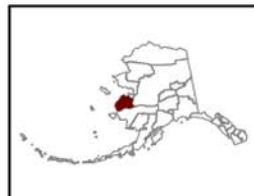
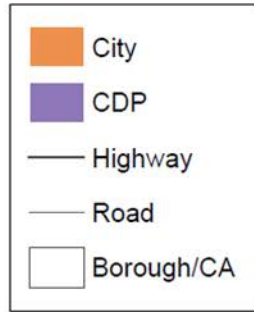


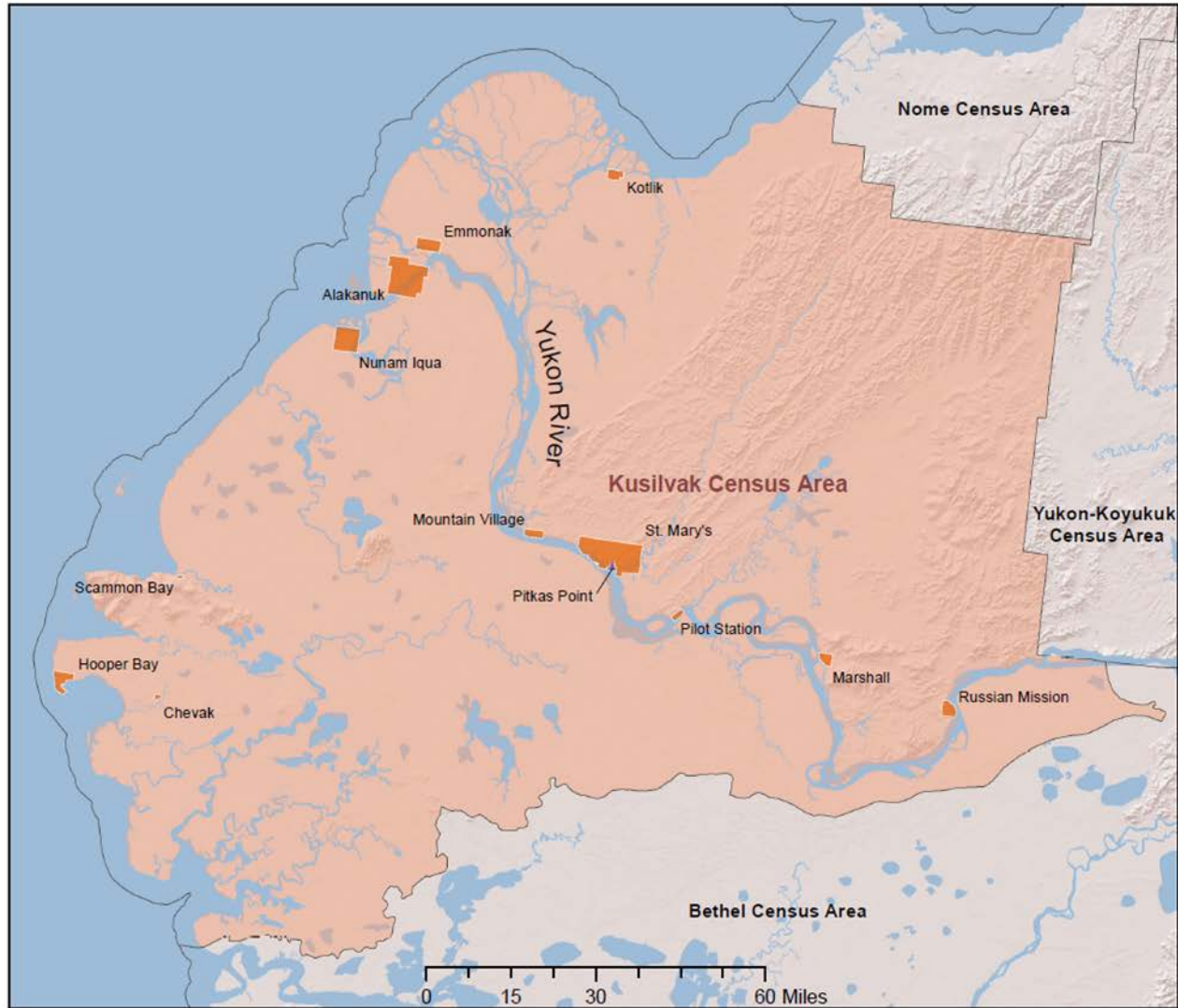
# Kusilvak Census Area



CDP = Census Designated Place  
CA = Census Area



Map Prepared by:  
Alaska Department of Labor  
& Workforce Development  
  
August 2015  
  
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.

## Kusilvak Census Area Dashboard

**Population:** The Alaska Department of Labor and Workforce Development's current (2015) population estimate for the Kusilvak census area is 8,195, an increase of 17 percent from 2000.

**Housing Units:** There are currently 2,106 housing units in the Kusilvak census area. Of these, 1,690 are occupied, 38 are for sale or rent, and the remaining 464 are seasonal or otherwise vacant units.

**Energy and Energy Costs:** The average home in the Kusilvak census area is 835 square feet and uses 129 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 Kusilvak census area is \$4,606. This is approximately 1.1 times the statewide average and twice the national average.

**Overcrowding:** An estimated 901 (53 percent) of occupied units are either overcrowded (21 percent) or severely overcrowded (33 percent). This is more than 16 times the national average, and makes this census area the most overcrowded census area in the state.

**Drafty Homes and Ventilation:** Approximately 845 (50 percent) of occupied homes in the Kusilvak census area are drafty, exceeding seven air changes per hour at 50 Pascals (ACH50). The statewide average is 36 percent. In contrast, there are an estimated 456 occupied housing units (27 percent) in the Kusilvak census area 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 354 (21 percent) of households in the Kusilvak census area 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 currently no registered beds in senior housing facilities in the Kusilvak census area. Currently the Alaska Department of Labor and Workforce Development estimates there are 469 seniors in the census area and projects an increase to 797 by 2030.

**Housing Issues:** There are an estimated 525 homes built before the 1980s in the Kusilvak census area that have not been retrofitted through a state program in the past 10 years. Approximately 400 (24 percent) homes in the Kusilvak census area lack complete kitchens and approximately 542 (32 percent) lack complete bathrooms.

## Kusilvak Census Area Housing Need Highlights

The most significant need in the Kusilvak census area is overcrowding, with more than half of all homes in the region considered overcrowded. The new construction rate is not adequate to meet slow growth, and with the region's population projected to grow 16 percent by 2025, a significant number of new units must be built in order to meet new demand and alleviate overcrowding.

**Housing Gap:** Based on HUD's definition of overcrowding, the Kusilvak census area has the highest rate in the state, with more than half of all housing units overcrowded (21 percent) or severely overcrowded (33 percent).<sup>1</sup> This is more than 16 times the national average. The authors of the *Assessment of American Indian, Alaska Native, and Native Hawaiian Housing Needs* point out that overcrowding is often the expression of what is actually homelessness, with families taking in relatives who otherwise could not find affordable housing.<sup>2</sup>

In addition to the housing gap caused by overcrowding, if construction rates continue at their current pace, they will not be able to keep up with housing demand from the projected population growth.<sup>3</sup> This will further exacerbate existing overcrowding and affordability.

**Affordable Housing Needs:** The Kusilvak census area has the lowest area median income in the state and one of the lowest average renter wages. The reported fair market rents are lower than the statewide average but the income needed to afford a two-bedroom unit at fair market rent represents 85 percent of the area median income, one of the highest in Alaska.<sup>4</sup>

**Senior Housing Needs:** There are currently no assisted-living units or independent living facilities for seniors in the Kusilvak census area.<sup>5</sup> There are 469 seniors in the census area, and the population is projected to increase to 797 by 2030.<sup>6</sup> Increasing available senior housing could ensure adequate assisted and independent living facilities for the projected population.

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<sup>1</sup> U.S. Census Bureau. (2016). *American Community Survey, 2010–2014 American Community Survey Five-year Estimates*.

<sup>2</sup> Pindus, N., Kingsley, G. T., Biess, J., Levy, D., Simington, J., & Hayes, C. (2017). *Final Report: Housing Needs of American Indians and Alaska Natives*. The Urban Institute. Retrieved from [https://www.huduser.gov/portal/native\\_american\\_assessment/home.html](https://www.huduser.gov/portal/native_american_assessment/home.html)

<sup>3</sup> See Appendix C: Methodology for details.

<sup>4</sup> Yentel, D., Aurand, A., Emmanuel, D., Errico, E., Leong, G. M., & Rodrigues, K. (2016). *Out of Reach 2016*. National Low Income Housing Coalition. Retrieved from [http://nlihc.org/sites/default/files/oor/OOR\\_2016.pdf](http://nlihc.org/sites/default/files/oor/OOR_2016.pdf)

<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.

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**Retrofit Needs:** An estimated 36 percent of occupied housing units in the Kusilvak region have been retrofitted through the Weatherization Assistance Program, reducing energy costs, improving safety, and extending the lives of homes.<sup>7</sup> There remain homes in the region that can benefit from additional retrofit work, with an estimated 35 percent built before 1980 that have not been retrofit, and an estimated 9 percent being inefficient, meaning they use four or more times more energy than a newly constructed home meeting Alaska’s Building Energy Efficiency Standard (BEES). Fifty percent of homes in the region are estimated to be drafty based on reported air-tightness.

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

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## Kusilvak Census Area Summary

### Community

The Kusilvak census area sits on the western coast of Alaska and is bisected by the Yukon River. It is in the Calista Native Corporation ANCSA region. The 13 communities in the census area are located on the banks of the Yukon and on the coast of Bering Sea. The average home size in the census area is 834 square feet.

The ratio of dependents, including those under 16 and over 65, relative to the working age population in the Kusilvak census area is higher than the statewide average and higher than the national ratio.<sup>8</sup> The Kusilvak census area 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 lower than the statewide average and lower than the national average. The Kusilvak census area region is projected to see the ratio of senior age dependents to working age dependents increase by 1.7 times by 2030.

There are no registered dedicated beds in senior housing in the Kusilvak census area.<sup>9</sup> Currently the Alaska Department of Labor and Workforce Development estimates there are 469 seniors in the census area and projects that there will be 797 senior citizens by 2030.<sup>10</sup> Statewide an estimated 2.8 percent of senior citizens live 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 Kusilvak census area 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.

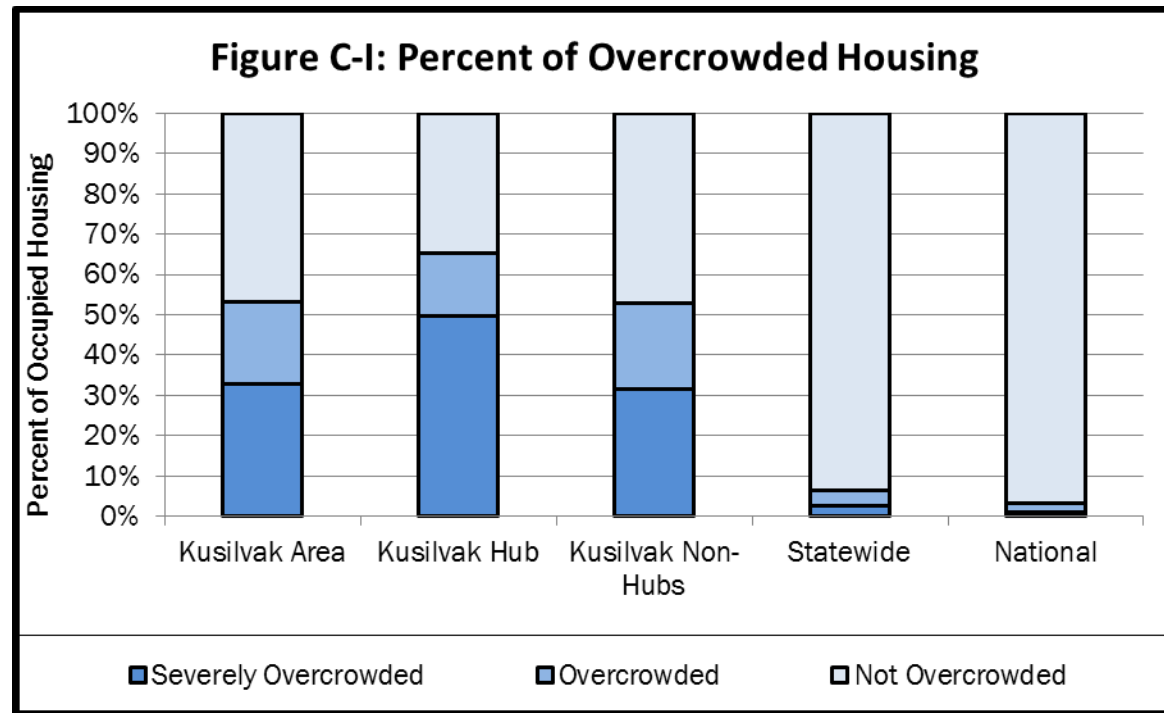
<sup>11</sup> Ribbe, M., Ljunggren, G., Steel, K., Topinkova, E., Hawes, C., Ikegami, N., ... Jonnson, P. (1997). "Nursing Homes in 10 Nations: A Comparison Between Countries and Settings." *Age and Ageing*. 26(S2), 3-12.

## Overcrowding<sup>12</sup>

The Kusilvak census area is the most overcrowded census area in Alaska. Approximately 53 percent of households are overcrowded in the census area as a whole. The rate of overcrowding in the Kusilvak census area is more than 8.3 times the statewide average (6.4 percent) and approximately 16.2 times more than the national average (3.3 percent).

Overcrowding in the non-hub communities (53 percent) is less prevalent than that found in the hub community of Hooper Bay (65 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. Of the overcrowded homes in non-hub communities, an estimated 31.6 percent are severely overcrowded, which is 31.6 times more than the national average.

Approximately 2 percent of housing units in the Kusilvak census area are available for sale or rent. The percentage of units for sale or rent in the non-hub communities (2 percent) is nearly the same as in the hub communities. Additionally, 21 percent of housing units in the Kusilvak census area are considered vacant because they are used for seasonal, recreational or other non-year-round purposes.



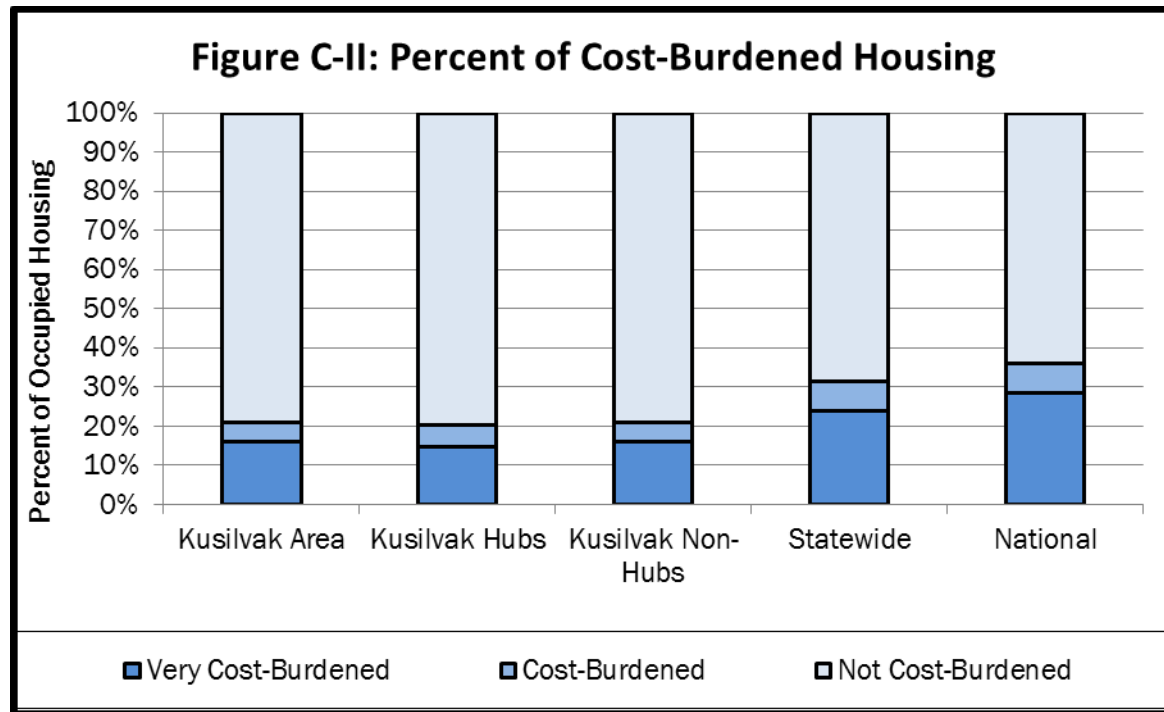
<sup>12</sup> U.S. Census Bureau. (2016). *American Community Survey, 2010-2014 American Community Survey Five-year Estimates*.



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

According to estimates from the U.S. Census American Community Survey (ACS), 21 percent of households in the Kusilvak census area are cost-burdened, that is, spend more than 30 percent of their income on housing costs. Non-hub communities have a higher percentage (21 percent) of households that are cost-burdened than the hub community of Hooper Bay (20 percent). The rate of cost-burdened households in the Kusilvak census area is 58 percent of the national average (36 percent).

The median household income in the Kusilvak census area is \$40,943. This is lower than the statewide median of \$71,829. The national median is \$53,482.



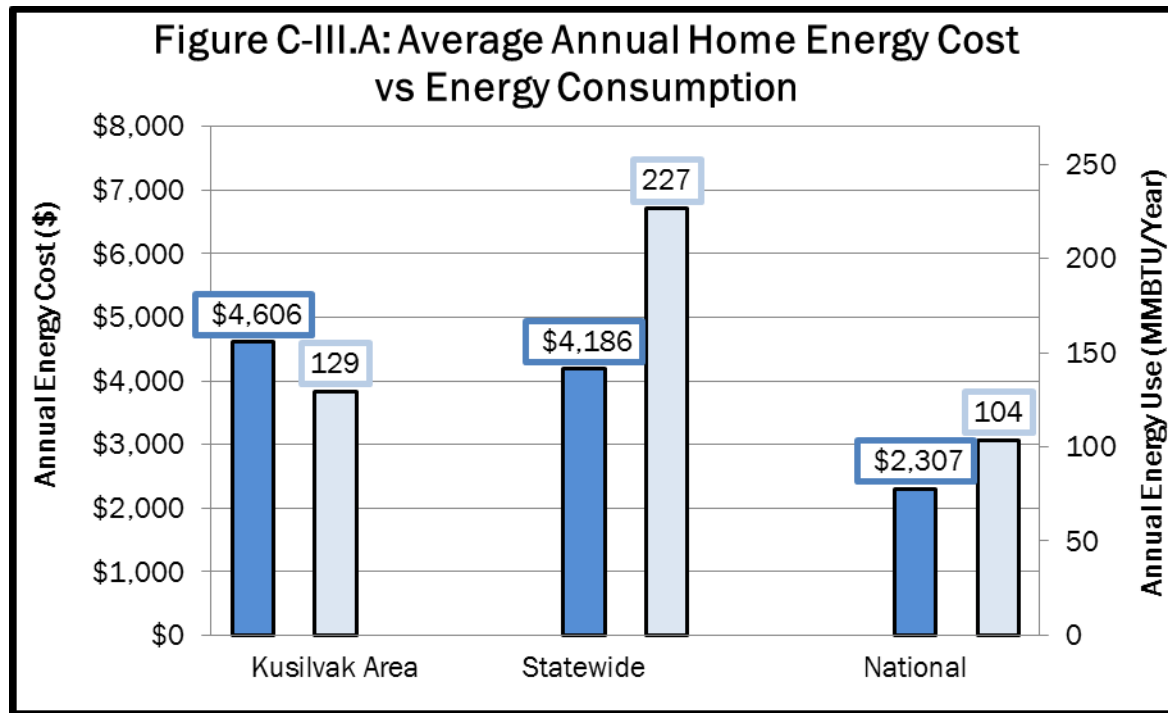
<sup>13</sup> U.S. Census Bureau. (2016). *American Community Survey, 2010-2014 American Community Survey Five-year Estimates*.

## Energy<sup>14</sup>

### Single-family Units

Single-family homes in the Kusilvak census area consume an average of 129 million BTUs per year, the lowest energy consumption in the state. This average annual energy consumption is 57 percent of the statewide average of 227 million BTUs and 1.2 times the national average.

Energy costs for single-family homes in the Kusilvak census area average \$4,606 annually. This is the 11th highest in the state. Kusilvak census area energy costs are 1.1 times the statewide average and twice the national average.



With an average footprint of 835 square feet, single-family homes in the Kusilvak census area 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 Kusilvak census area averages 164,000 BTUs per square foot, the third highest in the state. This is 1.3 times the statewide average of 128,000 BTUs per square foot and 3.8 times the national average. The energy cost index (ECI), or annual energy cost per square foot, for a single-family home in the Kusilvak census area averages \$5.52, the second highest in the state. This is 2.4 times the statewide average of \$2.31 per square foot and 5.8 times the national average of \$0.95 per square foot.

The home heating index (HHI) in the Kusilvak census area for the average single-family home is 8.64 BTUs/ft<sup>2</sup>/HDD. This is the ninth lowest in the state. The HHI for the Kusilvak census area is lower 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 Kusilvak census area averages

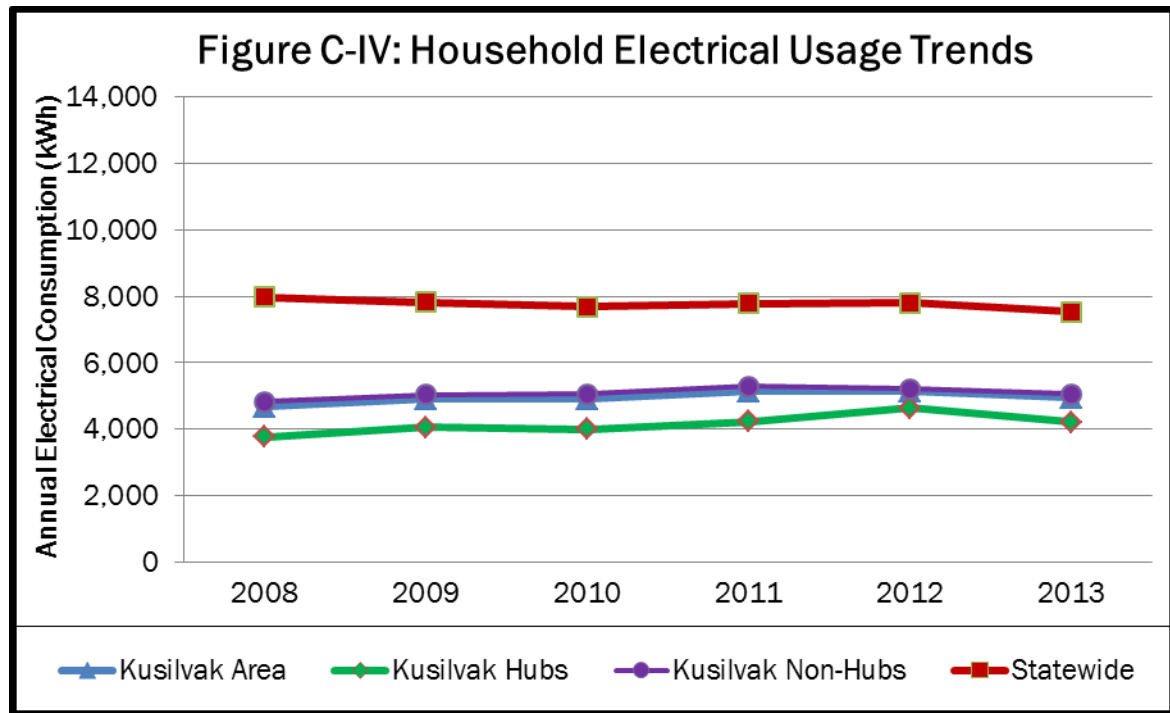
<sup>14</sup> See Appendix C: Methodology for details.

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\$31.46, the fifth highest in the state. This is twice the statewide average of \$15.80 per million BTUs and 1.4 times the national average of \$22.27 per million BTUs.

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

In 2013 the average household in the Kusilvak census area consumed 4,943 kWh of electricity annually. This is approximately 6 percent more than in 2008. Hub communities in the census area averaged 4,212 kWh per year. This is an increase of 12 percent over the same period. In contrast, non-hub communities averaged 5,068 kWh in 2013, an increase of 5 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 152 (9 percent) of the occupied homes in the Kusilvak census area 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 35 percent of all homes in the Kusilvak census area fit these two criteria. This is lower 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

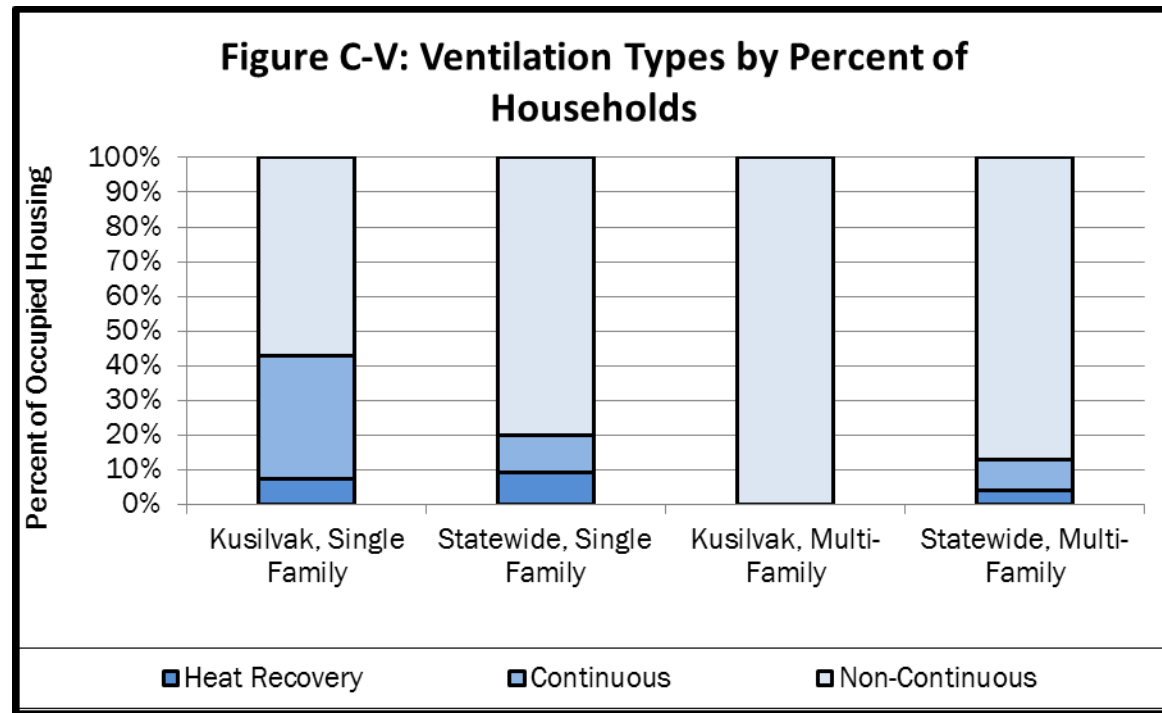
Approximately 43 percent of the occupied homes in the Kusilvak census area region have heat recovery or continuous mechanical ventilation systems installed. This is the highest in the state. Statewide approximately 20 percent of occupied homes have continuous mechanical ventilation systems, with or without 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 Kusilvak census area has the fourth lowest percentage of housing units in the state that are both relatively airtight and lack continuous mechanical ventilation. Approximately 328 (19 percent) of the occupied homes in the Kusilvak census area are estimated to be at moderate risk, with 131 (8 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 643 (38 percent) of the occupied homes in the Kusilvak census area are estimated to be drafty, with 205 (12 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.