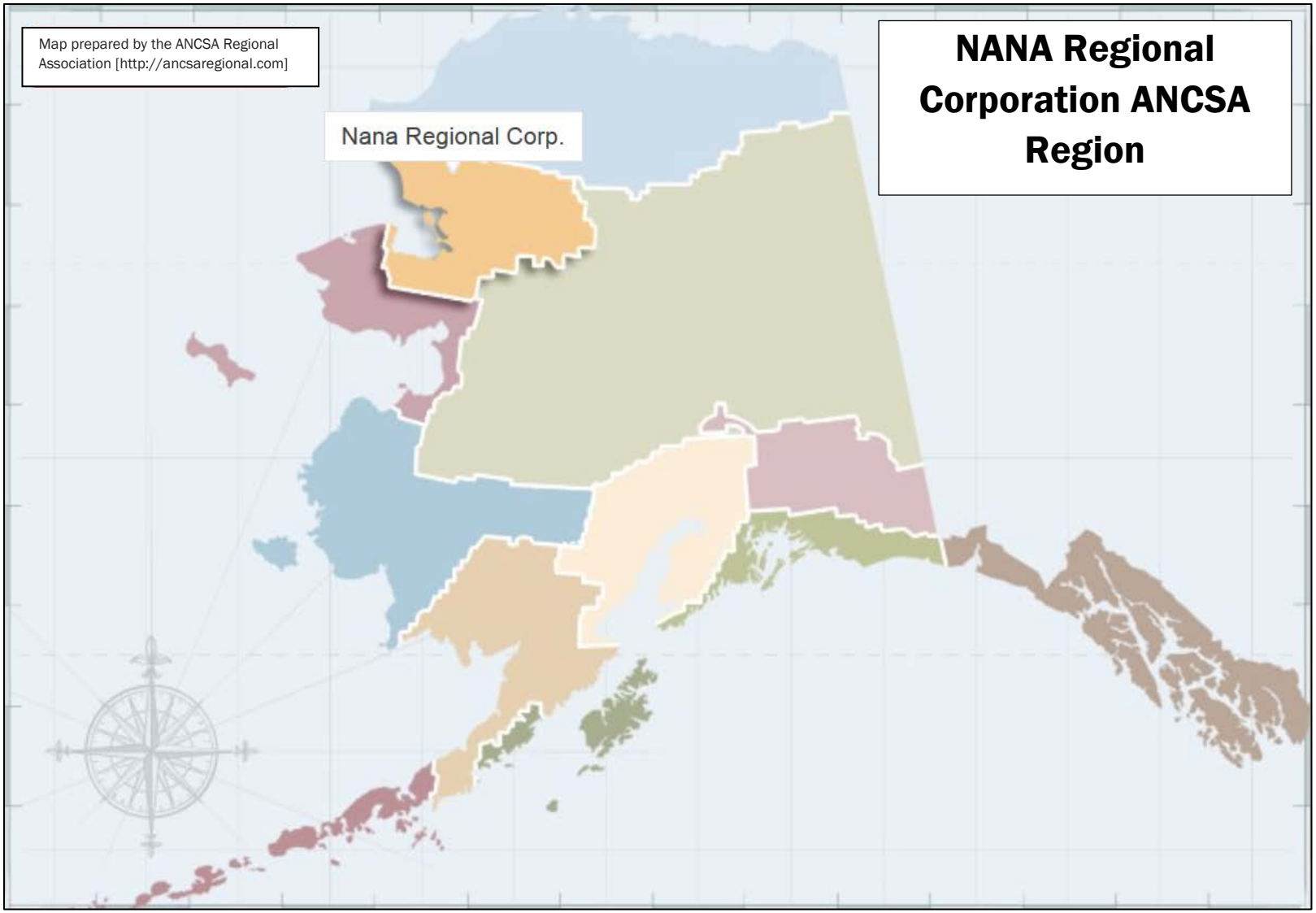
Map prepared by the ANCSA Regional Association [http://ancsaregional.com]
Nana Regional Corp.
NANA Regional Corporation ANCSA Region

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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.

NANA Region Dashboard

Population: The Alaska Department of Labor and Workforce Development's current (2015) population estimate for the NANA region is 7,867, an increase of 9 percent from 2000.

Housing Units: There are currently 2,864 housing units in the NANA region. Of these, 2,002 are occupied, 75 are for sale or rent, and the remaining 788 (28 percent) are seasonal or otherwise vacant units.

Energy and Energy Costs: The average home in the NANA region is 925 square feet and uses 140 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 NANA region is $6,244. This is approximately 1.5 times the statewide average and 2.7 times the national average.

Overcrowding: In the NANA region 779 (39 percent) of occupied units are estimated to be either overcrowded (18 percent) or severely overcrowded (21 percent). This is nearly 12 times the national average and the second most overcrowded in the state.

Drafty Homes and Ventilation: Approximately 961 (48 percent) of homes in the NANA 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 821 occupied housing units (41 percent) in the NANA region that are relatively airtight and lack a continuous ventilation system. These houses are at higher risk of moisture- and indoor air quality-related issues.

Affordability: On average, approximately 483 (24 percent) of households in the NANA 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 19 beds in senior housing facilities in the NANA region. Currently the Alaska Department of Labor and Workforce Development estimates there are 557 seniors in the ANCSA region and projects an increase to 963 by 2030.

Housing Issues: There are an estimated 1,040 homes built before the 1980s in the NANA region that have not been retrofitted through a state program in the past 10 years. Approximately 229 (11 percent) homes in the NANA region lack complete kitchens and approximately 383 (19 percent) lack complete bathrooms.

NANA Region Housing Need Highlights

According to interviewed tribal leaders, the top two housing issues in the NANA region are energy and overcrowding.[1] Data from the American Community Survey and Alaska Retrofit Information System supports their view with the NANA region facing the highest estimated average annual housing energy costs in the state and having overcrowding of 39 percent, which is nearly 12 times the national average.[2]

Housing Gap: The NANA region has a significant housing gap. The largest component of this housing gap is the high rate of overcrowding, with an estimated 39 percent of homes overcrowded or severely overcrowded. This is nearly 12 times the national average.[3] In one case study conducted by WHPacific, 15 out of 22 homes assessed had overcrowding issues, and all were multigenerational families living in one home.[4] The authors of the WHPacific study as well as the *Assessment of American Indian, Alaska Native and Native Hawaiian Housing Needs*[5] 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 options.

In addition to the current housing gap caused by overcrowding, if construction rates continue at their current pace, they will not be able to keep up with projected population demand. This will further exacerbate existing overcrowding and affordability unless the rate of new residential building construction increases.

Affordable Housing Need: An estimated 24 percent of housing units in the NANA region are cost-burdened.[6] Relative to the rest of the state, the region has low median income and slightly higher fair market rent. [7]

[1] Schaeffer, J. *Sustainable Housing Needs Assessment Study: NANA Region, Alaska*. NANA / WHPacific. 2012. Available at: https://alaskaindigenous.files.wordpress.com/2012/07/sustainable-housing-needs-accessment-final-report1.pdf
[2] U.S. Census Bureau. (2016). American Community Survey, 2010–2014 American Community Survey Five-year Estimates.
[3] ibid
[4] Schaeffer, J. *Sustainable Housing Needs Assessment Study: NANA Region, Alaska*. NANA / WHPacific. 2012. Available at: https://alaskaindigenous.files.wordpress.com/2012/07/sustainable-housing-needs-accessment-final-report1.pdf
[5] Pindus, N., Kingsley, T., et al. *Assessment of American Indian, Alaska Native, and Native Hawaiian Housing Needs.* January 2017. Available at: https://www.huduser.gov/portal/publications/HousingNeedsAmerIndians-ExecSumm.html
[6] U.S. Census Bureau. (2016). American Community Survey, 2010–2014 American Community Survey Five-year Estimates.
[7] 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

Senior Housing Needs: There are currently no assisted-living units and few independent living facilities for seniors in the NANA region.[8] An estimated 557 seniors live in the region and this number is projected to increase to 963 by 2030.[9] Increasing available senior housing should ensure there are adequate assisted and independent living facilities for the projected population.

Retrofit Needs: The NANA region has the highest estimated average annual home energy costs in the state, which can be a significant cost burden on the region's residents. The region has one of the higher participation rates in the Weatherization Assistance Program, with an estimated 32 percent of occupied housing units weatherized, there remains a need for additional energy retrofit work.[10] Nearly half (47 percent) of all homes in the region were built before 1980 and have not undergone an energy retrofit, and 11 percent of homes in the region were identified as inefficient, meaning they use at least four times the energy of a new home built to modern energy standards. These homes would likely be the most cost-effective to retrofit. In addition to energy retrofit needs, many homes in the region still lack basic facilities such as complete kitchens (11 percent) and complete bathrooms (19 percent).[11]

[8] 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/
[9] Hunsinger, Eddie, Sandberg, E., & Brooks, L. (2016). Alaska Population Projections 2015 to 2045. Alaska Department of Labor and Workforce Development, Research and Analysis Section.
[10] See Appendix C: Methodology for details.
[11] Ibid.

NANA Region Summary

Community

The NANA Corporation ANCSA region is located on the western coast of Alaska, south of the Arctic Slope region and north of the Bering Straits region. The average home size in the NANA region is 920 square feet.

The ratio of dependents, both those under 16 and those over 65, relative to the working age population in the NANA region is higher than the statewide average and lower than the national ratio.[12] The NANA 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 lower than the statewide average and lower than the national average. The NANA region is projected to see the ratio of senior age dependents to working age dependents increase by 1.7 times by 2030.

There are an estimated 19 dedicated beds in senior housing in the NANA region, with none of those dedicated to assisted care living.[13] Currently the Alaska Department of Labor and Workforce Development estimates there are 557 seniors in the NANA region and projects that there will be 963 senior citizens by 2030.[14] In the NANA region no senior citizens are in registered assisted care housing, whereas statewide 2.8 percent of senior citizens live in assisted care housing. Nationally, approximately 3.5 percent of senior citizens are in senior living facilities.[15]

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

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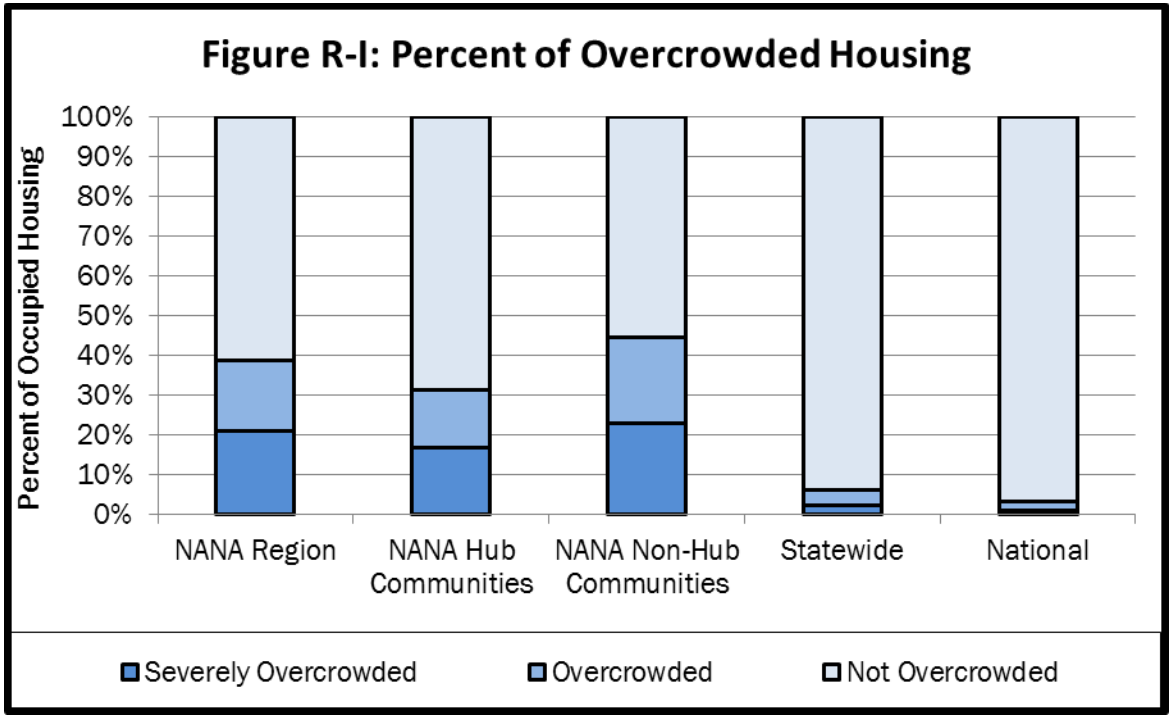
[12] Hunsinger, Eddie, Sandberg, E., & Brooks, L. (2016)."Alaska Population Projections 2015 to 2045." Alaska Department of Labor and Workforce Development, Research and Analysis Section.
U.S. Census Bureau. (2016). American Community Survey, 2010–2014 American Community Survey Five-year Estimates.
[13] 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/
[14] Hunsinger, Eddie, Sandberg, E., & Brooks, L. (2016). "Alaska Population Projections 2015 to 2045." Alaska Department of Labor and Workforce Development, Research and Analysis Section.
[15] 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[16]

The NANA region is the second most overcrowded ANCSA region in Alaska. Approximately 39 percent of households are overcrowded in the region as a whole. The rate of overcrowding in the NANA region is more than 6.1 times the statewide average (6.4 percent) and nearly 11.8 times the national average (3.3 percent).



Overcrowding in the non-hub communities is more 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 NANA region average more than 1.4 times the overcrowding rate of the hub community, with approximately 45 percent of households overcrowded compared hub community's 32 percent. Further, 22.9 percent of non-hub community households are severely overcrowded. This is 23 times the national average.

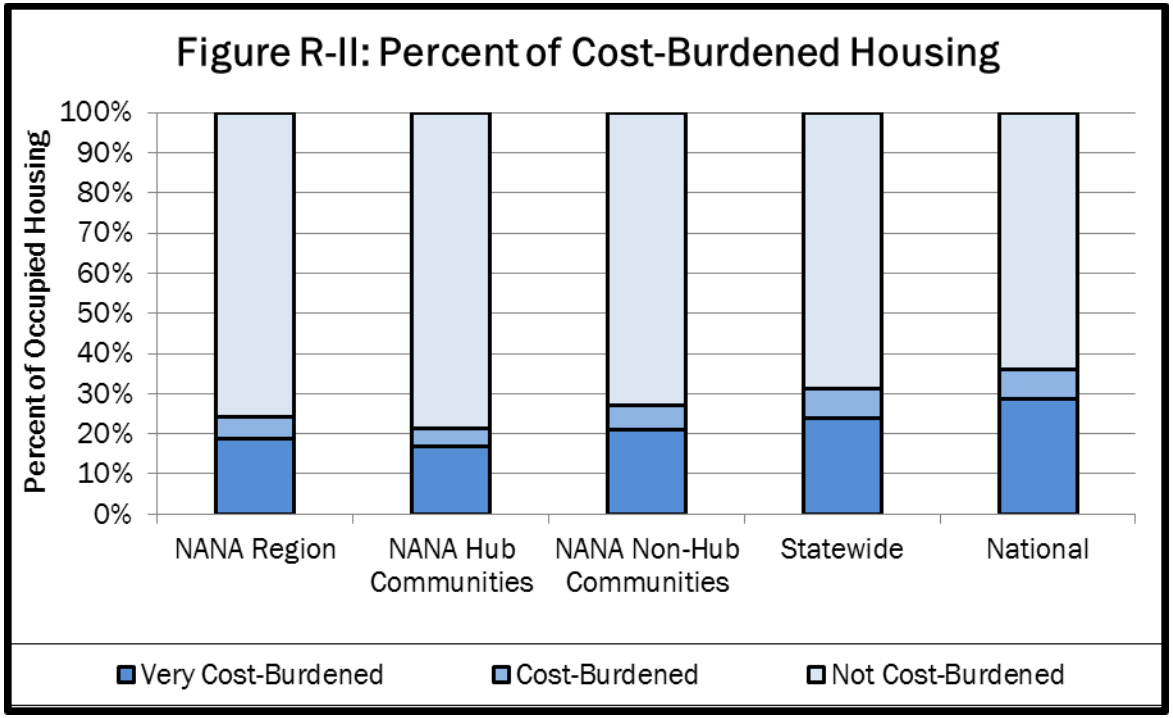
Approximately 3 percent of housing units in the NANA region are available for sale or rent. The percentage of units for sale or rent in non-hub communities (2 percent) is less than in the hub community (4 percent). Additionally, 28 percent of housing units in the NANA region are considered vacant because they are used for seasonal, recreational or other non-year-round purposes.

[16] U.S. Census Bureau. (2016). American Community Survey, 2010–2014 American Community Survey Five-year Estimates.

Affordability[17]

According to estimates from the U.S. Census American Community Survey (ACS), 24 percent of households in the NANA region are cost-burdened, that is, spend more than 30 percent of their income on housing costs. Non-hub communities have a higher percentage (27 percent) of households that are cost-burdened than the hub community (21 percent). The rate of cost-burdened households in the NANA region is 67 percent of the national average (36 percent).

The median household income in the NANA region is $63,971. This is lower than the statewide median of $71,829. The national median is $53,482.

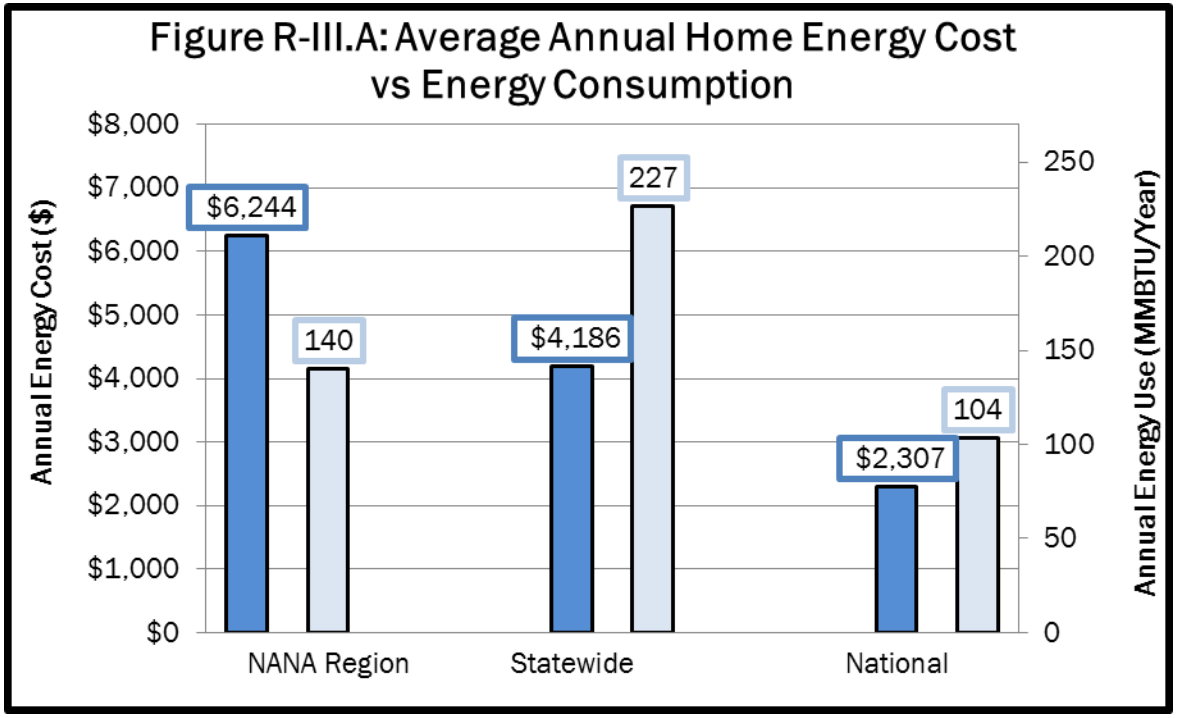


[17] U.S. Census Bureau. (2016). American Community Survey, 2010–2014 American Community Survey Five-year Estimates.

Energy[18]

Single-family Units

Single-family homes in the NANA region consume an average of 140 million BTUs per year in energy, the second lowest energy consumption in the state. This average annual energy consumption is 62 percent of the statewide average of 227 million BTUs and 1.4 times the national average.



Energy costs for single-family homes in the NANA region average $6,244 annually. This is the second highest in the state. NANA energy costs are 1.5 times the statewide average and 2.7 times the national average.

With an average footprint of 925 square feet, single-family homes in the NANA 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 NANA region averages 159,699 BTUs per square foot, the third highest in the state. This is 70 percent of the statewide average of 227,000 BTUs per square foot and 3.7 times the national average. The energy cost index (ECI), or annual energy cost per square foot, for a single-family home in the NANA region averages $6.75, the highest in the state. This is 2.9 times the statewide average of $2.31 per square foot and 7.1 times the national average of $0.95 per square foot.

The home heating index (HHI) in the NANA region for the average single-family homes is 7.27 BTUs/ft2/HDD. This is the second lowest in the state. The HHI for the NANA region is 82 percent of the statewide average. The normalized cost of energy, in terms

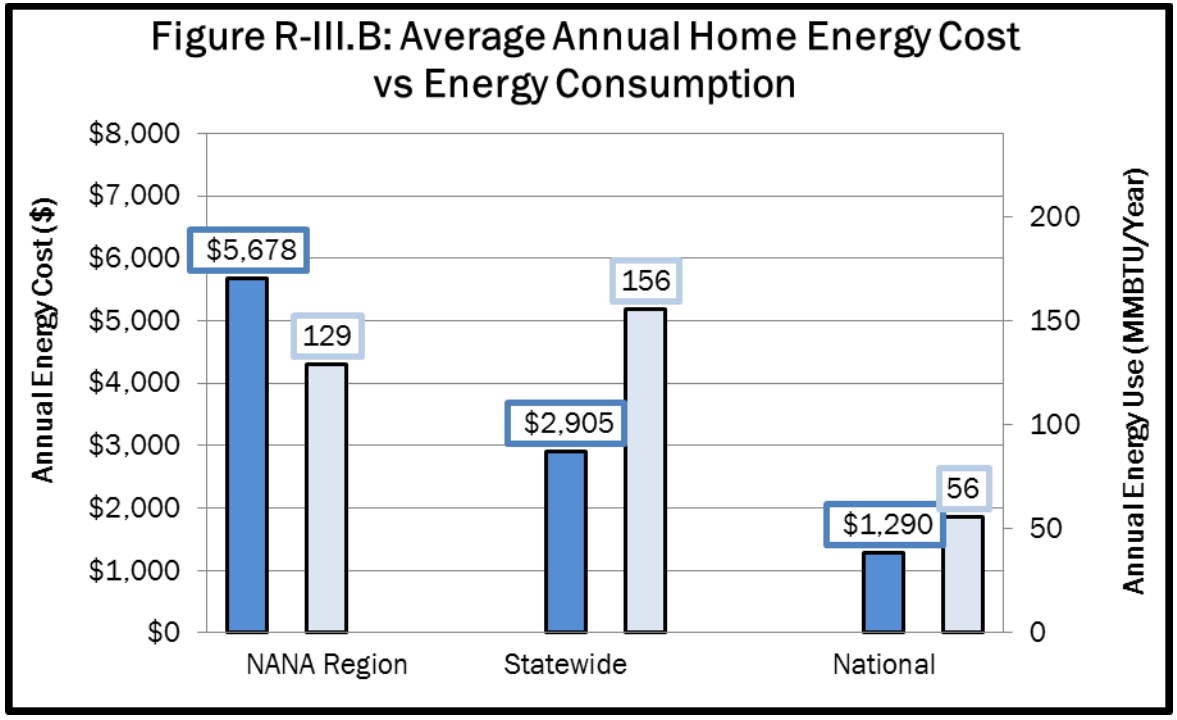
[18] See Appendix C: Methodology for details.

of dollars per million BTUs, for a single-family home in the NANA region averages $39.58, the highest in the state. This is 2.5 times the statewide average of $15.80 per million BTUs and 1.8 times the national average of $22.27 per million BTUs.

Multifamily units

Multifamily housing units in the NANA region consume an average of 129 million BTUs per year in energy, the sixth highest energy consumption in the state. This average annual energy consumption is 83 percent of the statewide average of 156 million BTUs and 1.4 times the national average.

Energy costs for multifamily housing units in the NANA region average $5,678 annually. This is the highest in the state. NANA energy costs are twice the statewide average and 4.4 times the national average.



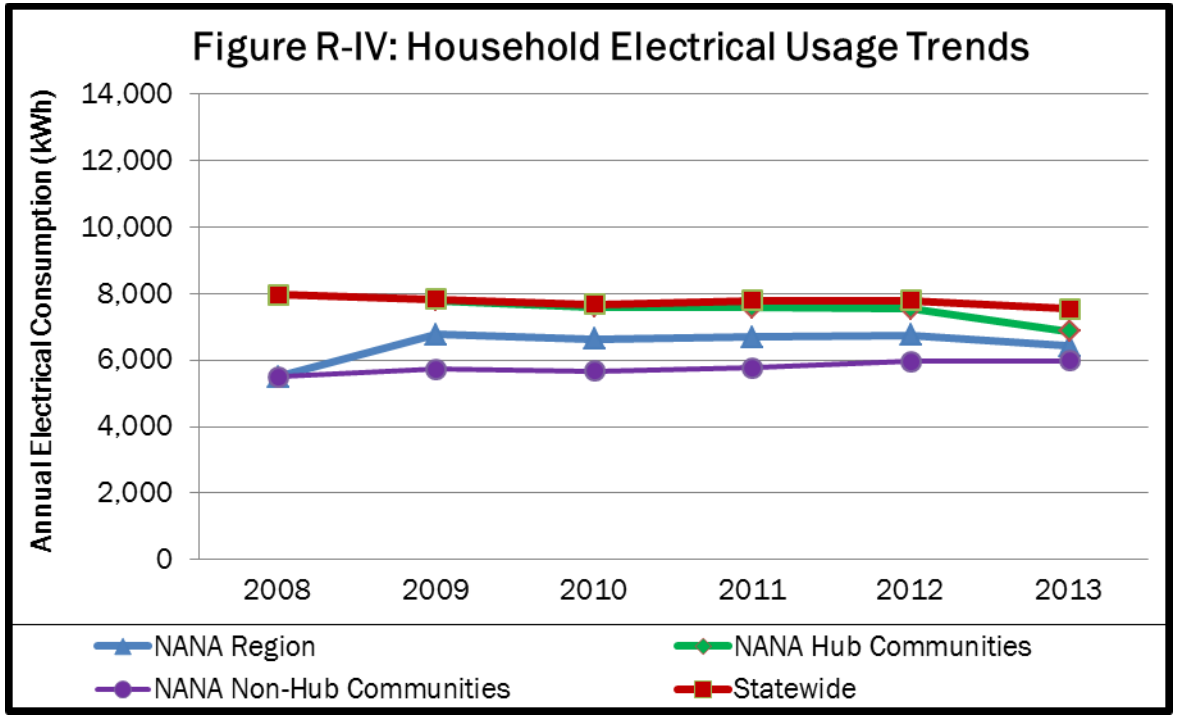
With an average footprint of 1,088 square feet, multifamily housing units in the NANA region are smaller than the statewide average of 1,284 square feet. Nationally the average unit in multifamily housing is 930 square feet.

The energy use intensity (EUI), or annual energy used per square foot for a unit in multifamily housing in the NANA region averages 114,052 BTUs per square foot, the sixth highest in the state. This is 89 percent of the statewide average of 128,000 BTUs per square foot and 1.9 times the national average. The energy cost index (ECI), or annual energy cost per square foot, for a unit in multifamily housing in the NANA region averages $5.22, the highest in the state. This is 2.3 times the statewide average of $2.27 per square foot and 3.8 times the national average of $1.39 per square foot.

The home heating index (HHI) in the NANA region for the average multifamily housing unit is 5.10 BTUs/ft2/HDD. This is the second lowest in the state. The HHI for the NANA region is 62 percent of the statewide average. The normalized cost of energy, in terms of dollars per million BTUs, for a unit in multifamily housing in the NANA region averages $38.21, the second highest in the state. This is three times the statewide average of $12.79 per million BTUs and 1.7 times the national average of $23.12 per million BTUs.

Regional Residential Electrical Use Trends[19]

In 2013 the average household in the NANA region consumed 6,430 kWh of electricity annually. This is approximately 17 percent more than in 2009. Hub communities in the region averaged 6,875 kWh per year. This is a decrease of 12 percent over the same period. In contrast, non-hub communities averaged 5,971 kWh in 2013, an increase of 9 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[20]

Approximately 224 (11 percent) of the occupied homes in the NANA region 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, an estimated 14,966 (6 percent) of occupied homes are 1-star homes.

Homes built before 1980 that have not been retrofit are potentially homes in need. Approximately 47 percent of all homes in the NANA region fit these two criteria. This is higher than the statewide average of 39 percent.

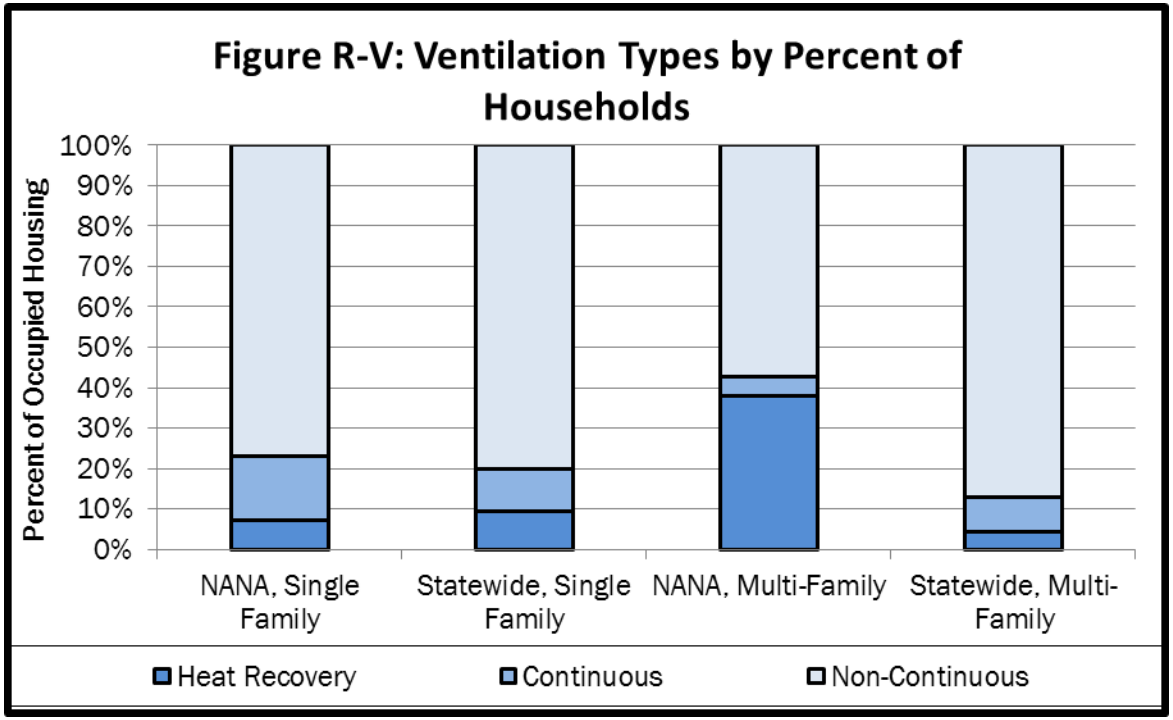
[19] Fay, G., Villalobos Melendez, A. & West. C. (2014). *Alaska Energy Statistics: 1960-2011*. UAA Institute of Social and Economic Research. Retrieved from: http://iser.uaa.alaska.edu/Publications/2013_12-AlaskaEnergyStatistics2011Report_Final_2014-04-30.pdf

[20] See Appendix C: Methodology for details.

Housing Condition [21]

Ventilation

Approximately 23 percent of the occupied homes in the NANA region have heat recovery or continuous mechanical ventilation systems installed. This is the sixth 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 NANA region has the fifth highest percentage of housing units in the state that are relatively airtight and lack continuous mechanical ventilation. Approximately 501 (25 percent) of the occupied homes in the NANA region are estimated to be at moderate risk, with 313 (16 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 735 (37 percent) of the occupied homes in the NANA region are estimated to be drafty, with 236 (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.

[21] See Appendix C: Methodology for details.