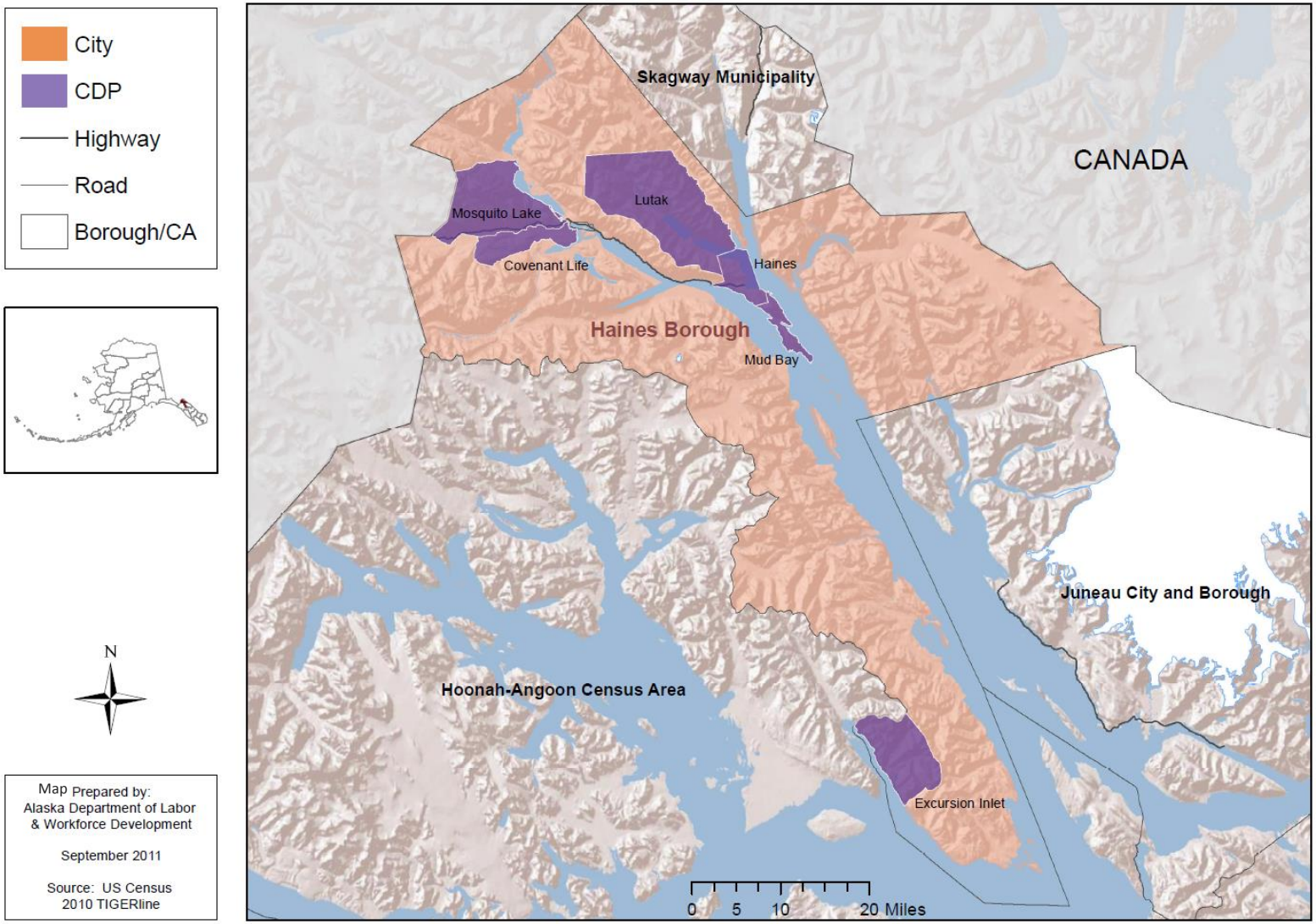
Haines Borough



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Haines Borough Community Profiles 5-12

Covenant Life Data Quantity: Low 5

Haines Data Quantity: High 6

Lutak Data Quantity: Low 10

Mosquito Lake Data Quantity: Low 11

Mud Bay Data Quantity: Low 12

Haines Borough Dashboard

Population: The Alaska Department of Labor and Workforce Development's current (2012) population estimate for the Haines Borough is 2,620– an increase of 10% from 2000.

Housing Units: There are currently 1,668 housing units in the Haines Borough. Of these, 1,176 are occupied, 67 are for sale or rent, and the remaining 425 are seasonal or otherwise vacant units (Profile Figure C6).

Energy: The average home in the Haines Borough is 1,511 square feet and uses 159,000 BTUs of energy per square foot annually, 16% more than the statewide average of 137,000 BTUs per square foot per year.

Energy Costs: Using AKWarm estimates, average annual energy cost for homes in the Haines Borough is $5,930, which is approximately 2.1 times more than the cost in Anchorage, and 2.8 times more than the national average (Profile Figure C13).

Energy Programs: Approximately 18% of occupied housing in the Haines Borough 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 in the 1950s are currently rated at 1-star-plus, compared to a current average rating of 2-star-plus for houses built after 2000.

Air-tightness: Within current housing stock, newer homes are tighter. On average, homes built in the last decade meet the 2009 BEES standard of 7 air-changes per hour at 50 pascals (ACH50). In contrast, homes built in the 1950s are 2.5 times leakier than those built since 2000 (Profile Figure C7).

Ventilation: An estimated 644 occupied housing units (or 55%) in the Haines Borough 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: 2% of occupied units are estimated to be either overcrowded (1%) or severely overcrowded (1%). This is roughly similar to the national average, and makes the Haines Borough the 27th most overcrowded census area in the state.

Affordability: On average, approximately 31% of households in the Haines Borough 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 11% of census median area income for occupied housing.

Haines Borough Summary

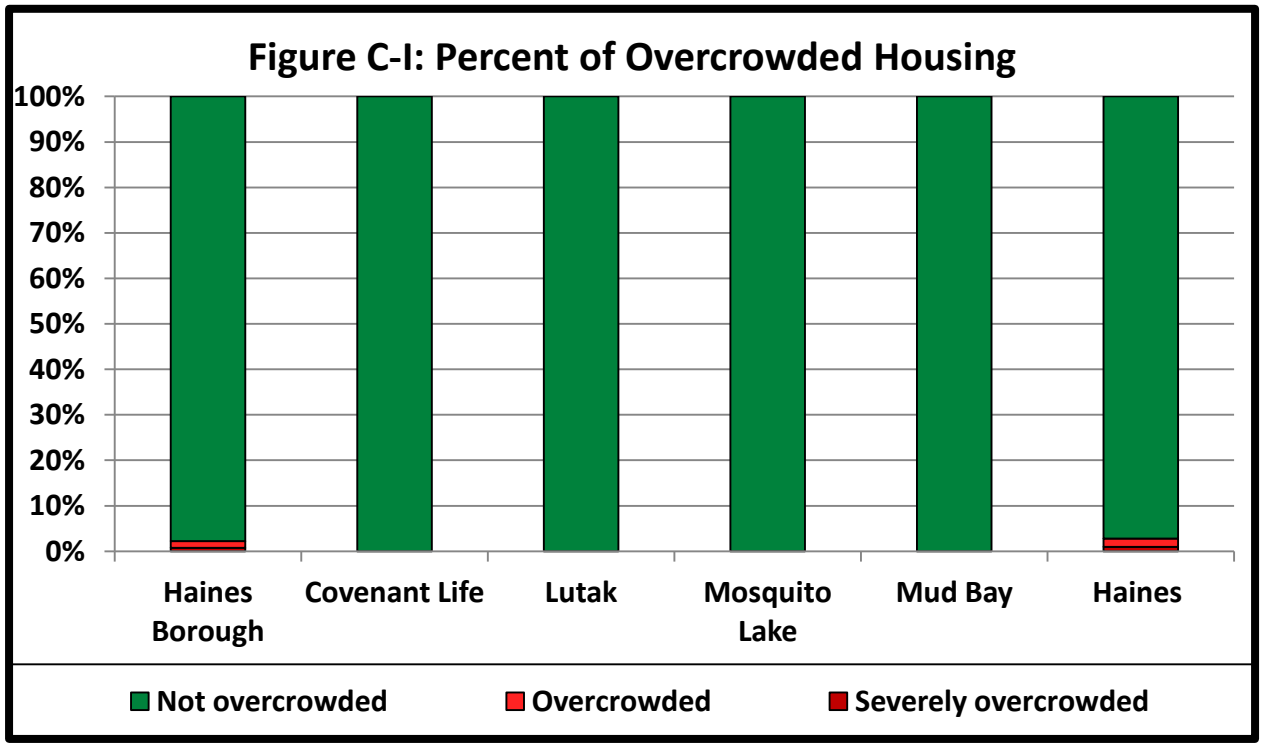
Community

The Haines Borough census area is located in Southeast Alaska, sitting between Canada and the Pacific Ocean. It is in the Sealaska Native Corporation ANCSA region. The average home size in the census area is 1,511 square feet.

Overcrowding

Haines Borough is the second least overcrowded census area in Alaska, with an average of 2% of housing units estimated to be overcrowded (1%) or severely overcrowded (1%). Considering only the six most populous communities in the census area, overcrowding rates vary between an estimated 0 and 3% (Figure C-I). Mosquito Lake, Mud Bay, Lutak, and Covenant Life all have an estimated no overcrowded households. The highest overcrowding rate occurs in Haines, where 3% of households have more than one person per room.

Approximately 4% of housing in the Haines Borough census area is available for sale or rent. The community of Lutak has lowest percentage of available housing with approximately zero houses available for sale or rent. Covenant Life has the most available housing at 17%. One in four census area housing units are considered vacant because they are used for recreational, seasonal, or "other" purposes.



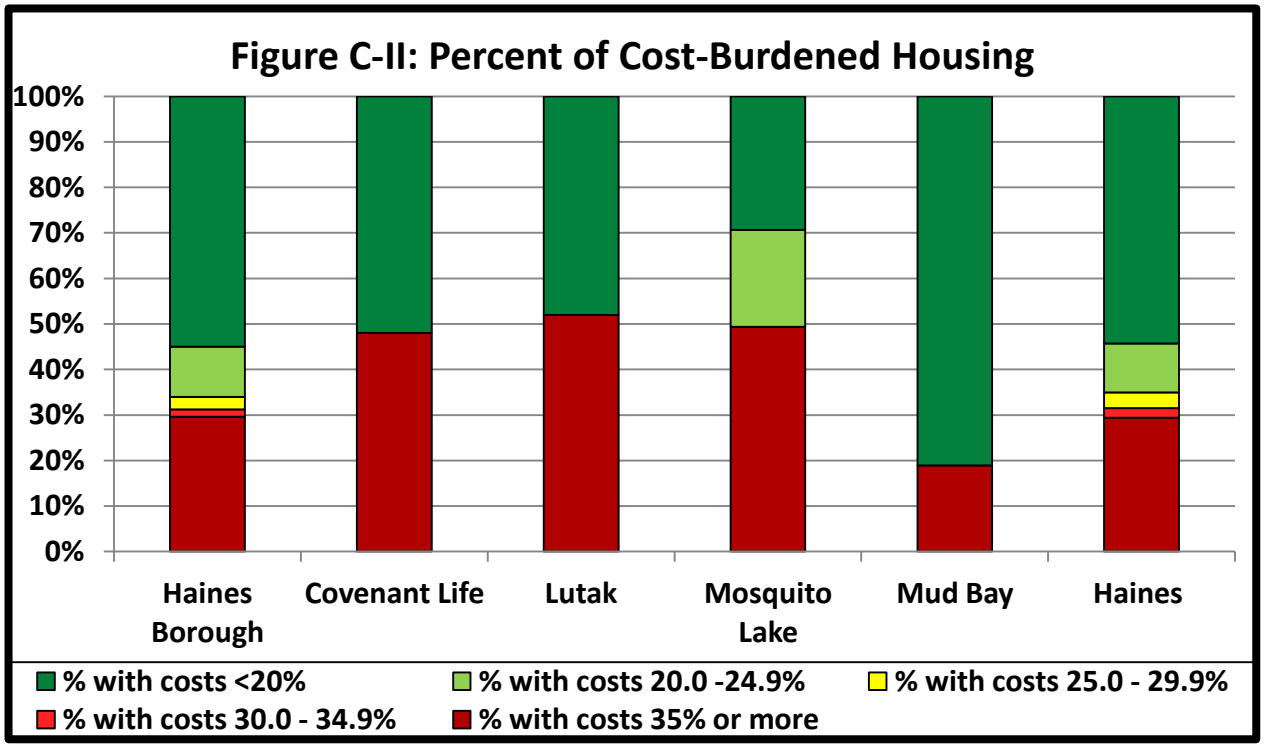
Energy

The average annual energy cost in the Haines Borough census area is $5,929, which is slightly lower than the estimated $6,053 average annual energy cost in the community of Haines. The average home heating index for the census area is 14.8 BTUs/ft^2/HDD, which is also slightly higher than the average home heating index for the community of Haines at 14.2 BTUs/ft^2/HDD.

Approximately 18% of housing units in the Haines Borough census area have completed the Weatherization, Home Energy Rebate, or a BEES program since 2003. The participation of homes in the programs in the individual communities of the census area range from approximately none in Mosquito Lake to 23% of homes having completed one of the programs in Haines. Fewer than 20% of housing units built in any decade have an HRV or another type of continuous mechanical ventilation system installed. Houses with no mechanical ventilation include 50% of the housing units built since the 1980s, which are also relatively tight. These homes are at a higher risk for moisture- and indoor air quality-related problems.

Affordability

According to ACS estimates, approximately 30% of homes in Haines Borough census area spend more than 30% of household income on housing costs (Figure C-II)[1]. The community of Lutak has the highest percentage of cost-burdened households, with 52% of households spending more than 30% of income on housing costs. Lutak also has the lowest median household income in the census area, $7,404. Mosquito Lake and Covenant Life are additional communities where more than half of homes spend more than



[1]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.

35% of income on housing costs. Covenant Life has the highest median household income, $170,096, in spite of being one of the three most cost-burdened communities in the census area. The least cost-burdened community is Mud Bay, with only 19% of households spending more than 30% of income on housing costs.

Community, Regional, and Statewide Housing Characteristics

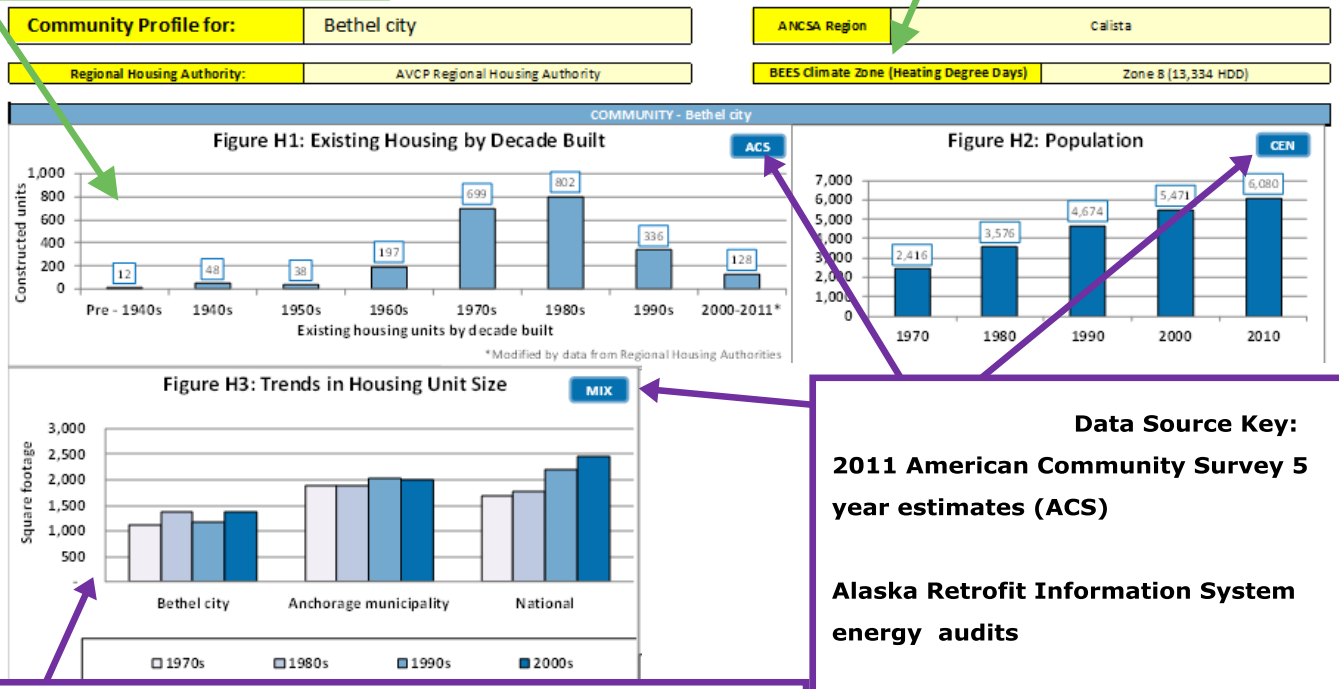
This census area summary only includes the highlights of housing characteristics at the census area level. Detailed data profile with charts and tables for both the census area and for each of the communities within it follow. The 2014 Alaska Housing Assessment provides a significant amount of data and 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.



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.

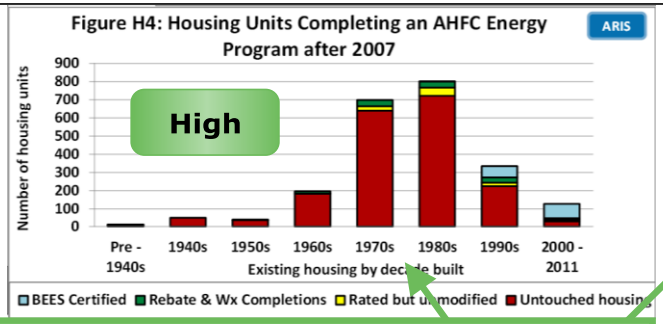
Data Source Key:

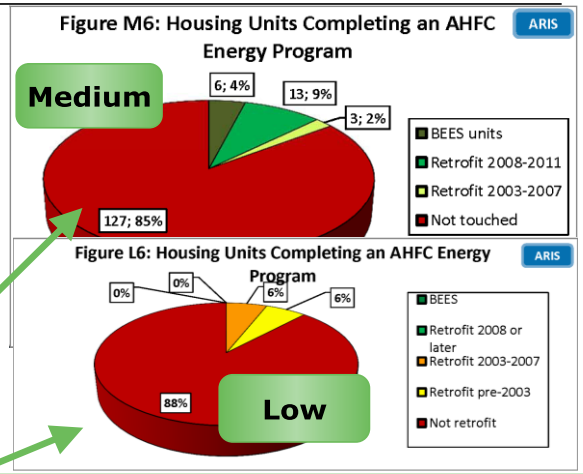
2011 American Community Survey 5 year estimates (ACS)	ACS
Alaska Retrofit Information System energy audits	ARIS
2010 Decennial Census	CEN
Mixed data source; see individual graphs for details.	MIX

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).

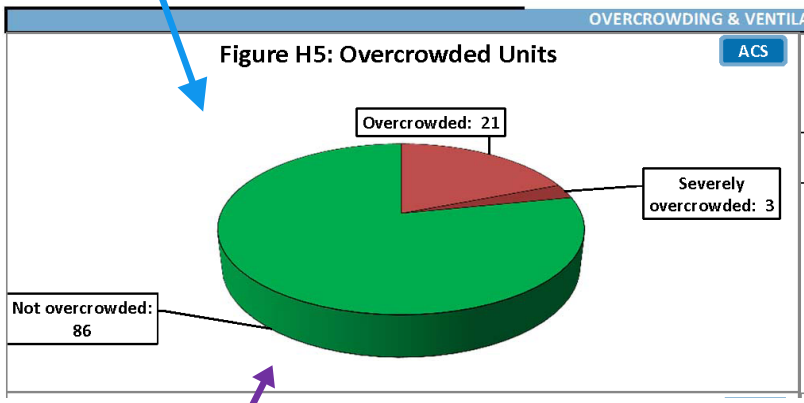
How to Interpret the Profile: Data Sources, Definitions & Clarifications

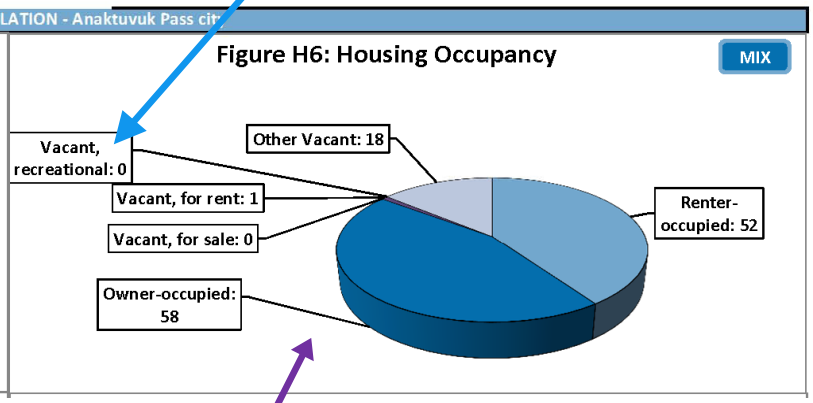
2

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

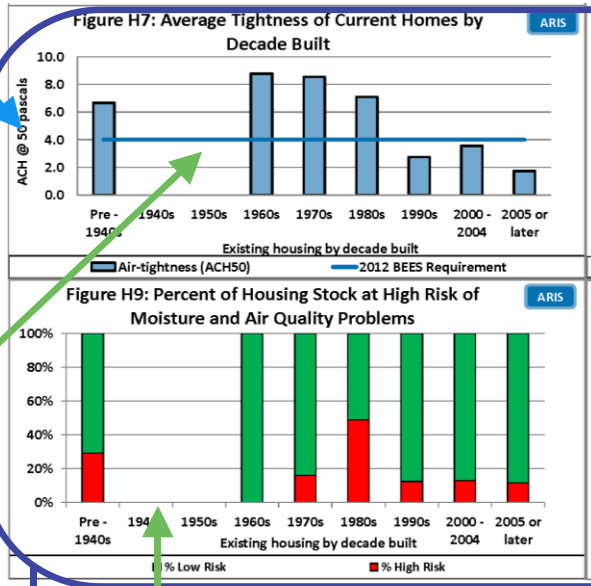
2

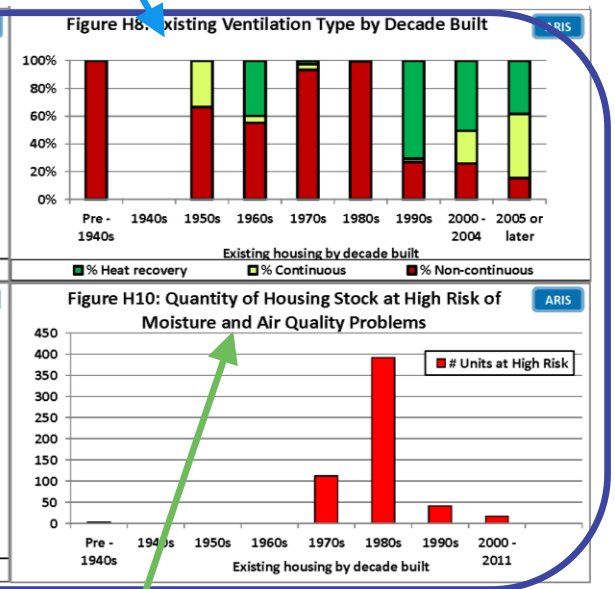
Heat Recovery: Continuous mechanical ventilation with heat recovery operated with automatic controls.

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.

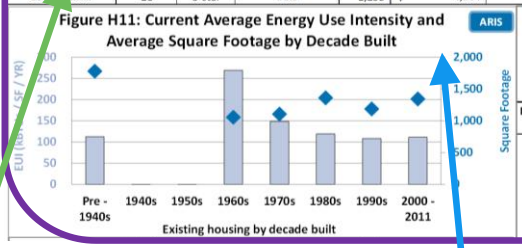
ECI: Energy Cost Index, the amount of money spent on energy per year divided by square footage.

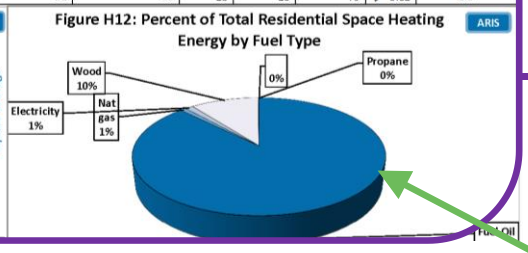
Home Heating Index: The energy used per square foot per year divided by the area's heating degree days.

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.

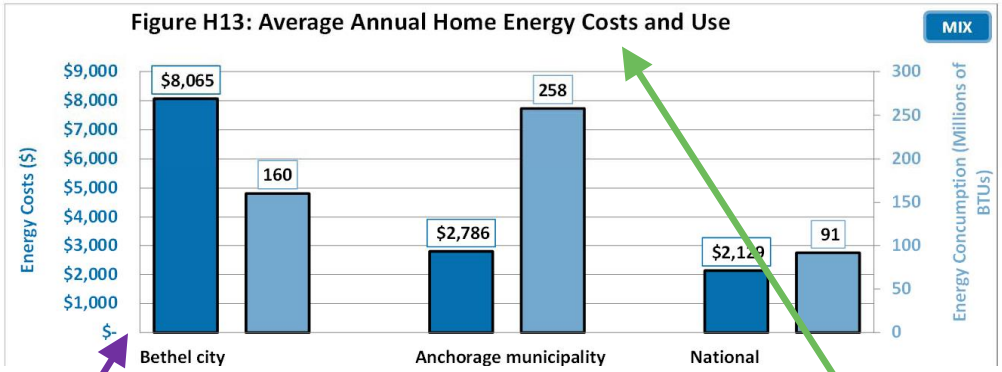
Red: value is less than 75% of the 2012 BEES requirement.

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%

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

ACS

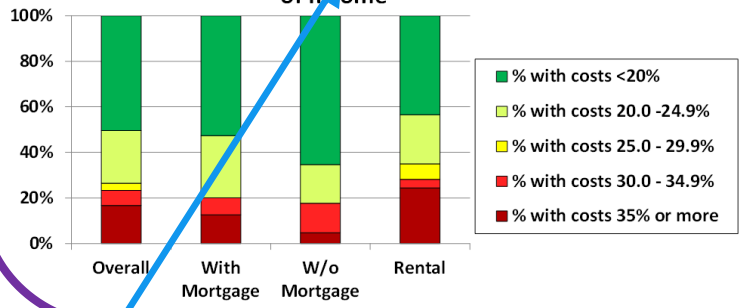
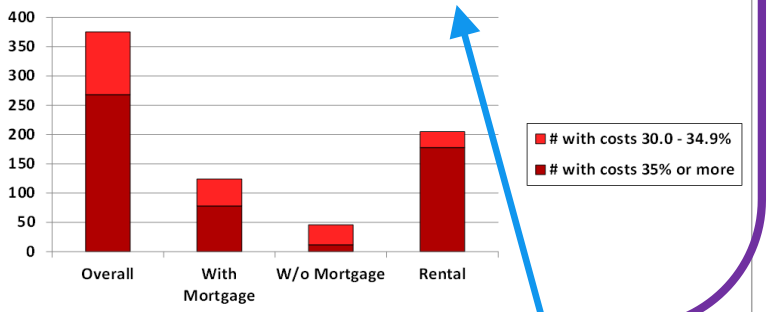


Figure H15: Number of Cost-Burdened Housing Units

ACS



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:	Haines Borough

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 - Haines Borough

Figure C1: Existing Housing by Decade Built

ACS

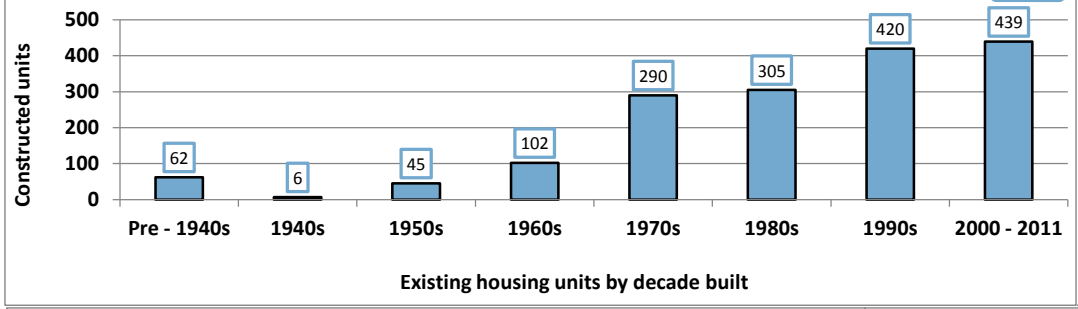


Figure C2: Population

CEN

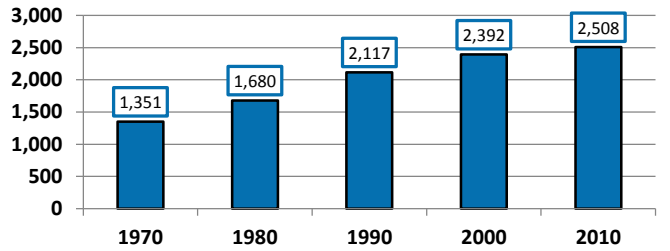


Figure C3: Trends in Housing Unit Size

MIX

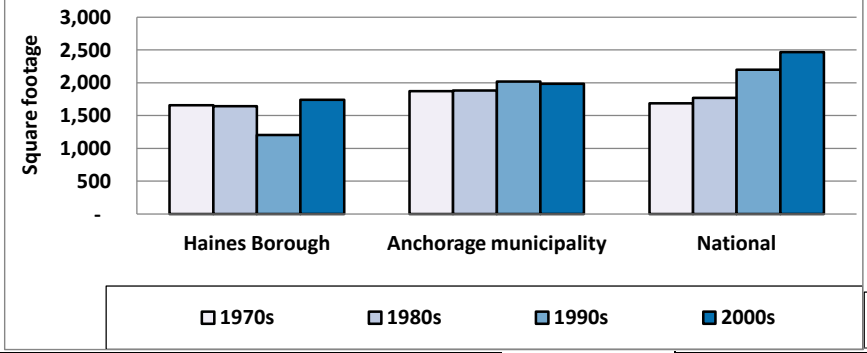
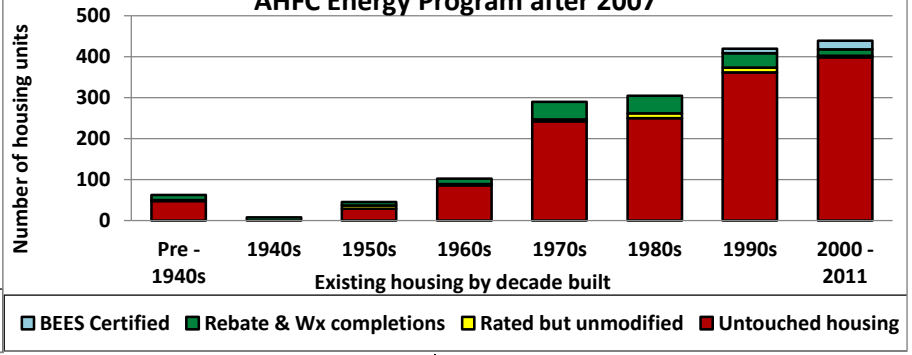


Figure C4: Housing Units Completing an AHFC Energy Program after 2007

ARIS



Houses Lacking Complete Plumbing or Kitchen Facilities	Households	
	Number	Percent
Lack complete plumbing	88	8%
Lack complete kitchen	54	5%

Avg Annual Energy Cost with PCE	$5,929
Avg Annual Energy Cost without PCE	$6,320

Weatherization Retrofits (funding increased 2008)	
Date Range	Units
2008 -2011	105
2003-2007	8
1990-2002	63

Estimated Total Annual Community Space Heating Fuel Use		
Fuel Oil	787,257	(gallons)
Natural Gas	-	(ccf)
Electricity	517,148	(kWh)
Wood	3,459	(cords)
Propane	36,136	(gallons)
Coal	-	(tons)

Housing Need Indicators	Number of Units	% Occupied Housing
Overcrowded	26	2%
Housing cost burdened	348	30%
1 Star Homes	284	24%

Housing Stock Estimates	Number of Units
All Housing	1,668
All Occupied Housing	1,176
All Vacant housing	492
Vacant Housing for Sale or Rent	67

OVERCROWDING & VENTILATION - Haines Borough

Figure C5: Overcrowded Units

ACS

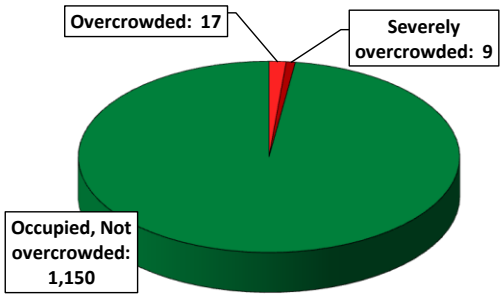


Figure C6: Housing Occupancy

MIX

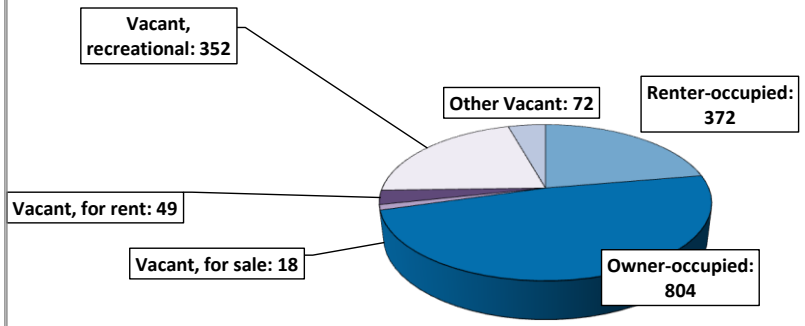


Figure C7: Average Air-Tightness of Current Homes by Decade Built

ARIS

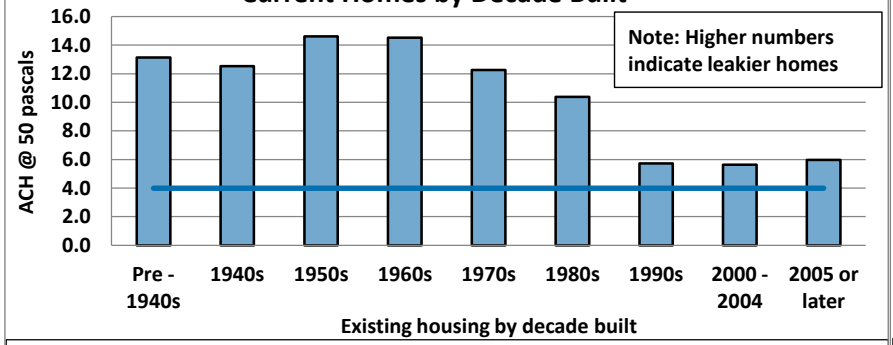


Figure C8: Existing Ventilation Type by Decade Built

ARIS

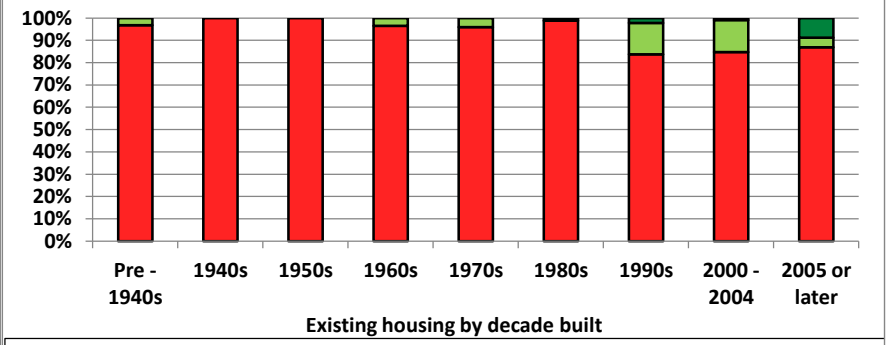


Figure C9: Percent of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS

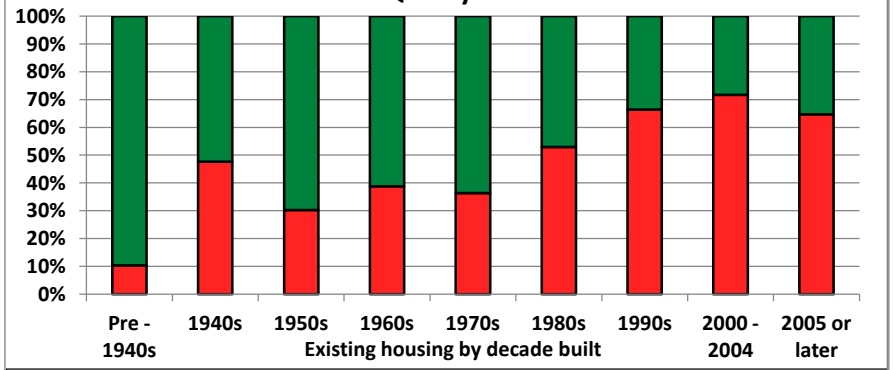
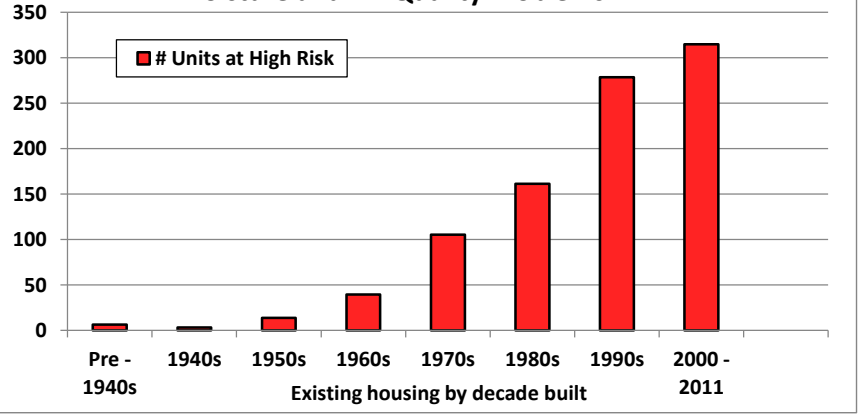


Figure C10: Quantity of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS



ENERGY - Haines Borough												
Current Haines Borough 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	329	2-star	59.7	1,511	$5,929	200	143	26	29	159	$4.59	14.8
Pre- 1940	27	2-star	50.8	1,811	$8,776	285	217	30	39	178	$5.25	17.3
1940- 49	13	2-star plus	67.8	1,088	$4,374	147	97	27	24	137	$4.13	11.3
1950- 59	24	1-star plus	45.0	1,576	$8,055	255	195	34	26	169	$5.16	15.9
1960- 69	31	2-star	54.4	1,418	$6,765	211	162	23	26	158	$5.47	14.5
1970- 79	92	2-star	51.1	1,660	$7,971	242	181	31	30	171	$5.58	16.3
1980- 89	101	2-star	54.3	1,645	$6,403	230	176	23	31	159	$4.12	15.4
1990- 99	89	2-star plus	65.0	1,204	$4,860	156	101	25	26	134	$3.95	11.4
2000- 2004	30	3-star plus	73.5	1,739	$4,711	172	116	28	28	101	$2.79	8.4
2005 or later	25	2-star	51.7	1,174	$3,840	180	136	16	28	263	$4.49	26.2

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

ARIS

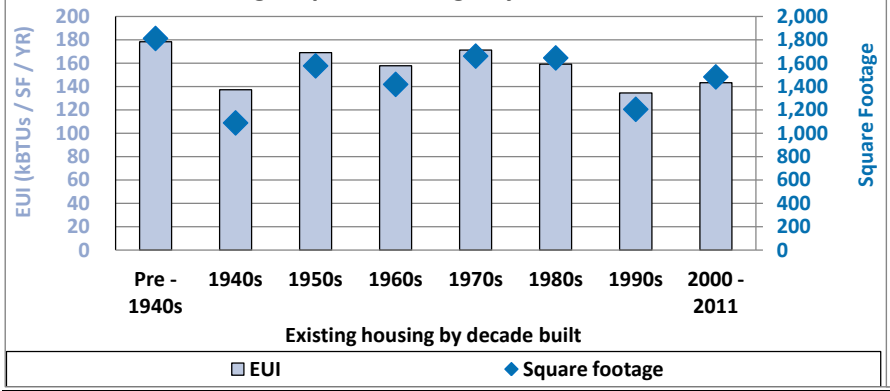
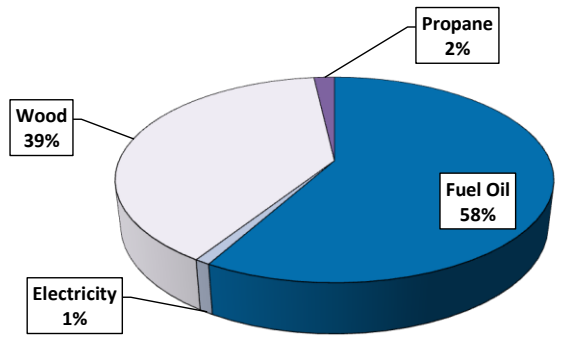


Figure C12: Percent of Total Residential Space Heating Energy by Fuel Type

ARIS

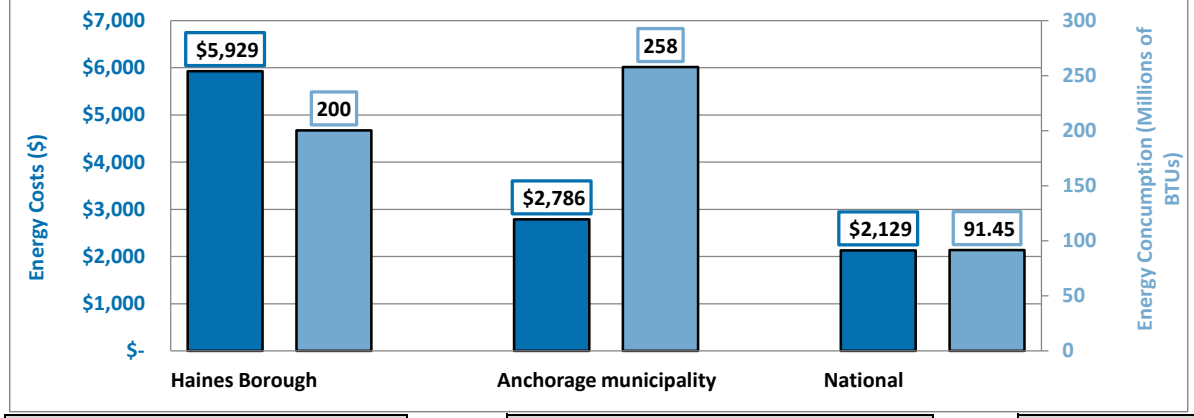


Current Haines Borough Housing Envelope Characteristics By Decade Built											
Current Residential Units by Year Built	# of AkWarm Records	ACH 50	Ceiling R	Above Grade Wall R	Below Grade Wall R	Above Grade Floor R	On Grade Floor R	Below Grade Floor R	Door U	Garage Door U	Window U
OVERALL	329	9.7	19	13	3	13	3	3	0.40	0.35	0.58
Pre- 1940	27	13.1	12	10	2	10	NR	2	0.48	NR	0.68
1940- 49	13	12.5	30	16	NR	24	NR	NR	0.20	NR	0.44
1950- 59	24	14.6	16	9	2	15	2	NR	0.38	NR	0.73
1960- 69	31	14.5	23	11	3	12	NR	2	0.40	NR	0.64
1970- 79	92	12.3	20	11	3	11	3	2	0.42	NR	0.61
1980- 89	101	10.4	19	14	2	13	3	3	0.37	0.46	0.55
1990- 99	89	5.7	22	15	8	14	3	4	0.40	0.19	0.53
2000- 2004	30	5.6	30	17	19	14	3	NR	0.39	0.26	0.46
2005 or later	25	6.0	13	10	10	12	9	NR	0.52	NR	0.51

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

Figure C13: Average Annual Home Energy Cost and Use

MIX



Housing Information	Avg Household Size (# of people)
All-occupied	2.1
Owner-occupied	2.2
Renter-occupied	1.9

Median Value of Owner-occupied House with Mortgage
$257,100

Median Value of Owner-occupied House without a Mortgage
$165,400

Median Annual Household Income	
Housing Units	Household Income
All-occupied	$ 51,667
Renter-occupied	$ 38,365
Owner-occupied	$ 59,758
w/ mortgage	$ 68,346
w/o mortgage	$ 52,054

Median Housing Costs		
	Monthly	Annual
All-occupied	$ 747	$ 8,964
Gross rent	$ 792	$ 9,504
Owner-occupied	$ 742	$ 8,904
Housing units w/ mortgage	$ 1,479	$ 17,748
Housing units w/out a mortgage	$ 468	$ 5,616

Avg % of Median Income Spent on Energy	11.5%

Figure C14: Affordability - Housing Costs as a Percent of Income

ACS

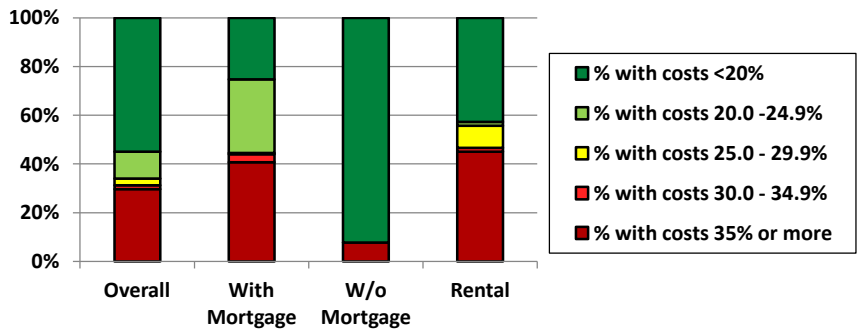
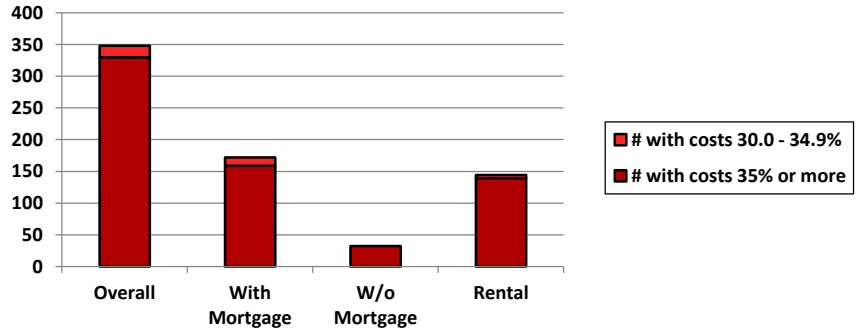


Figure C15: Number of Cost-Burdened Housing Units

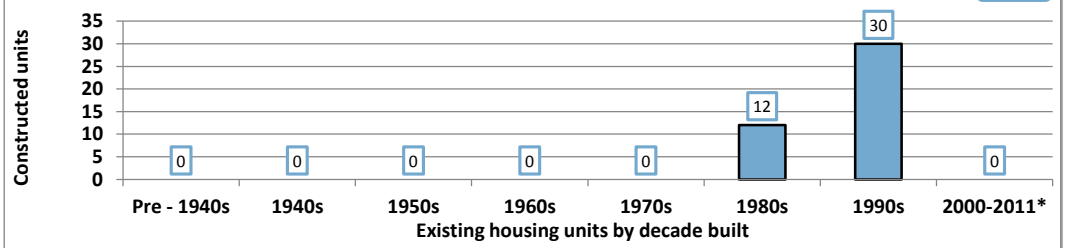
ACS



Community Profile for:	Covenant Life CDP	ANCSA Region	Sealaska Corporation	Climate Zone	6

Figure L1: Existing Housing by Decade Built

ACS



*Modified by data from Regional Housing Authorities

Figure L2: Population

CEN

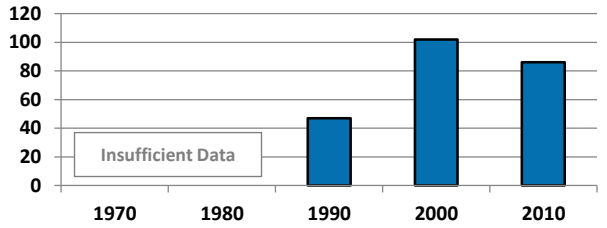


Figure L3: Overcrowded Units

ACS

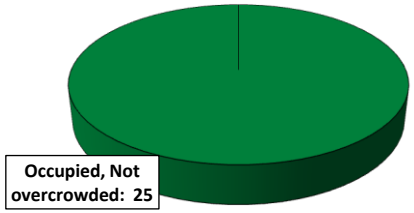


Figure L4: Housing Occupancy

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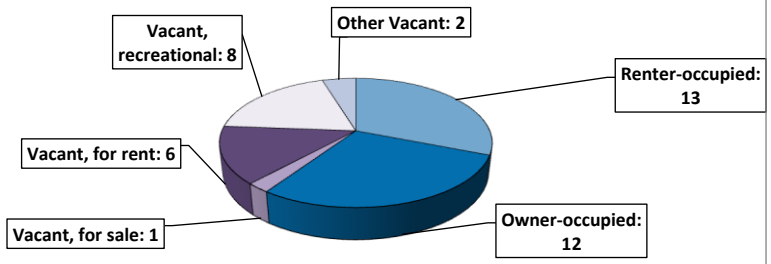
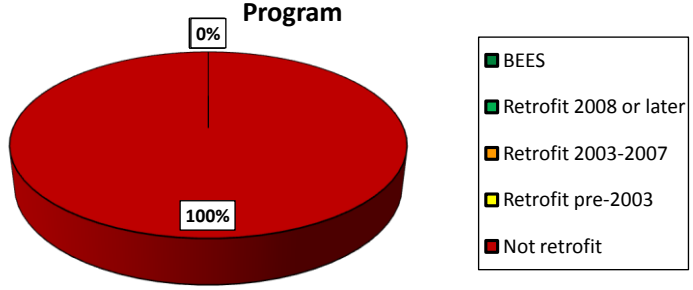


Figure L5: Affordability - Housing Costs as a Percent of Income

ACS

Figure L6: Housing Units Completing an AHFC Energy Program

ARIS



Owner-occupied House with Mortgage, Median Value
NR

Owner-occupied House without a Mortgage, Median Value
NR

Median Annual Household Income	
Housing Units	Household Income
All-occupied	$ 170,096
Renter-occupied	NR
Owner-occupied	NR
w/ mortgage	NR
w/o mortgage	NR

Median Housing Costs		
	Monthly	Annual
All-occupied	$ 1,010	$ 12,120
Gross rent	NR	NR
Owner-occupied	NR	NR
Housing units w/ mortgage	NR	NR
Housing units w/out a mortgage	NR	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

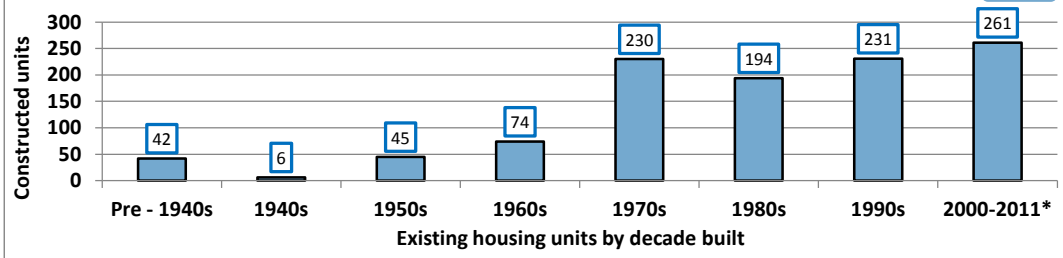
Housing Stock Estimates	Number of Units
All Housing	42
All Occupied Housing	25
All Vacant housing	17

Community Profile for:	Haines CDP	ANCSA Region	Sealaska Corporation
Regional Housing Authority:	Tlingit-Haida Regional Housing Authority	BEES Climate Zone (Heating Degree Days)	Zone 6 (8,505 HDD)

COMMUNITY - Haines CDP

Figure H1: Existing Housing by Decade Built

ACS



*Modified by data from Regional Housing Authorities

Figure H2: Population

CEN

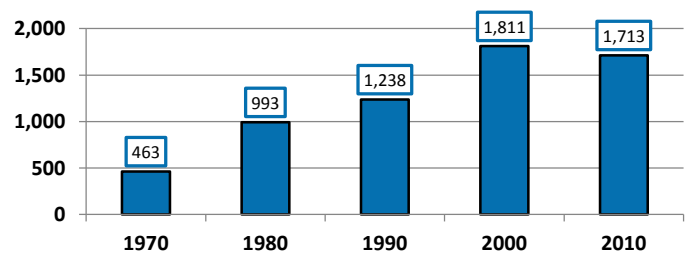


Figure H3: Trends in Housing Unit Size

MIX

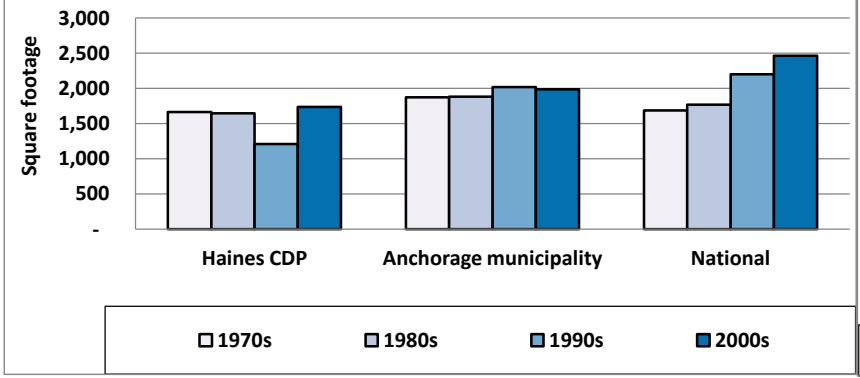
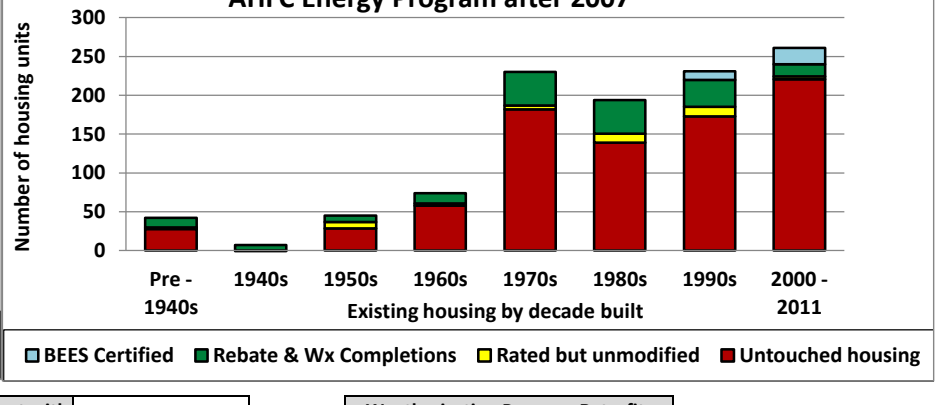


Figure H4: Housing Units Completing an AHFC Energy Program after 2007

ARIS



Houses Lacking Complete Plumbing or Kitchen Facilities	Households	
	Number	Percent
Lack complete plumbing	19	2%
Lack complete kitchen	0	0%

Avg Annual Energy Cost with PCE	$6,053
Avg Annual Energy Cost without PCE	$6,447

Weatherization Program Retrofits (funding increased in 2008)	
Date Range	Units
2008-2011	105
2003-2007	8
1990-2002	63

Estimated Total Annual Community Space Heating Fuel Use		
Fuel Oil	646,030	(gallons)
Nat Gas	-	(ccf)
Electricity	424,506	(kWh)
Wood	2,479	(cords)
Propane	25,518	(gallons)
Coal	-	(tons)

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost ($ / gallon)	$4.52
Electricity with PCE ($/kWh)	$0.16
Electricity cost without PCE ($/kWh)	$0.23

Housing Stock Estimates	Number of Units
All Housing	1082
All Occupied Housing	921
All Vacant housing	161
Vacant Housing for Sale or Rent	44

OVERCROWDING & VENTILATION - Haines CDP

Figure H5: Overcrowded Units

ACS

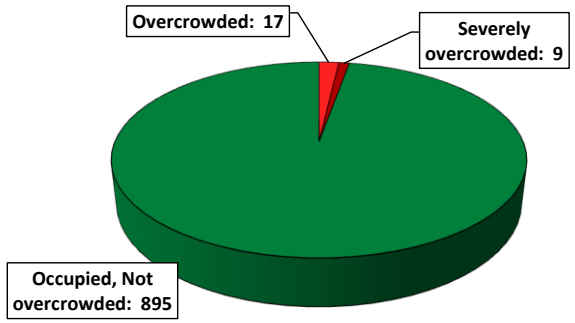


Figure H6: Housing Occupancy

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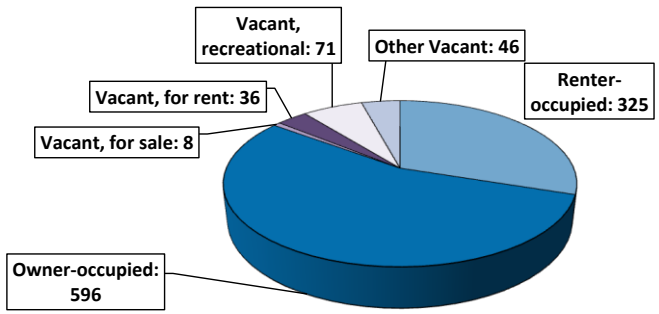


Figure H7: Average Air-Tightness of Current Homes by Decade Built

ARIS

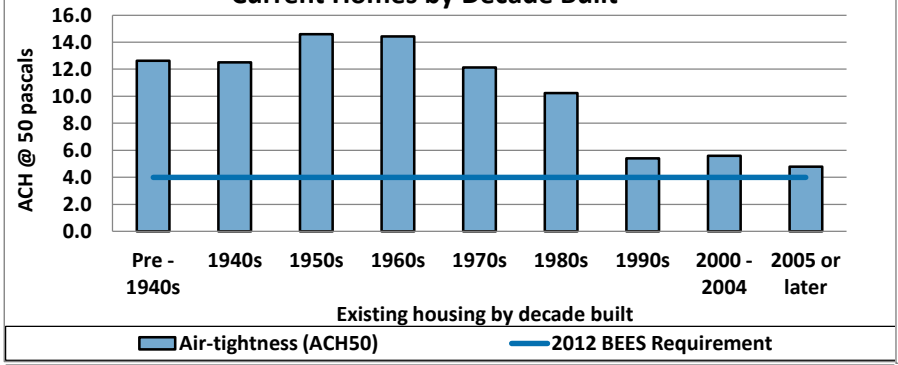


Figure H8: Existing Ventilation Type by Decade Built

ARIS

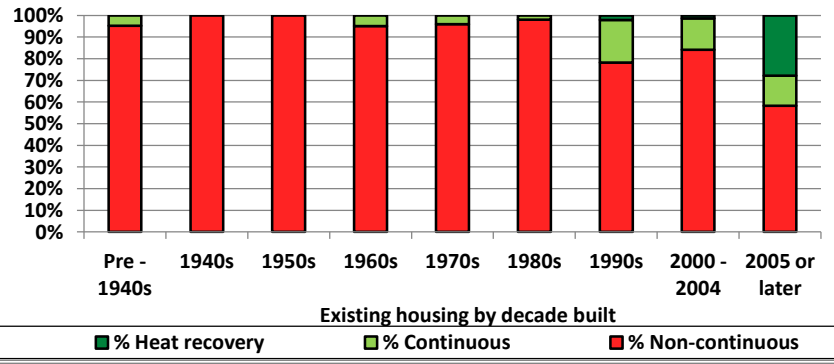


Figure H9: Percent of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS

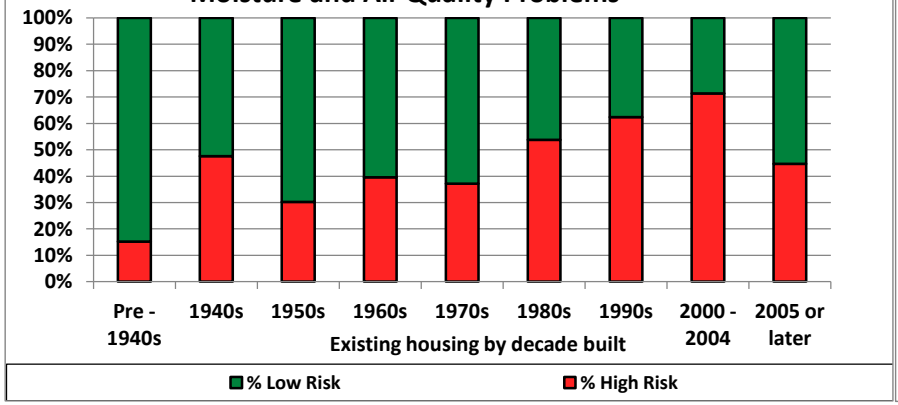
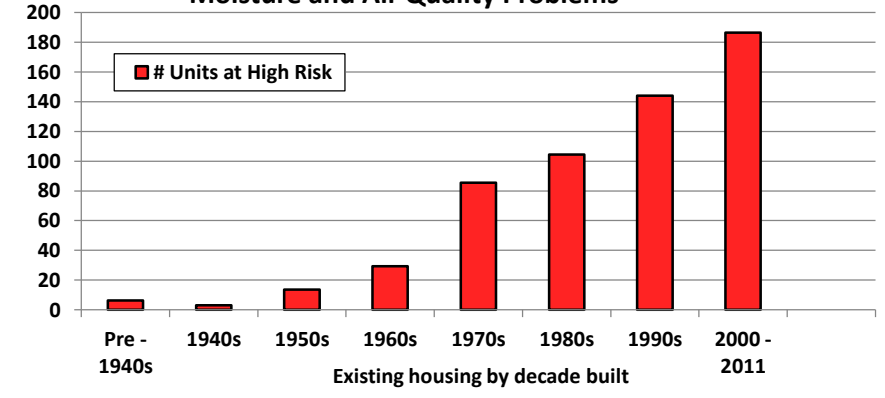


Figure H10: Quantity of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS



ENERGY - Haines CDP												
Current Haines CDP Housing Energy Characteristics By Decade Built												
Current Residential Units by Year Built	Number of 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	329	2-star plus	60.8	1,544	$ 6,053	200	141	27	30	154	$ 4.48	14.2
Pre- 1940	27	2-star	53.2	1,816	$ 8,484	276	208	30	39	173	$ 5.10	16.8
1940- 49	13	2-star plus	67.8	1,088	$ 4,374	147	97	27	24	137	$ 4.13	11.3
1950- 59	24	1-star plus	45.0	1,576	$ 8,055	255	195	34	26	169	$ 5.16	15.9
1960- 69	31	2-star	55.1	1,421	$ 6,685	210	161	23	26	156	$ 5.42	14.3
1970- 79	92	2-star	51.7	1,662	$ 7,891	240	179	31	30	169	$ 5.52	16.0
1980- 89	101	2-star	55.2	1,644	$ 6,291	227	173	22	31	157	$ 4.06	15.2
1990- 99	89	2-star plus	67.4	1,207	$ 4,758	150	93	24	26	128	$ 3.80	10.6
2000- 2004	30	3-star plus	73.7	1,737	$ 4,700	171	115	28	28	101	$ 2.79	8.3
2005 or later	25	2-star plus	65.0	1,200	$ 3,471	143	89	15	38	189	$ 3.74	17.9

Figure H11: Current Average Energy Use Intensity and Average Square Footage by Decade Built

ARIS

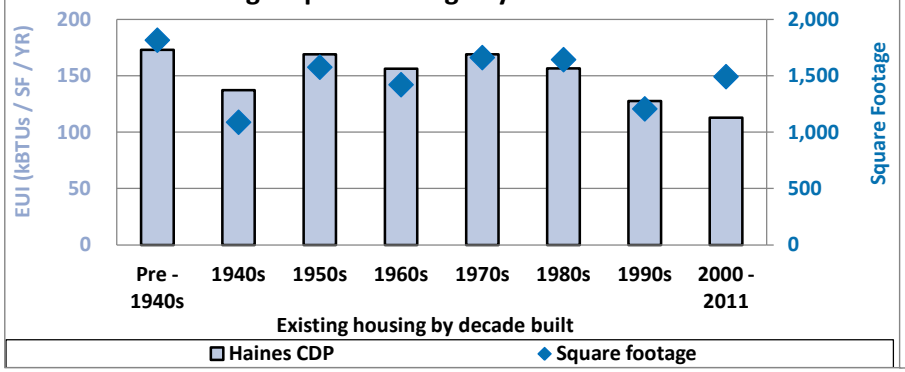
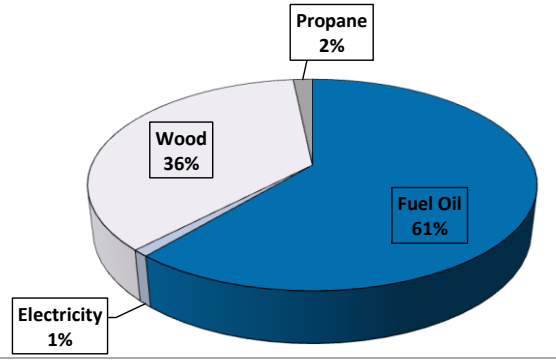


Figure H12: Percent of Total Residential Space Heating Energy by Fuel Type

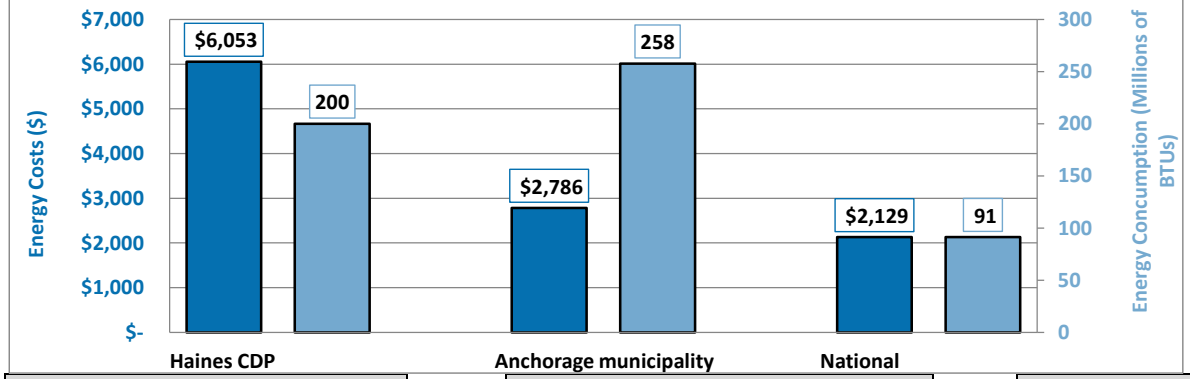
ARIS



Current Haines CDP 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	329	9.5	19	13	3	13	3	3	0.40	0.34	0.57
Pre- 1940	27	12.6	12	10	2	11	NR	2	0.48	NR	0.67
1940- 49	13	12.5	30	16	NR	24	NR	NR	0.20	NR	0.44
1950- 59	24	14.6	16	9	2	15	2	NR	0.38	NR	0.73
1960- 69	31	14.4	23	11	3	12	NR	2	0.39	NR	0.63
1970- 79	92	12.1	20	11	3	12	3	2	0.41	NR	0.60
1980- 89	101	10.2	19	14	3	14	3	3	0.37	0.43	0.55
1990- 99	89	5.4	23	16	8	15	3	4	0.39	0.18	0.51
2000- 2004	30	5.6	30	17	19	14	3	NR	0.39	0.26	0.46
2005 or later	25	4.8	16	13	11	14	9	NR	0.41	NR	0.44
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

Figure H13: Average Annual Home Energy Costs and Use

MIX



Housing Information	Avg Household Size (# of people)
All-occupied	2.2
Owner-occupied	2.4
renter-occupied	1.8

Owner-occupied House with Mortgage, Median Value
$296,700

Owner-ocupied House without a Mortgage, Median Value
$161,300

Median Annual Household Income	
Housing Units	Household Income
All-occupied	$ 57,434
Renter-occupied	$ 37,957
Owner-occupied	$ 66,667
w/ mortgage	$ 72,870
w/o mortgage	$ 58,065

Median Housing Costs		
	Monthly	Annual
All-occupied	$ 792	$ 9,504
Gross rent	$ 799	$ 9,588
Owner-occupied	$ 792	$ 9,504
Housing units w/ mortgage	$ 1,714	$ 20,568
Housing units w/out a mortgage	$ 473	$ 5,676

Avg % of Median Income Spent on Energy	10.5%

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

ACS

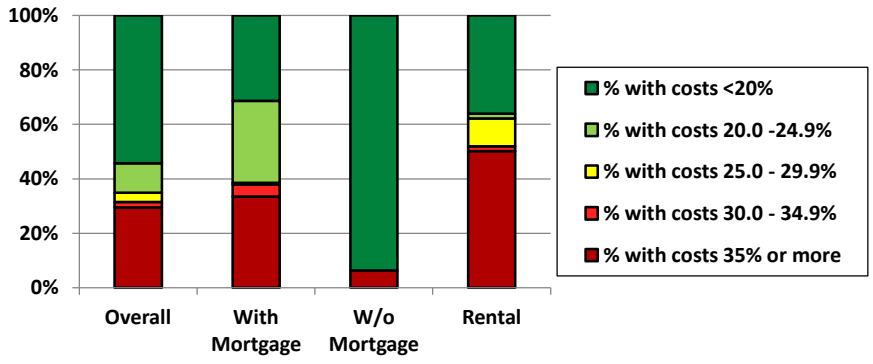
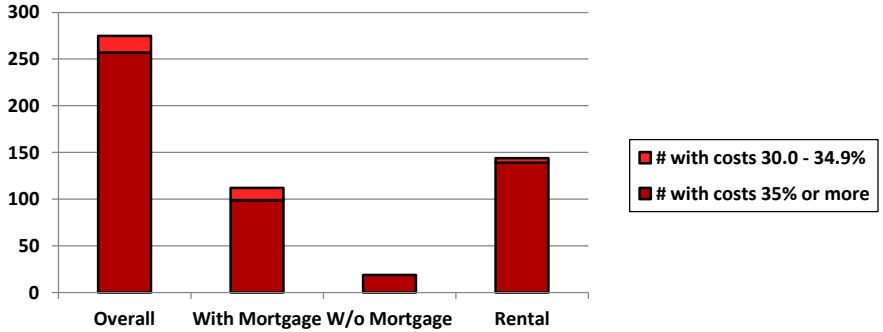


Figure H15: Number of Cost-Burdened Housing Units

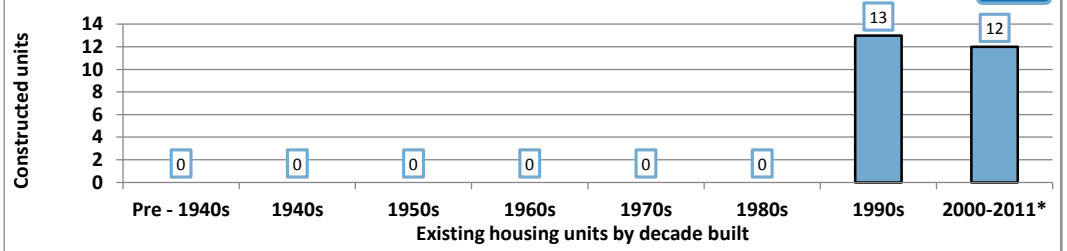
ACS



Community Profile for:	Lutak CDP	ANCSA Region	Sealaska Corporation	Climate Zone	6

Figure L1: Existing Housing by Decade Built

ACS



*Modified by data from Regional Housing Authorities

Figure L2: Population

CEN

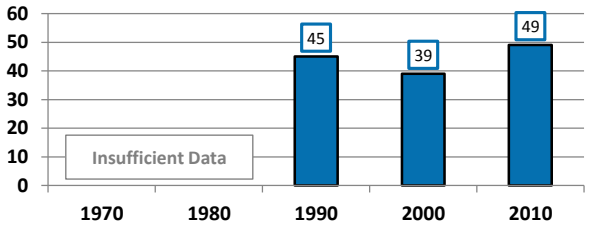


Figure L3: Overcrowded Units

ACS

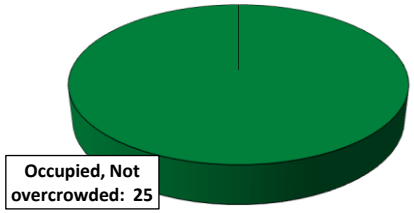


Figure L4: Housing Occupancy

MIX

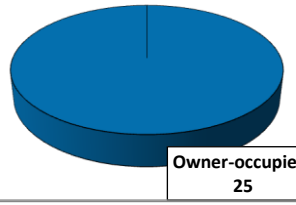


Figure L5: Affordability - Housing Costs as a Percent of Income

ACS

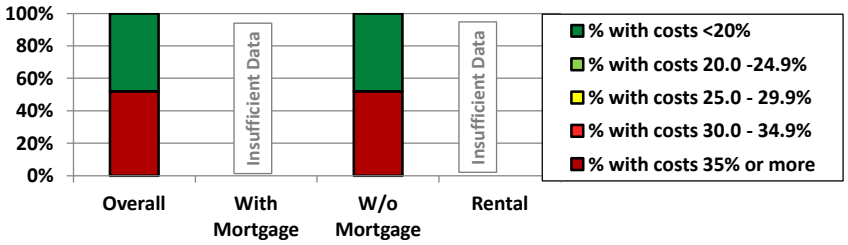
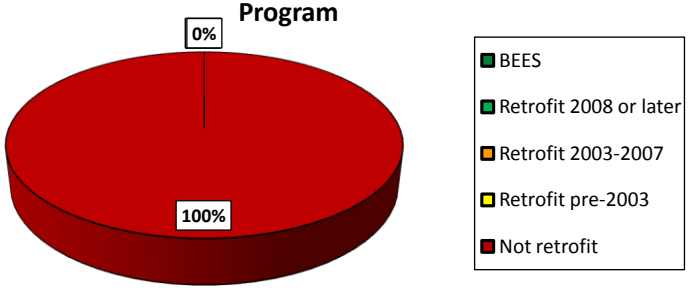


Figure L6: Housing Units Completing an AHFC Energy Program

ARIS



Owner-occupied House with Mortgage, Median Value
NR

Owner-occupied House without a Mortgage, Median Value
$174,000

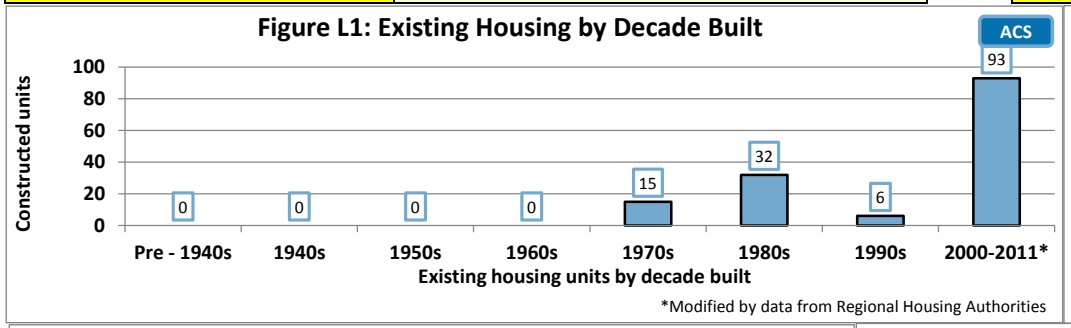
Median Annual Household Income	
Housing Units	Household Income
All-occupied	$ 7,404
Renter-occupied	NR
Owner-occupied	$ 7,404
w/ mortgage	NR
w/o mortgage	$ 7,404

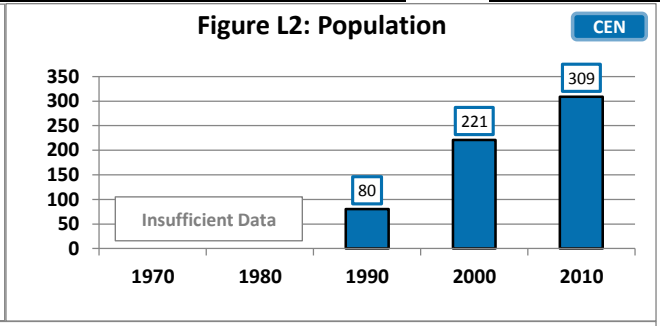
Median Housing Costs		
	Monthly	Annual
All-occupied	NR	NR
Gross rent	NR	NR
Owner-occupied	NR	NR
Housing units w/ mortgage	NR	NR
Housing units w/out a mortgage	NR	NR

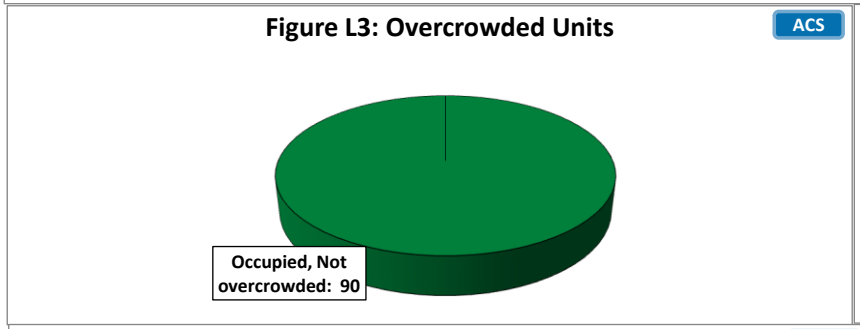
Estimated Energy Prices as of January 2013	
#1 Fuel oil cost ($ / gallon)	No Data
Electricity with PCE ($/kWh)	No Data
Electricity without PCE ($/kWh)	No Data

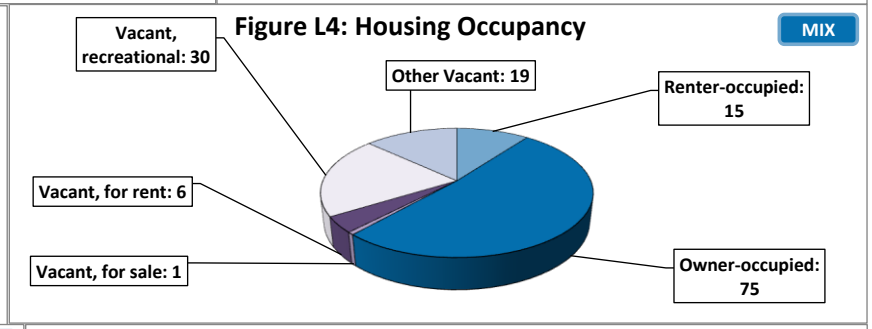
Housing Stock Estimates	Number of Units
All Housing	25
All Occupied Housing	25
All Vacant housing	0

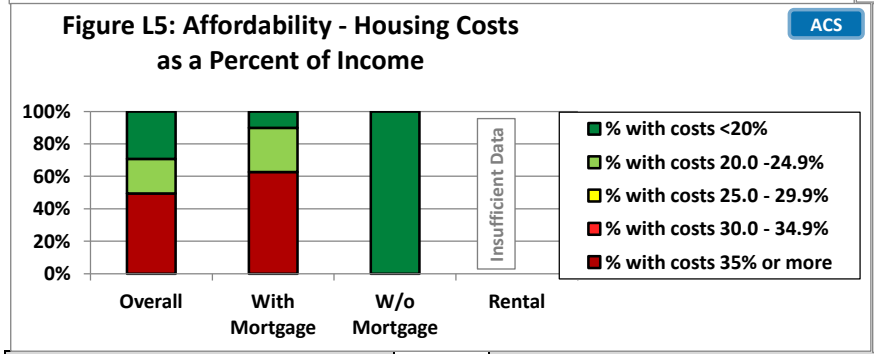
Community Profile for:	Mosquito Lake CDP	ANCSA Region	Sealaska Corporation	Climate Zone	6

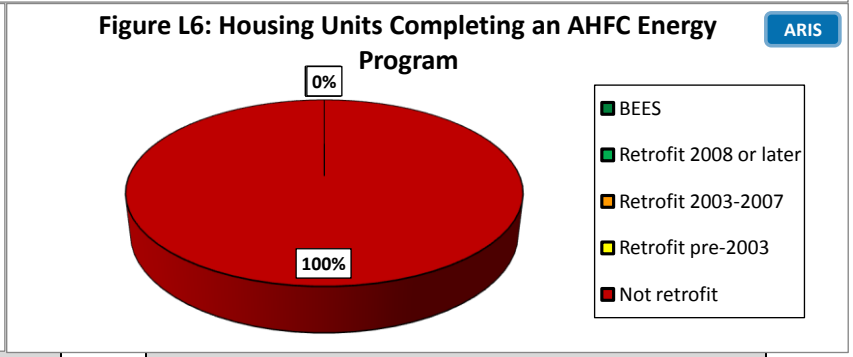












Owner-occupied House with Mortgage, Median Value
$147,700

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	$ 42,333
Renter-occupied	NR
Owner-occupied	$ 48,516
w/ mortgage	$ 49,766
w/o mortgage	NR

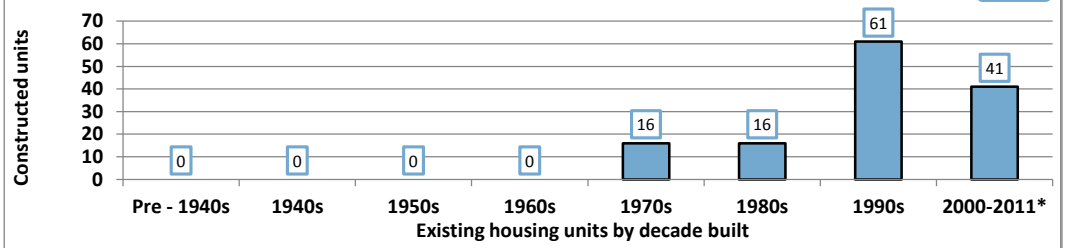
Housing Stock Estimates	Number of Units
All Housing	146
All Occupied Housing	90
All Vacant housing	56

Median Housing Costs		
	Monthly	Annual
All-occupied	$ 992	$ 11,904
Gross rent	NR	NR
Owner-occupied	$ 992	$ 11,904
Housing units w/ mortgage	$ 1,625	$ 19,500
Housing units w/out a mortgage	NR	NR

Community Profile for:	Mud Bay CDP	ANCSA Region	Sealaska Corporation	Climate Zone	6

Figure L1: Existing Housing by Decade Built

ACS



*Modified by data from Regional Housing Authorities

Figure L2: Population

CEN

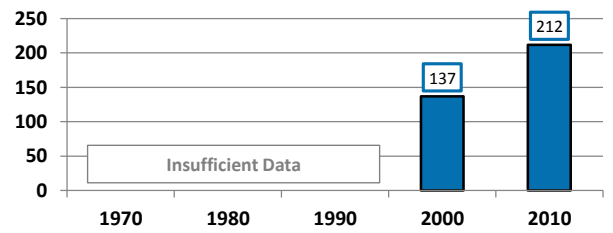


Figure L3: Overcrowded Units

ACS

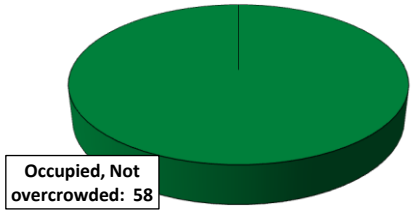


Figure L4: Housing Occupancy

MIX

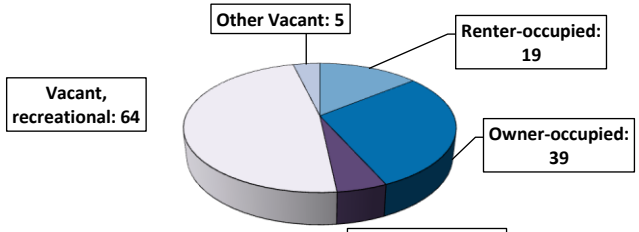
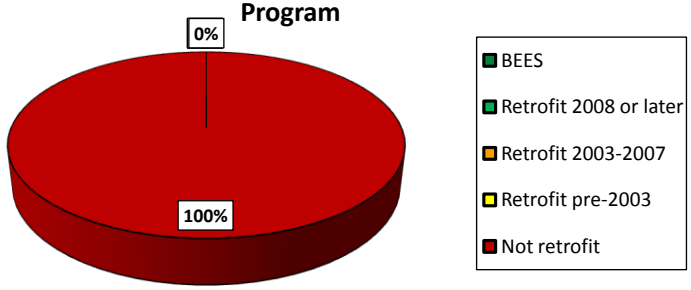


Figure L5: Affordability - Housing Costs as a Percent of Income

ACS

Figure L6: Housing Units Completing an AHFC Energy Program

ARIS



Owner-occupied House with Mortgage, Median Value
$55,000

Owner-occupied House without a Mortgage, Median Value
$516,700

Median Annual Household Income	
Housing Units	Household Income
All-occupied	$ 45,395
Renter-occupied	NR
Owner-occupied	$ 21,417
w/ mortgage	NR
w/o mortgage	$ 22,333

Median Housing Costs		
	Monthly	Annual
All-occupied	$ 183	$ 2,196
Gross rent	$ 100	$ 1,200
Owner-occupied	$ 619	$ 7,428
Housing units w/ mortgage	NR	NR
Housing units w/out a mortgage	$ 197	$ 2,364

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

Housing Stock Estimates	Number of Units
All Housing	134
All Occupied Housing	58
All Vacant housing	76