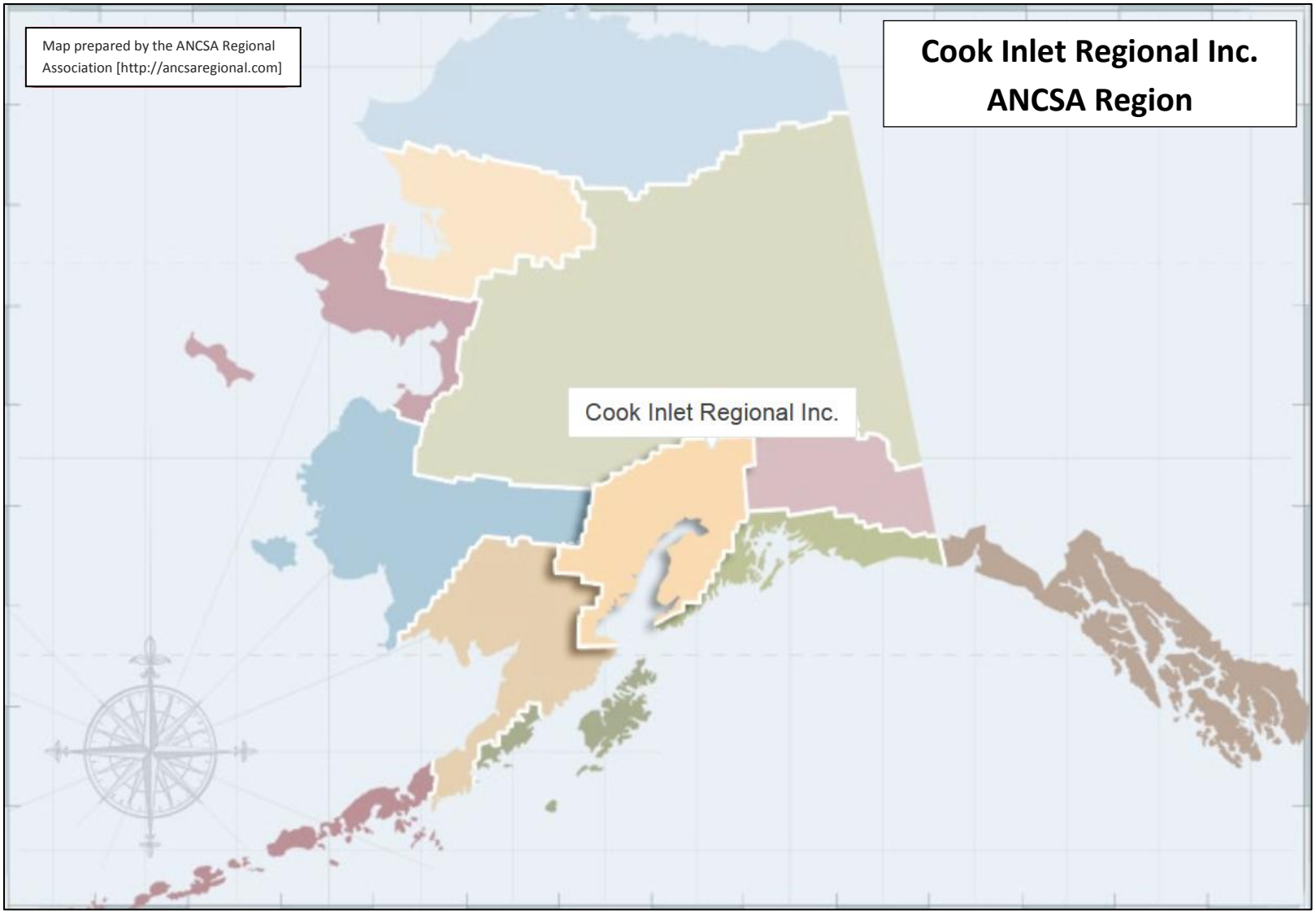

Map prepared by the ANCSA Regional Association [http://ancsaregional.com]
Cook Inlet Regional Inc.
ANCSA Region
Cook Inlet Regional Inc.

Table of Contents

Cook Inlet Region, Inc. (CIRI) Dashboard[1]

Population: The Alaska Department of Labor and Workforce Development's current (2012) population estimate for the Cook Inlet Region, Inc. (CIRI) ANCSA region is 444,135, an increase of 22% from 2000.

Housing Units: There are currently 180,094 housing units in the Cook Inlet Regional (CIRI) ANCSA region. Of these, 156,173 are occupied, 5,234 vacant units are for sale or rent, and the remaining 18,687 are seasonal or otherwise vacant units (Profile Figure R6).

Energy: The average home in the CIRI ANCSA region is 1,895 square feet and uses 137,000 BTUs of energy per square foot annually. This is the same as 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 CIRI ANCSA region is $3,120, which is approximately 1.1 times more than the cost in the Anchorage municipality, and 1.5 times more than the national average (Profile Figure R13).

Energy Programs: Approximately 24% of the occupied housing units in the CIRI ANCSA region have completed either the Home Energy Rebate or Weatherization program, 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 2-stars on average compared to a current average rating of 4-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 nearly meet the 2012 BEES standard of 4 air-changes per hour at 50 pascals (ACH50). In contrast, homes built in the 1940s are 2.4 times leakier than those built since 2000 (Profile Figure R7).

Ventilation: An estimated 100,824 occupied housing units (or 65%) in the CIRI 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: Four percent of occupied units are estimated to be either overcrowded (3%) or severely overcrowded (1%). This is roughly similar to the national average, and makes the Cook Inlet Regional (CIRI) region the second least overcrowded ANCSA region in the state.

Affordability: According to American Community Survey (ACS) data, approximately 34% of households in the CIRI ANCSA 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 4% of census median area income for occupied housing.

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

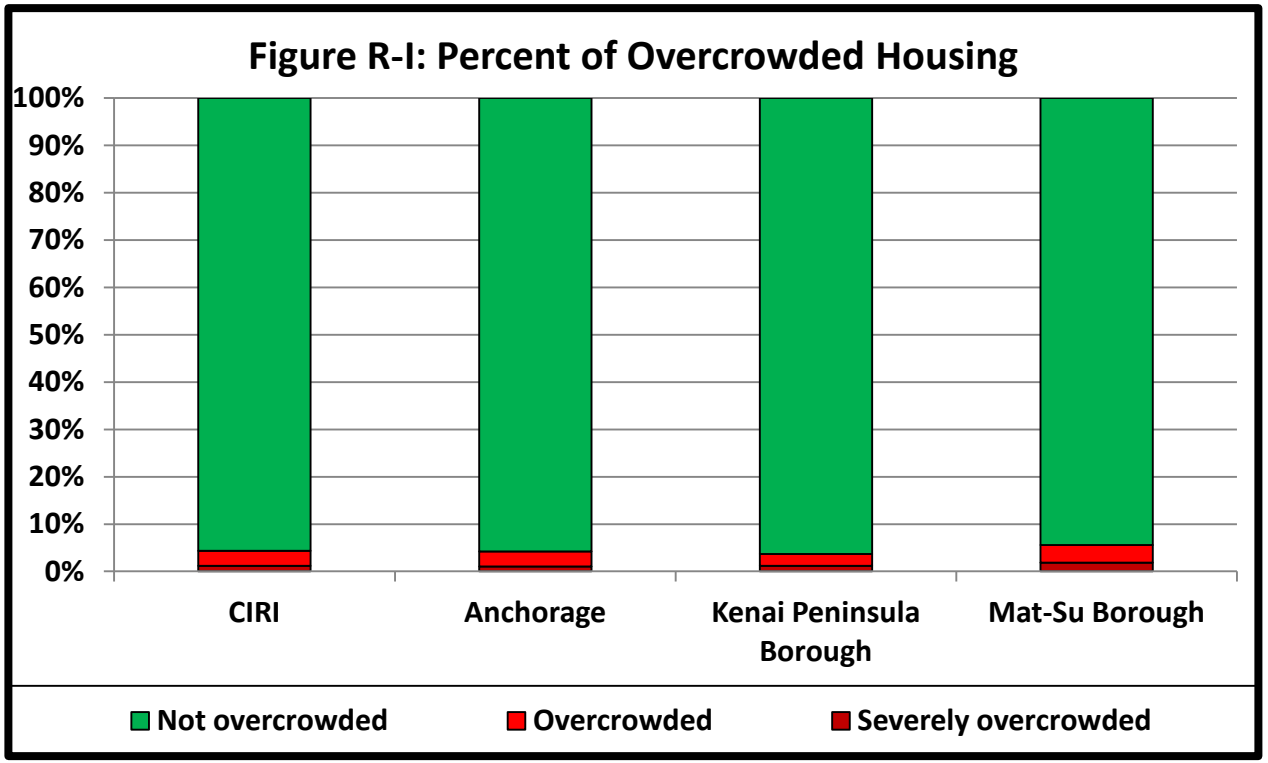
Cook Inlet Region, Inc. (CIRI) Summary

Community

The Cook Inlet ANCSA region is located in Southcentral Alaska. Anchorage, the largest city in the state, is in this region as are the numerous communities of the Matanuska-Susitna Valley and Kenai Peninsula. The average home size in the region is the largest in the state at 1,895 square feet. While the average home size varies at the community level, there is little variation on a census area level with the average homes in the Anchorage, Kenai Peninsula Borough, and Mat-Su Borough census areas all being within 35 square feet of each other.

Overcrowding

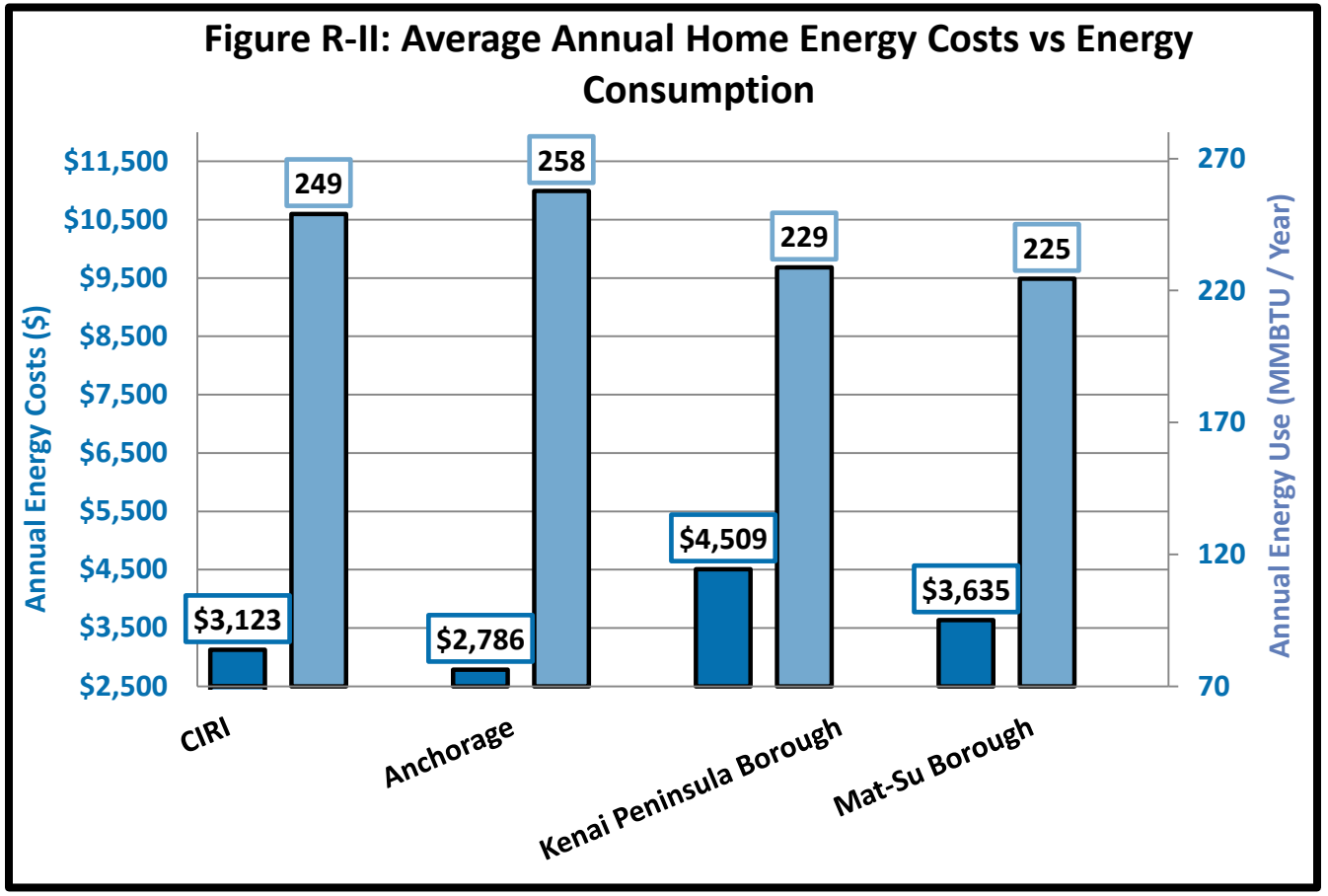
The CIRI region has less overcrowding than all other regions in Alaska with the exception of Sealaska. Approximately 4% of households in the region have more than one person per room. The percentage of overcrowded housing is fairly similar between the three census areas within CIRI (Figure R-I), with 4% in Anchorage, 6% in the Mat-Su Borough, and 4% in the Kenai Peninsula Borough.



Approximately 3% of housing units in the region are vacant and available for sale or rent. Housing availability at the community level is fairly consistent; Port Alsworth has a low of approximately zero available housing units while Seldovia has the high with 8% available.

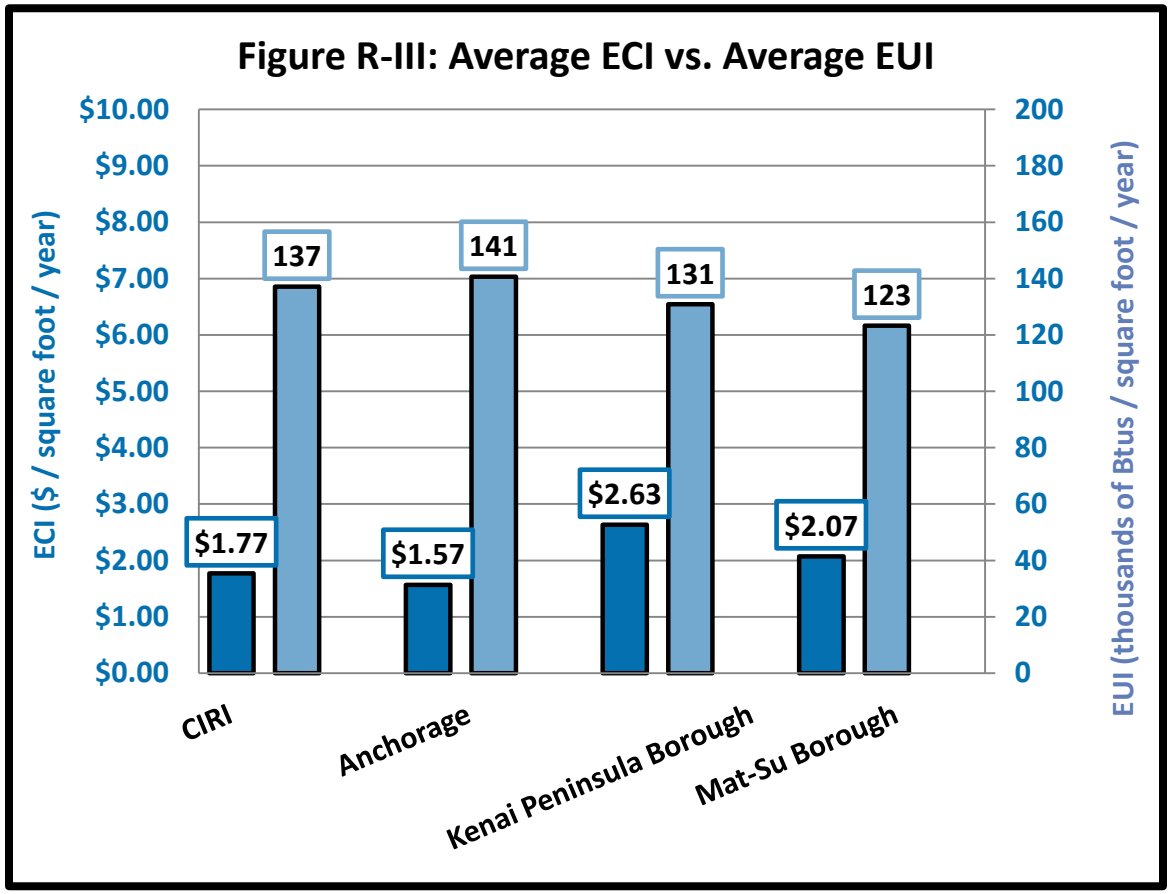
Energy[2]

Regionally, the average annual home energy costs, are $3,123, or 1.5 times more than the national average energy costs (Figure R-II). The CIRI region's average annual energy use of 249 million BTUs is approximately 2.7 times the national average residential energy use. The Kenai Peninsula Borough census area has the highest energy costs at $4,509 while the Anchorage municipality has the lowest average annual energy costs at $2,786. The Mat-Su Borough census area lies between Kenai and Anchorage with average energy costs of $3,635 per year.



[2] Regional data appearing in this section is based on communities with sufficient levels of ACS data, so not all communities were included in the analysis.

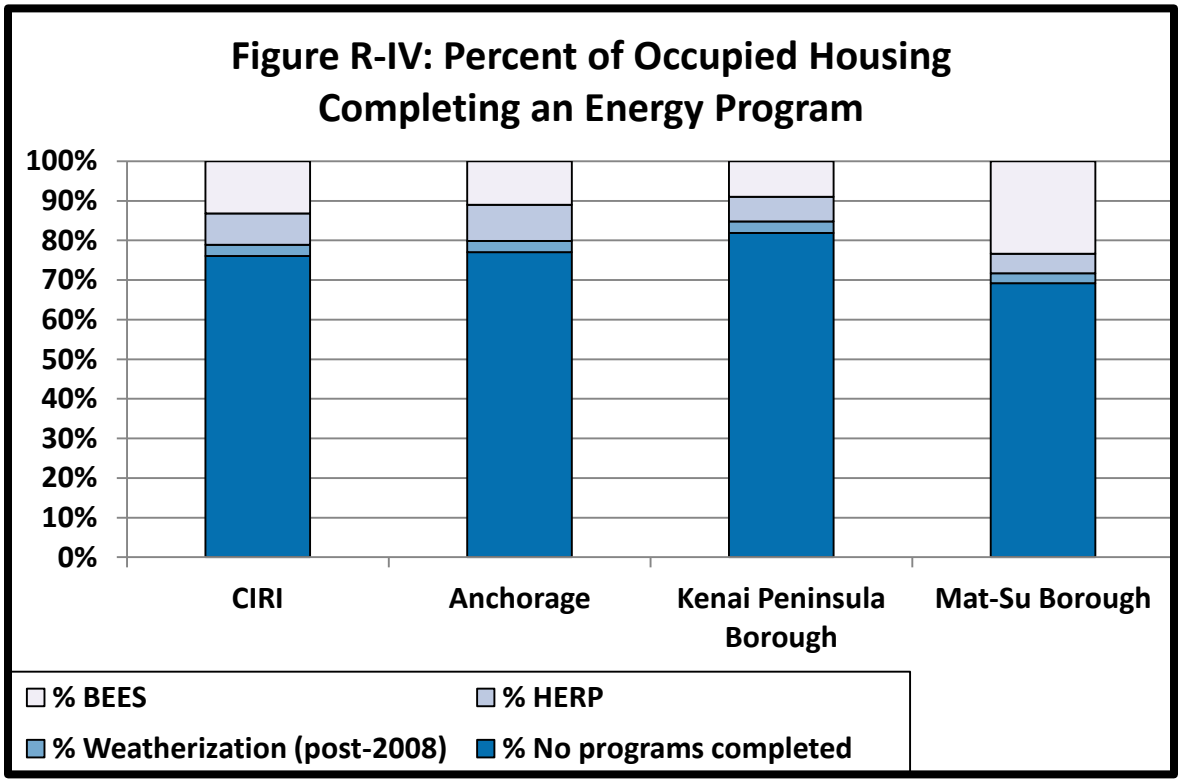
The CIRI region has the fifth lowest energy use per square foot[3] of any ANCSA region in the state. The CIRI region also has by far the lowest energy cost per square foot[4] of any of the state's ANCSA regions at $1.77/ft^2. The energy use and cost per square foot for each census area in the region are shown in Figure R-III. On average, Anchorage municipality homes are slightly smaller but household energy use is 15% more than in either of the two surrounding census areas. Consequently, Anchorage has a higher energy use index of 141 kBTUs/ft^2/year, compared to 131 in the Kenai Peninsula and 123 in the Mat-Su boroughs. The energy use index for the entire CIRI region is 137, nearly identical to the average EUI value for the state.



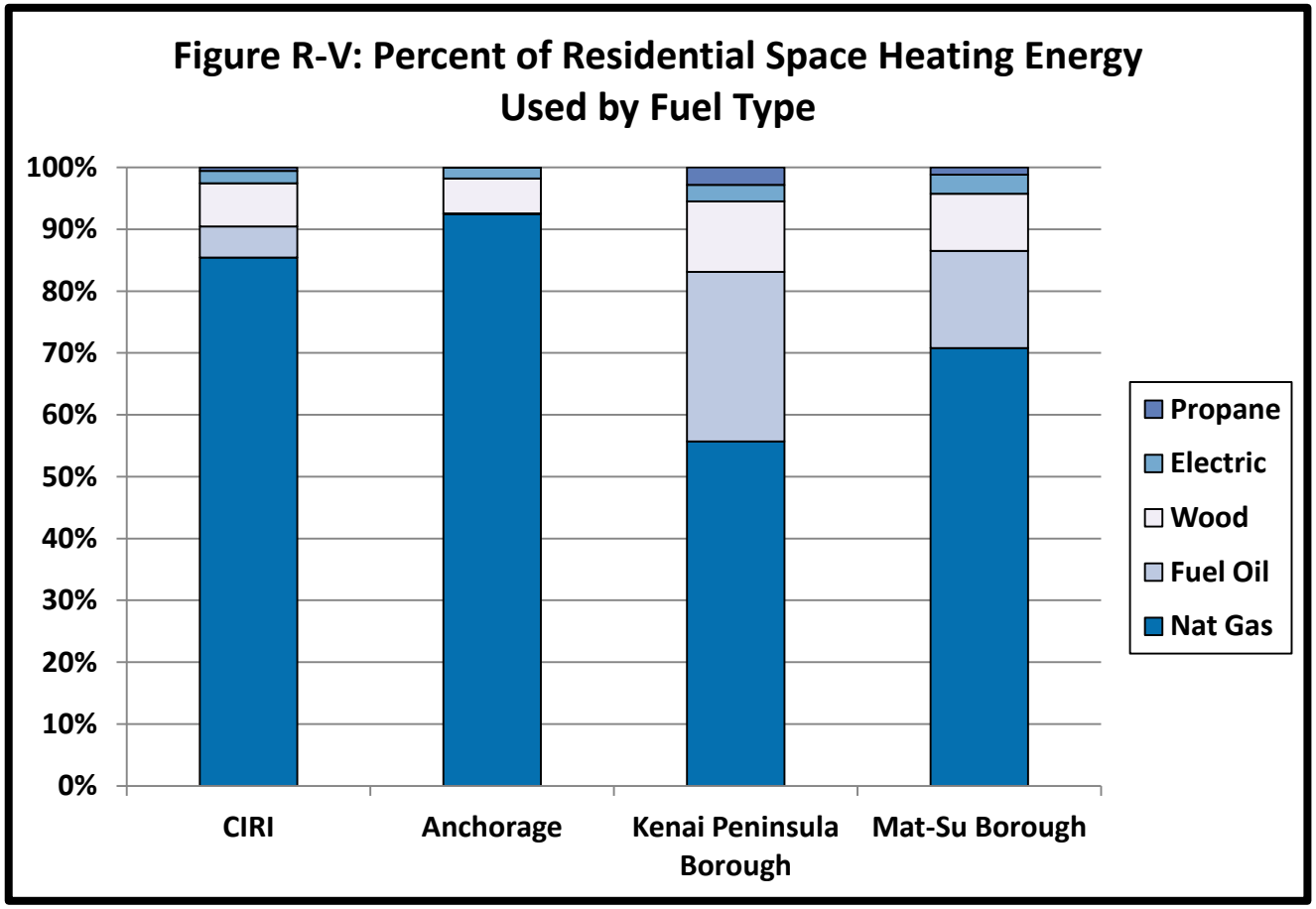
The home heating index (HHI) value for CIRI, 9.5 BTUs/ft^2/HDD, is also similar to the statewide average of 9.2. Within the CIRI region, Anchorage homes are less energy efficient, with an average HHI of 9.8 compared to 8.9 in Kenai and 8.2 in Mat-Su.

[3] Energy use per square foot is also known as Energy Use Intensity, or EUI and is given in kBtus per square foot, per year.
[4] 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.

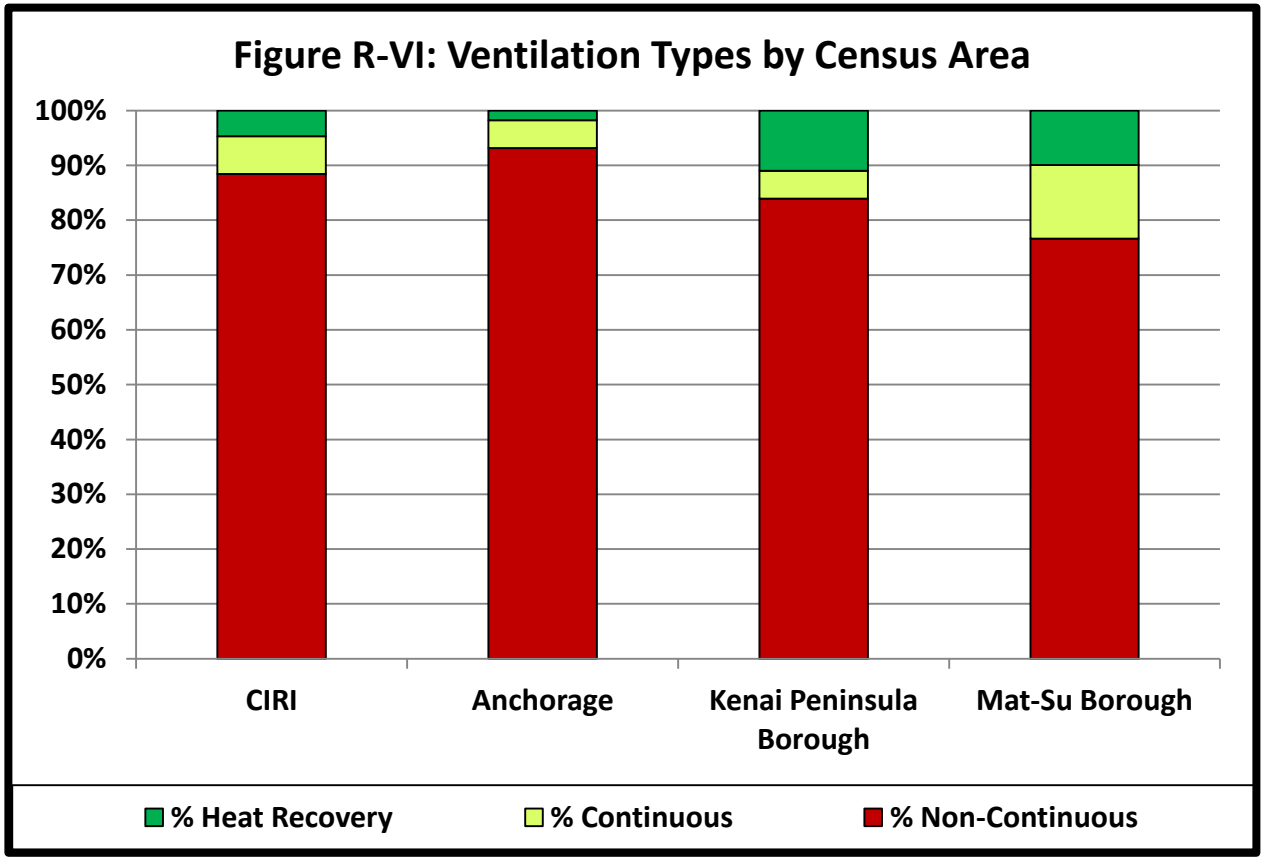
Understanding the variations between communities participating in energy efficiency programs is essential to targeting work and resource allocation in the region. Approximately 24% of housing units in the CIRI region have completed an AHFC Home Energy Rebate or Weatherization program, or been certified to meet BEES since 2008. Figure R-IV shows that participation rates in the Weatherization program are similar on a census area level, with all three census areas having participation around 2 or 3%. The highest participation in the Home Energy Rebate Program is in Anchorage, with 9% of homes having completed the program. The Mat-Su region has the highest BEES activity, where 23% of new homes have been certified to meet BEES.



The lower household energy costs in Anchorage are influenced by the inexpensive natural gas available in that census area, accounting for 92% of the space heating needs (Figure R-V). Natural gas is not as widely available in the Kenai Peninsula and is used in approximately 56% of homes for space heating. Natural gas use in the Mat-Su Borough follows the same pattern as the energy costs, and is the primary fuel for approximately 71% of space heating needs.

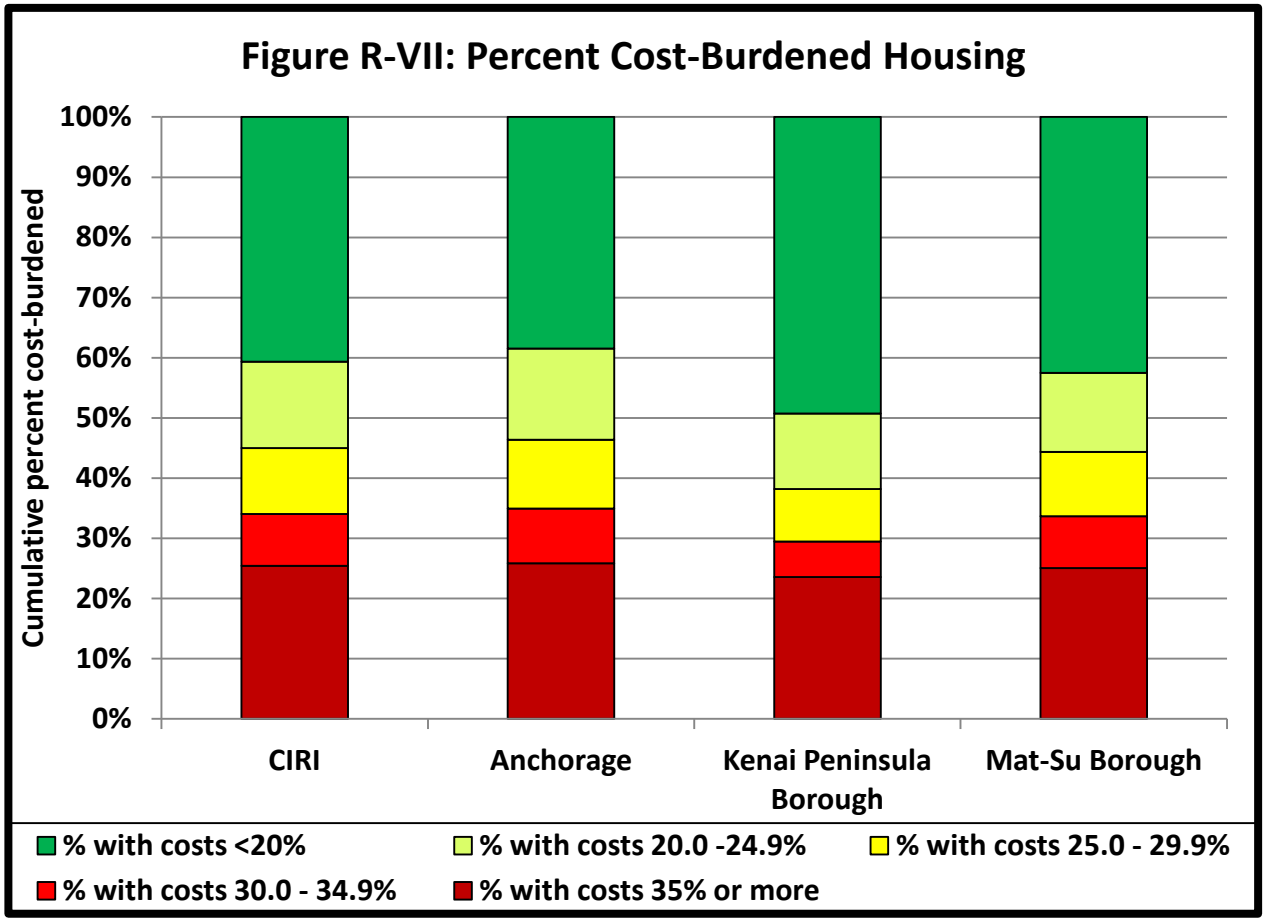


Approximately 88% of homes in the CIRI region have no continuous ventilation system (Figure R-VI). Within CIRI, the Mat-Su Borough has the highest percentage of homes with continuous mechanical ventilation, either with or without heat recovery, installed at 23%. Approximately 7% of homes in the municipality of Anchorage have a continuous or heat recovery ventilation system installed.



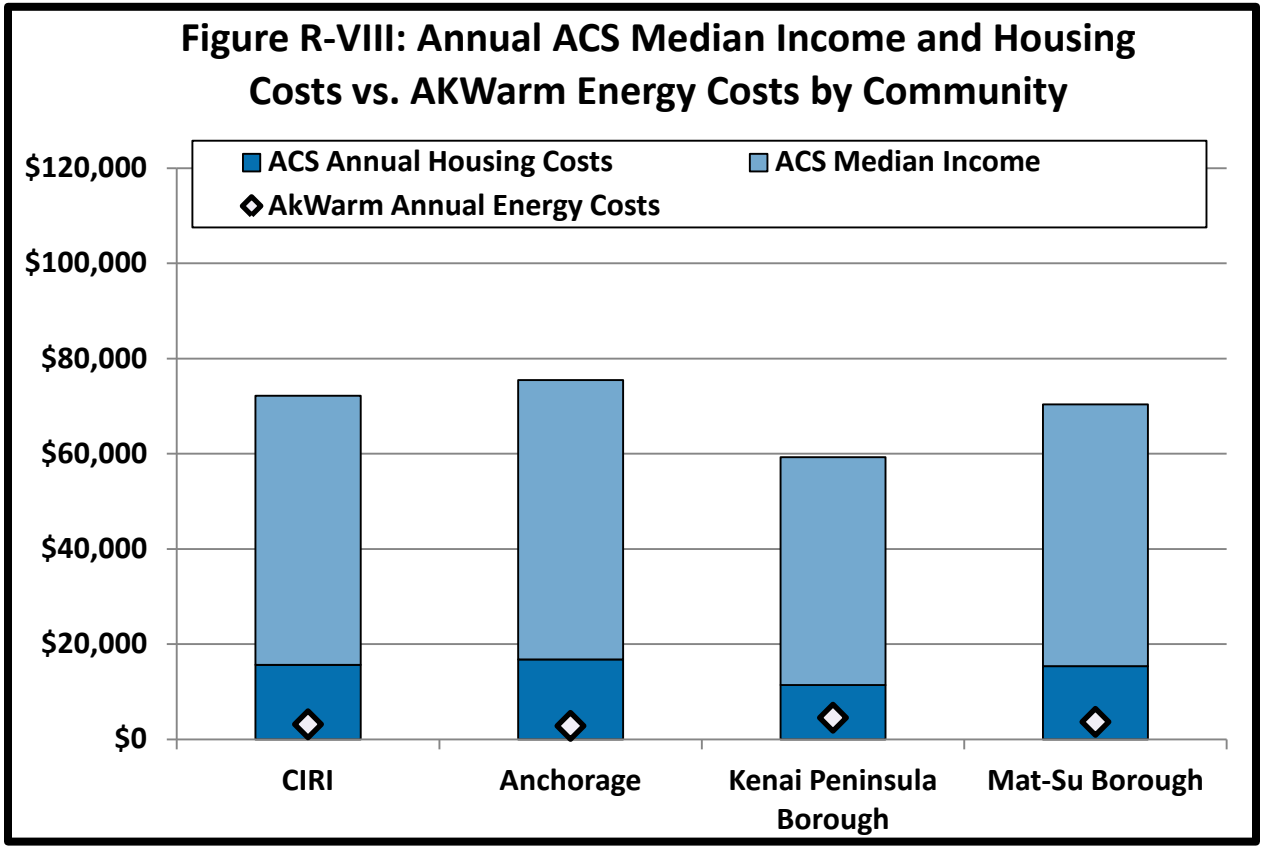
Affordability

Approximately 34% of households in the CIRI region are cost-burdened, spending 30% or more of household income on housing costs. [5] Figure R-VII shows the percent of cost-burdened households in the different census areas in the region, ranging from 29% in the Kenai Peninsula Borough census area to 35% in the Anchorage municipality census area. Of all ANCSA regions in the state, the CIRI region has the highest percentage of homes that are cost-burdened



[5] 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, "Analysis of American Community Survey Energy Cost Estimates" for more details.

Figure R-VIII gives the median household income for the CIRI region and its census areas, alongside housing and energy costs.[5] Reported housing costs from ACS data, including energy costs, rent, and housing taxes, along with AKWarm annual estimated energy costs are also shown in the graph. According to ACS data, the median household incomes for Anchorage, the Kenai Peninsula Borough, and the Mat-Su Borough range from $59,256 to $75,485. Anchorage's median income of $75,485 is the highest in the region while the lowest median income is $59,256 in the Kenai Peninsula Borough.



Community, Regional, and Statewide Housing Characteristics

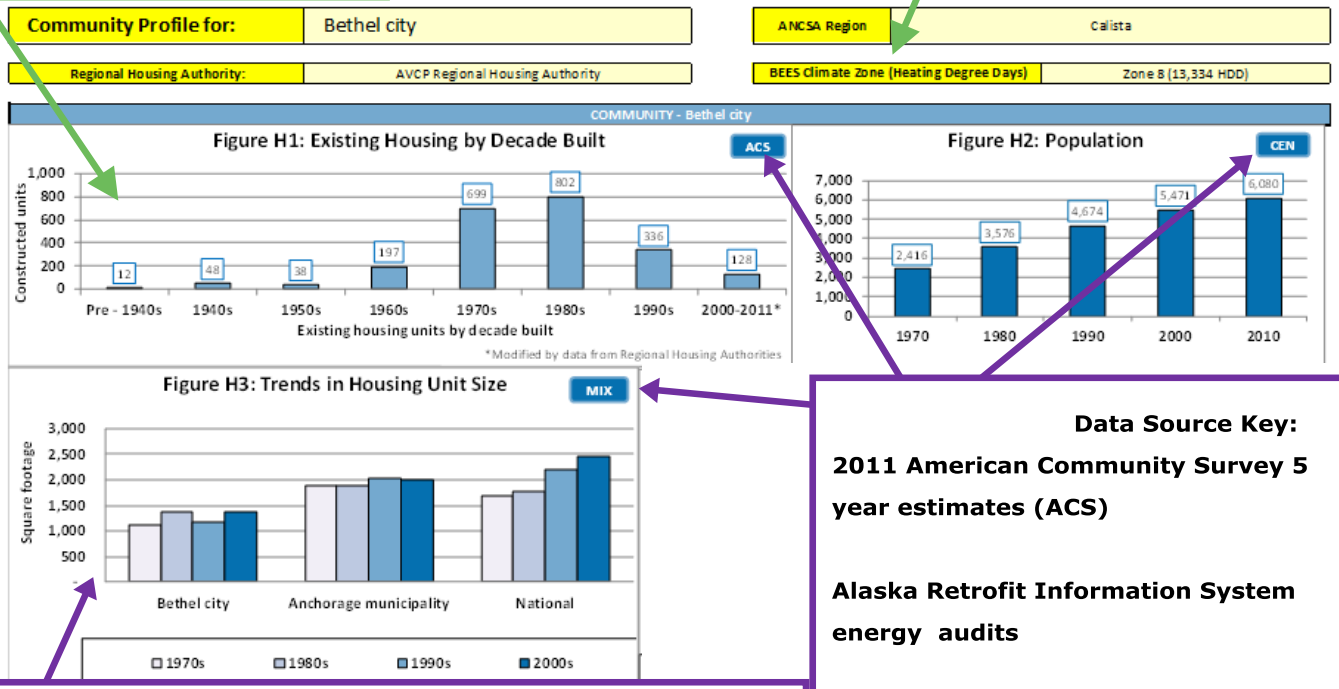
This ANCSA region summary only includes the highlights of housing characteristics at the ANCSA regional level. A detailed data profile with charts and tables for this region follows. The 2014 Alaska Housing Assessment provides a significant amount of data and analysis at statewide, ANCSA region, census 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

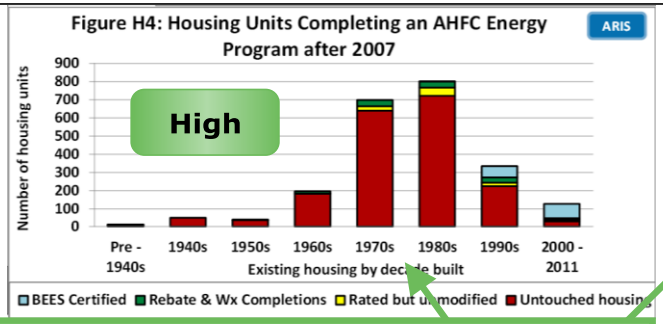
Mixed data source; see individual graphs for details. — MIX

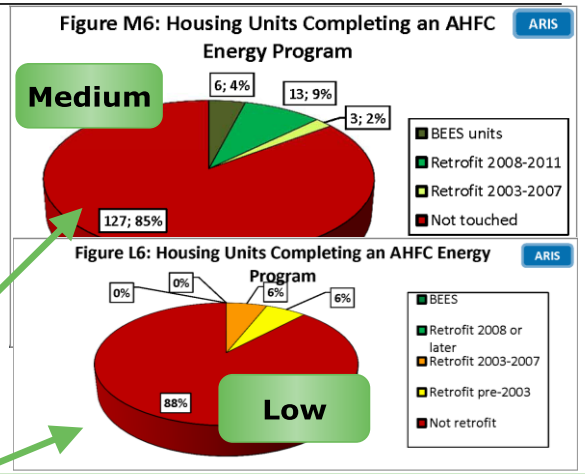
Data Sources: National trends come from the 2009 Residential Energy Consumption Statistics published by the U.S. Energy Information Administration. Anchorage and census area data come from the Alaska Retrofit Information System.

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).

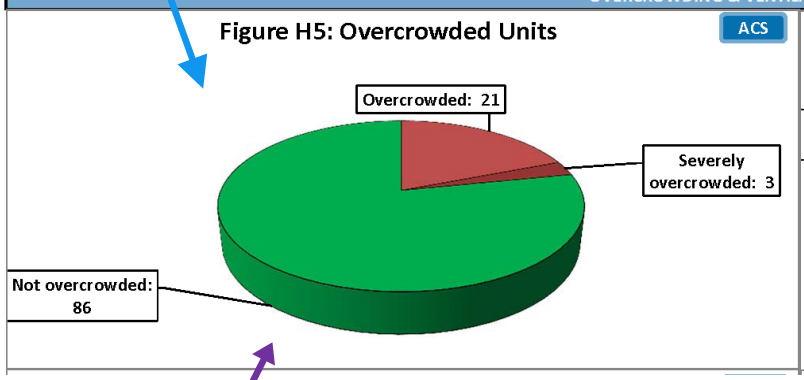
How to Interpret the Profile: Data Sources, Definitions & Clarifications

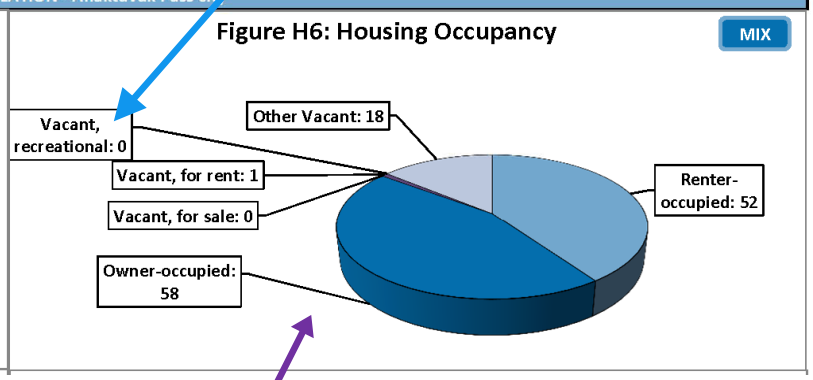
2

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

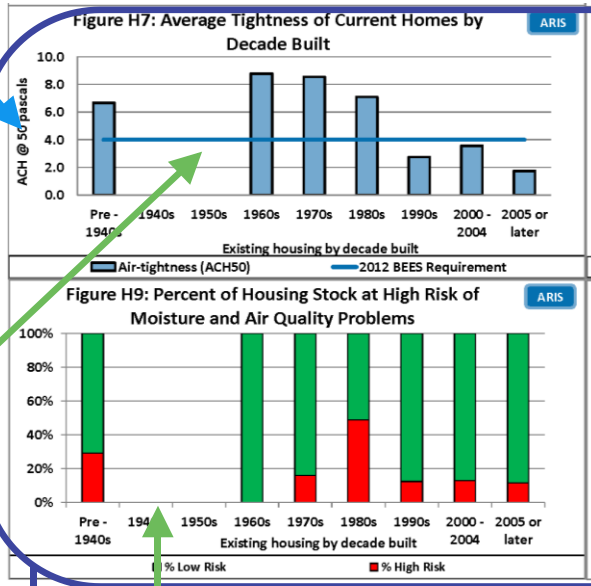
2

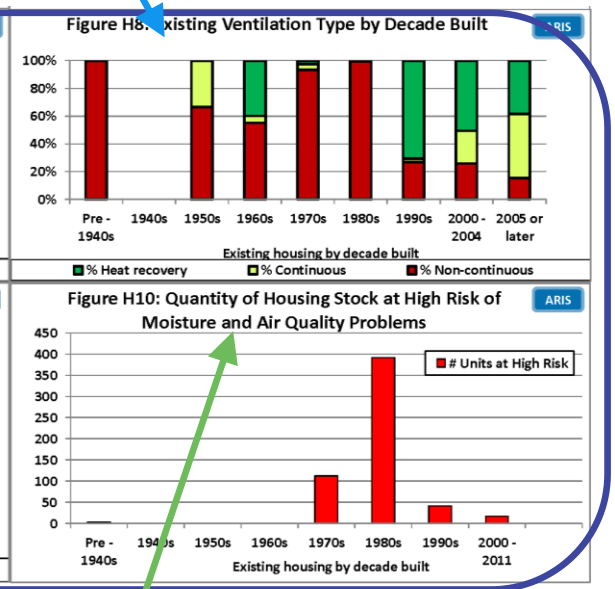
Heat Recovery: Continuous mechanical ventilation with heat recovery operated with automatic controls.

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.

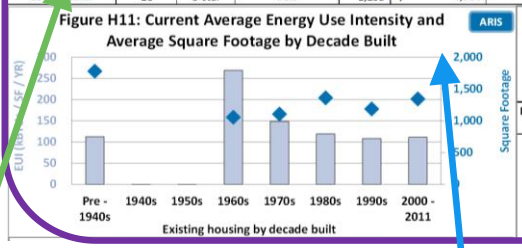
ECI: Energy Cost Index, the amount of money spent on energy per year divided by square footage.

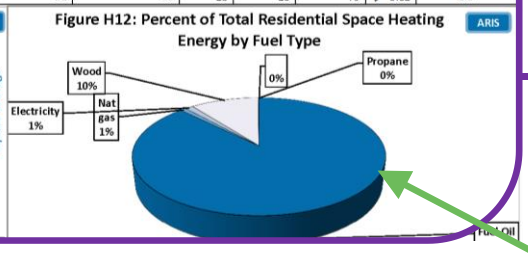
Home Heating Index: The energy used per square foot per year divided by the area's heating degree days.

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.

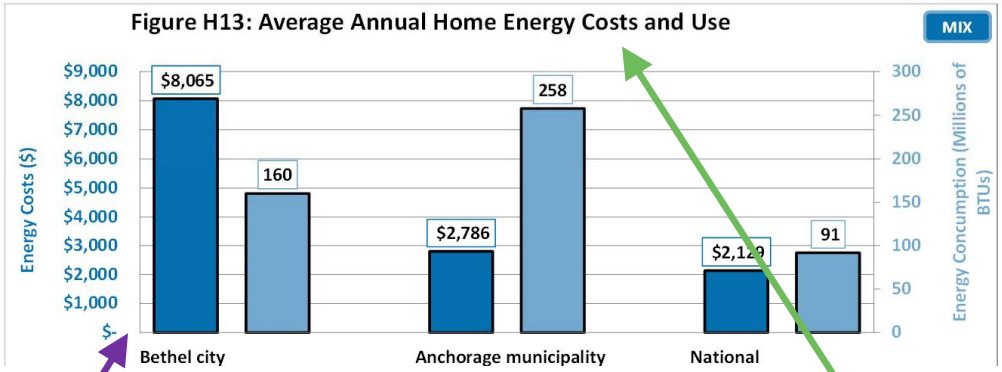
Red: value is less than 75% of the 2012 BEES requirement.

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).

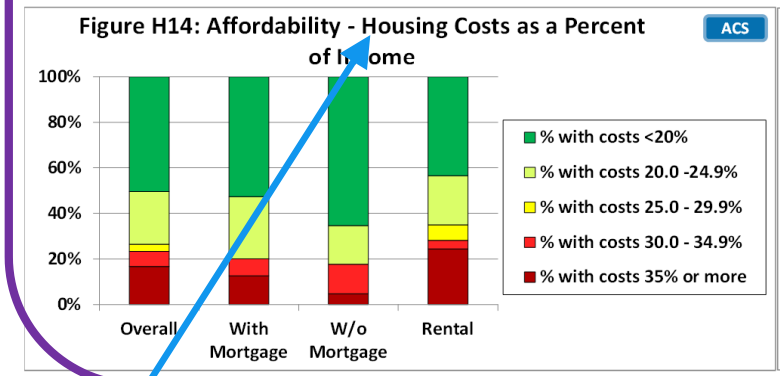
Owner-occupied House with Mortgage, Median Value
$226,800

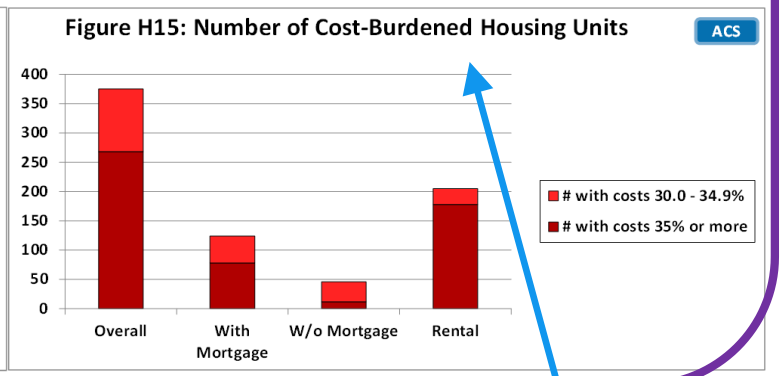
Owner-ocupied House without a Mortgage, Median Value
$119,600

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:	Cook Inlet Regional (CIRI)

Climate Zone (Heating Degree Day Range)	Zone 7 (9,000 - 12,600 HDD)

COMMUNITY - Cook Inlet Regional (CIRI)

Figure R1: Existing Housing by Decade Built

ACS

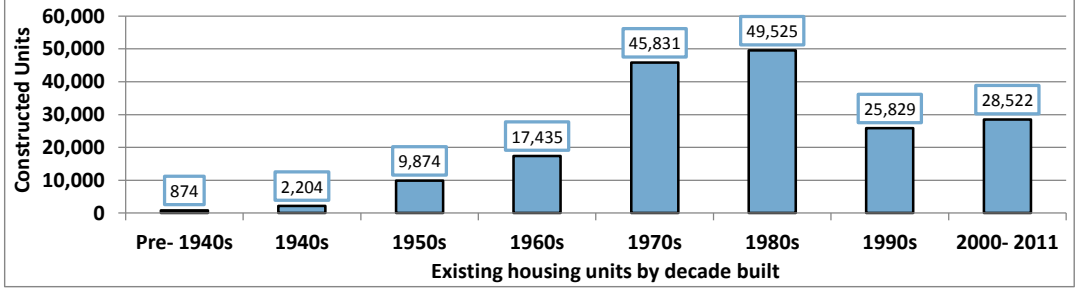


Figure R2: Population

CEN

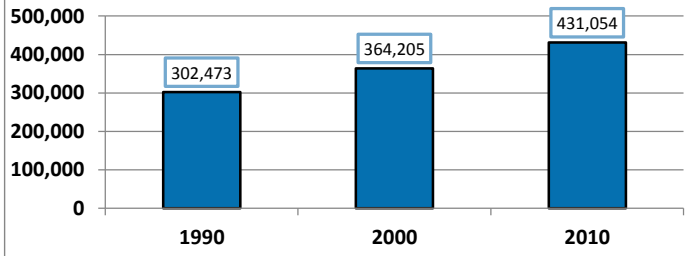


Figure R3: Trends in Housing Unit Size

MIX

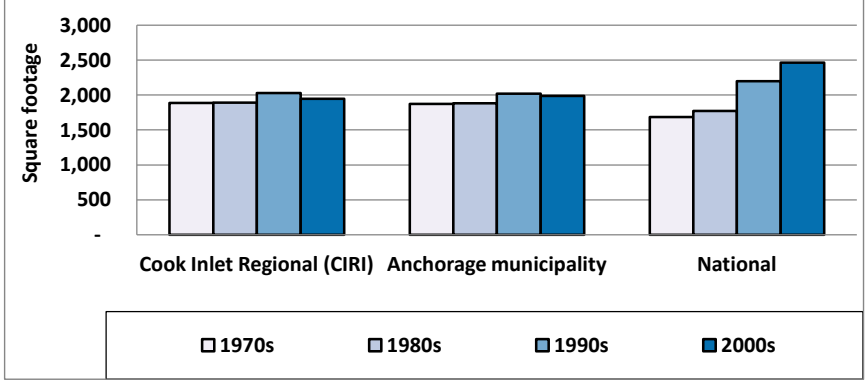
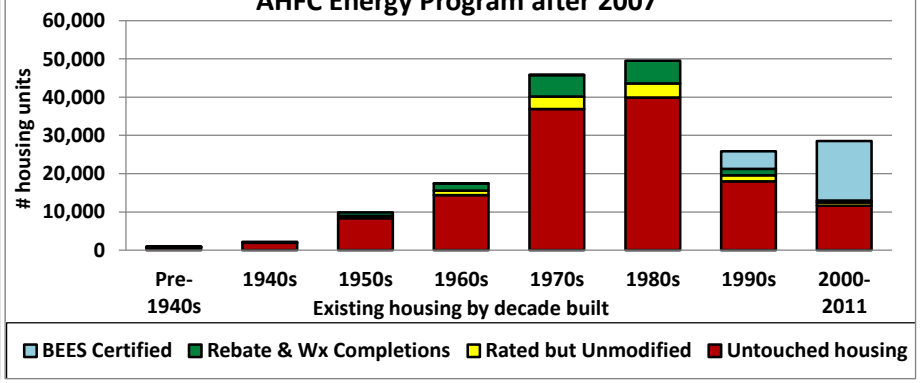


Figure R4: Housing Completing an AHFC Energy Program after 2007

ARIS



Houses Lacking Complete Plumbing or Kitchen Facilities	Households	
	Number	Percent
Lack complete plumbing	3,436	2%
Lack complete kitchen	3,123	2%

Avg Annual Energy Cost with PCE	NO PCE
Avg Annual Energy Cost without PCE	$3,123

Weatherization Retrofits (funding increased 2008)	
Date Range	Units
2008-2011	4,357
2003-2007	1604
1990-2002	7613

Estimated Total Annual Community Space Heating Fuel Use		
Fuel Oil	11,150,182	(gallons)
Natural Gas	253,532,847	(ccf)
Electricity	175,878,734	(kWh)
Wood	90,197	(cords)
Propane	1,802,942	(gallons)
Coal	735	(tons)

Housing Need Indicators	Number of units	% Occupied Housing
Overcrowded	6,781	4%
Housing cost burdened	51,817	33%
1 Star Homes	6,803	4%

Housing Stock Estimates	Number of Units
All Housing	180,094
All Occupied Housing	156,173
All Vacant housing	23,921
Vacant Housing for Sale or Rent	5,234

OVERCROWDING & VENTILATION - Cook Inlet Regional (CIRI)

Figure R5: Overcrowded Units

ACS

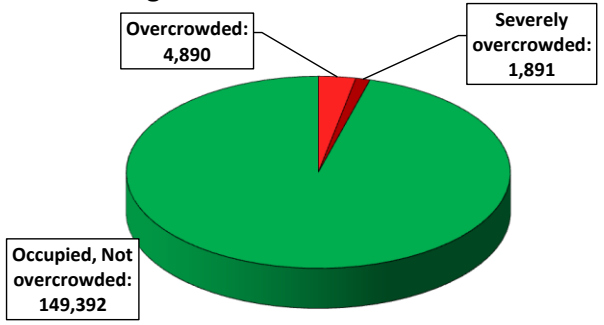


Figure R6: Housing Occupancy

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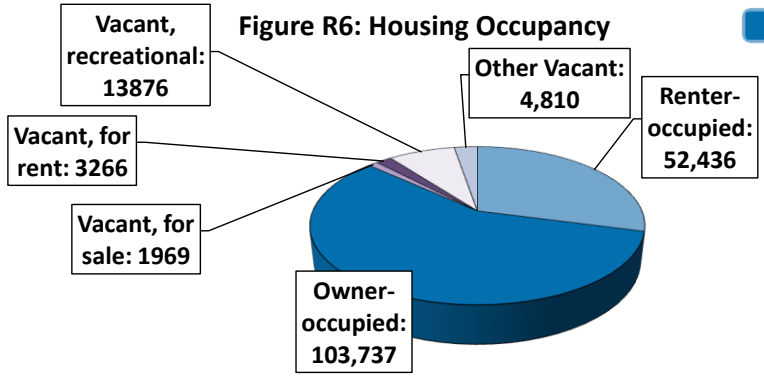

Figure R7: Average Air-Tightness of Current Homes by Decade Built

ARIS

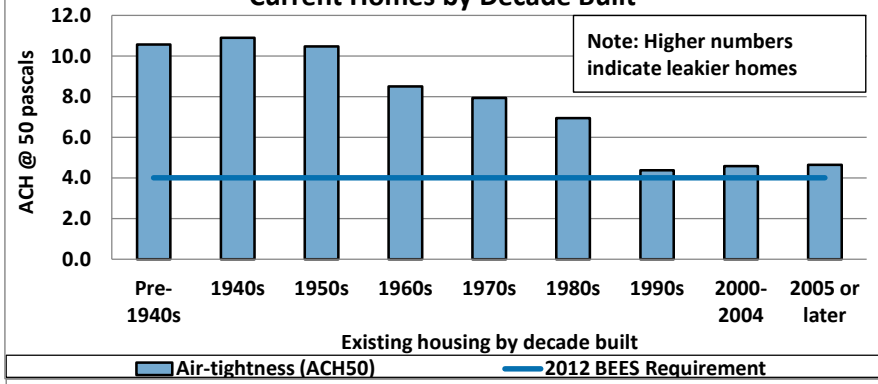

Figure R8: Existing Ventilation Type by Decade Built

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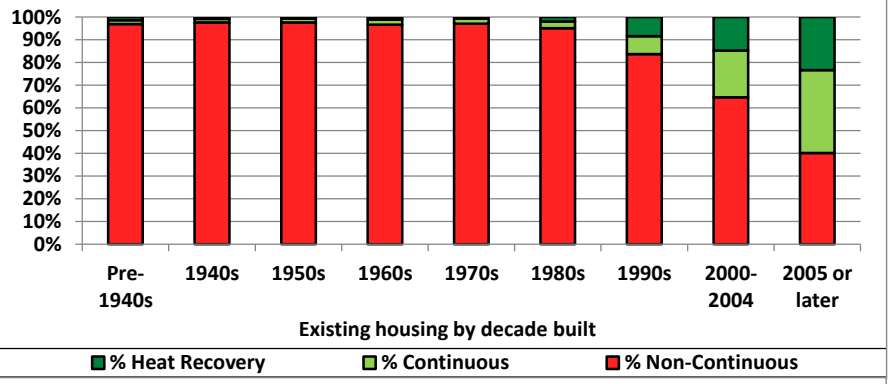

Figure R9: Percent of Housing Stock at High Risk of Moisture and Air Quality Problems

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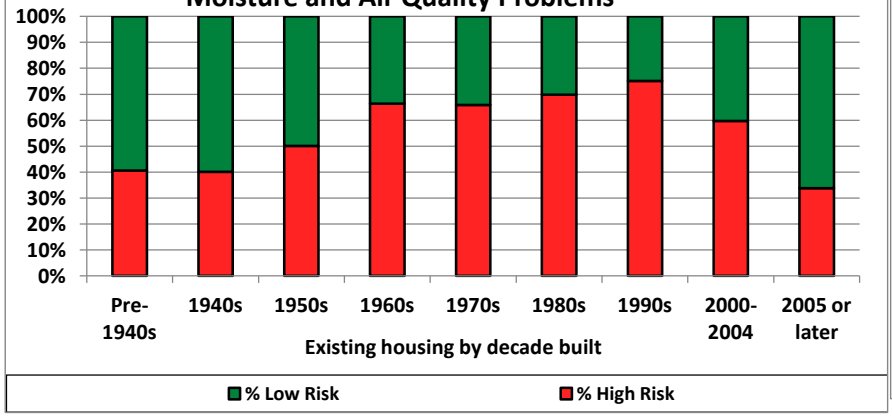
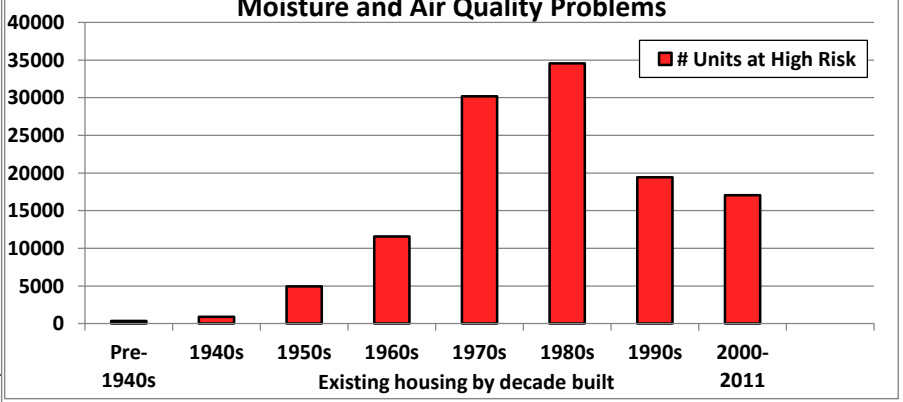


Figure R10: Quantity of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS



ENERGY - Cook Inlet Regional (CIRI)												
Current Cook Inlet Regional (CIRI) 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	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	60,643	3-star	70.9	1,895	$3,123	249	177	34	32	137	$1.77	9.5
Pre- 1940	115	2-star	59.3	2,364	$4,710	334	269	30	35	157	$2.39	12.0
1940- 49	403	2-star	56.6	1,720	$3,174	272	210	31	30	175	$2.08	12.8
1950- 59	2,229	2-star	57.3	1,631	$3,010	266	203	32	31	173	$2.02	12.5
1960- 69	4,393	2-star plus	62.6	1,839	$3,066	277	211	35	31	158	$1.81	11.3
1970- 79	13,161	2-star plus	65.7	1,888	$3,160	272	204	35	33	146	$1.78	10.3
1980- 89	14,334	3-star	70.6	1,892	$3,246	263	195	35	32	141	$1.81	9.8
1990- 99	8,801	4-star	78.8	2,027	$3,157	224	131	27	26	113	$1.69	7.3
2000- 2004	10,418	4-star plus	83.6	1,948	$2,871	191	123	37	32	103	$1.66	6.2
2005 or later	6,789	4-star plus	84.7	1,858	$2,791	171	107	33	32	98	$1.71	5.9

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

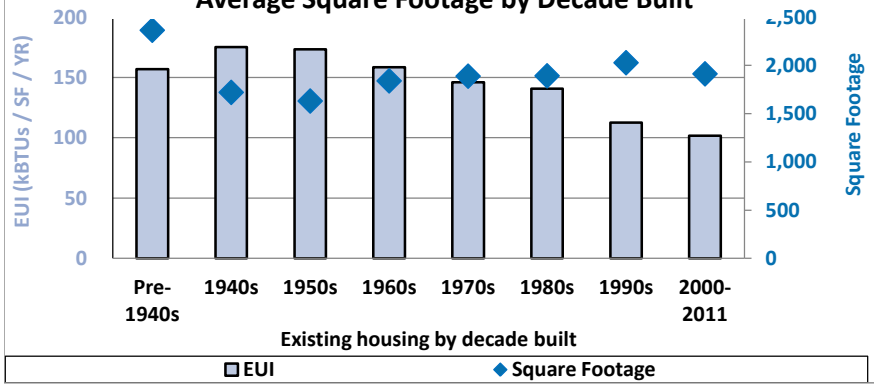
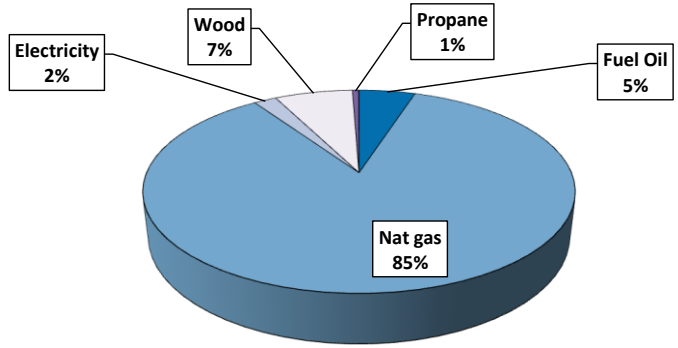


Figure R12: Percent of Total Residential Space Heating Energy by Fuel Type



Current Cook Inlet Regional (CIRI) 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	60,643	7.0	26	13	5	19	3	3	0.36	0.36	0.50
Pre- 1940	115	10.6	16	10	3	13	3	2	0.44	0.44	0.59
1940- 49	403	10.9	18	9	3	14	3	2	0.45	0.45	0.58
1950- 59	2,229	10.5	20	9	3	14	3	2	0.42	0.42	0.58
1960- 69	4,393	8.5	21	11	4	17	2	2	0.42	0.42	0.57
1970- 79	13,161	7.9	23	11	4	17	2	2	0.38	0.38	0.54
1980- 89	14,334	7.0	27	13	5	18	3	3	0.37	0.37	0.51
1990- 99	8,801	4.4	37	18	6	24	3	3	0.27	0.27	0.38
2000- 2004	10,418	4.6	37	16	12	23	3	3	0.26	0.26	0.38
2005 or later	6,789	4.6	36	16	12	24	3	3	0.25	0.25	0.35

BEES 2009 - Climate Zone 7	7.0	38	21	15	38	15	15	0.33	0.33	0.33
BEES 2012 - Climate Zone 7	4.0	43	25	15	38	15	15	0.30	0.30	0.30

AFFORDABILITY - Cook Inlet Regional (CIRI)

Figure R13: Average Annual Home Energy Cost and Use

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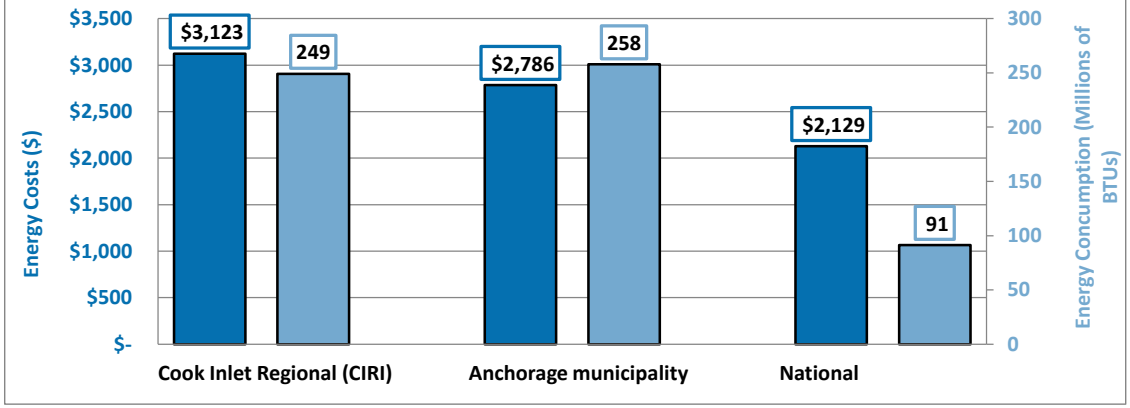

Housing Information	Avg Household Size (# of people)
All-occupied	2.7
Owner-occupied	2.7
Renter-occupied	2.5

Median value of owner-occupied house with mortgage
$256,900

Median value of owner-occupied house without a mortgage
$217,900

Median Household Income	
Housing Units	Annual Household Income
All-occupied	$ 72,210
Renter-occupied	$ 44,448
Owner-occupied	$ 88,571
w/ mortgage	$ 96,586
w/o mortgage	$ 63,943

Median Housing Costs		
	Monthly	Annual
All-occupied	$ 1,305	$ 15,660
Gross rent	$ 1,018	$ 12,216
Owner-occupied	$ 1,556	$ 18,672
Housing units w/ mortgage	$ 1,845	$ 22,140
Housing units w/out a mortgage	$ 569	$ 6,828

Avg % of Median Income Spent on Energy	4.3%

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

ACS

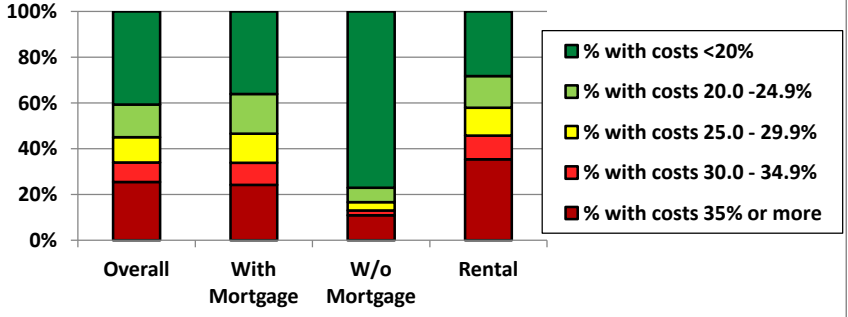

Figure R15: Number of Cost-Burdened Housing Units

ACS