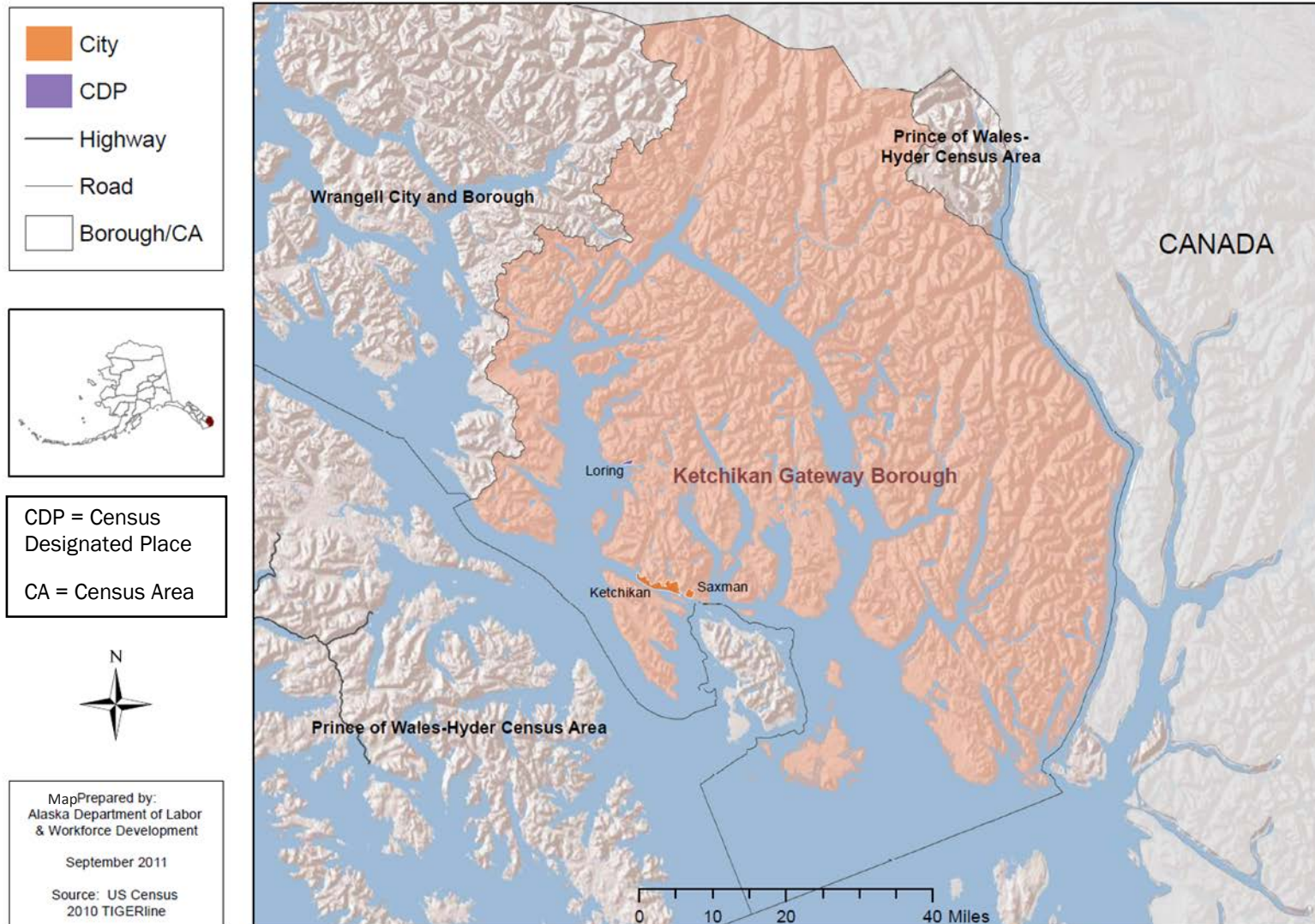


# Ketchikan Gateway Borough



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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.

## Ketchikan Gateway Borough Dashboard

**Population:** The Alaska Department of Labor and Workforce Development's current (2015) population estimate for the Ketchikan Gateway Borough is 13,778, a decrease of 2 percent from 2000.

**Housing Units:** There are currently 6,260 housing units in the Ketchikan Gateway Borough. Of these, 5,305 are occupied, 320 are for sale or rent, and the remaining 574 are seasonal or otherwise vacant units.

**Energy and Energy Costs:** The average home in the Ketchikan Gateway Borough is 1,778 square feet and uses 186 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 Ketchikan Gateway Borough is \$3,937. This is approximately 94 percent of the statewide average and 1.7 times the national average.

**Overcrowding:** An estimated 175 (3 percent) of occupied units are either overcrowded (3 percent) or severely overcrowded (1 percent). This is nearly equivalent to the national average, and makes this census area the fifth least overcrowded census area in the state.

**Drafty Homes and Ventilation:** Approximately 4,049 (74 percent) of occupied homes in the Ketchikan Gateway 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 1,368 occupied housing units (25 percent) in the Ketchikan Gateway 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 1,715 (32 percent) of households in the Ketchikan Gateway 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 146 beds in senior housing facilities in the Ketchikan Gateway Borough. Currently the Alaska Department of Labor and Workforce Development estimates there are 1,861 seniors in the census area and projects an increase to 3,132 by 2030.

**Housing Issues:** There are an estimated 2,082 homes built before the 1980s in the Ketchikan Gateway Borough that have not been retrofitted through a state program in the past 10 years. Approximately 54 (1 percent) homes in the Ketchikan Gateway Borough lack complete kitchens and approximately 45 (1 percent) lack complete bathrooms.

## Ketchikan Gateway Borough Housing Need Highlights

One of the primary needs faced by the Ketchikan Gateway Borough census area is to retrofit existing housing stock to increase energy efficiency. The average annual energy cost per residence is among the lowest in Alaska, the houses are among the most inefficient.<sup>1</sup> Another need is for senior housing facilities.

**Housing Gap:** There are currently 6,260 housing units in the census area, and 86 percent of are occupied.<sup>2</sup> Approximately 5 percent of units are for sale or rent, and remaining units are occupied seasonally or recreationally. An estimated 3 percent of occupied units in the census area are overcrowded or severely overcrowded. This is approximately the national average, making the census area one of the least overcrowded in the state.

**Affordable Housing Need:** The average annual energy cost for homes in the Ketchikan Gateway Borough is \$3,937. This is the sixth lowest in Alaska but still almost twice the national average.<sup>3</sup> This contributes to the approximately 32 percent of cost-burdened households, meaning they spend more than 30 percent of their income on housing. This is lower than the national average of 36 percent of cost-burdened households.<sup>4</sup>

**Senior Housing Needs:** There are 146 beds in senior housing facilities in the census area, with 58 dedicated to assisted-care living.<sup>5</sup> The senior population of the area is 1,861 and is projected to increase to 3,132 by 2030.<sup>6</sup> There is a need to ensure adequate assisted and independent living facilities for the projected population.

**Retrofit Needs:** Approximately 25 percent of occupied homes in the Ketchikan Gateway Borough 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).<sup>7</sup> This is more than four times the statewide average of 6 percent of inefficient homes. Additionally, 56 percent of homes were built before 1980 and have not been retrofitted. These homes are candidates for a potential retrofit. The majority of occupied homes are at

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<sup>1</sup> See Appendix C: Methodology for details.

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

<sup>3</sup> 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>

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

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

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

<sup>7</sup> See Appendix C: Methodology for details.

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risk of indoor air quality issues. Approximately 73 percent of occupied homes are drafty, considerably more than the statewide average of 36 percent. Another 25 percent of occupied homes have the opposite problem: being airtight but lacking continuous mechanical ventilation. This puts them at risk for moisture and indoor air quality-related issues.

## Ketchikan Gateway Borough Summary

### Community

The Ketchikan Gateway Borough census area lies at the southern end of the Southeast panhandle of Alaska. It is in the Sealaska Native Corporation ANSCA region. The average home size in the census area is 1,734 square feet.

The ratio of dependents, including those under 16 and over 65, relative to the working age population in the Ketchikan Gateway Borough is lower than the statewide average and lower than the national ratio.<sup>8</sup> The Ketchikan Gateway 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 lower than the national average. The Ketchikan Gateway Borough region is projected to see the ratio of senior age dependents to working age dependents increase by 1.9 times by 2030.

There are an estimated 146 dedicated beds in senior housing in the Ketchikan Gateway Borough, with 58 of those dedicated to assisted care living.<sup>9</sup> Currently the Alaska Department of Labor and Workforce Development estimates there are 1,861 seniors in the census area and projects that there will be 3,132 senior citizens by 2030.<sup>10</sup> In the Ketchikan Gateway Borough 3.1 percent of senior citizens are in assisted care housing. This is higher 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.<sup>11</sup>

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 Ketchikan Gateway Borough region the primary pressure for new housing over the next 15 years will come from households with elderly people.

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<sup>8</sup> 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*.

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

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

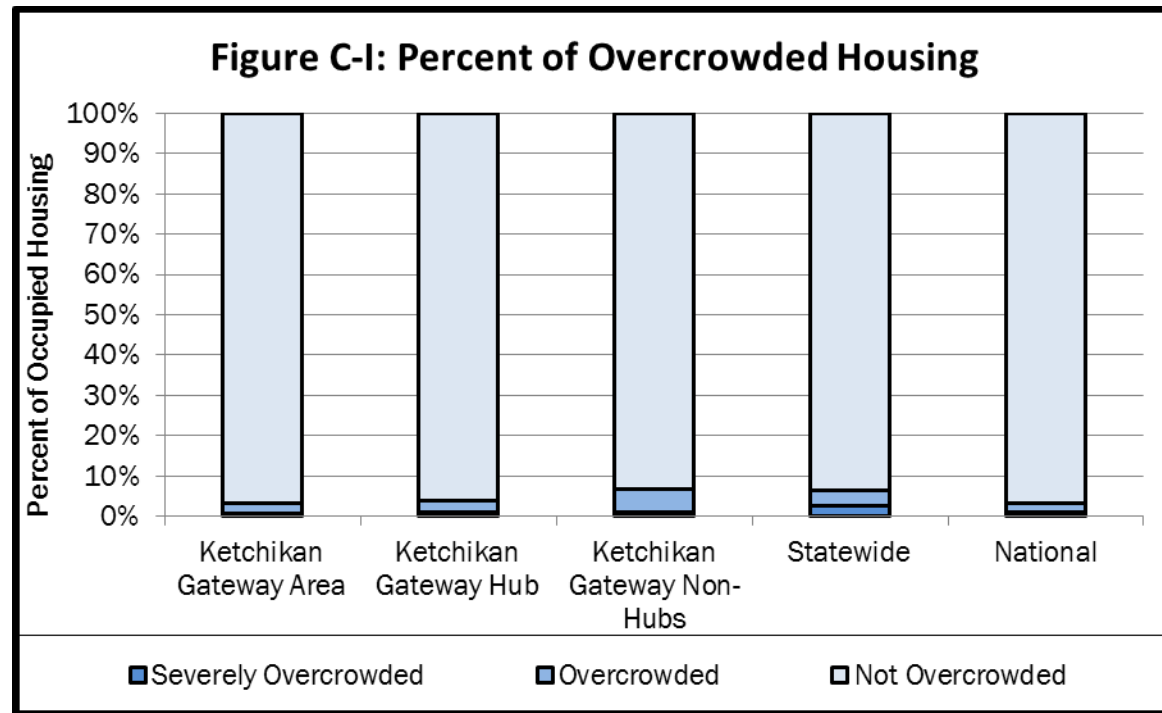
<sup>11</sup> Ribbe, M., Ljunggren, G., Steel, K., Topinkova, E., Hawes, C., Ikegami, N., ... Jonnson, P. (1997). "Nursing Homes in 10 Nations: A Comparison Between Countries and Settings." *Age and Ageing*. 26(S2), 3-12.

## Overcrowding<sup>12</sup>

The Ketchikan Gateway Borough is the fifth least overcrowded census area in Alaska. Approximately 3 percent of households are overcrowded in the census area as a whole. The rate of overcrowding in the Ketchikan Gateway Borough is nearly 52 percent of the statewide average (6.4 percent) and approximately the same as the national average (3.3 percent).

Overcrowding in the non-hub communities is more prevalent than that found in the hub community. 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. Non-hub communities in the Ketchikan Gateway Borough average nearly twice the overcrowding rate of the hub community, with approximately 7 percent of households overcrowded compared to the hub community's 4 percent. Further, 0.9 percent of non-hub community households are severely overcrowded. This is 90 percent of the national average.

Approximately 5 percent of housing units in the Ketchikan Gateway Borough are available for sale or rent. The percentage of units for sale or rent in the non-hub communities (5 percent) is approximately the same as in the hub communities (5 percent). Additionally, 9 percent of housing units in the Ketchikan Gateway Borough are considered vacant because they are used for seasonal, recreational or other non-year-round purposes.



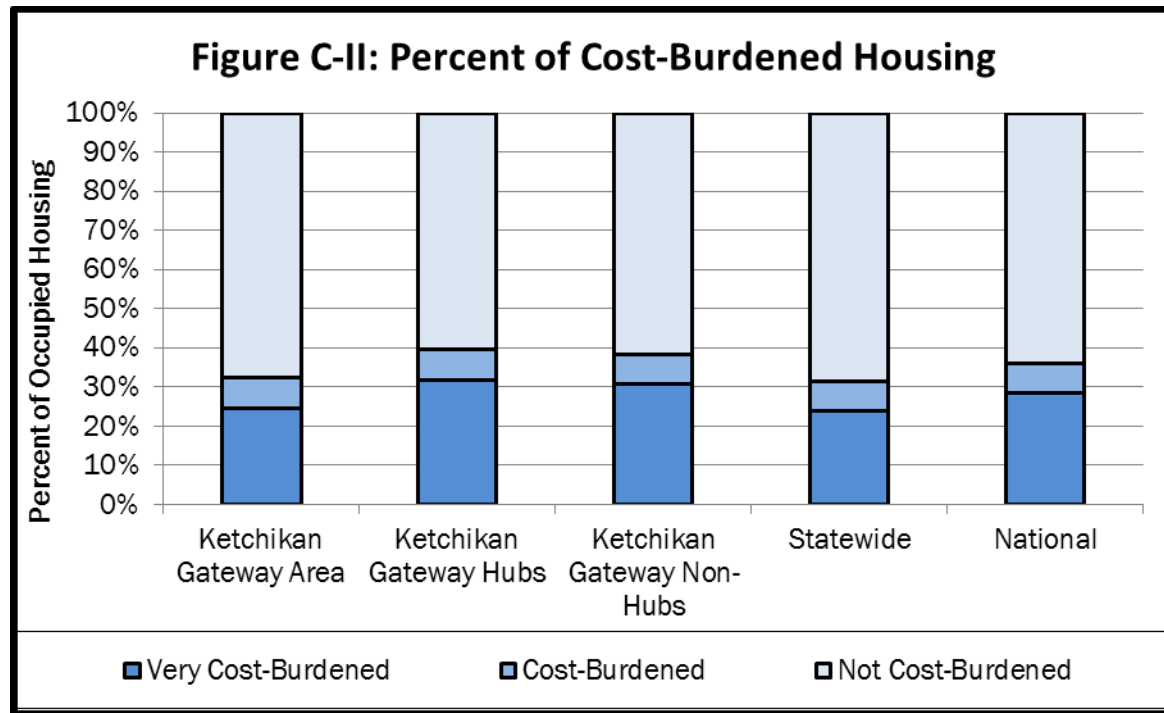
<sup>12</sup> U.S. Census Bureau. (2016). *American Community Survey, 2010-2014 American Community Survey Five-year Estimates*.



### Affordability<sup>13</sup>

According to estimates from the U.S. Census American Community Survey (ACS), 32 percent of households in the Ketchikan Gateway Borough are cost-burdened, that is, spend more than 30 percent of their income on housing costs. Non-hub communities have a lower percentage (38 percent) of households that are cost-burdened than the hub community of Ketchikan (40 percent). The rate of cost-burdened households in the Ketchikan Gateway Borough is 90 percent of the national average (36 percent).

The median household income in the Ketchikan Gateway Borough is \$61,712. This is lower than the statewide median of \$71,829. The national median is \$53,482.



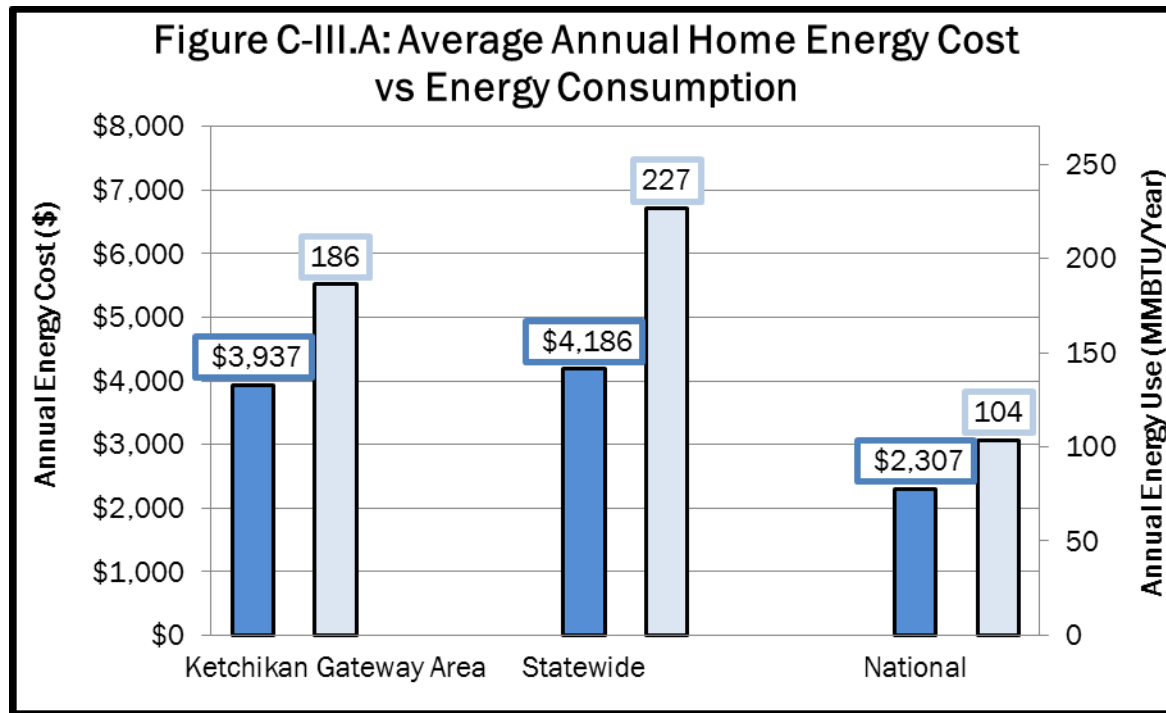
<sup>13</sup> U.S. Census Bureau. (2016). *American Community Survey, 2010-2014 American Community Survey Five-year Estimates*.

## Energy<sup>14</sup>

### Single-family Units

Single-family homes in the Ketchikan Gateway Borough consume an average of 186 million BTUs per year, the 13th highest energy consumption in the state. This average annual energy consumption is 82 percent of the statewide average of 227 million BTUs and 1.8 times the national average.

Energy costs for single-family homes in the Ketchikan Gateway Borough average \$3,937 annually. This is the sixth lowest in the state. Ketchikan Gateway Borough energy costs are 94 percent of the statewide average and 1.7 times the national average.



With an average footprint of 1,778 square feet, single-family homes in the Ketchikan Gateway 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 Ketchikan Gateway Borough averages 111,000 BTUs per square foot, the fourth lowest in the state. This is 87 percent of the statewide average of 128,000 BTUs per square foot and 2.6 times the national average. The energy cost index (ECI), or annual energy cost per square foot, for a single-family home in the Ketchikan Gateway Borough averages \$2.22, the sixth lowest in the state. This is 96 percent of the statewide average of \$2.31 per square foot and 2.3 times the national average of \$0.95 per square foot.

The home heating index (HHI) in the Ketchikan Gateway Borough for the average single-family home is 10.9 BTUs/ft<sup>2</sup>/HDD. This is the fourth highest in the state. The HHI for the Ketchikan Gateway Borough is higher than the statewide average of 8.83 BTU/ft<sup>2</sup>/HDD. The normalized cost of energy, in terms of dollars per million BTUs, for a single-family home in the Ketchikan

<sup>14</sup> See Appendix C: Methodology for details.

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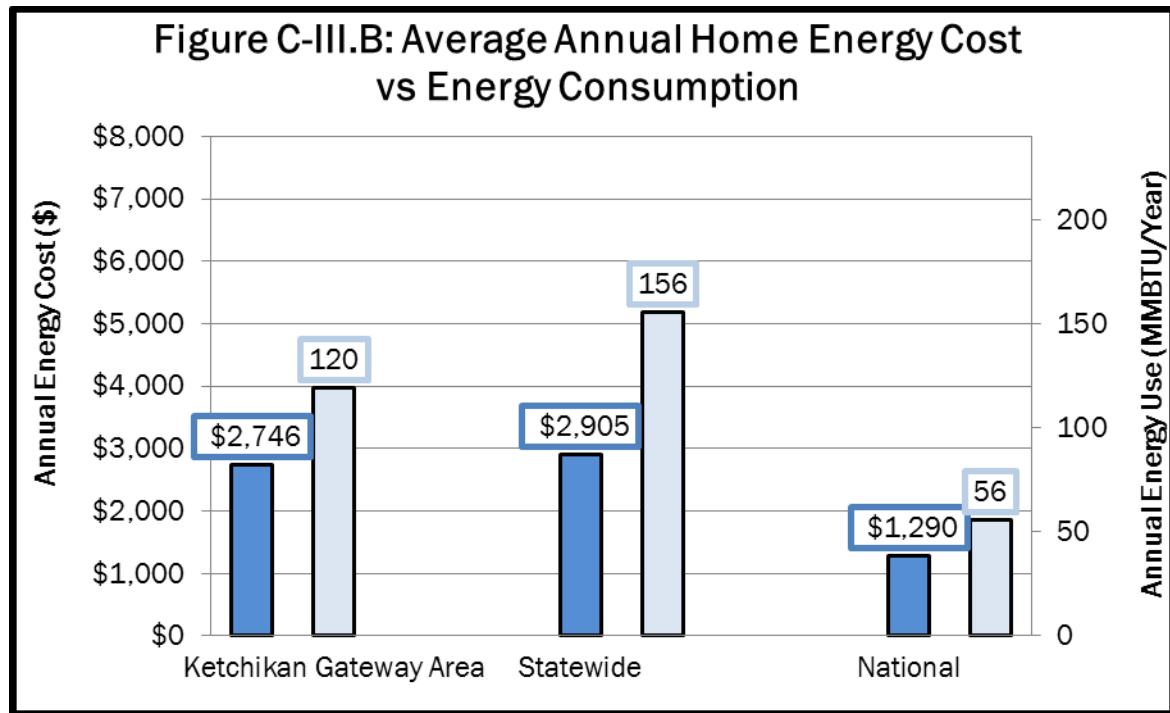
Gateway Borough averages \$20.80, the 13th lowest in the state. This is 1.3 times the statewide average of \$15.80 per million BTUs and 93 percent of the national average of \$22.27 per million BTUs.

### Multifamily Units

Multifamily housing units in the Ketchikan Gateway Borough consume an average of 119 million BTUs per year, the 13th lowest energy consumption in the state. This average annual energy consumption is 77 percent of the statewide average of 156 million BTUs and 1.8 times the national average.

Energy costs for multifamily housing units in the Ketchikan Gateway Borough average \$2,746 annually. This is the 10th lowest in the state. Ketchikan Gateway Borough energy costs are 95 percent of the statewide average and 2.1 times the national average.

With an average footprint of 1,226 square feet, multifamily housing units in the Ketchikan Gateway 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 Ketchikan Gateway Borough averages 101,000 BTUs per square foot, the 10th lowest in the state. This is 79 percent of the statewide average of 128,000 BTUs per square foot and 1.7 times the national average. The energy cost index (ECI), or annual energy cost per square foot, for a multifamily housing unit in the Ketchikan Gateway Borough averages \$2.24, the fifth lowest in the state. This is 99 percent of the statewide average of \$2.27 per square foot and 1.6 times the national average of \$1.39 per square foot.

The home heating index (HHI) in the Ketchikan Gateway Borough for the average multifamily housing unit is 8.73 BTUs/ft<sup>2</sup>/HDD. This is the eighth highest in the state. The HHI for the Ketchikan Gateway Borough is higher than the statewide average of 8.28 BTU/ft<sup>2</sup>/HDD. The normalized cost of energy, in terms of dollars per million BTUs, for a unit in multifamily housing in the Ketchikan

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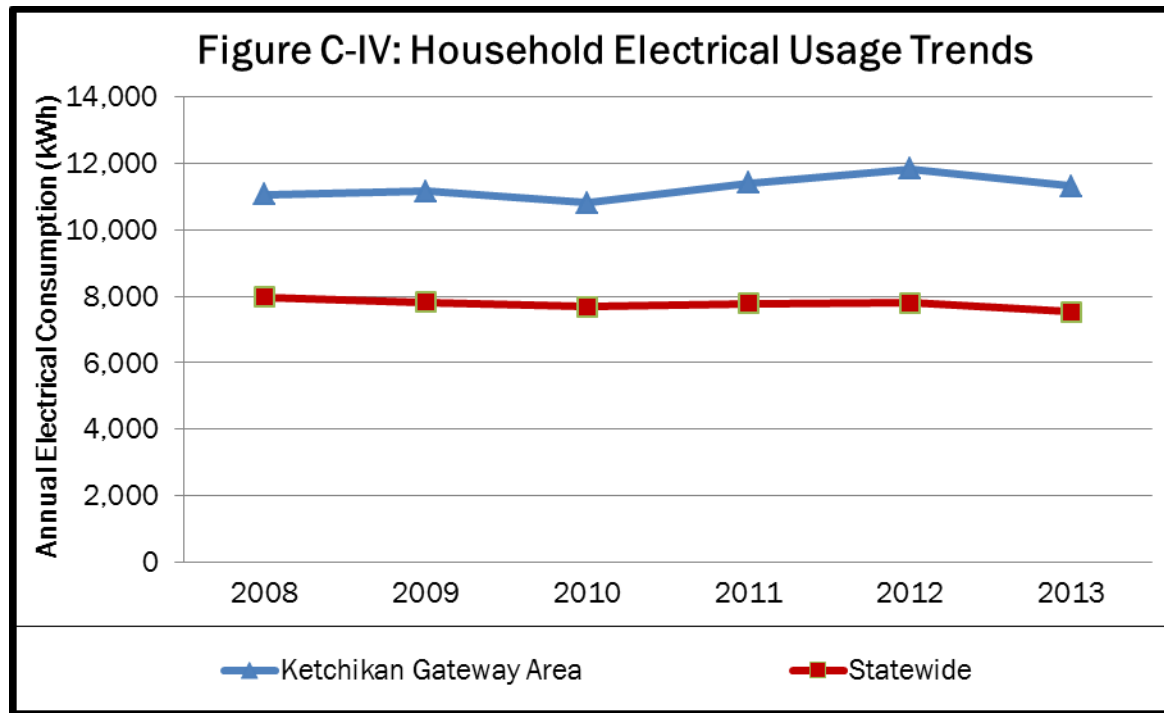
Gateway Borough averages \$21.63, the 15th highest in the state. This is 1.7 times the statewide average of \$12.79 per million BTUs and 94 percent of the national average of \$23.12 per million BTUs.

### Historical Household Electricity Usage<sup>15</sup>

In 2013 the average household in the Ketchikan Gateway Borough consumed 11,324 kWh of electricity annually. This is approximately 2% more than in 2008. Statewide, the average household consumed 7,540 kWh of electricity in 2013, a decrease of 5% since 2008.

### Inefficient and Older Homes<sup>16</sup>

Approximately 1,368 (25 percent) of the occupied homes in the Ketchikan Gateway 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 56 percent of all homes in the Ketchikan Gateway Borough fit these two criteria, higher than the statewide average of 39 percent.

<sup>15</sup> 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](http://iser.uaa.alaska.edu/Publications/2013_12-AlaskaEnergyStatistics2011Report_Final_2014-04-30.pdf)

<sup>16</sup> See Appendix C: Methodology for details.

## Housing Condition<sup>17</sup>

### Ventilation

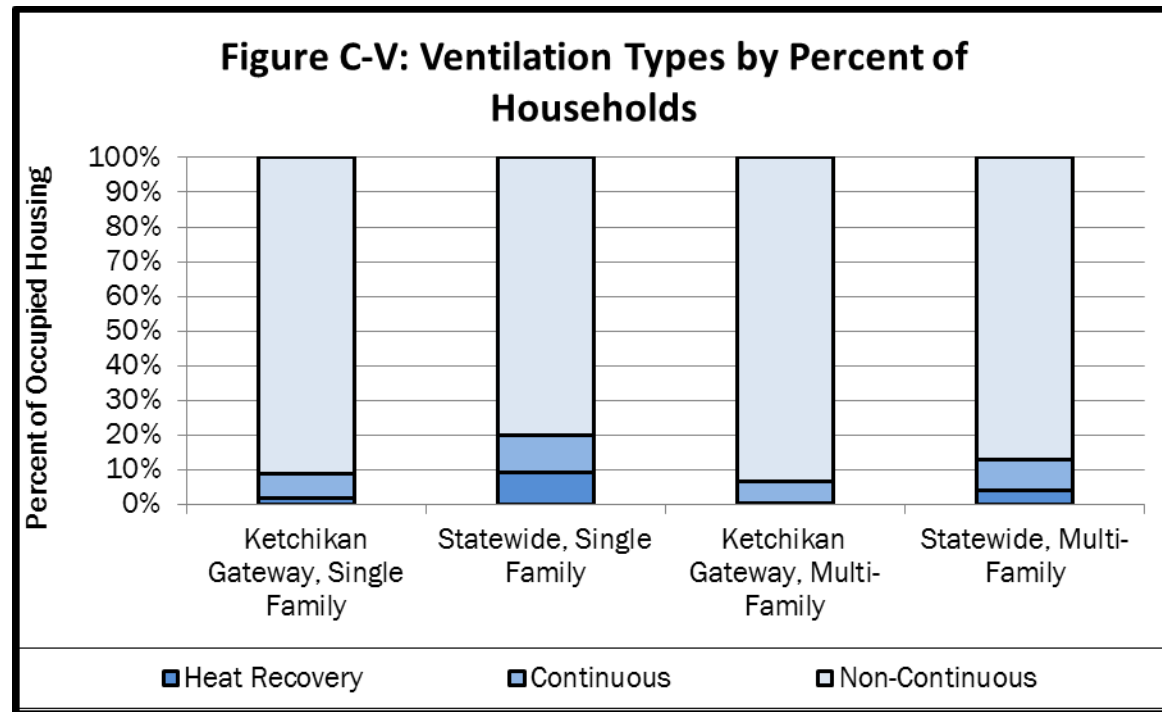
Approximately 9 percent of the occupied homes in the Ketchikan Gateway Borough region have heat recovery or continuous mechanical ventilation systems installed. This is the fourth lowest in the state. Statewide approximately 20 percent of occupied homes have continuous mechanical ventilation systems, 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 Ketchikan Gateway Borough has the lowest percentage of housing units in the state that are both relatively airtight and lack continuous mechanical ventilation. Approximately 1,041 (20 percent) of the occupied homes in the Ketchikan Gateway Borough are estimated to be at moderate risk, with 280 (5 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 2,091 (39 percent) of the occupied homes in the Ketchikan Gateway Borough are estimated to be drafty, with 1,830 (34 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.



<sup>17</sup> See Appendix C: Methodology for details.

