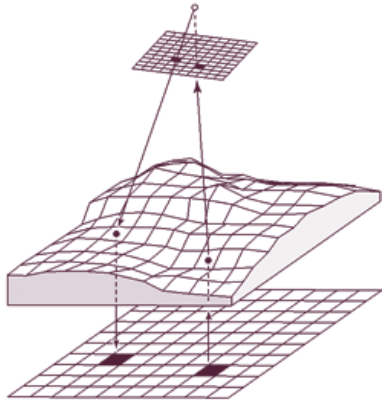
Baseline Measures



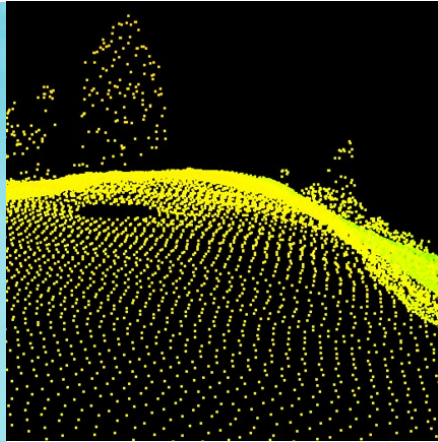
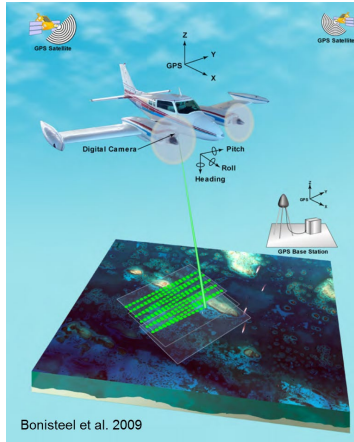
Geography	Total Area			Land Area ³			Water Area ³		
	Sq. Mi. ¹	Sq. Km.	Acres ²	Sq. Mi. ¹	Sq. Km.	Acres ²	Sq.Mi. ¹	Sq. Km.	Acres ²
Vermont	9,615	24,903	6,153,746	9,217	23,873	5,899,041	398	1,031	254,705
			100%			96%			4%

Table 1. Sources: 2022 TIGER/Line Geodatabase. U.S. Census Bureau.

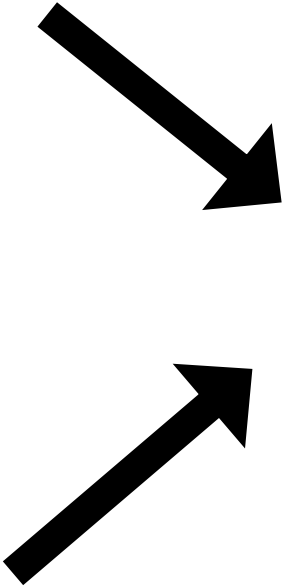




ORTHOIMAGERY



LIDAR



Land Cover



Thank you Jarlath.

Thanks to the work of the [UVM Spatial Analysis Lab](#), Vermont has the highest resolution land cover data in the country.



2022 VT High Resolution Land Cover

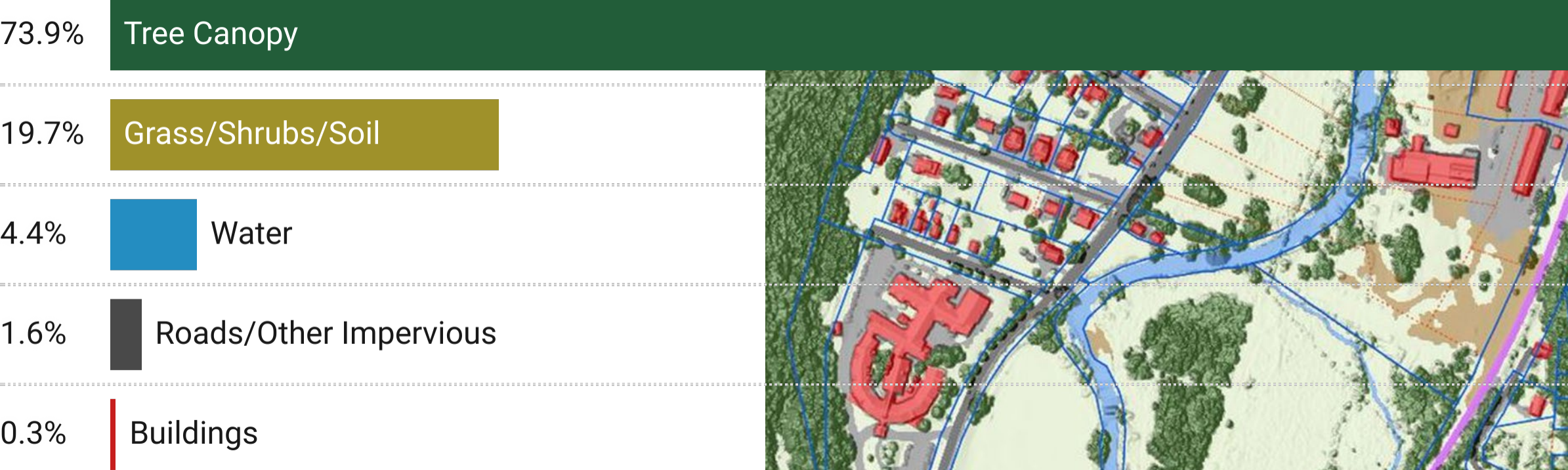


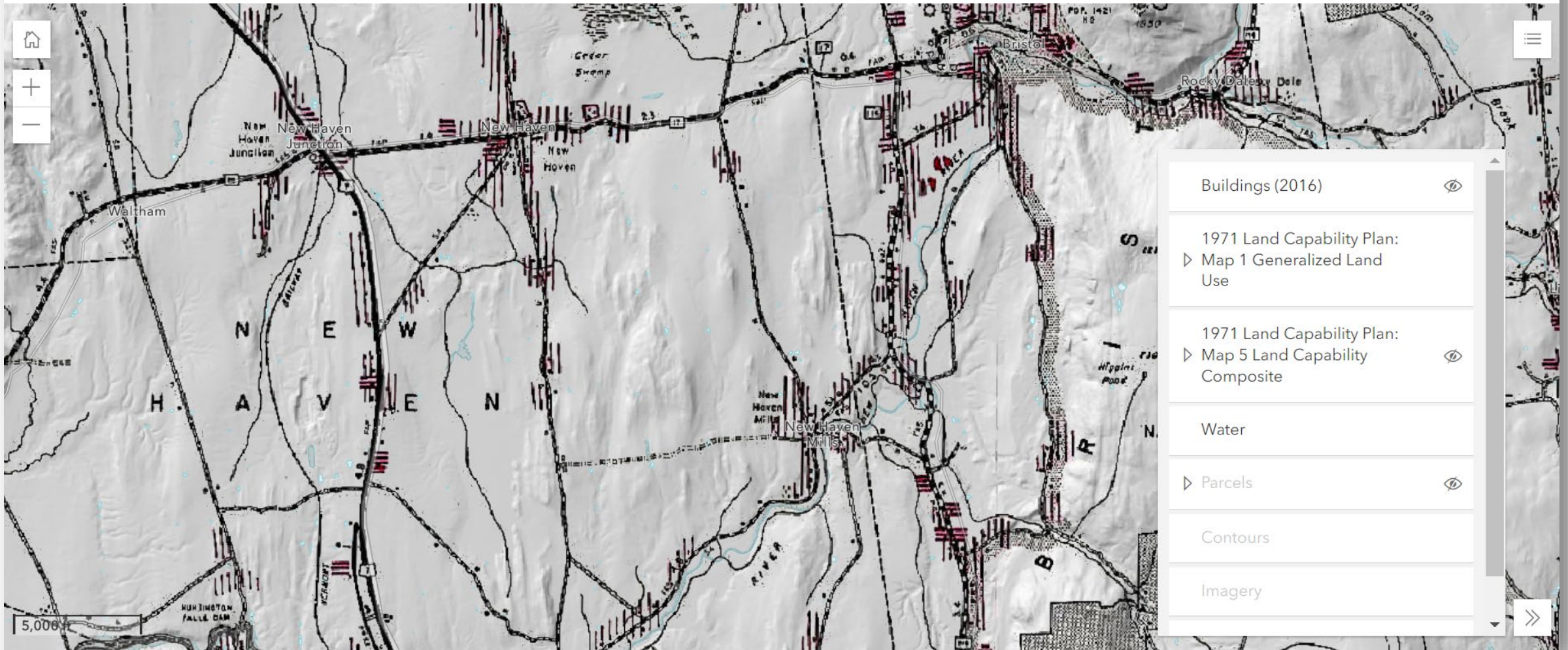
TABLE VI SUMMARY OF CURRENT LAND USE (1962)

<u>LAND USE</u>	<u>ACRES</u>	<u>% OF STATE AREA</u>
Forests, (all woodlands including pastured woodland, state and national forests and parks)	4,085,560	66.3
Agricultural uses (open farm land)	1,468,542	23.8
Water and Marshes	322,297	5.2
Highways	127,768	2.1
Vacant land (mountains, rock)	67,402	1.1
Urban	48,038	0.8
All others (railroad facilities, utilities and communications, dispersed residential, mines and quarries, military installations, public buildings, stadiums, race tracks, etc.)	43,531	0.7
TOTAL	6,163,138	100.0

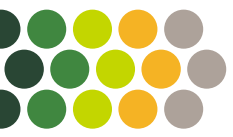
Source: Central Planning Office, Montpelier, Vermont

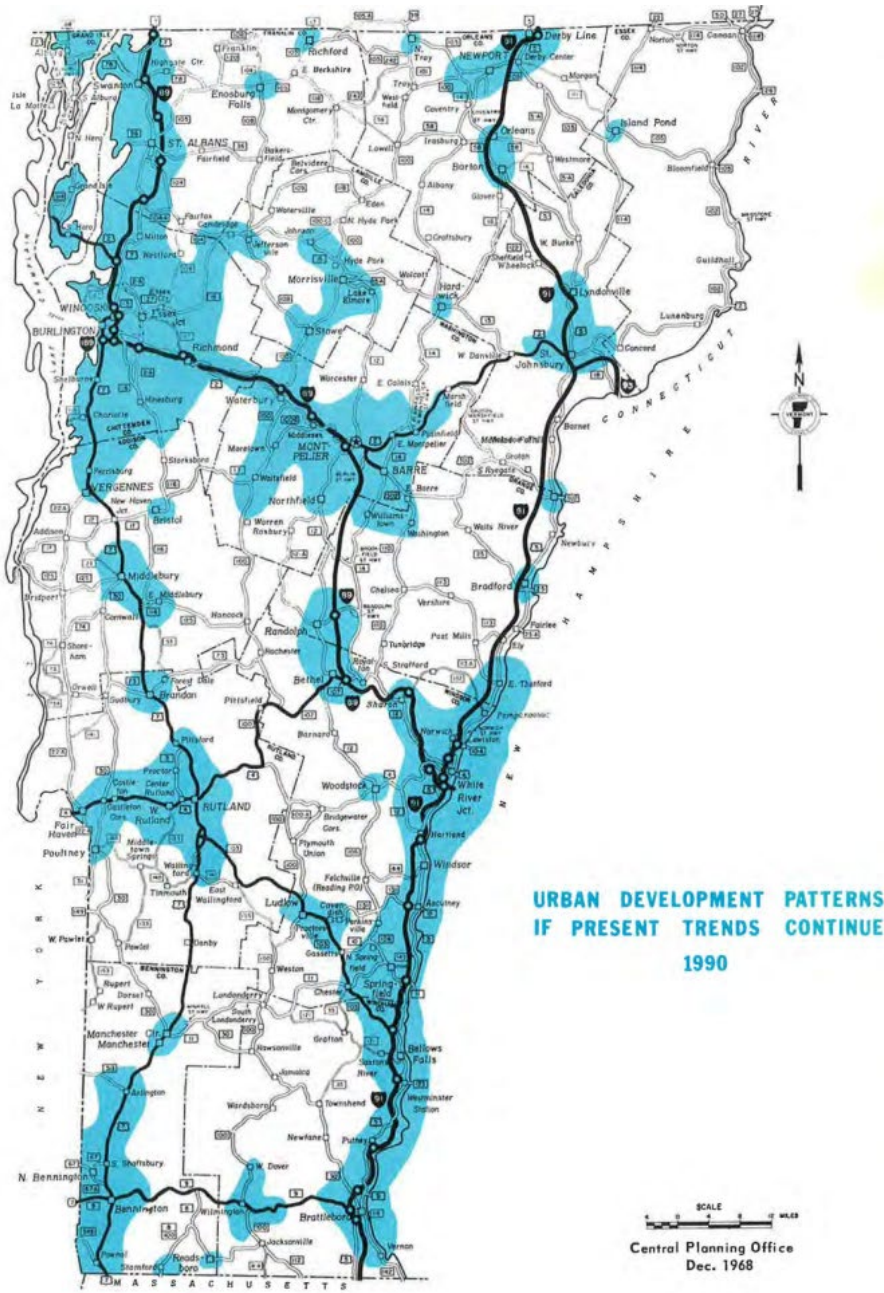


1971 Vermont Land Capability Plan



[1971 Land Capability Plan Web Map](#)

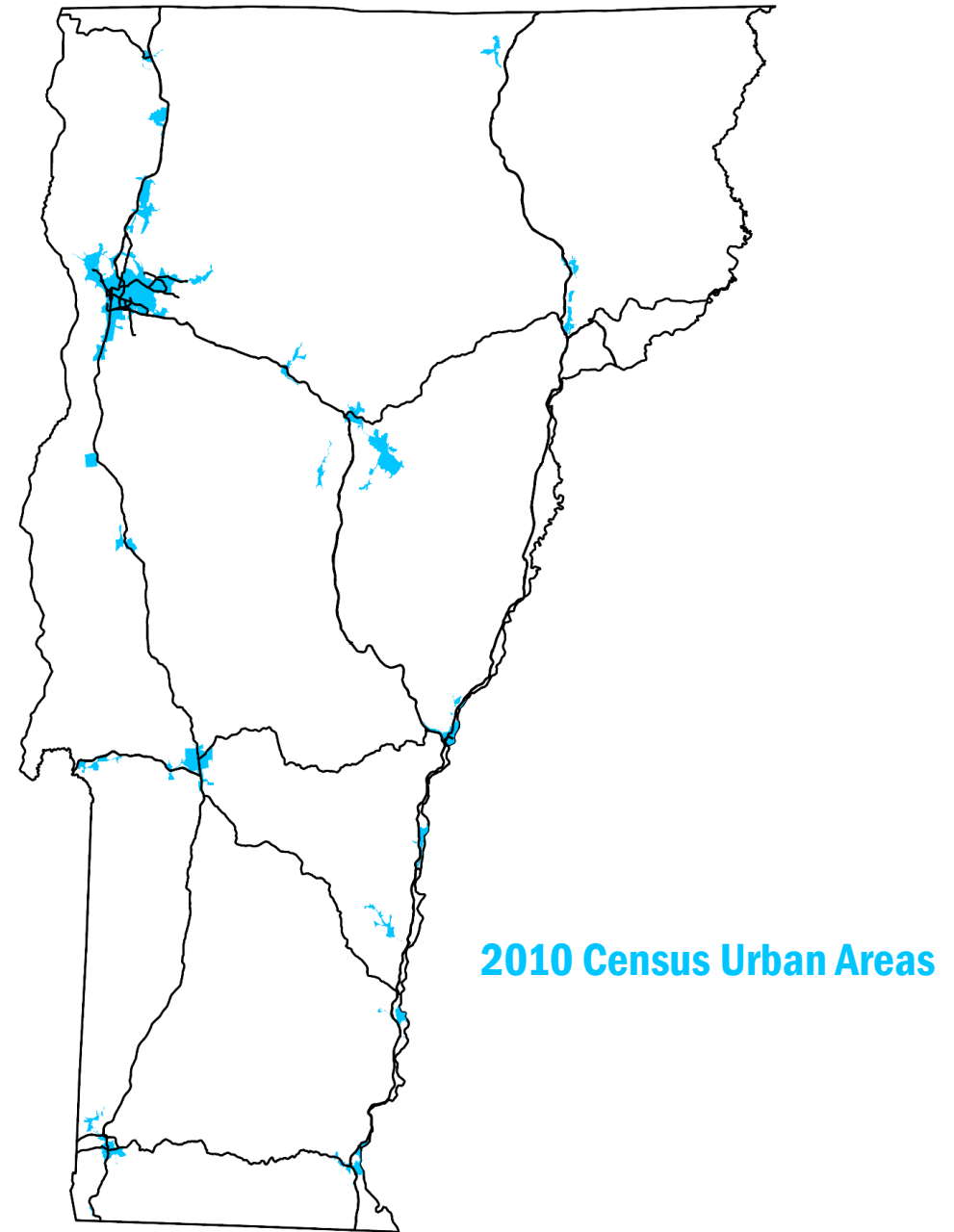
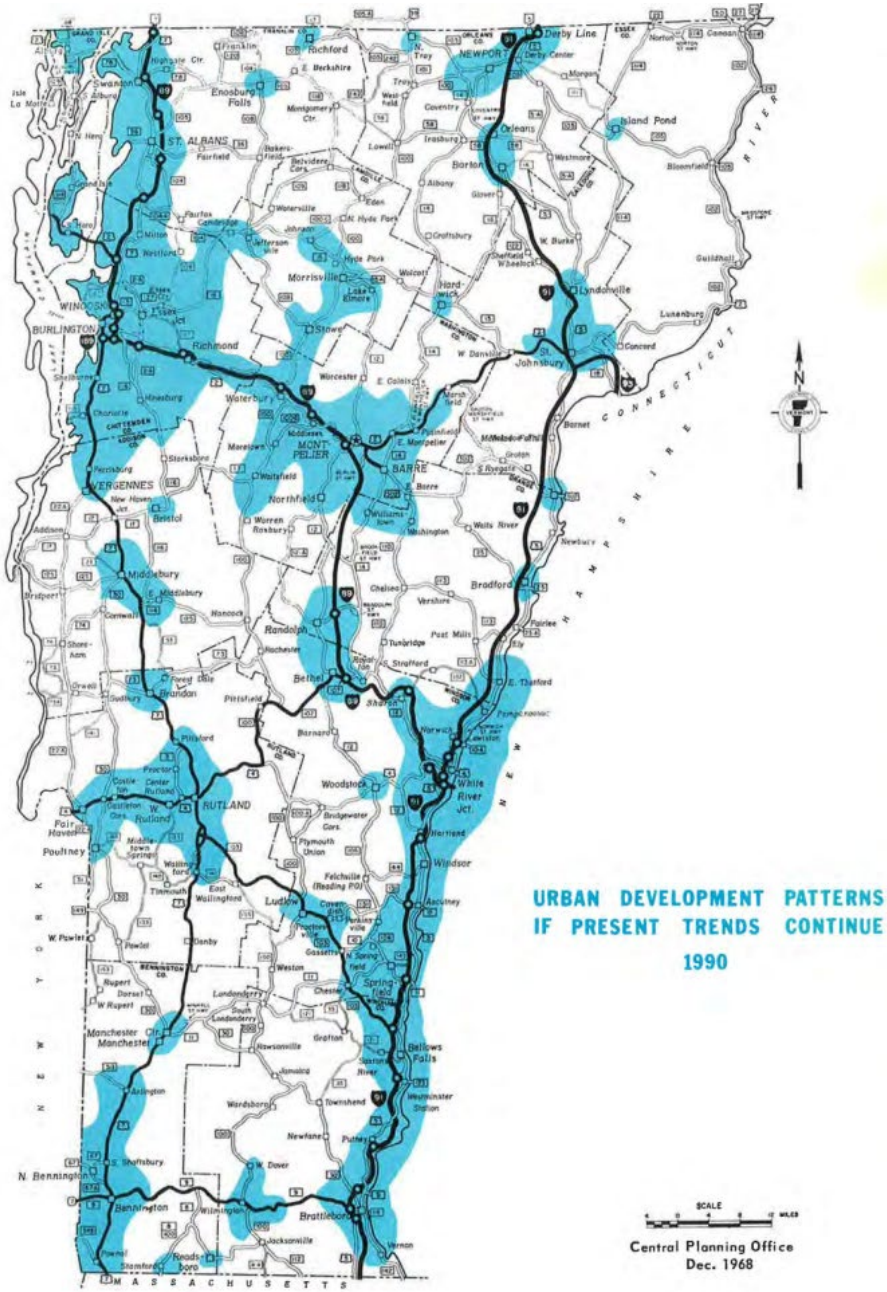




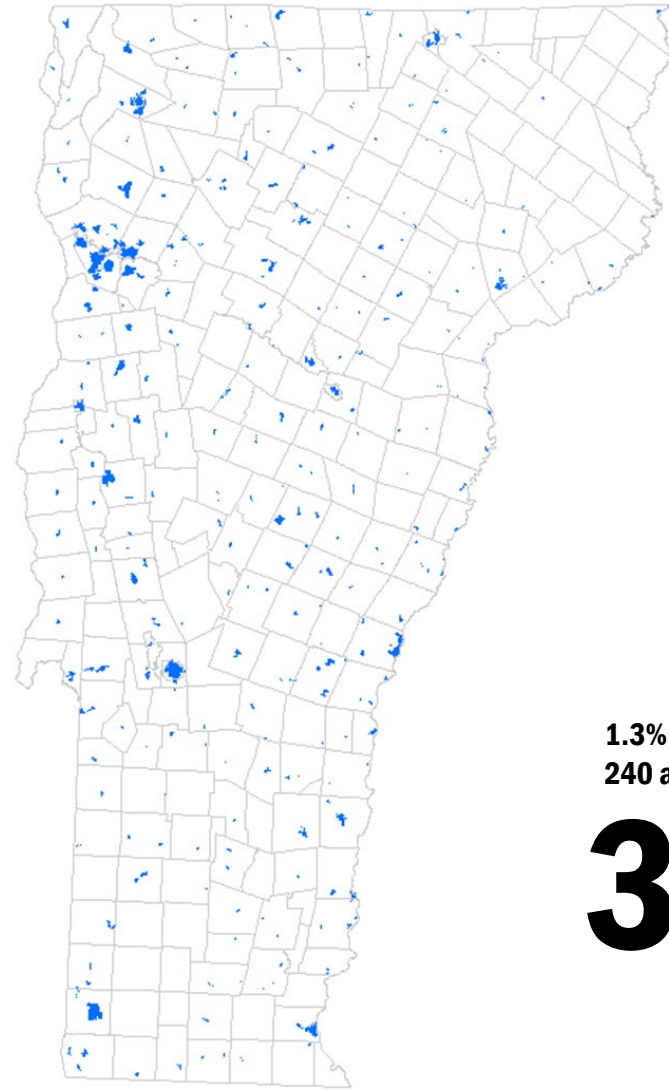
“The traditional rural scene in Vermont, characterized by concentrated settlement in villages and open countryside dotted with farms, is disappearing.”

VISION AND CHOICE: VERMONT'S FUTURE
THE STATE FRAMEWORK PLAN (1968)





Community Centers



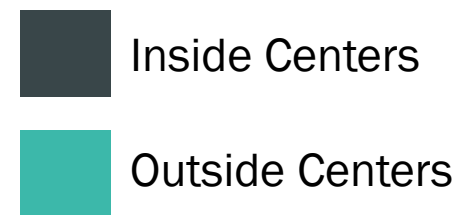
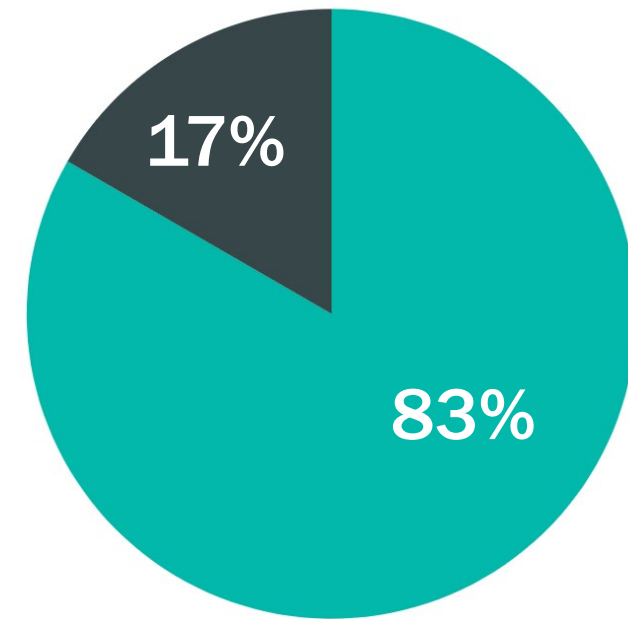
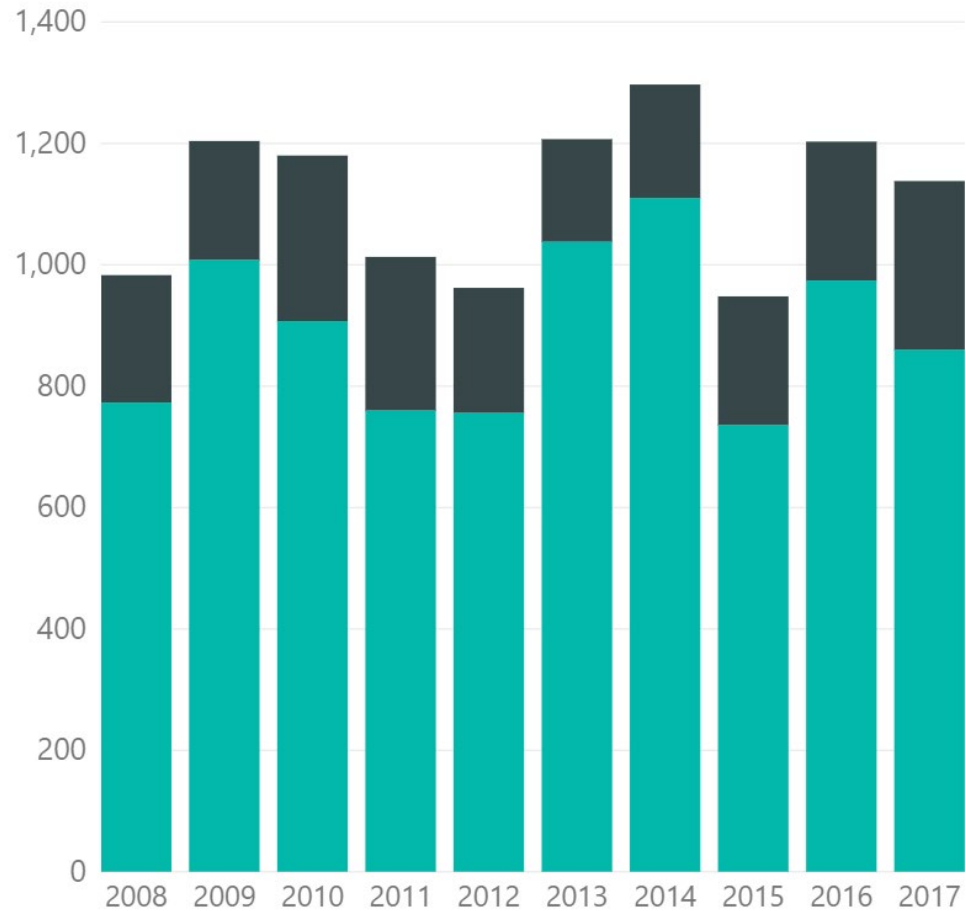
1.3% of Vermont*
240 acre mean

322

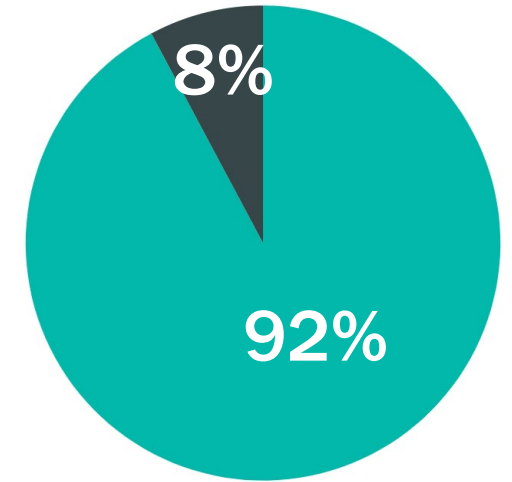
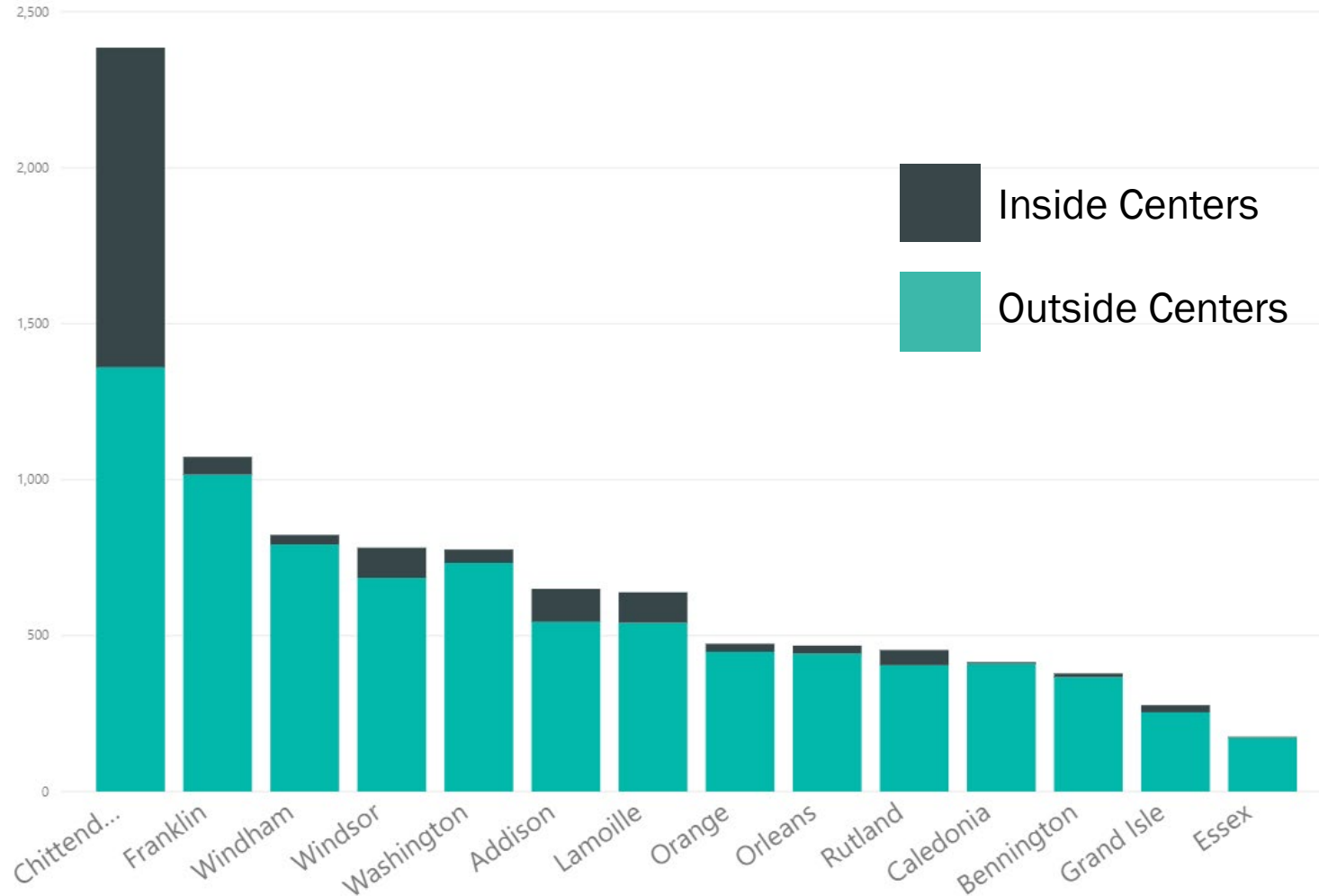


*A previous version of this slide presented on 1/31/2024 erroneously reported the total area as 6% of Vermont.

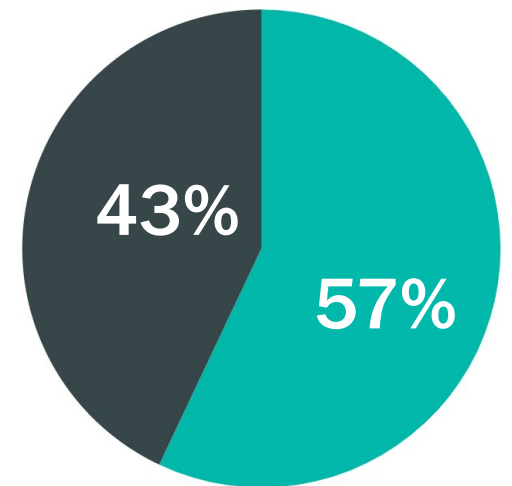
New Residential Structures 2008-2018



County Differences 2008-2018

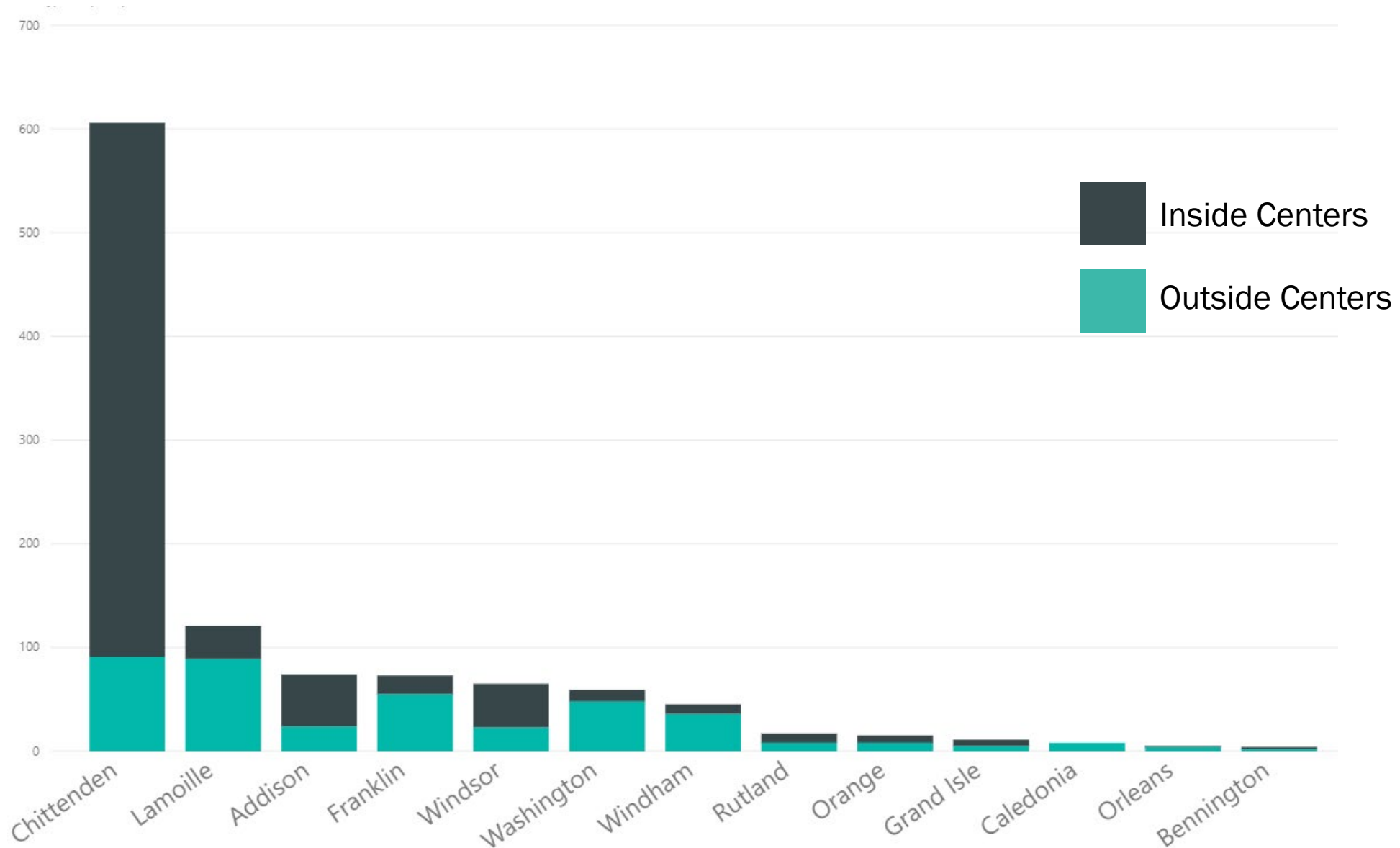


Outside Chittenden County

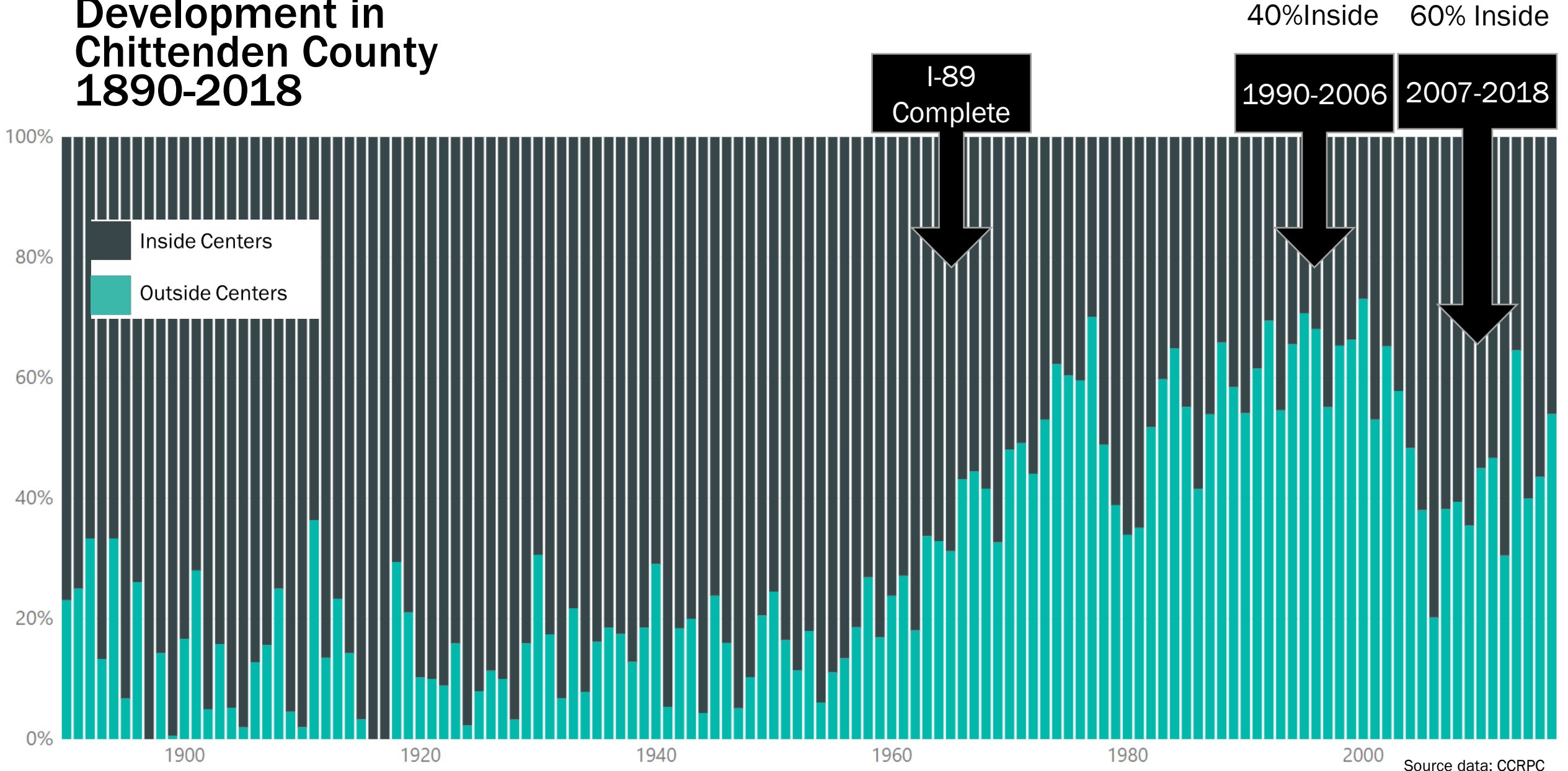


Chittenden County

New Multifamily Structures 2008-2018

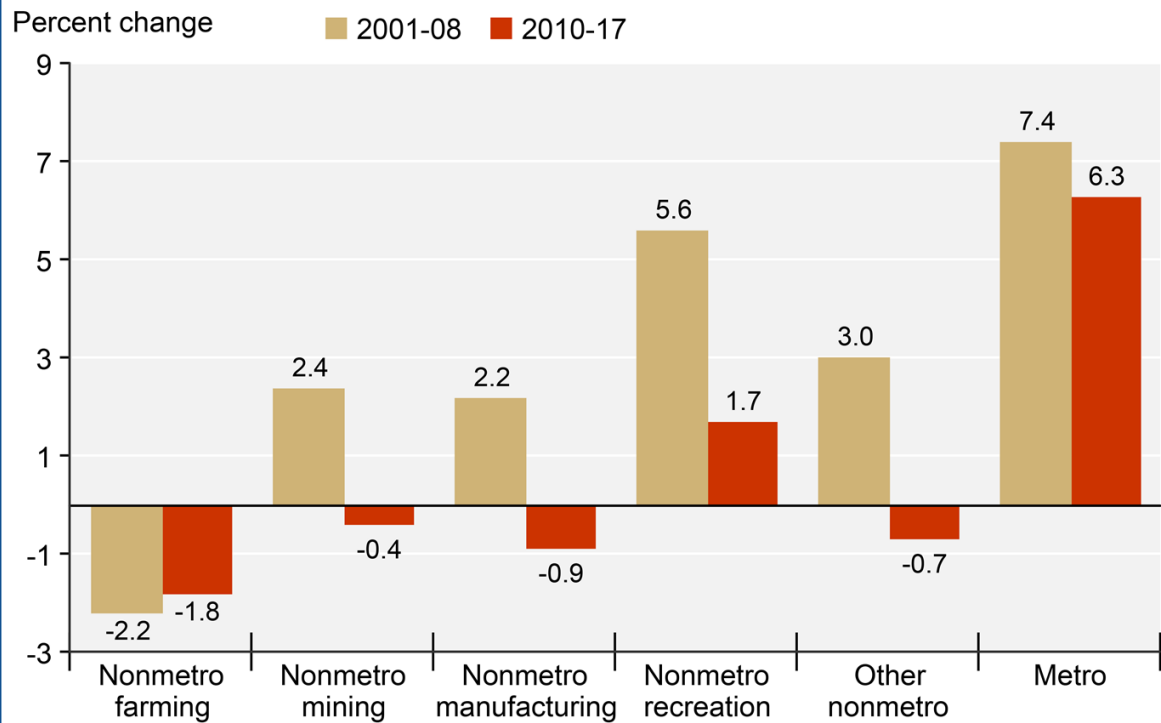


Residential Development in Chittenden County 1890-2018



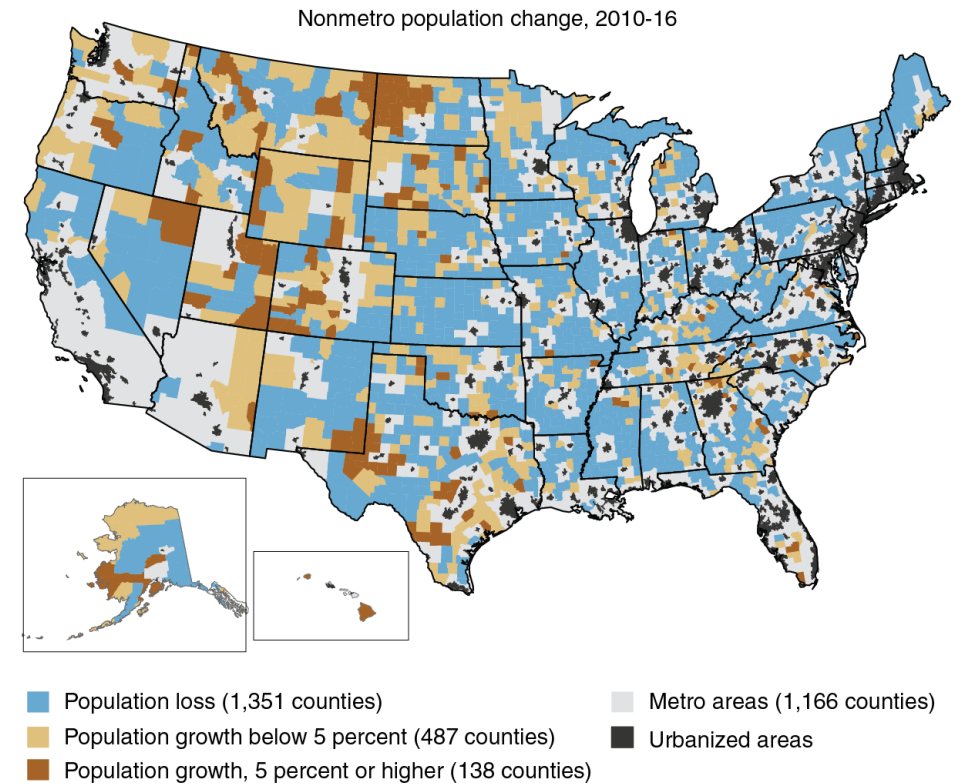
Pre-Pandemic Population Change

Population change by county type, 2001-08 and 2010-17



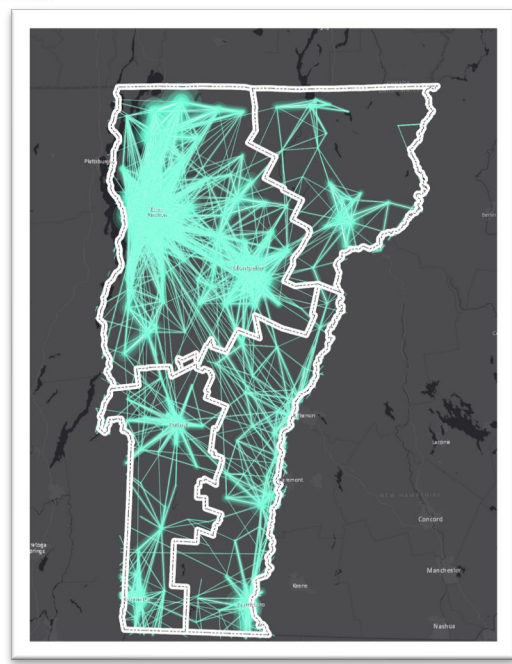
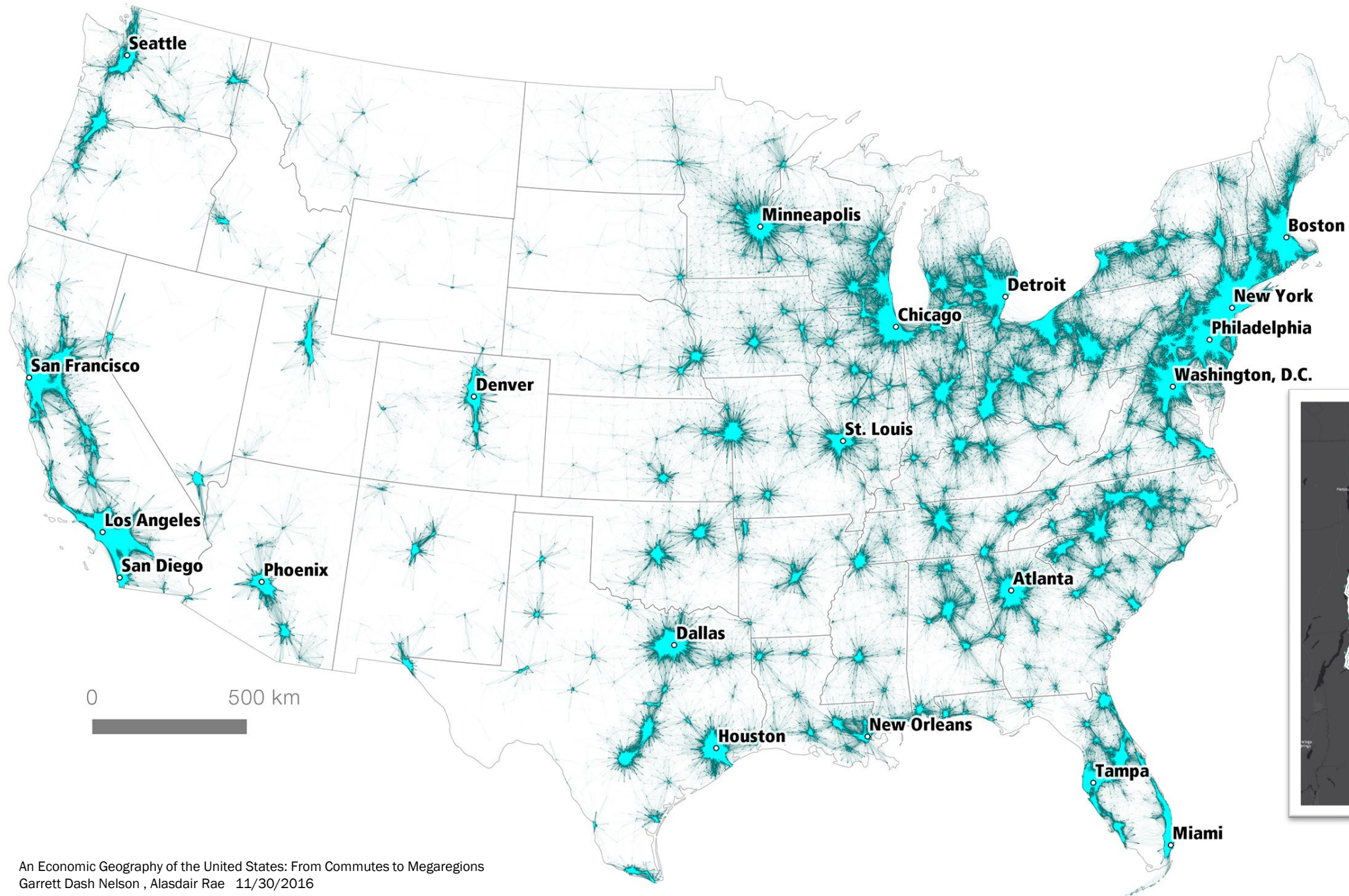
Note: County types are described in the ERS County Typology Codes data product: <http://www.ers.usda.gov/data-products/county-typology-codes.aspx>
 Source: USDA, Economic Research Service using data from the U.S. Census Bureau.

Population loss now widespread in the Eastern United States

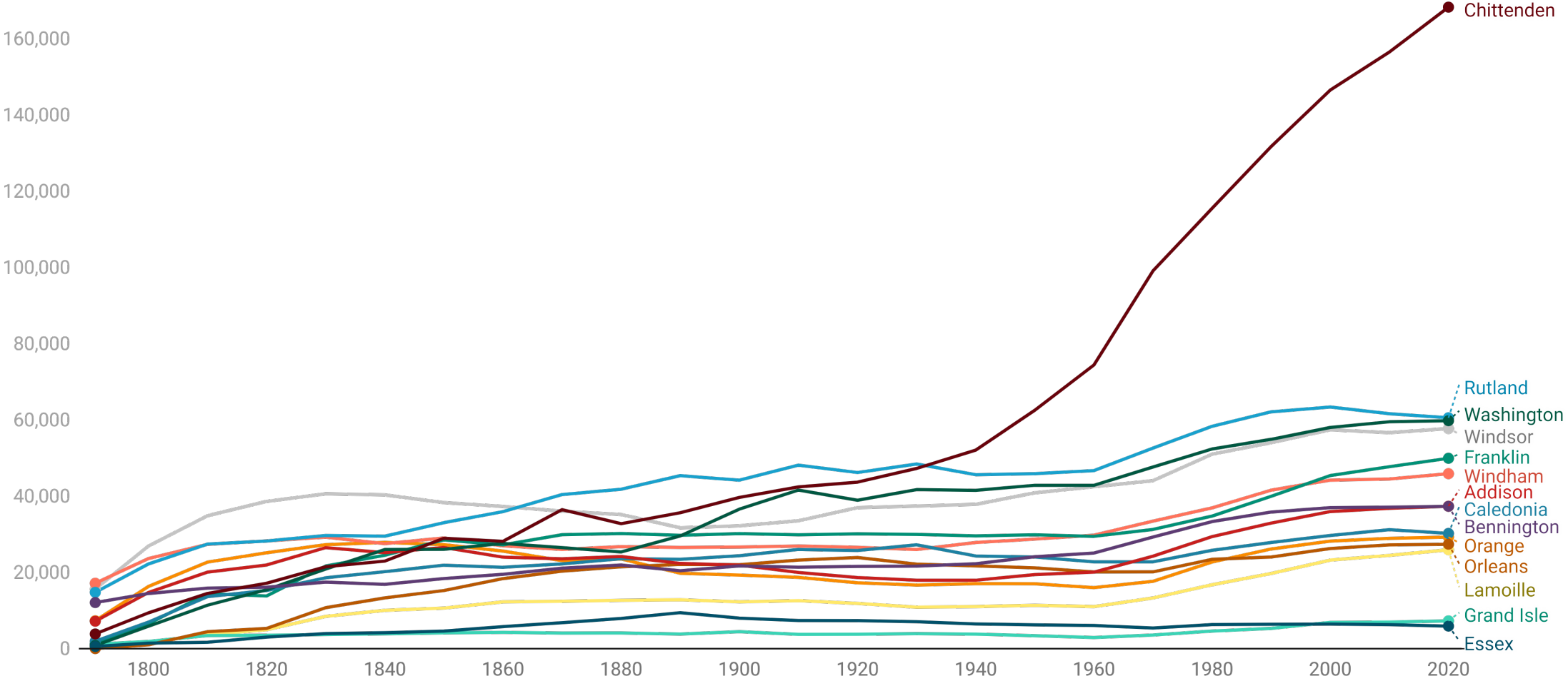


Source: USDA, Economic Research Service using data from the U.S. Census Bureau.





VT County Population: 1791-2020



Data Source: US Census





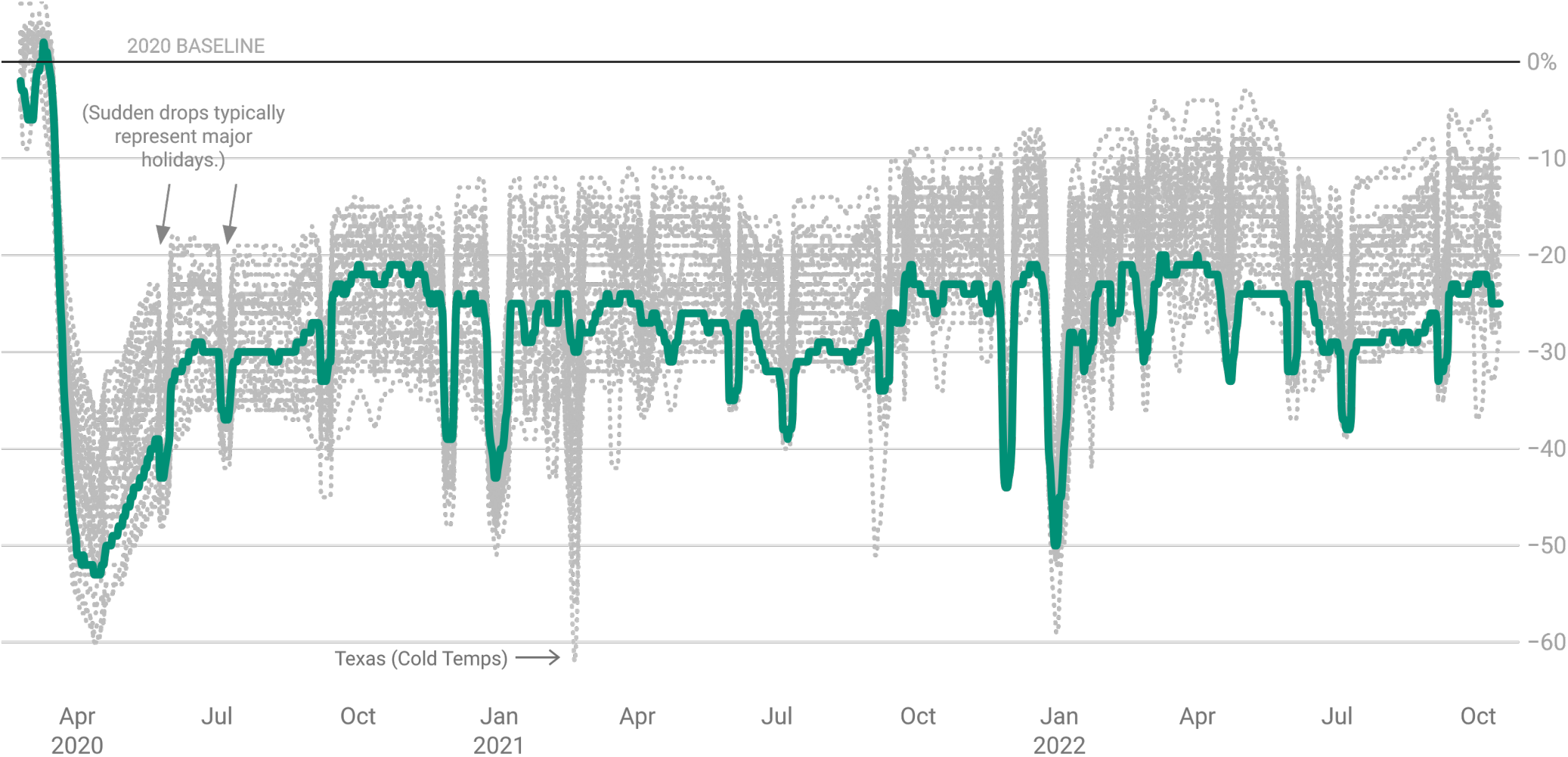
The Virus Sent Drones to a Small Town. Suddenly, It's Not So Small.

The population boomed in Winhall, Vt., as people tried to get away from Covid-19 hot spots. Bear complaints are up. Plumbers are booked until Christmas. And the dump is “sheer pandemonium.”

Published: Sep 26, 2020

Travel to Workplace

Vermont Other States



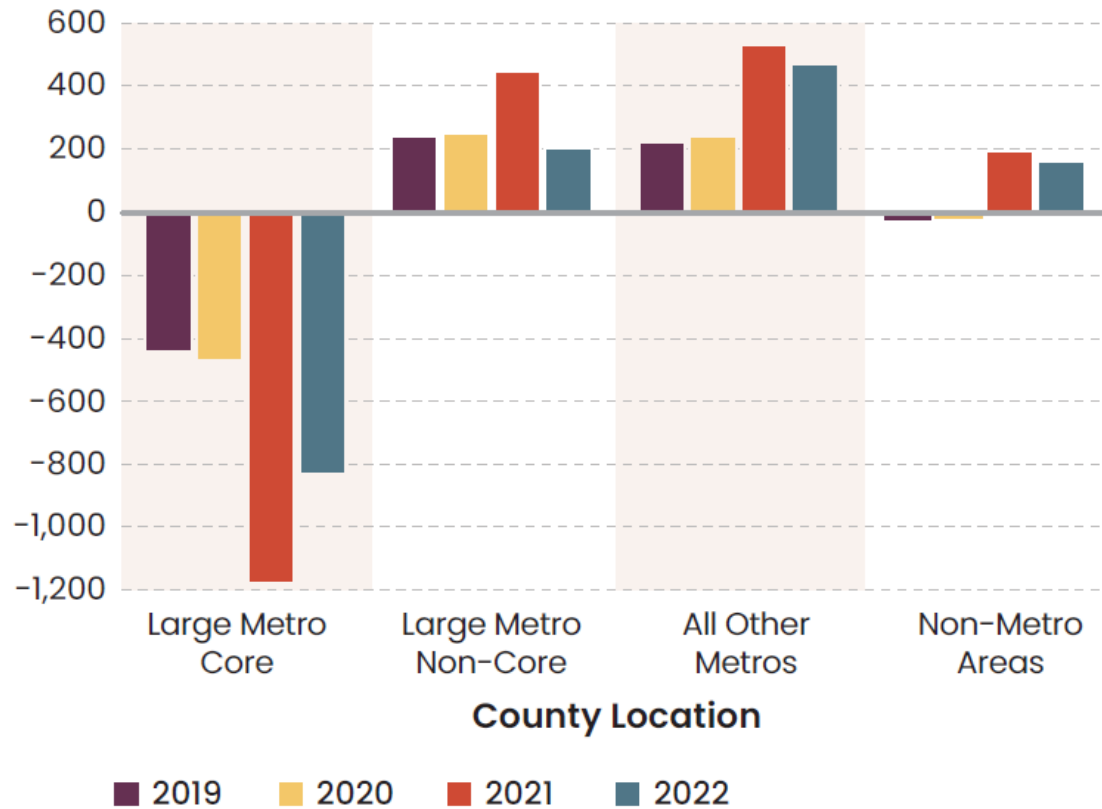
Lines represent 7 day average. Baseline set Jan 3 – Feb 6, 2020. Google stopped updating this data on October 15, 2022.

Data source: Google



Moves from Core Counties to Smaller and Rural Markets Accelerated During the Pandemic

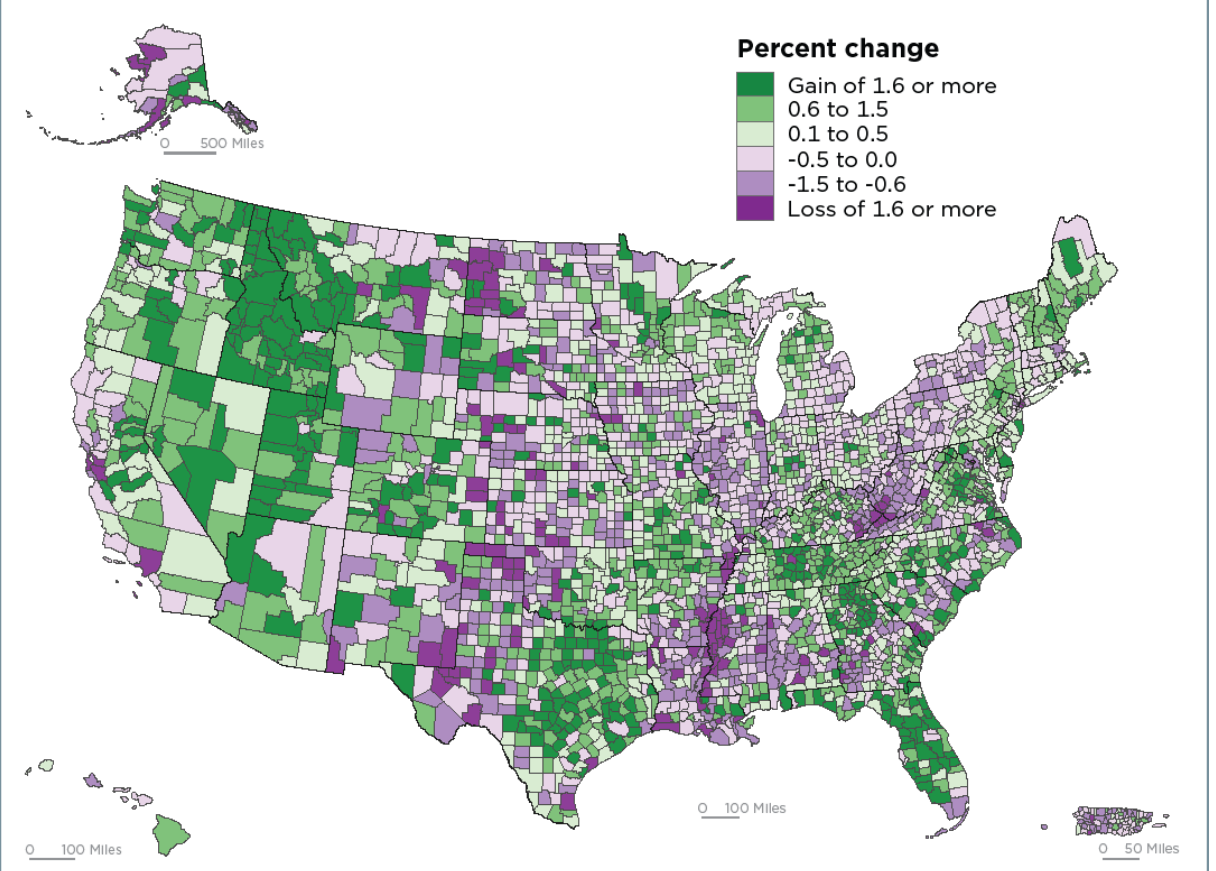
Net Domestic Migration (Thousands)



Notes: Large metro areas have at least 1 million residents. Core counties contain either the largest city in the metro area or any city with at least 250,000 residents. Non-core counties are all other counties in large metro areas. Source: JCHS tabulations of US Census Bureau, Population Estimates Program.

Where Counties are Growing

Percent Change in Population by County: 2020 to 2021



United States[®]
Census
Bureau

U.S. Department of Commerce
U.S. CENSUS BUREAU
[census.gov](https://www.census.gov)

Source: U.S. Census Bureau,
Vintage 2021 Population Estimates

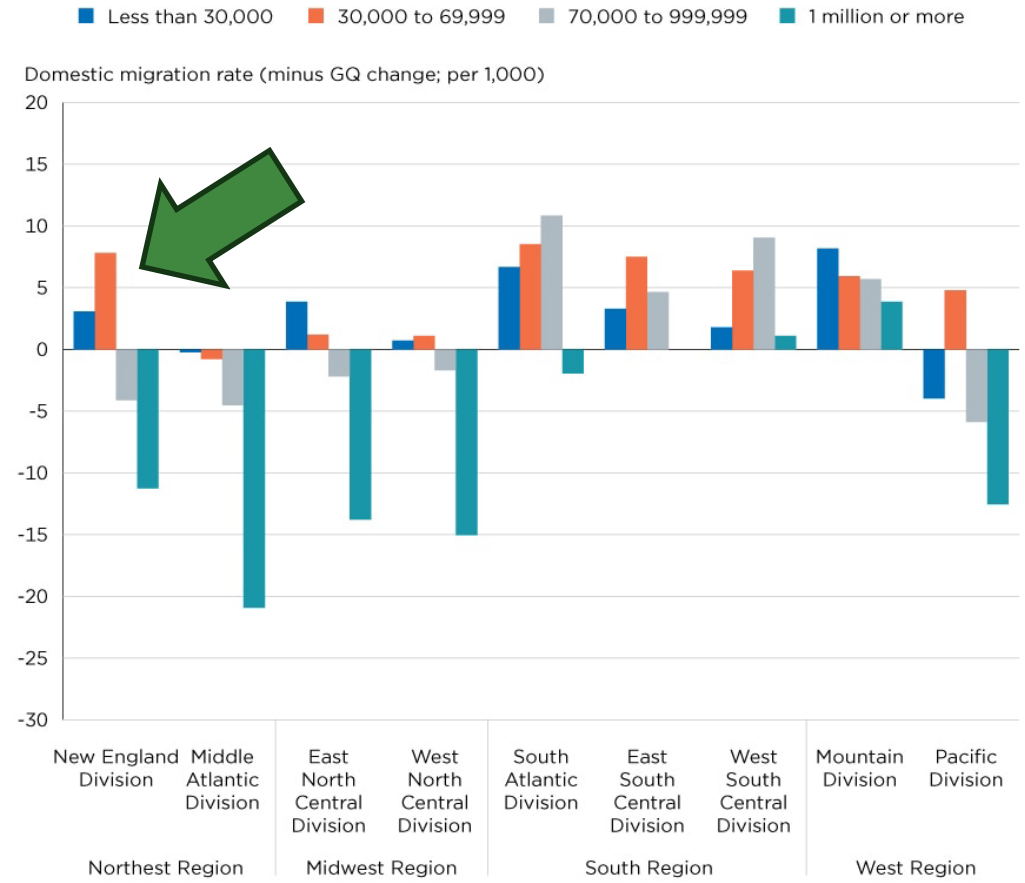


Figure 1.
Domestic Migration Rate for Regions and Divisions by County Size: 2021



Note: Group quarters change omitted.
Source: U.S. Census Bureau, Vintage 2022 Population Estimates.

Figure 2.
Domestic Migration Rate for Regions and Divisions by County Size: 2022

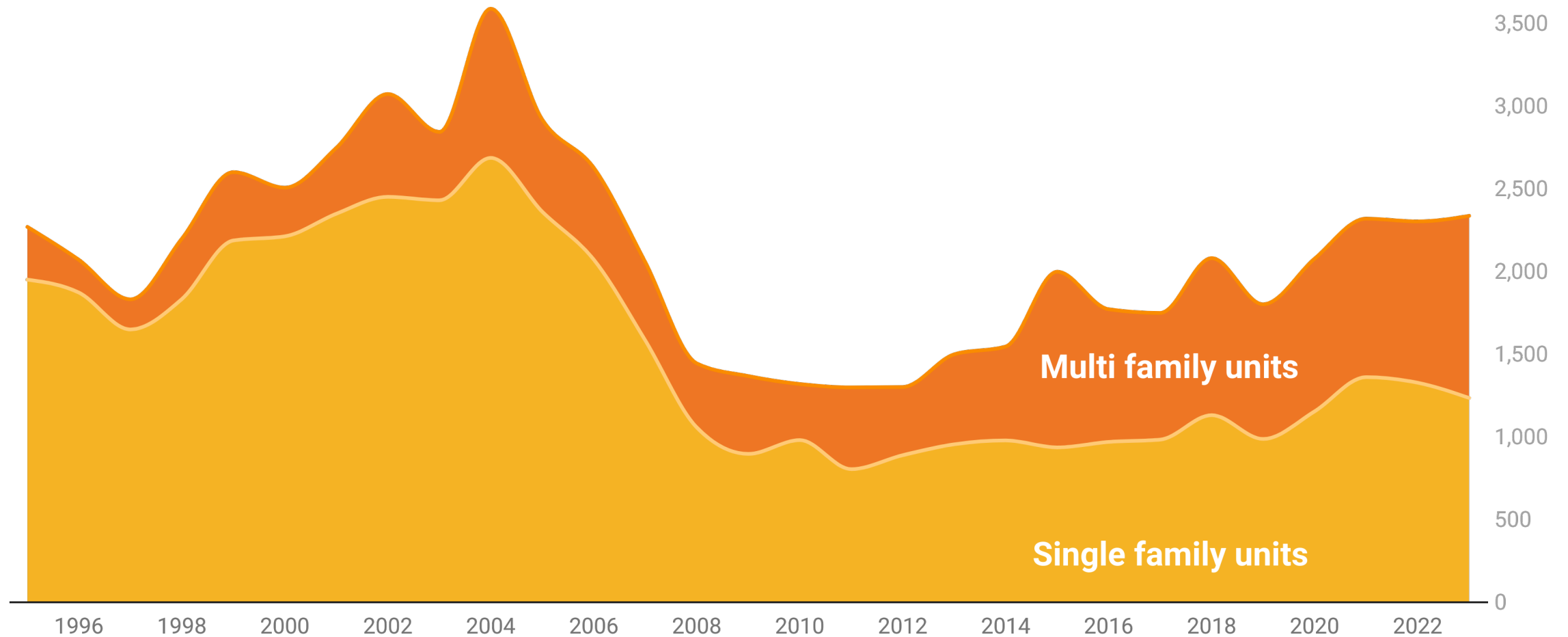


Note: Group quarters change omitted.
Source: U.S. Census Bureau, Vintage 2022 Population Estimates.



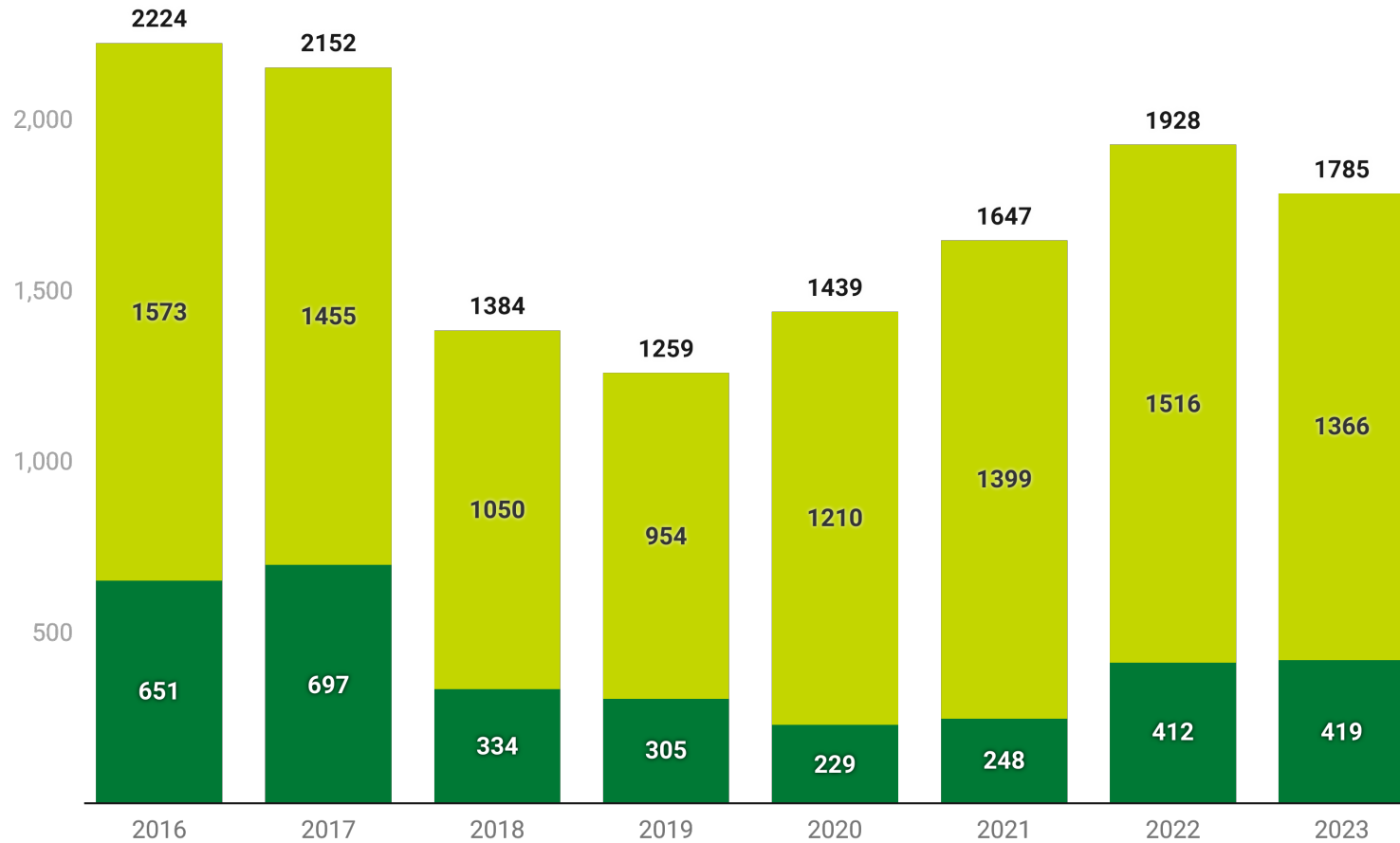
Building Permits Issued in Vermont

US Census Building Permit Survey 1995 - 2023



New Residential Dwelling Units

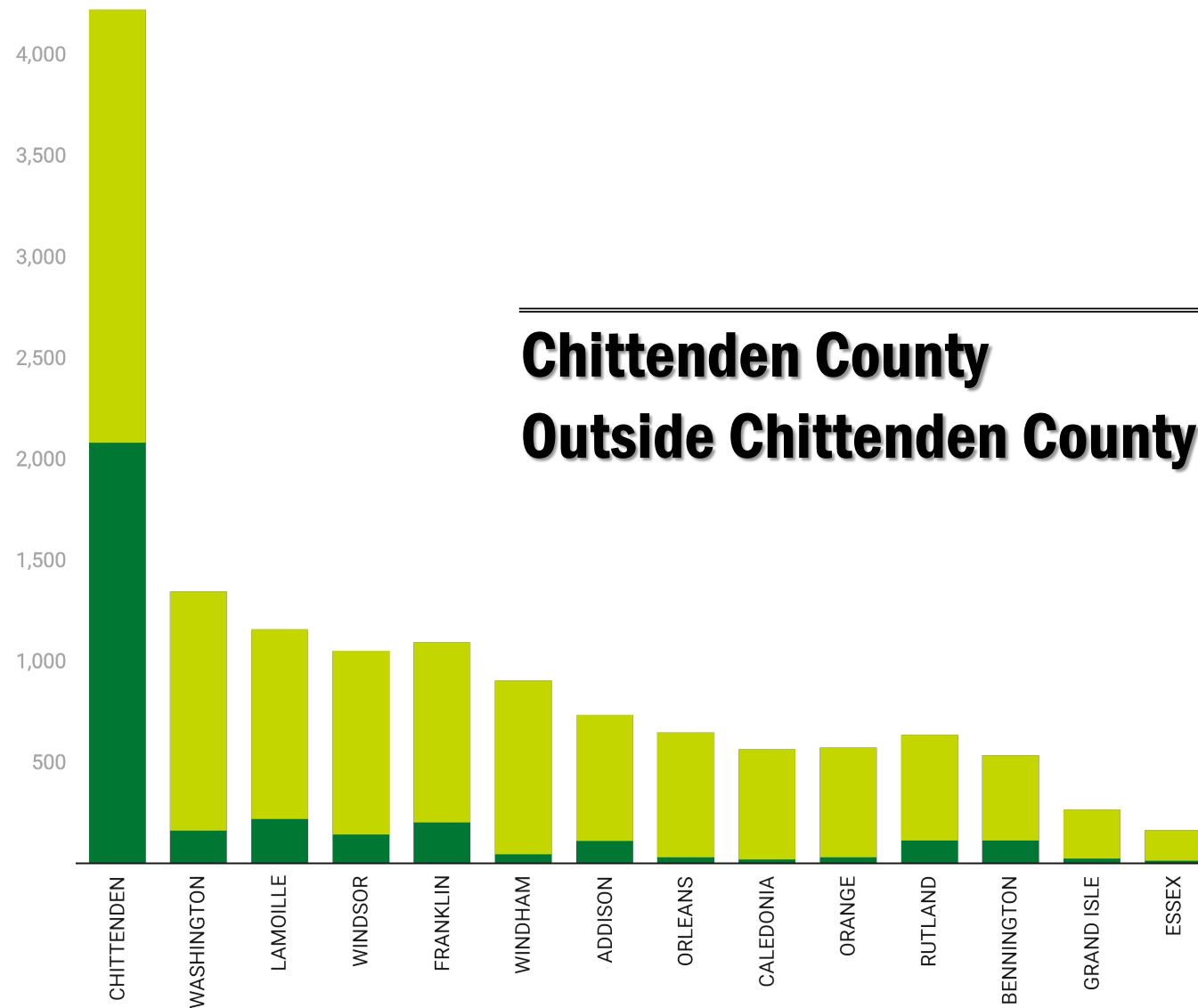
Based on E911 Map Year



From 2016 to 2023, 24% of dwelling new dwelling units were built inside community centers compared to 76% outside community centers.

Includes following site-types: single family dwelling, multi family dwelling, condominium, mobile home, other residential, commercial w/ residential unit. Note the "Unit Count" field was used to calculate units, however this field is incomplete for some multifamily structures.



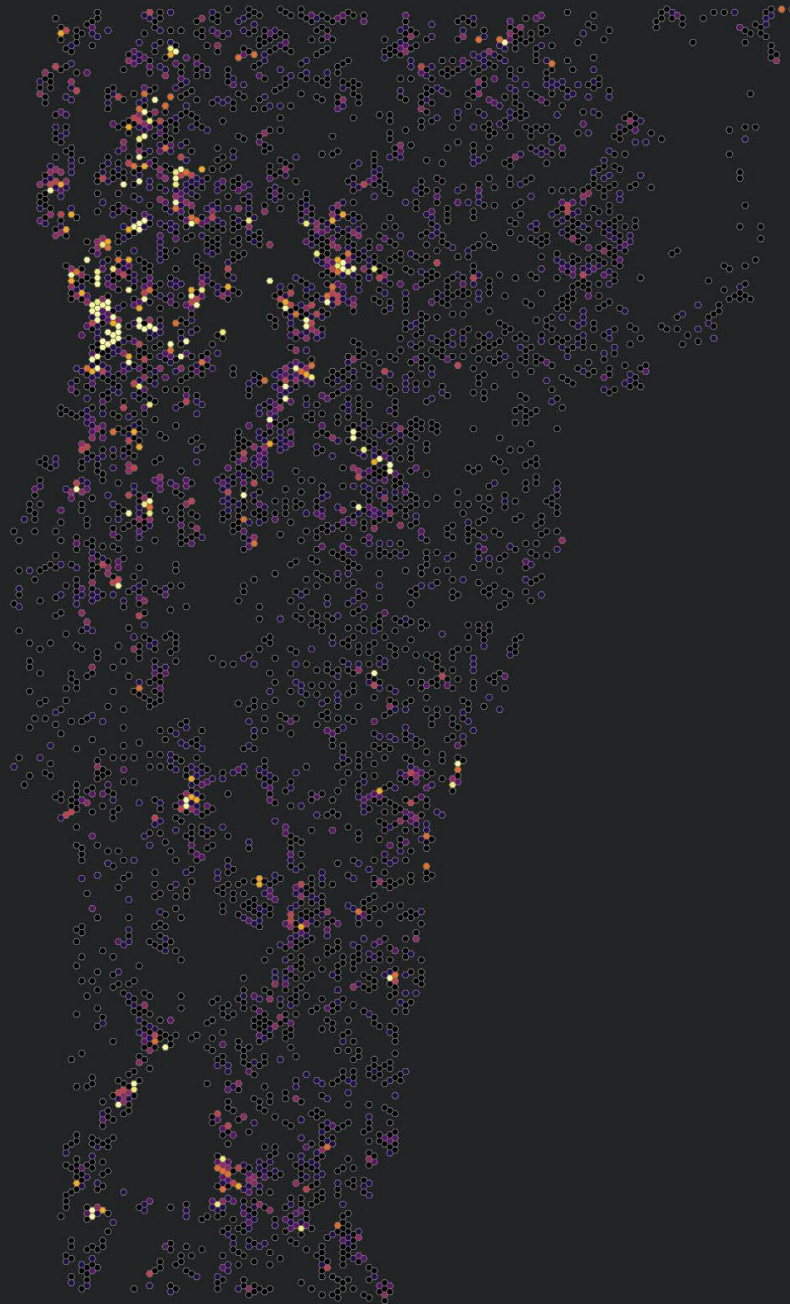


Chittenden County
Outside Chittenden County

Inside	Outside
49%	51%
13%	87%

Based on e911 map year. Includes following site-types: single family dwelling, multi family dwelling, condominium, mobile home, other residential, commercial w/ residential unit. Note the "Unit Count" field was used to calculate units, however this field is incomplete for some multifamily structures.





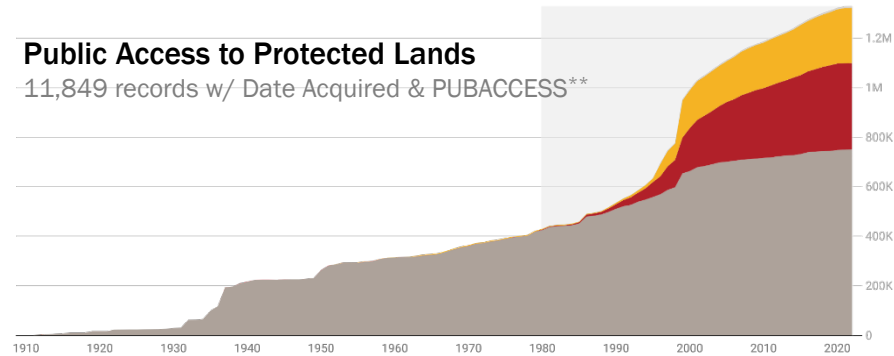
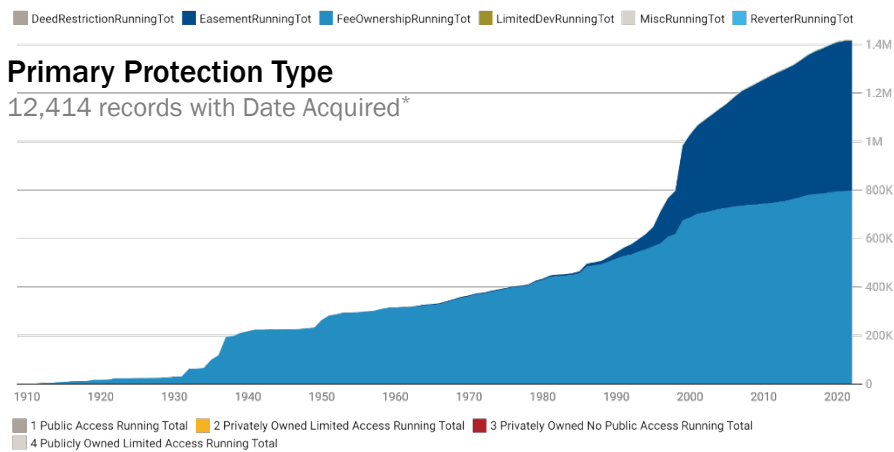
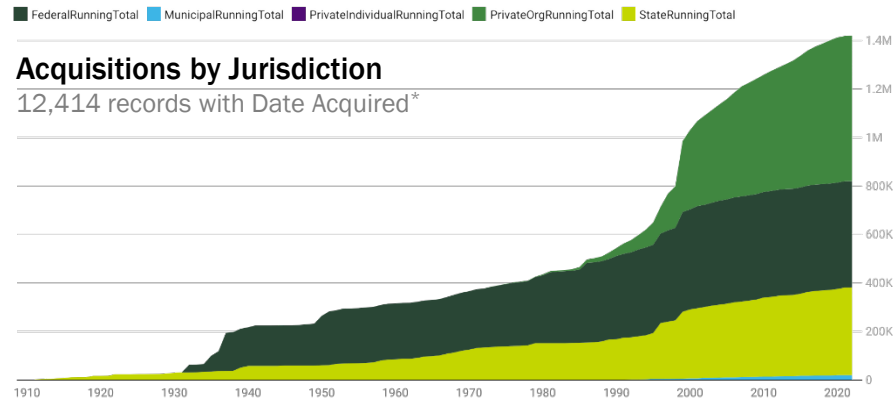
**2016-2023
New Residential
E911 Addresses**

1

8+



What about conservation trends?



* 206,254 acres without date acquired not included

** 296,746 acres without either not included

What's happened since ~1990?

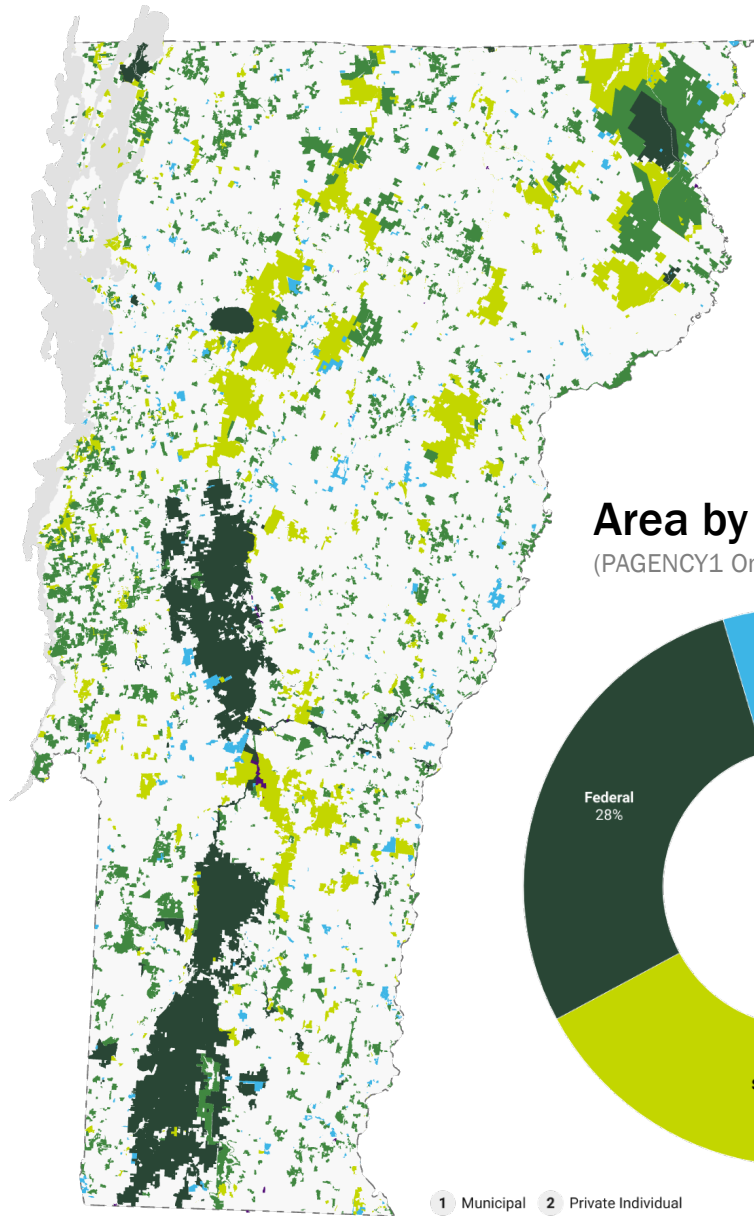
Some trends observed in current data

Non-profits have caught up with public entities in protected acres...

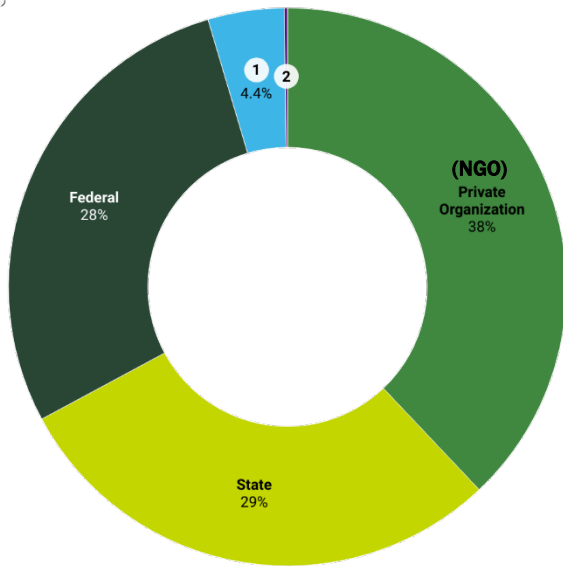
...utilizing easements more often than fee ownership...

...with lands often limited in or restricted from public access.

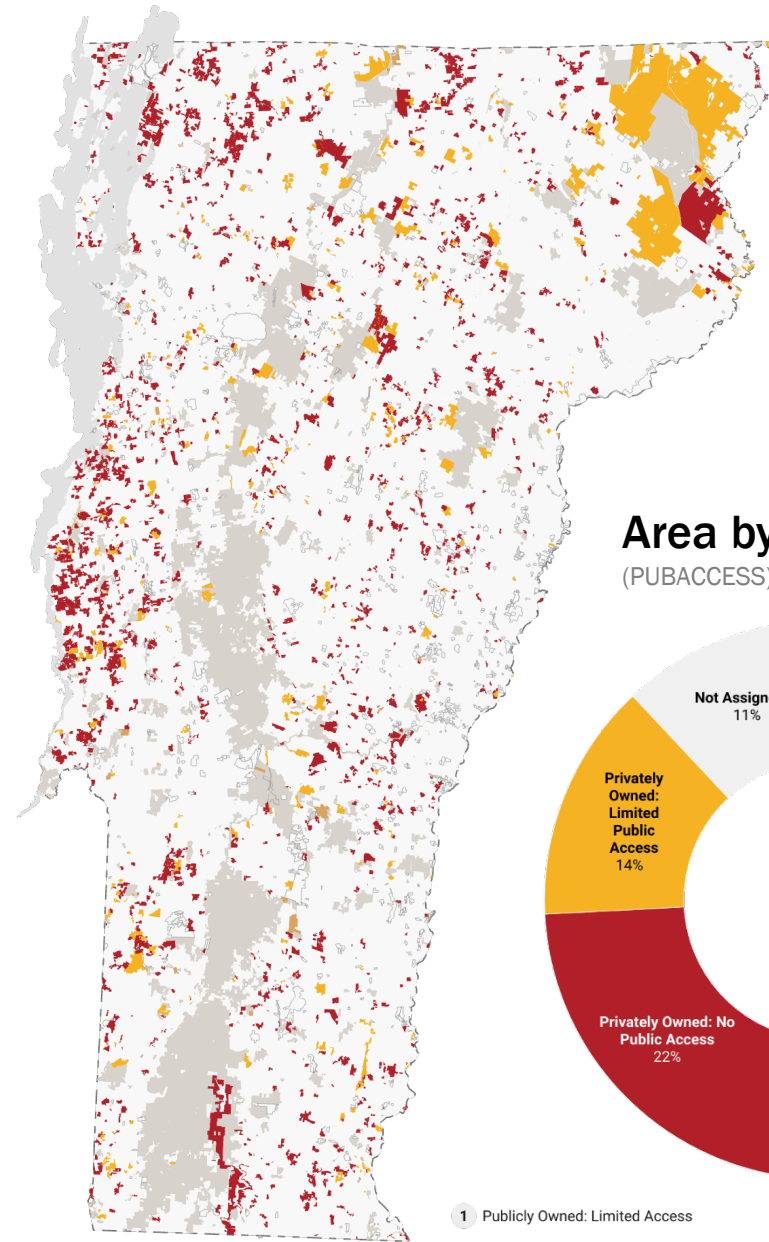




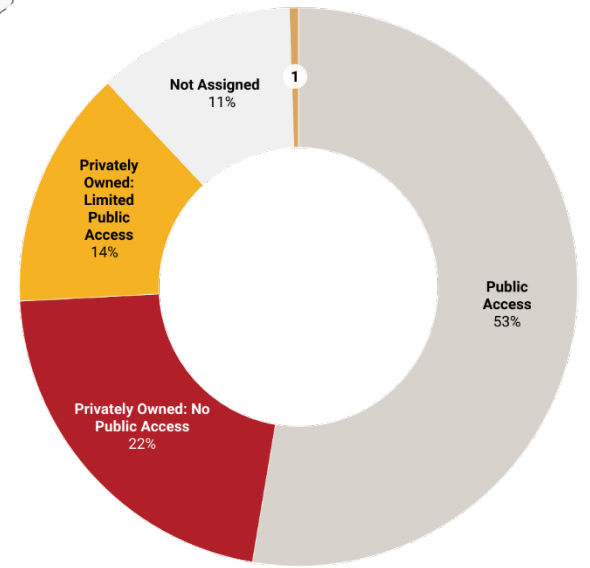
Area by Jurisdiction
(PAGENCY1 Only)



1 Municipal 2 Private Individual



Area by Public Access
(PUBACCESS)



1 Publicly Owned: Limited Access



Learn More: 2023 Year in Review

