



## APPENDIX 1: DATA SOURCES AND METHODOLOGY

This assessment is based on the most recent national and state data available pertaining to Vermont households and housing stock. The most frequent source is the U.S. Census Bureau’s American Community Survey (ACS). To minimize error ranges, the 2005-7 three year ACS averages are most often used. In several instances where estimates pertain to large groups of Vermont households and error ranges are minimal, the 2007 ACS single year estimates were used. Although accompanying error ranges were considered in assessing estimate reliability, references in this report to information from the American Community Survey refer to the point estimates, unless otherwise noted.

The availability of annual American Community Survey estimates has improved the accuracy of the Vermont’s Housing Needs Assessment, allowing the use of more up-to-date information about Vermont households and the preparation of several new types of housing need indicators. By contrast, the 2005 Vermont Housing Needs Assessment and other studies completed before the availability of annual ACS estimates relied primarily on decennial Census data. The availability of annual estimates affects many findings described in this Housing Needs Assessment. These include the total number of owner and renter households, the number of owners and renters who likely lack affordable housing due to high housing cost burdens, and the level of new rental and owner home construction

activity that is likely to be needed to accommodate population growth.

Some of the estimates used in this report were provided by Nielsen Claritas, a private firm specializing in market data. Nielsen Claritas provided estimates and projections pertaining to the number of households in Vermont in 2009 and 2014, by income group, tenure, and age of householder. Estimates and projections from Nielsen Claritas take into account a variety of factors, including the ACS, local government and consumer databases, and postal delivery counts. Since they take into account inflation, income figures from Nielsen Claritas refer to the dollars of the year that the data pertains to. For example, household income in 2009 is given in 2009 dollars; household income for 2014 is given in estimated 2014 dollars. For more information about the methodology used for these projections, please see the Nielsen Claritas publication entitled [Nielsen Claritas Update Demographics Summary Methodology April 2009](#).

By assuming even distribution within income groups, VHFA converted ACS and Nielsen Claritas estimates on the number of households by fixed income group (i.e. such as less than \$10,000, \$10,000 - \$19,999, etc) to income groupings that are based on the state median income. For 2009, the median income of Vermont households is \$51,000, according to Nielsen Claritas. The chart below defines the income categories referred to in this report:

	2009	2014
Median income	\$51,000	\$56,000
Up to 30%	\$0-\$15,000	\$0-\$17,000
31-50%	\$15,001-\$25,000	\$17,001-\$28,000
51-80%	\$25,001-\$41,000	\$28,001-\$45,000
81-95%	\$41,001-\$48,000	\$45,001-\$53,000
Above 95%	\$48,001+	\$53,000+

Unless otherwise noted, these are the income group definitions used throughout this report. Unlike the income ranges listed above which are based on the overall median income among all Vermont households, eligibility for HUD programs is computed using median income estimates that reflect the size of the household and the county in which the household is located. For this reason, the income ranges shown above do not directly mirror HUD program eligibility dollar limits. We used the Nielsen Claritas estimated state median income (rather than HUD's) to create the groups primarily used in this report to ensure consistency with the other estimates and projections we obtained from Nielsen Claritas for 2009 and 2014 Vermont households.

In addition to the separate groups listed above, the term "lower income household" refers to all households with income less than 80% of the median. The table on the right describes the definition of household income used throughout this study:

VHFA prepared estimates and projections of Vermont's housing supply by using U.S. Census Bureau housing unit estimates, Nielsen Claritas estimates and projections, building permit data, and American Community Survey data regarding tenure, vacancies, and housing type. Estimates of the level of rental and owner unit construction during 2009 and 2014 are based on an annual housing destruction rate of 0.103%--the rate used for housing unit estimates by the U.S.

#### What is counted as "household income"

COUNTED as income	NOT COUNTED as income
Amounts reported separately for wage or salary income	Capital gains
Net self-employment income	Money received from the sale of property (unless the recipient was engaged in the business of selling such property)
Interest, dividends, or net rental or royalty income or income from estates and trusts	The value of income "in kind" from food stamps, public housing subsidies, medical care, employer contributions for individuals, etc.
Social Security or railroad retirement income	Withdrawal of bank deposits
Supplemental Security Income (SSI)	Money borrowed
Public assistance or welfare payments	Tax refunds
Retirement, survivor, or disability pensions	Exchange of money between relatives living in the same household
All other income	Gifts and lump-sum inheritances Insurance payments Other types of lump-sum receipts

SOURCE: [U.S. CENSUS BUREAU, AMERICAN COMMUNITY SURVEY 2007 SUBJECT DEFINITIONS.](#)

Census Bureau for homes built during 1970-1979. The median year built for all rental and owner homes in Vermont is 1970.

A variety of additional data sources were also consulted in the preparation of this report. They are noted throughout the report, with links provided as possible.