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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.



Valdez-Cordova Census Area Dashboard

Population: The Alaska Department of Labor and Workforce Development's current (2015) population estimate for the Valdez-Cordova census area is 9,529, a decrease of 7 percent from 2000.

Housing Units: There are currently 5,808 housing units in the Valdez-Cordova census area. Of these, 3,225 are occupied, 326 are for sale or rent, and the remaining 2,562 are seasonal or otherwise vacant units.

Energy and Energy Costs: The average home in the Valdez-Cordova census area is 1,838 square feet and uses 227 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 Valdez-Cordova census area is \$5,383. This is approximately 1.3 times the statewide average and 2.3 times the national average.

Overcrowding: An estimated 161 (5 percent) of occupied units are either overcrowded (3 percent) or severely overcrowded (2 percent). This is nearly twice the national average, and makes this census area the 11th least overcrowded census area in the state.

Drafty Homes and Ventilation: Approximately 1,697 (54 percent) of occupied homes in the Valdez-Cordova 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 1,477 occupied housing units (47 percent) in the Valdez-Cordova census area that are relatively airtight and lack a continuous ventilation system. These homes are at higher risk issues with moisture and indoor air quality.

Affordability: On average, approximately 633 (20 percent) of households in the Valdez-Cordova 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 57 beds in senior housing facilities in the Valdez-Cordova census area. Currently the Alaska Department of Labor and Workforce Development estimates there are 987 seniors in the census area and projects an increase to 2,021 by 2030.

Housing Issues: There are an estimated 2,018 homes built before the 1980s in the Valdez-Cordova census area that have not been retrofitted through a state program in the past 10 years. Approximately 164 (5 percent) homes in the Valdez-Cordova census area lack complete kitchens and approximately 166 (5 percent) lack complete bathrooms.



Valdez-Cordova Census Area Housing Need Highlights

With population projected to decline slightly over the next decade and a relatively low rate of overcrowding, the Valdez-Cordova census area appears to have adequate available housing units; however, no registered assisted-living facilities for seniors exist, and this population is projected to more than double by 2030.¹

Housing Gap: The population of the Valdez-Cordova census area is projected to decrease slightly in the coming years.² If the rate of construction remains the same as in the previous five years, it will be sufficient to provide one additional unit per currently overcrowded household. Rather than increasing the overall rate of new construction, effort is likely better spent trying to increase the number of affordable housing units and meeting specific housing needs such as the need for senior housing facilities.

Affordable Housing Need: An estimated 20 percent of housing units in the Valdez-Cordova census area are cost-burdened, which is lower than the statewide average.³ Housing affordability for renters is particularly challenging, with renter households needing to work 58 hours per week at jobs paying the average renter wage in order to afford a two-bedroom rental unit at fair market rent.⁴ This number could increase because home prices are rising faster than surrounding areas, and the census areas has one of the highest property tax rates in Alaska,

In Valdez there is a large need for quality, affordable housing units. According to the *Valdez Socioeconomic Baseline Indicators* study, more than one-quarter of the housing stock (28 percent) are mobile homes, much higher than the statewide average of 5 percent.⁵ The authors of this study state that "this leaves a large proportion of the population vulnerable to energy inefficient aging structures...."

¹ Hunsinger, Eddie, Sandberg, E., & Brooks, L. (2016). Alaska Population Projections 2015 to 2045. Alaska Department of Labor and Workforce Development, Research and Analysis Section.

² Hunsinger, Eddie, Sandberg, E., & Brooks, L. (2016). Alaska Population Projections 2015 to 2045. Alaska Department of Labor and Workforce Development, Research and Analysis Section.

³ U.S. Census Bureau. (2016). American Community Survey, 2010–2014 American Community Survey Five-year Estimates.

⁴ 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

⁵ Sheinberg Associates, & McDowell Group. (2015). *Valdez Socioeconomic Baseline Indicators*. Retrieved from http://www.ci.valdez.ak.us/DocumentCenter/View/3172



Senior Housing Needs: There are 57 beds in senior housing facilities in the Valdez-Cordova census area, with none registered as assisted-living facilities.⁶ The current senior population of 987 is projected to more than double by 2030.⁷ Increasing available senior housing could ensure adequate assisted and independent living facilities for the projected population.

Retrofit Needs: The Valdez-Cordova census area has an aging housing stock, with an estimated 51 percent of homes being built before 1980 without a recent energy retrofit, higher than the statewide average of 39 percent.⁸ These homes have potential for an energy retrofit to increase occupant comfort and decrease energy use, with the estimated 10 percent of occupied homes that are 1-star likely being the most cost-effective retrofits to undertake. These retrofits should prioritize reducing draftiness while maintaining indoor air quality because an estimated 54 percent of housing units are drafty.

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

⁷ Hunsinger, Eddie, Sandberg, E., & Brooks, L. (2016). Alaska Population Projections 2015 to 2045. Alaska Department of Labor and Workforce Development, Research and Analysis Section.

⁸ See Appendix C: Methodology for details.



Valdez-Cordova Census Area Summary

Community

The Valdez-Cordova census area sits in the eastern corner of mainland Alaska, at the junction of Southcentral Alaska, Canada and the Southeast panhandle. Its northern communities are in the Ahtna Native Corporation ANCSA region and the southern, coastal part of the census area lies in the Chugach Native Corporation ANCSA region. The average home size in the census area is 1,781 square feet.

The ratio of dependents, including those under 16 and over 65, relative to the working age population in the Valdez-Cordova census area is lower than the statewide average and lower than the national ratio. The Valdez-Cordova 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 Valdez-Cordova census area region is projected to see the ratio of senior age dependents to working age dependents increase by 2.7 times by 2030.

There are an estimated 57 dedicated beds in senior housing in the Valdez-Cordova census area, with none of those dedicated to assisted care living. ¹⁰ Currently the Alaska Department of Labor and Workforce Development estimates there are 987 seniors in the census area and projects that there will be 2,021 senior citizens by 2030. ¹¹ In the Valdez-Cordova census area no senior citizens are in 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. ¹²

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.

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

¹⁰ AHFC Senior Housing Office. (2016). *Inventory List: Independent Living Homes/Facilities*. Revised 5/02/2016. Retrieved from https://www.ahfc.us/senior-support/

¹¹ Hunsinger, Eddie, Sandberg, E., & Brooks, L. (2016). "Alaska Population Projections 2015 to 2045." Alaska Department of Labor and Workforce Development, Research and Analysis Section.

¹² 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.



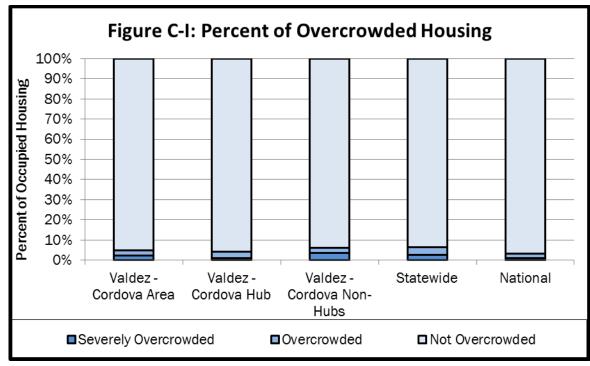
Comparison of the growth rates in the senior age (65+) segment of the population to the dependent age (0 - 15) population indicate that in the Valdez-Cordova census area region the primary pressure for new housing over the next 15 years will come from households with elderly people.



Overcrowding¹³

The Valdez-Cordova census area is the 11th least overcrowded census area in Alaska. Approximately 5 percent of households are overcrowded in the census area as a whole. The rate of overcrowding in the Valdez-Cordova census area is nearly 78 percent of the statewide average (6.4 percent) and approximately 1.5 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 Valdez-Cordova census area average nearly twice the overcrowding rate of the hub community, with approximately 6 percent of households overcrowded compared to the hub community's 4 percent. Further, 3.7 percent of non-hub community households are severely overcrowded. This is 3.7 times more than the national average.

Approximately 5 percent of housing units in the Valdez-Cordova census area are available for sale or rent. The percentage of units for sale or rent in the non-hub communities (7 percent) is more than in the hub communities (5 percent). Additionally, 42 percent of housing units in the Valdez-Cordova census area are considered vacant because they are used for seasonal, recreational or other non-year-round purposes.

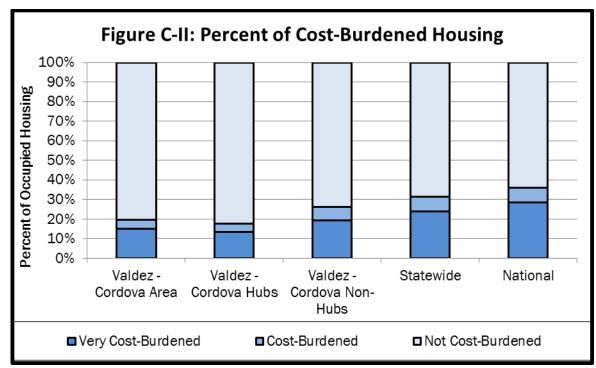
¹³ U.S. Census Bureau. (2016). American Community Survey, 2010-2014 American Community Survey Five-year Estimates.



Affordability14

According to estimates from the U.S. Census American Community Survey (ACS), 20 percent of households in the Valdez-Cordova 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 (26 percent) of households that are cost-burdened than the hub communities of Valdez and Cordova (18 percent). The rate of cost-burdened households in the Valdez-Cordova census area is 55 percent of the national average (36 percent).

The median household income in the Valdez-Cordova census area is \$81,736. This is higher than the



statewide median of \$71,829. The national median is \$53,482.

¹⁴ U.S. Census Bureau. (2016). American Community Survey, 2010-2014 American Community Survey Five-year Estimates.

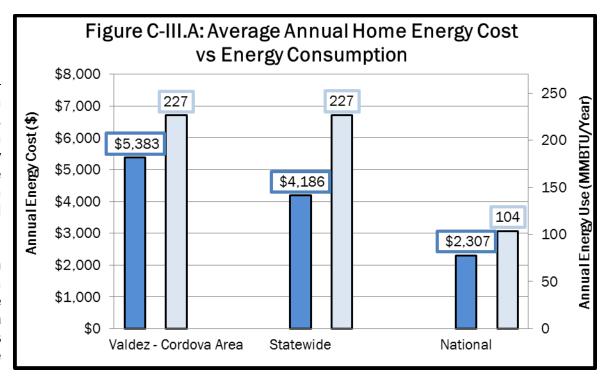


Energy¹⁵

Single-family Units

Single-family homes in the Valdez-Cordova census area consume an average of 227 million BTUs per year, the fifth highest energy consumption in the state. This average annual energy consumption is approximately the same as the statewide average of 227 million BTUs and 2.2 times the national average.

Energy costs for single-family homes in the Valdez-Cordova census area average \$5,383 annually. This is the fifth highest in the state. Valdez-Cordova census area energy costs are 1.3 times the statewide average and 2.3 times the national average.



With an average footprint of 1,838 square feet, single-family homes in the Valdez-Cordova 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 Valdez-Cordova census area averages 140,000 BTUs per square foot, the 11th highest in the state. This is 1.1 times the statewide average of 128,000 BTUs per square foot and 3.3 times the national average. The energy cost index (ECI), or annual energy cost per square foot, for a single-family home in the Valdez-Cordova census area averages \$2.93, the 14th highest in the state. This is 1.3 times the statewide average of \$2.31 per square foot and 3.1 times the national average of \$0.95 per square foot.

The home heating index (HHI) in the Valdez-Cordova census area for the average single-family home is 9.99 BTUs/ft²/HDD. This is the ninth highest in the state. The HHI for the Valdez-Cordova census area is higher than the statewide average of 8.83

¹⁵ See Appendix C: Methodology for details.



BTU/ft²/HDD. The normalized cost of energy, in terms of dollars per million BTUs, for a single-family home in the Valdez-Cordova census area averages \$20.47, the 11th lowest in the state. This is 1.3 times the statewide average of \$15.80 per million BTUs and 92 percent of the national average of \$22.27 per million BTUs.



Multifamily Units

Multifamily housing units in the Valdez-Cordova census area consume an average of 155 million BTUs per year, the fifth highest energy consumption in the state. This average annual energy consumption is 99 percent of the statewide average of 156 million BTUs and 2.2 times the national average.

Energy costs for multifamily housing units in the Valdez-Cordova census area average \$3,820 annually. This is the seventh highest in the state. Valdez-Cordova census area energy costs are 1.3 times the statewide average and three times the national average.

With an average footprint of 1,449 square feet, multifamily housing units in

Figure C-III.B: Average Annual Home Energy Cost vs Energy Consumption \$8.000 Annual Energy Use (MMBTU/Year) \$7,000 200 \$6,000 156 155 \$5.000 150 \$4,000 \$3,820 \$2,905 100 \$3,000 56 \$2,000 \$1,290 50 \$1.000 \$0 Valdez - Cordova Area Statewide National

the Valdez-Cordova 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 Valdez-Cordova census area averages 109,000 BTUs per square foot, the 14th highest in the state. This is 85 percent of the statewide average of 128,000 BTUs per square foot and 1.8 times the national average. The energy cost index (ECI), or annual energy cost per square foot, for a multifamily housing unit in the Valdez-Cordova census area averages \$2.64, the 13th lowest in the state. This is 1.2 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 Valdez-Cordova census area for the average multifamily housing unit is 7.23 BTUs/ft²/HDD. This is the 15th highest in the state. The HHI for the Valdez-Cordova census area is lower than the statewide average of 8.28 BTU/ft²/HDD. The normalized cost of energy, in terms of dollars per million BTUs, for a unit in multifamily housing in the Valdez-



Cordova census area averages \$19.76, the 12th 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.

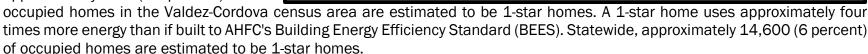


Historical Household Electricity Usage¹⁶

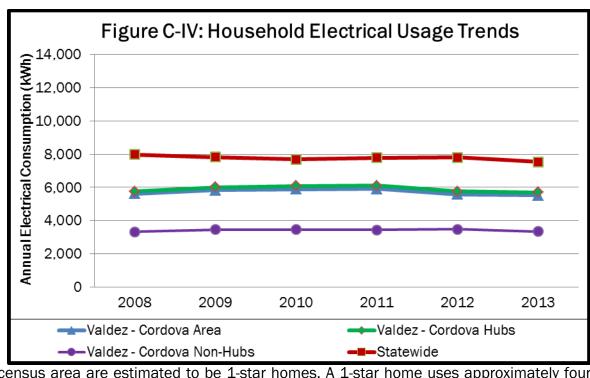
In 2013 the average household in the Valdez-Cordova census area consumed 5,526 kWh of electricity annually. This is approximately the same as in 2008. Hub communities in the census area averaged 5,708 kWh per year. This is remains approximately the same over the same period. In contrast, non-hub communities averaged 3,349 kWh in 2013, remains approximately the same since 2008. Statewide, the average household consumed 7,540 kWh of electricity in 2013, a decrease of 5 percent since 2008.



Approximately 327 (10 percent) of the



Older homes built before 1980 that have not been retrofitted are potentially homes in need. Approximately 51 percent of all homes in the Valdez-Cordova census area fit these two criteria, higher than the statewide average of 39 percent.



¹⁶ 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

¹⁷ See Appendix C: Methodology for details.



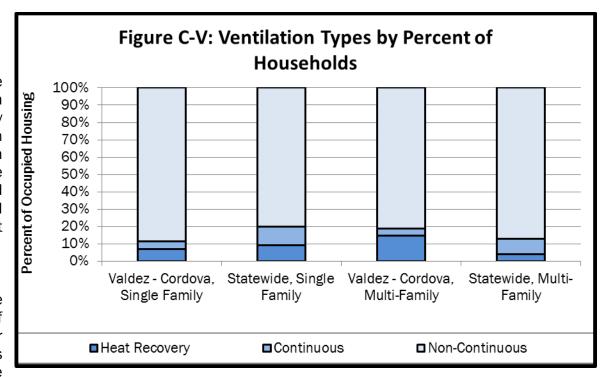
Housing Condition 18

Ventilation

Approximately 12 percent of the occupied homes in the Valdez-Cordova census area region have heat recovery or continuous mechanical ventilation systems installed. This is the seventh 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 Valdez-Cordova census area has the eighth highest percentage



of housing units in the state that are both relatively airtight and lack continuous mechanical ventilation. Approximately 827 (26 percent) of the occupied homes in the Valdez-Cordova census area are estimated to be at moderate risk, with 702 (22 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 911 (28 percent) of the occupied homes in the Valdez-Cordova census area are estimated to be drafty, with 836 (26 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.

¹⁸ See Appendix C: Methodology for details.

