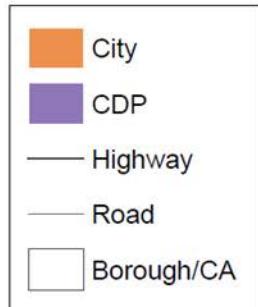


# Southeast Fairbanks Census Area



CDP = Census Designated Place

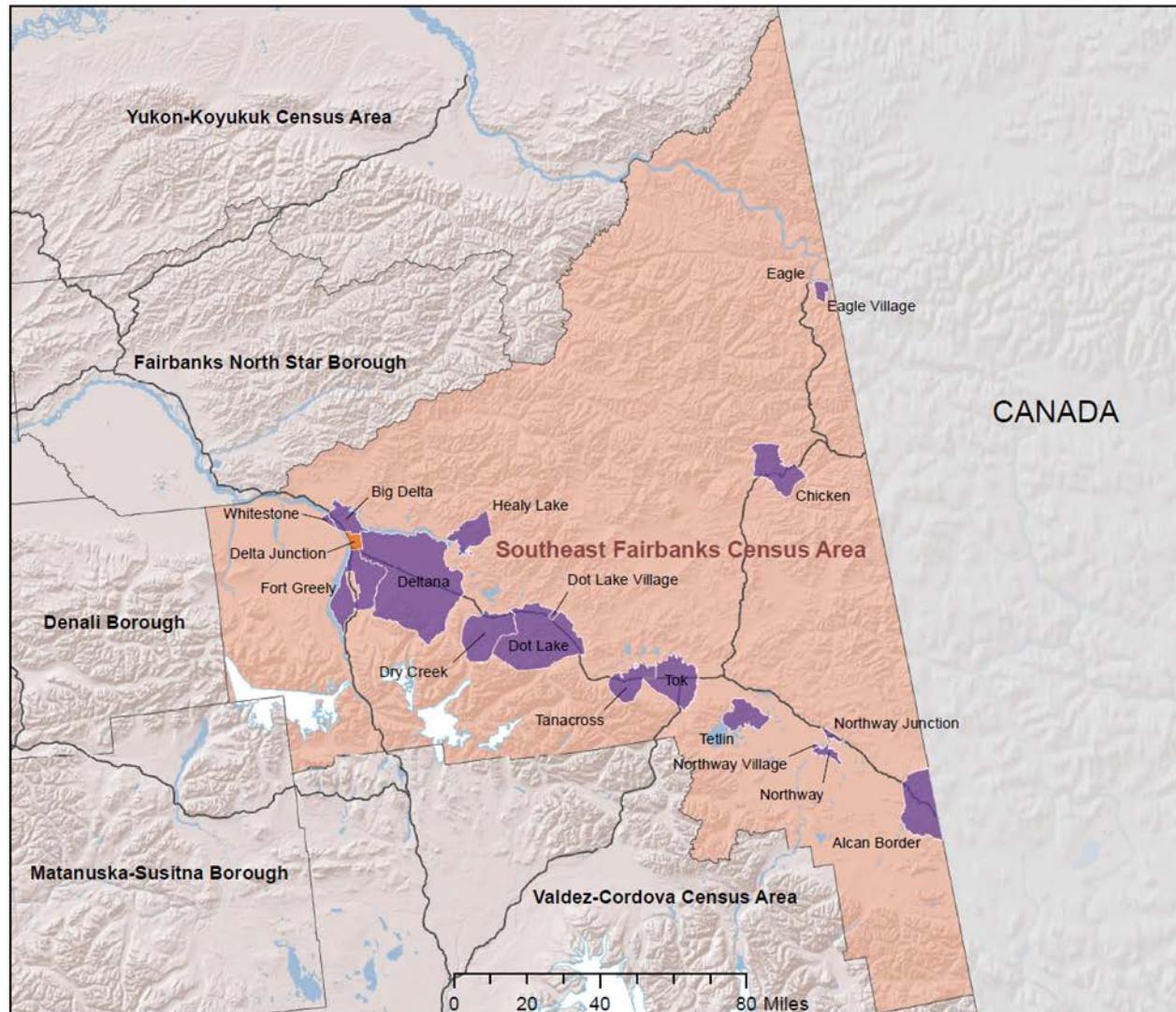
CA = Census Area



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.

## Southeast Fairbanks Census Area Dashboard

**Population:** The Alaska Department of Labor and Workforce Development's current (2015) population estimate for the Southeast Fairbanks census area is 6,899, an increase of 12 percent from 2000.

**Housing Units:** There are currently 3,251 housing units in the Southeast Fairbanks census area. Of these, 2,156 are occupied, 251 are for sale or rent, and the remaining 1,497 are seasonal or otherwise vacant units.

**Energy and Energy Costs:** The average home in the Southeast Fairbanks census area is 1,826 square feet and uses 259 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 Southeast Fairbanks census area is \$5,119. This is approximately 1.2 times the statewide average and 2.2 times the national average.

**Overcrowding:** An estimated 192 (9 percent) of occupied units are either overcrowded (6 percent) or severely overcrowded (3 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 769 (39 percent) of homes in the Southeast Fairbanks 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 966 occupied housing units (49 percent) in the Southeast Fairbanks 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 499 (23 percent) of households in the Southeast Fairbanks 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 an estimated 16 beds in senior housing facilities in the Southeast Fairbanks census area. Currently the Alaska Department of Labor and Workforce Development estimates there are 852 seniors in the census area and projects an increase to 1,395 by 2030.

**Housing Issues:** There are an estimated 1,092 homes built before the 1980s in the Southeast Fairbanks census area that have not been retrofitted through a state program in the past 10 years. Approximately 205 (10 percent) homes in the Southeast Fairbanks census area lack complete kitchens and approximately 222 (10 percent) lack complete bathrooms.

## Southeast Fairbanks Census Area Housing Need Highlights

The primary housing need in the Southeast Fairbanks census area is retrofitting existing homes. A secondary housing need is overcrowding.

**Housing Gap:** Based on current trends, the Southeast Fairbanks census area will need 97 new housing units by 2020 to meet population growth.<sup>1</sup> Historic averages show very little new construction, and predictions show little new construction to be built. There are an estimated 191 units (9 percent) that are overcrowded. Current trends predict that to rise to 288 by 2020.<sup>2</sup>

**Affordable Housing Need:** Approximately 23 percent (456 units) of households are cost-burdened, spending more than 30 percent of their total income on housing costs.<sup>3</sup>

**Senior Housing Needs:** There are 16 beds in senior housing facilities in the Southeast Fairbanks census area.<sup>4</sup> The senior population is 852, and this number is projected to increase to 1,395 by 2030.<sup>5</sup> Increasing available senior housing could ensure adequate assisted and independent living facilities for the projected population.

**Retrofit Needs:** An estimated 40 percent of homes were built before the 1980s and have not been retrofitted in the past 10 years.<sup>6</sup> About 10 percent of homes lack complete kitchens and 10 percent lack complete bathrooms.<sup>7</sup> Approximately 213 (11 percent) of the homes are inefficient, using approximately four times more energy than if they had been built to AHFC's Building Energy Efficiency Standard (BEES). Energy retrofits to these homes would decrease energy demand. Of the total homes in the area, 26 percent are at moderate air quality risk while 23 percent are at high risk.<sup>8</sup>

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

<sup>4</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>5</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>6</sup> See Appendix C: Methodology for details.

<sup>7</sup> U.S. Census Bureau. (2016). *American Community Survey, 2010–2014 American Community Survey Five-year Estimates*.

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

## Southeast Fairbanks Census Area Summary

### Community

The Southeast Fairbanks census area is located in eastern Interior Alaska, on the Canadian border. It is in the Doyon Native Corporation ANCSA region. The average home size in the census area is 1,745 square feet.

The ratio of dependents, including those under 16 and over 65, relative to the working age population in the Southeast Fairbanks census area is lower than the statewide average and lower than the national ratio.<sup>9</sup> The Southeast Fairbanks 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 higher than the statewide average and lower than the national average. The Southeast Fairbanks census area region is projected to see the ratio of senior age dependents to working age dependents increase by 1.6 times by 2030.

There are an estimated 16 dedicated beds in senior housing in the Southeast Fairbanks census area, with 10 of those dedicated to assisted care living.<sup>10</sup> Currently the Alaska Department of Labor and Workforce Development estimates there are 852 seniors in the census area and projects that there will be 1,395 senior citizens by 2030.<sup>11</sup> In the Southeast Fairbanks census area 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 Southeast Fairbanks 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>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.

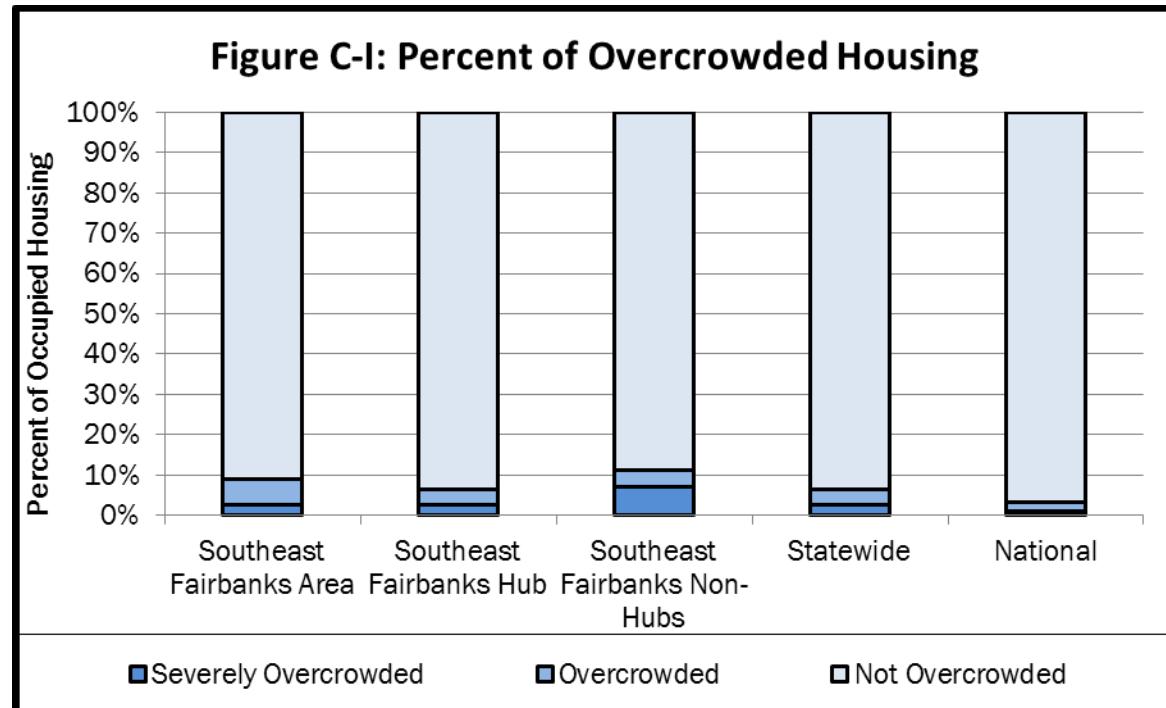
<sup>12</sup> Ribbe, M., Ljunggren, G., Steel, K., Topinkova, E., Hawes, C., Ikegami, N., ... Jonnson, P. (1997). "Nursing Homes in 10 Nations: A Comparison Between Countries and Settings." *Age and Ageing*. 26(S2), 3-12.

## Overcrowding<sup>13</sup>

The Southeast Fairbanks census area 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 Southeast Fairbanks census area is more than 1.4 times the statewide average (6.4 percent) and approximately 2.7 times more than 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 Southeast Fairbanks census area average nearly twice the overcrowding rate of the hub community, with approximately 11 percent of households overcrowded compared to the hub community's 7 percent. Further, 7.1 percent of non-hub community households are severely overcrowded. This is 7.1 times more than the national average.

Approximately 6 percent of housing units in the Southeast Fairbanks census area are available for sale or rent. The percentage of units for sale or rent in the non-hub communities (8 percent) is more than in the hub communities (4 percent). Additionally, 38 percent of housing units in the Southeast Fairbanks census area are considered vacant because they are used for seasonal, recreational or other non-year-round purposes.

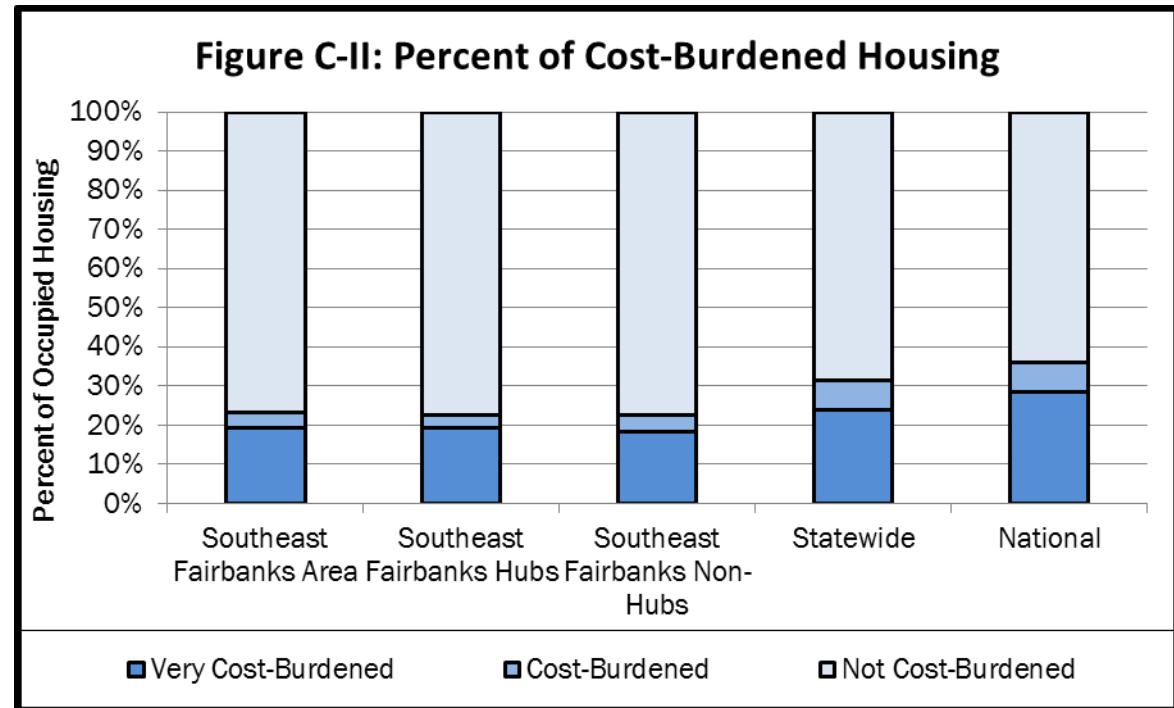


<sup>13</sup> U.S. Census Bureau. (2016). *American Community Survey, 2010-2014 American Community Survey Five-year Estimates*.

## Affordability<sup>14</sup>

According to estimates from the U.S. Census American Community Survey (ACS), 23 percent of households in the Southeast Fairbanks census area are cost-burdened, that is, spend more than 30 percent of their income on housing costs. Non-hub communities have a lower percentage (22 percent) of households that are cost-burdened than the hub community of Tok (23 percent). The rate of cost-burdened households in the Southeast Fairbanks census area is 64 percent of the national average (36 percent).

The median household income in the Southeast Fairbanks census area is \$65,481. This is lower than the statewide median of \$71,829. The national median is \$53,482.



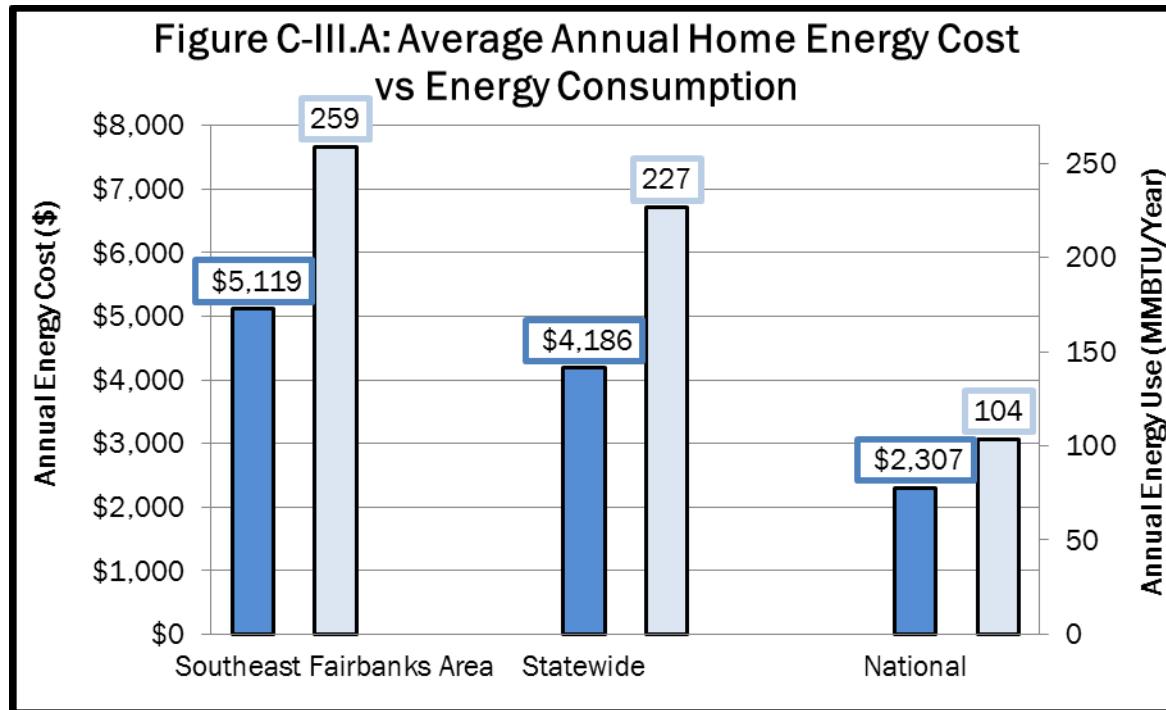
<sup>14</sup> U.S. Census Bureau. (2016). *American Community Survey, 2010-2014 American Community Survey Five-year Estimates*.

## Energy<sup>15</sup>

### Single-family Units

Single-family homes in the Southeast Fairbanks census area consume an average of 259 million BTUs per year, the second highest energy consumption in the state. This average annual energy consumption is 1.1 times the statewide average of 227 million BTUs and 2.5 times the national average.

Energy costs for single-family homes in the Southeast Fairbanks census area average \$5,119 annually. This is the seventh highest in the state. Southeast Fairbanks census area energy costs are 1.2 times the statewide average and 2.2 times the national average.



With an average footprint of 1,826 square feet, single-family homes in the Southeast Fairbanks 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 Southeast Fairbanks census area averages 163,000 BTUs per square foot, the fourth 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 Southeast Fairbanks census area averages \$2.80, the 14th lowest in the state. This is 1.2 times the statewide average of \$2.31 per square foot and 3.0 times the national average of \$0.95 per square foot.

The home heating index (HHI) in the Southeast Fairbanks census area for the average single-family home is 9.59 BTUs/ft<sup>2</sup>/HDD. This is the 11th highest in the state. The HHI for the Southeast Fairbanks census area 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 Southeast

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

Fairbanks census area averages \$18.61, the fifth lowest in the state. This is 1.2 times the statewide average of \$15.80 per million BTUs and 84 percent of the national average of \$22.27 per million BTUs.

## Multifamily Units

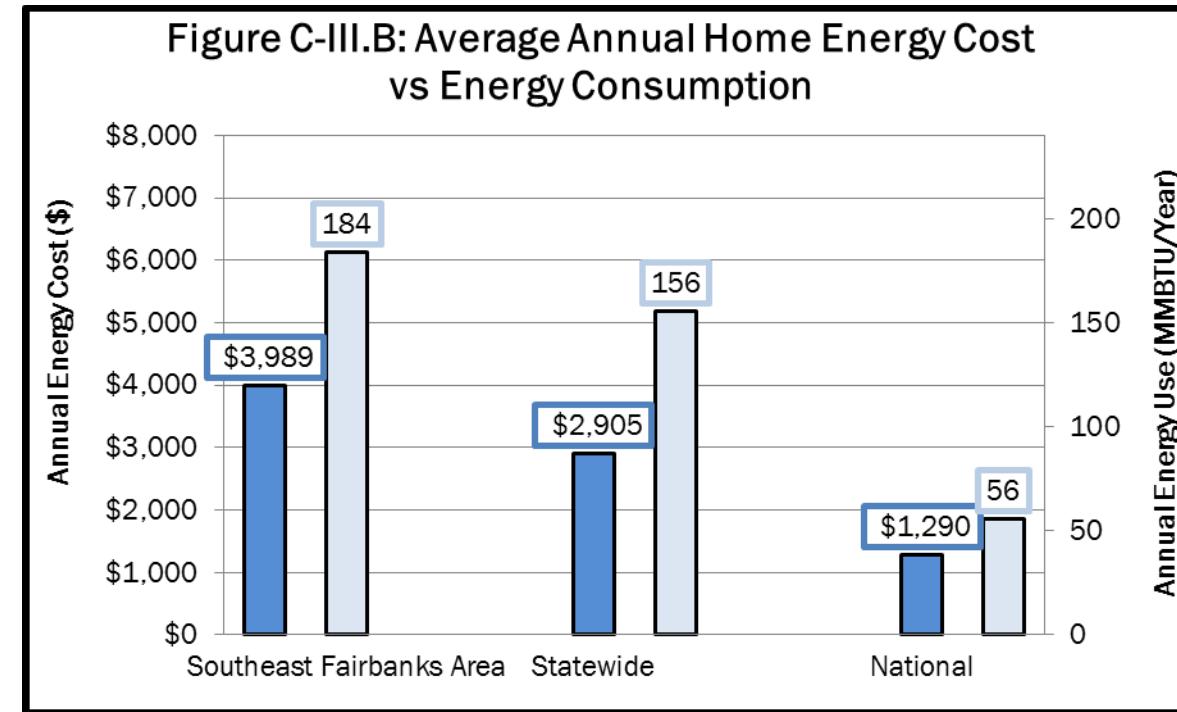
Multifamily housing units in the Southeast Fairbanks census area consume an average of 184 million BTUs per year, the highest energy consumption in the state. This average annual energy consumption is 1.2 times the statewide average of 156 million BTUs and 2.5 times the national average.

Energy costs for multifamily housing units in the Southeast Fairbanks census area average \$3,989 annually. This is the fifth highest in the state. Southeast Fairbanks census area energy costs are 1.4 times the statewide average and 3.1 times the national average.

With an average footprint of 1,690 square feet, multifamily housing units in the Southeast Fairbanks census area are larger 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 Southeast Fairbanks census area averages 135,000 BTUs per square foot, the fourth highest in the state. This is 1.1 times the statewide average of 128,000 BTUs per square foot and 2.3 times the national average. The energy cost index (ECI), or annual energy cost per square foot, for a multifamily housing unit in the Southeast Fairbanks census area averages \$2.36, the eighth 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 Southeast Fairbanks census area for the average multifamily housing unit is 7.56 BTUs/ft<sup>2</sup>/HDD. This is the 12th highest in the state. The HHI for the Southeast Fairbanks census area 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 Southeast Fairbanks census area averages \$18.48, the seventh lowest in the state. This is 1.4 times the statewide average of \$12.79 per million BTUs and 80 percent of the national average of \$23.12 per million BTUs.

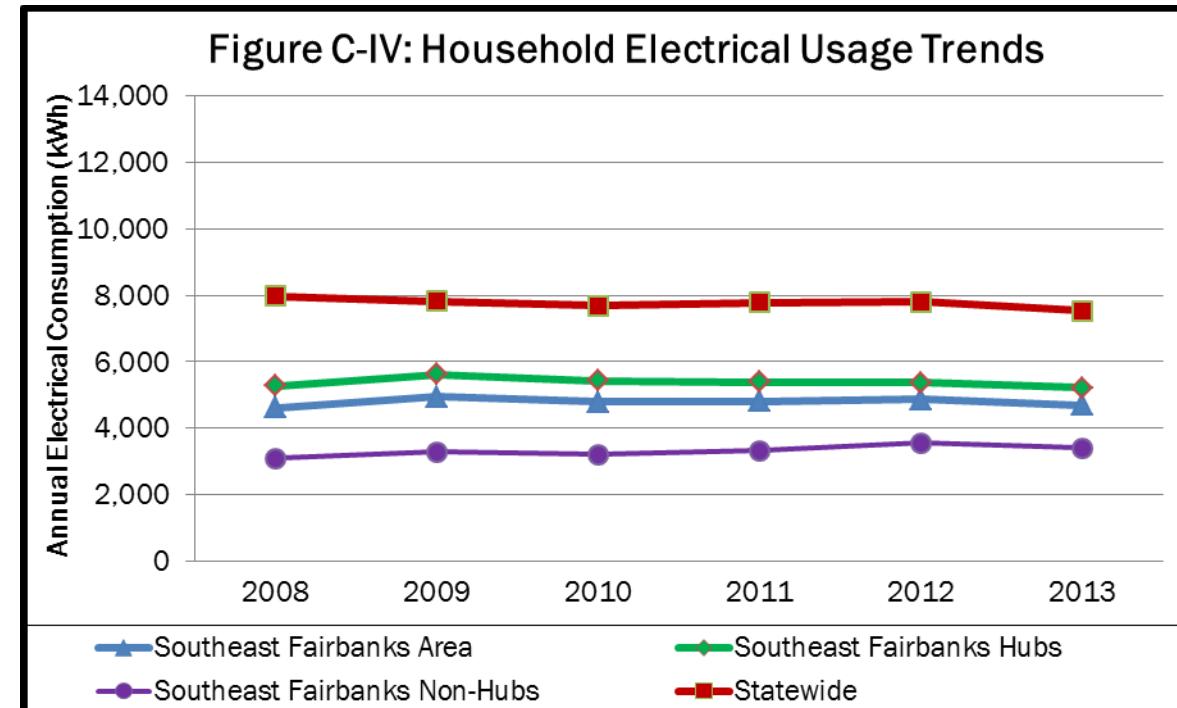
## Historical Household Electricity Usage<sup>16</sup>

In 2013 the average household in the Southeast Fairbanks census area consumed 4,704 kWh of electricity annually. This is approximately the same as in 2008. Hub communities in the census area averaged 5,207 kWh per year. This is remains approximately the same over the same period. In contrast, non-hub communities averaged 3,408 kWh in 2013, an increase of 10 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 213 (11 percent) of the occupied homes in the Southeast Fairbanks 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 40 percent of all homes in the Southeast Fairbanks census area fit these two criteria. This is approximately the same as 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

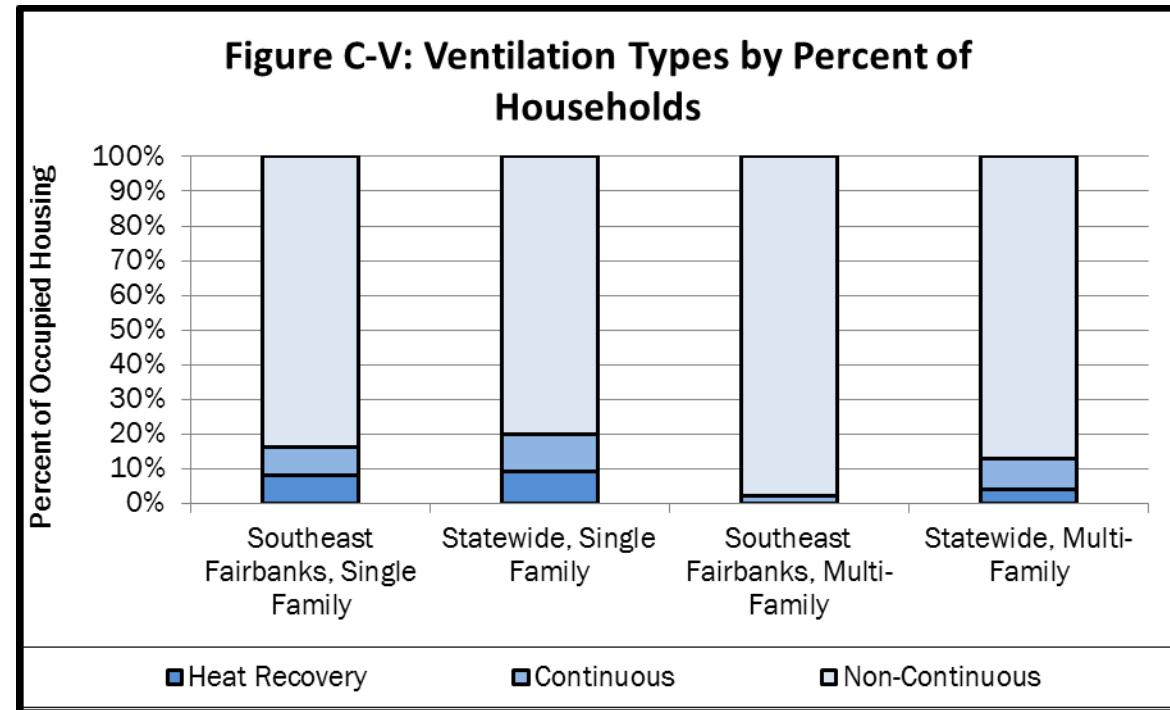
Approximately 16 percent of the occupied homes in the Southeast Fairbanks census area region have heat recovery or continuous mechanical ventilation systems installed. This is the 14th highest in the state. Statewide approximately 20 percent of occupied homes have continuous mechanical ventilation systems, 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 Southeast Fairbanks census area has the seventh highest percentage of housing units in the state that are both relatively airtight and lack continuous mechanical ventilation. Approximately 559 (26 percent) of the occupied homes in the Southeast Fairbanks census area are estimated to be at moderate risk, with 489 (23 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 544 (25 percent) of the occupied homes in the Southeast Fairbanks census area are estimated to be drafty, with 305 (14 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.

