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## Regional and Statewide Housing Characteristics

This ANCSA region summary only includes the highlights of housing characteristics at the ANCSA region 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 the 2017 Alaska Housing Assessment.

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## Sealaska Region Dashboard

**Population:** The Alaska Department of Labor and Workforce Development's current (2015) population estimate for the Sealaska region is 74,395, an increase of 4 percent from 2000.

**Housing Units:** There are currently 34,592 housing units in the Sealaska region. Of these, 28,711 are occupied, 1,509 are for sale or rent, and the remaining 4,367 (13 percent) are seasonal or otherwise vacant units.

**Energy and Energy Costs:** The average home in the Sealaska region is 1,722 square feet and uses 183 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 Sealaska region is \$4,115. This is approximately the same as the statewide average and 1.8 times the national average.

**Overcrowding:** In the Sealaska region 1,206 (4 percent) of occupied units are estimated to be either overcrowded (3 percent) or severely overcrowded (1 percent). This is approximately 1.3 times the national average and the least overcrowded in the state.

**Drafty Homes and Ventilation:** Approximately 18,375 (64 percent) of homes in the Sealaska region are drafty, exceeding seven air changes per hour at 50 Pascals (ACH50). The statewide average is 36 percent. In contrast, there are an estimated 12,346 occupied housing units (43 percent) in the Sealaska region that are relatively air-tight and lack a continuous ventilation system. These houses are at higher risk of issues with moisture and indoor air quality.

**Affordability:** On average, approximately 8,492 (30 percent) of households in the Sealaska region are cost-burdened, spending more than 30 percent of total household income on housing costs, which include rent, utilities, and energy costs. Statewide, 31 percent of households are cost-burdened.

**Senior Housing:** There are an estimated 704 beds in senior housing facilities in the Sealaska region. Currently the Alaska Department of Labor and Workforce Development estimates there are 9,706 seniors in the ANCSA region and projects an increase to 16,649 by 2030.

**Housing Issues:** There are an estimated 11,891 homes built before the 1980's in the Sealaska region that have not been retrofitted through a state program in the past 10 years. Approximately 737 (3 percent) homes in the Sealaska region lack complete kitchens and approximately 749 (3 percent) lack complete bathrooms.

## Sealaska Region Housing Need Highlights

Addressing older housing stock through retrofit work and building new senior housing units are two housing needs in the Sealaska region. With the highest rate of very inefficient homes and the highest rate of drafty homes in Alaska, there are likely significant numbers of cost-effective energy efficiency retrofits that could be completed.<sup>1</sup> With a projected boom in the senior population by 2030, the Sealaska region will also need new senior housing facilities to provide the same level of services to this growing population.<sup>2</sup>

**Housing Gap:** The Sealaska region has a relatively low overcrowding compared to the rest of Alaska, with 4 percent of households overcrowded.<sup>3</sup> If the rate of new construction follows the recent five-year average, it will be sufficient to meet the demand from projected population growth. In fact, if projections are correct and trends continue, the amount of new construction in the Sealaska region will almost provide one additional unit per currently overcrowded household, with the potential to alleviate overcrowding.

**Affordable Housing Need:** An estimated 30 percent of households are housing cost-burdened, meaning they spend 30 percent or more of their household income on housing-related costs.<sup>4</sup> Addressing the need to retrofit homes in the region should reduce energy costs and increase affordability.

**Senior Housing Needs:** There are 704 beds available in senior housing facilities in the region with 211 of these in assisted-living facilities.<sup>5</sup> The population of senior citizens is projected to increase from 9,706 to 16,649 by 2030.<sup>6</sup> Increasing available senior housing may ensure there are adequate assisted and independent living facilities for the projected future population.

**Retrofit Needs:** The Sealaska region has one of the highest rates of older homes in Alaska: 50 percent were built before 1980 and haven't gone through an energy retrofit.<sup>7</sup> It also has the highest rate of inefficient homes in the state, with an estimated 16

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

<sup>2</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>3</sup> U.S. Census Bureau. (2016). *American Community Survey, 2010–2014 American Community Survey Five-year Estimates*.

<sup>4</sup> Ibid.

<sup>5</sup> AHFC Senior Housing Office. (2016). *Inventory List: Assisted Living Homes/Facilities*. Revised 5/02/2016.

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.

percent of occupied housing using at least four times the energy of a similar new home built to AHFC's Building Energy Efficiency Standard (BEES). The majority of homes are drafty, with an estimated 64 percent of homes being classified as drafty based on their measured air-tightness.

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## Sealaska Region Summary

### Community

The Sealaska Corporation ANCSA region covers the southeastern panhandle of Alaska, bordering Canada to the east and the Gulf of Alaska to the west. The average home size in the Sealaska region is 1,660 square feet.

The ratio of dependents, both those under 16 and those over 65, relative to the working age population in the Sealaska region is lower than the statewide average and lower than the national ratio.<sup>8</sup> The Sealaska region is expected to see an increase in the non-working 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 Sealaska 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 704 dedicated beds in senior housing in the Sealaska region, with 211 of those dedicated to assisted care living.<sup>9</sup> Currently the Alaska Department of Labor and Workforce Development estimates there are 9,706 seniors in the Sealaska region and projects that there will be 16,649 senior citizens by 2030.<sup>10</sup> In the Sealaska region 2.2 percent of senior citizens are in assisted care housing. This is lower than the statewide rate of 2.8 percent 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 young dependent age (0 to 15) population indicate that in the Sealaska 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: Assisted Living Homes/Facilities*. Revised 5/02/2016.

AHFC Senior Housing Office. (2016). *Inventory List: Independent Living Homes/Facilities*. Revised 5/02/2016.

Retrieved from <https://www.ahfc.us/senior-support/>

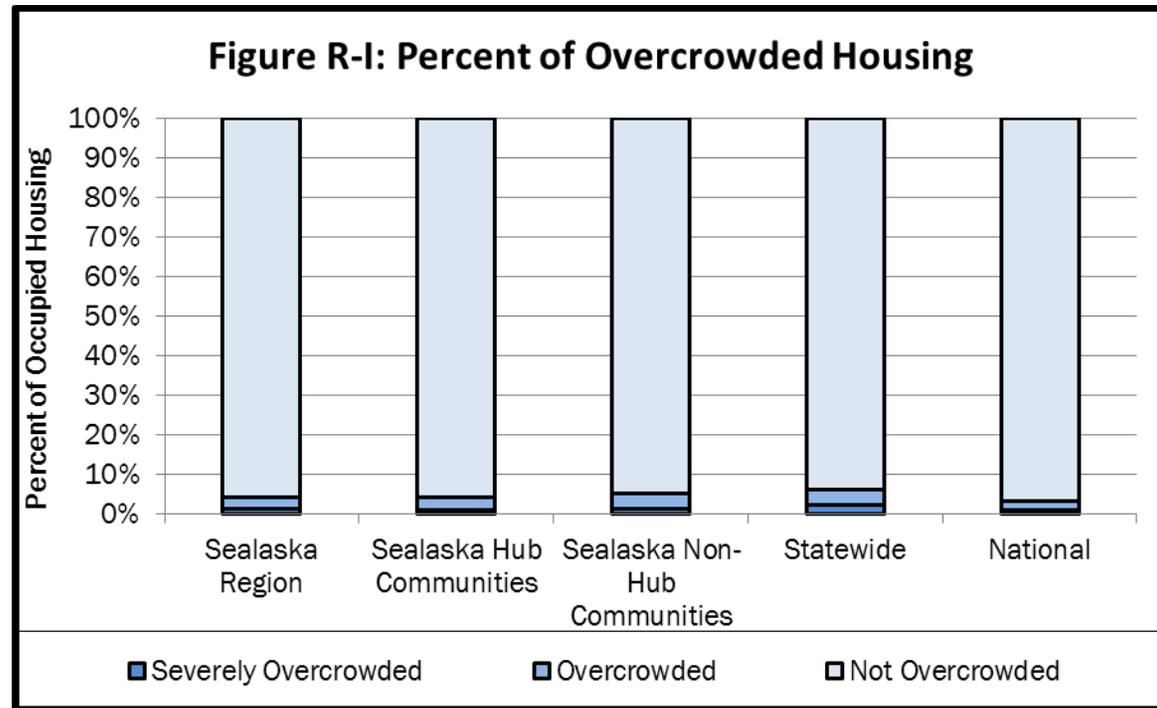
<sup>10</sup> Hunsinger, Eddie, Sandberg, E., & Brooks, L. (2016). "Alaska Population Projections 2015 to 2045." Alaska Department of Labor and Workforce Development, Research and Analysis Section.

<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 Sealaska region is the least overcrowded ANCSA region in Alaska. Approximately 4.2 percent of households are overcrowded in the region as a whole. The rate of overcrowding in the Sealaska region is nearly 66 percent of the statewide average and approximately 1.3 times the national average.

Overcrowding in the non-hub communities is more than that found in the hub community. Overcrowding is defined as households with more than one person per room. Severe overcrowding is defined as households with more than 1.5 persons per room. Non-hub communities in the Sealaska region average more than 1.2 times the overcrowding rate of the hub community, with approximately 5 percent of households overcrowded compared hub communities 4 percent. Further, 1.5 percent of non-hub community households are severely overcrowded. This is 1.5 times the national average.



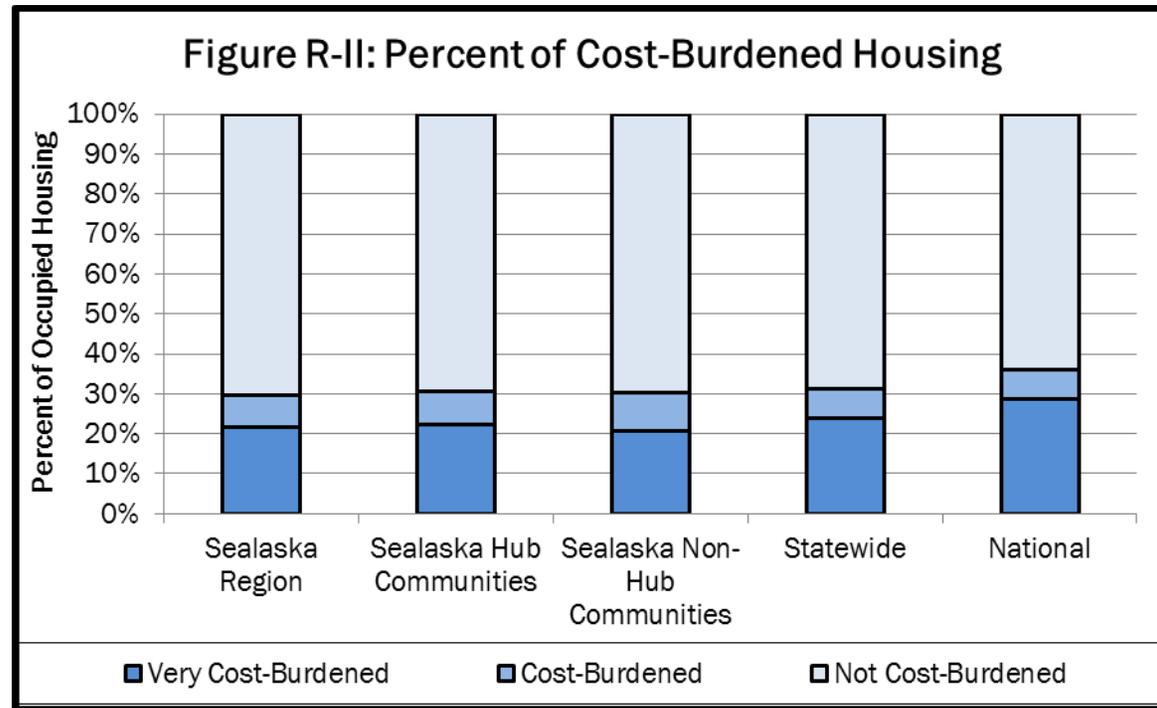
Approximately 4.4 percent of housing units in the Sealaska region are available for sale or rent. The percentage of units for sale or rent in non-hub communities (4 percent) is approximately the same as the hub communities. Additionally, 13 percent of housing units in the Sealaska region are considered 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), 30 percent of households in the Sealaska region are cost-burdened, that is, have families that spend more than 30 percent of their income on housing costs. Non-hub communities have a lower percentage (30 percent) of households that are cost-burdened than the hub community (31 percent). The rate of cost-burdened households in the Sealaska region is 82 percent of the national average (36 percent).

The median household income in the Sealaska region is \$70,849. This is approximately the same as 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

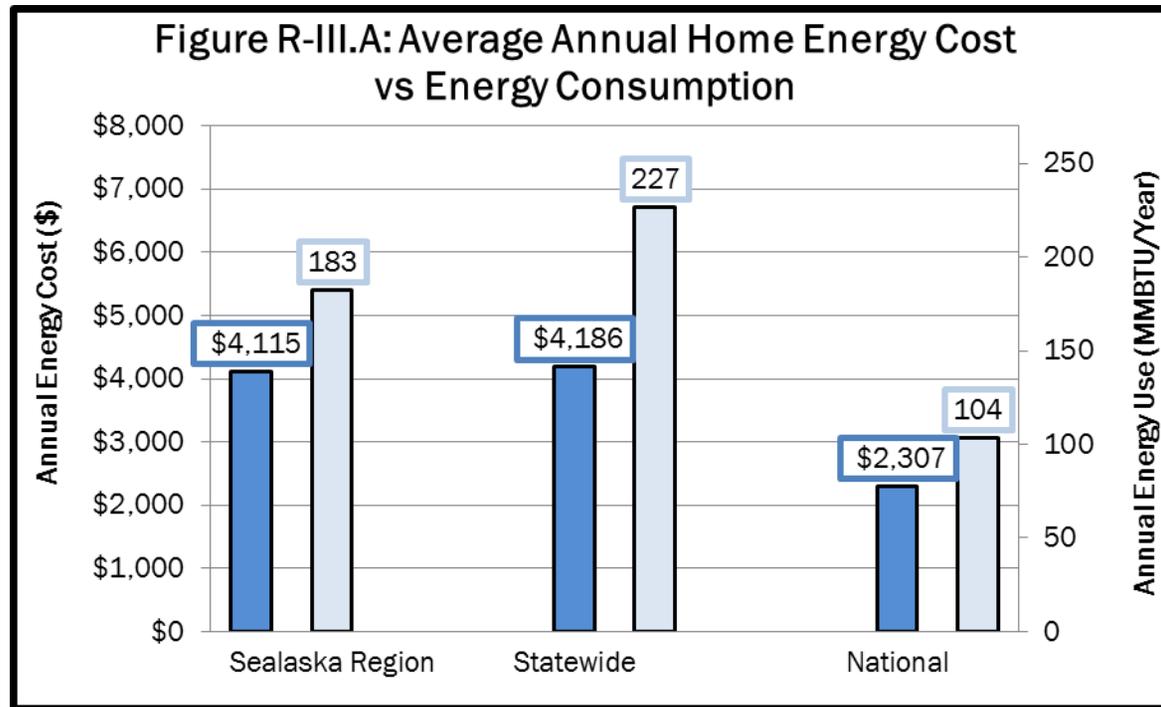
Single-family homes in the Sealaska region consume an average of 183 million BTUs per year in energy, the sixth lowest energy consumption in the state. This average annual energy consumption is 81 percent of the statewide average of 227 million BTUs and 1.8 times the national average.

Energy costs for single-family homes in the Sealaska region average \$4,115 annually. This is the third lowest in the state. Sealaska energy costs are 98 percent of the statewide average and 1.8 times the national average.

With an average footprint of 1,722 square feet, single-family homes in the Sealaska region 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 Sealaska region averages 114,134 BTUs per square foot, the lowest in the state. This is 50 percent of the statewide average of 227,000 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 Sealaska region averages \$2.39, the second lowest in the state. This is approximately the same as the statewide average of \$2.31 per square foot and 2.5 times the national average of \$0.95 per square foot.

The home heating index (HHI) in the Sealaska region for the average single-family homes is 10.6 BTUs/ft<sup>2</sup>/HDD. This is the highest in the state. The HHI for the Sealaska region is 1.2 times the statewide average. The normalized cost of energy, in terms of dollars



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

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per million BTUs, for a single-family home in the Sealaska region averages \$20.70, the fifth 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

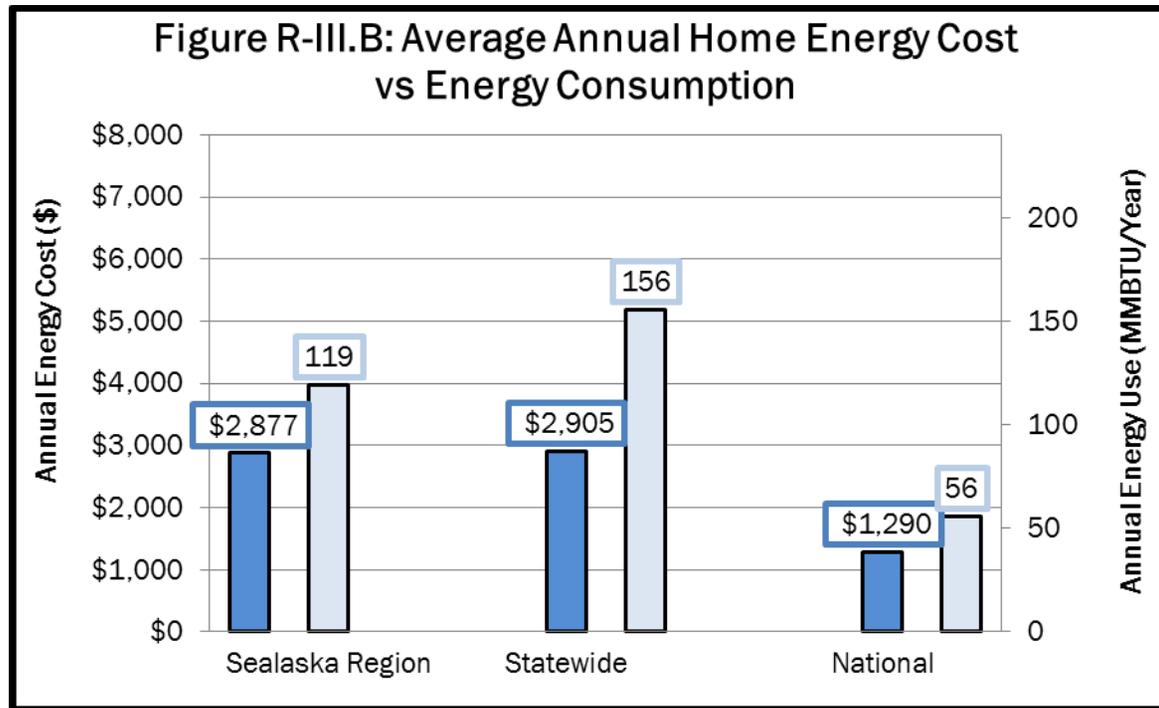
Multifamily housing units in the Sealaska region consume an average of 119 million BTUs per year in energy, the fourth lowest energy consumption in the state. This average annual energy consumption is 77 percent of the statewide average of 156 million BTUs and 1.8 times the national average.

Energy costs for multifamily housing units in the Sealaska region average \$2,877 annually. This is the third lowest in the state. Sealaska energy costs are 99 percent of the statewide average and 2.2 times the national average.

With an average footprint of 1,222 square feet, multifamily housing units in the Sealaska region are smaller than the statewide average of 1,284 square feet. Nationally the average unit in multifamily housing is 930 square feet.

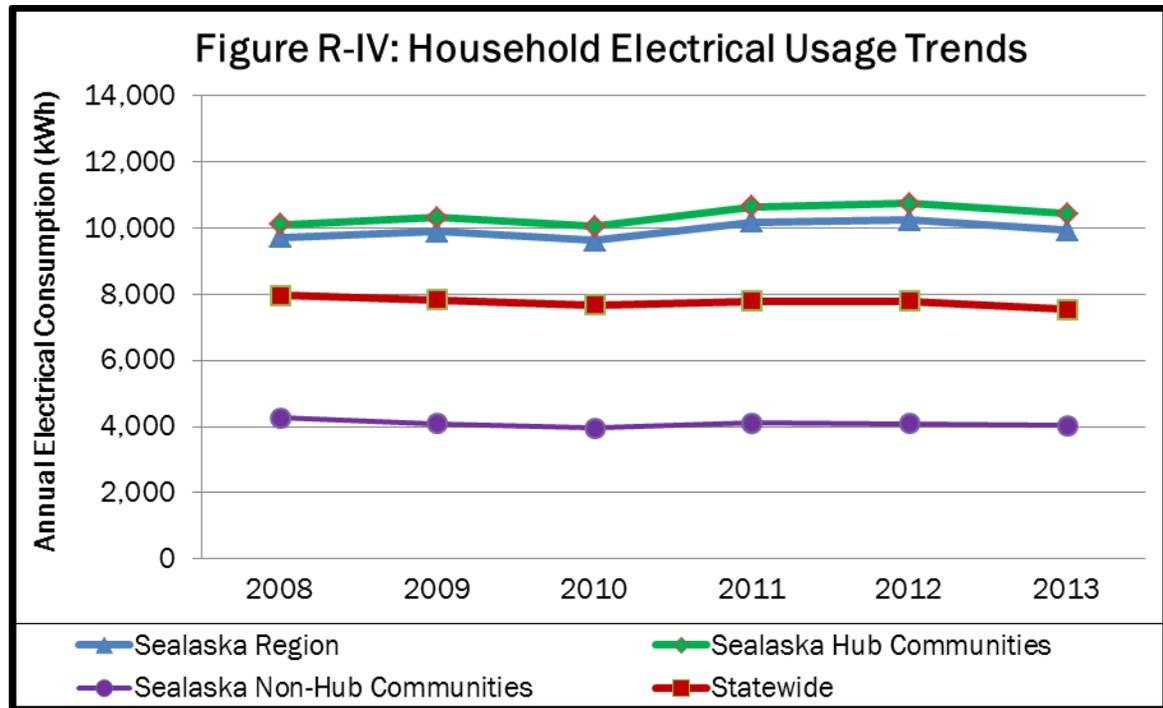
The energy use intensity (EUI), or annual energy used per square foot for a unit in multifamily housing in the Sealaska region averages 102,359 BTUs per square foot, the fifth lowest in the state. This is 80 percent of the statewide average of 128,000 BTUs per square foot and 1.7 times the national average. The energy cost index (ECI), or annual energy cost per square foot, for a unit in multifamily housing in the Sealaska region averages \$2.35, the fourth lowest in the state. This is approximately the same as the statewide average of \$2.27 per square foot and 1.7 times the national average of \$1.39 per square foot.

The home heating index (HHI) in the Sealaska region for the average multifamily housing unit is 8.54 BTUs/ft<sup>2</sup>/HDD. This is the second highest in the state. The HHI for the Sealaska region is approximately the same as the statewide average. The normalized cost of energy, in terms of dollars per million BTUs, for a unit in multifamily housing in the Sealaska region averages \$19.56, the fifth lowest in the state. This is 1.5 times the statewide average of \$12.79 per million BTUs and 85 percent of the national average of \$23.12 per million BTUs.



### Regional Residential Electrical Use Trends<sup>15</sup>

In 2013 the average household in the Sealaska region consumed 9,943 kWh of electricity annually. This is approximately 2 percent more than in 2008. Hub communities in the region averaged 10,426 kWh per year. This is an increase of 3 percent over the same period. In contrast, non-hub communities averaged 4,026 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 Homes<sup>16</sup>

Approximately 4,508 (16 percent) of the occupied homes in the Sealaska region are estimated to be One-Star homes. One-Star homes use approximately 4 times the energy they would if built to AHFC's Building Energy Efficiency Standard (BEES). Statewide, approximately 14,966 (6 percent) of occupied homes are estimated to be One-Star homes.

Homes built before 1980 that have not been retrofit are potentially homes in need. Approximately 50 percent of all homes in the Sealaska region fit these two criteria. This is 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

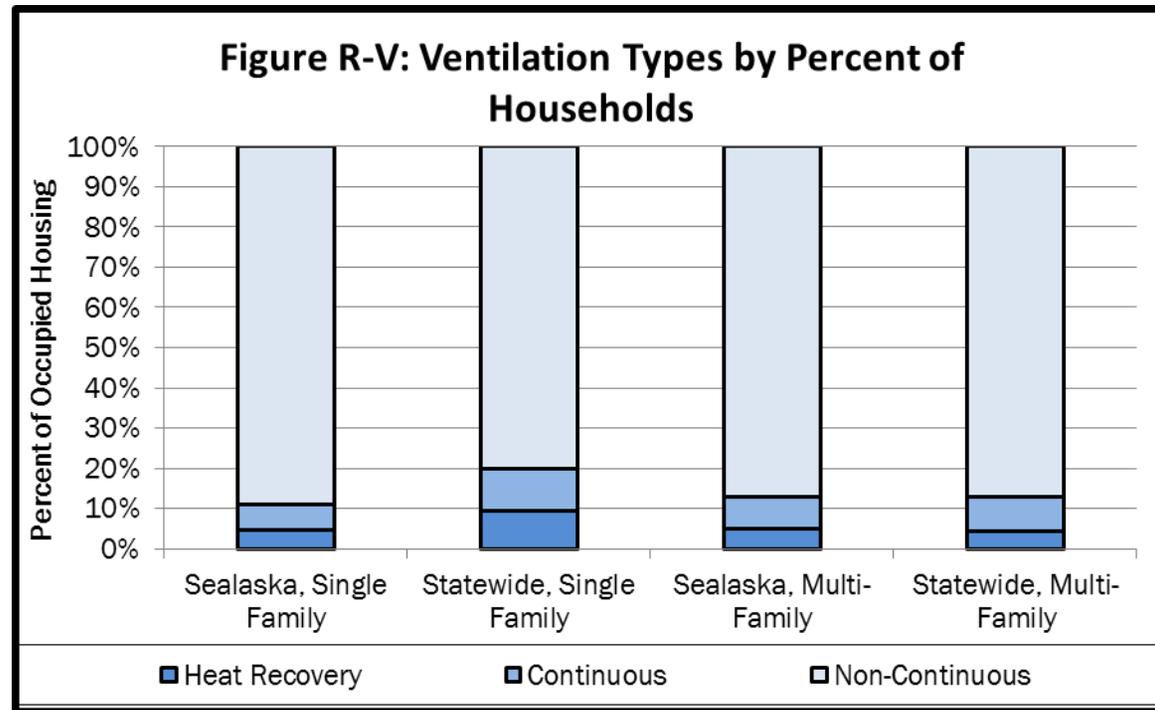
Approximately 11 percent of the occupied homes in the Sealaska region have heat recovery or continuous mechanical ventilation systems installed. This is the lowest in the state. Statewide approximately 20 percent of occupied homes have continuous mechanical ventilation systems, with or without heat recovery.

### Indoor Air Quality

A tight home with no or inadequate ventilation has an increased risk of issues with indoor air quality or moisture. The Sealaska region has the sixth lowest percentage of housing units in the state that are relatively air-tight and lack continuous mechanical ventilation. Approximately 8,347 (29 percent) of the occupied homes in the Sealaska region are estimated to be at moderate risk, with 3,866 (13 percent) estimated to be at high risk. Statewide, approximately 30 percent of occupied homes are estimated to be at moderate risk and 26 percent are estimated to be 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 10,732 (37 percent) of the occupied homes in the Sealaska region are estimated to be drafty, with 7,722 (27 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.