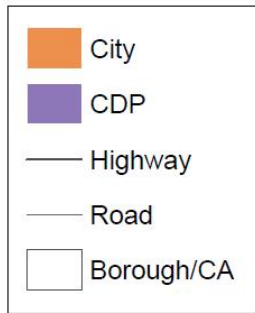


Hoonah-Angoon Census Area



Map Prepared by:
Alaska Department of Labor
& Workforce Development

September 2011

Source: US Census
2010 TIGERline



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Hoonah-Angoon Census Area Dashboard

Population: The Alaska Department of Labor and Workforce Development's current (2012) population estimate for the Hoonah-Angoon Census Area is 2,210—a decrease of 16% from 2000.

Housing Units: There are currently 1,761 housing units in the Hoonah-Angoon Census Area. Of these, 966 are occupied, 115 are for sale or rent, and the remaining 680 are seasonal or otherwise vacant units (Profile Figure C6).

Energy: The average home in the Hoonah-Angoon Census Area is 1,313 square feet and uses 122,000 BTUs of energy per square foot annually, 11% less than the statewide average of 137,000 BTUs per square foot.

Energy Costs: Using AKWarm estimates, average annual energy cost for homes in the Hoonah-Angoon Census Area is \$5,840, which is approximately 2.1 times more than the cost in Anchorage, and 2.7 times more than the national average (Profile Figure C13).

Energy Programs: Approximately 14% of occupied housing in the Hoonah-Angoon Census Area has completed either the Home Energy Rebate, Weatherization, or BEES programs since 2008, compared to 21% statewide (Profile Figure C12).

Housing Quality: Within current housing stock, newer homes have better energy performance. On average, homes built before 1940 are currently rated at 1-star-plus, compared to a current average rating of 4-stars for houses 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 before 1940 are 4 times leakier than those built since 2000 (Profile Figure C7).

Ventilation: An estimated 361 occupied housing units (or 37%) in the Hoonah-Angoon Census Area 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 C9-C10).

Overcrowding: 3% of occupied units are estimated to be either overcrowded (2%) or severely overcrowded (1%). This is roughly similar to the national average, and makes the Hoonah-Angoon Census Area the 25th most overcrowded census area in the state.

Affordability: On average, approximately 22% of households in the Hoonah-Angoon Census Area spend more than 30% of total income on housing costs, which include rent, utilities, and energy costs. Based on average AKWarm estimates, annual energy costs constitute approximately 12% of census median area income for occupied housing.

Hoonah-Angoon Census Area Summary

Community

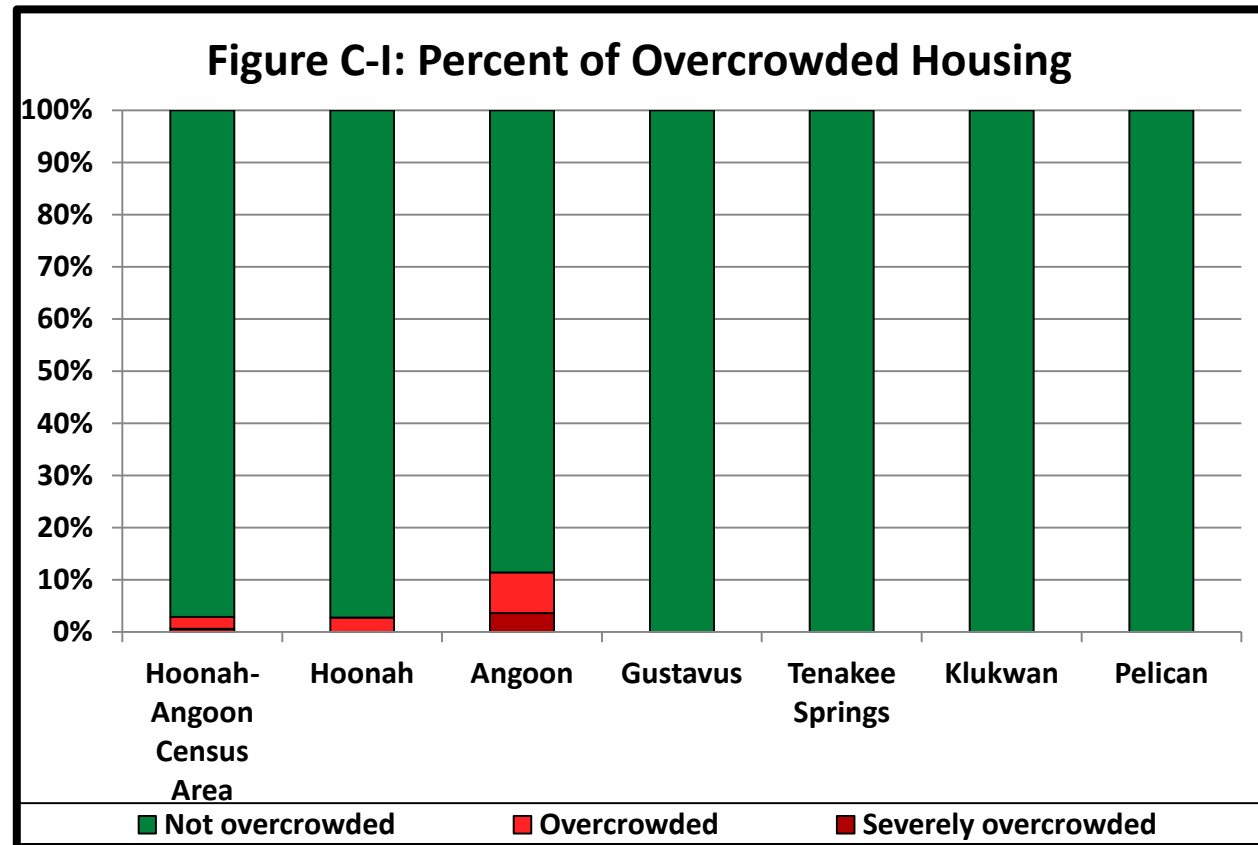
The census area of Hoonah-Angoon is located on the Southeast panhandle of Alaska, to the north and west of the state capital of Juneau. It is in the Sealaska Native Corporation ANCSA region. Average home sizes in the census area range from 927 square feet in the community of Hoonah to 1,127 square feet in the community of Angoon.

Overcrowding

Between zero and 11% of households in Hoonah-Angoon communities are overcrowded, or have more than one person per room. Overall, 3% of housing units have more than one person per room. The highest overcrowding percentage of 11% is found in the community of Angoon, in

contrast to other communities in the census area, which have very little overcrowding. In fact, Gustavus, Tenakee Springs, Klukwan, and Pelican all have an estimated zero overcrowded households (Figure C-I).

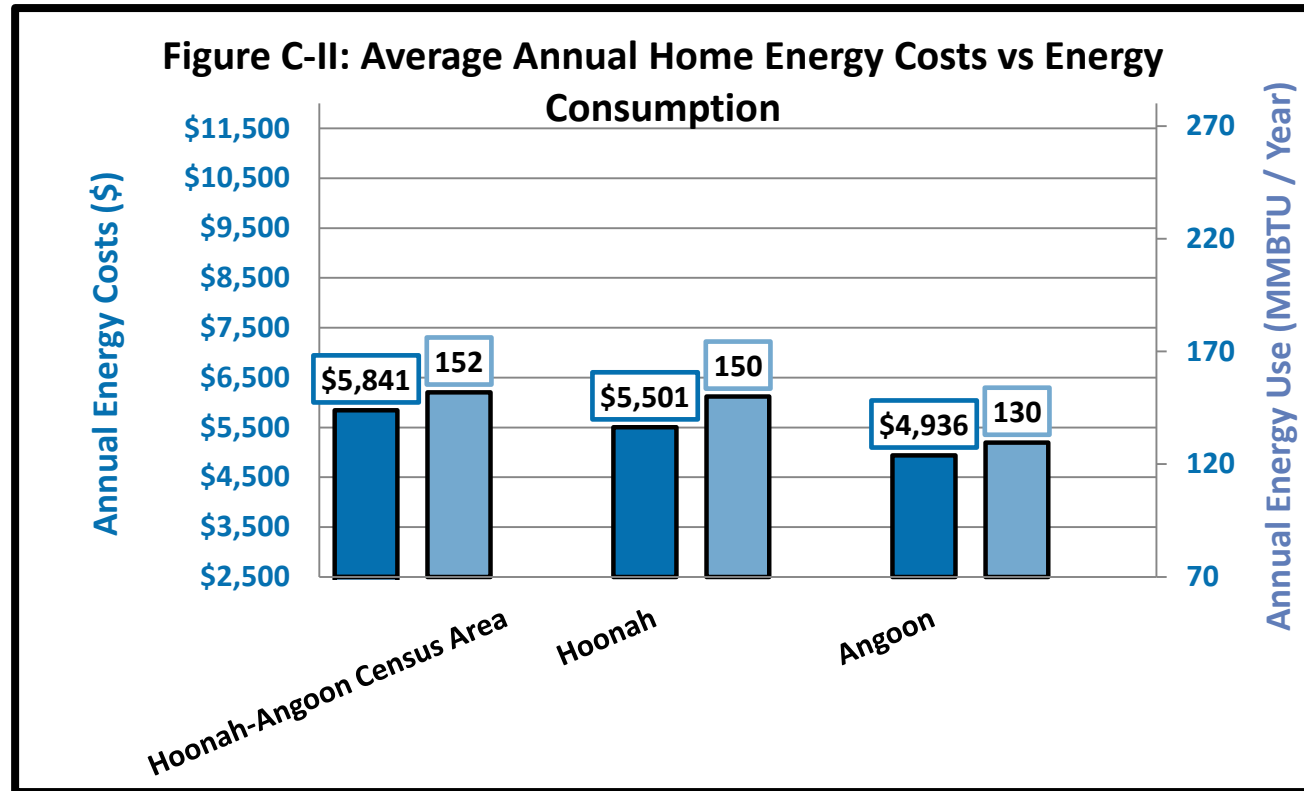
Approximately 7% of housing in the census area is available for sale or rent. The community of Hoonah has the lowest percentage of available housing at 4% and the highest percentage of available housing is in Klukwan, where 16% of housing units are for sale or rent. Additionally, nearly 40% of housing units in Hoonah-Angoon are considered vacant because they are used for



recreational, seasonal, or “other” non-year round purposes.

Energy

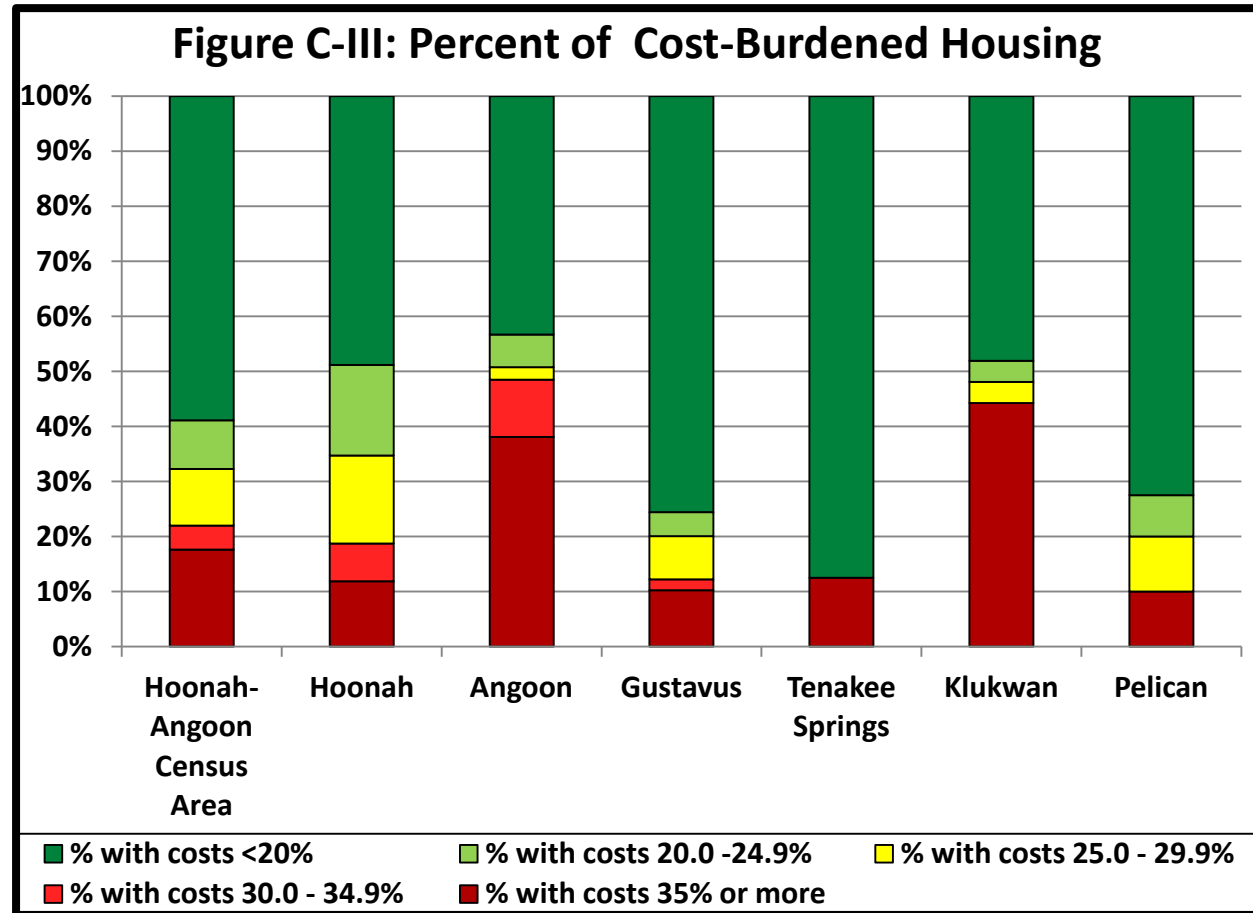
Homes in Hoonah-Angoon use an average of 152 million BTUs of energy annually, paying average energy costs of \$5,841 each year. The lowest energy costs are found in the community of Angoon, where residents pay an average of \$4,936. The highest costs are found in the community of Hoonah, \$5,501 per year, only \$600 more per year than in Angoon. The communities of Angoon and Hoonah also represent the communities with the lowest and highest home heating indices. In Angoon, homes have an average heating index of 7.6 BTUs/ft²/HDD compared to the average home heating index of 11 BTUs/ft²/HDD in the community of Hoonah.



Approximately 16% of housing units in Hoonah-Angoon have completed the Home Energy Rebate, Weatherization, or a BEES program since 2003. The highest participation is found in the community of Angoon, where 33% of households have completed an energy program. On the other hand, an estimated zero households in Tenakee Springs have completed an energy program. Throughout the census area, less than 25% of homes built in any decade have an HRV or continuous ventilation system installed.

Affordability

According to ACS estimates¹, the affordability of living in communities in Hoonah-Angoon varies widely: Approximately 10% of households are cost-burdened in Pelican. The highest percentage of cost-burdened households is found in the community of Angoon, where 49% of households spend more than 30% of household income on housing costs. This is more than double the percentage of cost-burdened households in the census area as a whole (Figure C-III). Pelican and Angoon also have the highest and lowest median household incomes in the census area, respectively. Households in Pelican have a median income of \$72,500, almost \$50,000 more than the median income of \$23,971 found in Angoon.



¹ CCHRC's analysis of ACS energy costs indicate 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.

Community, Regional, and Statewide Housing Characteristics

This census area summary only includes the highlights of housing characteristics at the census area level. Detailed data profile with charts and tables for both the census area and for each of the communities within it follow. 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.

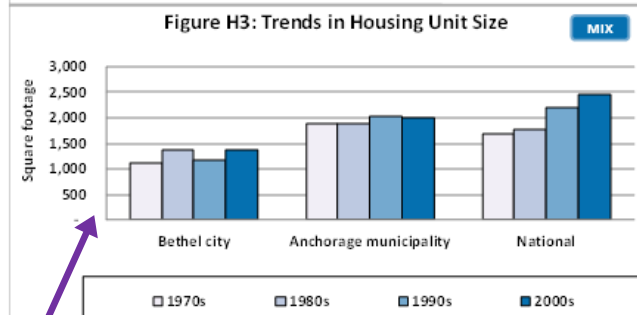
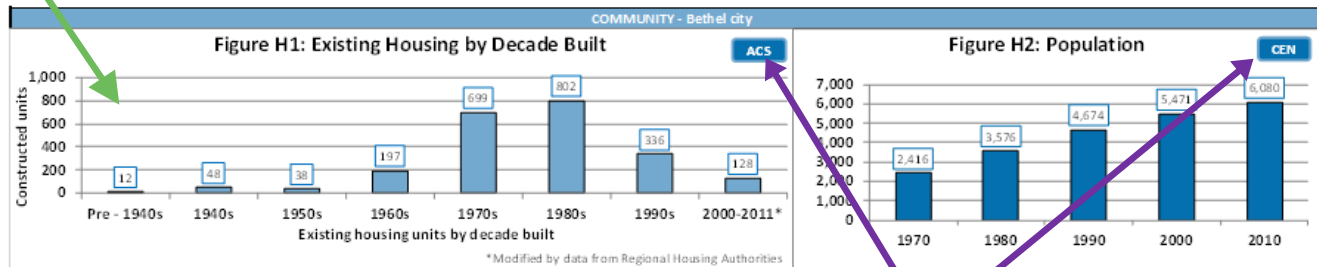
How to Interpret the Profile: Data Sources, Definitions & Clarifications

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.

Community Profile for:	Bethel city	ANCSA Region	Calista
Regional Housing Authority:	AVCP Regional Housing Authority	BEES Climate Zone (Heating Degree Days)	Zone 8 (13,334 HDD)



Data Source Key:

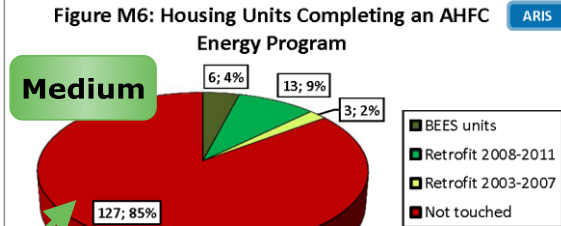
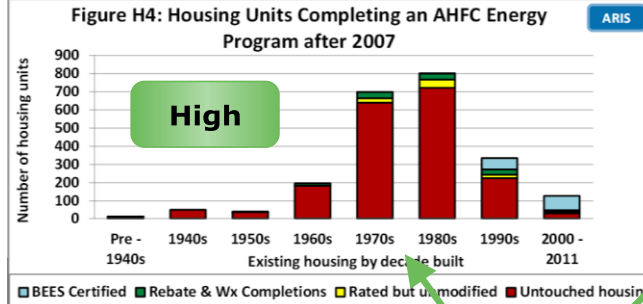
- 2011 American Community Survey 5 year estimates (ACS) **ACS**
- Alaska Retrofit Information System energy audits **ARIS**
- 2010 Decennial Census **CEN**
- Mixed data source; see individual graphs for details. **MIX**

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.

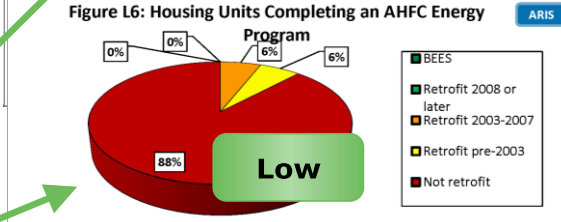
How to Interpret the Profile: Data Sources, Definitions & Clarifications

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.

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

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)

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

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 2008)	
Date Range	Units
2008-2011	17
2003-2007	-
1990-2002	10

Housing Stock Estimates	
All Housing	Nu
All Occupied Housing	
All Housing	
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

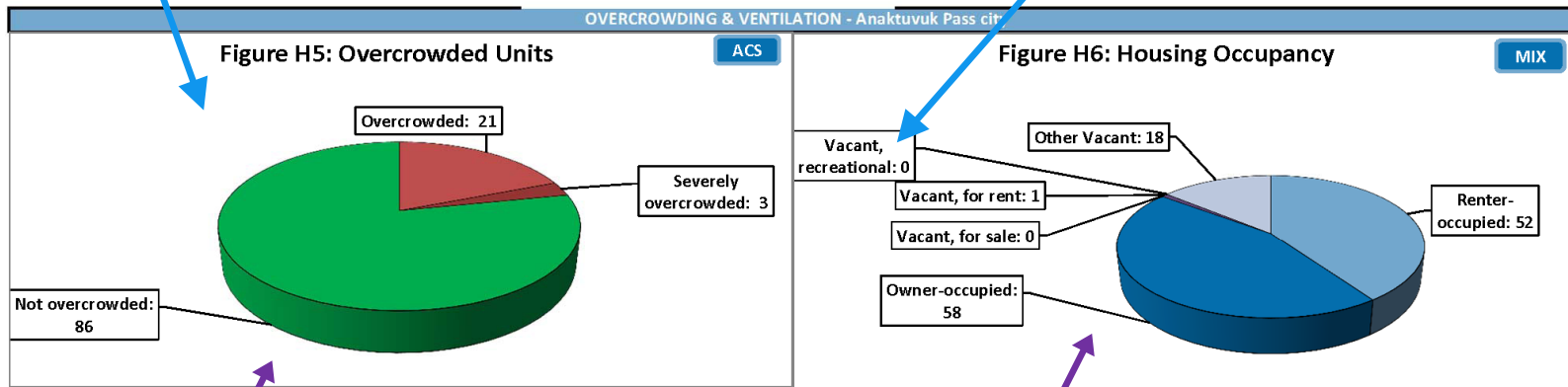
2

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.



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.

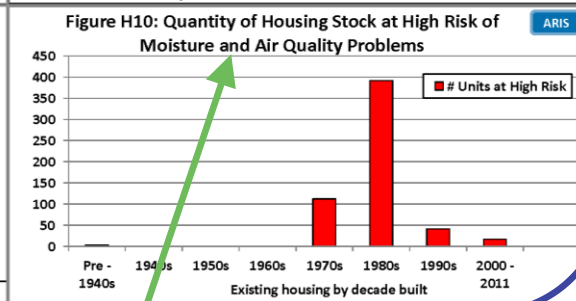
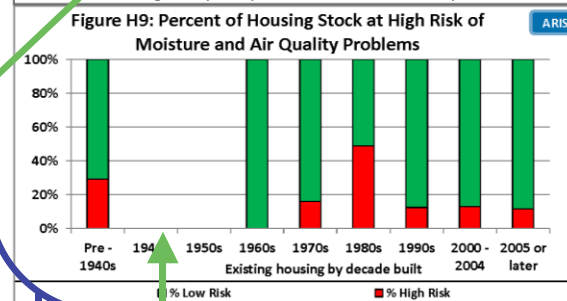
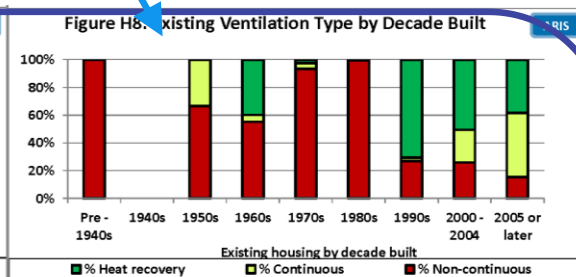
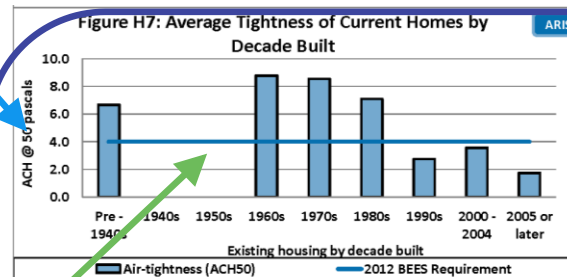
Continuous: Mechanical ventilation without heat recovery operated with automatic controls.

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

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.

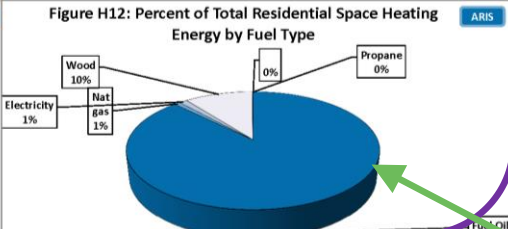
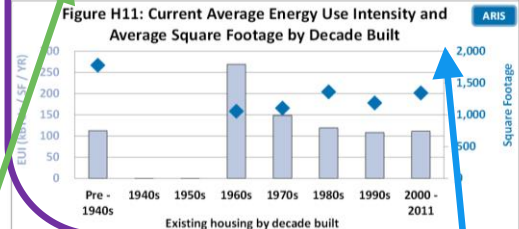
Space Heating, DHW, Appliances:
Estimated annual energy for the end uses of: Space Heating, Domestic Hot Water, and all other energy including lights, appliances, and electronics.

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 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 Use (million Btus)			Avg. EUI (kBtu/SqFt)	Avg. ECI (\$ / \$ / SqF)	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	153	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 or 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--

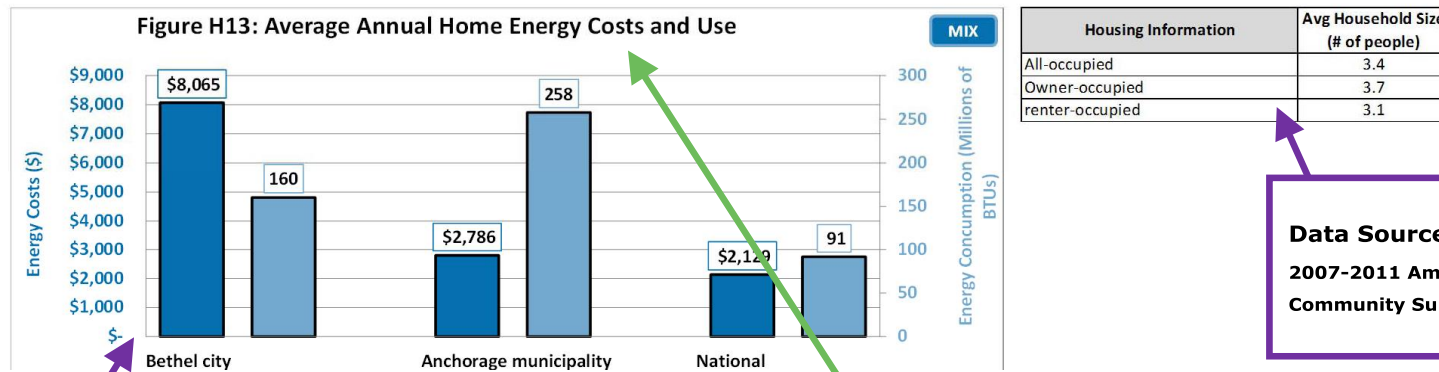
Green: the average value meets or exceeds the 2012 BEES requirement.
Yellow: value is 75-99% of the 2012 BEES requirement.
Red: value is less than 75% of the 2012 BEES requirement.

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



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-occupied 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%	

Figure H14: Affordability - Housing Costs as a Percent of Income

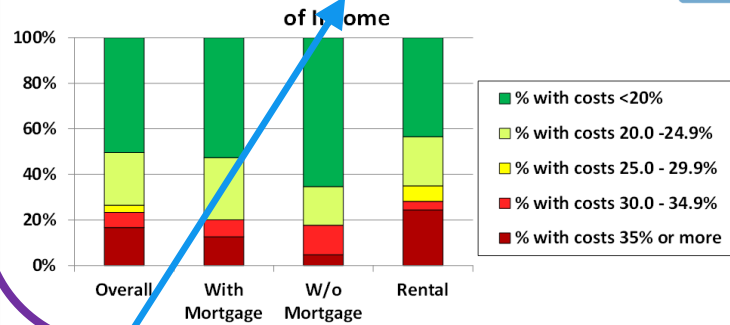
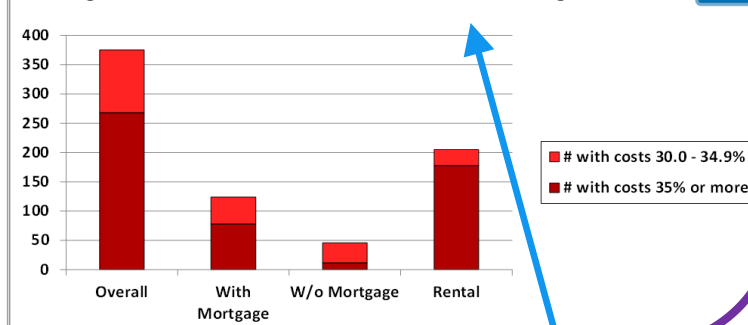


Figure H15: Number of Cost-Burdened Housing Units



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.

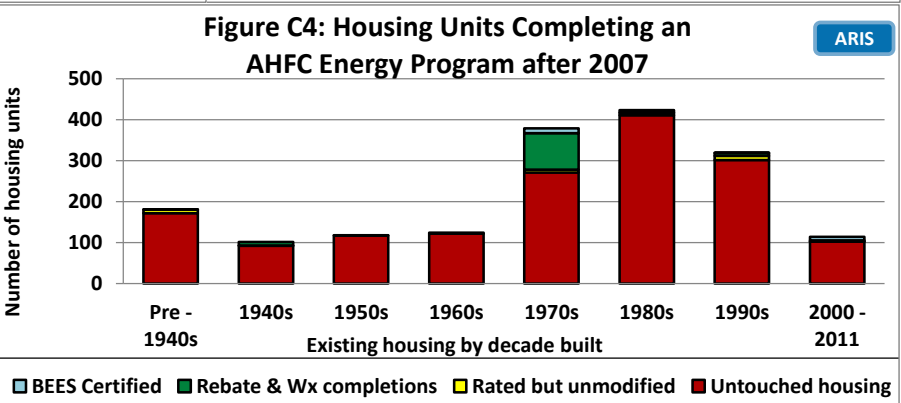
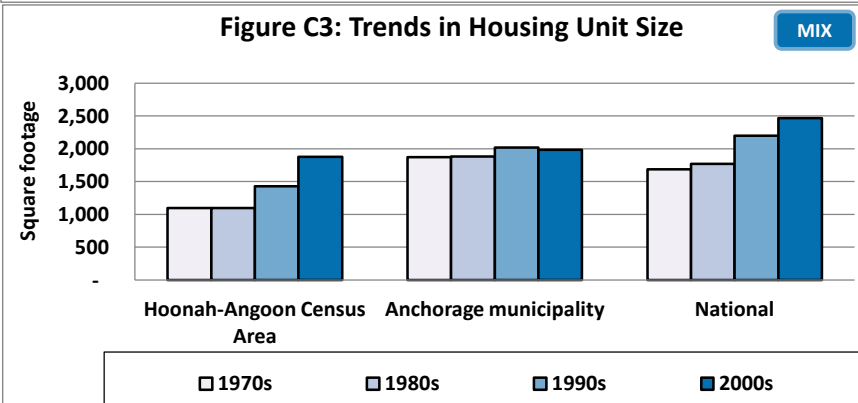
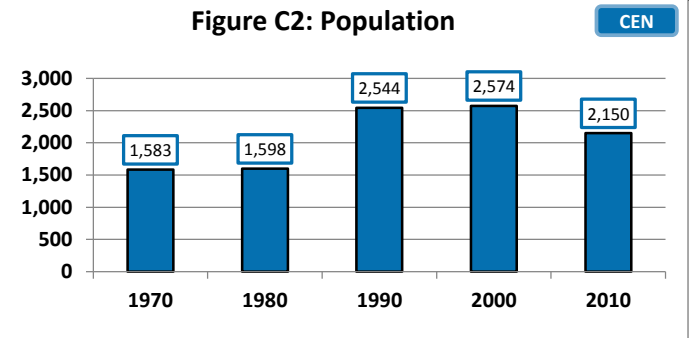
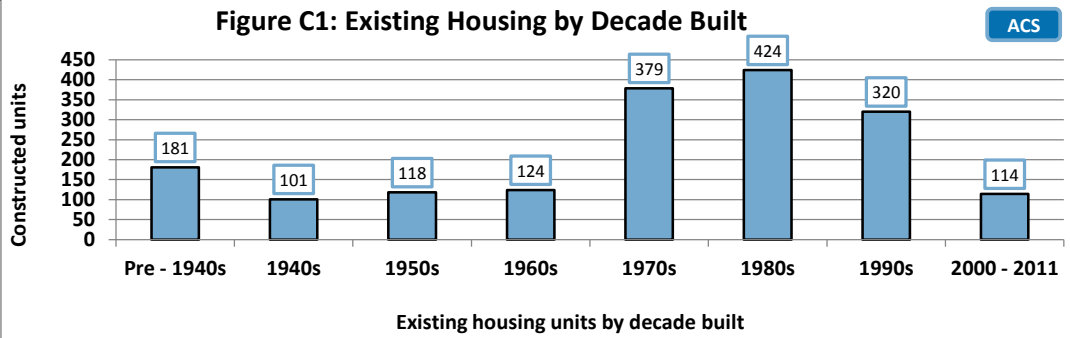
Census Area Profile for: Hoonah-Angoon Census Area

ANCSA Region: Sealaska Corporation

Regional Housing Authority: Tlingit-Haida Regional Housing Authority

BEES Climate Zone (Heating Degree Day Range): Zone 6 (7,200 - 9,000 HDD)

COMMUNITY - Hoonah-Angoon Census Area



Houses Lacking Complete Plumbing or Kitchen Facilities	Households	
	Number	Percent
Lack complete plumbing	118	12%
Lack complete kitchen	37	4%

Avg Annual Energy Cost with PCE	\$5,841
Avg Annual Energy Cost without PCE	\$7,636

Weatherization Retrofits (funding increased 2008)	
Date Range	Units
2008 - 2011	105
2003 - 2007	18
1990 - 2002	38

Estimated Total Annual Community Space Heating Fuel Use		
Fuel Oil	452,695	(gallons)
Natural Gas	-	(ccf)
Electricity	365,461	(kWh)
Wood	1,899	(cords)
Propane	5,889	(gallons)
Coal	-	(tons)

Housing Need Indicators	Number of Units	% Occupied Housing
Overcrowded	28	3%
Housing cost burdened	187	19%
1 Star Homes	193	20%

Housing Stock Estimates	Number of Units
All Housing	1,761
All Occupied Housing	966
All Vacant housing	795
Vacant Housing for Sale or Rent	115

OVERCROWDING & VENTILATION - Hoonah-Angoon Census Area

Figure C5: Overcrowded Units

ACS

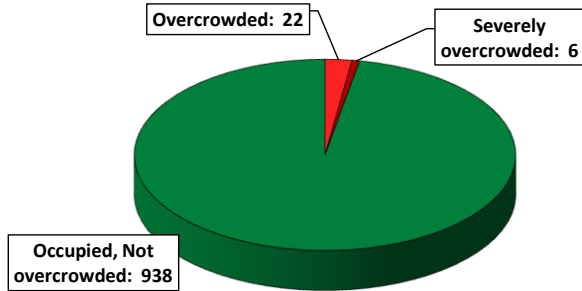


Figure C6: Housing Occupancy

MIX

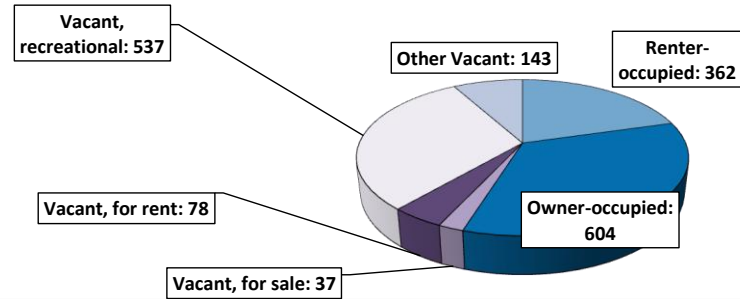


Figure C7: Average Air-Tightness of Current Homes by Decade Built

ARIS

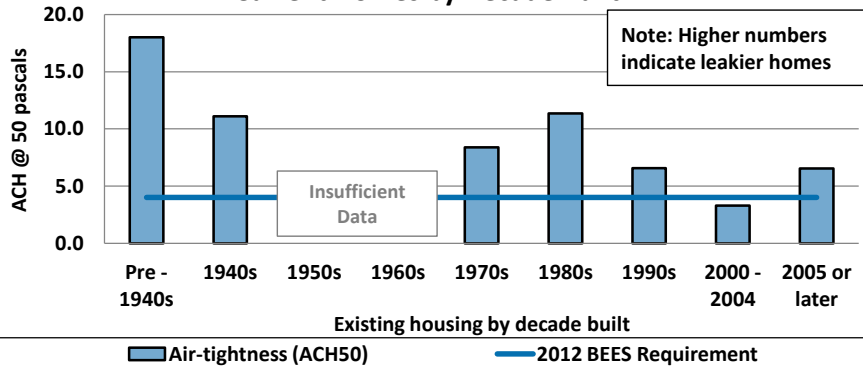


Figure C8: Existing Ventilation Type by Decade Built

ARIS

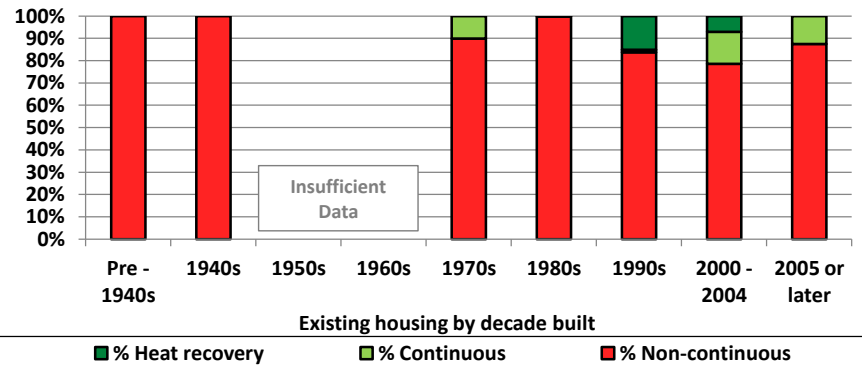


Figure C9: Percent of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS

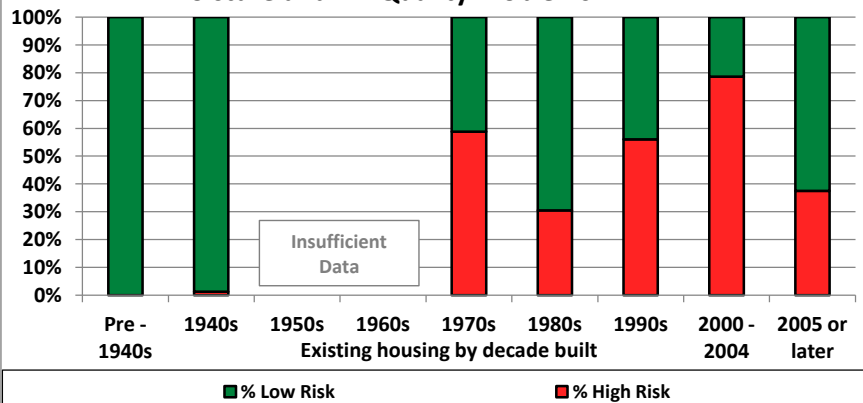
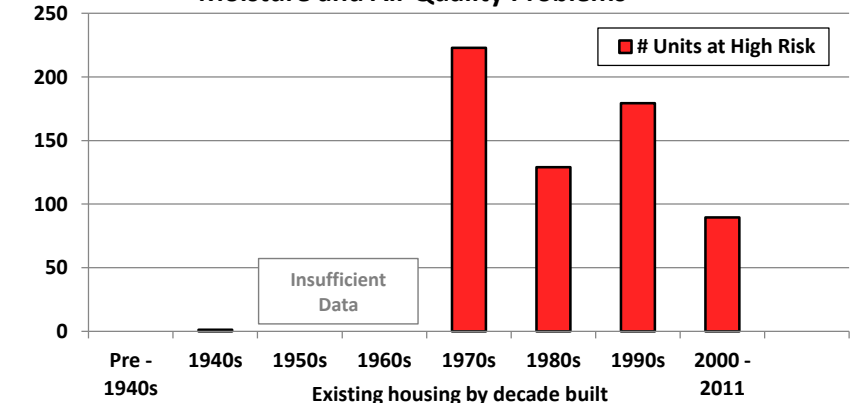


Figure C10: Quantity of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS



ENERGY - Hoonah-Angoon Census Area												
Current Hoonah-Angoon Census Area 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 Ann Energy by End Use (million Btus)			Avg. EUI (kBtUs / SF)	Avg. ECI (\$ / SF)	Avg. Home Heating Index
							Space Heating	DHW	Appliances			
OVERALL	182	2-star plus	61.6	1,313	\$5,841	152	99	25	27	122	\$4.71	9.4
Pre- 1940	10	1-star plus	44.9	977	\$5,378	127	93	14	19	155	\$7.67	13.0
1940- 49	15	2-star	56.0	1,028	\$6,626	163	104	37	22	171	\$6.86	12.4
1950- 59	1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1960- 69	2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1970- 79	180	2-star plus	67.3	1,099	\$4,990	135	77	28	26	121	\$4.52	8.7
1980- 89	20	2-star	52.4	1,099	\$4,777	157	113	18	27	150	\$4.66	13.2
1990- 99	29	3-star	69.6	1,427	\$5,849	136	77	29	29	105	\$4.74	7.2
2000- 2004	8	4-star	80.2	1,878	\$5,749	157	106	24	27	88	\$3.10	7.1
2005 or later	6	4-star	78.3	1,473	\$7,095	126	75	23	28	87	\$4.95	6.2

Figure C11: Current Average Energy Use Intensity and Average Square Footage by Decade Built

ARIS

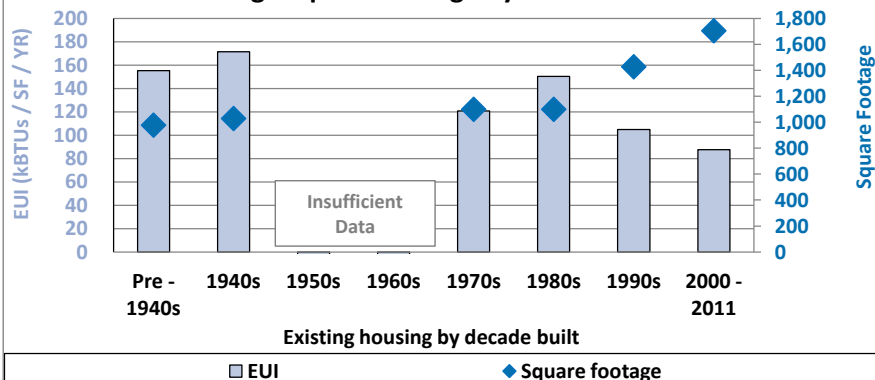
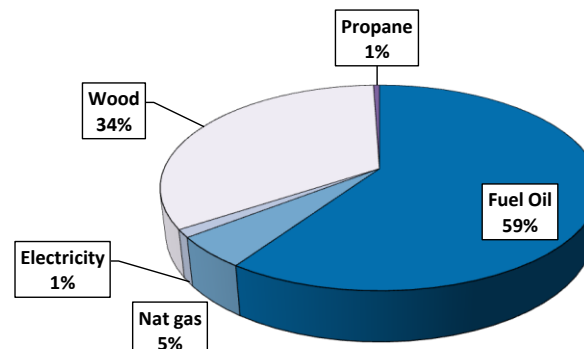


Figure C12: Percent of Total Residential Space Heating Energy by Fuel Type

ARIS

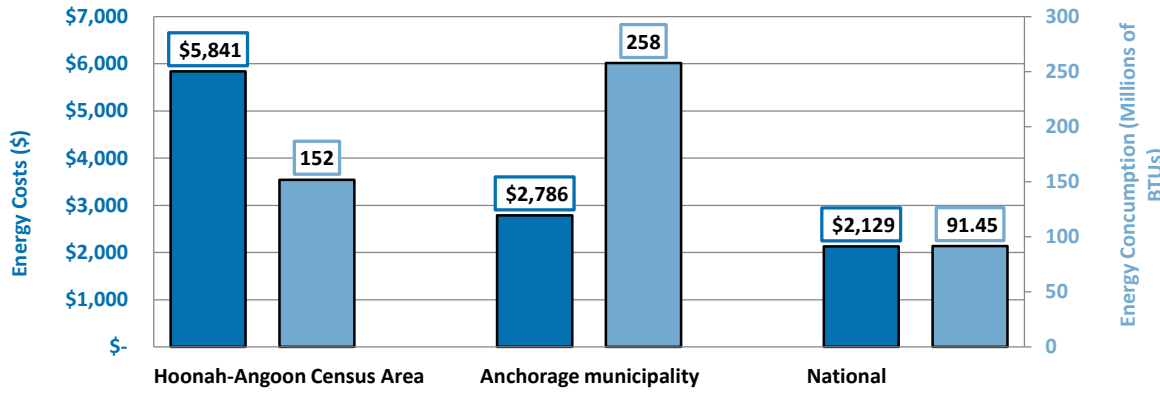


Current Hoonah-Angoon Census Area Housing Envelope Characteristics By Decade Built											
Current Residential Units by Year Built	# of AkWarm Records	ACH 50	Ceiling R	Above Grade Wall R	Below Grade Wall R	Above Grade Floor R	On Grade Floor R	Below Grade Floor R	Door U	Garage Door U	Window U
OVERALL	182	9.4	27	12	3	20	3	2	0.36	0.20	0.51
Pre- 1940	10	18.0	NR	NR	NR	NR	NR	NR	NR	NR	NR
1940- 49	15	11.1	16	10	NR	20	NR	NR	0.37	NR	0.74
1950- 59	1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1960- 69	2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1970- 79	180	8.4	33	11	NR	26	NR	NR	0.27	NR	0.52
1980- 89	20	11.3	20	10	NR	19	NR	NR	0.54	NR	0.51
1990- 99	29	6.6	31	15	13	21	NR	NR	0.35	NR	0.46
2000- 2004	8	3.3	38	19	NR	NR	4	NR	0.25	NR	0.39
2005 or later	6	6.5	29	17	NR	NR	NR	NR	0.41	NR	0.42

BEES 2009 - Climate Zone 6	7.0	38	21	15	30	15	15	0.33	0.33	0.33
BEES 2012 - Climate Zone 6	4.0	43	25	15	38	15	15	0.30	0.30	0.30

AFFORDABILITY - Hoonah-Angoon Census Area

Figure C13: Average Annual Home Energy Cost and Use



Housing Information	Avg Household Size (# of people)
All-occupied	2.1
Owner-occupied	2.1
Renter-occupied	2.0

Median Value of Owner-occupied House with Mortgage
\$201,900

Median Value of Owner-occupied House without a Mortgage
\$210,800

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 49,545
Renter-occupied	\$ 34,063
Owner-occupied	\$ 55,938
w/ mortgage	\$ 75,972
w/o mortgage	\$ 47,188

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 614	\$ 7,368
Gross rent	\$ 698	\$ 8,376
Owner-occupied	\$ 538	\$ 6,456
Housing units w/ mortgage	\$ 1,380	\$ 16,560
Housing units w/out a mortgage	\$ 383	\$ 4,596

Avg % of Median Income Spent on Energy	11.8%
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Figure C14: Affordability - Housing Costs as a Percent of Income

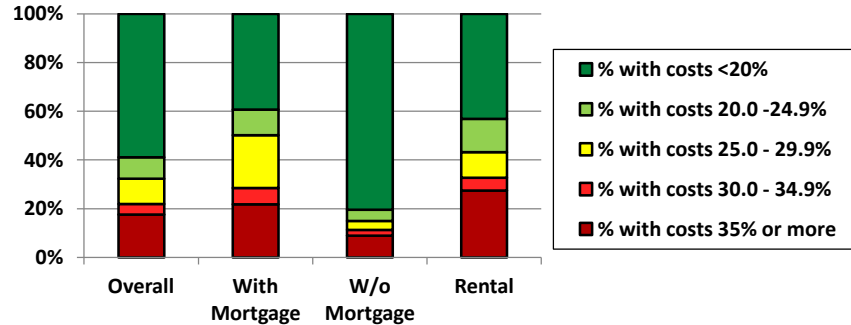
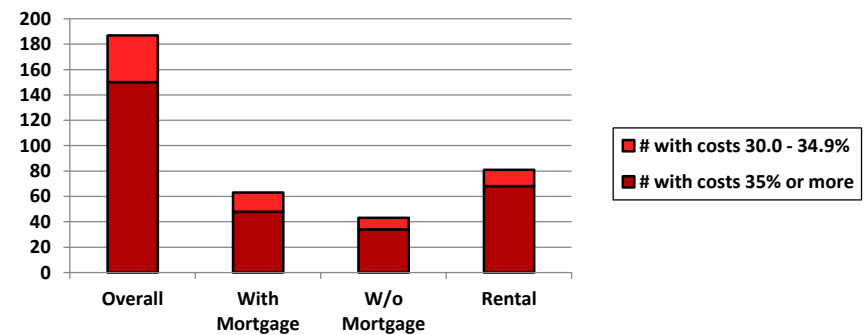


Figure C15: Number of Cost-Burdened Housing Units

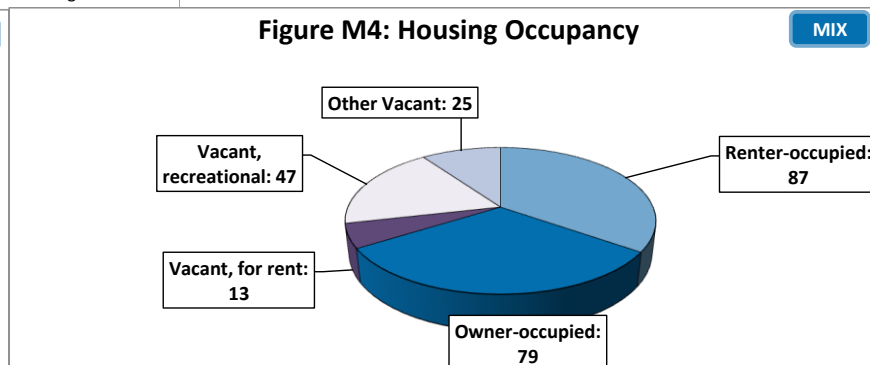
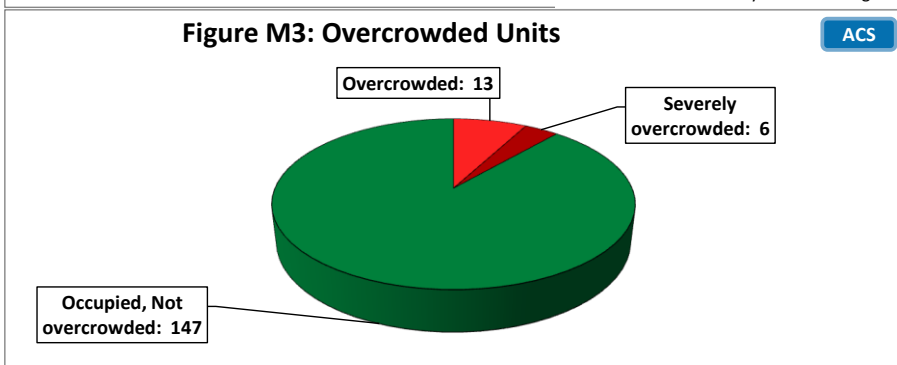
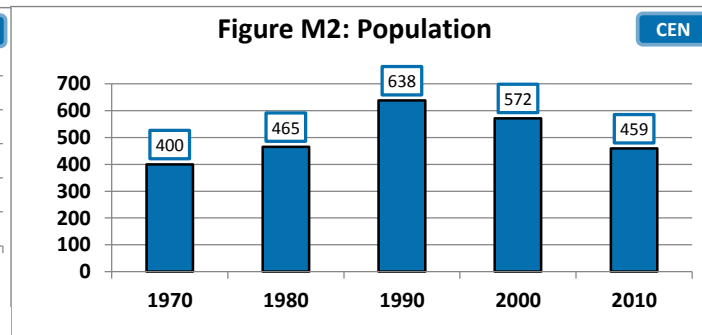
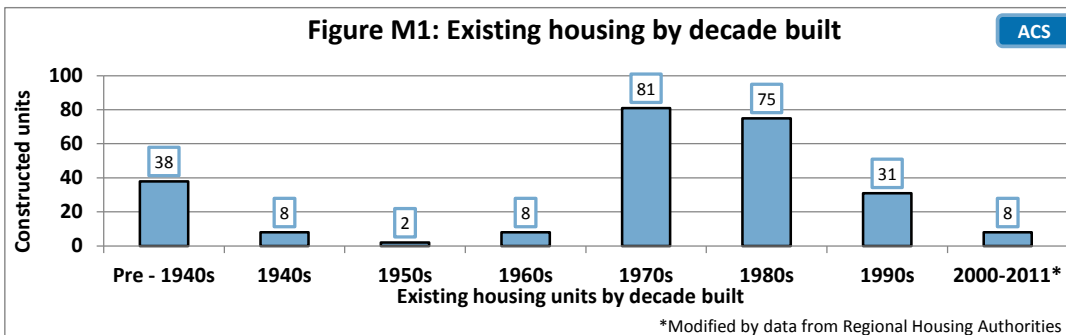


Community Profile for: Angoon city

ANCSA Region: Sealaska Corporation

Regional Housing Authority: Tlingit-Haida Regional Housing Authority

BEES Climate Zone (Heating Degree Days): Zone 6 (8,450 HDD)



Angoon city Housing Energy Characteristics

Residential Unit Categories	Number of records	Avg Energy Rating Stars	Avg Energy Rating Points	Avg Sq. Feet	Avg. Ann Energy Cost w/ PCE	Avg. Ann Energy Use (million BTUs)	Avg. EUI (kBtus/SF)	Avg. ECI	Avg. Home Heating Index	% Tight Homes, No Ventilation
Pre-retrofit units	55	3-star	70.9	1,124	\$ 4,986	133	118	\$4.50	7.9	75%
Retrofit units	37	4-star	79.4	1,145	\$ 4,644	109	95	\$4.11	5.4	83%
New construction	0	NR	NR	NR	NR	NR	NR	NR	NR	NR
Overall	92	3-star	72.2	1,127	\$ 4,936	130	115	\$4.44	7.6	76%

Angoon city Housing Envelope Characteristics

Residential Unit Categories	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
Pre-retrofit units	55	8.2	36	12	NR	26	NR	NR	0.28	NR	0.50
Retrofit units	37	7.1	41	14	NR	47	NR	NR	0.24	NR	0.50
New construction	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Overall	92	8.0	36	12	NR	28	NR	NR	0.27	NR	0.50

BEES 2009	7.0	38	21	15	30	15	15	0.33	0.33	0.33
BEES 2012	4.0	43	25	15	38	15	15	0.30	0.30	0.30

Figure M5: Average Annual Home Energy Costs and Use

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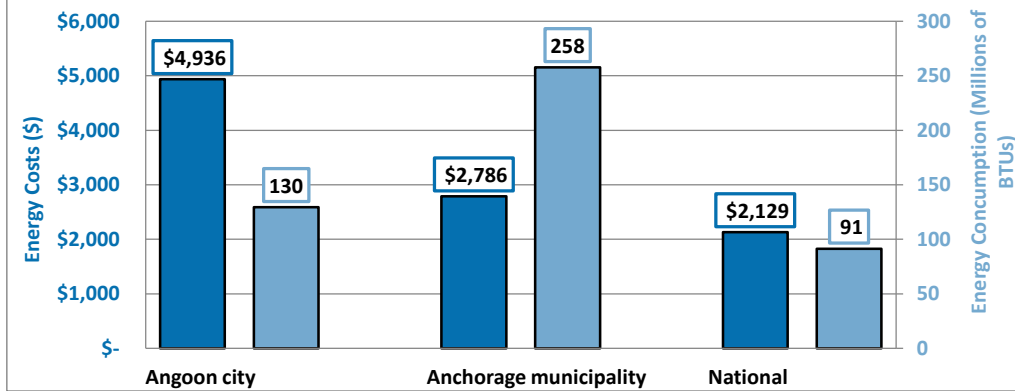
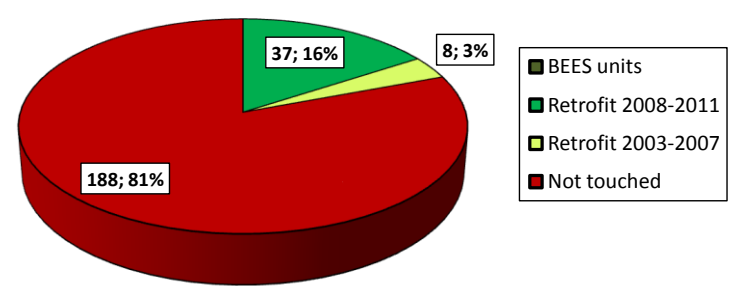


Figure M6: Housing Units Completing an AHFC Energy Program

ARIS



AFFORDABILITY - Angoon city

Owner occupied House with Mortgage, Median Value
\$241,700

Owner-occupied House without a Mortgage, Median Value
\$134,400

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	\$ 5.36
Electricity with PCE (\$/kWh)	\$ 0.21
Electricity without PCE (\$/kWh)	\$ 0.59

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 23,971
Renter-occupied	\$ 20,208
Owner-occupied	\$ 33,125
w/ mortgage	\$ 147,917
w/o mortgage	\$ 31,000

Average Annual Energy Cost	
With PCE	\$4,936
Without PCE	\$7,124

Avg % Median Income spent on Energy	20.6%
-------------------------------------	-------

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 545	\$ 6,540
Gross rent	\$ 660	\$ 7,920
Owner-occupied	\$ 465	\$ 5,580
Housing units w/ mortgage	\$ 1,542	\$ 18,504
Housing units w/out a mortgage	\$ 415	\$ 4,980

Housing Stock Estimates	Number of Units
All Housing	251
All Occupied Housing	166
All Vacant housing	85
Vacant Housing for Sale/Rent	13

Figure M7: Affordability - Housing Costs as a Percent of Income

ACS

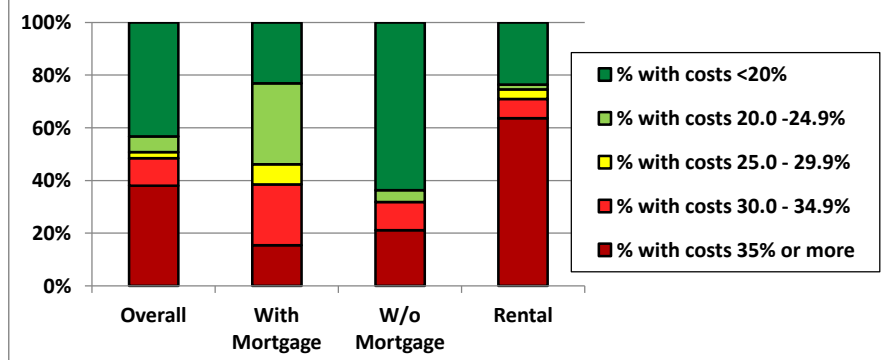
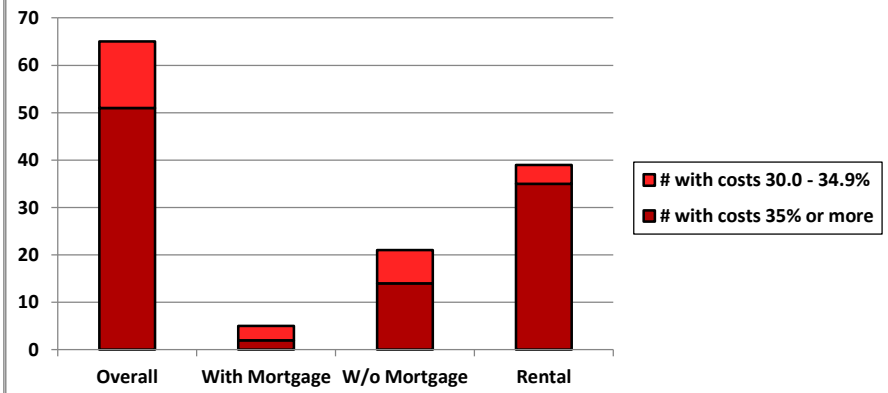


Figure M8: Number of Cost-Burdened Housing Units

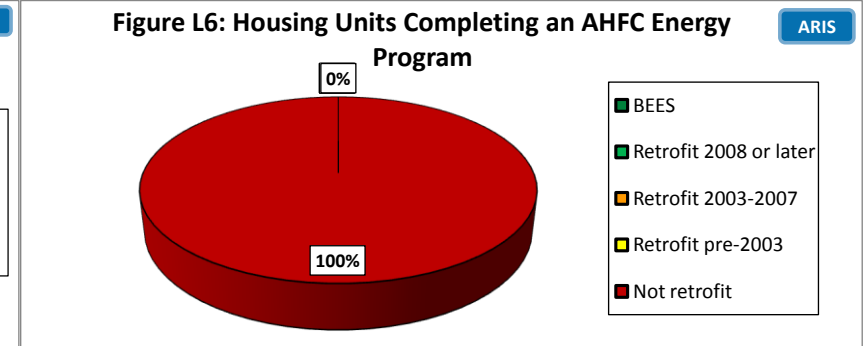
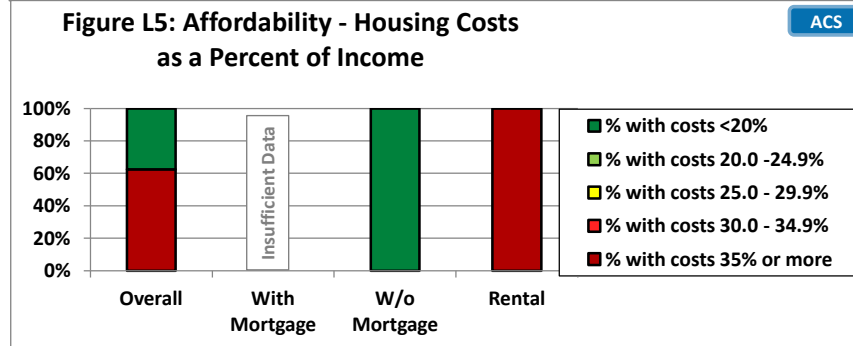
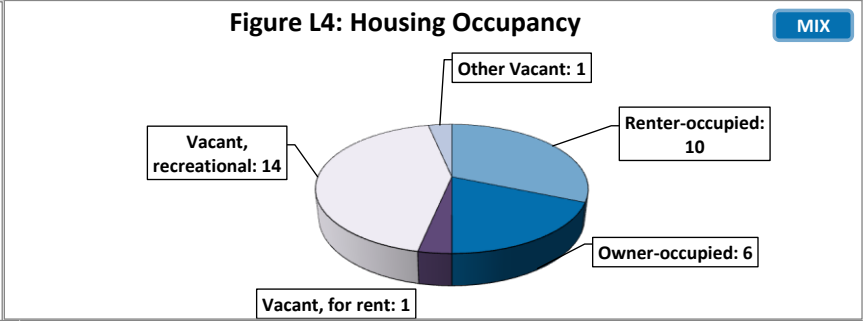
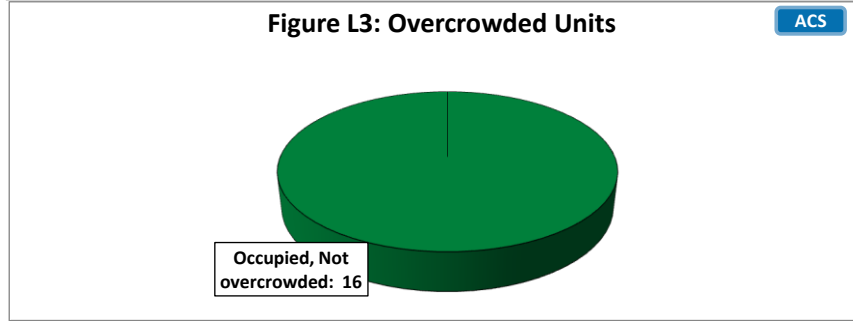
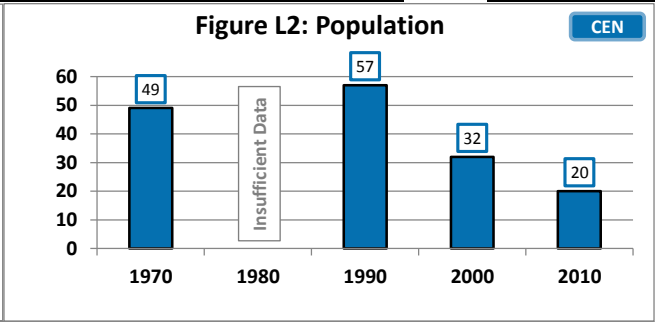
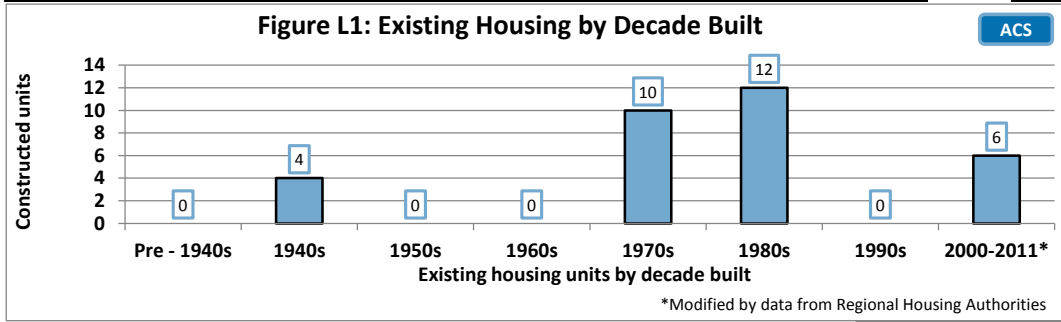
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Community Profile for: Elfin Cove CDP

ANCSA Region: Sealaska Corporation

Climate Zone: 6



Owner-occupied House with Mortgage, Median Value
NR

Owner-occupied House without a Mortgage, Median Value
NR

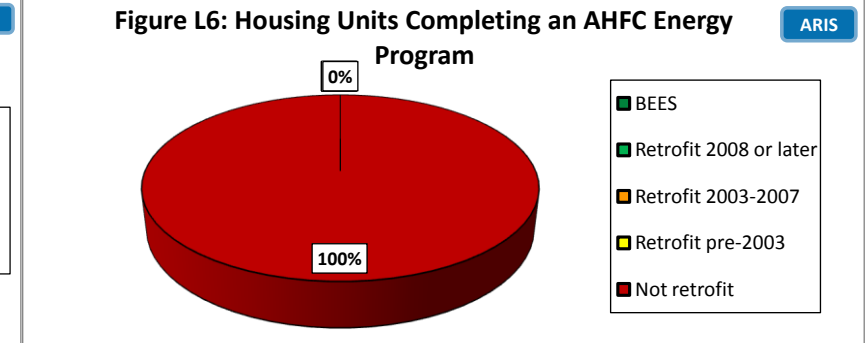
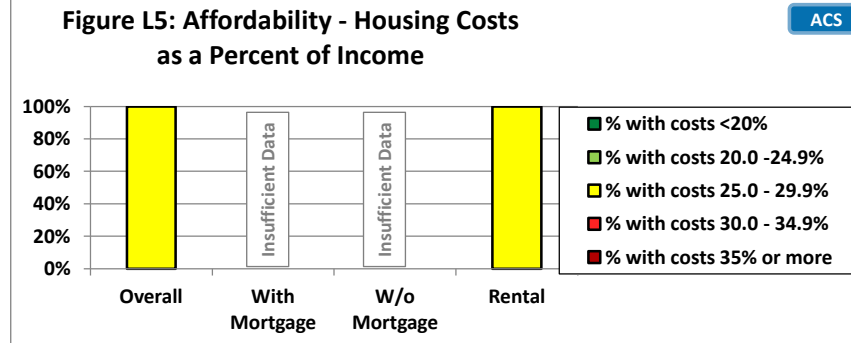
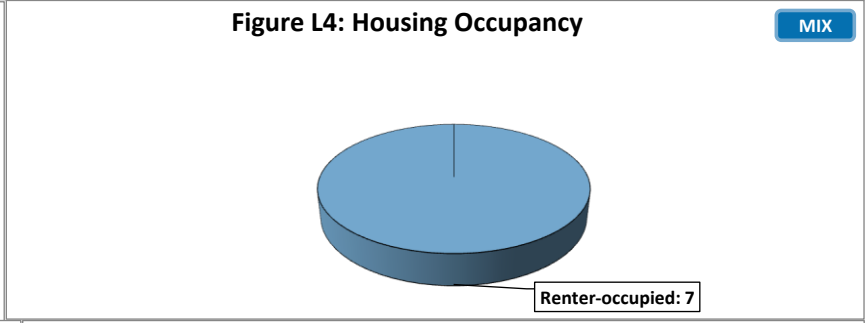
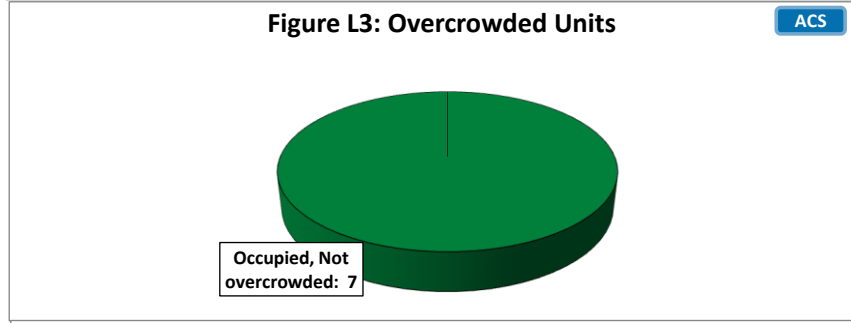
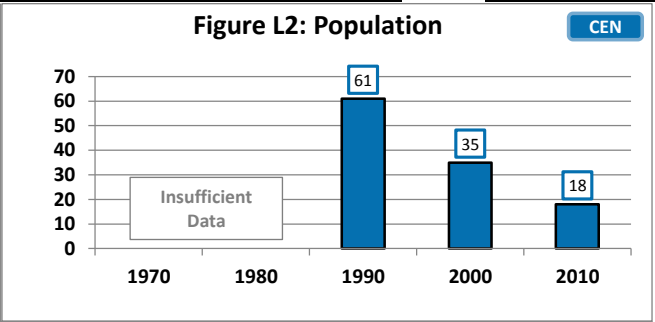
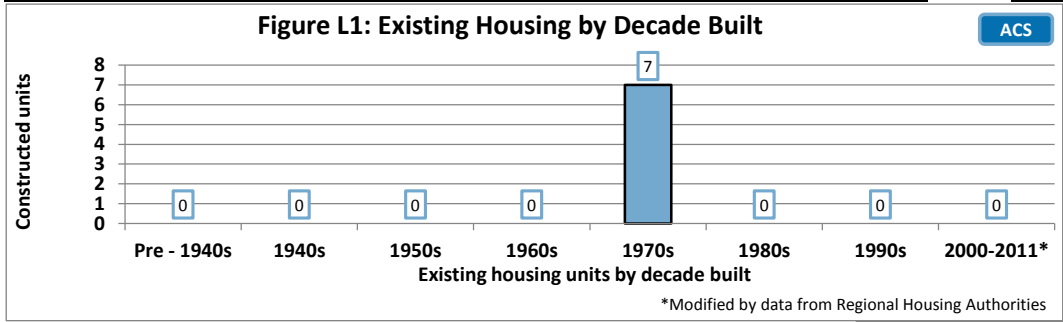
Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	\$ 5.02
Electricity with PCE (\$/kWh)	\$ 0.37
Electricity without PCE (\$/kWh)	\$ 0.69

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 9,500
Renter-occupied	NR
Owner-occupied	NR
w/ mortgage	NR
w/o mortgage	NR

Housing Stock Estimates	
Housing Stock Estimates	Number of Units
All Housing	32
All Occupied Housing	16
All Vacant housing	16

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 660	\$ 7,920
Gross rent	NR	NR
Owner-occupied	NR	NR
Housing units w/ mortgage	NR	NR
Housing units w/out a mortgage	NR	NR

Community Profile for:	Game Creek CDP	ANCSA Region	Sealaska Corporation	Climate Zone	6
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Owner-occupied House with Mortgage, Median Value
NR

Owner-occupied House without a Mortgage, Median Value
NR

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	No Data
Electricity with PCE (\$/kWh)	No Data
Electricity without PCE (\$/kWh)	No Data

Median Annual Household Income	
Housing Units	Household Income
All-occupied	NR
Renter-occupied	NR
Owner-occupied	NR
w/ mortgage	NR
w/o mortgage	NR

Housing Stock Estimates	
	Number of Units
All Housing	7
All Occupied Housing	7
All Vacant housing	0

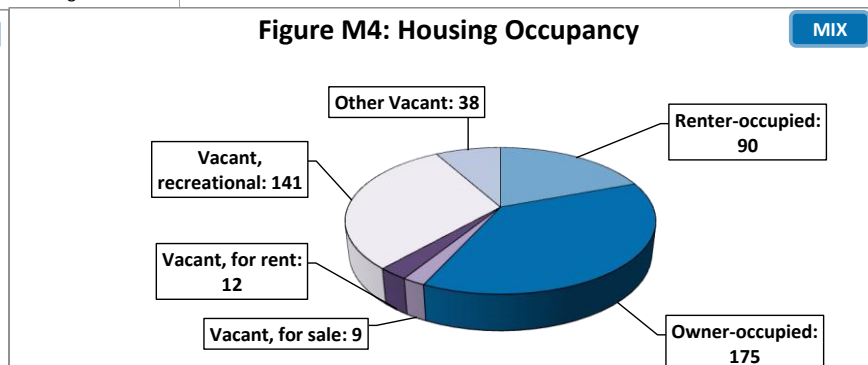
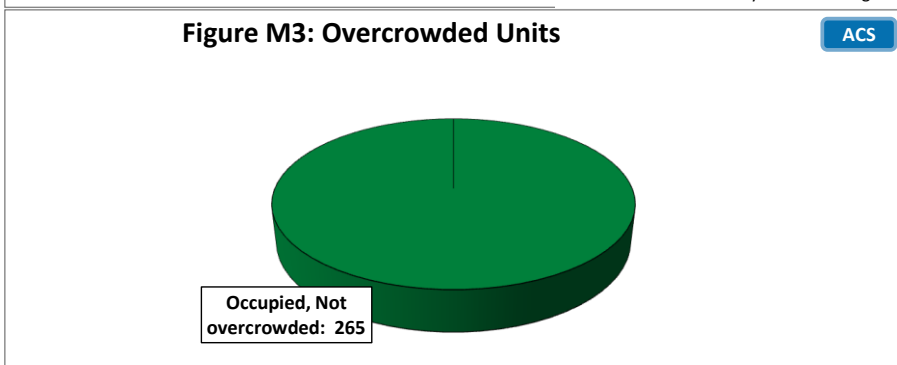
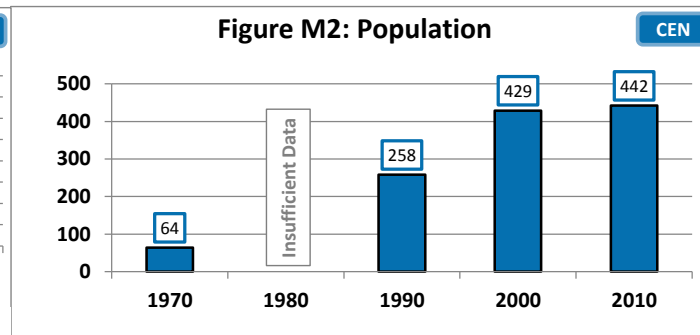
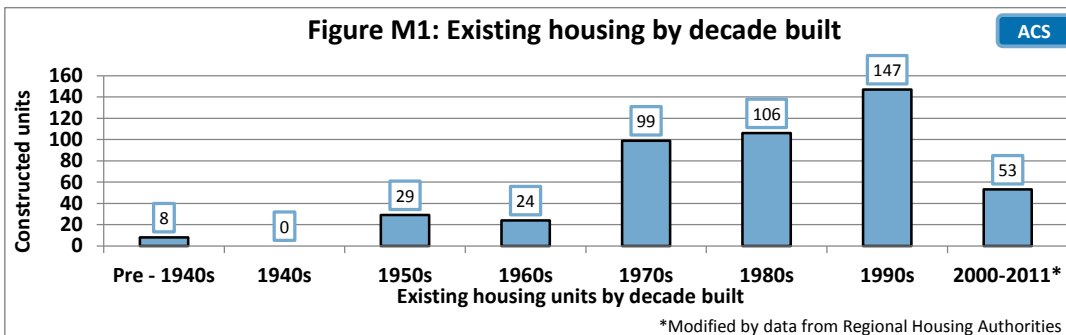
Median Housing Costs		
	Monthly	Annual
All-occupied	NR	NR
Gross rent	NR	NR
Owner-occupied	NR	NR
Housing units w/ mortgage	NR	NR
Housing units w/out a mortgage	NR	NR

Community Profile for: Gustavus city

ANCSA Region: Sealaska Corporation

Regional Housing Authority: Tlingit-Haida Regional Housing Authority

BEES Climate Zone (Heating Degree Days): Zone 6 (8,858 HDD)



Gustavus city Housing Energy Characteristics

Residential Unit Categories	Number of records	Avg Energy Rating Stars	Avg Energy Rating Points	Avg Sq. Feet	Avg. Ann Energy Cost	Avg. Ann Energy Use (million BTUs)	Avg. EUI (kBtus/SF)	Avg. ECI	Avg. Home Heating Index	% Tight Homes, No Ventilation
Pre-retrofit units	17	2-star plus	67.3	1,425	\$ 5,641	141	116	\$4.54	9.2	41%
Retrofit units	7	3-star plus	74.5	1,188	\$ 4,626	111	96	\$4.07	7.5	29%
New construction	8	5-star	89.6	1,751	\$ 5,572	108	64	\$3.26	3.5	63%

Gustavus city Housing Envelope Characteristics

Residential Unit Categories	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
Pre-retrofit units	17	9.2	28	15	NR	18	3	NR	0.42	NR	0.47
Retrofit units	7	9.1	32	14	NR	23	NR	NR	0.38	NR	0.39
New construction	8	3.1	39	20	NR	38	7	NR	0.24	0.44	0.33
		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

BEES 2009	7.0	38	21	15	30	15	15	0.33	0.33	0.33
BEES 2012	4.0	43	25	15	38	15	15	0.30	0.30	0.30

Figure M5: Average Annual Home Energy Costs and Use

MIX

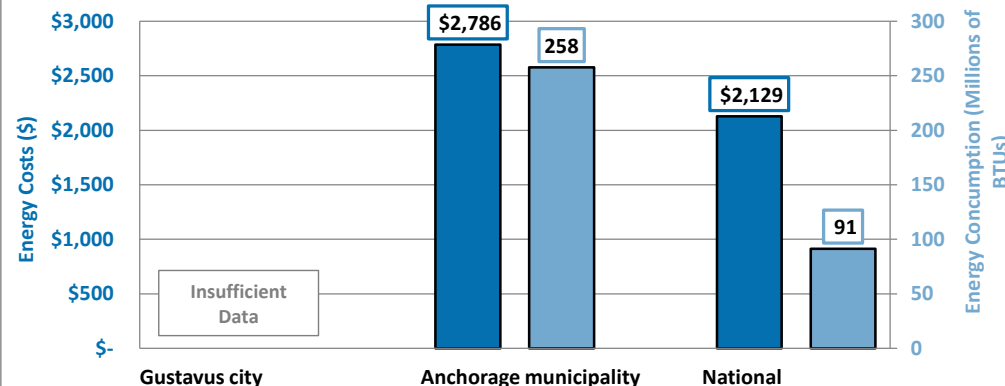
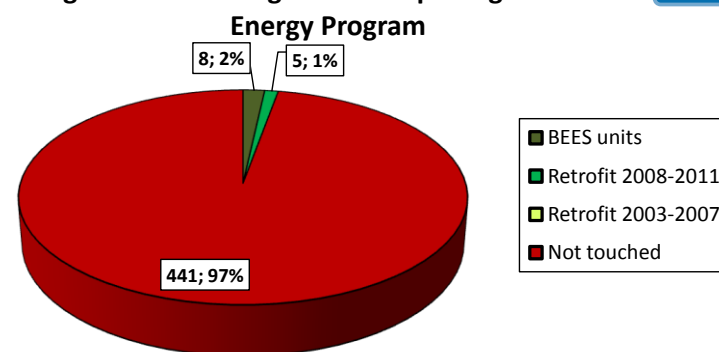


Figure M6: Housing Units Completing an AHFC Energy Program

ARIS



AFFORDABILITY - Gustavus city

Owner occupied House with Mortgage, Median Value
\$168,400

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 59,107
Renter-occupied	\$ 68,750
Owner-occupied	\$ 57,083
w/ mortgage	\$ 95,227
w/o mortgage	\$ 51,382

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 609	\$ 7,308
Gross rent	\$ 810	\$ 9,720
Owner-occupied	\$ 425	\$ 5,100
Housing units w/ mortgage	\$ 1,202	\$ 14,424
Housing units w/out a mortgage	\$ 194	\$ 2,328

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	\$ 5.00
Electricity with PCE (\$/kWh)	\$ 0.31
Electricity without PCE (\$/kWh)	\$ 0.47

Average Annual Energy Cost	
With PCE	NO PCE
Without PCE	\$6,440

Housing Stock Estimates	Number of Units
All Housing	466
All Occupied Housing	265
All Vacant housing	201
Vacant Housing for Sale/Rent	22

Avg % Median Income spent on Energy	10.9%
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Figure M7: Affordability - Housing Costs as a Percent of Income

ACS

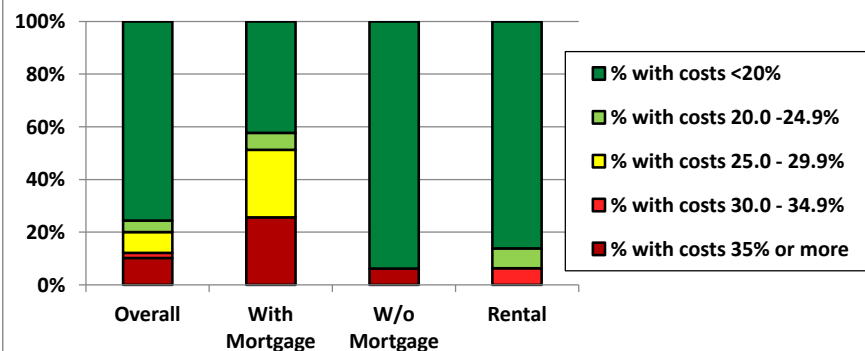
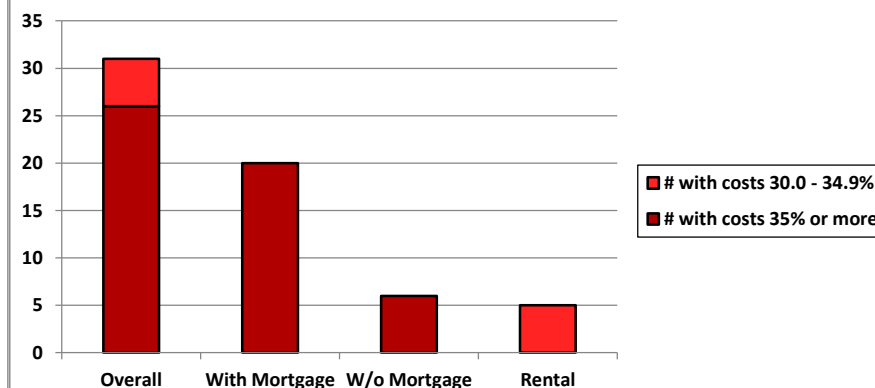


Figure M8: Number of Cost-Burdened Housing Units

ACS

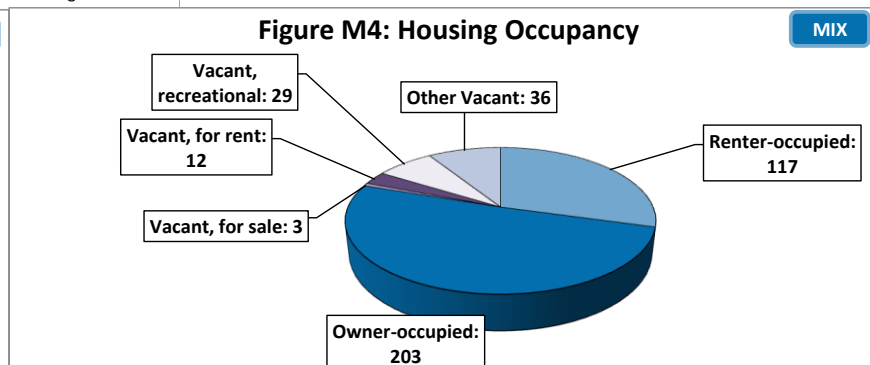
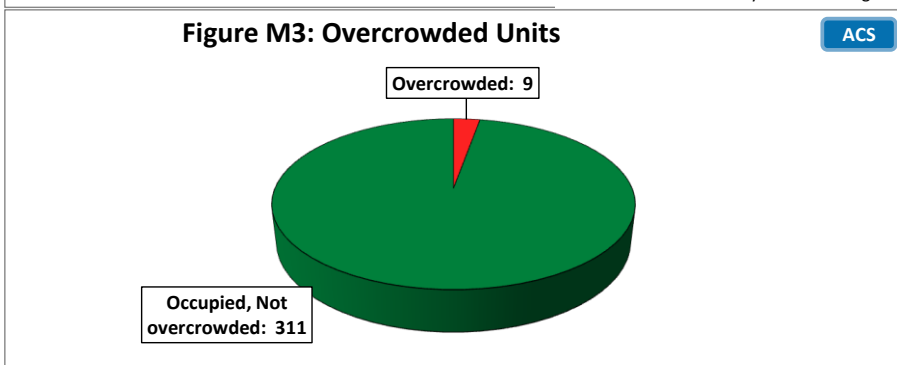
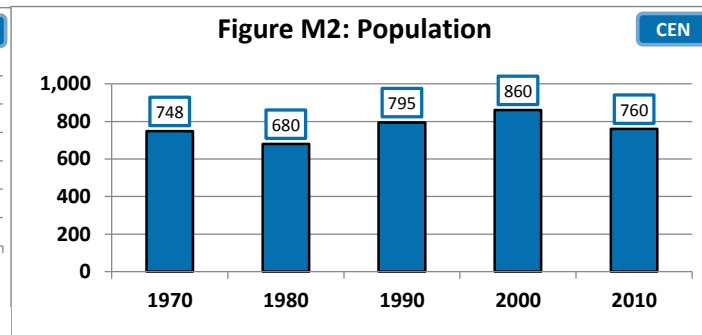
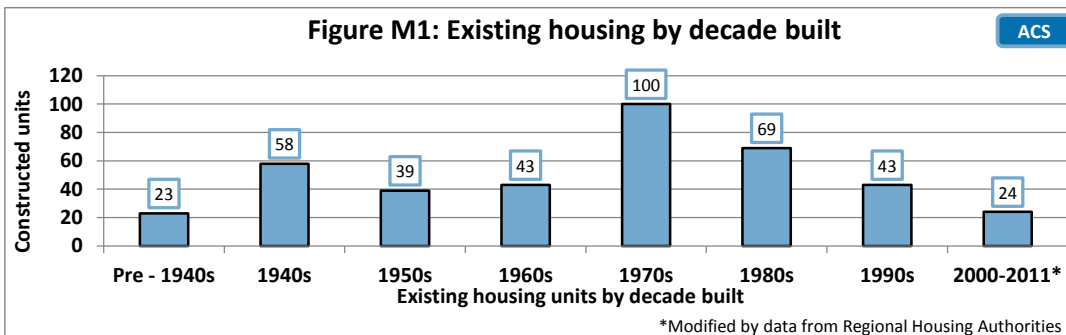


Community Profile for: Hoonah city

ANCSA Region: Sealaska Corporation

Regional Housing Authority: Tlingit-Haida Regional Housing Authority

BEES Climate Zone (Heating Degree Days): Zone 6 (8,660 HDD)



Hoonah city Housing Energy Characteristics

Residential Unit Categories	Number of records	Avg Energy Rating Stars	Avg Energy Rating Points	Avg Sq. Feet	Avg. Ann Energy Cost w/ PCE	Avg. Ann Energy Use (million BTUs)	Avg. EUI (kBtus/SF)	Avg. ECI	Avg. Home Heating Index	% Tight Homes, No Ventilation
Pre-retrofit units	69	2-star	54.5	956	\$ 5,807	160	144	\$5.21	11.8	46%
Retrofit units	53	3-star plus	73.9	889	\$ 4,259	112	107	\$4.09	7.8	29%
New construction	14	4-star	81.5	391	\$ 2,954	63	76	\$3.52	4.1	7%
Overall	136	2-star	58.0	927	\$ 5,501	150	137	\$5.00	11.0	43%

Hoonah city Housing Envelope Characteristics

Residential Unit Categories	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
Pre-retrofit units	69	9.2	24	9	3	21	NR	2	0.35	NR	0.59
Retrofit units	53	7.6	35	8	2	34	NR	NR	0.24	NR	0.47
New construction	14	4.8	45	7	NR	NR	NR	NR	0.29	NR	0.48
Overall	136	8.9	25	8	2	22	3	2	0.33	NR	0.57

BEES 2009	7.0	38	21	15	30	15	15	0.33	0.33	0.33
BEES 2012	4.0	43	25	15	38	15	15	0.30	0.30	0.30

Figure M5: Average Annual Home Energy Costs and Use

MIX

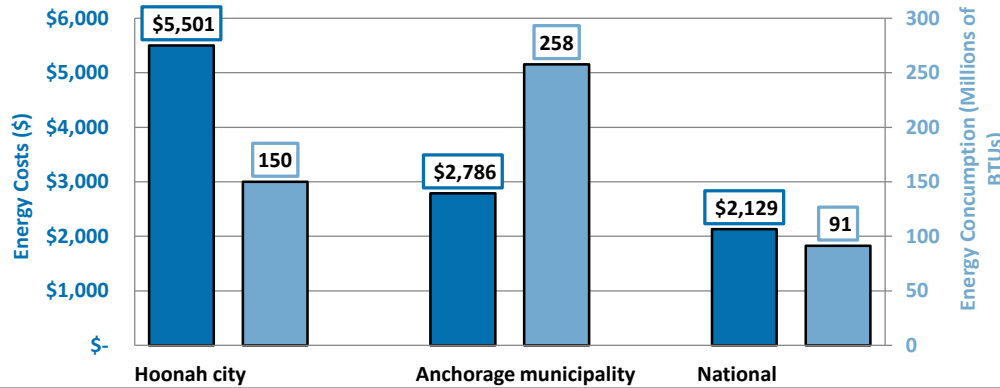
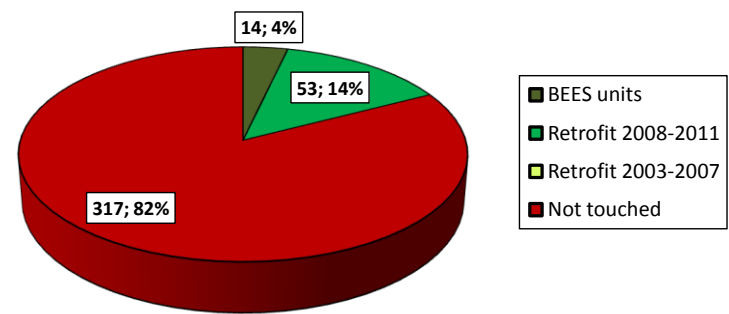


Figure M6: Housing Units Completing an AHFC Energy Program

ARIS



AFFORDABILITY - Hoonah city

Owner occupied House with Mortgage, Median Value
\$168,800
Owner-occupied House without a Mortgage, Median Value
\$171,900

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 57,500
Renter-occupied	\$ 44,063
Owner-occupied	\$ 64,792
w/ mortgage	\$ 75,000
w/o mortgage	\$ 48,438

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 834	\$ 10,008
Gross rent	\$ 1,063	\$ 12,756
Owner-occupied	\$ 810	\$ 9,720
Housing units w/ mortgage	\$ 1,583	\$ 18,996
Housing units w/out a mortgage	\$ 450	\$ 5,400

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	\$ 4.77
Electricity with PCE (\$/kWh)	\$ 0.21
Electricity without PCE (\$/kWh)	\$ 0.59

Average Annual Energy Cost	
With PCE	\$5,501
Without PCE	\$7,707

Housing Stock Estimates	Number of Units
All Housing	399
All Occupied Housing	320
All Vacant housing	79
Vacant Housing for Sale/Rent	14

Avg % Median Income spent on Energy	9.6%
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Figure M7: Affordability - Housing Costs as a Percent of Income

ACS

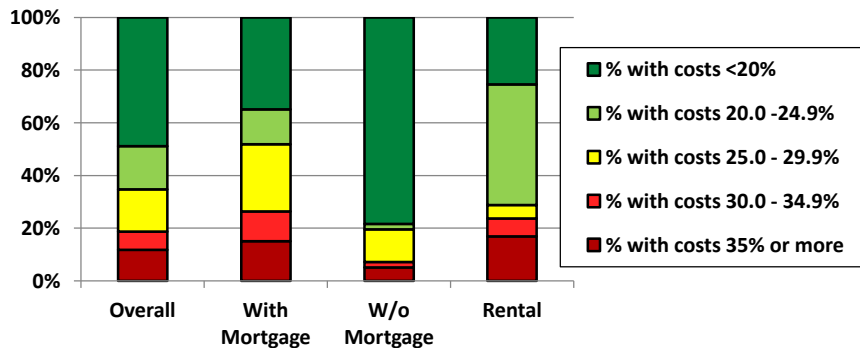
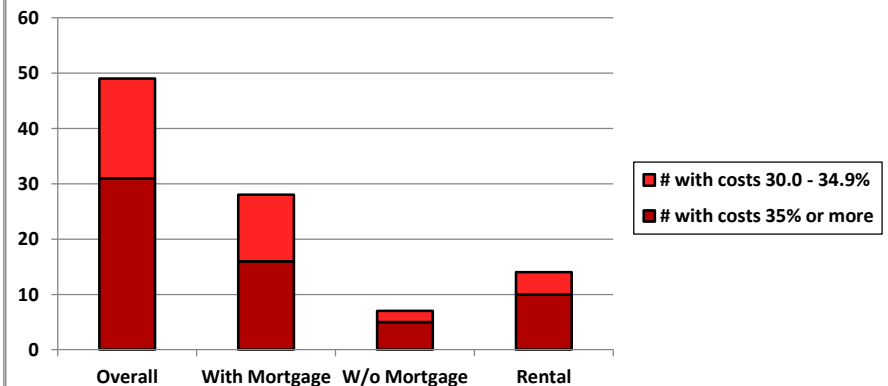


Figure M8: Number of Cost-Burdened Housing Units

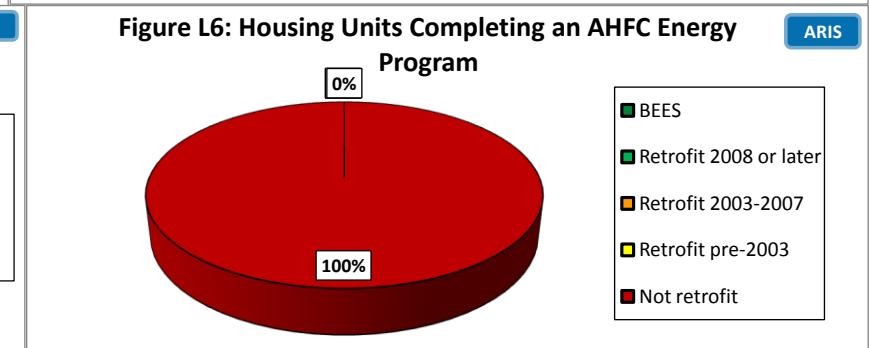
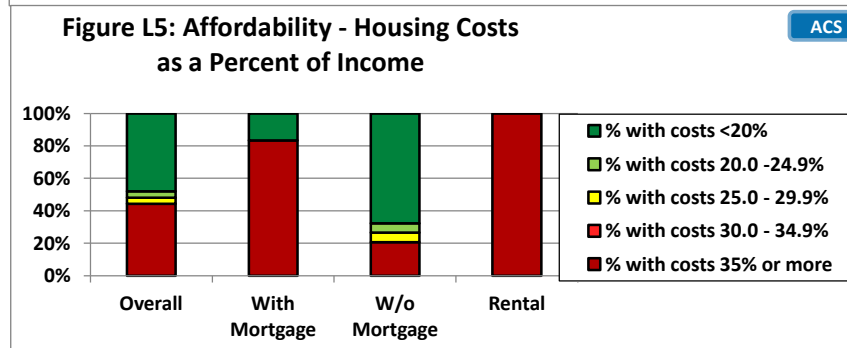
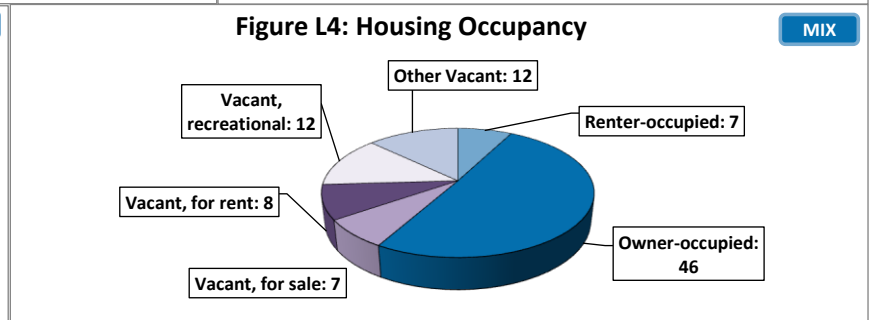
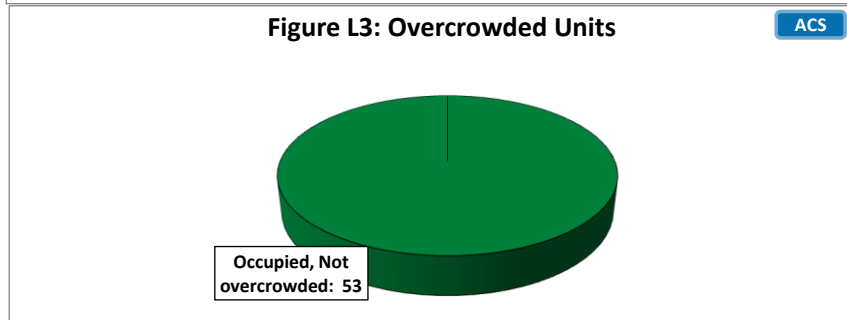
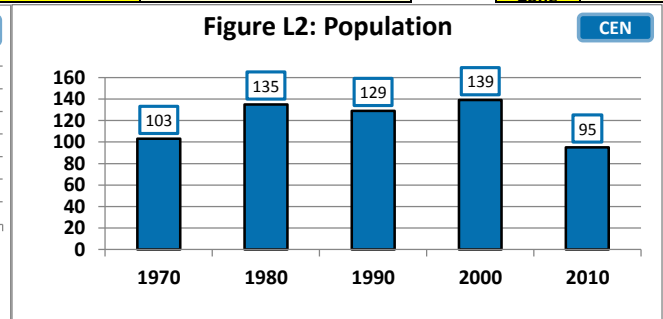
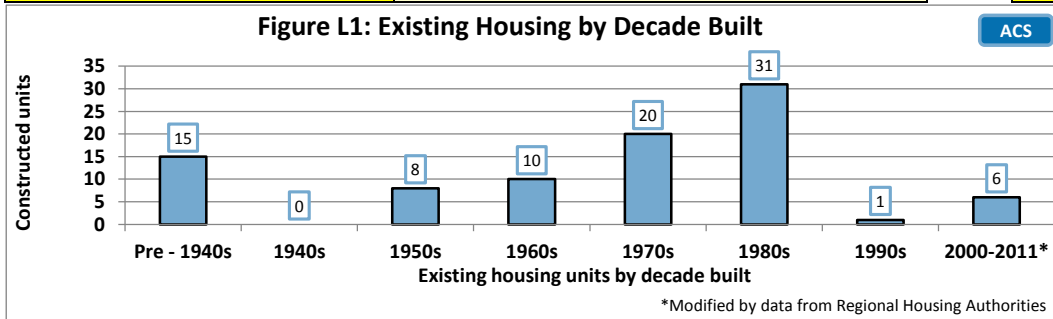
ACS



Community Profile for: Klukwan CDP

ANCSA Region: Sealaska Corporation

Climate Zone: 6



Owner-occupied House with Mortgage, Median Value
\$237,500

Owner-occupied House without a Mortgage, Median Value
\$76,300

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	\$ 5.48
Electricity with PCE (\$/kWh)	No PCE
Electricity without PCE (\$/kWh)	\$ 1.00

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 29,375
Renter-occupied	\$ 28,542
Owner-occupied	\$ 51,250
w/ mortgage	\$ 71,250
w/o mortgage	\$ 28,125

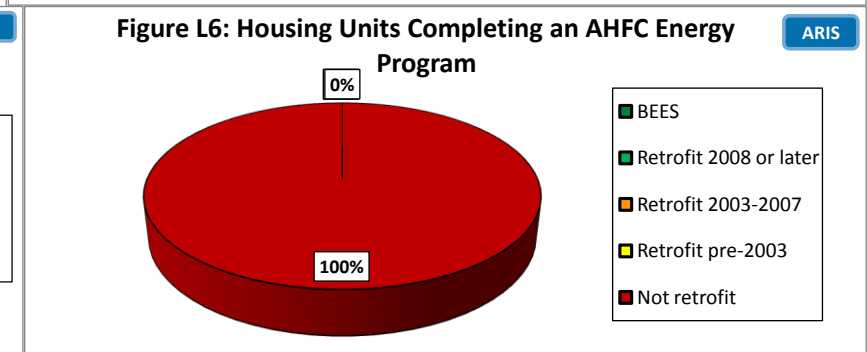
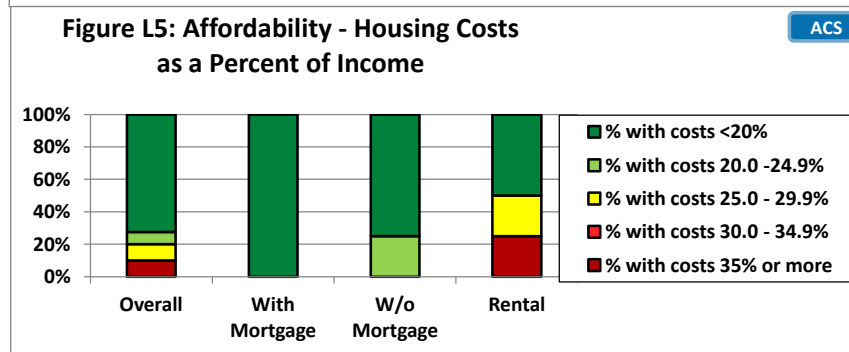
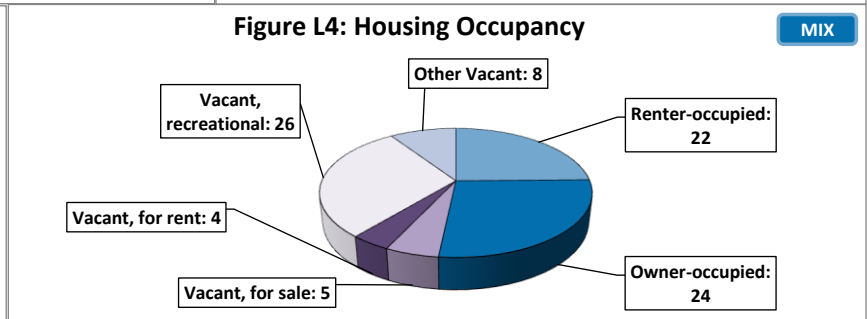
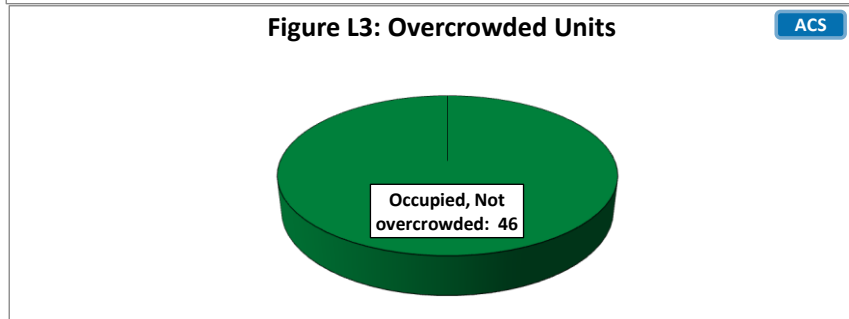
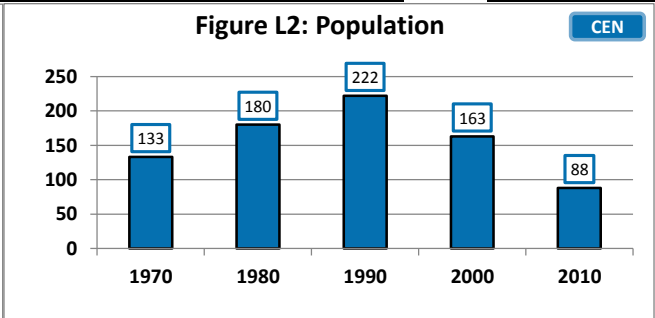
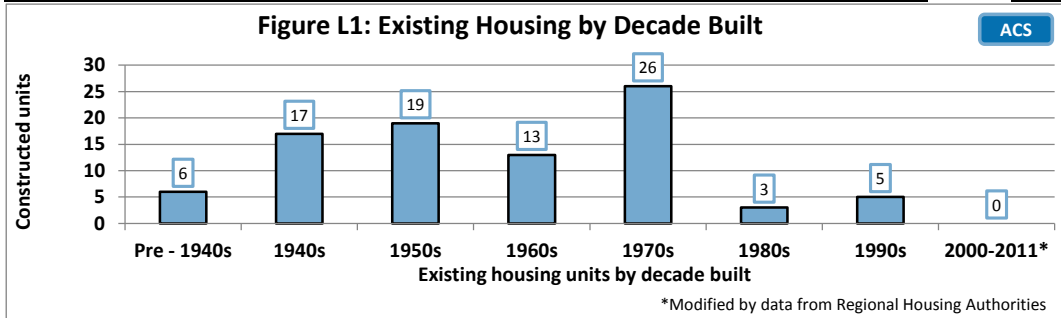
Housing Stock Estimates	
Housing Stock Estimates	Number of Units
All Housing	91
All Occupied Housing	53
All Vacant housing	38

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 600	\$ 7,200
Gross rent	NR	NR
Owner-occupied	\$ 540	\$ 6,480
Housing units w/ mortgage	\$ 3,125	\$ 37,500
Housing units w/out a mortgage	\$ 420	\$ 5,040

Community Profile for: Pelican city

ANCSA Region: Sealaska Corporation

Climate Zone: 6



Owner-occupied House with Mortgage, Median Value
\$240,000

Owner-occupied House without a Mortgage, Median Value
\$143,800

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	\$ 5.15
Electricity with PCE (\$/kWh)	\$ 0.33
Electricity without PCE (\$/kWh)	\$ 0.60

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 72,500
Renter-occupied	\$ 44,583
Owner-occupied	\$ 101,250
w/ mortgage	\$ 115,500
w/o mortgage	\$ 39,375

Housing Stock Estimates	
	Number of Units
All Housing	89
All Occupied Housing	46
All Vacant housing	43

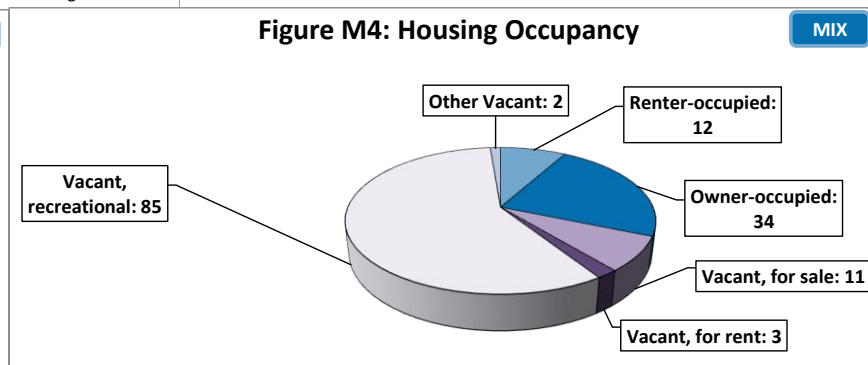
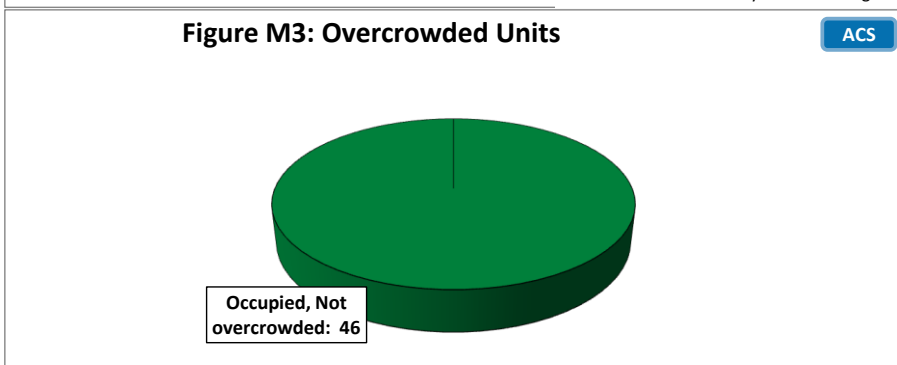
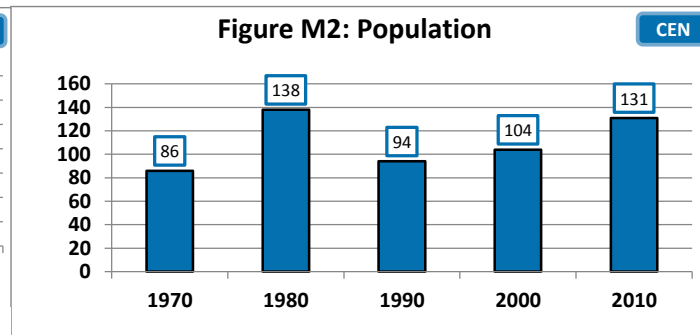
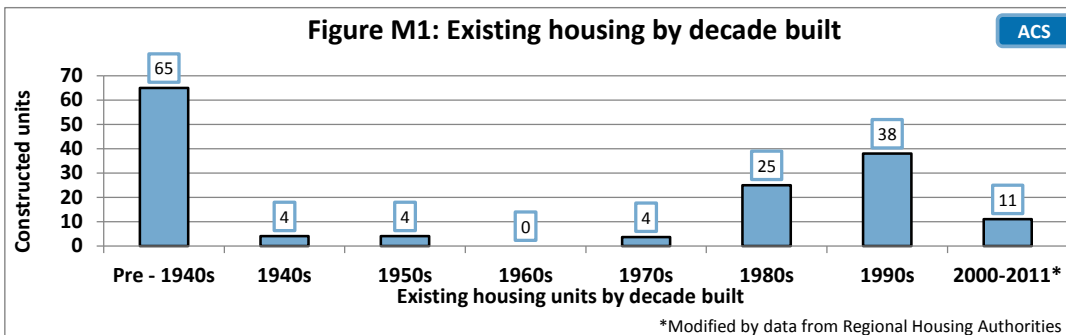
Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 867	\$ 10,404
Gross rent	\$ 1,050	\$ 12,600
Owner-occupied	\$ 700	\$ 8,400
Housing units w/ mortgage	\$ 1,300	\$ 15,600
Housing units w/out a mortgage	\$ 433	\$ 5,196

Community Profile for: Tenakee Springs city

ANCSA Region: Sealaska Corporation

Regional Housing Authority: Tlingit-Haida Regional Housing Authority

BEES Climate Zone (Heating Degree Days): Zone 6 (8,180 HDD)



Tenakee Springs city Housing Energy Characteristics

Residential Unit Categories	Number of records	Avg Energy Rating Stars	Avg Energy Rating Points	Avg Sq. Feet	Avg. Ann Energy Cost	Avg. Ann Energy Use (million BTUs)	Avg. EUI (kBtus/SF)	Avg. ECI	Avg. Home Heating Index	% Tight Homes, No Ventilation
Pre-retrofit units	11	1-star	23.6	1,147	\$ 5,529	176	203	\$10.10	17.6	0%
Retrofit units	0	NR	NR	NR	NR	NR	NR	NR	NR	NR
New construction	0	NR	NR	NR	NR	NR	NR	NR	NR	NR

Tenakee Springs city Housing Envelope Characteristics

Residential Unit Categories	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
Pre-retrofit units	11	30.9	NR	NR	NR	NR	NR	NR	NR	NR	NR
Retrofit units	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
New construction	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

BEES 2009	7.0	38	21	15	30	15	15	0.33	0.33	0.33
BEES 2012	4.0	43	25	15	38	15	15	0.30	0.30	0.30

Figure M5: Average Annual Home Energy Costs and Use

MIX

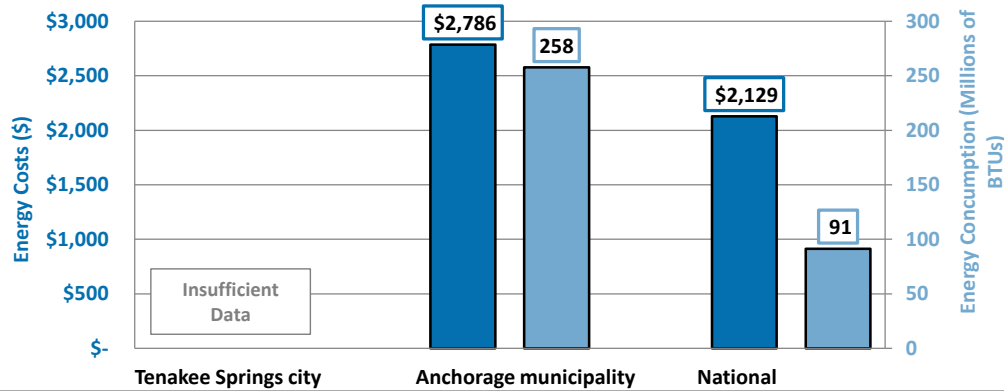
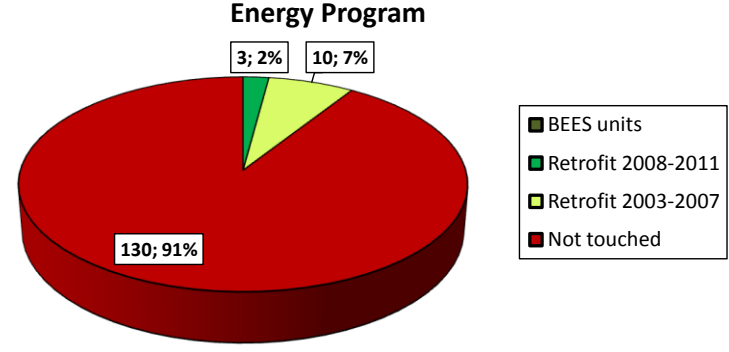


Figure M6: Housing Units Completing an AHFC Energy Program

ARIS



AFFORDABILITY - Tenakee Springs city

Owner occupied House with Mortgage, Median Value
NR
Owner-occupied House without a Mortgage, Median Value
\$137,500

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 46,875
Renter-occupied	\$ 57,500
Owner-occupied	\$ 46,875
w/ mortgage	NR
w/o mortgage	\$ 46,875

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 353	\$ 4,236
Gross rent	\$ 500	\$ 6,000
Owner-occupied	\$ 306	\$ 3,672
Housing units w/ mortgage	NR	NR
Housing units w/out a mortgage	\$ 353	\$ 4,236

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	\$ 4.35
Electricity with PCE (\$/kWh)	\$ 0.29
Electricity without PCE (\$/kWh)	\$ 0.66

Average Annual Energy Cost	
With PCE	NO PCE
Without PCE	\$7,741

Housing Stock Estimates	Number of Units
All Housing	147
All Occupied Housing	46
All Vacant housing	101
Vacant Housing for Sale/Rent	14

Avg % Median Income spent on Energy	16.5%
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Figure M7: Affordability - Housing Costs as a Percent of Income

ACS

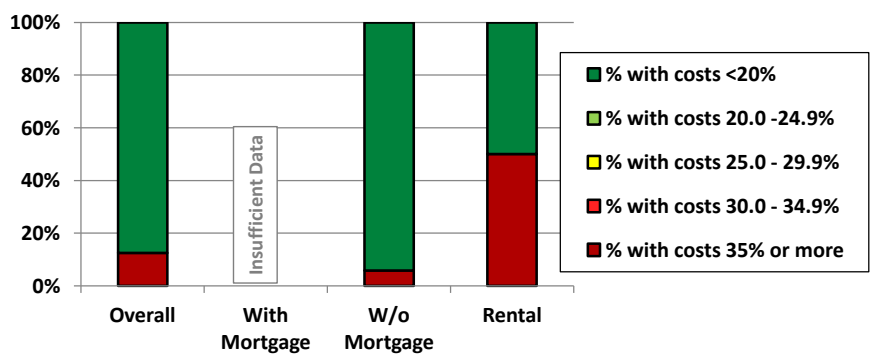
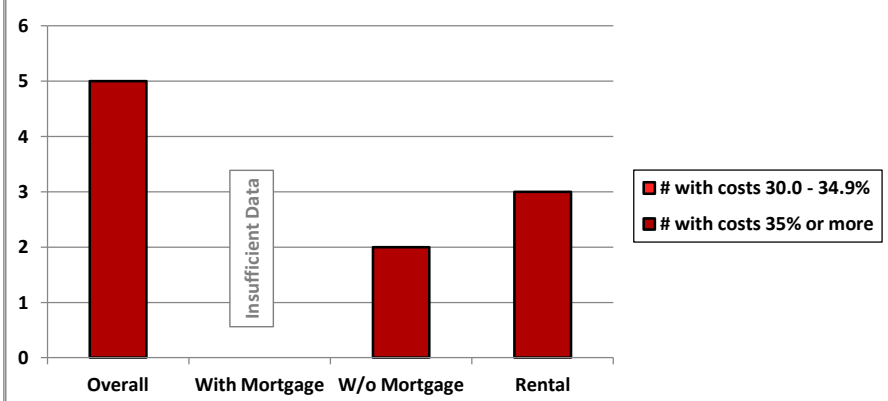


Figure M8: Number of Cost-Burdened Housing Units

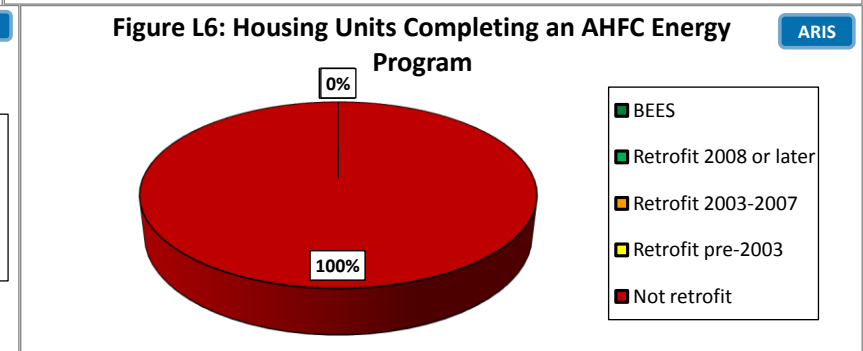
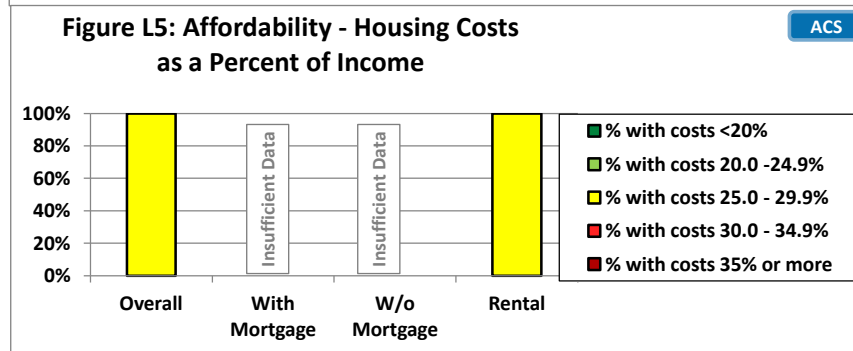
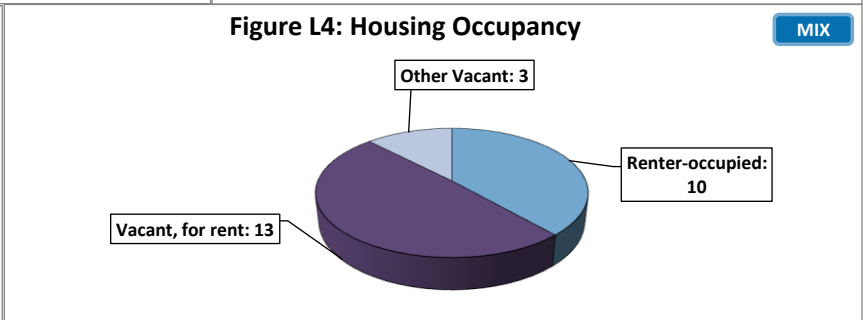
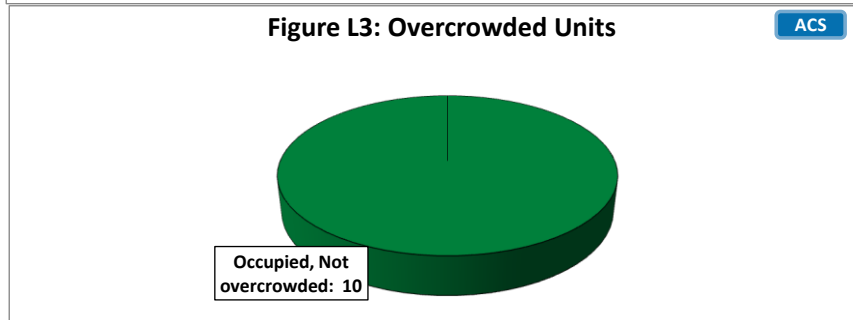
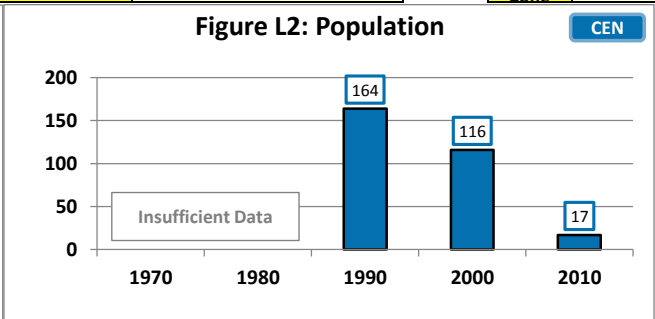
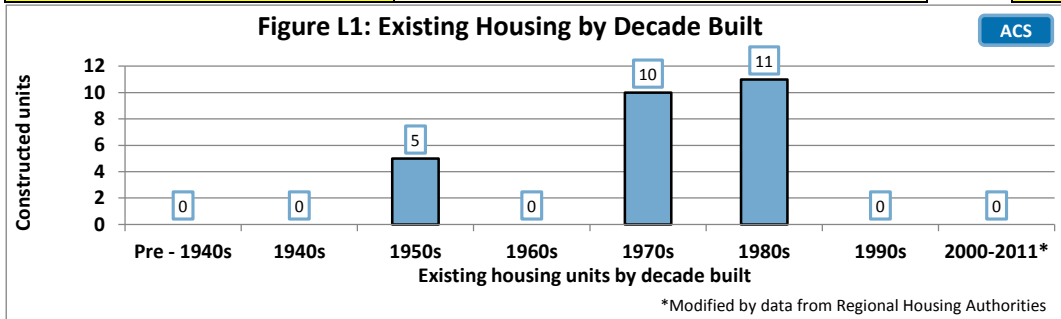
ACS



Community Profile for: Whitestone Logging Camp CDP

ANCSA Region: Sealaska Corporation

Climate Zone: 6



Owner-occupied House with Mortgage, Median Value
NR

Owner-occupied House without a Mortgage, Median Value
NR

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	No Data
Electricity with PCE (\$/kWh)	No Data
Electricity without PCE (\$/kWh)	No Data

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 41,250
Renter-occupied	\$ 41,250
Owner-occupied w/ mortgage	NR
w/o mortgage	NR

Housing Stock Estimates	
	Number of Units
All Housing	26
All Occupied Housing	10
All Vacant housing	16

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 850	\$ 10,200
Gross rent	\$ 850	\$ 10,200
Owner-occupied	NR	NR
Housing units w/ mortgage	NR	NR
Housing units w/out a mortgage	NR	NR