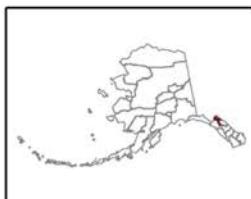


Haines Borough



CDP = Census Designated Place
CA = Census Area



Map Prepared by:
Alaska Department of Labor
& Workforce Development

September 2011

Source: US Census
2010 TIGERline

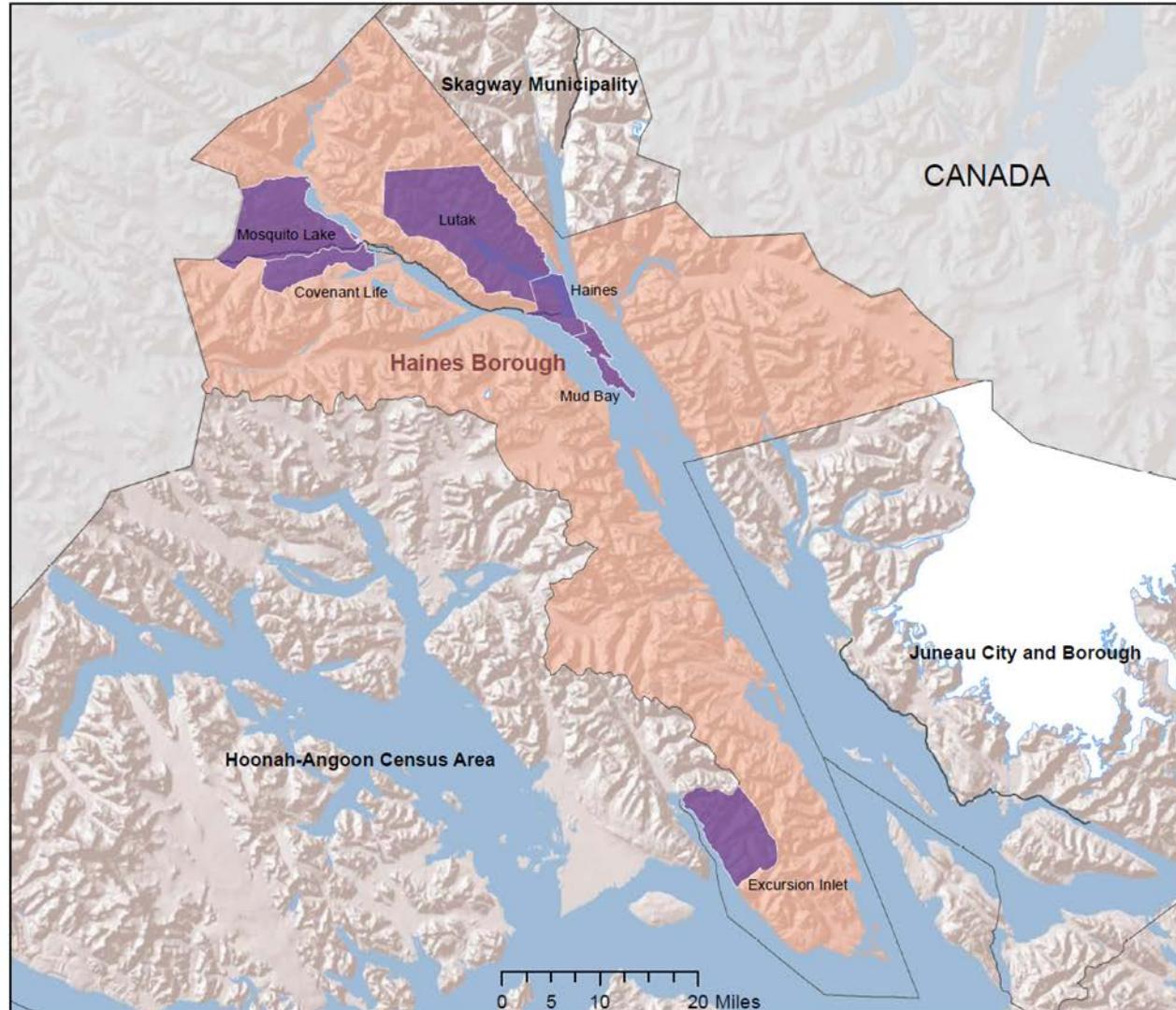


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Regional and Statewide Housing Characteristics

This census area summary only includes the highlights of housing characteristics at the census area level. The 2017 Alaska Housing Assessment provides a significant amount of data and analysis at statewide, ANCSA region and census area levels. That assessment provides a statewide analysis of housing characteristics, how they compare to national numbers, and the estimated housing needs. Within the 2017 Alaska Housing Assessment, written summaries are available for each individual ANCSA region and census area, and data profiles are also available characterizing the housing stock from the perspective of community, overcrowding, energy, affordability and need. These different tiers of information and analysis allow researchers, housing authorities, policymakers and others to generate answers to specific questions. For a more detailed discussion of estimating housing need and comparison of methods to previous housing assessments, see Appendix C Selected Methodology in 2017 Alaska Housing Assessment.

Haines Borough Dashboard

Population: The Alaska Department of Labor and Workforce Development's current (2015) population estimate for the Haines Borough is 2,493, an increase of 4 percent from 2000.

Housing Units: There are currently 1,415 housing units in the Haines Borough. Of these, 1,144 are occupied, 34 are for sale or rent, and the remaining 393 are seasonal or otherwise vacant units.

Energy and Energy Costs: The average home in the Haines Borough is 1,751 square feet and uses 237 million BTUs of energy annually, compared to the statewide average of 227 million BTUs per year. Using AKWARM estimates, the average annual energy cost for homes in the Haines Borough is \$5,739. This is approximately 1.4 times the statewide average and 2.5 times the national average.

Overcrowding: An estimated 43 (4 percent) of occupied units are either overcrowded (2 percent) or severely overcrowded (2 percent). This is slightly higher than the national average, and makes this census area the sixth least overcrowded census area in the state.

Drafty Homes and Ventilation: Approximately 553 (54 percent) of occupied homes in the Haines Borough are drafty, exceeding seven air changes per hour at 50 Pascals (ACH50). The statewide average is 36 percent. In contrast, there are an estimated 543 occupied housing units (53 percent) in the Haines Borough that are relatively airtight and lack a continuous ventilation system. These homes are at higher risk of issues with moisture and indoor air quality.

Affordability: On average, approximately 312 (27 percent) of households in the Haines Borough are cost-burdened, spending more than 30 percent of total household income on housing costs, including rent, utilities and energy. Statewide 31 percent of households are cost-burdened.

Senior Housing: There are an estimated 18 beds in senior housing facilities in the Haines Borough. Currently the Alaska Department of Labor and Workforce Development estimates there are 480 seniors in the census area and projects an increase to 772 by 2030.

Housing Issues: There are an estimated 280 homes built before the 1980s in the Haines Borough that have not been retrofitted through a state program in the past 10 years. Approximately 73 (6 percent) homes in the Haines Borough lack complete kitchens and approximately 132 (12 percent) lack complete bathrooms.

Haines Borough Housing Need Highlights

One of the primary needs for the Haines Borough census area is to retrofit homes to increase energy efficiency. The Home Heating Index is a measure of energy required to heat a residence that corrects for building size and climate.¹

Other data support the need to retrofit homes in the census area: the majority of occupied homes are at risk for indoor air quality issues, with 9 percent of homes having continuous mechanical ventilation, and the remainder are either drafty or airtight without adequate ventilation. Nearly a third of homes were built before 1980 and have yet to participate in an energy retrofit program, two criteria that make them prime candidates for a retrofit.

Another large need is senior housing. The need for housing for elderly individuals will be a pressing issue as this segment of the population grows.

Housing Gap: There are currently 1,415 housing units in the census area, and 73 percent are occupied.² An estimated 4 percent of occupied units are overcrowded or severely overcrowded. This is approximately the national average, making the census area one of the least overcrowded in the state; however, only 2 percent are available for sale or rent.

Affordable Housing Need: The average annual energy cost for homes in the Haines Borough census area is \$5,739, which is approximately 1.4 times the statewide average and 2.5 times the national average.³ This contributes to the approximately 27 percent of households that are cost-burdened, meaning they spend more than 30 percent of their income on housing.⁴ This is lower than the national average of 36 percent of cost-burdened households.

¹ The home heating index for the Haines Borough is 13.5 BTUs/ft²/HDD, compared to the statewide average of 8.8 BTUs/ft²/HDD, and is the highest in the state.¹

² U.S. Census Bureau. (2016). American Community Survey, 2010–2014 American Community Survey Five-year Estimates.

³ U.S. Energy Information Administration, Independent Statistics and Analysis. (2016). Residential Energy Consumption Survey (RECS): 2009. Retrieved from <https://www.eia.gov/consumption/residential/data/2009/index.php>

⁴ U.S. Census Bureau. (2016). American Community Survey, 2010–2014 American Community Survey Five-year Estimates.

Senior Housing Needs: There are 62 beds in senior housing facilities in the census area. Ten of those beds are dedicated to assisted-care living;⁵ however, the senior population in the area is 480 and projected to increase to 772 by 2030.⁶ Increasing the amount of available senior housing should ensure adequate assisted and independent living facilities for the projected population.

Retrofit Needs: The Home Heating Index for residences in Haines Borough is 13.5 BTUs/ft²/HDD, the highest in Alaska.⁷ While energy costs in the Haines Borough are lower than many areas of the state, this data indicates a large potential to retrofit homes to increase their energy efficiency. Approximately 17 percent of occupied homes are estimated to be inefficient, using around four times more energy than if they had been built to AHFC's Building Energy Efficiency Standard (BEES). This is more than double the statewide average of 6 percent of inefficient homes. Twenty-nine percent of homes were built before 1980 and have not been retrofitted. These homes are good candidates for a potential retrofit. The majority of occupied homes in the census area have indoor air quality issues, with only 9 percent of homes having continuous mechanical ventilation or a heat recovery ventilator. The remaining homes are classified as either drafty or airtight without mechanical ventilation.

⁵ AHFC Senior Housing Office. (2016). *Inventory List: Independent Living Homes/Facilities*. Revised 5/02/2016. Retrieved from <https://www.ahfc.us/senior-support/>

⁶ Hunsinger, Eddie, Sandberg, E., & Brooks, L. (2016). Alaska Population Projections 2015 to 2045. Alaska Department of Labor and Workforce Development, Research and Analysis Section.

⁷ See Appendix C: Methodology for details.

Haines Borough Summary

Community

The Haines Borough census area is located in Southeast Alaska, sitting between Canada and the Pacific Ocean. It is in the Sealaska Native Corporation ANCSA region. The average home size in the census area is 1,730 square feet.

The ratio of dependents, including those under 16 and over 65, relative to the working age population in the Haines Borough is lower than the statewide average and lower than the national ratio.⁸ The Haines Borough is expected to see an increase in the nonworking age population by 2030.

The ratio of senior age dependents to the working age population is higher than the statewide average and higher than the national average. The Haines Borough region is projected to see the ratio of senior age dependents to working age dependents increase by 1.8 times by 2030.

There are an estimated 62 dedicated beds in senior housing in the Haines Borough, with 10 of those dedicated to assisted care living.⁹ Currently the Alaska Department of Labor and Workforce Development estimates there are 480 seniors in the census area and projects that there will be 772 senior citizens by 2030.¹⁰ In the Haines Borough 2.1 percent of senior citizens are in assisted care housing. This is lower than the statewide rate of 2.8 percent of senior citizens in assisted care housing. Nationally, approximately 3.5 percent of senior citizens are in senior living facilities.¹¹

Comparison of the growth rates in the senior age (65+) segment of the population to the dependent age (0 to 15) population indicate that in the Haines Borough region the primary pressure for new housing over the next 15 years will come from households with elderly people.

⁸ Hunsinger, Eddie, Sandberg, E., & Brooks, L. (2016). "Alaska Population Projections 2015 to 2045." Alaska Department of Labor and Workforce Development, Research and Analysis Section.

U.S. Census Bureau. (2016). *American Community Survey, 2010-2014 American Community Survey Five-year Estimates*.

⁹ AHFC Senior Housing Office. (2016). *Inventory List: Independent Living Homes/Facilities*. Revised 5/02/2016. Retrieved from <https://www.ahfc.us/senior-support/>

¹⁰ Hunsinger, Eddie, Sandberg, E., & Brooks, L. (2016). "Alaska Population Projections 2015 to 2045." Alaska Department of Labor and Workforce Development, Research and Analysis Section.

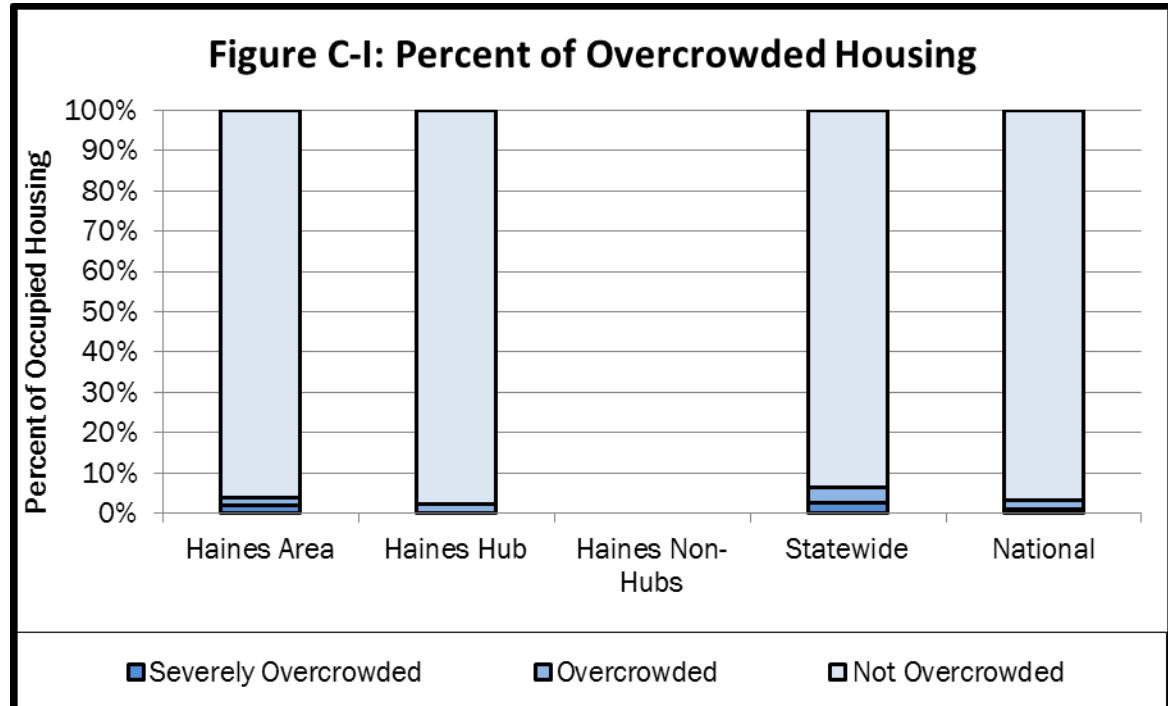
¹¹ Ribbe, M., Ljunggren, G., Steel, K., Topinkova, E., Hawes, C., Ikegami, N., ... Jonnson, P. (1997). "Nursing Homes in 10 Nations: A Comparison Between Countries and Settings." *Age and Ageing*. 26(S2), 3-12.

Overcrowding¹²

The Haines Borough is the sixth least overcrowded census area in Alaska. Approximately 4 percent of households are overcrowded in the census area as a whole. The rate of overcrowding in the Haines Borough is nearly 59 percent of the statewide average (6.4 percent) and approximately 1.2 times more than the national average (3.3 percent).

Overcrowding is defined as households with more than 1 person per room. Severe overcrowding is defined as households with more than 1.5 persons per room.

Approximately 2 percent of housing units in the Haines Borough are available for sale or rent. Additionally, 25 percent of housing units in the Haines Borough are considered vacant because they are used for seasonal, recreational or other non-year-round purposes.

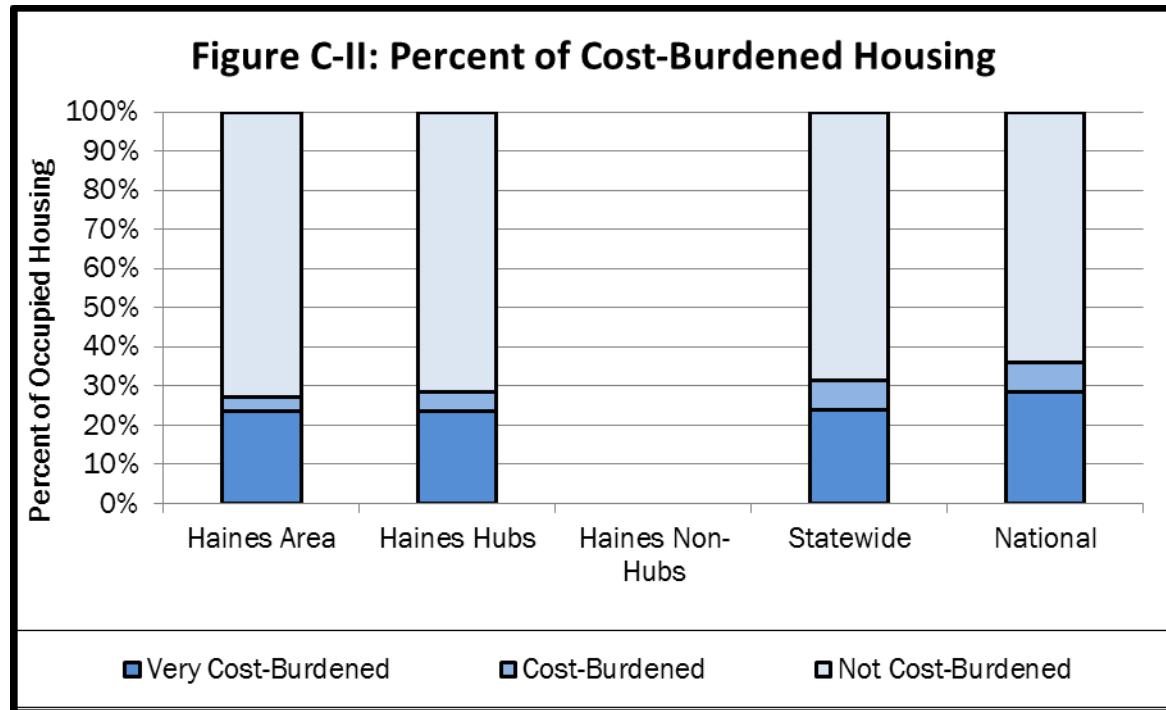


¹² U.S. Census Bureau. (2016). *American Community Survey, 2010-2014 American Community Survey Five-year Estimates*.

Affordability¹³

According to estimates from the U.S. Census American Community Survey (ACS), 27 percent of households in the Haines Borough are cost-burdened, that is, spend more than 30 percent of their income on housing costs. The rate of cost-burdened households in Haines Borough is slightly lower than the national average of 36 percent.

The median household income in the Haines Borough is \$57,551. This is lower than the statewide median of \$71,829. The national median is \$53,482.



¹³ U.S. Census Bureau. (2016). *American Community Survey, 2010-2014 American Community Survey Five-year Estimates*.

Energy¹⁴

Single-family Units

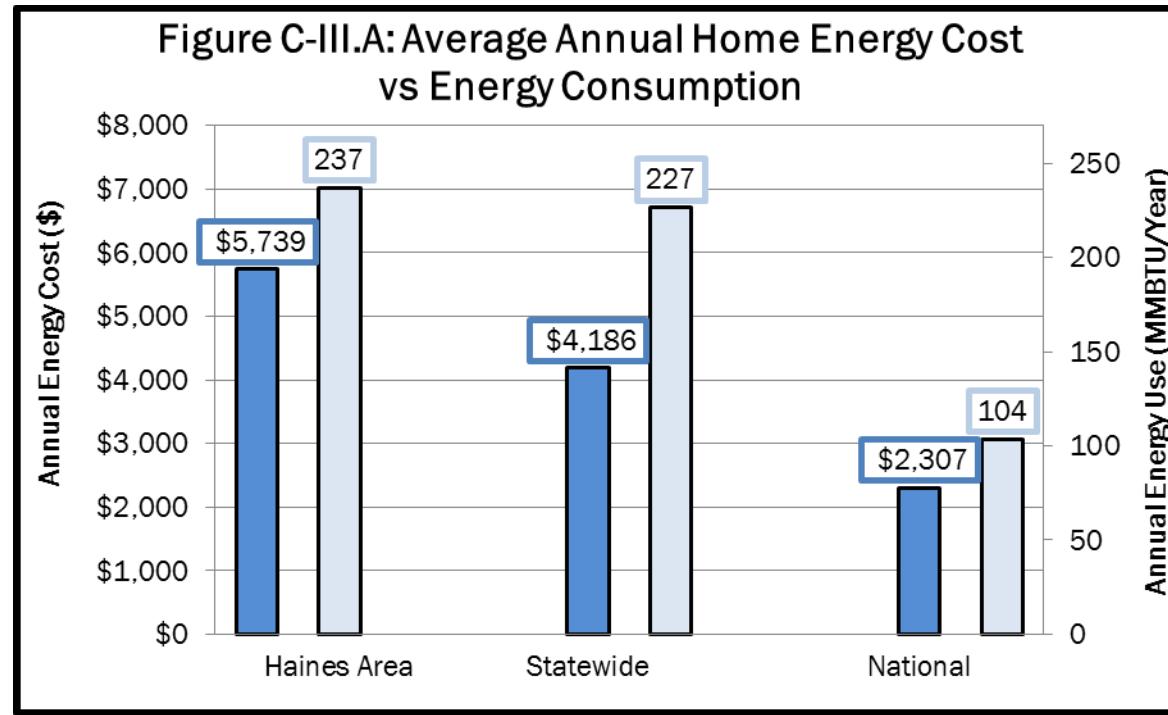
Single-family homes in the Haines Borough consume an average of 237 million BTUs per year, the fourth highest energy consumption in the state. This average annual energy consumption is 1.0 times the statewide average of 227 million BTUs and 2.3 times the national average.

Energy costs for single-family homes in the Haines Borough average \$5,739 annually. This is the third highest in the state. Haines Borough energy costs are 1.4 times the statewide average and 2.5 times the national average.

With an average footprint of 1,751 square feet, single-family homes in the Haines Borough are smaller than the statewide average of 1,955 square feet. Nationally the average house size is 2,425 square feet.

The energy use intensity (EUI), or annual energy used per square foot, for a single-family home in the Haines Borough averages 144,000 BTUs per square foot, the eighth highest in the state. This is 1.1 times the statewide average of 128,000 BTUs per square foot and 3.4 times the national average. The energy cost index (ECI), or annual energy cost per square foot, for a single-family home in the Haines Borough averages \$3.28, the 12th highest in the state. This is 1.4 times the statewide average of \$2.31 per square foot and 3.4 times the national average of \$0.95 per square foot.

The home heating index (HHI) in the Haines Borough for the average single-family home is 13.5 BTUs/ft²/HDD. This is the highest in the state. The HHI for the Haines Borough is higher than the statewide average of 8.83 BTU/ft²/HDD. The normalized cost of energy, in terms of dollars per million BTUs, for a single-family home in the Haines Borough averages \$21.67, the 13th highest in



¹⁴ See Appendix C: Methodology for details.

the state. This is 1.4 times the statewide average of \$15.80 per million BTUs and 97 percent of the national average of \$22.27 per million BTUs.

Multifamily Units

Multifamily housing units in the Haines Borough consume an average of 128 million BTUs per year, the 10th highest energy consumption in the state. This average annual energy consumption is 82 percent of the statewide average of 156 million BTUs and 2.3 times the national average.

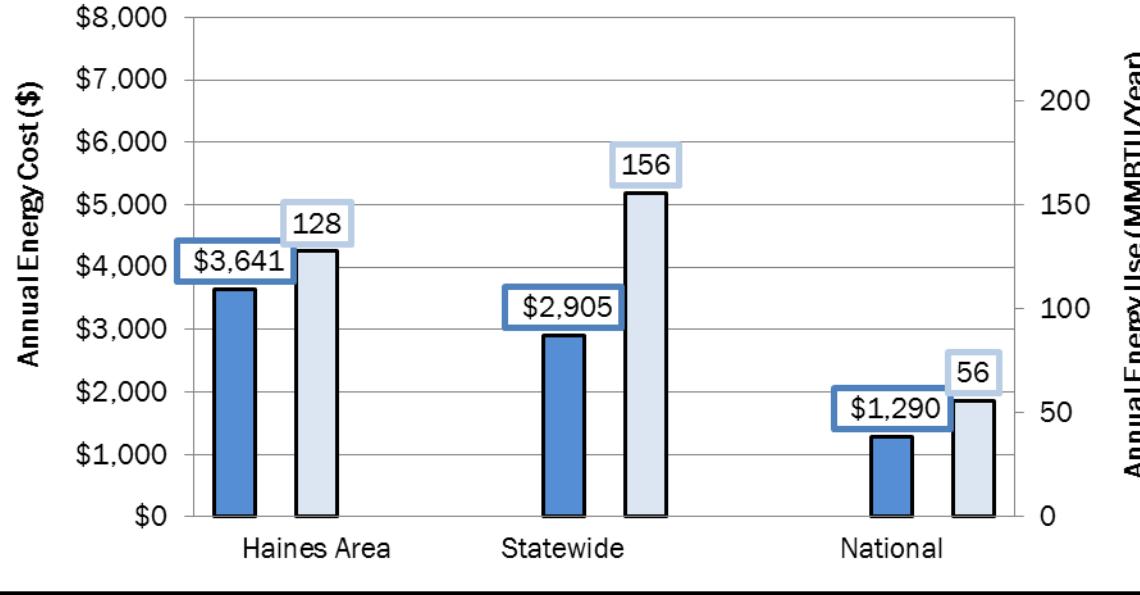
Energy costs for multifamily housing units in the Haines Borough average \$3,641 annually. This is the eighth highest in the state. Haines Borough energy costs are 1.3 times the statewide average and 2.8 times the national average.

With an average footprint of 895 square feet, multifamily housing units in the Haines Borough are smaller than the statewide average of 1,284 square feet. Nationally the average unit in multifamily housing is 930 square feet.

The energy use intensity (EUI), or annual energy used per square foot, for a multifamily housing unit in the Haines Borough averages 148,000 BTUs per square foot, the second highest in the state. This is 1.2 times the statewide average of 128,000 BTUs per square foot and 2.5 times the national average. The energy cost index (ECI), or annual energy cost per square foot, for a multifamily housing unit in the Haines Borough averages \$4.07, the fourth highest in the state. This is 1.8 times the statewide average of \$2.27 per square foot and 2.9 times the national average of \$1.39 per square foot.

The home heating index (HHI) in the Haines Borough for the average multifamily housing unit is 12.9 BTUs/ft²/HDD. This is the highest in the state. The HHI for the Haines Borough is higher than the statewide average of 8.28 BTU/ft²/HDD. The normalized cost of energy, in terms of dollars per million BTUs, for a unit in multifamily housing in the Haines Borough averages \$23.95, the

Figure C-III.B: Average Annual Home Energy Cost vs Energy Consumption



11th highest in the state. This is 1.9 times the statewide average of \$12.79 per million BTUs and 1.0 times the national average of \$23.12 per million BTUs.

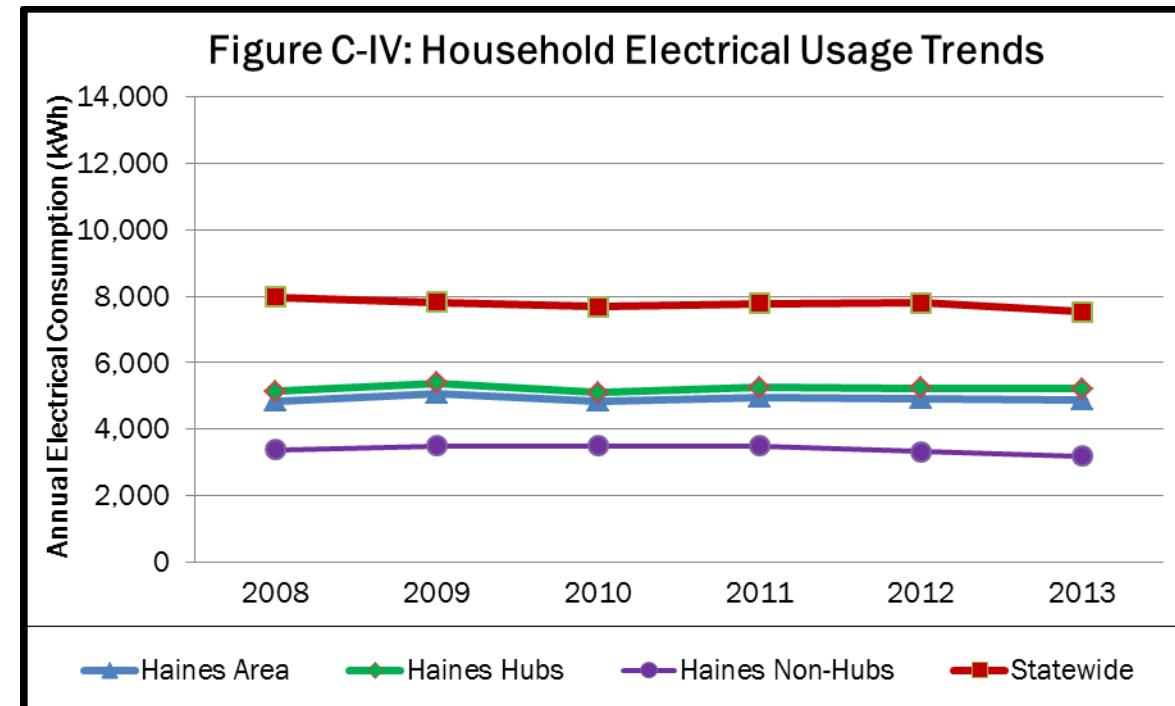
Historical Household Electricity Usage¹⁵

In 2013 the average household in the Haines Borough consumed 4,890 kWh of electricity annually. This is approximately the same as in 2008. Hub communities in the census area averaged 5,215 kWh per year. This remains approximately the same over the same period. In contrast, non-hub communities averaged 3,191 kWh in 2013, a decrease of 6 percent since 2008. Statewide, the average household consumed 7,540 kWh of electricity in 2013, a decrease of 5 percent since 2008.

Inefficient and Older Homes¹⁶

Approximately 191 (17 percent) of the occupied homes in the Haines Borough are estimated to be 1-star homes. A 1-star home uses approximately four times more energy than if built to AHFC's Building Energy Efficiency Standard (BEES). Statewide, approximately 14,600 (6 percent) of occupied homes are estimated to be 1-star homes.

Older homes built before 1980 that have not been retrofitted are potentially homes in need. Approximately 29 percent of all homes in the Haines Borough fit these two criteria. This is lower than the statewide average of 39 percent.



¹⁵ Fay, G., Villalobos Melendez, A. & West. C. (2014). *Alaska Energy Statistics: 1960-2011*. UAA Institute of Social and Economic Research. Retrieved from http://iser.uaa.alaska.edu/Publications/2013_12-AlaskaEnergyStatistics2011Report_Final_2014-04-30.pdf

¹⁶ See Appendix C: Methodology for details.

Housing Condition ¹⁷

Ventilation

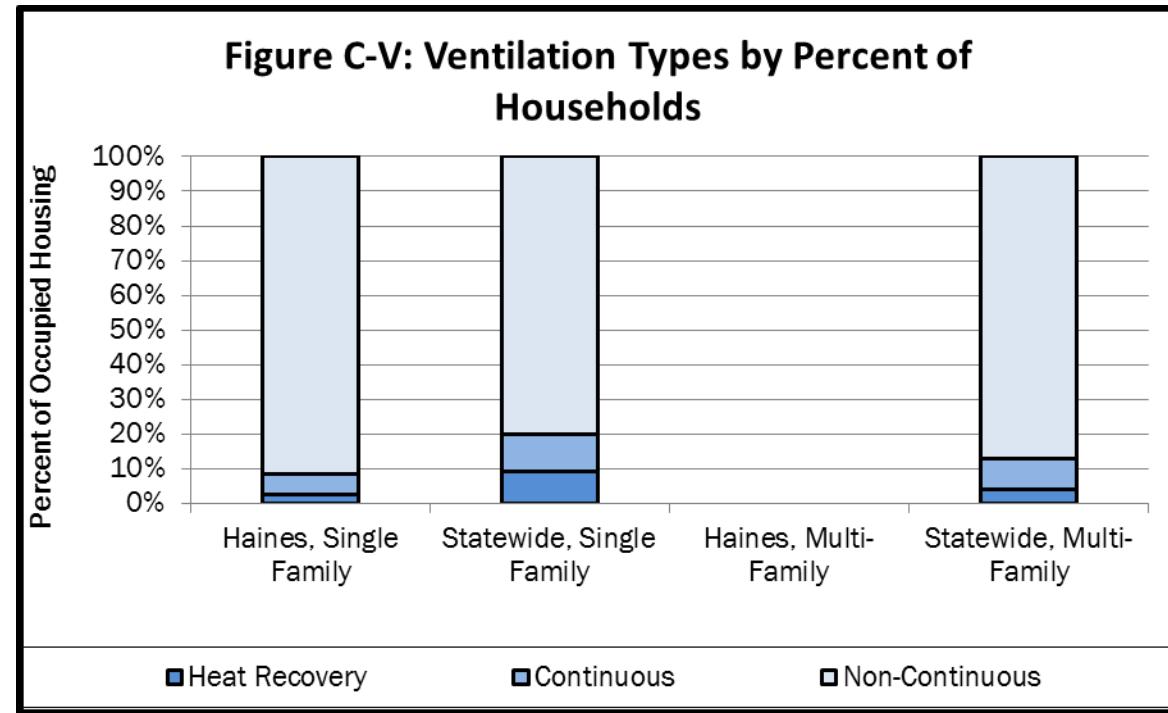
Approximately 9 percent of the occupied homes in the Haines Borough region have heat recovery or continuous mechanical ventilation systems installed. This is the third lowest in the state. Statewide approximately 20 percent of occupied homes have continuous mechanical ventilation systems, with or without heat recovery.

Indoor Air Quality

A tight home with no or inadequate ventilation has an increased risk of issues with indoor air quality or moisture. The Haines Borough has the ninth highest percentage of housing units in the state that are both relatively airtight and lack continuous mechanical ventilation. Approximately 373 (33 percent) of the occupied homes in the Haines Borough are estimated to be at moderate risk, with 230 (20 percent) estimated to be at high risk. Statewide, approximately 30 percent of occupied homes are estimated to be at moderate risk and 26 percent at high risk.

Draftiness

To quantify drafty homes, the following definitions were used. Drafty homes will see test results of between 7 and 12 air changes per hour at 50 Pascals (ACH50) when subjected to a blower door test. Very drafty homes will see test results of greater than 12 ACH50. Approximately 396 (35 percent) of the occupied homes in the Haines Borough are estimated to be drafty, with 219 (19 percent) estimated to be very drafty. Statewide approximately 24 percent of occupied homes are estimated to be drafty and 12 percent are estimated to be very drafty.



¹⁷ See Appendix C: Methodology for details.