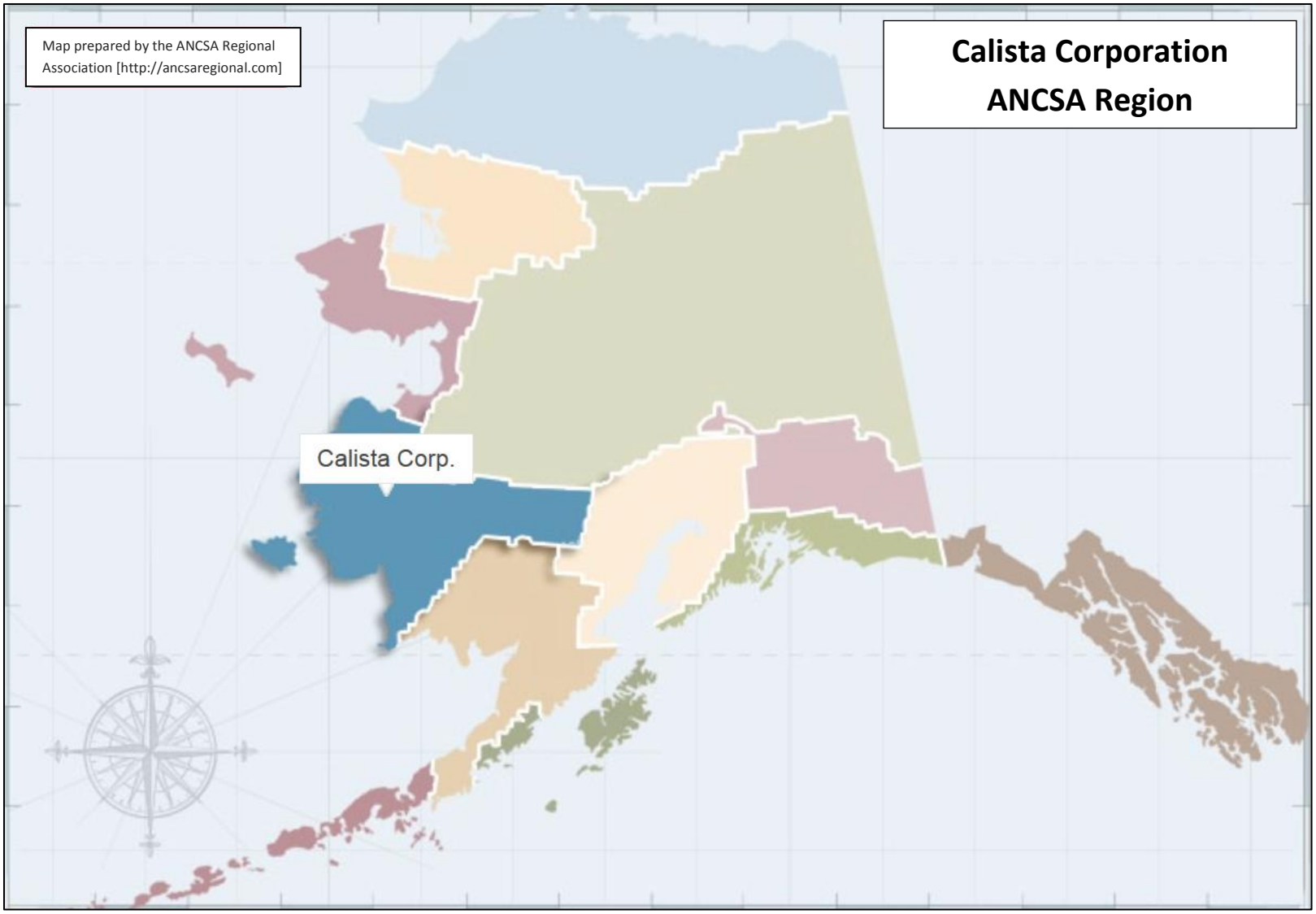

Map prepared by the ANCSA Regional Association [http://ancsaregional.com]
Calista Corporation
ANCSA Region
Calista Corp.

Table of Contents

Calista Corporation Dashboard[1]

Population: The Alaska Department of Labor and Workforce Development's current (2012) population estimate for the Calista ANCSA region is 25,295, an increase of 10% from 2000.

Housing Units: There are currently 8,042 housing units in the Calista ANCSA region. Of these, 6,009 are occupied, 375 vacant units are for sale or rent, and the remaining 1,658 are seasonal or otherwise vacant units (Profile Figure R6).

Energy: The average home in the Calista ANCSA region is 875 square feet and uses 167,000 BTUs of energy per square foot annually. This is 22% more than the statewide average of 137,000 BTUs per square foot per year.

Energy Costs: Using AKWarm estimates, average annual energy cost for homes in the Calista ANCSA region is $6,240, approximately 2.2 times more than the cost in Anchorage, and 2.9 times more than the national average (Profile Figure R13).

Energy Programs: Approximately 17% of the occupied housing in the Calista ANCSA region have completed either the Home Energy Rebate or Weatherization programs, or have received BEES certification since 2008, compared to 21% statewide (Profile Figure R12).

Housing Quality: Within current housing stock, newer homes have better energy performance. On average, homes built in the 1940s are currently rated at 1-star on average compared to a current average rating of 3-star-plus for homes built after 2000.

Air-tightness: Within current housing stock, newer homes are tighter. On average, homes built in the last decade very nearly meet the 2012 BEES standard of 4 air-changes per hour at 50 Pascals (ACH50). In contrast, homes built in the 1960s are 2.5 times leakier than those built since 2000 (Profile Figure R7).

Ventilation: An estimated 1,481 occupied housing units (or 25%) in the Calista ANCSA region are relatively air-tight and lack a continuous ventilation system. These houses are at higher risk of moisture and indoor air quality-related issues (Profile Figures R9-R10).

Overcrowding: Forty percent of occupied units are estimated to be either overcrowded (17%) or severely overcrowded (23%). This is roughly 13 times the national average and makes the Calista region the most overcrowded ANCSA region in the state.

Affordability: According to American Community Survey (ACS) data, approximately 19% of households in the Calista region spend 30% or more of total income on reported housing costs, including rent, water and sewer utilities, and energy costs. Using AKWarm estimates, the average annual energy costs constitute approximately 13% of census median area income for occupied housing.

[1] Figures referenced in the Dashboard are located in the ANCSA Region profile.

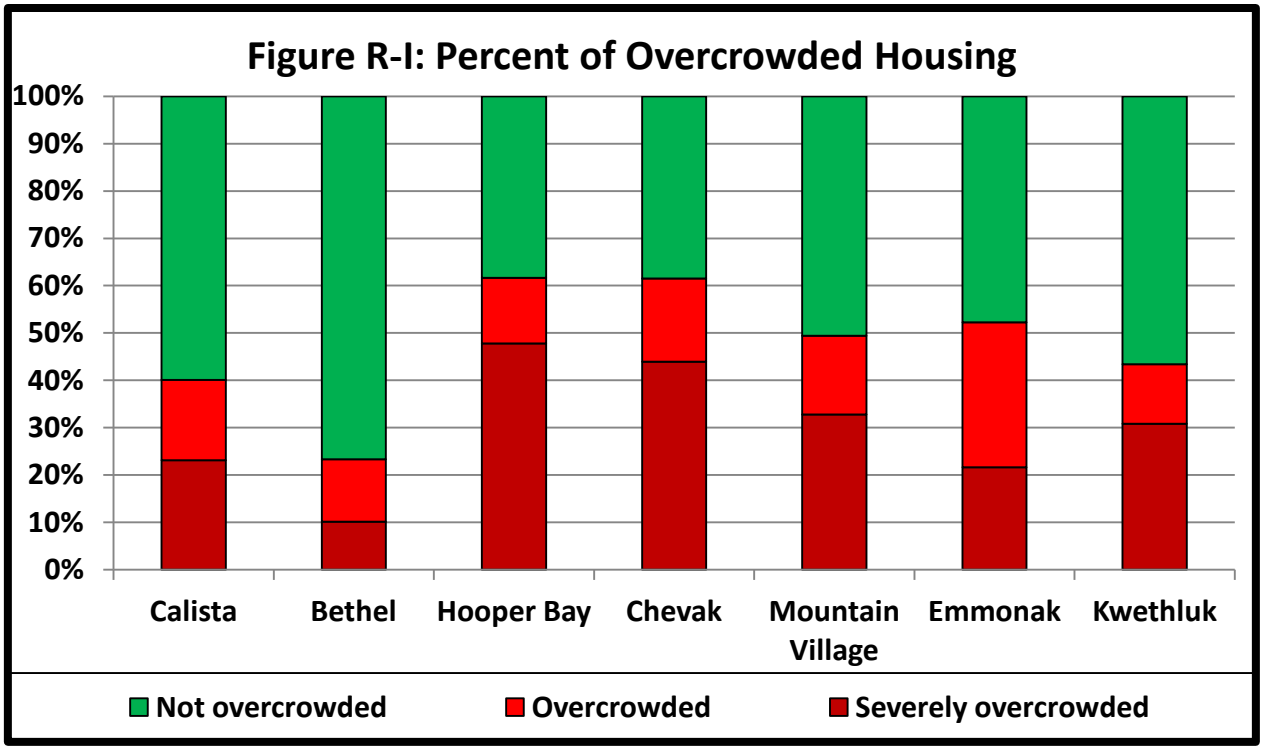
Calista Corporation Summary

Community

The Calista Corporation region is located in the southwest corner of mainland Alaska directly north of the Bristol Bay region. The average home size of 875 square feet in the Calista region is the smallest of any region in the state. This is less than half the average size of homes in the Doyon, Chugach, or Cook Inlet regions. Average home sizes in communities in Calista range from a low of 679 square feet in Hooper Bay to a high of 1,237 square feet in Bethel.

Overcrowding

The Calista region has the highest percentage of overcrowded housing units of any ANCSA region in Alaska, with 40% of homes with more than one person per room. Overcrowding in the region varies widely by community from an estimated 0 overcrowded households in Lime Village to 79% of housing units in Newtok. Considering only the six most populous communities (Figure R-I) overcrowding rates vary between 23% and 62% of homes considered overcrowded.

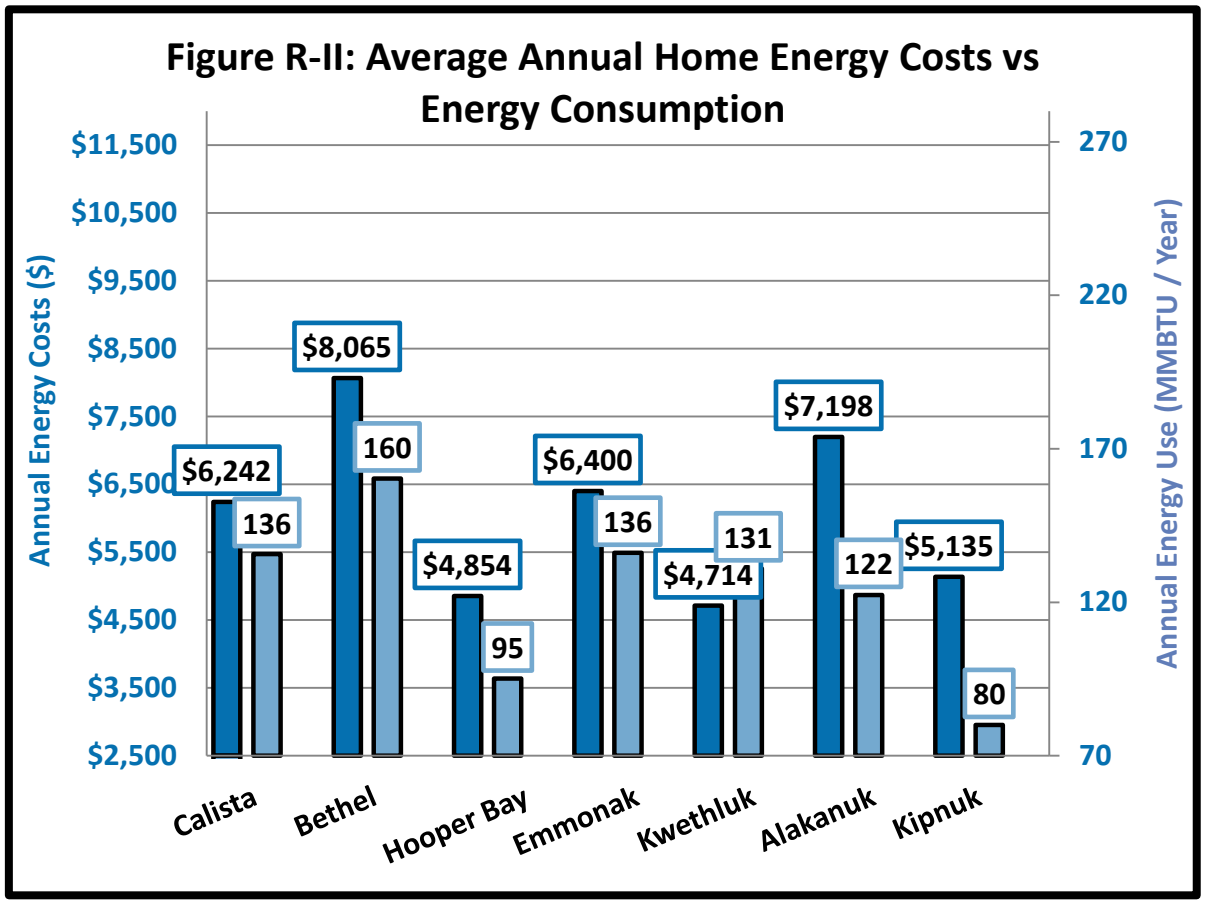


Approximately 5% of housing in the region is vacant and available for sale or rent. There is some variation in housing availability at the community level from a low of an estimated no available housing in Hooper Bay to a high of 8% of housing in Stony River available for sale or rent.

Energy[2]

Households in the Calista region pay an average of $6,242 in annual energy costs (Figure R-II). The figure also shows the average annual energy costs for the six largest communities in the region[3], though the lowest and highest average annual energy costs are found in smaller communities. Residents of Nightmute pay the lowest average annual energy costs in the region, $3,541, and residents of Nunapitchuk pay the highest average annual energy costs of $11,408.

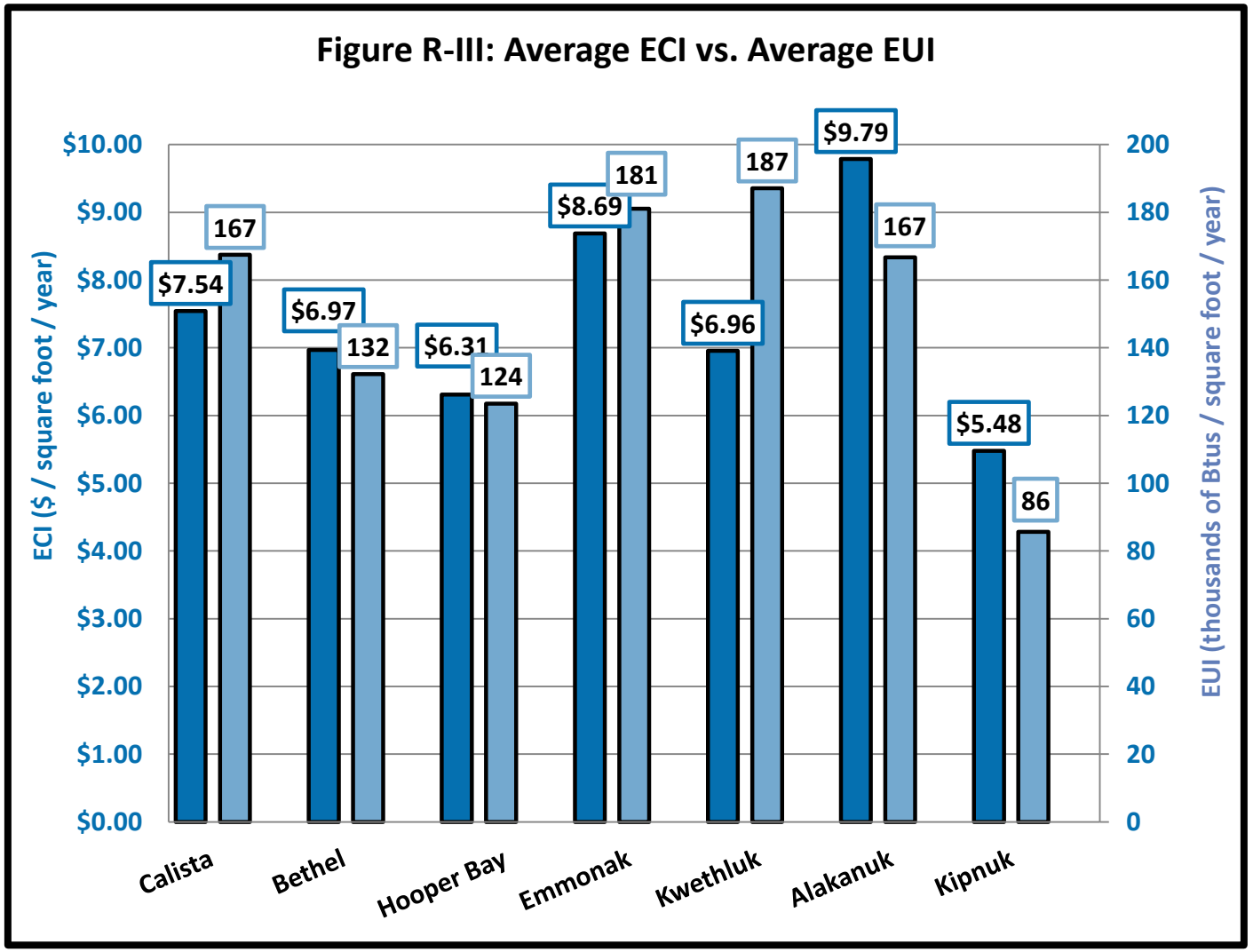
The Calista region's average annual energy use of 136 million BTUs is fairly close to the statewide average. Kipnuk has the lowest average annual energy use of the six most populous communities in the region at 80 million BTUs, and Bethel has the highest at 160 million BTUs per year.



[2] Regional data appearing in this section is based on communities with sufficient levels of ARIS data, so not all communities were included in the analysis.
[3] Only communities with sufficient data for reporting are included in Figure R-II.

The Calista region has the fourth highest energy use per square foot[4] of any ANCSA region in the state at approximately 168 kBTUs/ft^2. The Calista region also has the third highest energy cost per square foot[5] of any of the state's ANCSA region at $7.54/ft^2. Figure R-III shows the energy use and cost per square foot for each of the six most populous communities in the region. The small average home size in the region keeps the total annual energy cost lower than many other ANCSA regions.

Home heating indices in the region span a wide range among communities with



[4] Energy use per square foot is also known as Energy Use Intensity, or EUI and is given in kBtus per square foot, per year.
[5] Energy cost per square foot is also known as the Energy Cost Index, or ECI and is given in dollars per square foot, per year.

sufficient energy data for analysis. The highest average home heating index (19.8 BTUs/ft^2/HDD) is found in the community of Sleetmute, and the lowest average home heating index (4.8) is found in the community of Kipnuk.

Understanding the variations between communities participating in energy efficiency programs is essential to targeting work and resource allocation in the region. Approximately 20% of housing units in the Calista region as a whole have completed the AHFC Home Energy Rebate or Weatherization program or have been certified to meet BEES since 2008. There has been very little participation in the AHFC Home Energy Rebate Program (Figure R-IV), with approximately 1% of homes completing that particular efficiency program in the region. Participation is higher in the Weatherization program, with an estimated 15% of homes completing a Weatherization retrofit. Additionally, 4% of homes in the region have been to meet BEES, Hooper bay has had the most housing units certified to meet BEES, at 18%. Participation in energy programs differs by community. An estimated 0 homes in Chevak have completed one of the programs while approximately 75% of housing units in Oscarville have participated in an AHFC energy program.

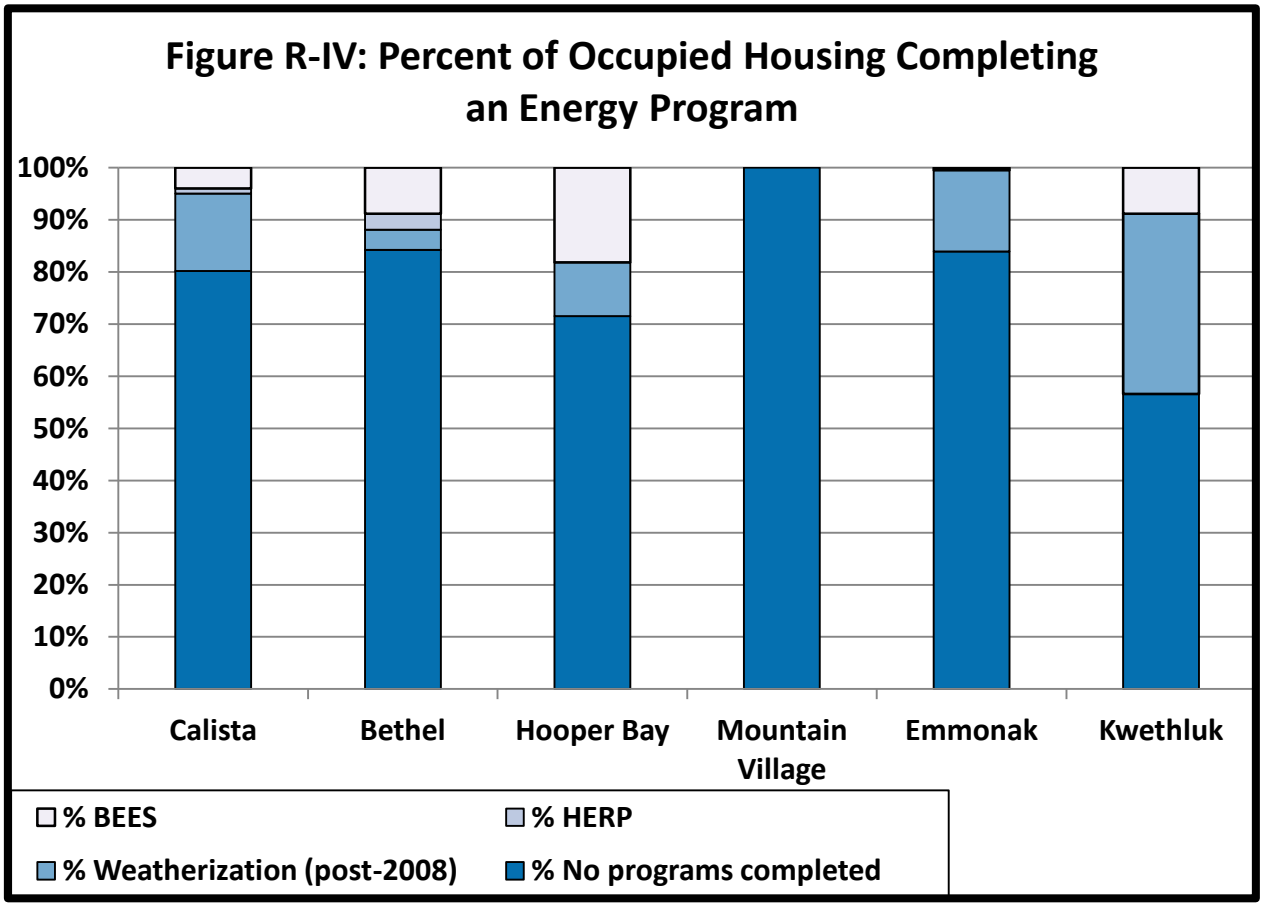
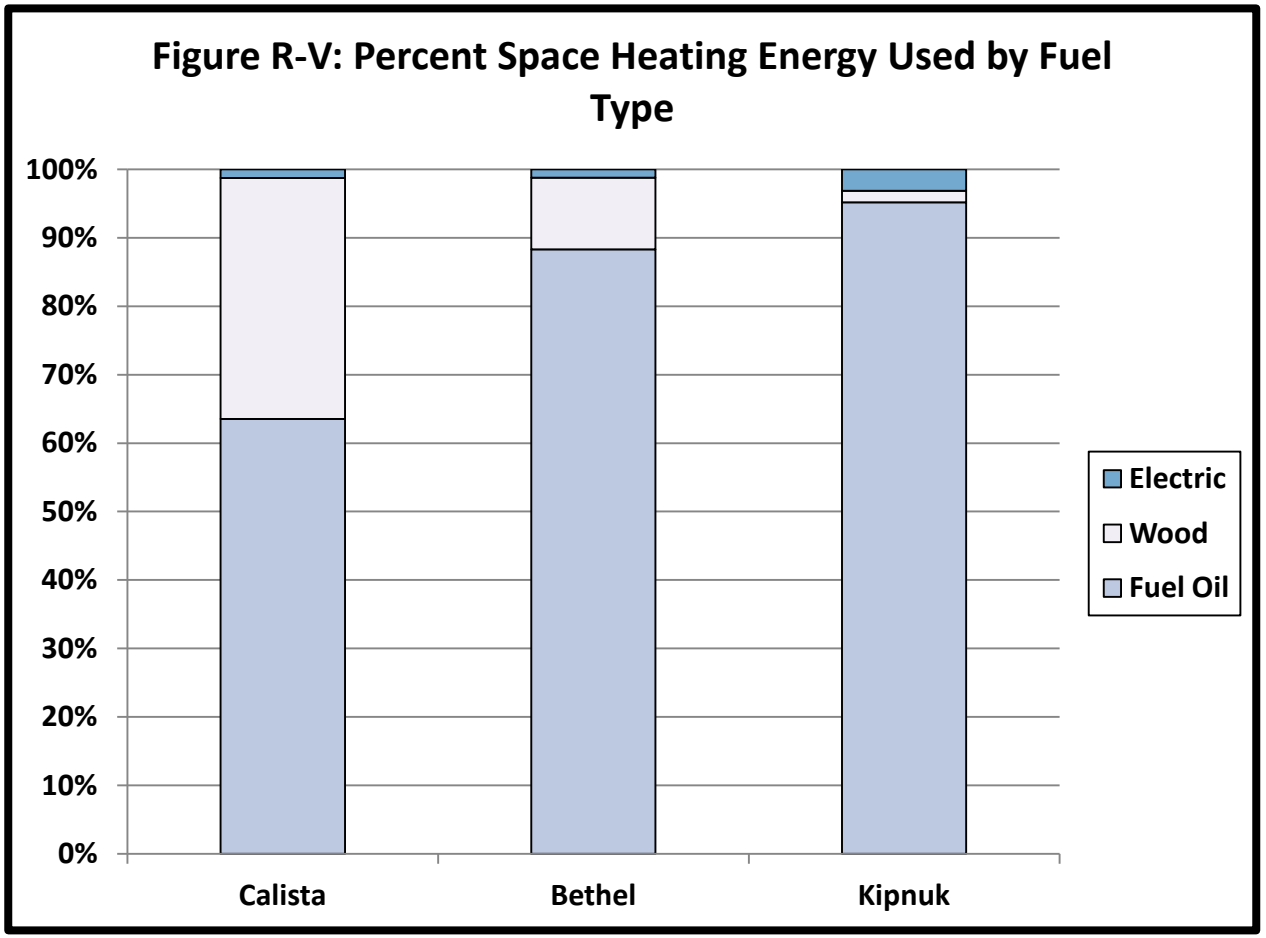
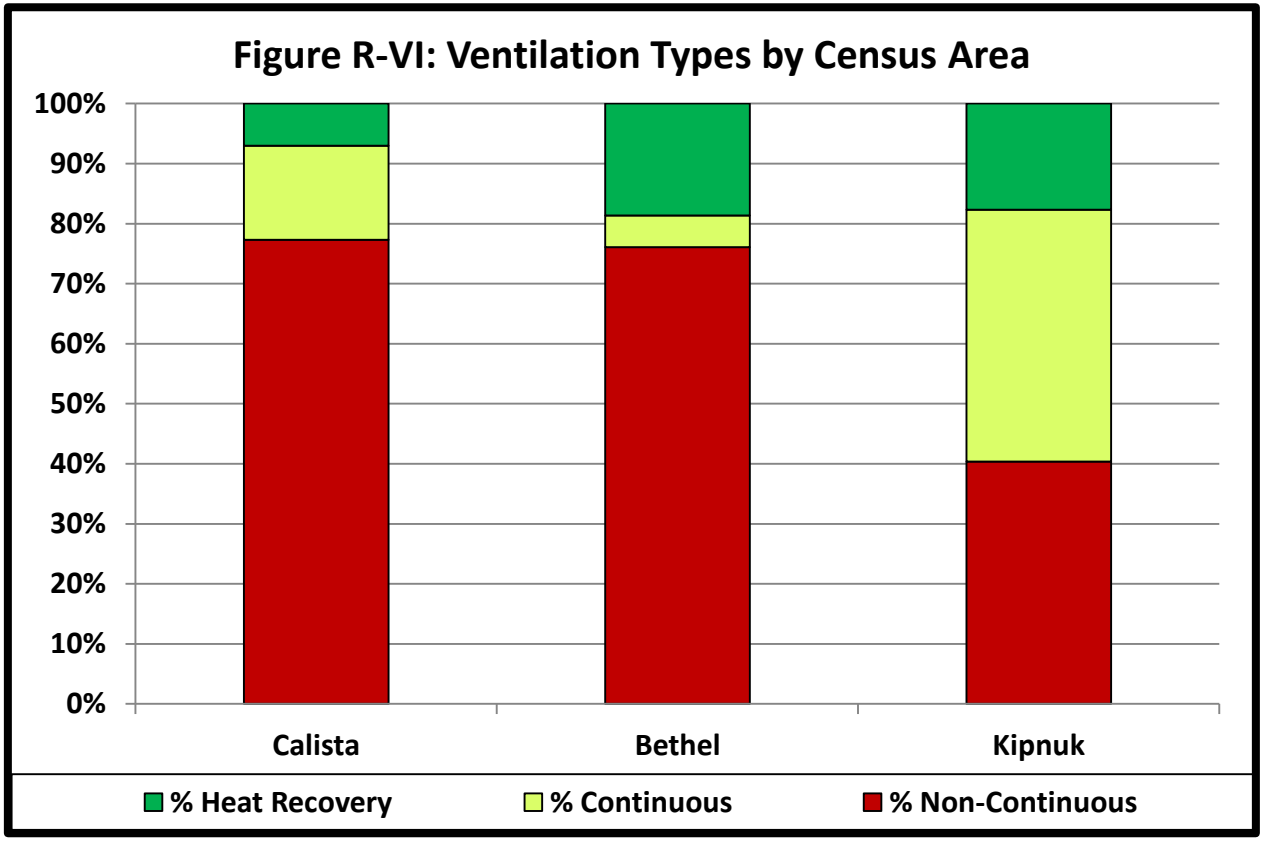


Figure R-V gives the fuel types used for space heating in the Calista region. The primary fuel source is fuel oil, which provides 63% of the region's space heating needs. Wood is also used for a significant percentage of space heating (35%). However, fuel types differ by community. For example, residents of Bethel use wood for only 10% of space heating needs, and residents of Kipnuk use a smaller percentage of wood, relying instead on fuel oil for 95% of space heating energy.

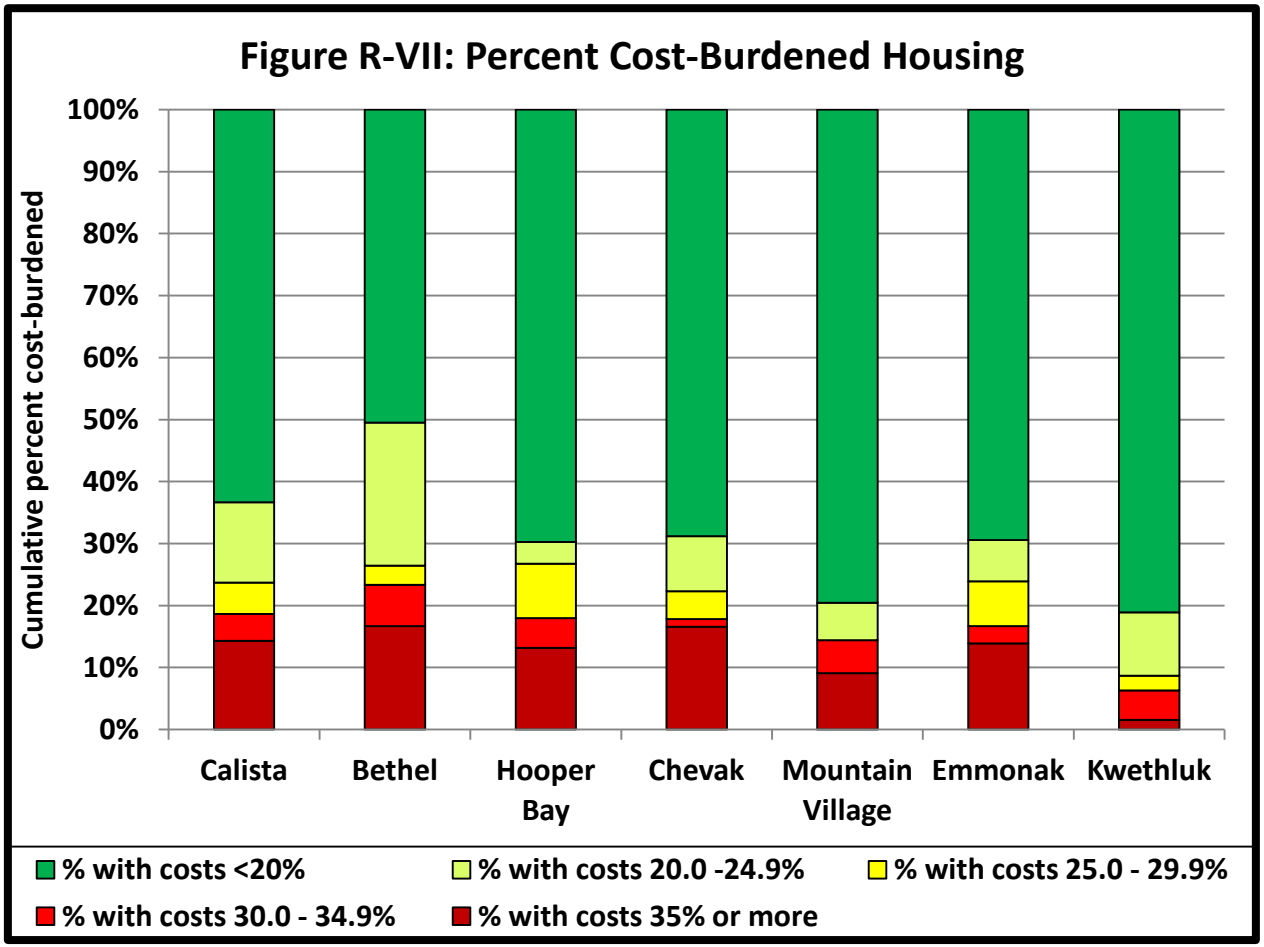


Approximately 23% of homes in the Calista region have heat recovery or continuous mechanical ventilation systems installed. This is the second highest percentage of housing units in the state with continuous mechanical ventilation, with or without heat recovery. Figure R-VI shows that the community of Bethel has a similar percentage of housing units (21%) with continuous mechanical ventilation. The community of Kipnuk has the highest rate of installed continuous ventilation with 60% of housing units having either heat recovery or continuous ventilation. The Calista region has the lowest percentage of housing units that are relatively air-tight and lacking continuous mechanical ventilation in the state, with only 25% of housing units falling into this category. Air-tight homes without ventilation are at a higher risk of moisture and indoor air quality-related issues.



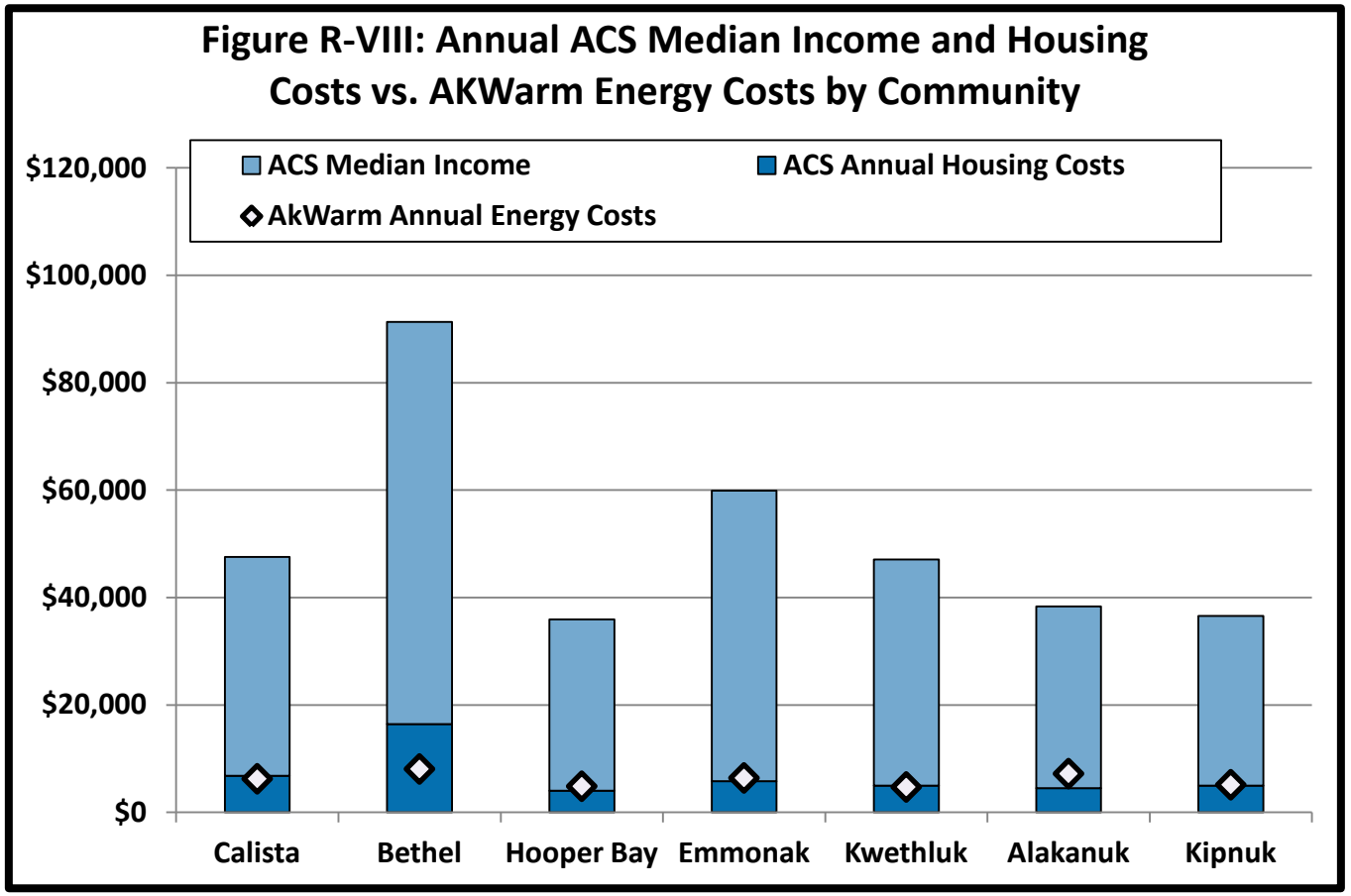
Affordability

According to ACS estimates, approximately 19% of households in the Calista region are considered cost-burdened, spending 30% or more of household income on housing costs.[6] Figure R-VII shows the percent of cost-burdened households in the six most populous communities in the region, ranging from 6% in Kwethluk to 23% in the Bethel. At 19%, the Calista region is the second-lowest percentage of cost-burdened households of the state's ANCSA regions. There is a wider range of affordability outside those six communities, from a low of 4% of households in Nunapitchuk considered cost-burdened to a high of 60% of households in Platinum.



[6] CCHRC's analysis of ACS energy costs indicate that there are systematic underestimations for rural Alaska, which suggests that ACS-based cost burdened housing estimates are low. See Appendix A, "American Community Survey Energy Cost Estimates" for more details.

Figure R-VIII gives the median household income for the Calista region and its six most populous communities, alongside housing and energy costs.[6] Regional median household income is approximately $47,551. Across all communities in the region, median household incomes range from $11,250 in Platinum to $91,302 in Bethel. Considering only the region's six most populous communities, the median income levels range from $35,938 in Hooper Bay to $91,302 in Bethel.



Community, Regional, and Statewide Housing Characteristics

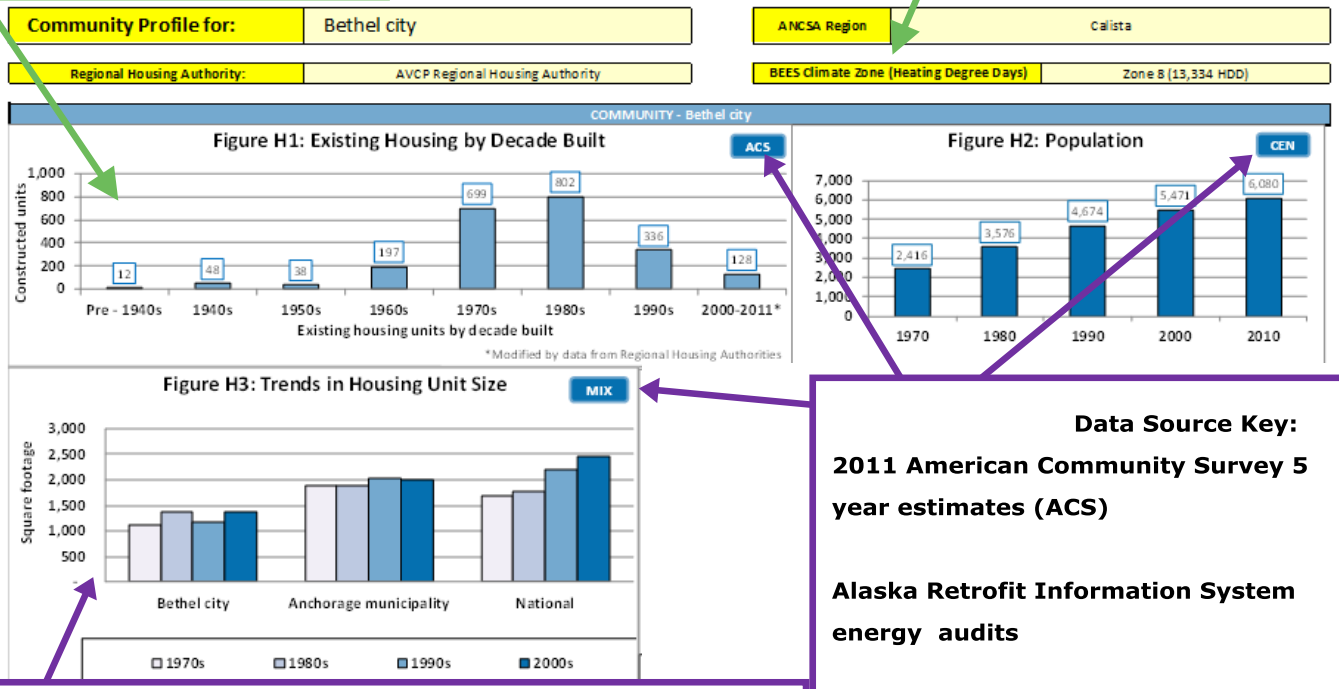
This ANCSA region summary only includes the highlights of housing characteristics at the ANCSA regional level. A detailed data profile with charts and tables for this region follows. The 2014 Alaska Housing Assessment provides a significant amount of data and analysis at statewide, ANCSA region, census area, and community levels. This assessment provides a statewide analysis of housing characteristics, how they compare to national numbers, and the estimated housing needs. Within the 2014 Alaska Housing Assessment, written summaries are available for each individual ANCSA region and census area, and data profiles are available for each community and census area characterizing the housing stock from the perspective of community, overcrowding, energy and affordability. These different tiers of information and analysis allow researchers, housing authorities, policymakers and others to generate answers to specific questions. For a detailed discussion of estimating housing need and comparison of methods to previous Housing Assessments, see Appendix B, "Statewide Need Assessment" of the 2014 Alaska Housing Assessment.

How to Interpret the Profile: Data Sources, Definitions & Clarifications

1

This graph show the breakdown of *current* housing stock by the decade in which the housing units were built. It does *not* show trends over time.

The Alaska Building Energy Efficiency Standard (BEES) was established by AHFC for the State of Alaska to promote the construction of energy efficient buildings. The standards for specific building components are divided into four climate zones, from Zone 6 in Southeast AK to Zone 9 on the North Slope.



Data Source Key:

2011 American Community Survey 5 year estimates (ACS) — ACS

Alaska Retrofit Information System energy audits — ARIS

2010 Decennial Census — CEN

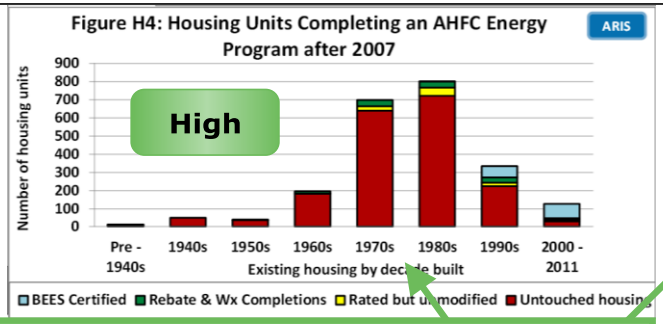
Mixed data source; see individual graphs for details. — MIX

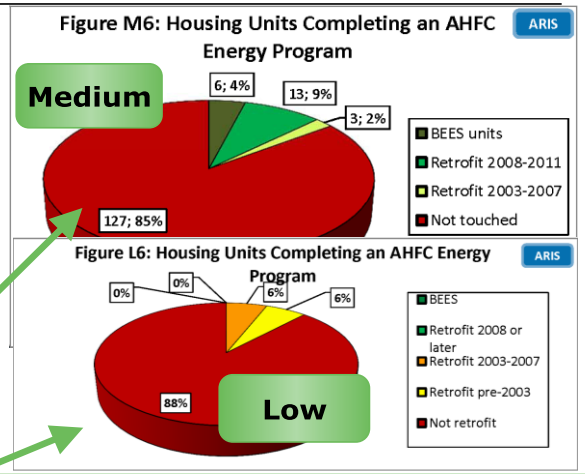
Data Sources: National trends come from the 2009 Residential Energy Consumption Statistics published by the U.S. Energy Information Administration. Anchorage and census area data come from the Alaska Retrofit Information System.

How to Interpret the Profile: Data Sources, Definitions & Clarifications

1

Energy program activity within communities with high, medium and low amounts of ARIS data available. (See p.7 of "How to Interpret" for detail on data levels).





Communities - AHFC Energy Program Activity

High Data - Reported by decade built for the housing units.

Medium Data - Reported by percent of total housing units touched.

Low Data - Have few or no post-2008 Weatherization/Rebate completions or BEES certifications in the ARIS database.

- **PCE = Power Cost Equalization**
- **Average Annual Energy Cost with PCE: The cost to the household after it has been lowered by the PCE subsidy.**
- **Without PCE: The actual energy cost, including the amount paid by the State for PCE.**

American Community Survey (ACS) Data:

Complete Plumbing: Includes hot & cold running water, a flush toilet, and a bathtub or shower within the home.

Complete Kitchen: Includes a sink with a faucet, a stove/ range, and a refrigerator.

ACS

Houses Lacking Complete Plumbing or Kitchen Facilities	# House-holds	% House-holds
Lack complete plumbing	3	10%
Lack complete kitchen	0	0%

ARIS

Estimated Total Community Space Heating Fuel Use by Type		
Fuel Oil	20,816	(gallons)
Nat Gas	-	(ccf)
Electricity	15,459	(kWh)
Wood	3	(cords)
Propane	-	(gallons)
Coal	-	(tons)

ARIS

Avg Annual Energy Cost with PCE	$5,265
Avg Annual Energy Cost without PCE	$6,643

ARIS

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost ($ / gallon)	$5.16
Electricity with PCE ($/kWh)	$0.03
Electricity cost without PCE ($/kWh)	$0.27

Weatherization Program Retrofits (funding increased in 200	
Date Range	Units
2008-2011	17
2003-2007	-
1990-2002	10

CEN

Housing Stock Estimates	Nu
All Housing	
All Occupied Housing	
A sing	
Vacant Housing for Sale or Rent	

Units weatherized before 2008 are eligible to participate in the program again. (Data source: Alaska Housing Finance Corporation).

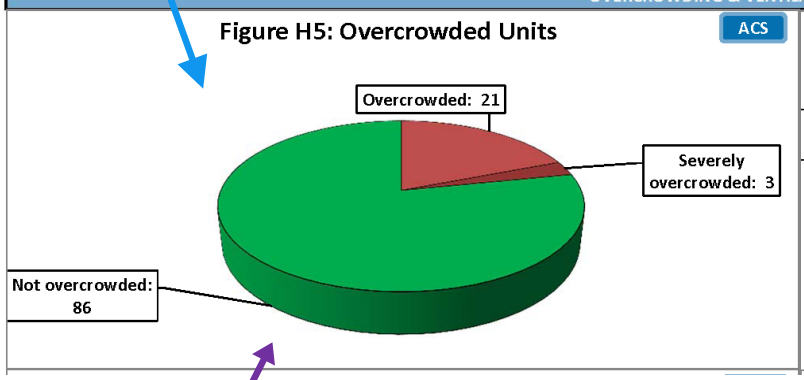
How to Interpret the Profile: Data Sources, Definitions & Clarifications

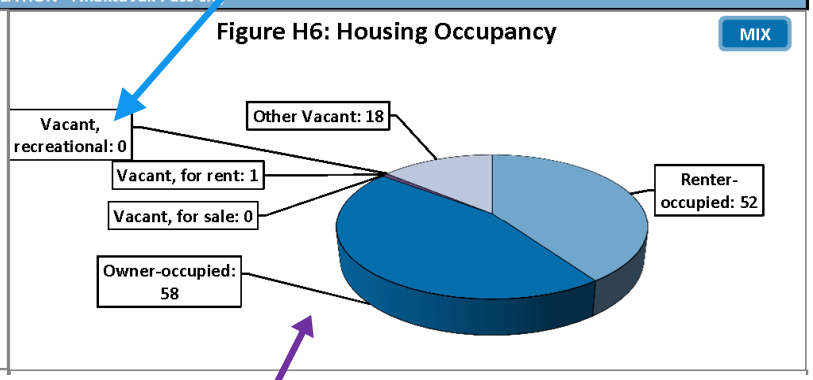
2

Overcrowded: Housing units with more than 1 person per room
Severely Overcrowded: Housing units with more than 1.5 people per room.
"Rooms" include bedrooms, living rooms, dining rooms, kitchens, and other finished, separated spaces, but not including bathrooms, porches, balconies, foyers, halls, or unfinished basements.

Recreational: For seasonal, recreational, or occasional use.

OVERCROWDING & VENTILATION - Anaktuvuk Pass cit





Data Source: 2011 American Community Survey 5-year estimates

Data Sources: The number of owner-occupied, renter-occupied, and total vacant units are taken from the 2011 ACS 5-year estimates. Data for vacancy type, only available from the decennial Census, were derived by taking the decennial census ratios by vacancy type and applying them to the total number of vacant units.

How to Interpret the Profile: Data Sources, Definitions & Clarifications

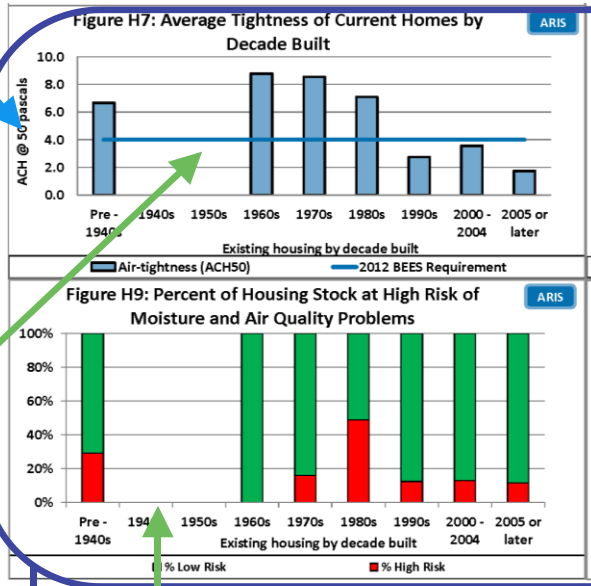
2

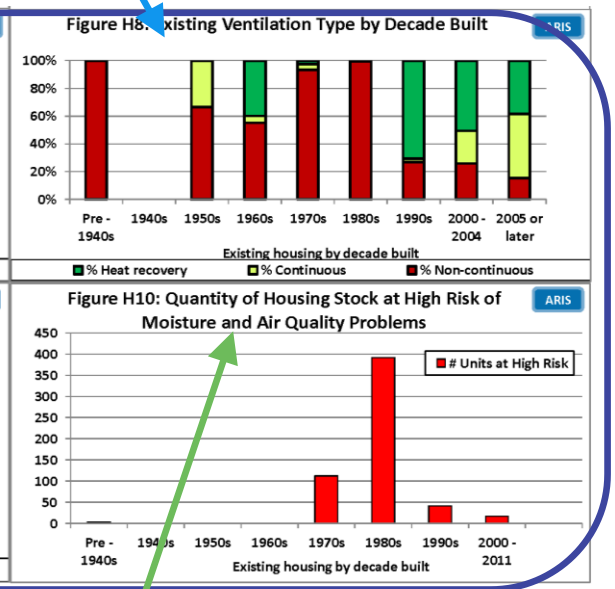
Heat Recovery: Continuous mechanical ventilation with heat recovery operated with automatic controls.

Continuous: Mechanical ventilation without heat recovery operated with automatic controls.

Non-Continuous ventilation: Includes homes with range and/or bath fans not operated using automatic controls.

ACH50: The results of a blower door test to measure building air leakage. Smaller numbers indicate tighter buildings. Tighter buildings lose less heated air to the outside and thus use less energy for space heating.





The 2012 Building Energy Efficiency Standard (BEES) for air-tightness is for reference only, as it was implemented after the majority of homes in Alaska were built.

Data Source: Alaska Retrofit Information System

Decades with no bar lack sufficient data for reporting. They should not be considered zero quantities.

High Risk of Moisture and Air Quality Problems: Note that moisture or poor indoor air quality have not been physically measured; these houses are considered "at-risk" because they are relatively air tight (less than 0.5 estimated natural air changes per hour) and do not have a continuous ventilation system.

How to Interpret the Profile: Data Sources, Definitions & Clarifications

3

Rating stars and points are based on AHFC's AkWarm energy rating system.

Average annual energy cost: Includes all end uses. Costs are estimated using January 2013 energy prices, and include reductions from the PCE program.

Space Heating, DHW, Appliances: Estimated annual energy for the end uses of: Space Heating, Domestic Hot Water, and all other energy including lights, appliances, and electronics.

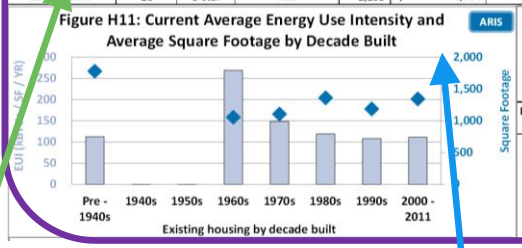
ECI: Energy Cost Index, the amount of money spent on energy per year divided by square footage.

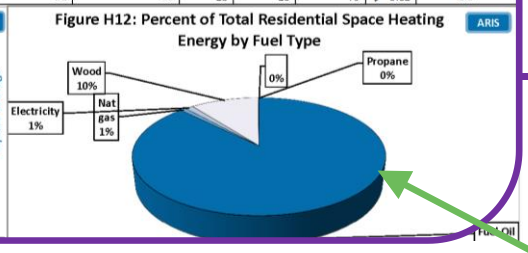
Home Heating Index: The energy used per square foot per year divided by the area's heating degree days.

The number of AkWarm records from each decade built that were used to calculate the averages reported.

Current Fairbanks Housing Energy Characteristics By Decade Built

Current Residential Units by Year Built	Number of Records	Avg Energy Rating	Avg Energy Rating Points	Avg Sq. Feet	Avg. Annual Energy Cost (with PCE)	Avg. Annual Energy Use (million BTUs)	Avg Ann Energy by End Use (million Btus)			Avg. EUI (kBTUS/SF)	Avg. ECI ($ / SF)	Avg. Home Heating Index
							Space Heating	DHW	Appliances			
OVERALL	419	3-star	70.7	1,237	$ 8,065	160	102	27	26	132	$ 6.97	6.5
Pre- 1940	7	3-star	68.3	1,779	$ 11,107	199	145	21	33	113	$ 6.66	6.4
1940- 49	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1950- 59	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1960- 69	15	2-star	52.3	1,056	$ 11,087	287	225	35	27	269	$ 10.60	16.0
1970- 79	71	2-star plus	64.5	1,106	$ 7,961	151	105	21	25	149	$ 8.09	7.8
1980- 89	113	3-star plus	74.7	1,361	$ 8,239	157	100	30	26	119	$ 6.40	5.8
1990- 99	111	4-star	79.9	1,187	$ 6,395	122	57	21	20	108	$ 5.58	4.7
2000- 2004	71	3-star plus	77.5	1,388	$ 8,435	143	80	35	27	118	$ 7.24	5.2
2005- later	28	5-star	91.9	1,233	$ 4,504	92	39	28	25	79	$ 3.82	2.5





Data Source: AkWarm ratings from AHFC's Alaska Retrofit Information System (ARIS).

Average energy characteristics of the *current* housing stock by decade built (high data communities) or by pre-/post-retrofit and new construction categories (medium data communities).

Energy Use Intensity (EUI) is the total amount of energy used per year per square foot of floor space.

This is the community's breakdown by fuel type of the energy (BTUs) used for home space heating. It is not the percent of housing using a given fuel in primary space heating devices. Because wood burning devices are inefficient, they may use a significant portion of total energy even if no homes in a community use wood as a primary fuel.

How to Interpret the Profile: Data Sources, Definitions & Clarifications

3

Average building envelope characteristics of the *current* housing stock by decade built (high data communities) or by pre-/post-retrofit and new construction categories (medium data communities).

ACH50: The results of a blower door test to measure building leakiness. Smaller numbers indicate tighter buildings.

R-value: the capacity to resist heat flow. The higher the value, the better the insulator.

U-value: the conductance to heat flow. The lower the value, the better the insulator.

Data Sources: AkWarm ratings from AHFC's Alaska Retrofit Information System (ARIS).

Current Bethel city Housing Envelope Characteristics By Decade Built

Current Residential Units by Year Built	Number of Records	ACH 50	Ceiling R	Above Grade Wall R	Below Grade Wall R	Above Grade Floor R	On Grade Floor R	Below Grade Floor R	Door U	Garage Door U	Window U
OVERALL	419	6.4	23	17	7	30	NR	2	0.36	0.27	0.54
Pre- 1940	7	6.7	26	21	NR	30	NR	NR	0.30	NR	0.40
1940- 49	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1950- 59	3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1960- 69	15	8.8	16	14	NR	21	NR	NR	0.44	NR	1.65
1970- 79	71	8.5	20	15	NR	29	NR	NR	0.39	NR	0.57
1980- 89	113	7.1	29	17	NR	32	NR	NR	0.30	NR	0.44
1990- 99	111	2.7	56	31	NR	50	NR	NR	0.19	0.12	0.29
2000- 2004	71	3.6	13	21	NR	36	NR	NR	0.27	0.23	0.40
2005 or later	28	1.7	41	22	NR	41	NR	NR	0.20	NR	0.31
BEES 2009 - Climate Zone 8		7.0	38	30	15	38	15	15	0.22	0.22	0.22
BEES 2012 - Climate Zone 8		4.0	48	30	15	38	15	15	0.22	0.22	0.22

The number of AkWarm records from each decade built that were used to calculate the averages reported.

"NR" is used when there are insufficient records to protect the confidentiality of the occupants.

Color Coding--

Green: the average value meets or exceeds the 2012 BEES requirement.

Yellow: value is 75-99% of the 2012 BEES requirement.

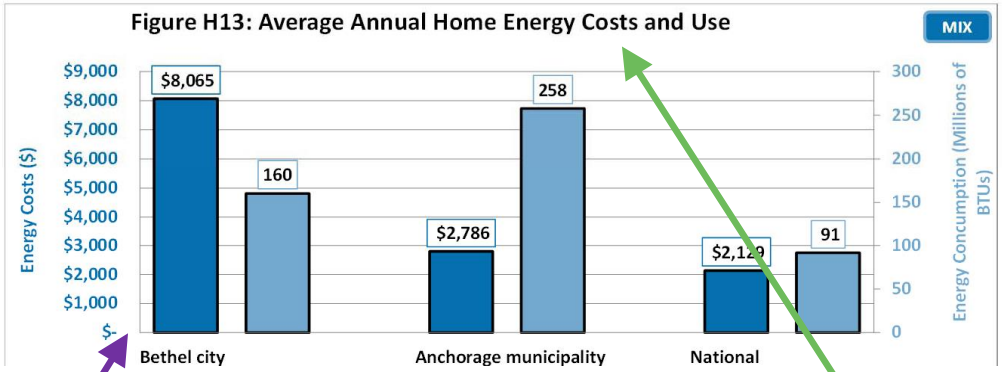
Red: value is less than 75% of the 2012 BEES requirement.

How to Interpret the Profile: Data Sources, Definitions & Clarifications

4

Communities are categorized in this report by the amount of ARIS data available, and reporting is more extensive for locations with more data. Data quantities are defined as--
***High*: ARIS records exist for housing units built in 7 of the 9 date ranges use in this report, and there are either more than 50 records or records totaling 20 percent or more of the total number of housing units.**
***Medium*: There are three or more ARIS records. Data are presented for an "overall" group if there are "As Is" ARIS records totaling at least 10% of the community's occupied housing units.**
***Low*: There are fewer than three ARIS records for the location.**

Community Template - Data Quantity: High



Housing Information	Avg Household Size (# of people)
All-occupied	3.4
Owner-occupied	3.7
renter-occupied	3.1

Data Source:
2007-2011 American Community Survey

Data Sources: Census Area and Anchorage data come from AFHC's Alaska Retrofit Information System.
National figures come from the U.S. Energy Information Administration's 2009 Residential Energy Consumption Statistics (RECS) for "cold"/"very cold" climate regions.

Average annual home energy costs and usage estimates are for all end uses, including space heating, domestic hot water, lighting and appliances. Costs are estimated using January 2013 energy prices and include reductions from the PCE program.

How to Interpret the Profile: Data Sources, Definitions & Clarifications

4

Data Source: 2007-2011 American Community Survey.

"Value" is determined by responses to the ACS question: "How much do you think this house and lot, apartment, or mobile home (and lot, if owned) would sell for if it were for sale?"

Household income includes all earnings from salaries, stocks, gifts, public assistance, etc.

Data Source: Median income comes from 2007-2011 ACS estimates; energy costs come from AHFC's Alaska Retrofit Information System (ARIS).

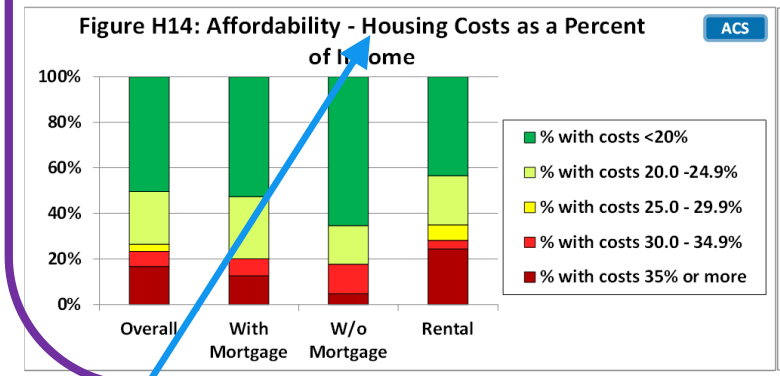
Owner-occupied House with Mortgage, Median Value
$226,800

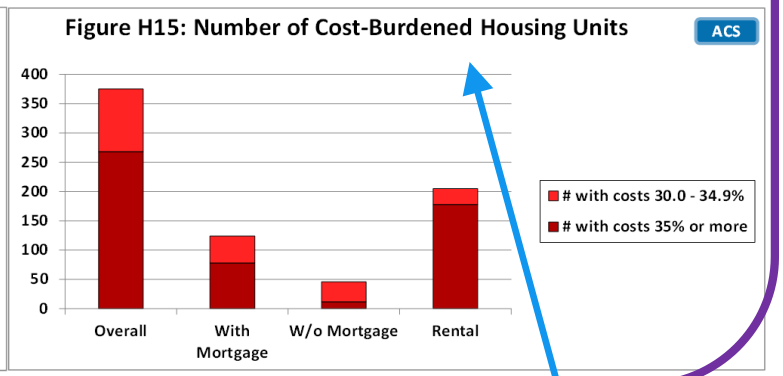
Owner-ocupied House without a Mortgage, Median Value
$119,600

Median Annual Household Income	
Housing Units	Household Income
All-occupied	$ 91,302
Renter-occupied	$ 70,170
Owner-occupied	$ 107,908
w/ mortgage	$ 111,167
w/o mortgage	$ 70,400

Median Household Expenses		
	Monthly	Annual
All-occupied	$ 1,369	$ 16,428
Gross rent	$ 1,201	$ 14,412
Owner-occupied	$ 1,610	$ 19,320
Housing units w/ mortgage	$ 1,854	$ 22,248
Housing units w/out a mortgage	$ 680	$ 8,160

Avg % of Median Income Spent on Energy	8.8%





Rental housing costs: Contract rent, fuels, utilities.

Owner housing costs: Mortgage payments, property taxes, insurance, fuels, utilities, condo fees.

Households are considered "cost burdened" if they spend 30% or more of total household income on housing costs. Households spending more than this amount on housing costs may have difficulty affording basic necessities such as food, transportation, and medical care.

ANCSA Region Profile for:	Calista

Climate Zone (Heating Degree Day Range)	Zone 8 (12,600 - 16,800 HDD)

COMMUNITY - Calista

Figure R1: Existing Housing by Decade Built

ACS

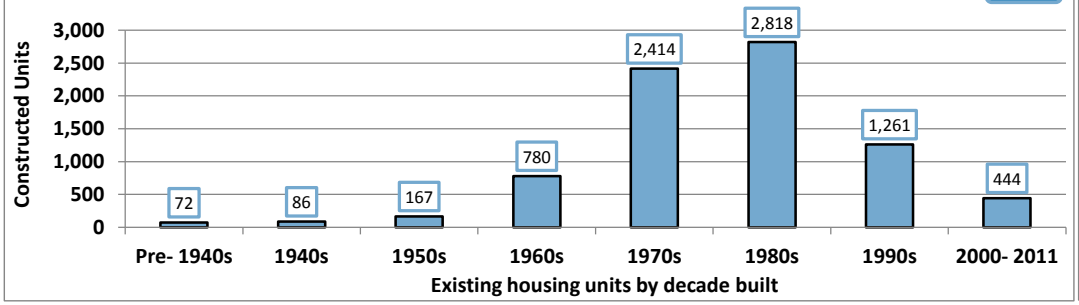


Figure R2: Population

CEN

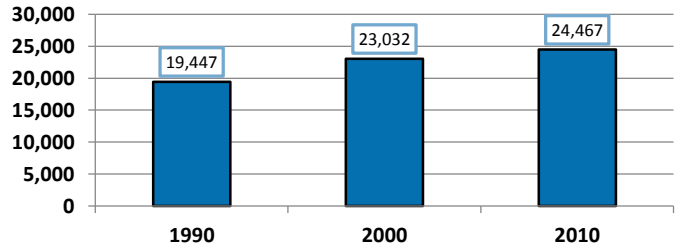


Figure R3: Trends in Housing Unit Size

MIX

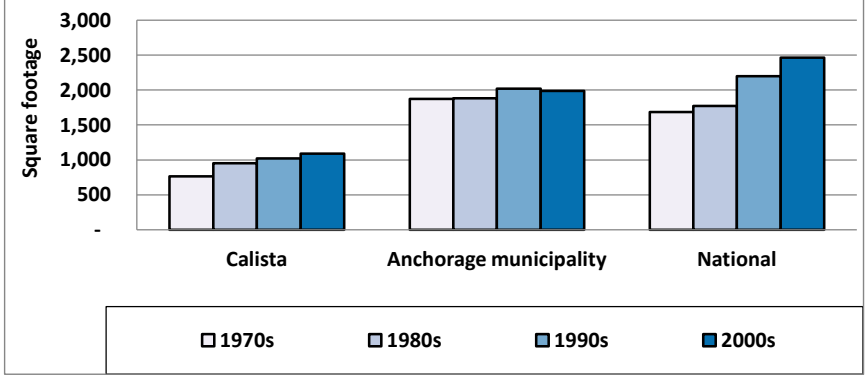
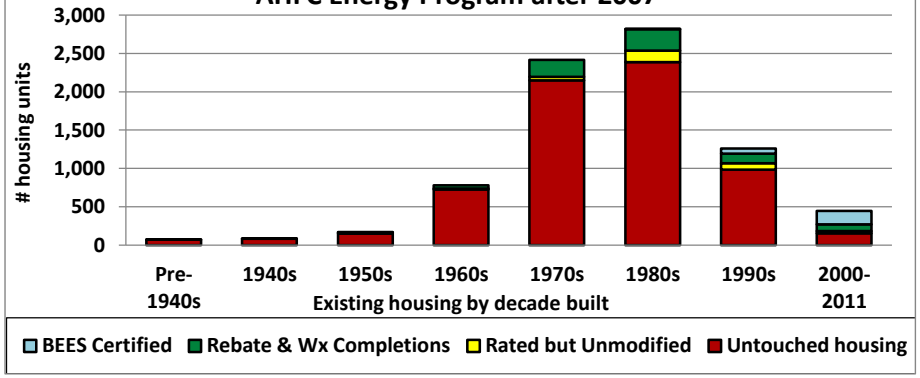


Figure R4: Housing Completing an AHFC Energy Program after 2007

ARIS



Houses Lacking Complete Plumbing or Kitchen Facilities	Households	
	Number	Percent
Lack complete plumbing	2,356	39%
Lack complete kitchen	1,851	31%

Avg Annual Energy Cost with PCE	$6,242
Avg Annual Energy Cost without PCE	$8,104

Weatherization Retrofits (funding increased 2008)	
Date Range	Units
2008-2011	725
2003-2007	166
1990-2002	815

Estimated Total Annual Community Space Heating Fuel Use		
Fuel Oil	2,922,465	(gallons)
Natural Gas	-	(ccf)
Electricity	2,214,113	(kWh)
Wood	11,348	(cords)
Propane	1,303	(gallons)
Coal	-	(tons)

Housing Need Indicators	Number of units	% Occupied Housing
Overcrowded	2,408	40%
Housing cost burdened	989	16%
1 Star Homes	1,316	22%

Housing Stock Estimates	Number of Units
All Housing	8,042
All Occupied Housing	6,009
All Vacant housing	2,033
Vacant Housing for Sale or Rent	375

OVERCROWDING & VENTILATION - Calista

Figure R5: Overcrowded Units

ACS

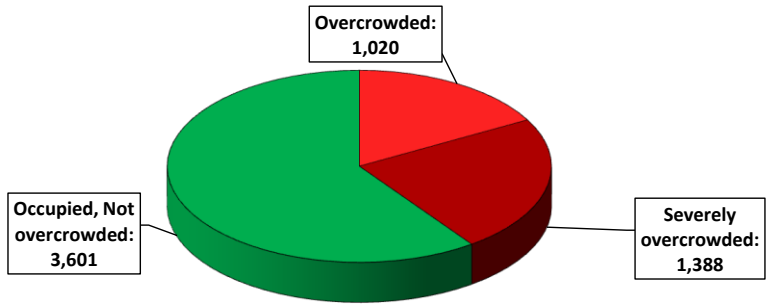


Figure R6: Housing Occupancy

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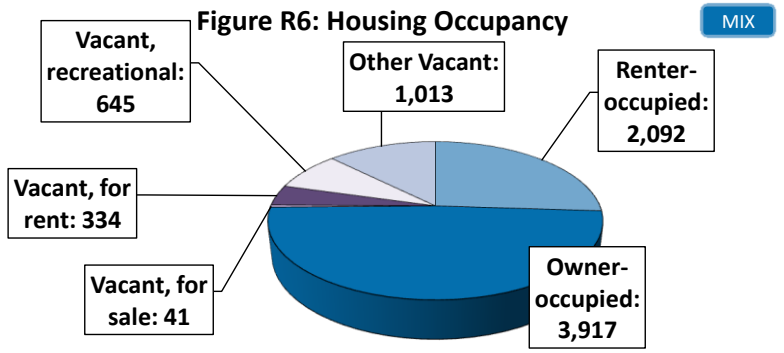


Figure R7: Average Air-Tightness of Current Homes by Decade Built

ARIS

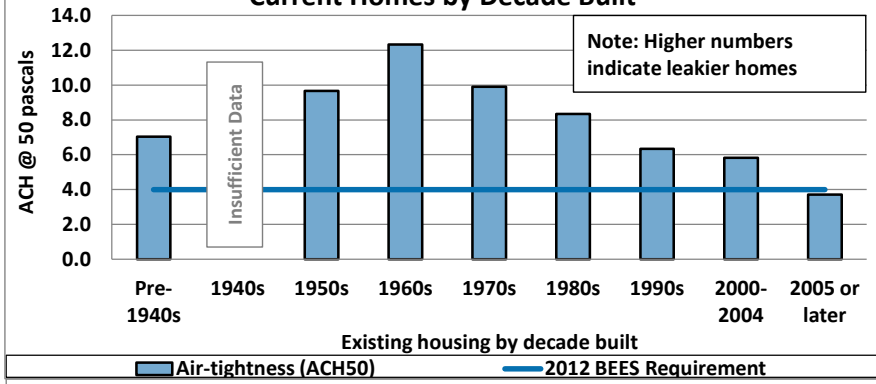


Figure R8: Existing Ventilation Type by Decade Built

ARIS

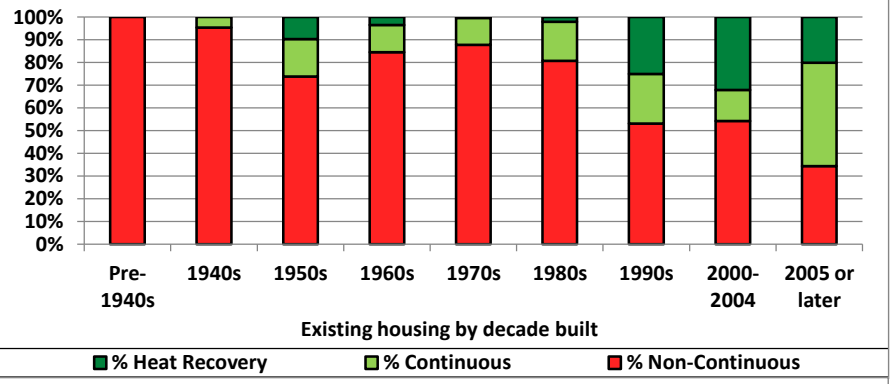


Figure R9: Percent of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS

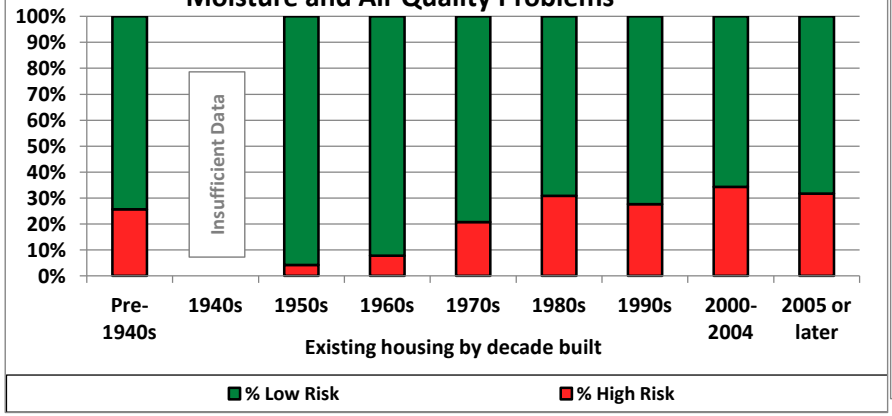
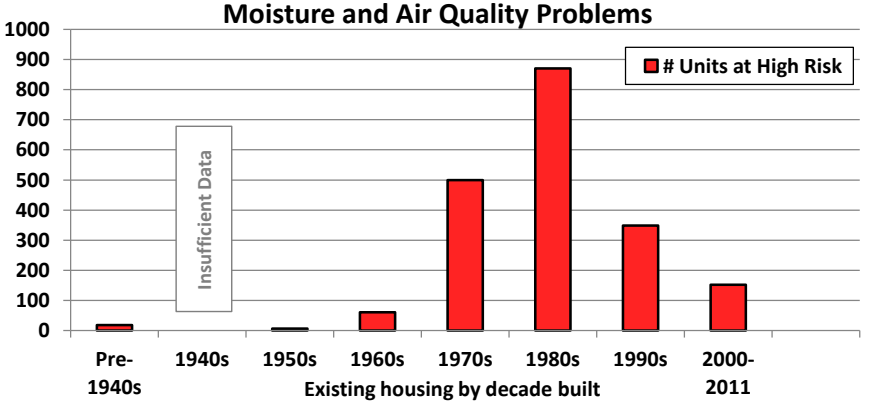


Figure R10: Quantity of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS



ENERGY - Calista												
Current Calista Housing Energy Characteristics By Decade Built												
Current Residential Units by Year Built	# of AkWarm Records	Avg Energy Rating Stars	Avg Energy Rating Points	Avg Sq. Feet	Avg. Annual Energy Cost (with PCE)	Avg. Annual Energy Use (million BTUs)	Avg Annual Energy / End Use (million Btus)			Avg. EUI (kBTUS /SF)	Avg. ECI	Avg. Home Heating Index
							Space Heating	DHW	Appliances			
OVERALL	1,408	2-star	59.1	875	$6,242	136	99	14	22	167	$7.54	9.7
Pre- 1940	7	2-star plus	66.3	1,622	$10,914	194	137	22	35	117	$7.02	6.5
1940- 49	4	1-star	34.5	421	NR	74	56	0	18	181	$8.48	11.1
1950- 59	19	1-star plus	45.3	713	$5,074	135	107	4	24	241	$7.44	16.0
1960- 69	56	1-star	38.8	571	$5,020	125	102	3	20	224	$9.34	14.3
1970- 79	281	2-star	53.6	766	$5,905	132	101	11	21	185	$8.34	11.0
1980- 89	470	2-star plus	63.8	953	$6,855	144	103	18	23	160	$7.52	9.1
1990- 99	279	2-star plus	67.8	1,020	$6,520	136	91	15	23	143	$6.71	7.8
2000- 2004	181	3-star plus	74.9	1,088	$5,999	129	81	23	25	150	$5.99	8.2
2005 or later	111	4-star plus	86.7	1,183	$5,026	94	45	27	22	83	$4.37	3.1

Figure R11: Current Average Energy Use Intensity and Average Square Footage by Decade Built

ARIS

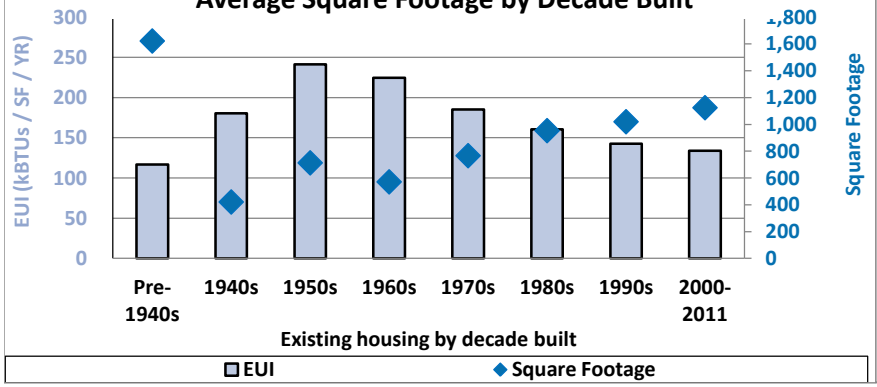
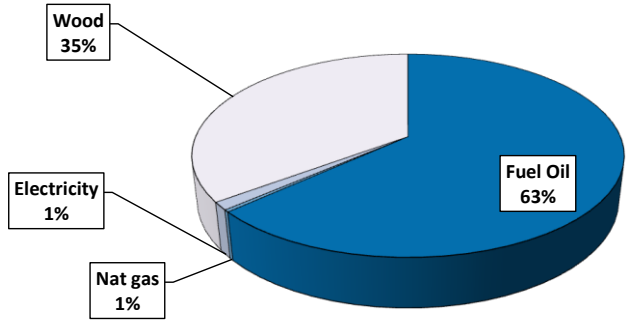


Figure R12: Percent of Total Residential Space Heating Energy by Fuel Type

ARIS



Current Calista Housing Envelope Characteristics By Decade Built											
Current Residential Units by Year Built	# of AkWarm Records	ACH 50	Ceiling R	Above Grade Wall R	Below Grade Wall R	Above Grade Floor R	On Grade Floor R	Below Grade Floor R	Door U	Garage Door U	Window U
OVERALL	1,408	8.5	22	16	8	22	3	3	0.49	0.49	0.64
Pre- 1940	7	7.0	25	20	NR	30	NR	NR	0.30	0.30	0.40
1940- 49	4	NR	19	14	NR	11	NR	NR	0.58	0.58	0.55
1950- 59	19	9.7	21	13	NR	17	NR	NR	0.78	0.78	0.78
1960- 69	56	12.3	12	12	NR	15	NR	NR	0.55	0.55	0.84
1970- 79	281	9.9	19	14	7	19	NR	NR	0.54	0.54	0.70
1980- 89	470	8.3	25	17	12	25	NR	NR	0.47	0.47	0.61
1990- 99	279	6.3	26	20	NR	26	NR	NR	0.44	0.44	0.61
2000- 2004	181	5.8	25	17	NR	26	NR	NR	0.38	0.38	0.54
2005 or later	111	3.7	40	22	NR	39	NR	NR	0.22	0.22	0.33

BEES 2009 - Climate Zone 8	7.0	38	30	15	38	15	15	0.22	0.22	0.22
BEES 2012 - Climate Zone 8	4.0	48	30	15	38	15	15	0.22	0.22	0.22

AFFORDABILITY - Calista

Figure R13: Average Annual Home Energy Cost and Use

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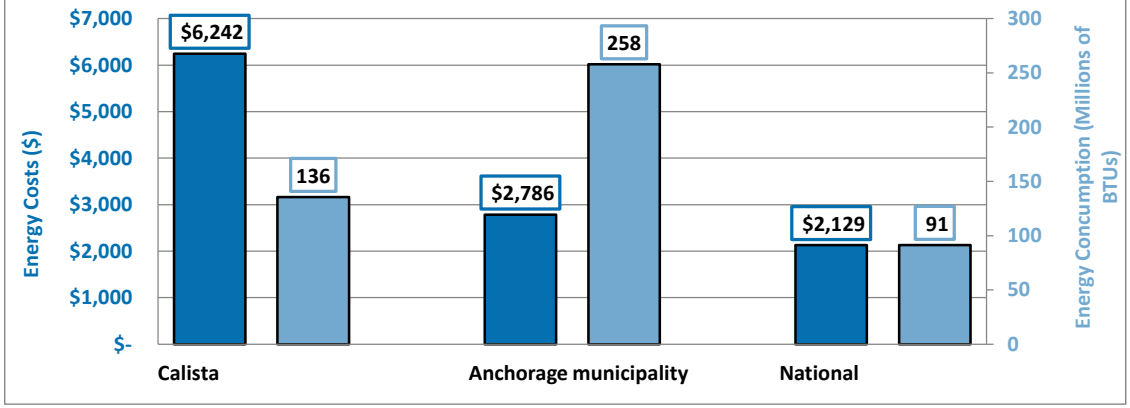

Housing Information	Avg Household Size (# of people)
All-occupied	4.0
Owner-occupied	4.4
Renter-occupied	3.3

Median value of owner-occupied house with mortgage
$192,400

Median value of owner-occupied house without a mortgage
$97,900

Median Household Income	
Housing Units	Annual Household Income
All-occupied	$ 47,551
Renter-occupied	$ 44,325
Owner-occupied	$ 48,966
w/ mortgage	$ 70,871
w/o mortgage	$ 38,333

Median Housing Costs		
	Monthly	Annual
All-occupied	$ 569	$ 6,828
Gross rent	$ 850	$ 10,200
Owner-occupied	$ 494	$ 5,928
Housing units w/ mortgage	$ 916	$ 10,992
Housing units w/out a mortgage	$ 381	$ 4,572

Avg % of Median Income Spent on Energy	13.1%

Figure R14: Affordability - Housing Costs as a Percent of Income

ACS

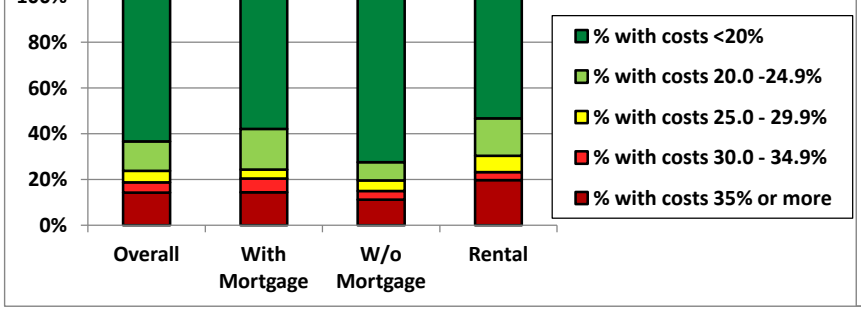

Figure R15: Number of Cost-Burdened Housing Units

ACS