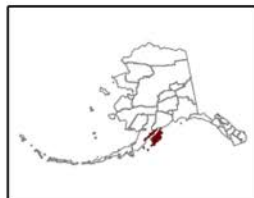
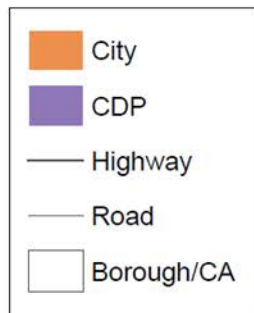


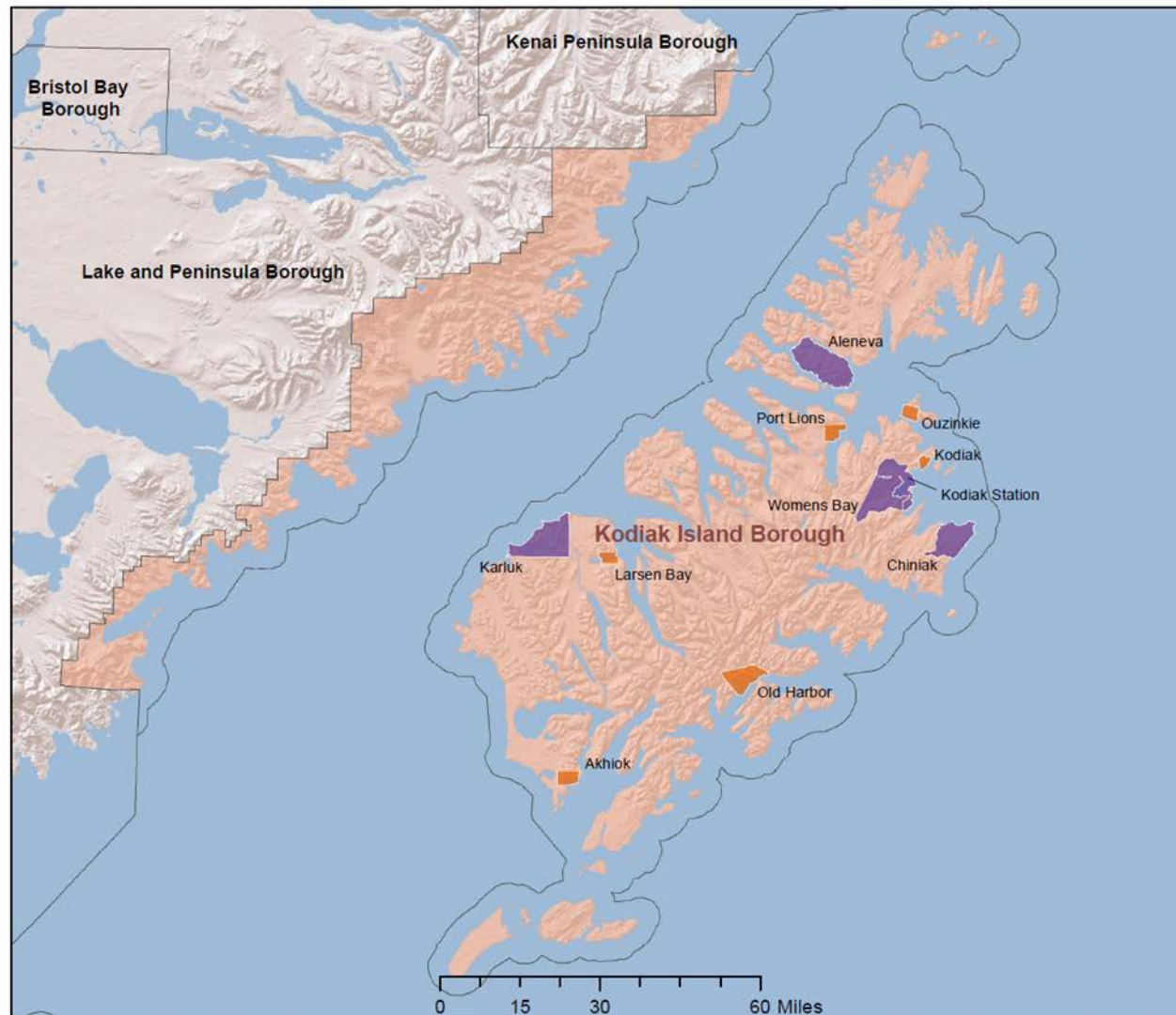
# Kodiak Island Borough



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.

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## Kodiak Island Borough Dashboard

**Population:** The Alaska Department of Labor and Workforce Development's current (2015) population estimate for the Kodiak Island Borough is 13,819, a decrease of 1 percent from 2000.

**Housing Units:** There are currently 5,258 housing units in the Kodiak Island Borough. Of these, 4,560 are occupied, 108 are for sale or rent, and the remaining 629 are seasonal or otherwise vacant units.

**Energy and Energy Costs:** The average home in the Kodiak Island Borough is 1,854 square feet and uses 192 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 Kodiak Island Borough is \$4,663. This is approximately 1.1 times the statewide average and twice the national average.

**Overcrowding:** An estimated 406 of occupied units (9 percent) are either overcrowded (5 percent) or severely overcrowded (4 percent). This is nearly three times the national average, and makes this census area the 10th most overcrowded census area in the state.

**Drafty Homes and Ventilation:** Approximately 2,461 (53 percent) of occupied homes in the Kodiak Island 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 1,811 occupied housing units (39 percent) in the Kodiak Island 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 1,594 households (35 percent) in the Kodiak Island 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 107 beds for seniors in elder housing facilities in the Kodiak Island Borough. Currently the Alaska Department of Labor and Workforce Development estimates there are 1,295 seniors in the census area, and projects an increase to 2,449 by 2030.

**Housing Issues:** There are an estimated 2,026 homes built before the 1980s in the Kodiak Island Borough that have not been retrofit through a state program in the past 10 years. Approximately 14 homes (<1 percent) in the Kodiak Island Borough lack complete kitchens and approximately 39 (1 percent) lack complete bathrooms.

## Kodiak Island Borough Housing Need Highlights

One of the primary housing needs in the Kodiak Island Borough is energy retrofits.<sup>1</sup> These older homes represent great potential for reducing energy costs for residents and protecting against future energy price increases. Performing these retrofits will help reduce the 35 percent of cost-burdened homes in the region, or households that spend more than 30 percent of total income on housing.<sup>2</sup> Other housing needs are new housing to alleviate overcrowding and to accommodate the growing number of seniors.

The need for housing retrofits is likewise indicated in the *Kodiak Regional Energy Plan*.<sup>3</sup> The first regional energy goal reported in the energy plan is to encourage energy efficiency of homes and businesses. The energy plan includes strategies to encourage energy efficiency through public outreach, education, technical assistance and smart meter technologies. In all seven communities in the region, energy efficiency and conservation programs were ranked as having a high potential to decrease energy usage due to the age and number of units that have not been weatherized, with four of these communities ranking housing as a main concern.

**Housing Gap:** There are 5,258 housing units in the borough, and 86 percent are occupied.<sup>4</sup> An estimated 9 percent of housing units are overcrowded or severely overcrowded, which is higher than the state average overcrowding level and almost three times the national average. While the borough's population is projected to rise slightly in the next decade, approximately 2 percent of the current housing units are for sale or rent (other vacant units are used seasonally or for other purposes), which means there are few available homes for families to move.

**Affordable Housing Need:** Approximately 35 percent of homes in the borough are cost-burdened, meaning they spend more than 30 percent of total household income on housing.<sup>5</sup>

**Senior Housing Needs:** There are an estimated 107 dedicated beds in senior housing in the Kodiak Island Borough, with 15 of those dedicated to assisted-care living.<sup>6</sup> There are currently 1,295 seniors in the borough, and this population is expected to

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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> Southwest Alaska Municipal Conference & Information Insights. (2015). *Kodiak Regional Energy Plan*. Retrieved from <http://www.southwestakenergy.org/documents/>

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

<sup>5</sup> Ibid.

<sup>6</sup> AHFC Senior Housing Office. (2016). *Inventory List: Independent Living Homes/Facilities*. Revised 5/02/2016. Retrieved from <https://www.ahfc.us/senior-support/>

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nearly double by 2030, increasing to 2,449.<sup>7</sup> Increasing available senior housing should ensure adequate assisted and independent living facilities for the projected future population.

**Retrofit Needs:** The need to retrofit homes is likely the greatest priority faced by the Kodiak Island Borough, since 50 percent of homes were built before 1980 and have not yet had a retrofit.<sup>8</sup> Performing energy retrofits will help lessen the level of cost-burdened homes. Approximately 8 percent of all housing units are 1-star homes. These 1-star homes consume four times more energy than a home built to AHFC's Building Energy Efficiency Standard (BEES) standard. Furthermore, over half of the homes (53 percent) are drafty, with an additional 39 percent facing the opposite issue of being relatively airtight but lacking continuous ventilation.

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<sup>7</sup> Ibid.

<sup>8</sup> See Appendix C: Methodology for details.

## Kodiak Island Borough Summary

### Community

The Kodiak Island Borough census area is located on the southern coast of Alaska. It consists of land on the shore of mainland Alaska as well as Kodiak Island, which is separated from the mainland by the Shelikof Strait. It is in the Koniag Native Corporation ANCSA region. The average home size in the census area is 1,790 square feet.

The ratio of dependents, including those under 16 and over 65, relative to the working age population in the Kodiak Island Borough is lower than the statewide average and lower than the national ratio.<sup>9</sup> The 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 Kodiak Island Borough region is projected to see the ratio of senior age dependents to working age dependents increase by 2.1 times by 2030.

There are an estimated 107 dedicated beds in senior housing in the Kodiak Island Borough, with 15 of those dedicated to assisted care living.<sup>10</sup> Currently the Alaska Department of Labor and Workforce Development estimates there are 1,295 seniors in the census area and projects that there will be 2,449 senior citizens by 2030.<sup>11</sup> In the Kodiak Island Borough 1.2 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.<sup>12</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 Kodiak Island 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>9</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>10</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>11</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>12</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.

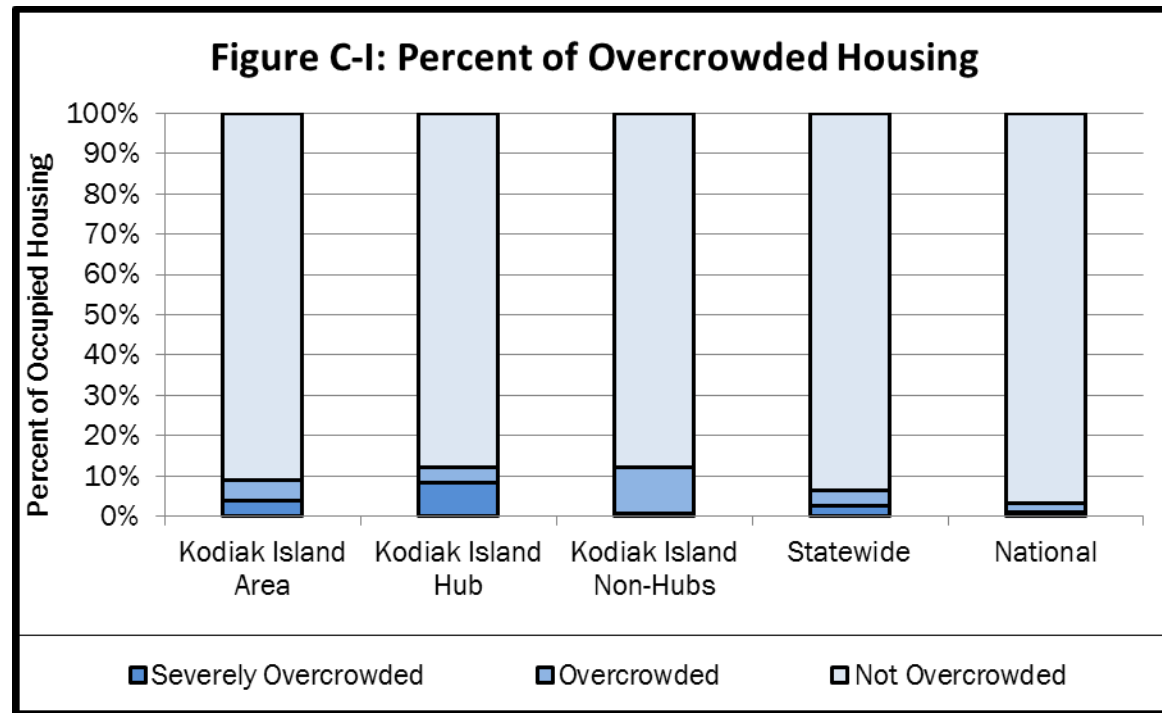
## Overcrowding<sup>13</sup>

The Kodiak Island Borough is the 10th most overcrowded census area in Alaska. Approximately 9 percent of households are overcrowded in the census area as a whole. The rate of overcrowding in the Kodiak Island Borough is more than 1.4 times the statewide average (6.4 percent) and approximately 2.7 times the national average (3.3 percent).

Overcrowding in non-hub communities is approximately the same as that found in the hub community of this borough. 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 Kodiak Island Borough approximately average the overcrowding rate of the hub community, with approximately 12 percent of households overcrowded compared to the hub community's 12 percent. Further, 0.8 percent of non-hub community households are severely overcrowded. This is 80 percent of the national average.

Approximately 2 percent of housing units in the Kodiak Island Borough are available for sale or rent. The percentage of units for sale or rent in the non-hub communities (4 percent) is more than in the hub communities (2 percent). Additionally, 12 percent of housing units in the Kodiak Island Borough are considered vacant because they are used for seasonal, recreational or other non-year-round purposes.



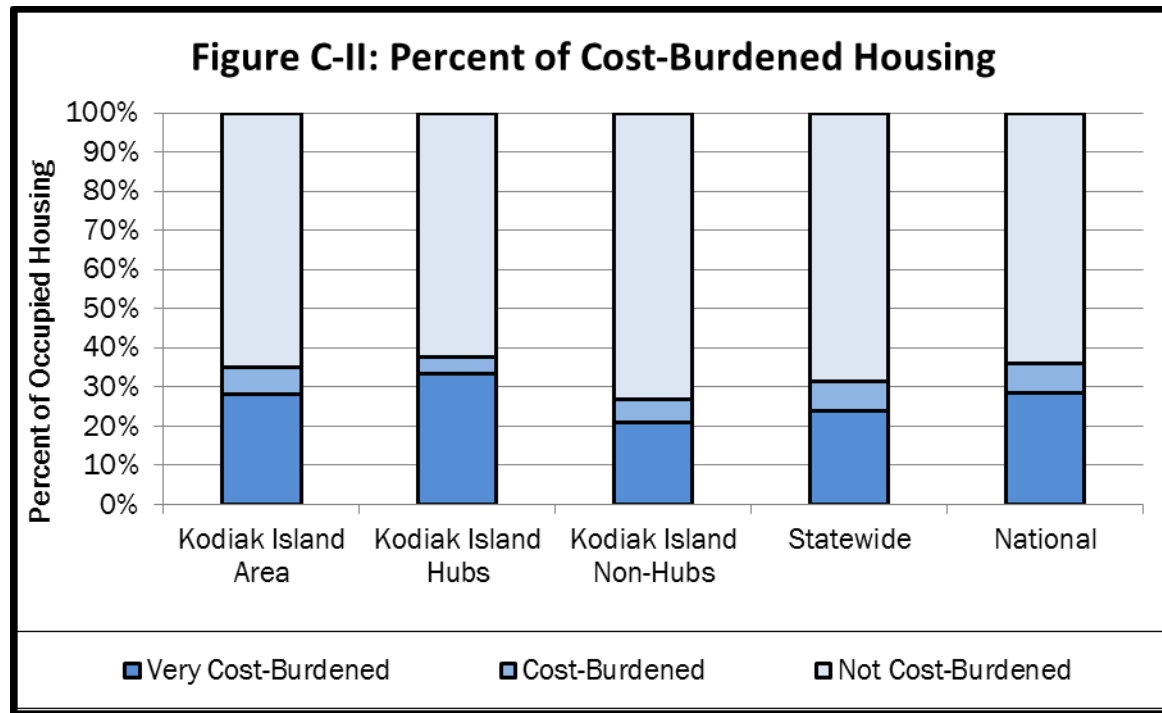
<sup>13</sup> U.S. Census Bureau. (2016). *American Community Survey, 2010-2014 American Community Survey Five-year Estimates*.



## Affordability<sup>14</sup>

According to estimates from the U.S. Census American Community Survey (ACS), 35 percent of households in the Kodiak Island Borough are cost-burdened, that is, spend more than 30 percent of their income on housing costs. Non-hub communities have a lower percentage (27 percent) of households that are cost-burdened than the hub community of Kodiak (38 percent). The rate of cost-burdened households in the Kodiak Island Borough is approximately equivalent to the national average (36 percent).

The median household income in the Kodiak Island Borough is \$70,529. This is approximately the same as the statewide median of \$71,829. The national median is \$53,482.



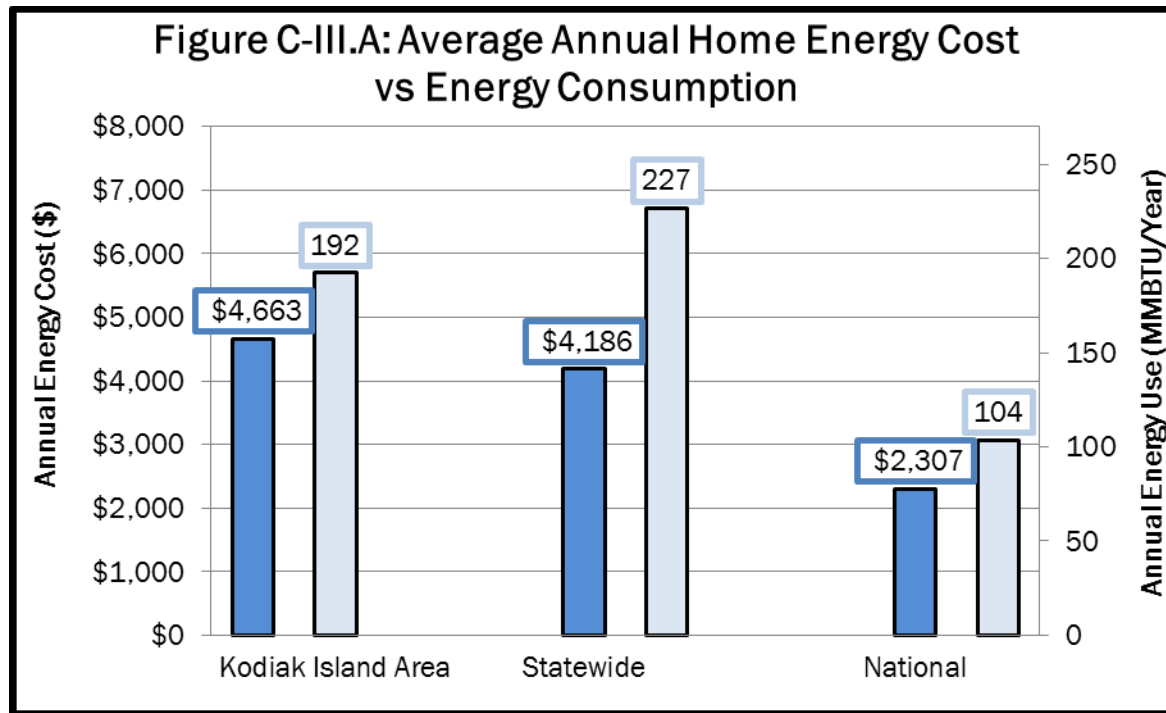
<sup>14</sup> U.S. Census Bureau. (2016). *American Community Survey, 2010-2014 American Community Survey Five-year Estimates*.

## Energy<sup>15</sup>

### Single-family Units

Single-family homes in the Kodiak Island Borough consume an average of 192 million BTUs per year, the 10th highest energy consumption in the state. This average annual energy consumption is 85 percent of the statewide average of 227 million BTUs and 1.9 times the national average.

Energy costs for single-family homes in the Kodiak Island Borough average \$4,663 annually. This is the ninth highest in the state. Kodiak Island Borough energy costs are 1.1 times the statewide average and twice the national average.



With an average footprint of 1,854 square feet, single-family homes in the Kodiak Island 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 Kodiak Island Borough averages 113,000 BTUs per square foot, the fifth lowest in the state. This is 88 percent of the statewide average of 128,000 BTUs per square foot and 2.7 times the national average. The energy cost index (ECI), or annual energy cost per square foot, for a single-family home in the Kodiak Island Borough averages \$2.52, the ninth lowest in the state. This is 1.1 times the statewide average of \$2.31 per square foot and 2.6 times the national average of \$0.95 per square foot.

The home heating index (HHI) in the Kodiak Island Borough for the average single-family home is 9.13 BTUs/ft<sup>2</sup>/HDD. This is the 15th highest in the state. The HHI for the Kodiak Island Borough is higher than the statewide average of 8.83 BTU/ft<sup>2</sup>/HDD. The

<sup>15</sup> See Appendix C: Methodology for details.

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normalized cost of energy, in terms of dollars per million BTUs, for a single-family home in the Kodiak Island Borough averages \$21.01, the 14th lowest in the state. This is 1.3 times the statewide average of \$15.80 per million BTUs and 94 percent of the national average of \$22.27 per million BTUs.

## Multifamily Units

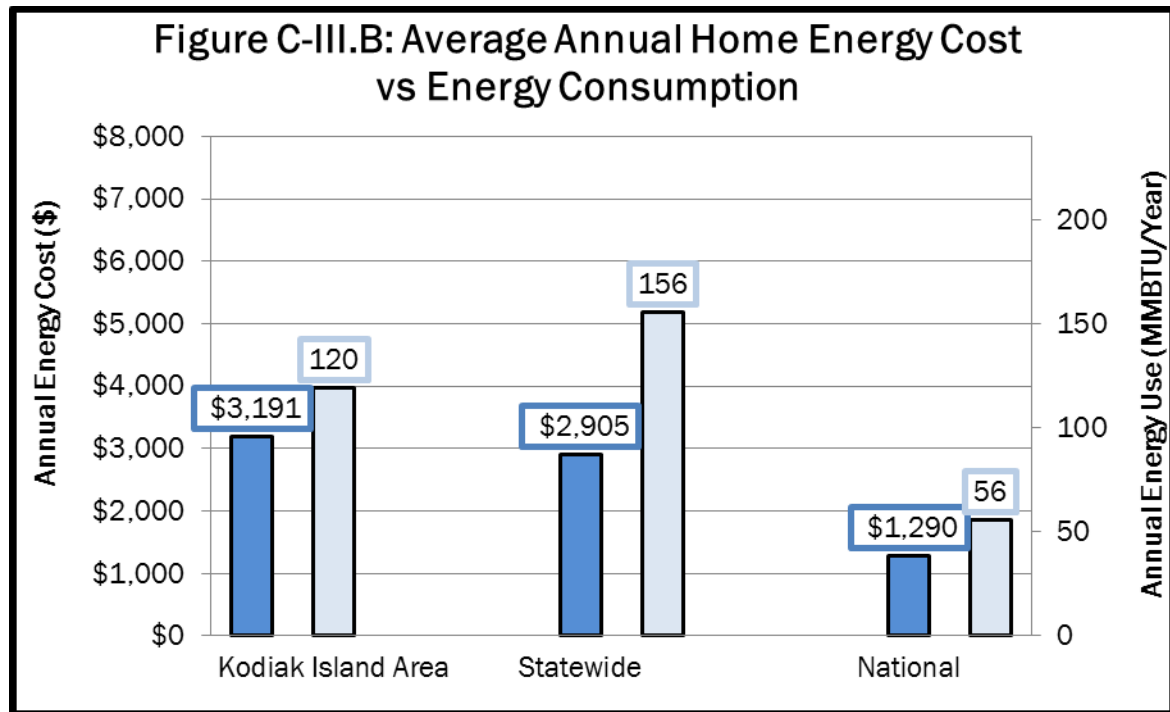
Multifamily housing units in the Kodiak Island Borough consume an average of 119 million BTUs per year, the 14th lowest energy consumption in the state. This average annual energy consumption is 77 percent of the statewide average of 156 million BTUs and 1.9 times the national average.

Energy costs for multifamily housing units in the Kodiak Island Borough average \$3,191 annually. This is the 11th highest in the state. Kodiak Island Borough energy costs are 1.1 times the statewide average and 2.5 times the national average.

With an average footprint of 1,230 square feet, multifamily housing units in the Kodiak Island 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 Kodiak Island Borough averages 103,000 BTUs per square foot, the 12th lowest in the state. This is 80 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 Kodiak Island Borough averages \$2.59, the 12th lowest in the state. This is 1.1 times the statewide average of \$2.27 per square foot and 1.9 times the national average of \$1.39 per square foot.

The home heating index (HHI) in the Kodiak Island Borough for the average multifamily housing unit is 7.24 BTUs/ft<sup>2</sup>/HDD. This is the 14th highest in the state. The HHI for the Kodiak Island Borough is lower 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 Kodiak Island Borough averages \$20.69, the 13th lowest in the state. This is 1.6 times the statewide average of \$12.79 per million BTUs and 90 percent of the national average of \$23.12 per million BTUs.



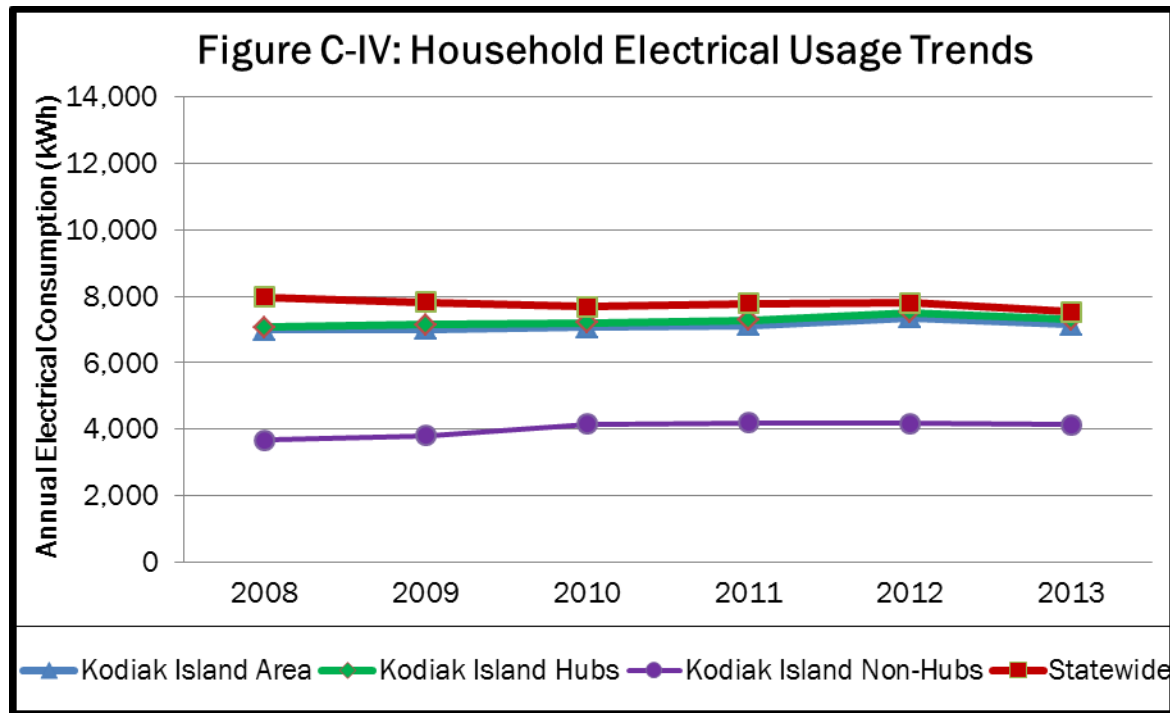
### Historical Household Electricity Usage<sup>16</sup>

In 2013 the average household in the Kodiak Island Borough consumed 7,153 kWh of electricity annually. This is approximately 2 percent more than in 2008. Hub communities in the census area averaged 7,309 kWh per year. This is an increase of 3 percent over the same period. In contrast, non-hub communities averaged 4,136 kWh in 2013, an increase of 13 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 Homes<sup>17</sup>

Approximately 390 (8 percent) of the occupied homes in the Kodiak Island 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 50 percent of all homes in the Kodiak Island Borough fit these two criteria, higher than the statewide average of 39 percent.



<sup>16</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>17</sup> See Appendix C: Methodology for details.

## Housing Condition<sup>18</sup>

### Ventilation

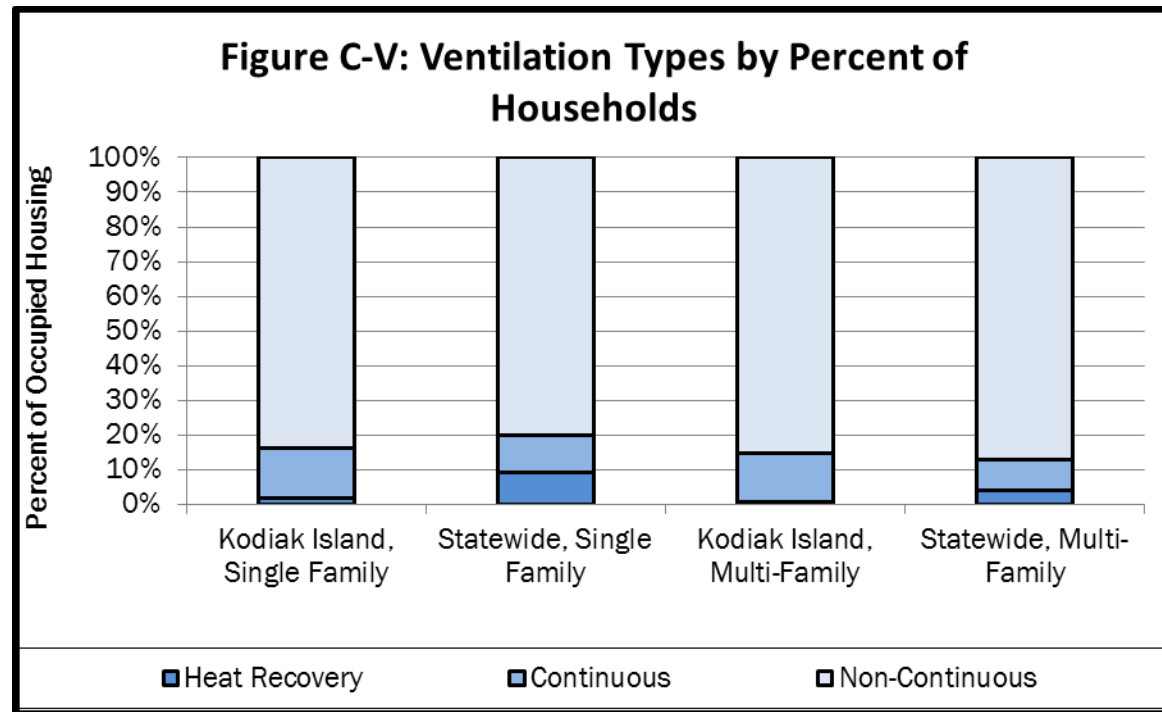
Approximately 16 percent of the occupied homes in the Kodiak Island Borough region have heat recovery or continuous mechanical ventilation systems installed. This is the 15th highest in the state. Statewide approximately 20 percent of occupied homes have continuous mechanical ventilation systems, with 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 Kodiak Island Borough has the eighth lowest percentage of housing units in the state that are both relatively airtight and lack continuous mechanical ventilation. Approximately 1,305 (29 percent) of the occupied homes in the Kodiak Island Borough are estimated to be at moderate risk, with 458 (10 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 1,494 (33 percent) of the occupied homes in the Kodiak Island Borough are estimated to be drafty, with 914 (20 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>18</sup> See Appendix C: Methodology for details.