

Southeast Fairbanks Census Area

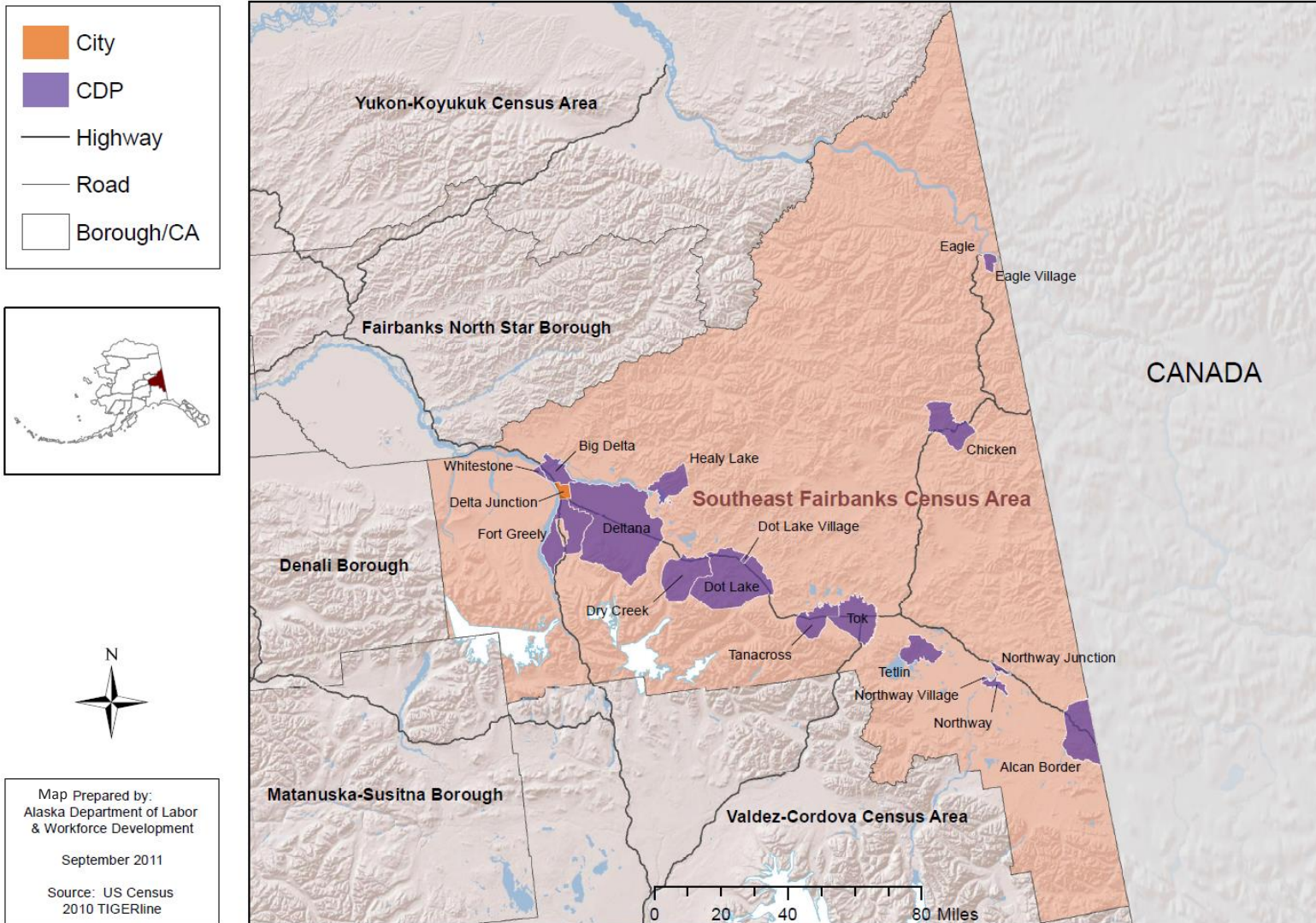


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Northway Junction	Data Quantity: Low	21
Northway Village	Data Quantity: Low	22
Tanacross	Data Quantity: High	23
Tetlin	Data Quantity: Low	27
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Southeast Fairbanks Census Area Dashboard

Population: The Alaska Department of Labor and Workforce Development's current (2012) population estimate for the Southeast Fairbanks Census Area is 7,218—an increase of 17% from 2000.

Housing Units: There are currently 3,873 housing units in the Southeast Fairbanks Census Area. Of these, 2,523 are occupied, 242 are for sale or rent, and the remaining 1,108 are seasonal or otherwise vacant units (Profile Figure C6).

Energy: The average home in the Southeast Fairbanks Census Area is 1,682 square feet and uses 185,000 BTUs of energy per square foot annually, 35% 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 Southeast Fairbanks Census Area is \$7,860, which is approximately 2.8 times more than the cost in Anchorage, and 3.7 times more than the national average (Profile Figure C13).

Energy Programs: Approximately 14% of occupied housing in the Southeast Fairbanks 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 in the 1940s are currently rated at 1-star-plus, compared to a current average rating of 3-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 perform better than the 2012 BEES standard of 4 air-changes per hour at 50 pascals (ACH50). In contrast, homes built in the 1940s are 4.4 times leakier than those built since 2000 (Profile Figure C7).

Ventilation: An estimated 1,172 occupied housing units (or 46%) in the Southeast Fairbanks 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: 8% of occupied units are estimated to be either overcrowded (6%) or severely overcrowded (2%). This is roughly 3 times the national average, and makes the Southeast Fairbanks Census Area the 12th most overcrowded census area in the state.

Affordability: On average, approximately 21% of households in the Southeast Fairbanks 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 13% of census median area income for occupied housing.

Southeast Fairbanks Census Area Summary

Community

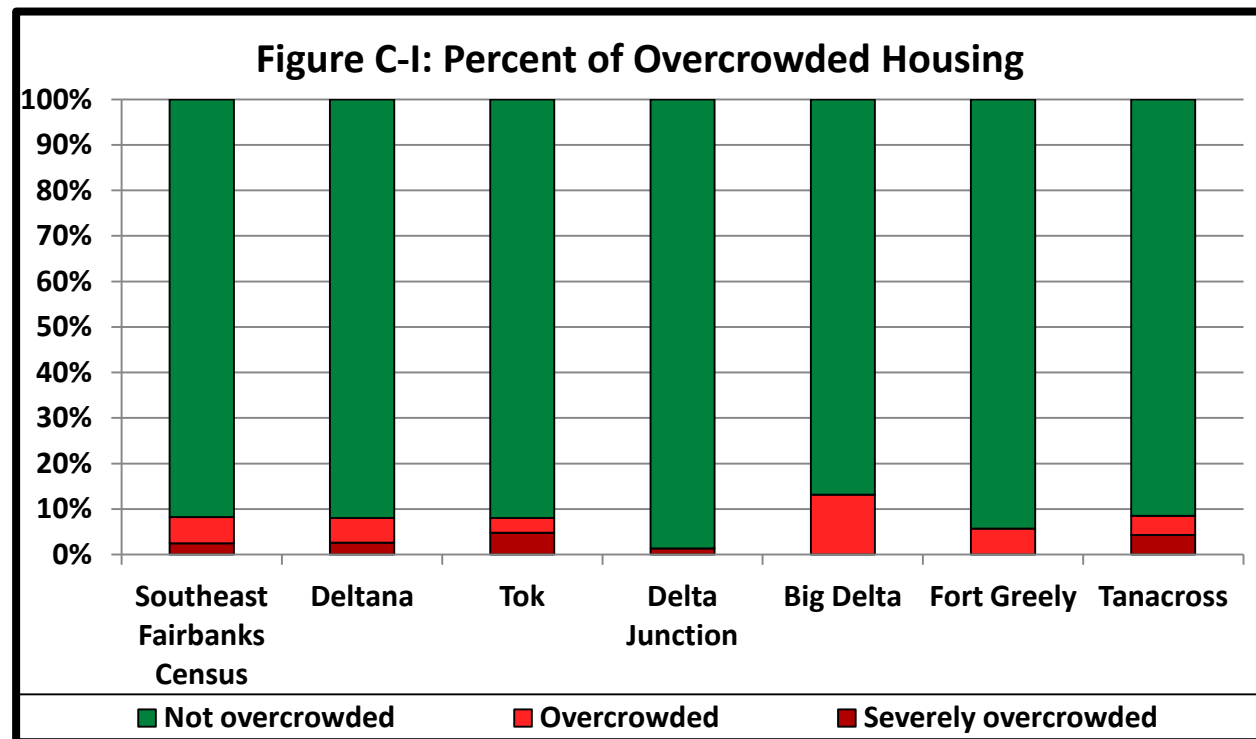
The Southeast Fairbanks census area is located in eastern Interior Alaska, on the Canadian border. It is in the Doyon Native Corporation ANCSA region. The average home size in the census area is 1,682 square feet, with average home sizes in individual communities ranging from 968 square feet in Tanacross to 1,854 square feet in Delta Junction.

Overcrowding

Overall, 8% of occupied housing units in Southeast Fairbanks are overcrowded (6%) or severely overcrowded (2%) (Figure C-II). The overcrowding rates for the six most populous communities are also shown in the figure, with rates ranging from 1% in Delta Junction to 13% in Big Delta. The most overcrowded community in the region is Northway, where 50% of households have more than one person per room. The least overcrowded community is Eagle, where an estimated zero households are overcrowded.

Slightly more than 1 in 4 homes in the census area are considered

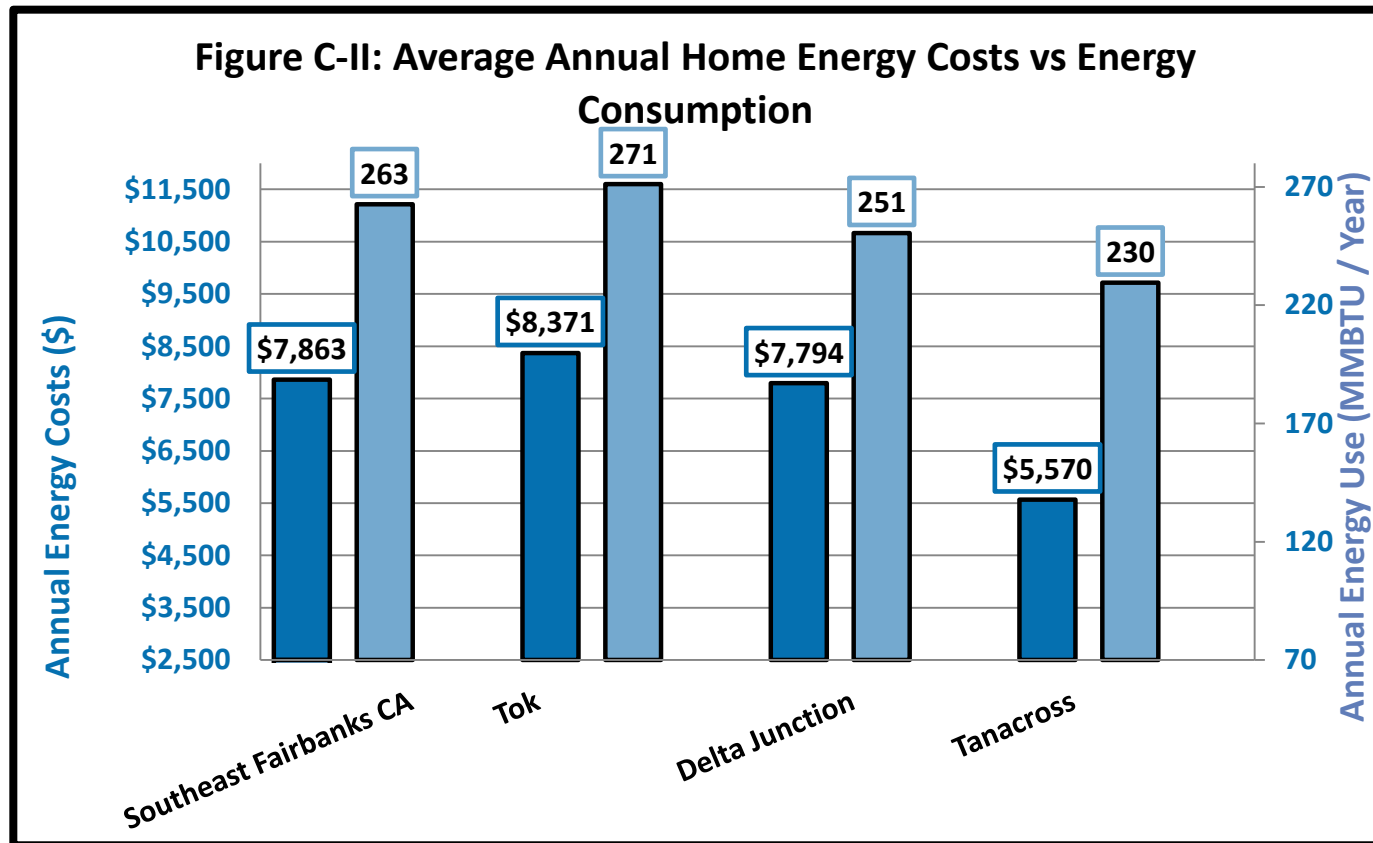
vacant because they are used for seasonal, recreational, or “other” purposes. Approximately 6% of housing units in the Southeast Fairbanks census area are available for sale or rent. The highest percentage of available housing is located in the community of Northway, with 31% of housing units available for sale or rent. At the other end of the scale, it is estimated that no housing is available in Tanacross.



Energy

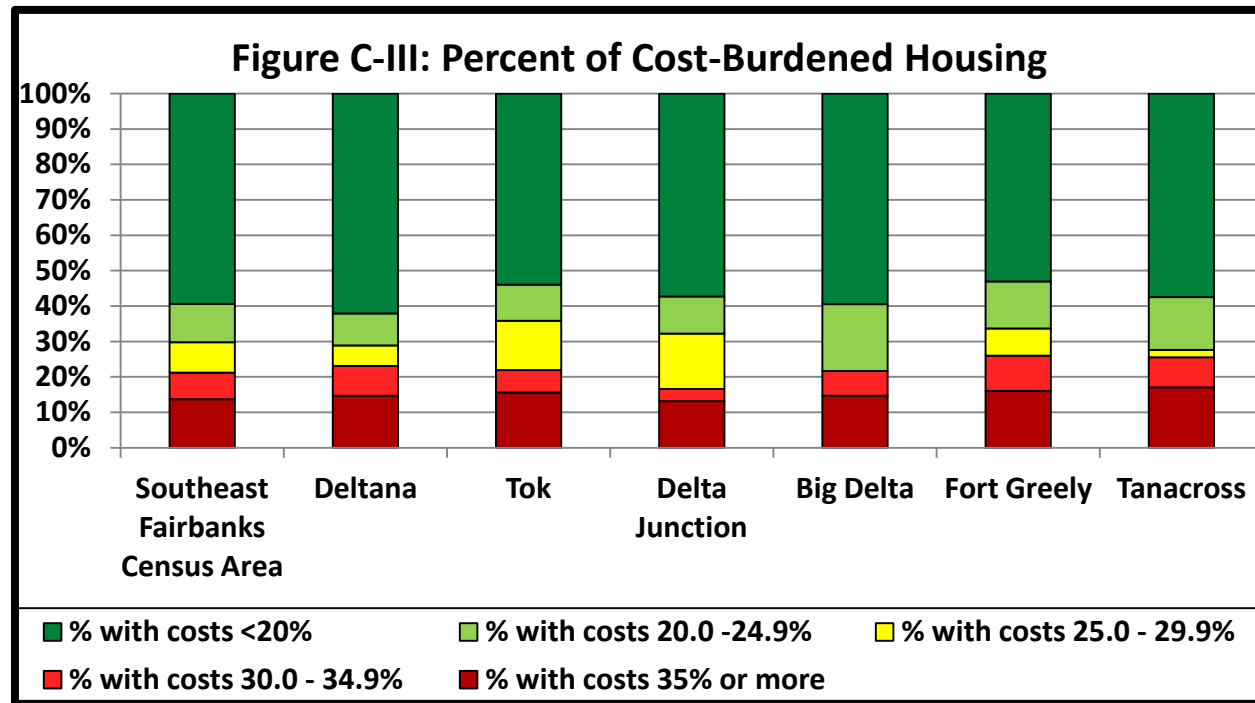
Figure C-II shows the average home energy costs and energy consumption in the Southeast Fairbanks census area. On average, households spend \$7,863 annually for an average energy use of 263 million BTUs per household. The lowest energy costs are found in Tanacross, where residents spend \$5,570 annually in spite of having the second highest average home heating index in the region at 13 BTUs/ft²/HDD. This is nearly \$3,000 per year less than the average home energy costs in Tok, which has the highest annual energy cost of any community in the census area at \$8,371. This may be due to the fact that the average housing unit size in Tanacross is approximately 700 square feet smaller than the average house in Tok. The lowest home heating index of all communities is found in Delta Junction, with an index of 8.7 BTUs/ft²/HDD.

The percentage of housing units in the Southeast Fairbanks census area with continuous mechanical ventilation or an HRV was 7% for 2000-2004. This percentage has risen to 83% for the latest period with data available, 2005-2011. Since 2003, approximately 16% of census area households have participated in either the Weatherization, Home Energy Rebate, or a BEES program. Deltana has had an estimated 0% participation rate. The highest participation rate, 77%, is found in Tanacross.



Affordability

According to ACS estimates¹, 21% of homes in Southeast Fairbanks spend more than 30% of income on housing costs (Figure C-III). The community of Northway has the highest percentage of cost-burdened households in the census area, 42%, and Tetlin is the most affordable community in the census area, with an estimated zero households spending more than 30% of income on housing costs. In the six most populous communities in the census area, the percent of cost-burdened households varies from 17% to 26% (Figure C-III).



Median household incomes in the census area range from \$20,417 in Eagle Village to \$92,188 in Fort Greely. The six most populous communities have median incomes ranging from \$48,309 in Tok to the high of \$92,188 in Fort Greely.

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.

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.

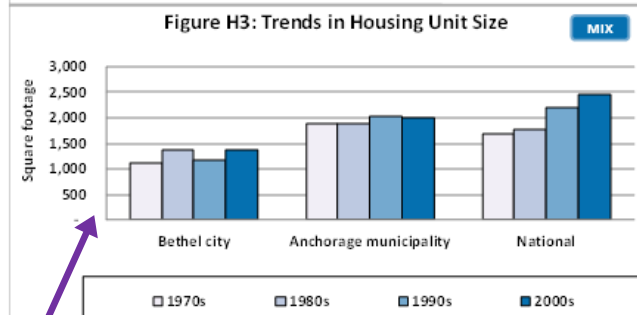
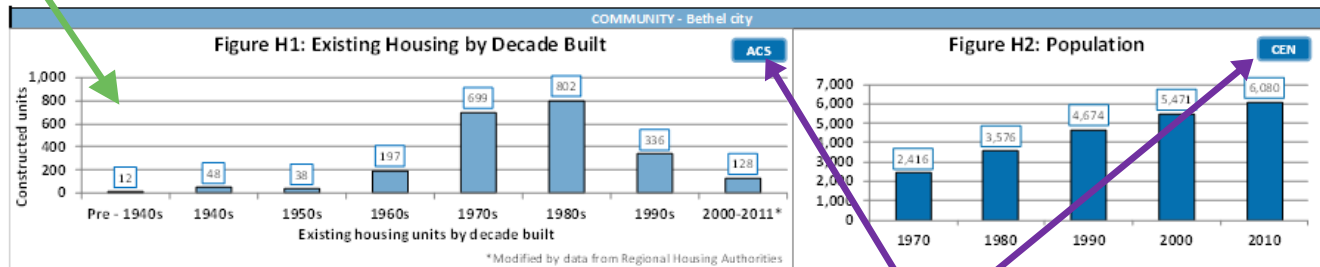
How to Interpret the Profile: Data Sources, Definitions & Clarifications

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:

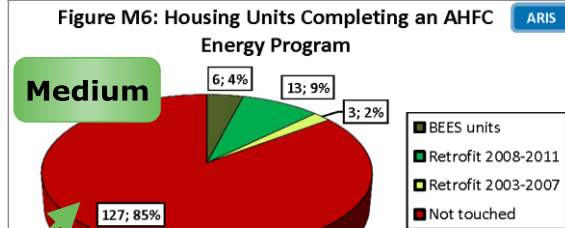
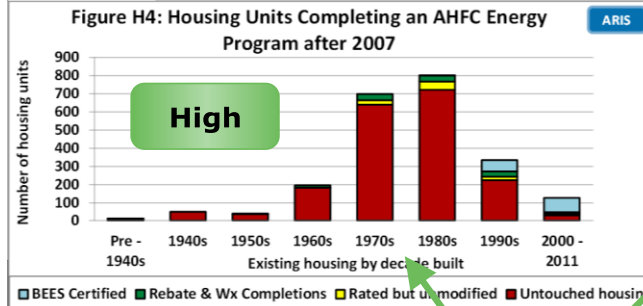
- 2011 American Community Survey 5 year estimates (ACS) **ACS**
- Alaska Retrofit Information System energy audits **ARIS**
- 2010 Decennial Census **CEN**
- Mixed data source; see individual graphs for details. **MIX**

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.

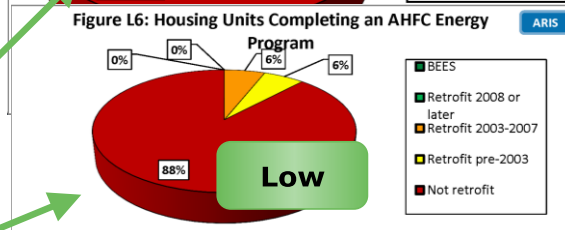
How to Interpret the Profile: Data Sources, Definitions & Clarifications

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	

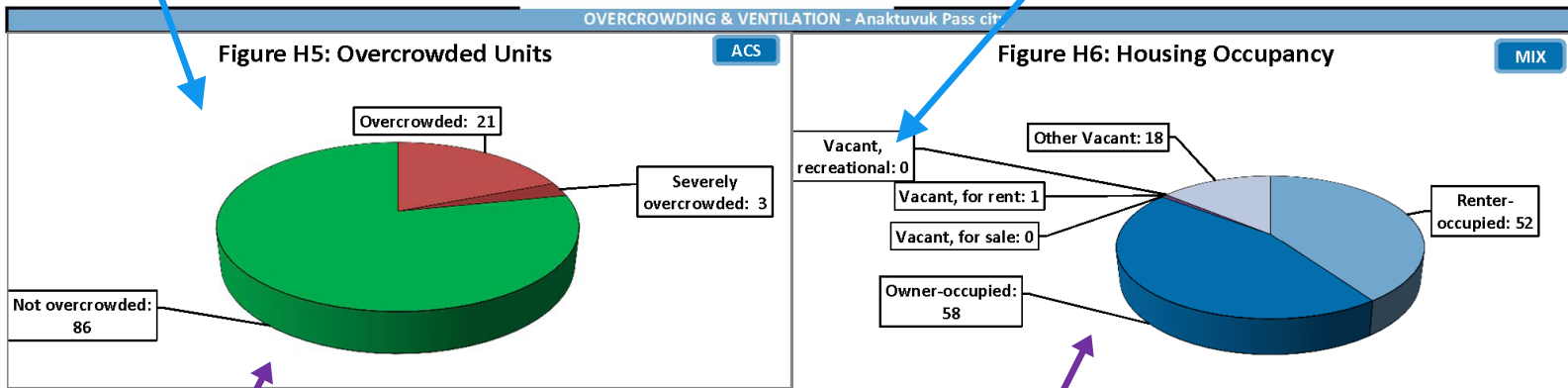
Units weatherized before 2008 are eligible to participate in the program again. (Data source: Alaska Housing Finance Corporation).

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.

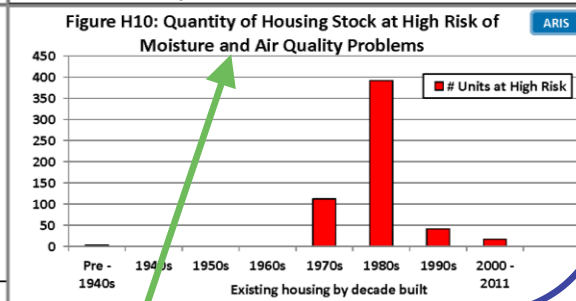
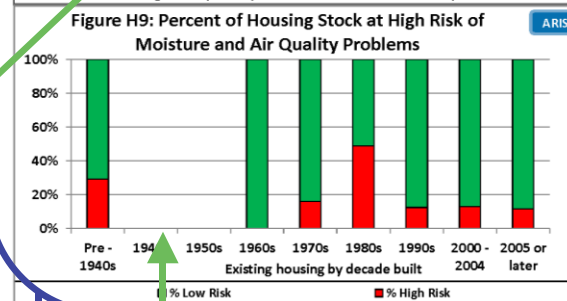
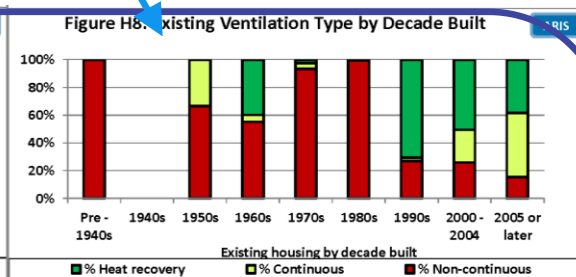
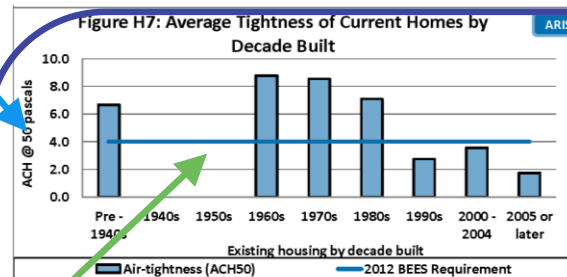
Continuous: Mechanical ventilation without heat recovery operated with automatic controls.

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

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.

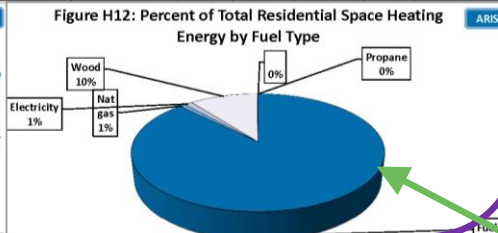
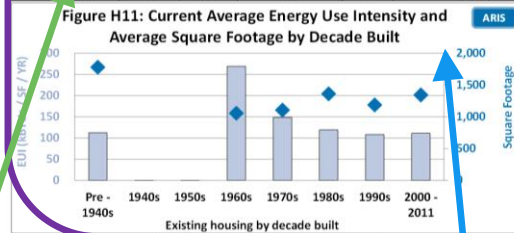
Space Heating, DHW, Appliances:
Estimated annual energy for the end uses of: Space Heating, Domestic Hot Water, and all other energy including lights, appliances, and electronics.

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

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 (\$ / SqFt)	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

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



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.

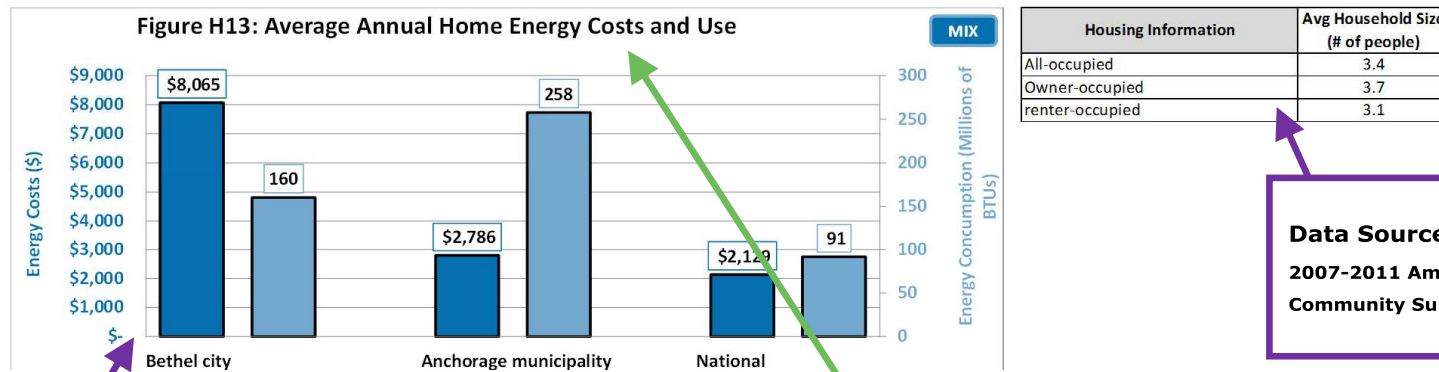
Color Coding--
Green: the average value meets or exceeds the 2012 BEES requirement.
Yellow: value is 75-99% of the 2012 BEES requirement.
Red: value is less than 75% of the 2012 BEES requirement.

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

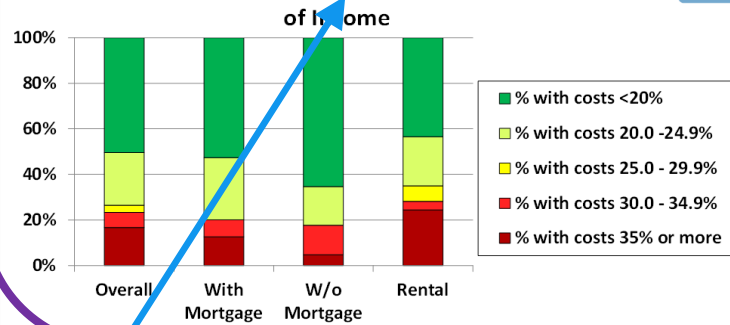
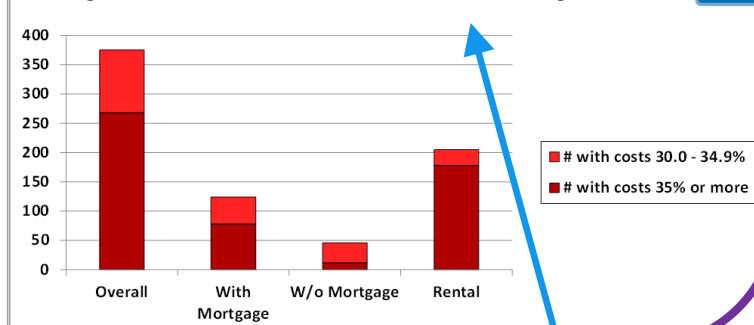


Figure H15: Number of Cost-Burdened Housing Units



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.

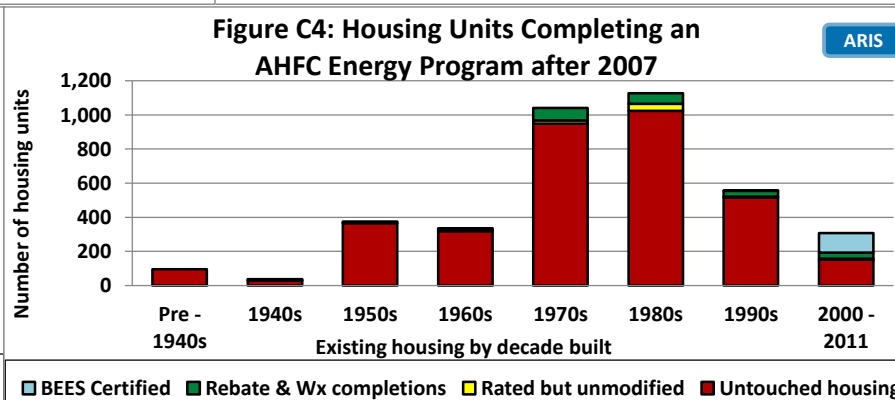
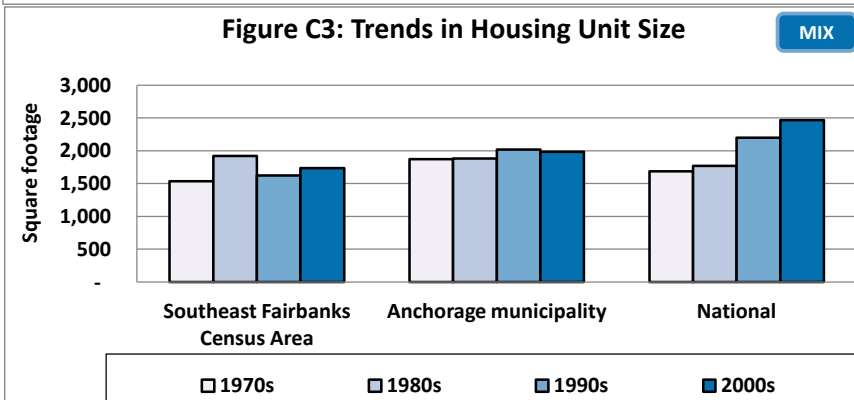
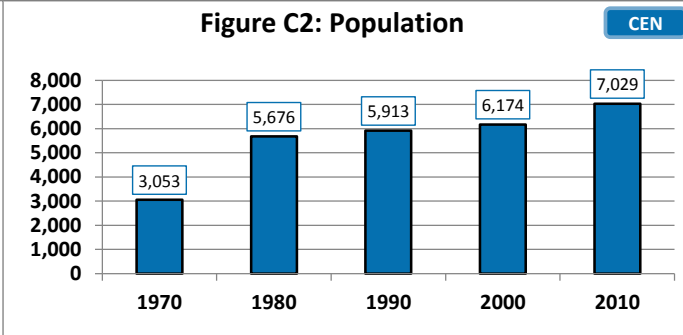
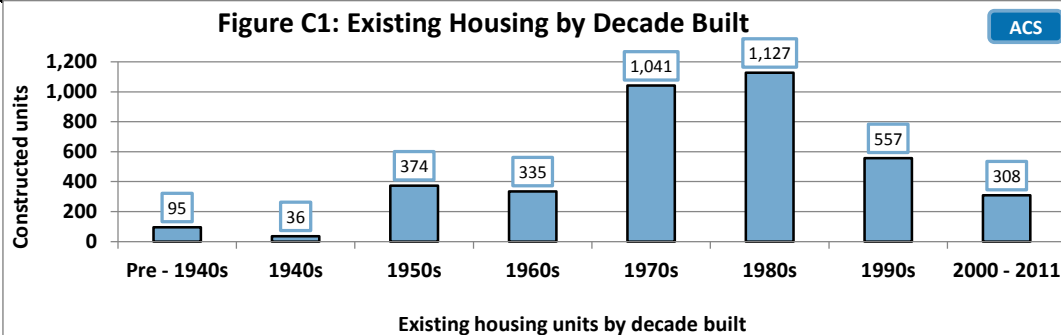
Census Area Profile for: Southeast Fairbanks Census Area

ANCSA Region: Doyon

Regional Housing Authority: Interior Regional Housing Authority

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

COMMUNITY - Southeast Fairbanks Census Area



Houses Lacking Complete Plumbing or Kitchen Facilities	Households	
	Number	Percent
Lack complete plumbing	308	12%
Lack complete kitchen	209	8%

Avg Annual Energy Cost with PCE	\$7,863
Avg Annual Energy Cost without PCE	\$8,539

Weatherization Retrofits (funding increased 2008)	
Date Range	Units
2008 - 2011	171
2003 - 2007	62
1990 - 2002	262

Estimated Total Annual Community Space Heating Fuel Use		
Fuel Oil	2,694,278	(gallons)
Natural Gas	-	(ccf)
Electricity	3,940,007	(kWh)
Wood	8,034	(cords)
Propane	36,917	(gallons)
Coal	-	(tons)

Housing Need Indicators	Number of Units	% Occupied Housing
Overcrowded	207	8%
Housing cost burdened	461	18%
1 Star Homes	471	19%

Housing Stock Estimates	Number of Units
All Housing	3,873
All Occupied Housing	2,523
All Vacant housing	1,350
Vacant Housing for Sale or Rent	242

OVERCROWDING & VENTILATION - Southeast Fairbanks Census Area

Figure C5: Overcrowded Units

ACS

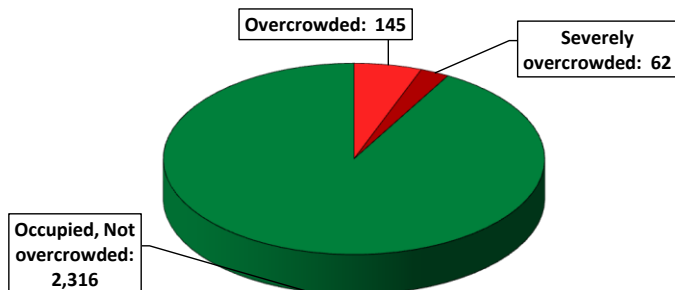


Figure C6: Housing Occupancy

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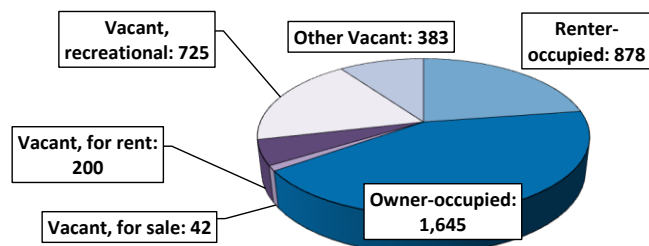


Figure C7: Average Air-Tightness of Current Homes by Decade Built

ARIS

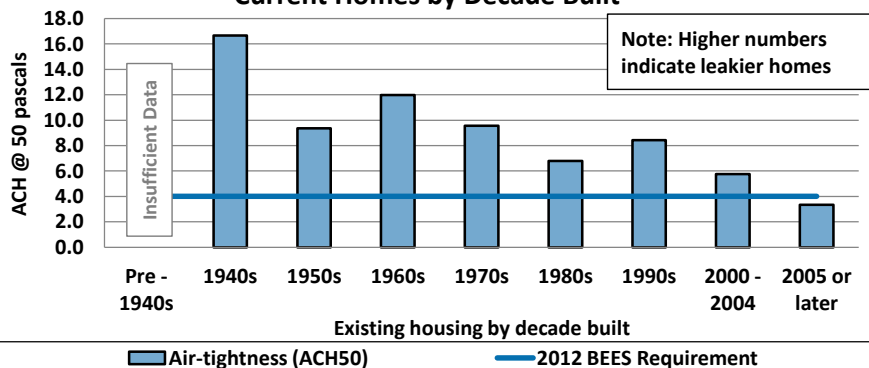


Figure C8: Existing Ventilation Type by Decade Built

ARIS

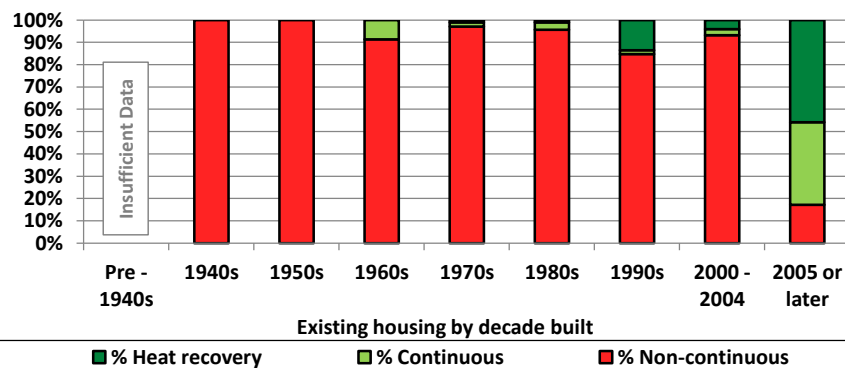


Figure C9: Percent of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS

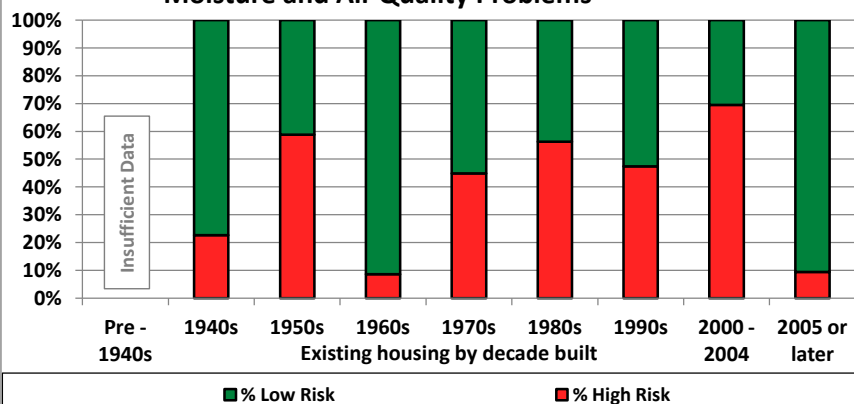
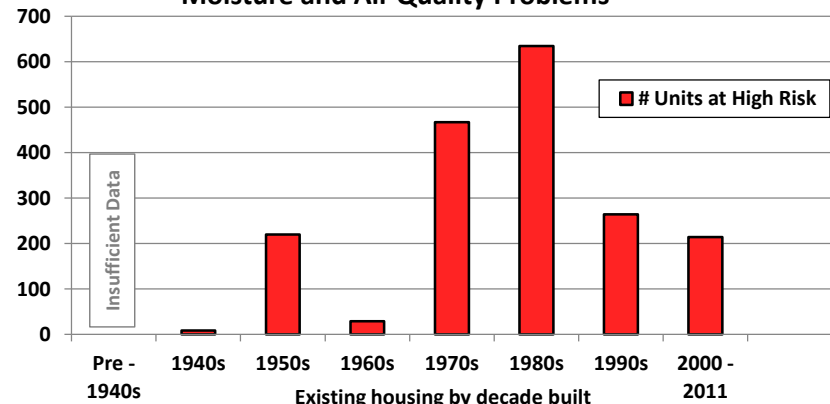


Figure C10: Quantity of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS



ENERGY - Southeast Fairbanks Census Area												
Current Southeast Fairbanks 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	482	2-star plus	62.8	1,682	\$7,863	263	210	23	30	185	\$5.13	10.8
Pre- 1940	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1940- 49	8	1-star plus	46.8	1,659	\$8,652	301	252	19	30	202	\$6.01	12.2
1950- 59	10	2-star	54.4	1,476	\$8,076	215	168	19	29	163	\$5.97	9.1
1960- 69	23	2-star	52.4	1,615	\$9,009	306	255	25	26	204	\$6.15	11.9
1970- 79	105	2-star	57.8	1,535	\$8,323	284	231	24	29	215	\$6.13	12.6
1980- 89	126	3-star	68.5	1,920	\$8,433	271	216	25	30	153	\$4.70	8.8
1990- 99	47	2-star plus	66.0	1,623	\$6,038	238	191	17	30	214	\$4.42	12.6
2000- 2004	29	3-star	70.1	1,734	\$6,336	247	196	22	28	174	\$3.94	10.4
2005 or later	135	4-star plus	84.1	1,753	\$5,395	165	110	26	29	114	\$3.46	5.8

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

ARIS

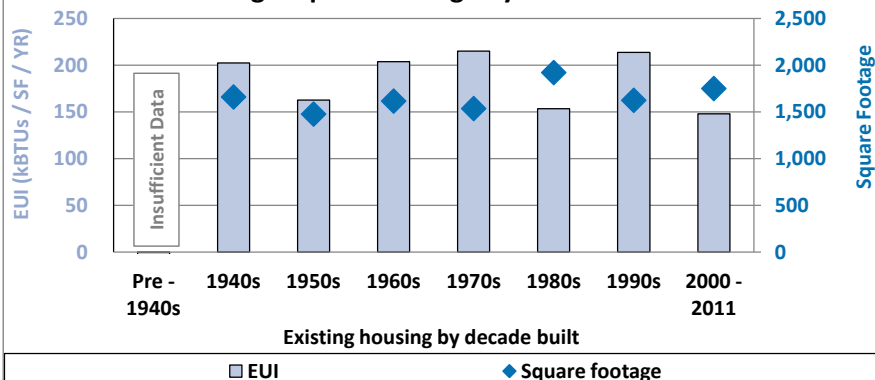
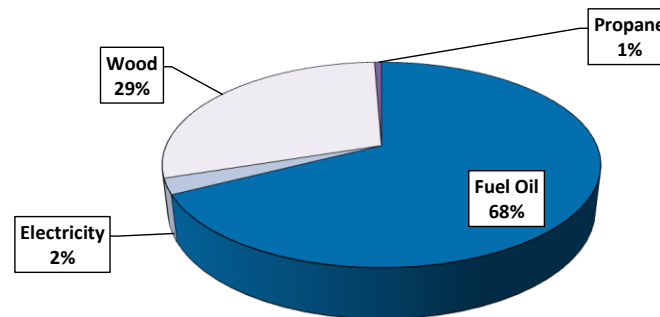


Figure C12: Percent of Total Residential Space Heating Energy by Fuel Type

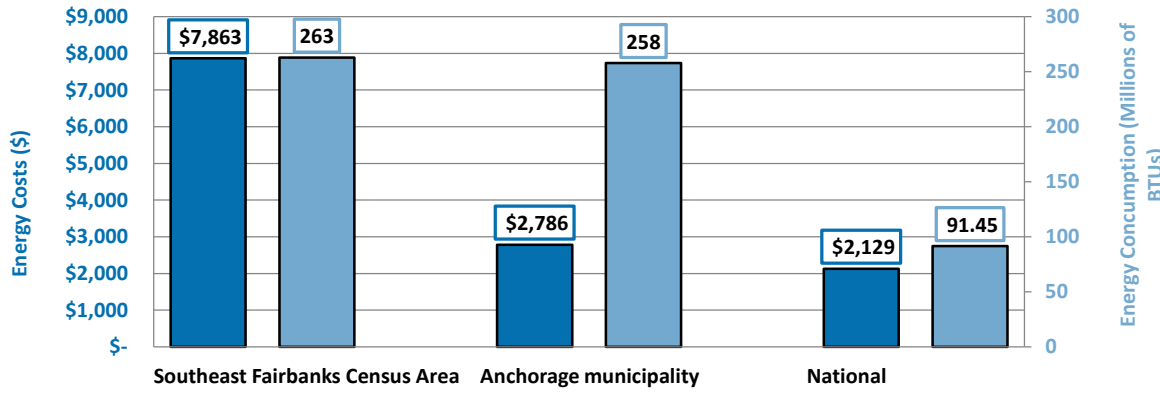
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Current Southeast Fairbanks Census Area Housing Envelope Characteristics By Decade Built											
Current Residential Units by Year Built	# of AkWarm Records	ACH 50	Ceiling R	Above Grade Wall R	Below Grade Wall R	Above Grade Floor R	On Grade Floor R	Below Grade Floor R	Door U	Garage Door U	Window U
OVERALL	482	8.3	28	14	6	25	3	3	0.37	0.32	0.49
Pre- 1940	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1940- 49	8	16.7	19	12	6	NR	NR	2	0.39	NR	0.58
1950- 59	10	9.4	30	12	2	21	NR	2	0.40	NR	0.50
1960- 69	23	12.0	30	13	4	NR	3	2	0.50	0.28	0.61
1970- 79	105	9.6	27	12	7	25	3	3	0.43	0.37	0.53
1980- 89	126	6.8	27	15	6	23	3	3	0.32	0.35	0.49
1990- 99	47	8.4	28	14	5	25	4	3	0.41	0.26	0.45
2000- 2004	29	5.8	32	16	13	32	4	3	0.34	0.18	0.48
2005 or later	135	3.3	46	19	20	35	7	4	0.22	0.17	0.30
BEES 2009 - Climate Zone 8		7.0	38	30	15	38	15	15	0.22	0.22	0.22
BEES 2012 - Climate Zone 8		4.0	48	30	15	38	15	15	0.22	0.22	0.22

AFFORDABILITY - Southeast Fairbanks Census Area

Figure C13: Average Annual Home Energy Cost and Use



Housing Information	Avg Household Size (# of people)
All-occupied	2.6
Owner-occupied	2.6
Renter-occupied	2.7

Median Value of Owner-occupied House with Mortgage
\$177,900

Median Value of Owner-occupied House without a Mortgage
\$136,100

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 59,917
Renter-occupied	\$ 69,559
Owner-occupied	\$ 56,514
w/ mortgage	\$ 66,719
w/o mortgage	\$ 39,925

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 777	\$ 9,324
Gross rent	\$ 991	\$ 11,892
Owner-occupied	\$ 592	\$ 7,104
Housing units w/ mortgage	\$ 1,402	\$ 16,824
Housing units w/out a mortgage	\$ 367	\$ 4,404

Avg % of Median Income Spent on Energy **13.1%**

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

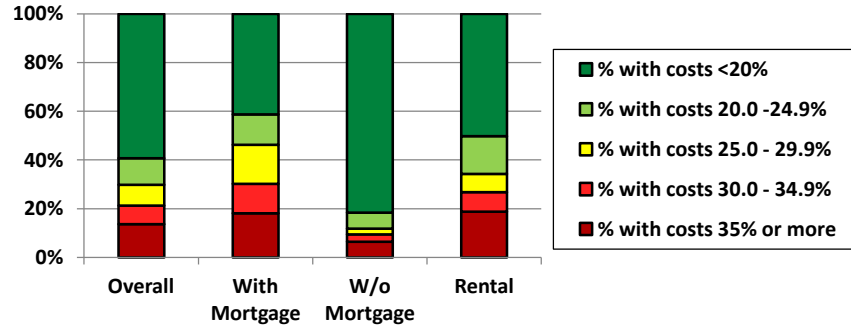
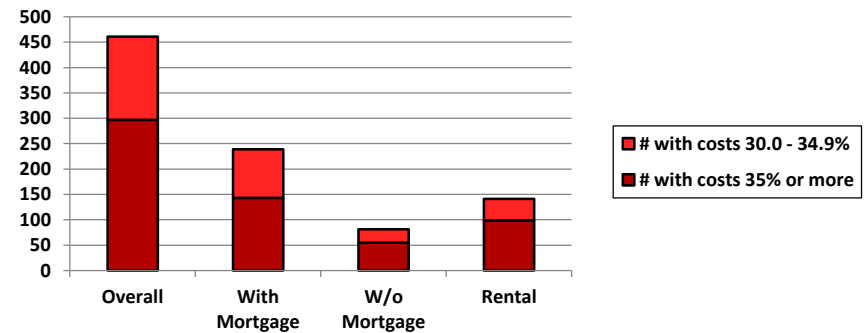
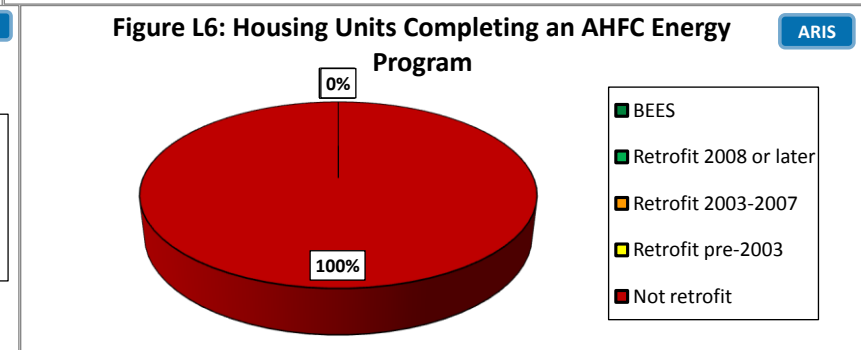
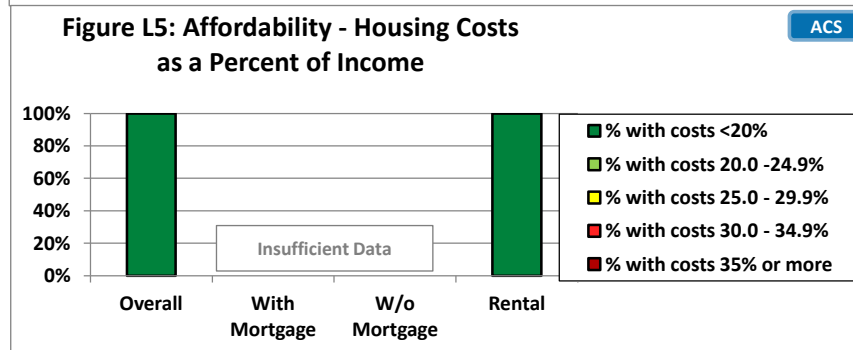
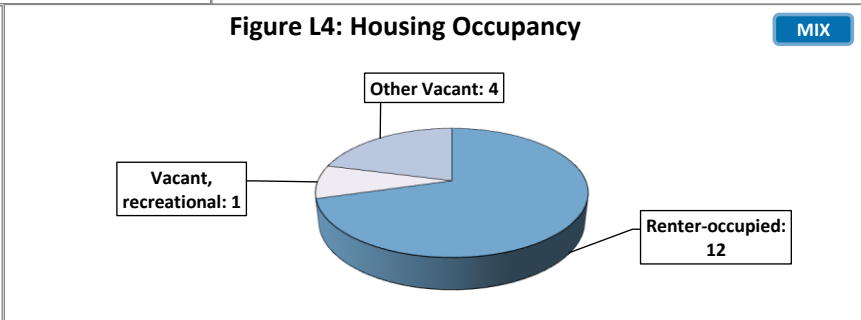
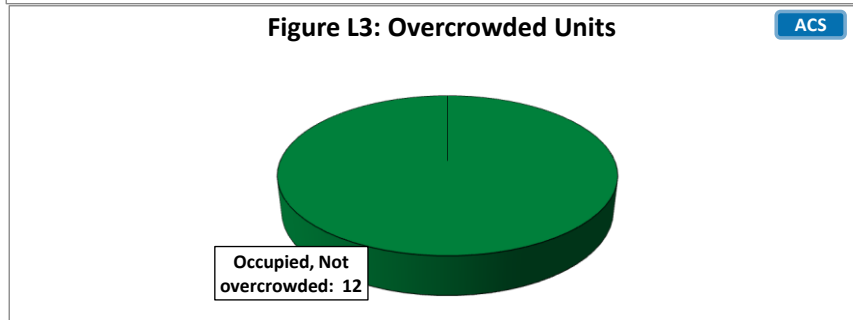
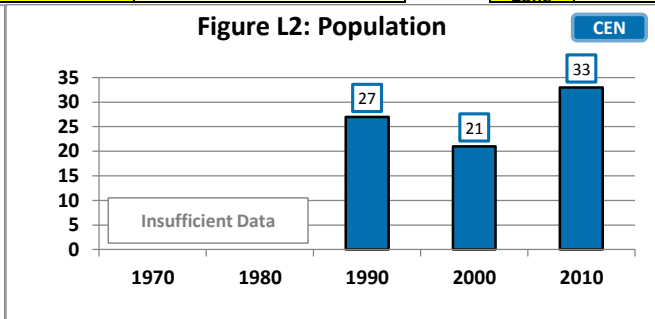
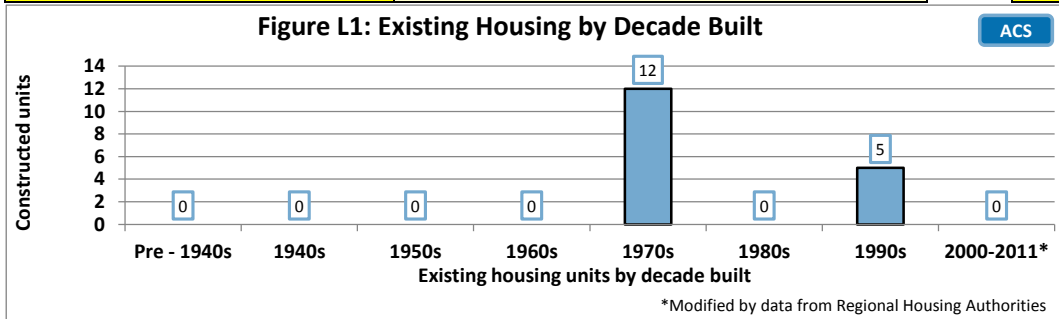


Figure C15: Number of Cost-Burdened Housing Units



Community Profile for:	Alcan Border CDP	ANCSA Region	Doyon	Climate Zone	8
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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

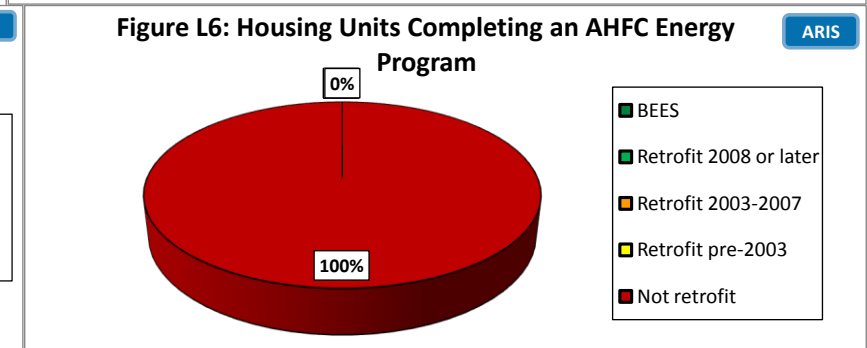
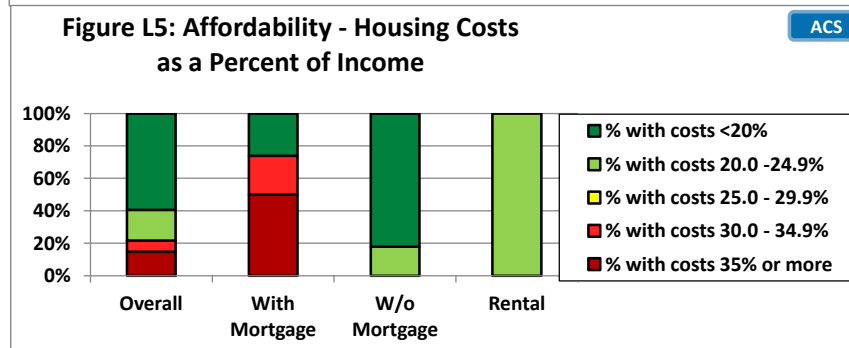
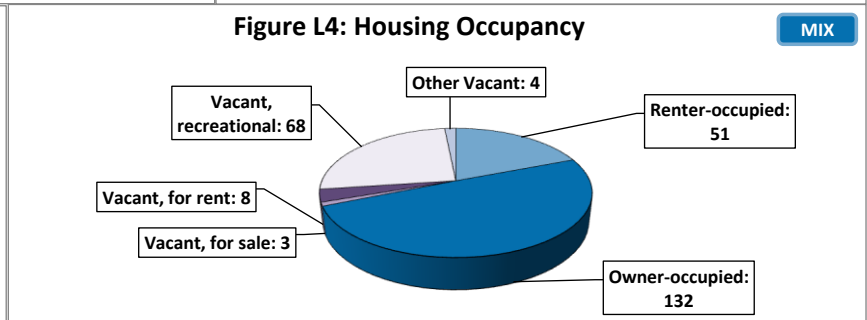
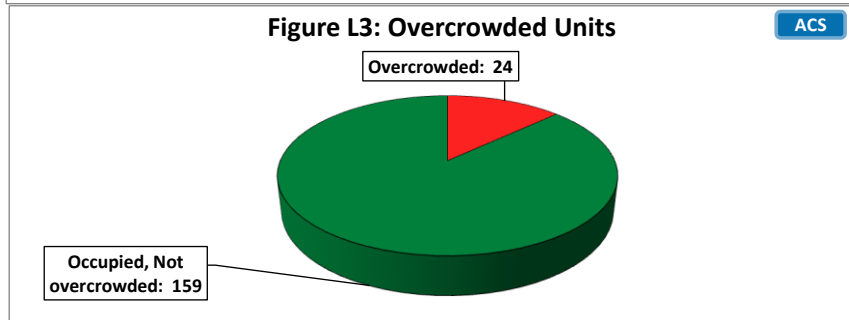
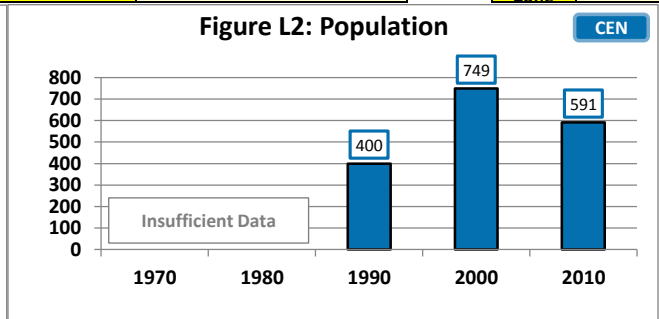
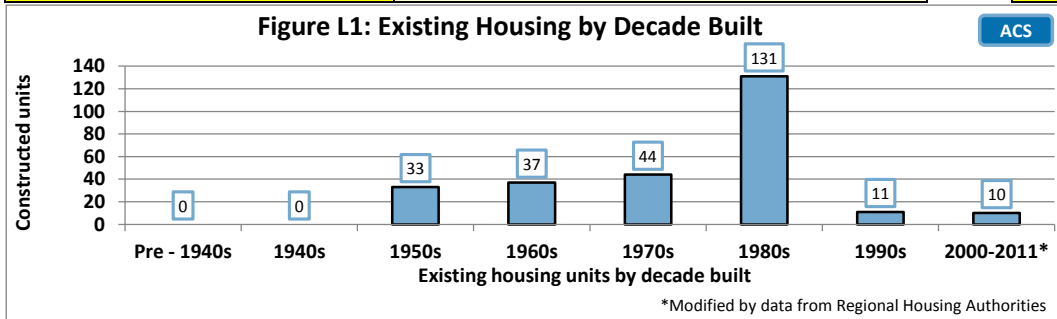
Housing Stock Estimates	Number of Units
All Housing	17
All Occupied Housing	12
All Vacant housing	5

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: Big Delta CDP

ANCSA Region: Doyon

Climate Zone: 8



Owner-occupied House with Mortgage, Median Value
\$161,900

Owner-occupied House without a Mortgage, Median Value
\$175,000

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	\$ 49,345
Renter-occupied	\$ 42,841
Owner-occupied	\$ 56,000
w/ mortgage	\$ 55,000
w/o mortgage	\$ 56,000

Housing Stock Estimates	
Housing Stock Estimates	Number of Units
All Housing	266
All Occupied Housing	183
All Vacant housing	83

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 599	\$ 7,188
Gross rent	NR	NR
Owner-occupied	\$ 571	\$ 6,852
Housing units w/ mortgage	\$ 1,750	\$ 21,000
Housing units w/out a mortgage	\$ 388	\$ 4,656

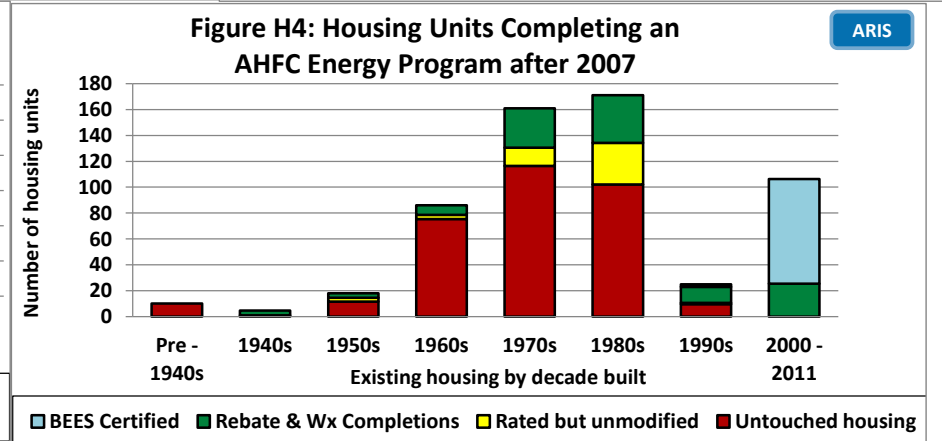
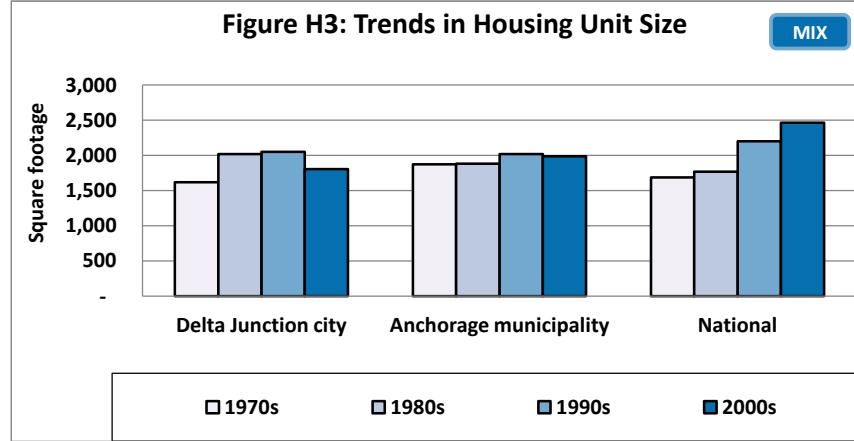
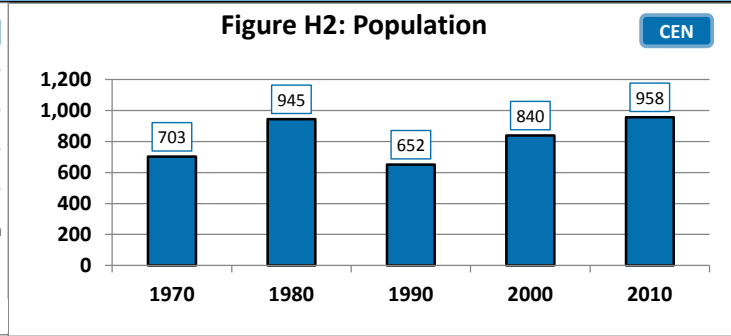
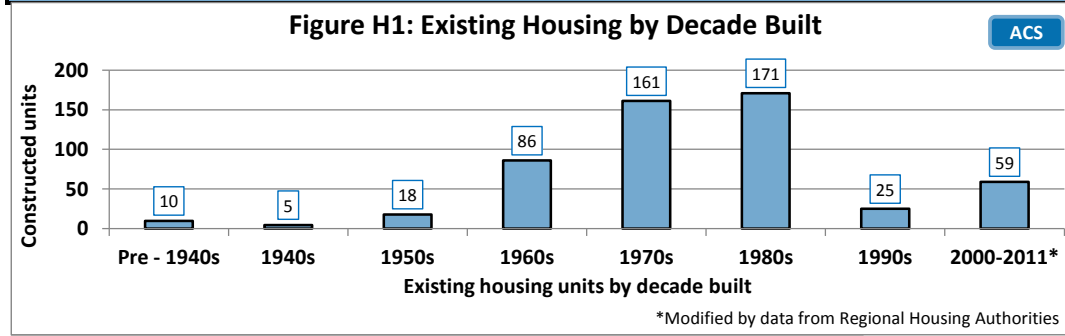
Community Profile for: Delta Junction city

ANCSA Region: Doyon

Regional Housing Authority: Interior Regional Housing Authority

BEES Climate Zone (Heating Degree Days): Zone 8 (13,549 HDD)

COMMUNITY - Delta Junction city



Houses Lacking Complete Plumbing or Kitchen Facilities	Households	
	Number	Percent
Lack complete plumbing	29	8%
Lack complete kitchen	17	4%

Avg Annual Energy Cost with PCE	NO PCE
Avg Annual Energy Cost without PCE	\$7,794

Weatherization Program Retrofits (funding increased in 2008)	
Date Range	Units
2008-2011	79
2003-2007	48
1990-2002	129

Estimated Total Annual Community Space Heating Fuel Use		
Fuel Oil	448,423	(gallons)
Nat Gas	-	(ccf)
Electricity	441,871	(kWh)
Wood	676	(cords)
Propane	1,900	(gallons)
Coal	-	(tons)

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	\$3.96
Electricity with PCE (\$/kWh)	No PCE
Electricity cost without PCE (\$/kWh)	\$0.20

Housing Stock Estimates	Number of Units
All Housing	503
All Occupied Housing	384
All Vacant housing	119
Vacant Housing for Sale or Rent	58

OVERCROWDING & VENTILATION - Delta Junction city

Figure H5: Overcrowded Units

ACS

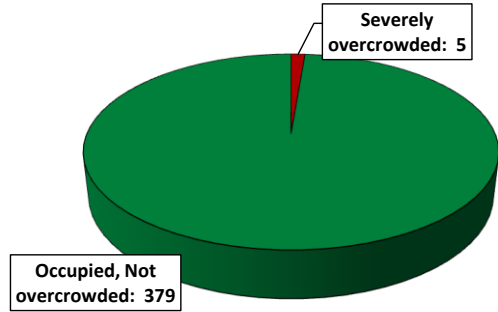


Figure H6: Housing Occupancy

MIX

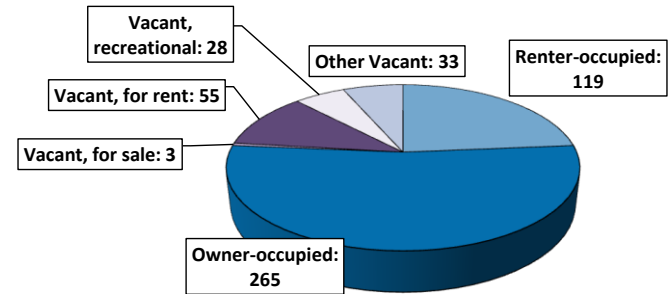


Figure H7: Average Air-Tightness of Current Homes by Decade Built

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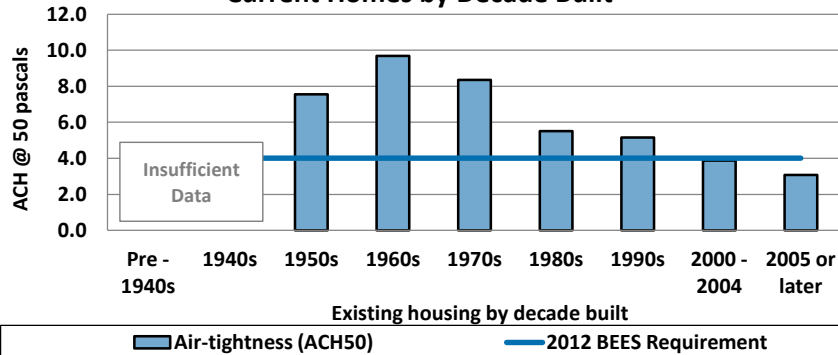


Figure H8: Existing Ventilation Type by Decade Built

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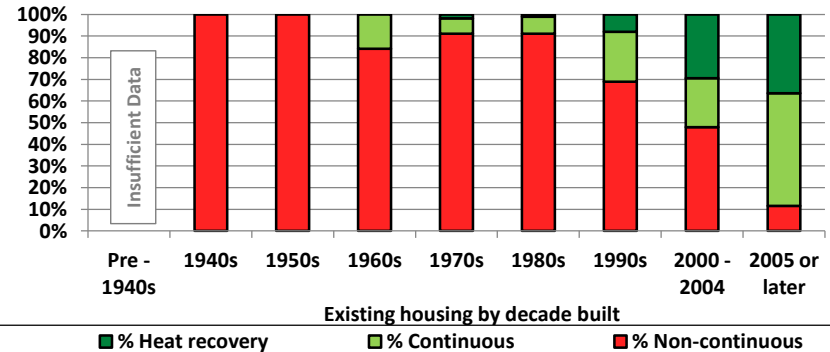


Figure H9: Percent of Housing Stock at High Risk of Moisture and Air Quality Problems

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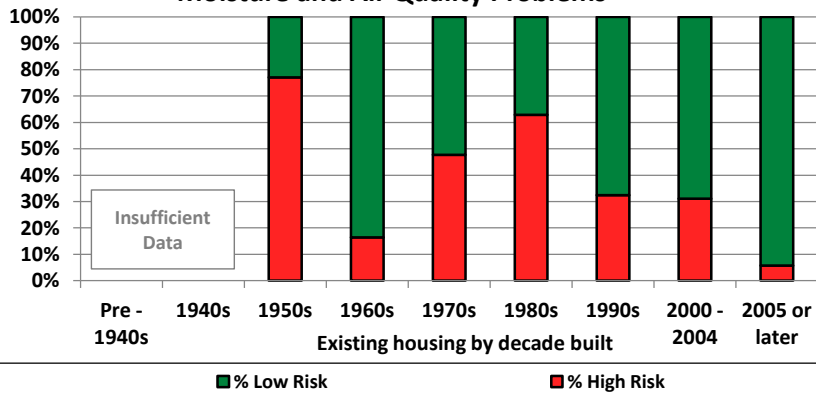
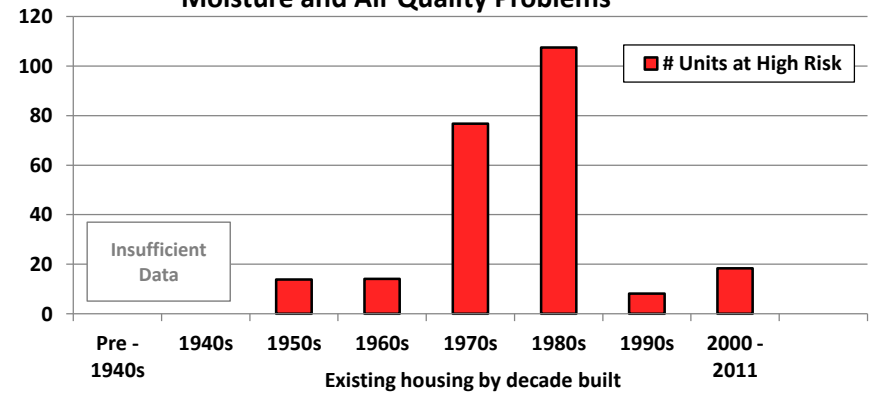


Figure H10: Quantity of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS



ENERGY - Delta Junction city												
Current Delta Junction city 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	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	303	3-star	68.3	1,854	\$ 7,794	251	194	24	31	147	\$ 4.46	8.7
Pre- 1940	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1940- 49	5	2-star	56.2	1,260	NR	168	132	13	23	162	\$ 5.49	9.6
1950- 59	8	2-star	59.9	1,631	\$ 7,450	201	151	20	29	134	\$ 4.88	7.4
1960- 69	16	2-star	53.4	1,845	\$ 9,314	331	278	26	28	201	\$ 5.77	12.7
1970- 79	53	2-star plus	61.5	1,619	\$ 8,286	263	212	22	30	182	\$ 5.80	11.2
1980- 89	87	3-star	71.7	2,020	\$ 8,268	256	200	24	31	132	\$ 4.31	7.7
1990- 99	21	3-star plus	74.4	2,049	\$ 6,343	235	171	17	29	130	\$ 3.22	7.9
2000- 2004	20	4-star plus	83.5	1,804	\$ 5,418	189	136	24	29	106	\$ 3.02	5.7
2005 or later	95	4-star plus	86.0	1,994	\$ 5,545	168	113	25	30	100	\$ 3.08	5.4

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

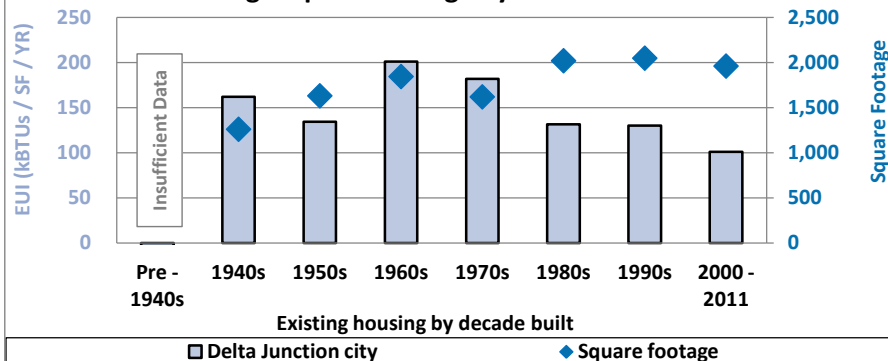
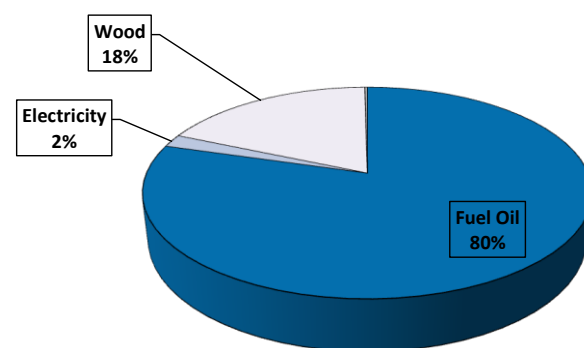


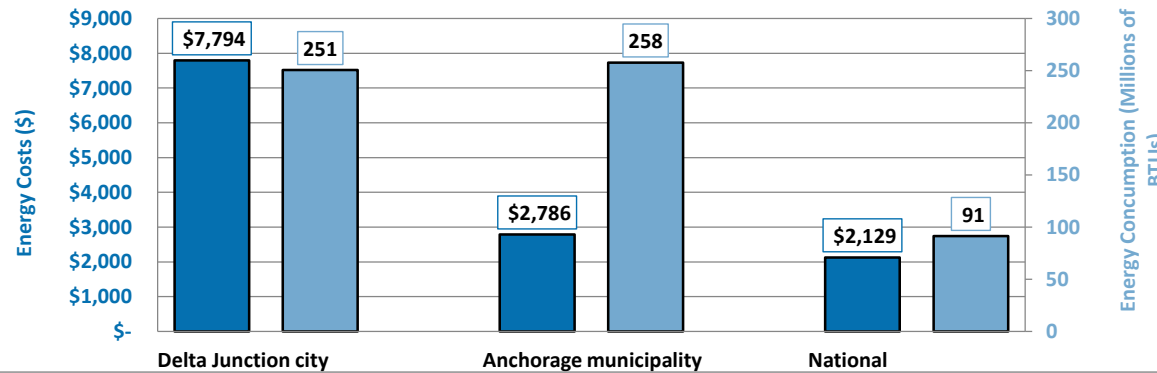
Figure H12: Percent of Total Residential Space Heating Energy by Fuel Type



Current Delta Junction 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	303	6.5	33	16	7	28	3	3	0.29	0.29	0.45
Pre- 1940	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1940- 49	5	NR	41	13	4	NR	NR	2	0.40	NR	0.57
1950- 59	8	7.5	33	12	3	23	NR	2	0.40	NR	0.49
1960- 69	16	9.7	34	13	3	NR	2	2	0.38	0.32	0.56
1970- 79	53	8.4	28	15	7	26	3	3	0.31	0.36	0.51
1980- 89	87	5.5	33	16	7	27	3	3	0.27	0.32	0.47
1990- 99	21	5.1	35	16	6	25	5	3	0.33	NR	0.39
2000- 2004	20	3.9	44	19	12	NR	4	4	0.25	0.17	0.40
2005 or later	95	3.1	51	19	21	36	7	5	0.20	0.17	0.28
BEES 2009 - Climate Zone 8		7.0	38	30	15	38	15	15	0.22	0.22	0.22
BEES 2012 - Climate Zone 8		4.0	48	30	15	38	15	15	0.22	0.22	0.22

AFFORDABILITY - Delta Junction city

Figure H13: Average Annual Home Energy Costs and Use



Housing Information	Avg Household Size (# of people)
All-occupied	2.3
Owner-occupied	2.6
renter-occupied	1.7

Owner-occupied House with Mortgage, Median Value
\$180,300

Owner-occupied House without a Mortgage, Median Value
\$151,500

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 75,750
Renter-occupied	\$ 71,250
Owner-occupied	\$ 76,375
w/ mortgage	\$ 99,250
w/o mortgage	\$ 70,357

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 968	\$ 11,616
Gross rent	\$ 954	\$ 11,448
Owner-occupied	\$ 996	\$ 11,952
Housing units w/ mortgage	\$ 1,403	\$ 16,836
Housing units w/out a mortgage	\$ 452	\$ 5,424

Avg % of Median Income Spent on Energy	10.3%
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Figure H14: Affordability - Housing Costs as a Percent of Income

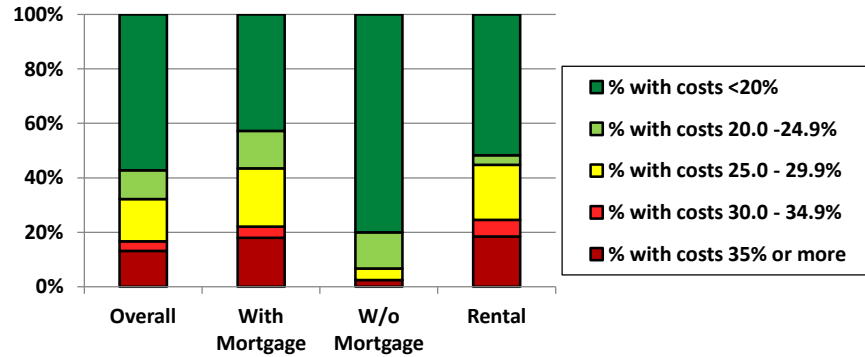
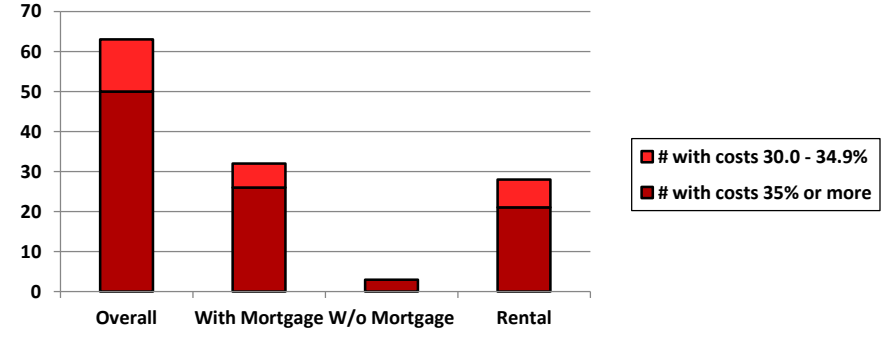
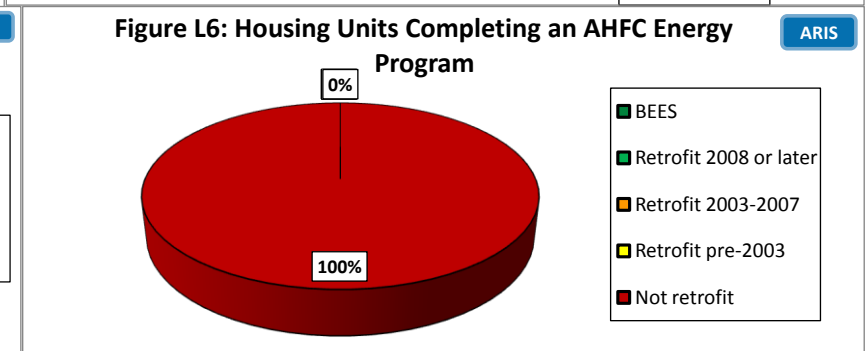
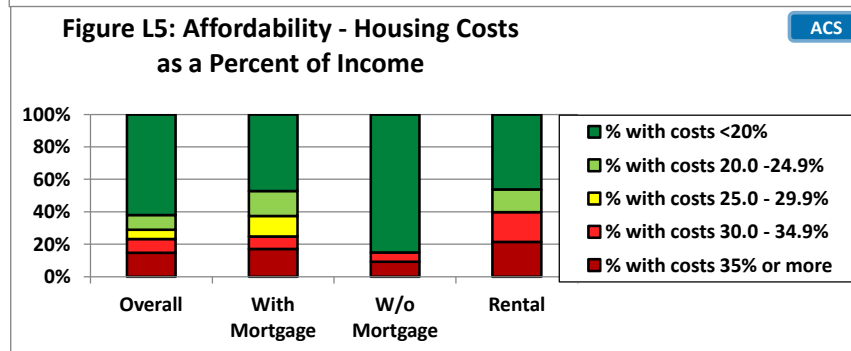
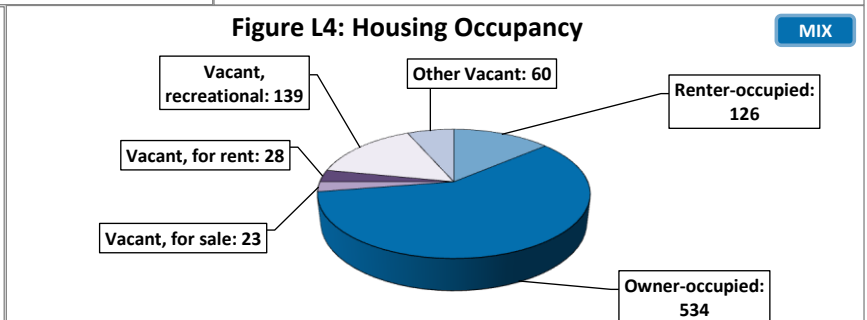
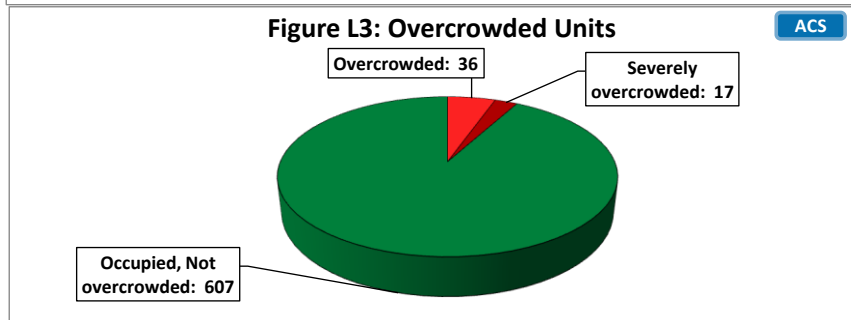
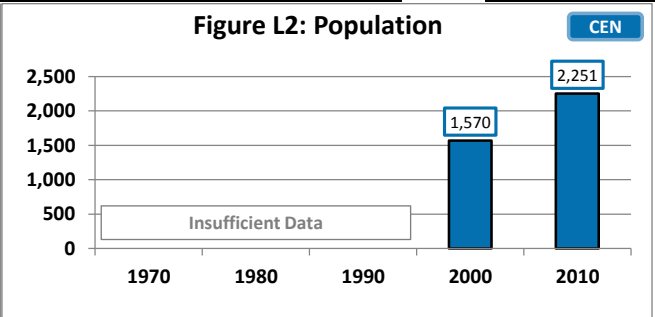
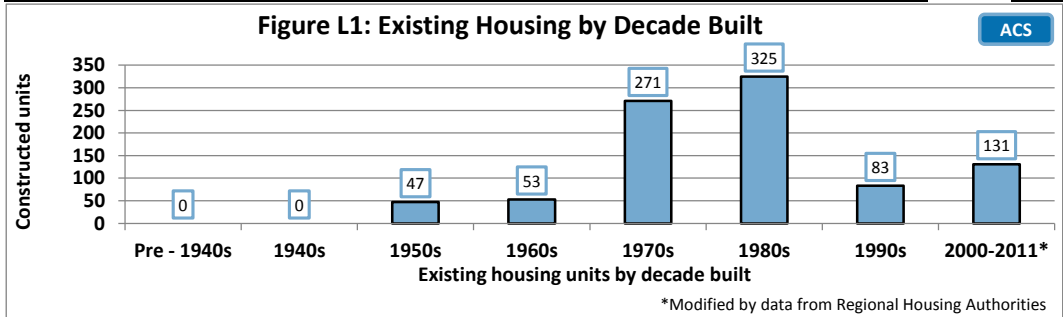


Figure H15: Number of Cost-Burdened Housing Units



Community Profile for:	Deltana CDP	ANCSA Region	Doyon	Climate Zone	8
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Owner-occupied House with Mortgage, Median Value	\$212,000
Owner-occupied House without a Mortgage, Median Value	\$182,800

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 57,500
Renter-occupied	\$ 53,690
Owner-occupied	\$ 59,792
w/ mortgage	\$ 80,250
w/o mortgage	\$ 42,045

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 787	\$ 9,444
Gross rent	\$ 796	\$ 9,552
Owner-occupied	\$ 689	\$ 8,268
Housing units w/ mortgage	\$ 1,467	\$ 17,604
Housing units w/out a mortgage	\$ 467	\$ 5,604

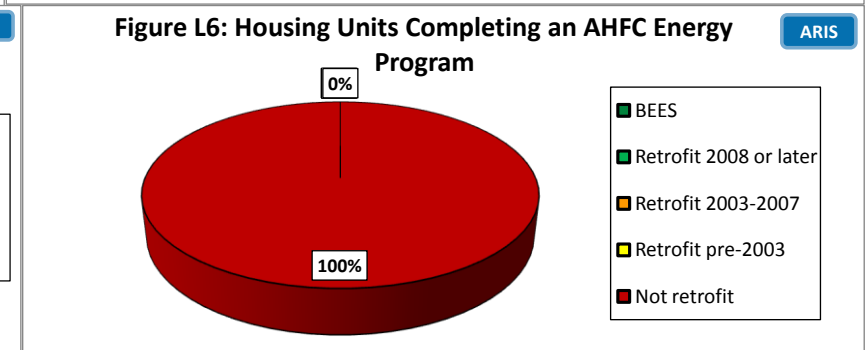
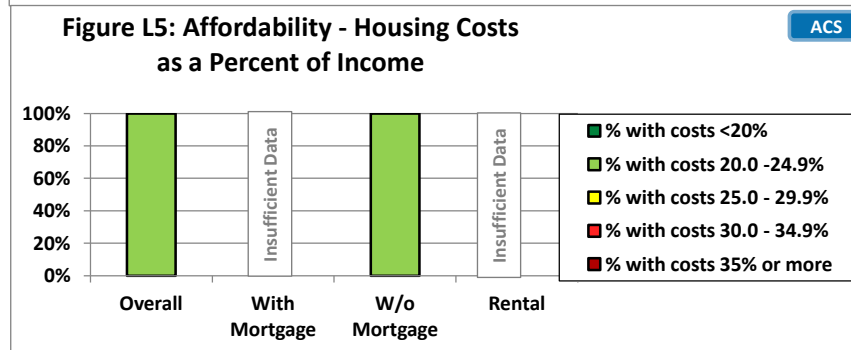
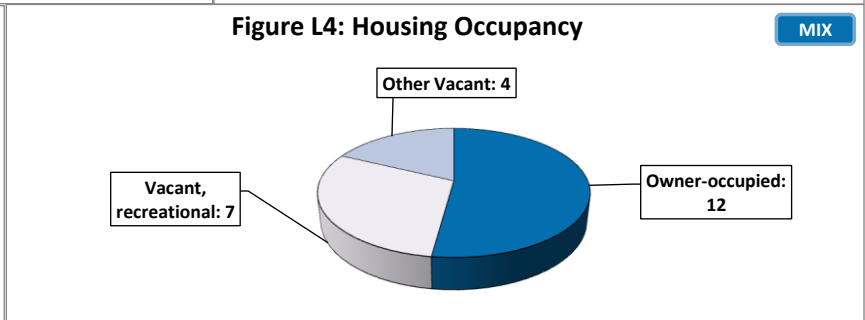
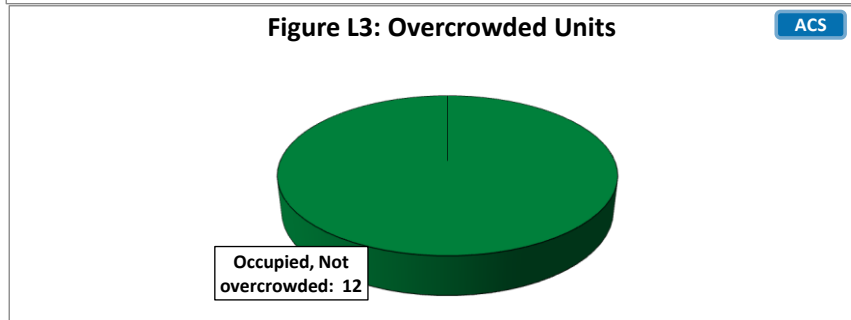
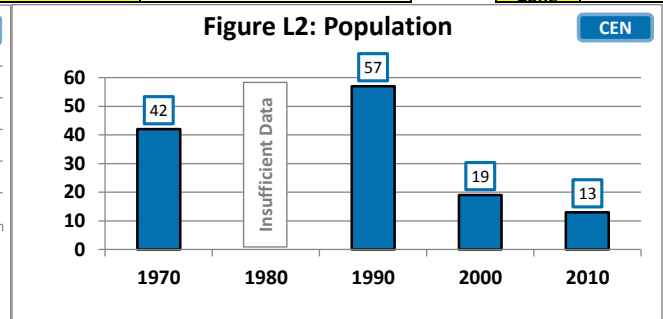
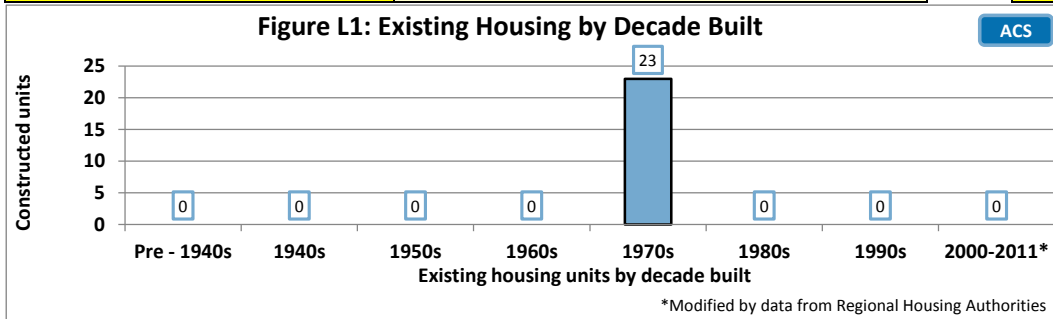
Estimated Energy Prices as of January 2013	
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Electricity with PCE (\$/kWh)	No Data
Electricity without PCE (\$/kWh)	No Data

Housing Stock Estimates	Number of Units
All Housing	910
All Occupied Housing	660
All Vacant housing	250

Community Profile for: Dot Lake CDP

ANCSA Region: Doyon

Climate Zone: 8



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

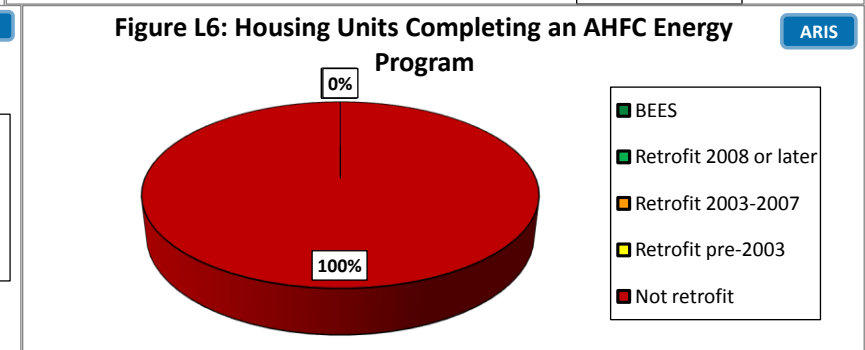
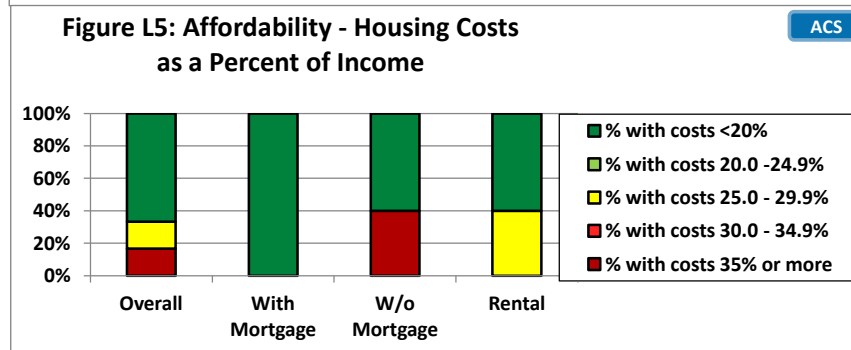
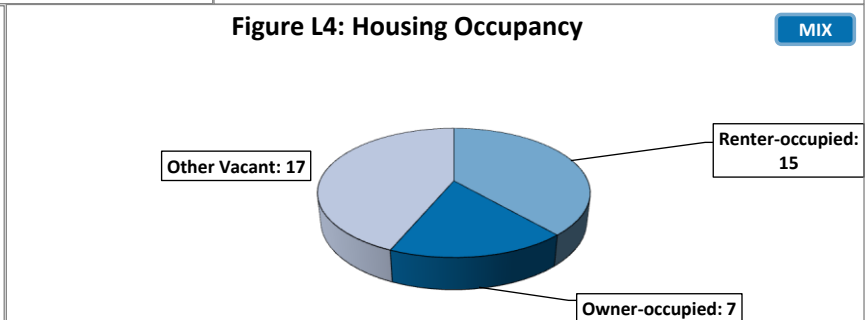
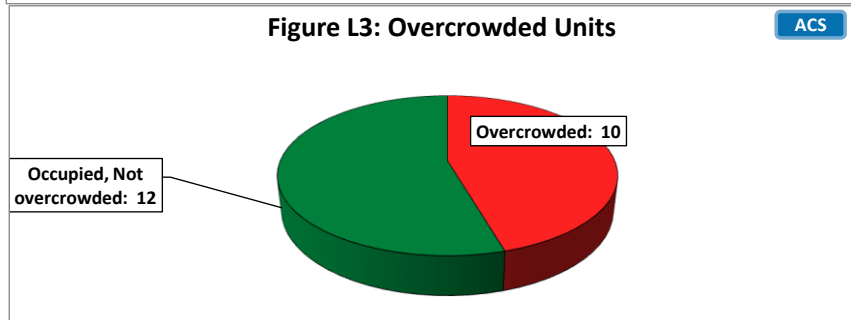
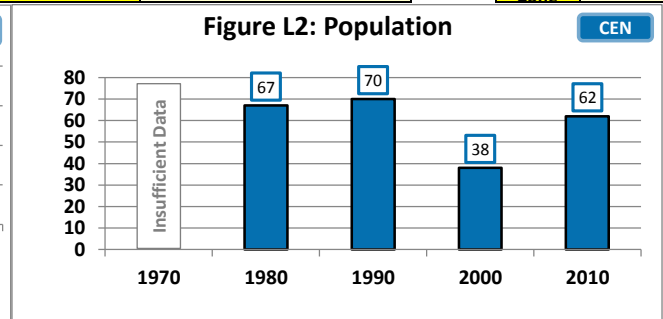
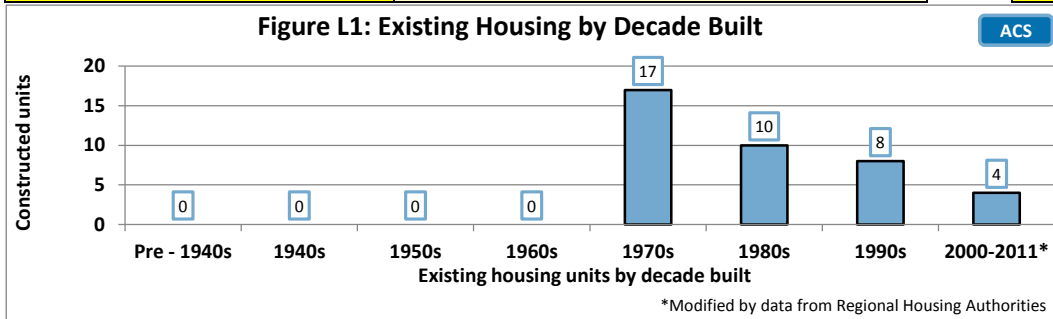
Housing Stock Estimates	Number of Units
All Housing	23
All Occupied Housing	12
All Vacant housing	11

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: Dot Lake Village CDP

ANCSA Region: Doyon

Climate Zone: 8



Owner-occupied House with Mortgage, Median Value
\$95,000

Owner-occupied House without a Mortgage, Median Value
NR

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	\$ 4.15
Electricity with PCE (\$/kWh)	\$ 0.18
Electricity without PCE (\$/kWh)	\$ 0.51

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 43,333
Renter-occupied	\$ 22,292
Owner-occupied	\$ 43,750
w/ mortgage	NR
w/o mortgage	\$ 42,917

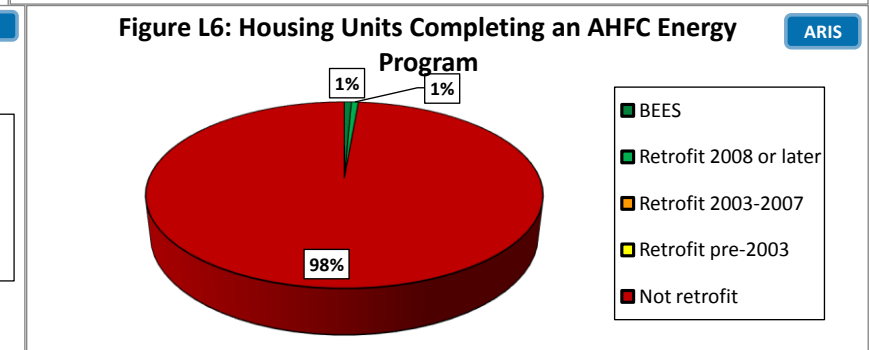
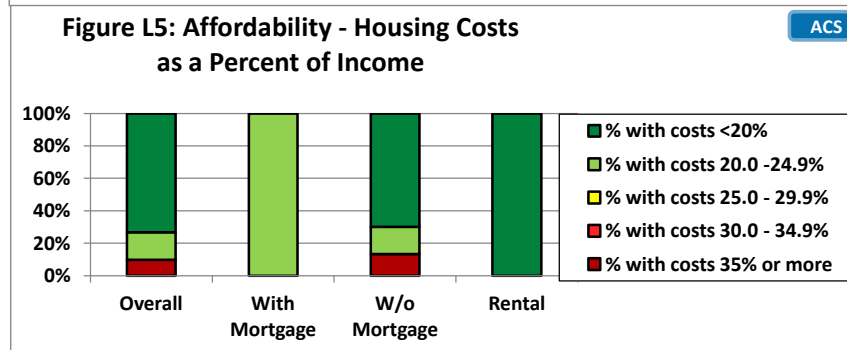
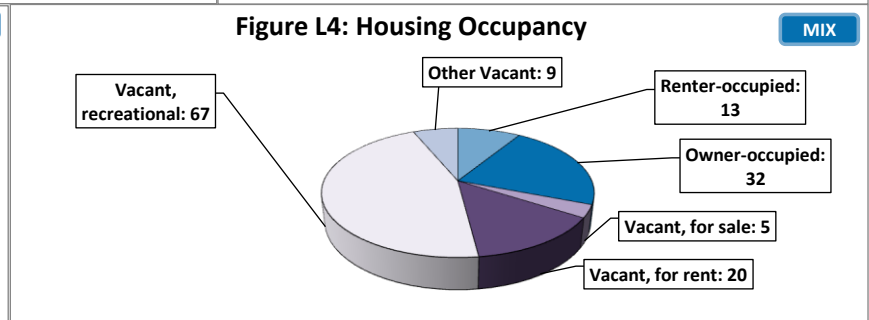
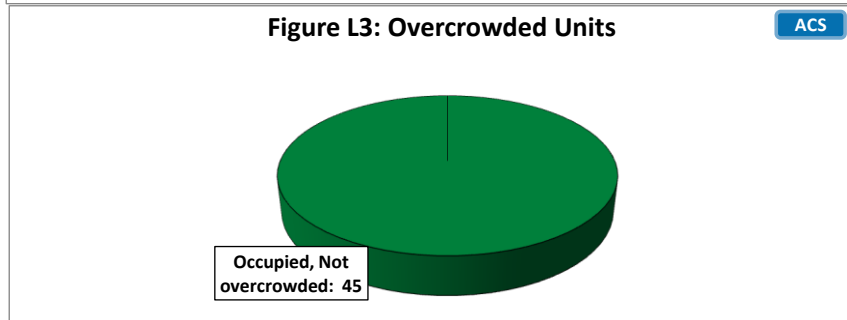
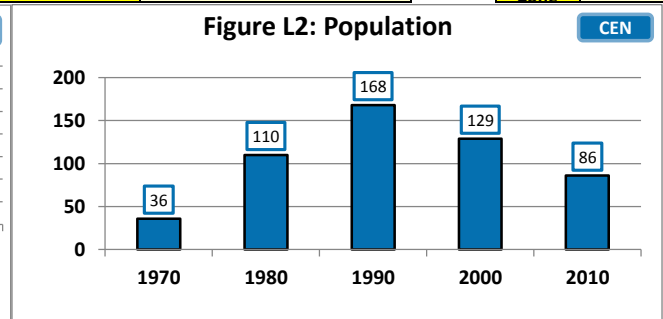
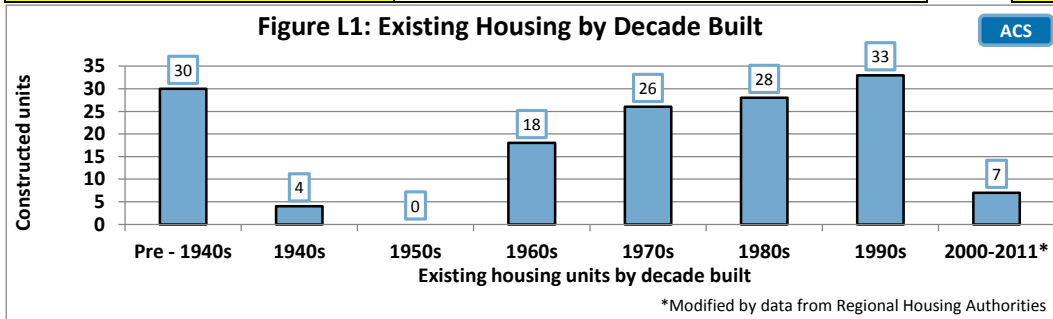
Housing Stock Estimates	
	Number of Units
All Housing	39
All Occupied Housing	22
All Vacant housing	17

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 467	\$ 5,604
Gross rent	\$ 458	\$ 5,496
Owner-occupied	\$ 1,031	\$ 12,372
Housing units w/ mortgage	NR	NR
Housing units w/out a mortgage	\$ 192	\$ 2,304

Community Profile for: Eagle city

ANCSA Region: Doyon

Climate Zone: 8



Owner-occupied House with Mortgage, Median Value
\$112,500

Owner-occupied House without a Mortgage, Median Value
\$62,500

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	\$ 4.75
Electricity with PCE (\$/kWh)	\$ 0.19
Electricity without PCE (\$/kWh)	\$ 0.72

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 33,393
Renter-occupied	\$ 33,393
Owner-occupied w/ mortgage	NR
Owner-occupied w/o mortgage	\$ 27,000

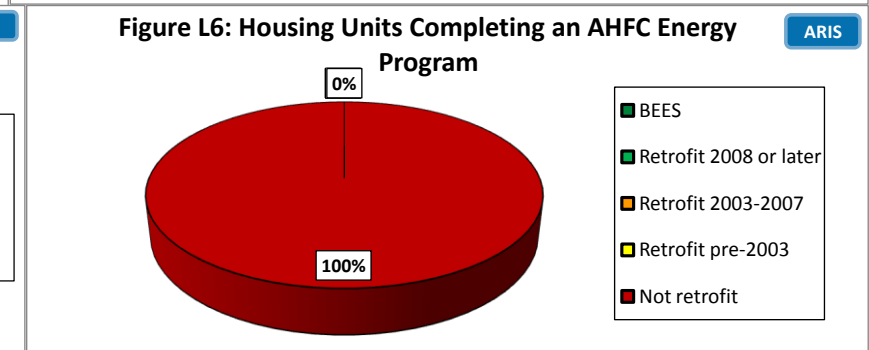
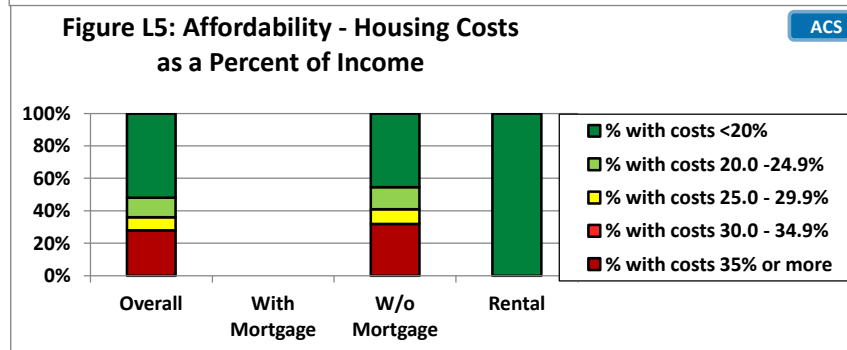
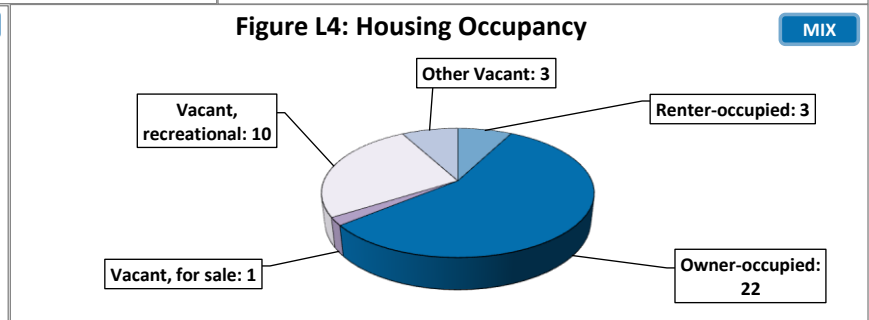
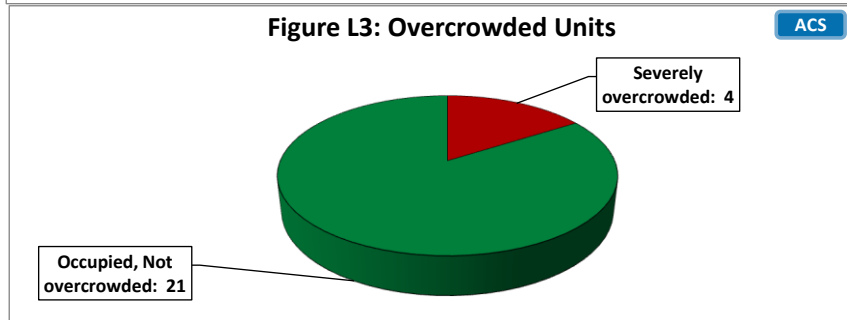
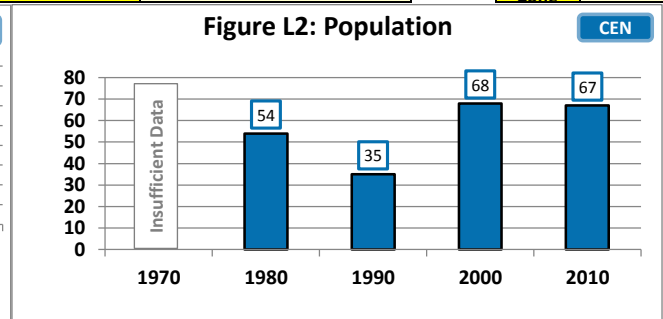
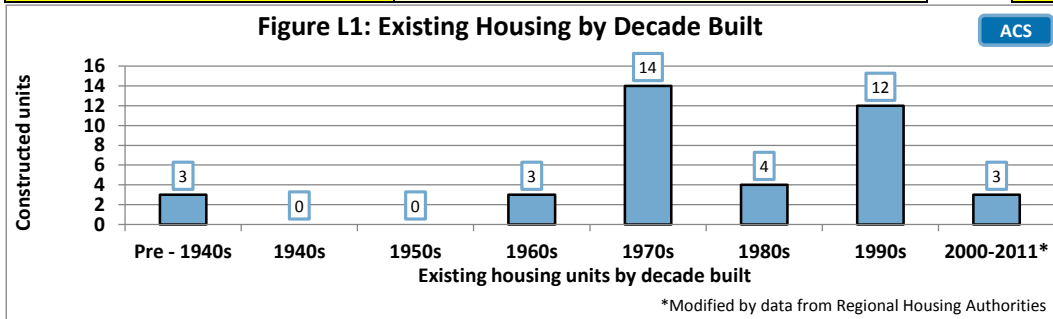
Housing Stock Estimates	
Housing Stock Estimates	Number of Units
All Housing	146
All Occupied Housing	45
All Vacant housing	101

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 402	\$ 4,824
Gross rent	\$ 418	\$ 5,016
Owner-occupied	\$ 360	\$ 4,320
Housing units w/ mortgage	NR	NR
Housing units w/out a mortgage	\$ 370	\$ 4,440

Community Profile for: Eagle Village CDP

ANCSA Region: Doyon

Climate Zone: 8



Owner-occupied House with Mortgage, Median Value
NR

Owner-occupied House without a Mortgage, Median Value
\$55,000

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	\$ 20,417
Renter-occupied	NR
Owner-occupied	\$ 21,667
w/ mortgage	NR
w/o mortgage	\$ 21,667

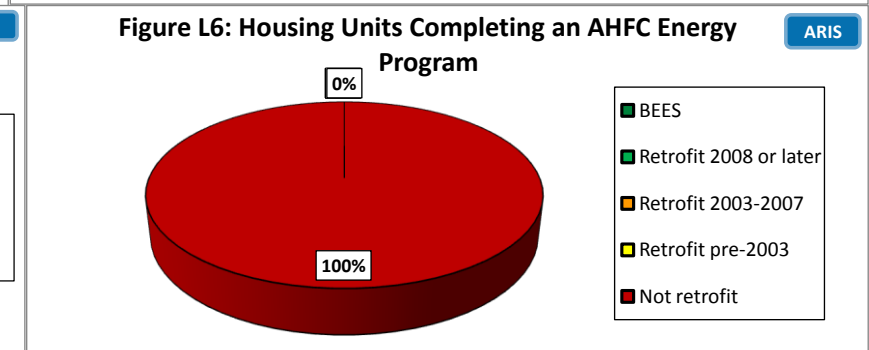
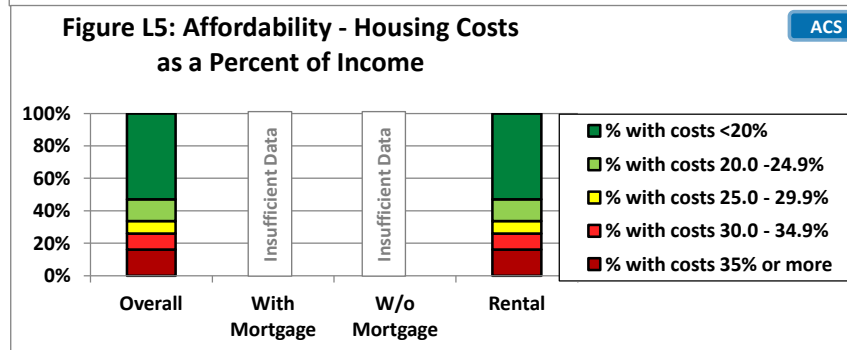
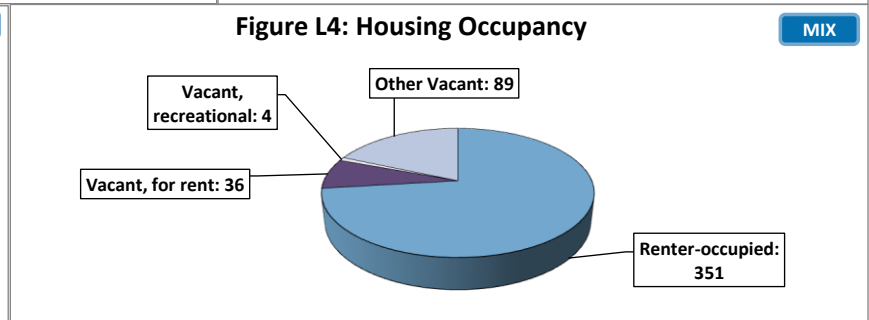
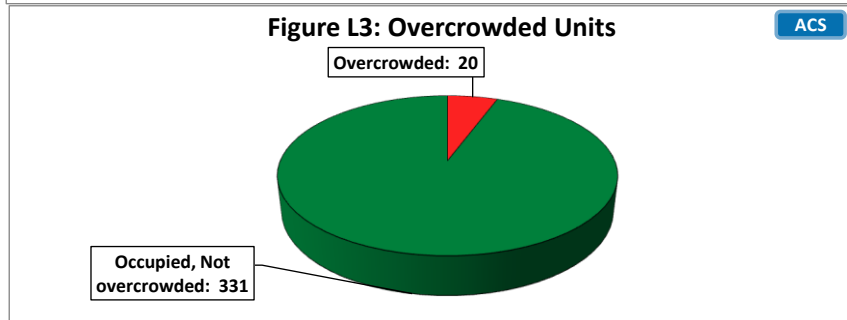
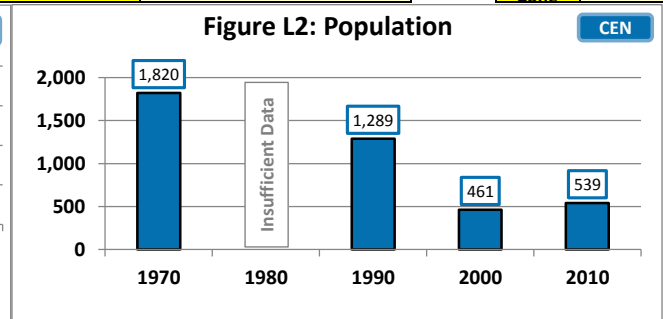
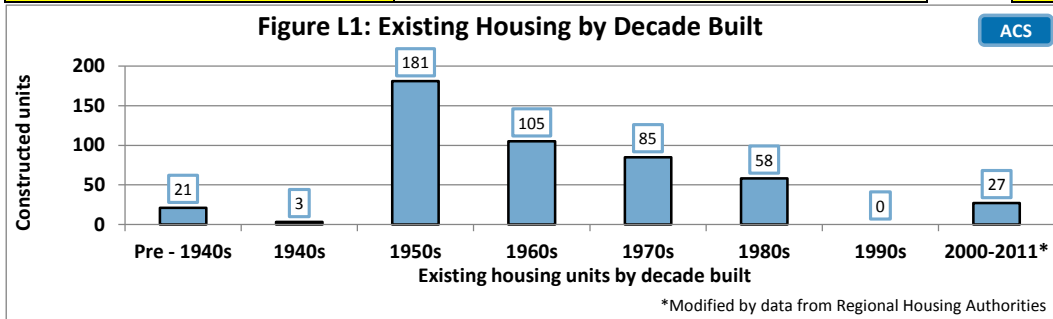
Housing Stock Estimates	
Housing Stock Estimates	Number of Units
All Housing	39
All Occupied Housing	25
All Vacant housing	14

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 242	\$ 2,904
Gross rent	NR	NR
Owner-occupied	\$ 308	\$ 3,696
Housing units w/ mortgage	NR	NR
Housing units w/out a mortgage	\$ 306	\$ 3,672

Community Profile for: Fort Greely CDP

ANCSA Region: Doyon

Climate Zone: 8



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	\$ 92,188
Renter-occupied	\$ 92,188
Owner-occupied	NR
w/ mortgage	NR
w/o mortgage	NR

Housing Stock Estimates	
Housing Stock Estimates	Number of Units
All Housing	480
All Occupied Housing	351
All Vacant housing	129

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 1,387	\$ 16,644
Gross rent	\$ 1,387	\$ 16,644
Owner-occupied	NR	NR
Housing units w/ mortgage	NR	NR
Housing units w/out a mortgage	NR	NR

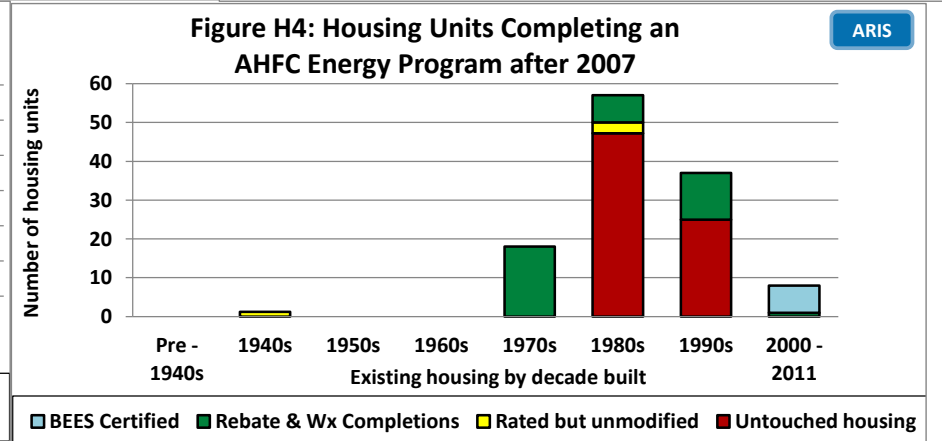
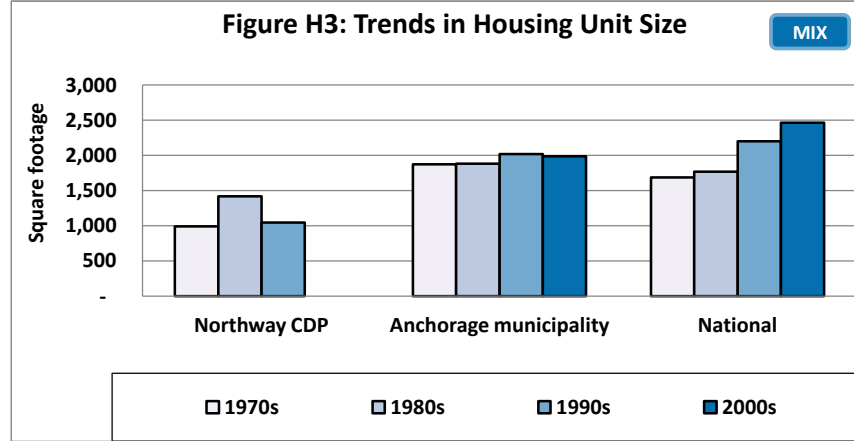
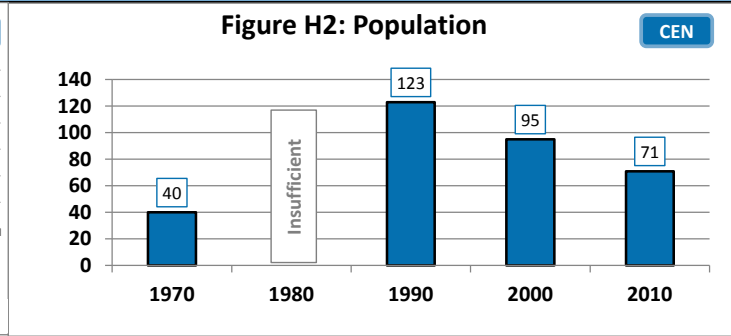
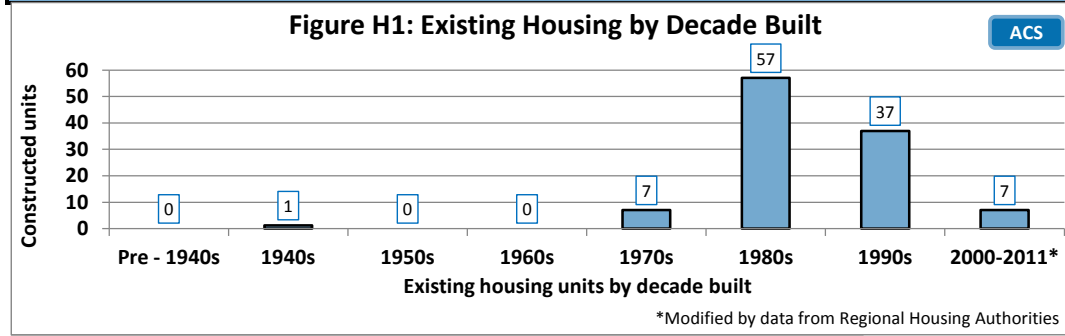
Community Profile for: Northway CDP

ANCSA Region: Doyon

Regional Housing Authority: Interior Regional Housing Authority

BEES Climate Zone (Heating Degree Days): Zone 8 (15,763 HDD)

COMMUNITY - Northway CDP



Houses Lacking Complete Plumbing or Kitchen Facilities	Households	
	Number	Percent
Lack complete plumbing	1	1%
Lack complete kitchen	0	0%

Avg Annual Energy Cost with PCE	\$6,982
Avg Annual Energy Cost without PCE	\$9,509

Weatherization Program Retrofits (funding increased in 2008)	
Date Range	Units
2008-2011	36
2003-2007	NR
1990-2002	NR

Estimated Total Annual Community Space Heating Fuel Use		
Fuel Oil	49,130	(gallons)
Nat Gas	-	(ccf)
Electricity	42,106	(kWh)
Wood	422	(cords)
Propane	-	(gallons)
Coal	-	(tons)

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	\$4.15
Electricity with PCE (\$/kWh)	\$0.19
Electricity cost without PCE (\$/kWh)	\$0.68

Housing Stock Estimates	Number of Units
All Housing	99
All Occupied Housing	73
All Vacant housing	26
Vacant Housing for Sale or Rent	0

OVERCROWDING & VENTILATION - Northway CDP

Figure H5: Overcrowded Units

ACS

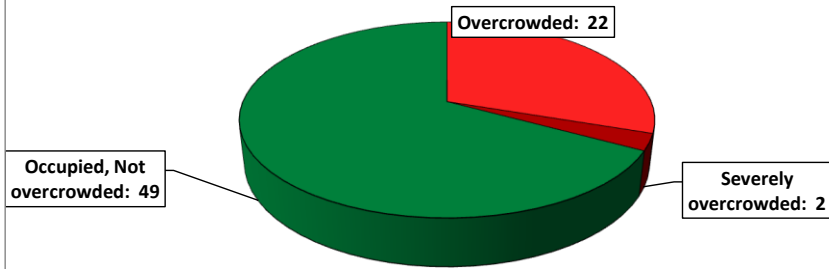


Figure H6: Housing Occupancy

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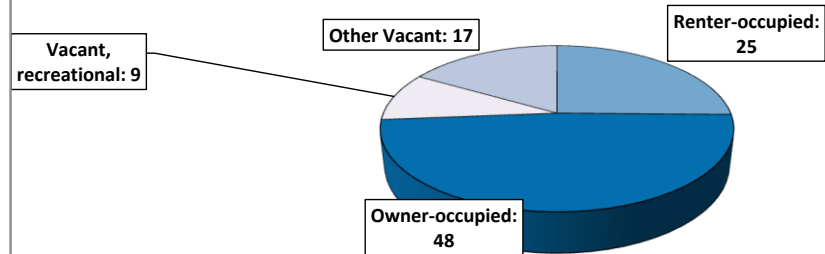


Figure H7: Average Air-Tightness of Current Homes by Decade Built

ARIS

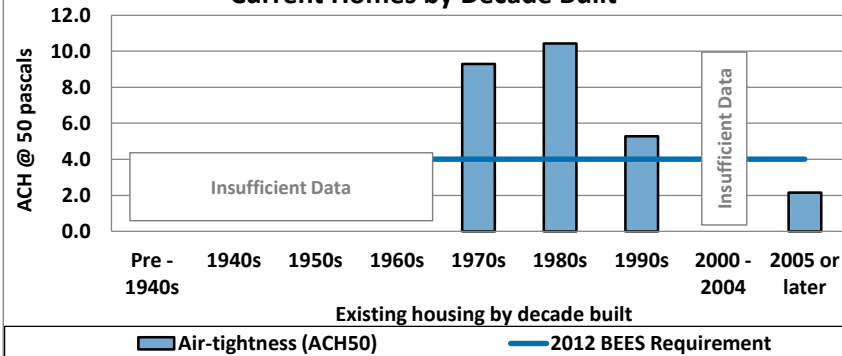


Figure H8: Existing Ventilation Type by Decade Built

ARIS

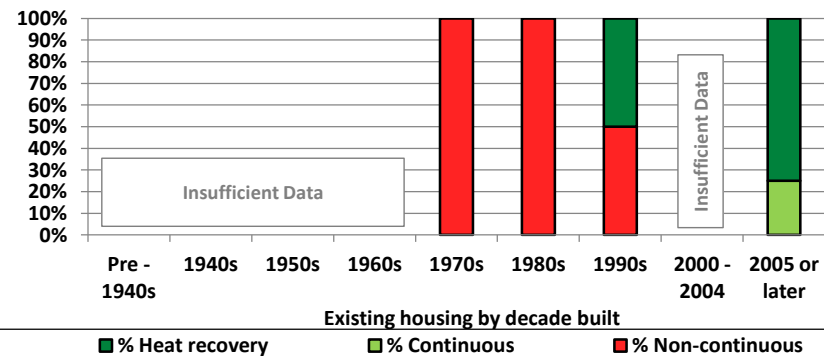


Figure H9: Percent of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS

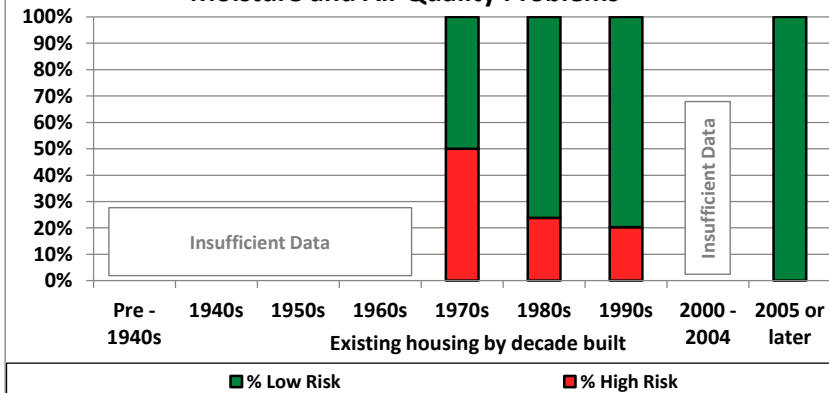
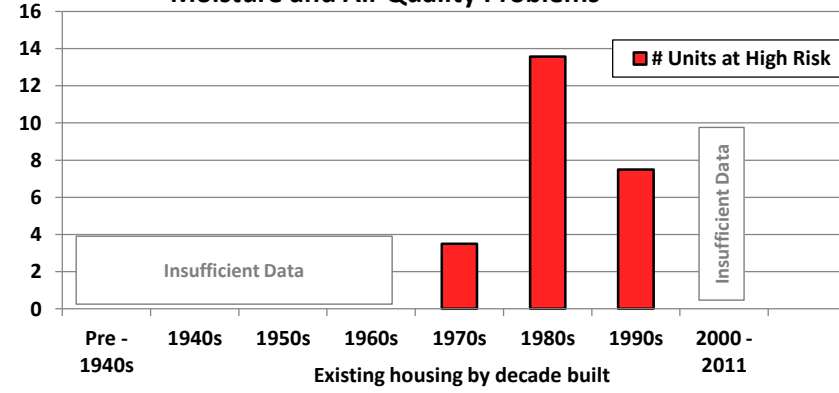


Figure H10: Quantity of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS



ENERGY - Northway CDP												
Current Northway 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	50	2-star plus	65.7	1,232	\$ 6,982	262	221	14	28	239	\$ 5.50	13.4
Pre- 1940	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1940- 49	1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1950- 59	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1960- 69	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1970- 79	18	2-star plus	63.4	992	\$ 5,974	239	203	12	24	261	\$ 6.28	14.8
1980- 89	11	2-star plus	67.9	1,419	\$ 10,457	319	275	17	27	246	\$ 8.24	13.5
1990- 99	12	2-star	57.5	1,044	\$ 2,662	220	196	0	24	279	\$ 3.08	16.6
2000- 2004	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2005 or later	8	5-star	91.5	1,222	\$ 4,086	96	44	29	23	79	\$ 3.37	2.3

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

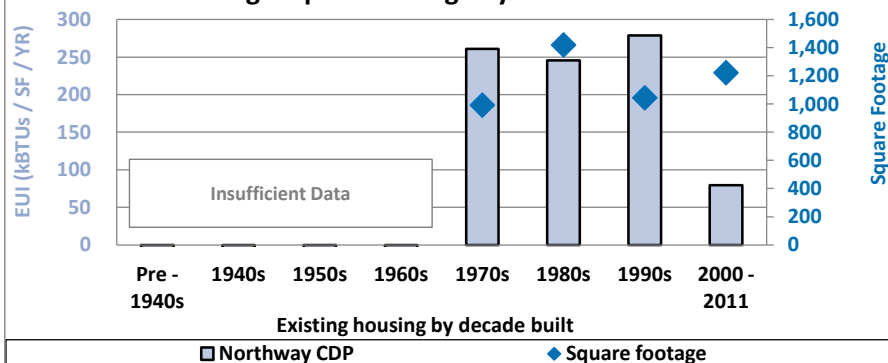
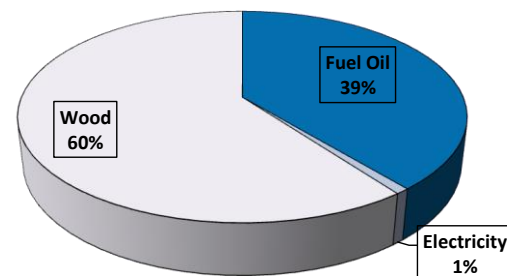


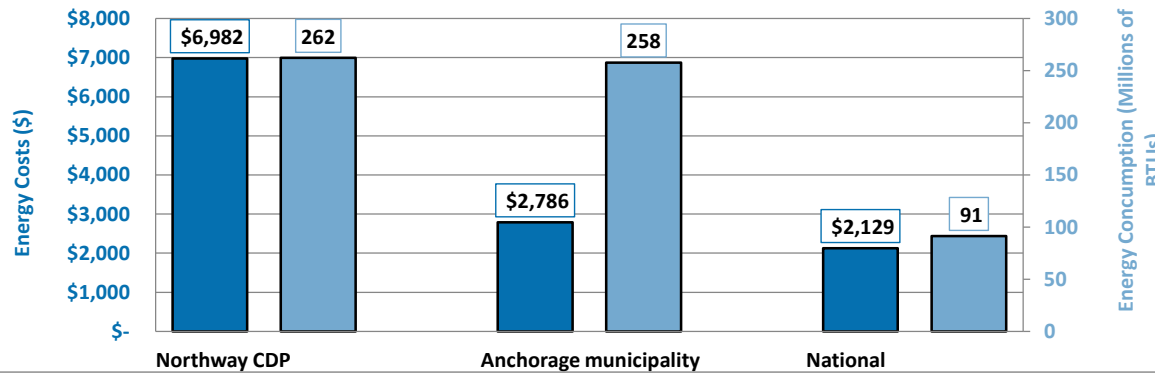
Figure H12: Percent of Total Residential Space Heating Energy by Fuel Type



Current Northway 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	50	8.6	25	12	NR	28	NR	NR	0.42	NR	0.48
Pre- 1940	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1940- 49	1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1950- 59	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1960- 69	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1970- 79	18	9.3	18	8	NR	25	NR	NR	0.58	NR	0.43
1980- 89	11	10.4	29	16	NR	NR	NR	NR	0.33	NR	0.62
1990- 99	12	5.3	NR	NR	NR	NR	NR	NR	NR	NR	NR
2000- 2004	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2005 or later	8	2.1	48	26	NR	38	NR	NR	0.22	NR	0.33
BEES 2009 - Climate Zone 8		7.0	38	30	15	38	15	15	0.22	0.22	0.22
BEES 2012 - Climate Zone 8		4.0	48	30	15	38	15	15	0.22	0.22	0.22

AFFORDABILITY - Northway CDP

Figure H13: Average Annual Home Energy Costs and Use



Housing Information	Avg Household Size (# of people)
All-occupied	2.8
Owner-occupied	3.1
renter-occupied	2.4

Owner-occupied House with Mortgage, Median Value
\$33,900

Owner-occupied House without a Mortgage, Median Value
\$342,300

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 21,607
Renter-occupied	\$ 16,307
Owner-occupied	\$ 48,750
w/ mortgage	\$ 21,964
w/o mortgage	\$ 83,558

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 517	\$ 6,204
Gross rent	NR	NR
Owner-occupied	\$ 539	\$ 6,468
Housing units w/ mortgage	\$ 572	\$ 6,864
Housing units w/out a mortgage	\$ 279	\$ 3,348

Avg % of Median Income Spent on Energy	32.3%
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Figure H14: Affordability - Housing Costs as a Percent of Income

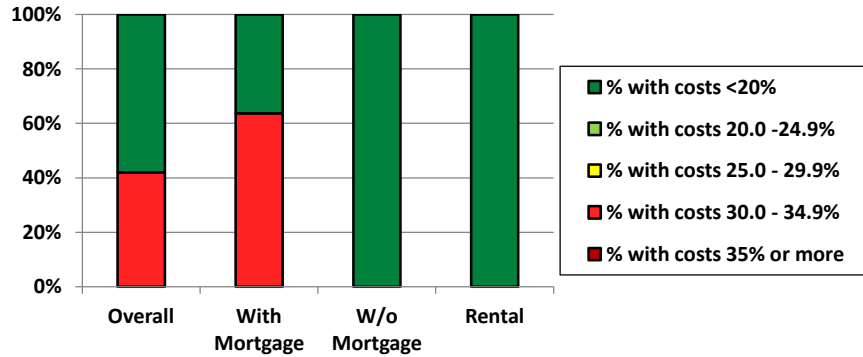
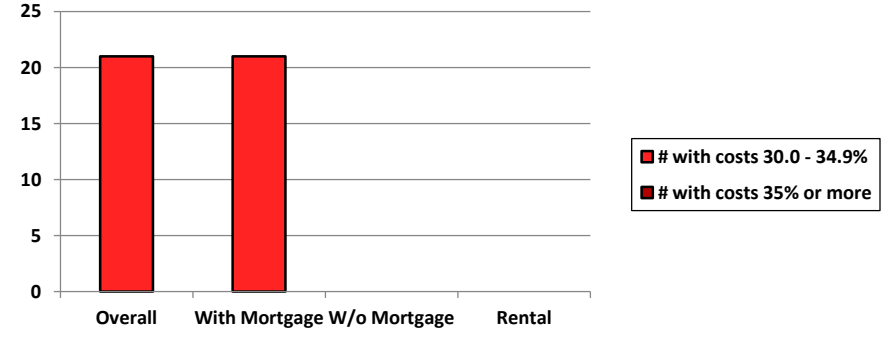


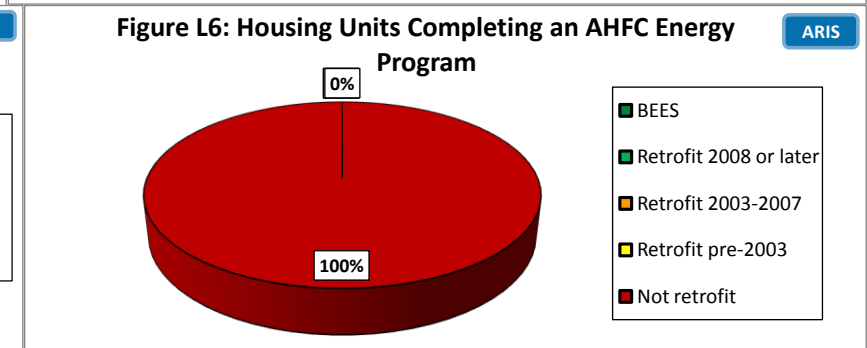
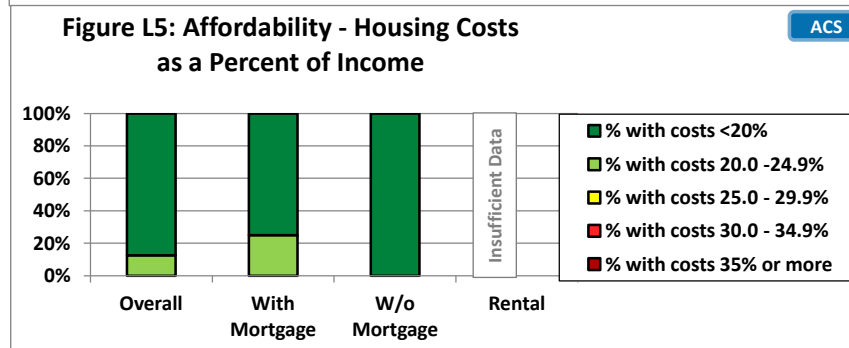
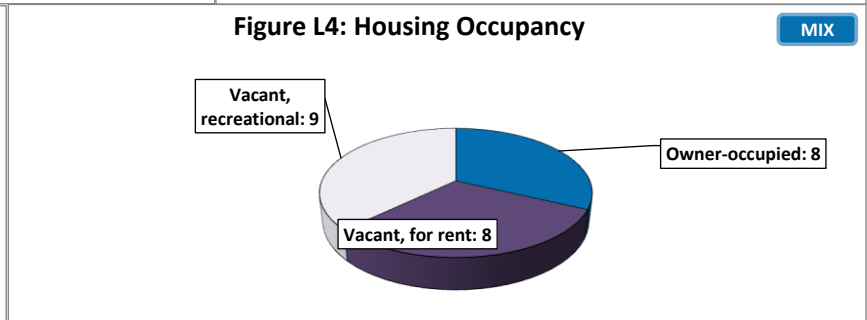
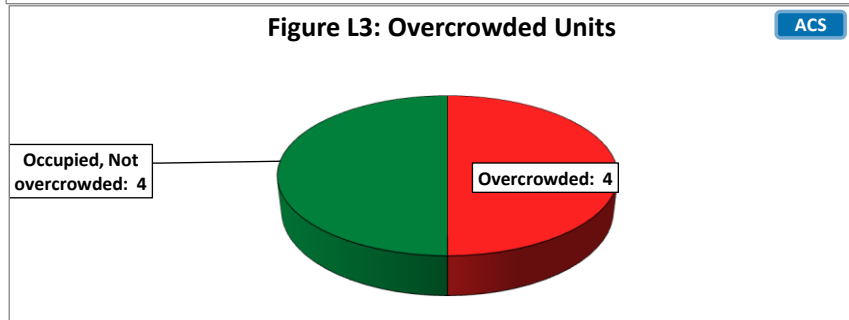
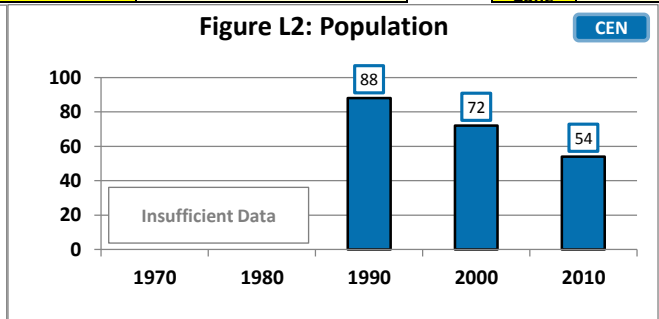
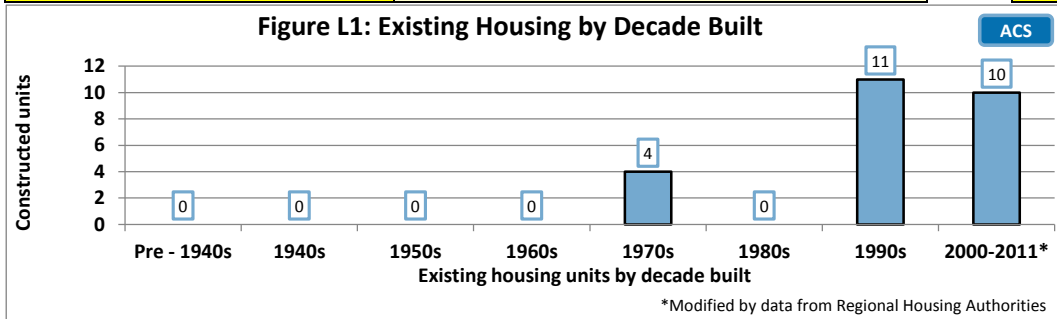
Figure H15: Number of Cost-Burdened Housing Units



Community Profile for: Northway Junction CDP

ANCSA Region: Doyon

Climate Zone: 8



Owner-occupied House with Mortgage, Median Value
NR

Owner-occupied House without a Mortgage, Median Value
\$10,000

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	\$ 38,750
Renter-occupied	NR
Owner-occupied	\$ 38,750
w/ mortgage	\$ 25,833
w/o mortgage	NR

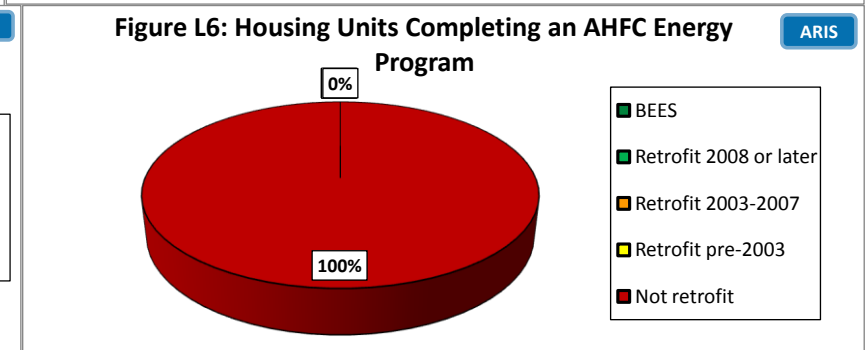
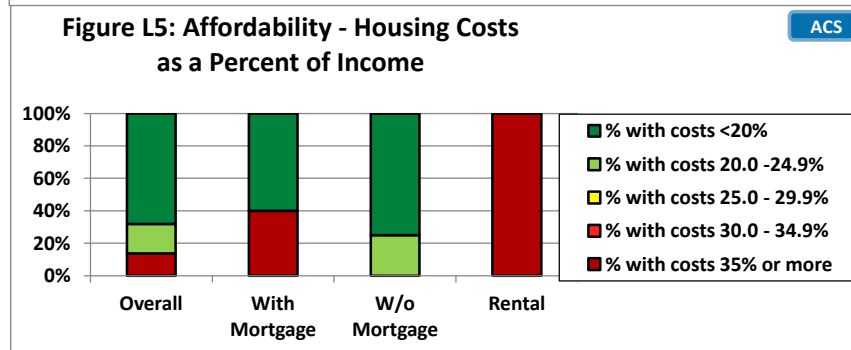
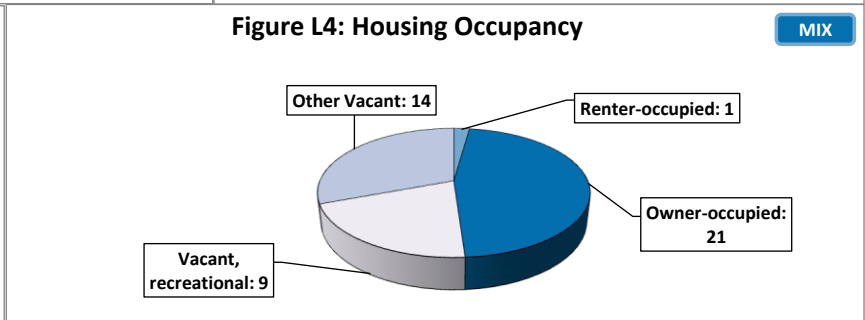
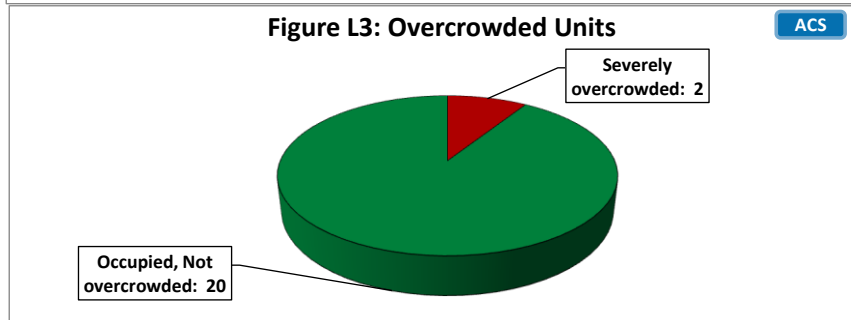
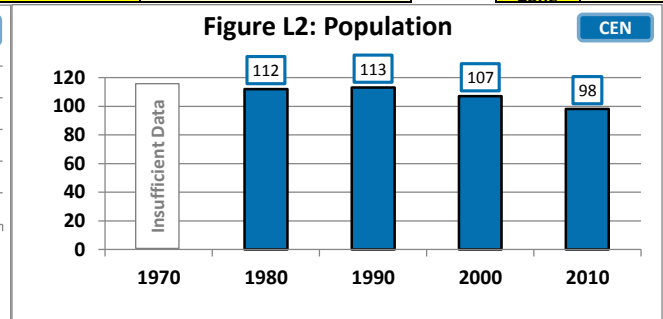
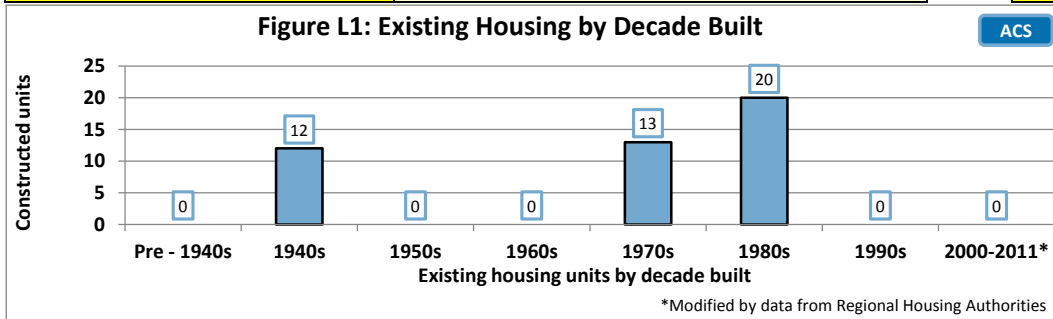
Housing Stock Estimates	
Housing Stock Estimates	Number of Units
All Housing	25
All Occupied Housing	8
All Vacant housing	17

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 329	\$ 3,948
Gross rent	NR	NR
Owner-occupied	\$ 357	\$ 4,284
Housing units w/ mortgage	\$ 367	\$ 4,404
Housing units w/out a mortgage	NR	NR

Community Profile for: Northway Village CDP

ANCSA Region: Doyon

Climate Zone: 8



Owner-occupied House with Mortgage, Median Value
NR

Owner-occupied House without a Mortgage, Median Value
\$132,100

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	\$ 22,500
Renter-occupied	NR
Owner-occupied w/ mortgage	\$ 23,125
Owner-occupied w/o mortgage	\$ 25,417
Renter-occupied w/o mortgage	\$ 20,833

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 350	\$ 4,200
Gross rent	NR	NR
Owner-occupied	\$ 307	\$ 3,684
Housing units w/ mortgage	\$ 383	\$ 4,596
Housing units w/out a mortgage	\$ 267	\$ 3,204

Housing Stock Estimates	
	Number of Units
All Housing	45
All Occupied Housing	22
All Vacant housing	23

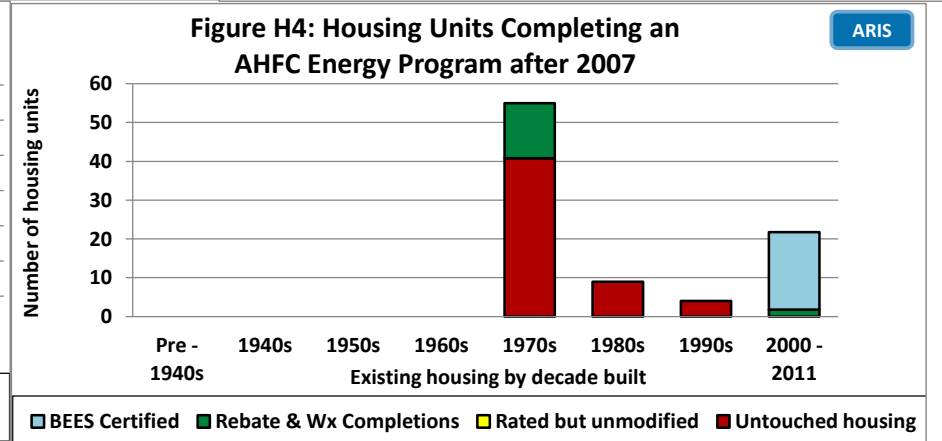
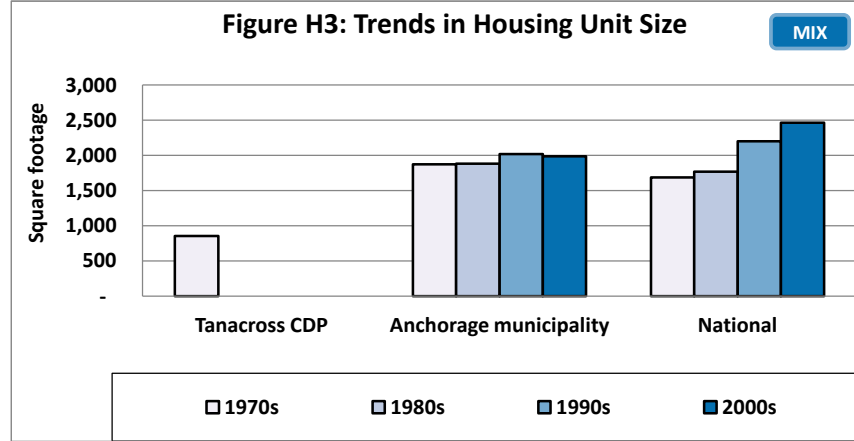
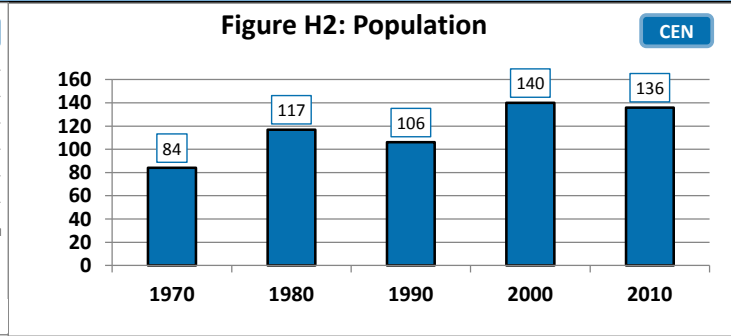
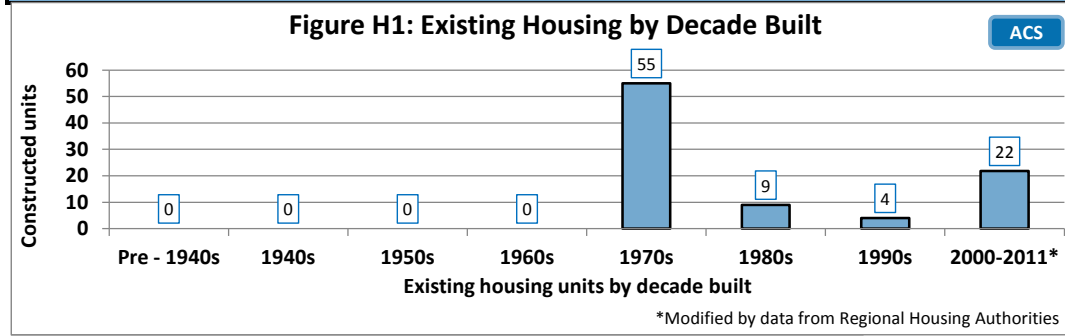
Community Profile for: Tanacross CDP

ANCSA Region: Doyon

Regional Housing Authority: Interior Regional Housing Authority

BEES Climate Zone (Heating Degree Days): Zone 8 (15,479 HDD)

COMMUNITY - Tanacross CDP



Houses Lacking Complete Plumbing or Kitchen Facilities	Households	
	Number	Percent
Lack complete plumbing	11	23%
Lack complete kitchen	4	9%

Avg Annual Energy Cost with PCE	\$5,570
Avg Annual Energy Cost without PCE	\$7,054

Weatherization Program Retrofits (funding increased in 2008)	
Date Range	Units
2008-2011	16
2003-2007	-
1990-2002	10

Estimated Total Annual Community Space Heating Fuel Use		
Fuel Oil	21,167	(gallons)
Nat Gas	-	(ccf)
Electricity	14,385	(kWh)
Wood	304	(cords)
Propane	-	(gallons)
Coal	-	(tons)

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	\$4.05
Electricity with PCE (\$/kWh)	\$0.18
Electricity cost without PCE (\$/kWh)	\$0.51

Housing Stock Estimates	Number of Units
All Housing	70
All Occupied Housing	47
All Vacant housing	23
Vacant Housing for Sale or Rent	0

OVERCROWDING & VENTILATION - Tanacross CDP

Figure H5: Overcrowded Units

ACS

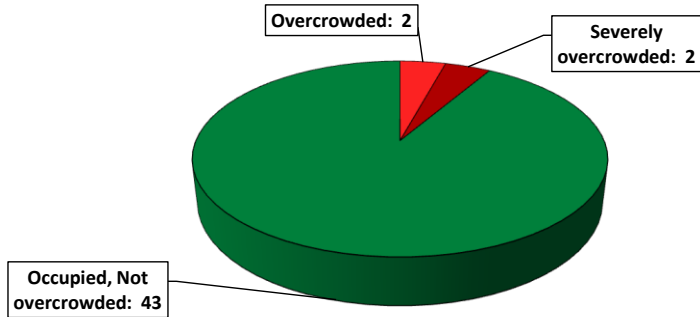


Figure H6: Housing Occupancy

MIX

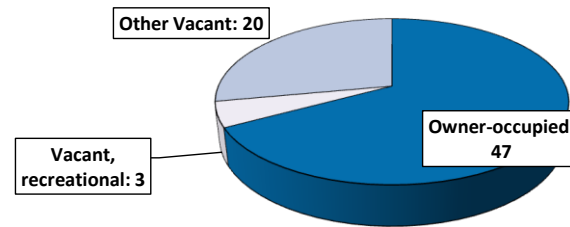


Figure H7: Average Air-Tightness of Current Homes by Decade Built

ARIS

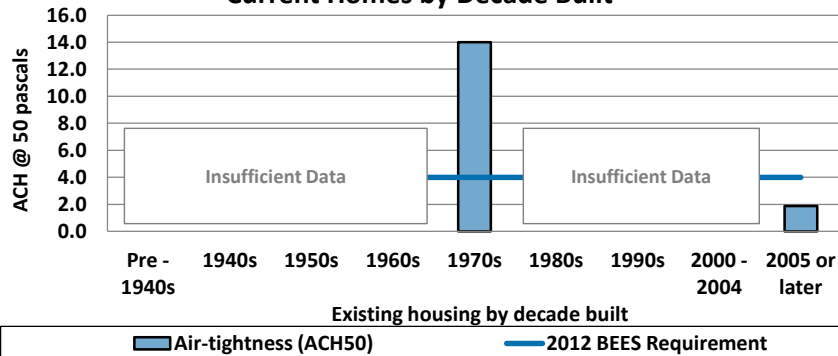


Figure H8: Existing Ventilation Type by Decade Built

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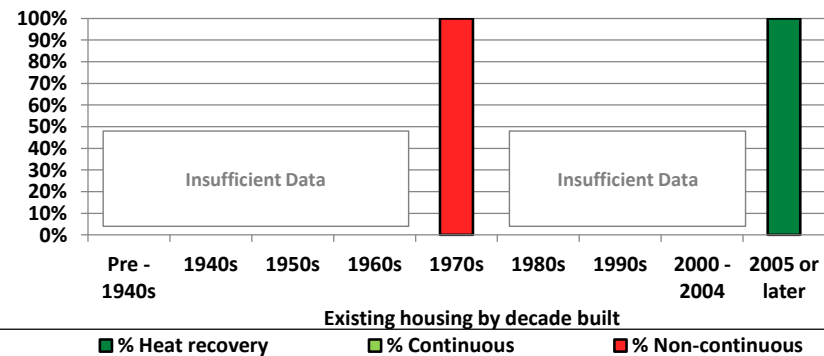


Figure H9: Percent of Housing Stock at High Risk of Moisture and Air Quality Problems

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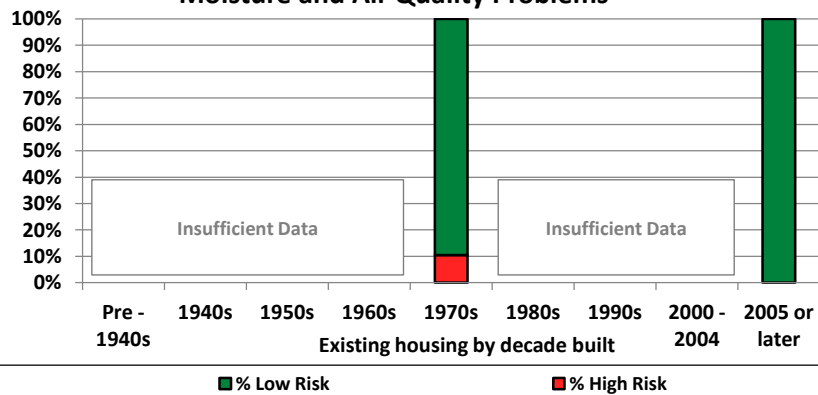
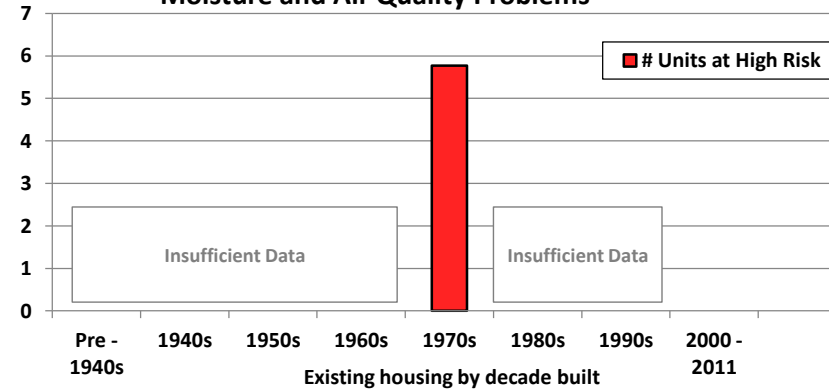


Figure H10: Quantity of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS



ENERGY - Tanacross CDP												
Current Tanacross 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	36	2-star plus	61.1	968	\$ 5,570	230	172	34	24	248	\$ 5.86	13.0
Pre- 1940	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1940- 49	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1950- 59	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1960- 69	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1970- 79	14	2-star	50.4	856	\$ 5,626	261	209	31	22	309	\$ 6.57	16.8
1980- 89	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1990- 99	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2000- 2004	2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2005 or later	20	5-star	89.5	1,260	\$ 5,386	142	85	33	25	113	\$ 4.27	4.4

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

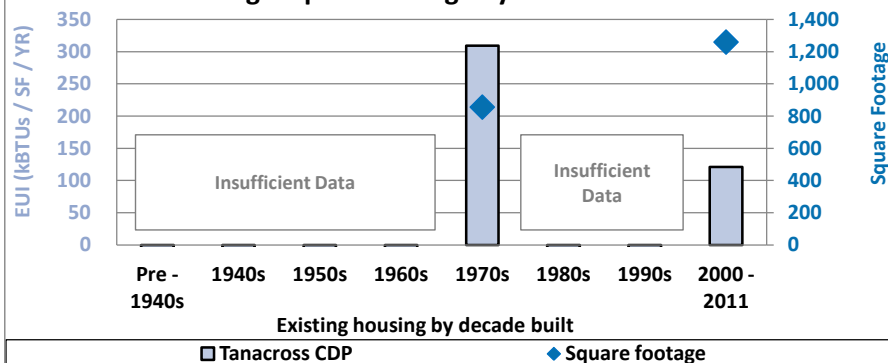
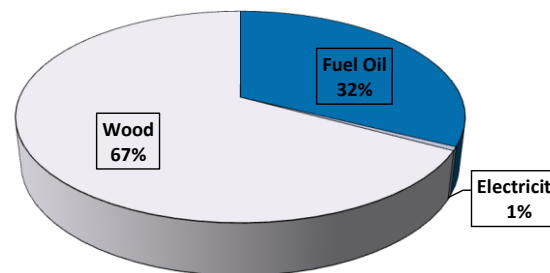


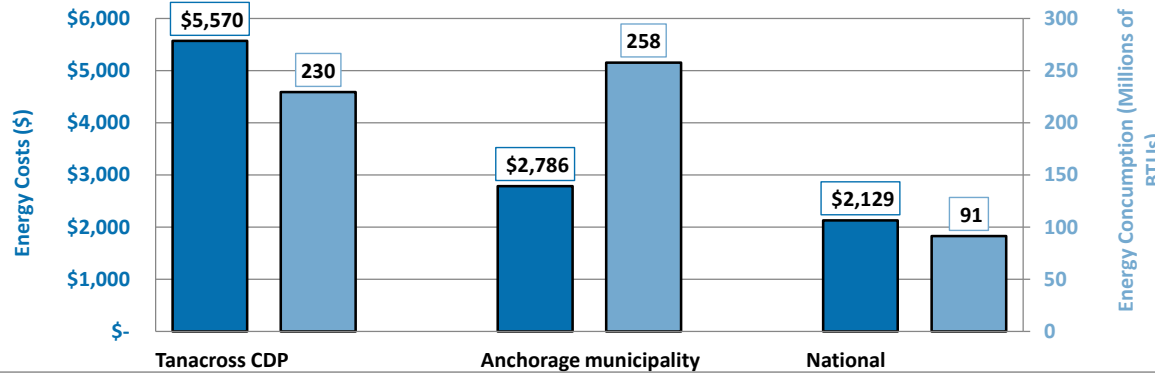
Figure H12: Percent of Total Residential Space Heating Energy by Fuel Type



Current Tanacross 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	36	10.3	38	15	24	30	NR	2	0.60	NR	0.45
Pre- 1940	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1940- 49	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1950- 59	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1960- 69	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1970- 79	14	14.0	39	13	NR	29	NR	NR	0.79	NR	0.53
1980- 89	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1990- 99	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2000- 2004	2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2005 or later	20	1.9	44	26	24	NR	NR	2	0.19	NR	0.30
BEES 2009 - Climate Zone 8		7.0	38	30	15	38	15	15	0.22	0.22	0.22
BEES 2012 - Climate Zone 8		4.0	48	30	15	38	15	15	0.22	0.22	0.22

AFFORDABILITY - Tanacross CDP

Figure H13: Average Annual Home Energy Costs and Use



Housing Information	Avg Household Size (# of people)
All-occupied	2.6
Owner-occupied	2.6
renter-occupied	NR

Owner-occupied House with Mortgage, Median Value
\$184,400
Owner-occupied House without a Mortgage, Median Value
\$64,300

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 53,125
Renter-occupied	NR
Owner-occupied	\$ 53,125
w/ mortgage	\$ 34,583
w/o mortgage	\$ 53,750

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 421	\$ 5,052
Gross rent	NR	NR
Owner-occupied	\$ 415	\$ 4,980
Housing units w/ mortgage	\$ 675	\$ 8,100
Housing units w/out a mortgage	\$ 388	\$ 4,656

Avg % of Median Income Spent on Energy	10.5%
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Figure H14: Affordability - Housing Costs as a Percent of Income

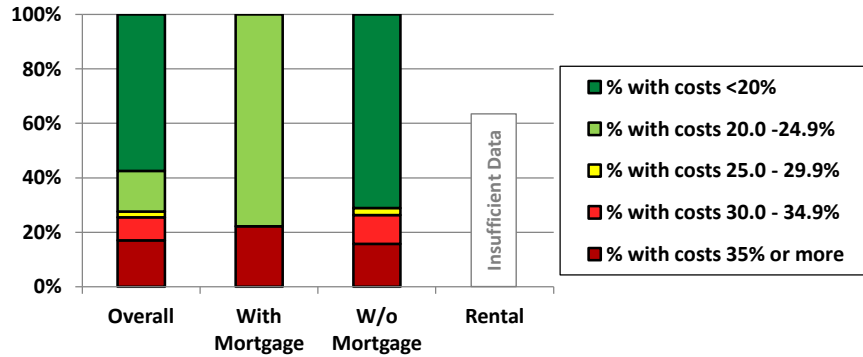
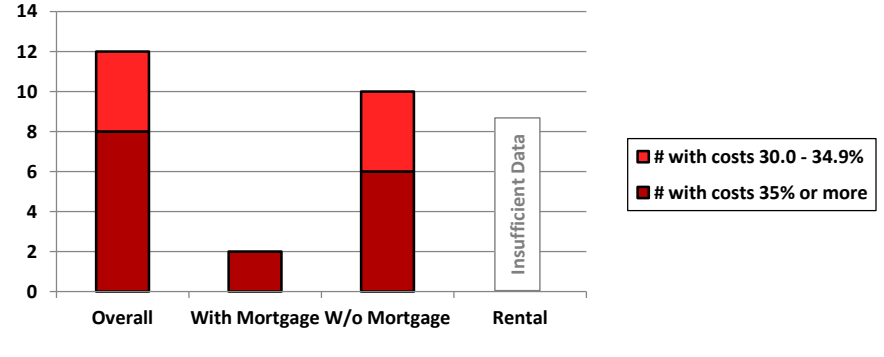


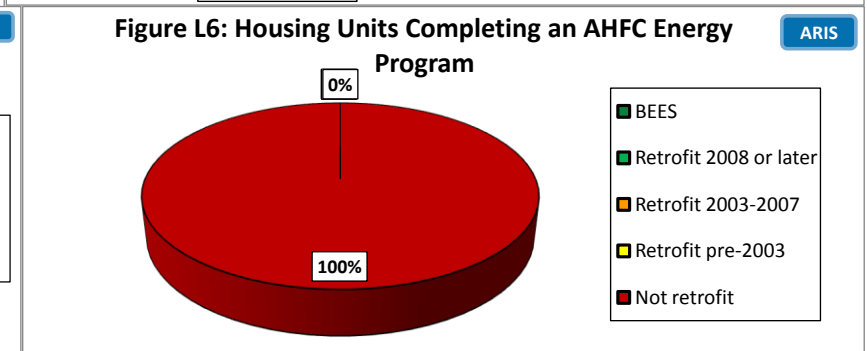
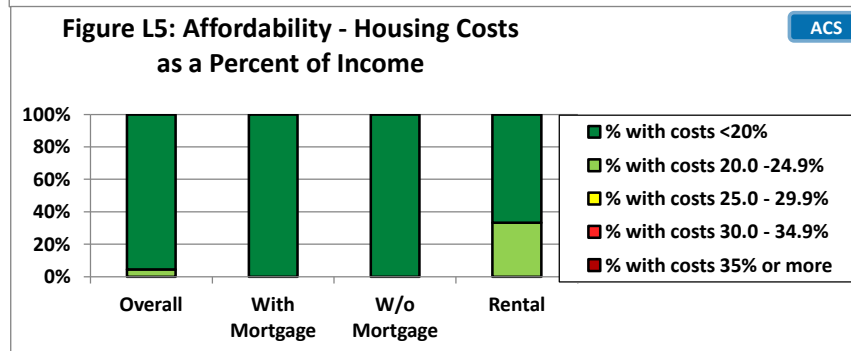
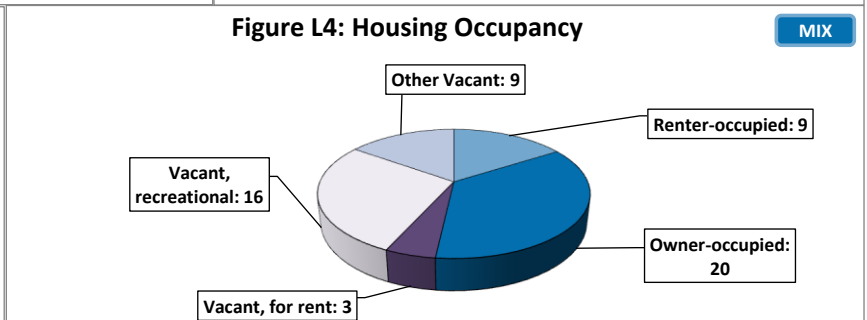
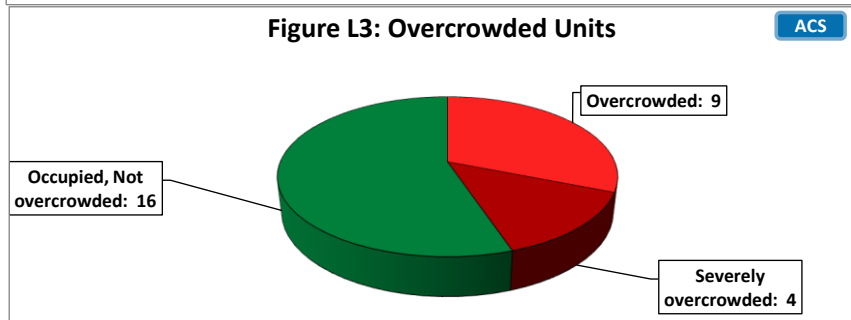
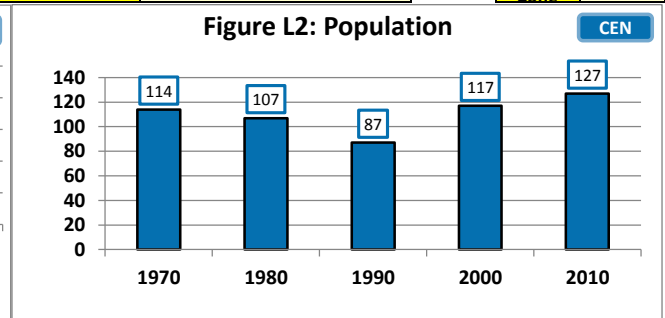
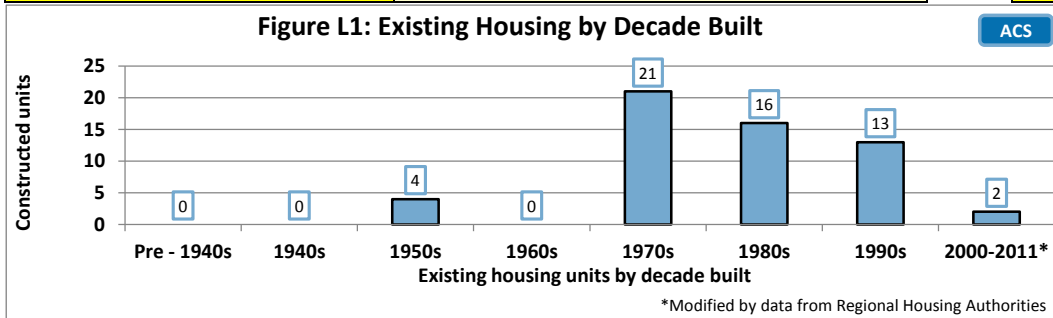
Figure H15: Number of Cost-Burdened Housing Units



Community Profile for: Tetlin CDP

ANCSA Region: Doyon

Climate Zone: 8



Owner-occupied House with Mortgage, Median Value
NR

Owner-occupied House without a Mortgage, Median Value
\$181,300

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	No Data
Electricity with PCE (\$/kWh)	\$ 0.18
Electricity without PCE (\$/kWh)	\$ 0.51

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 50,972
Renter-occupied	\$ 95,250
Owner-occupied	\$ 50,357
w/ mortgage	NR
w/o mortgage	\$ 43,750

Housing Stock Estimates	
Housing Units	Number of Units
All Housing	56
All Occupied Housing	29
All Vacant housing	27

Median Housing Costs		
	Monthly	Annual
All-occupied	\$ 241	\$ 2,892
Gross rent	\$ 713	\$ 8,556
Owner-occupied	\$ 263	\$ 3,156
Housing units w/ mortgage	NR	NR
Housing units w/out a mortgage	\$ 213	\$ 2,556

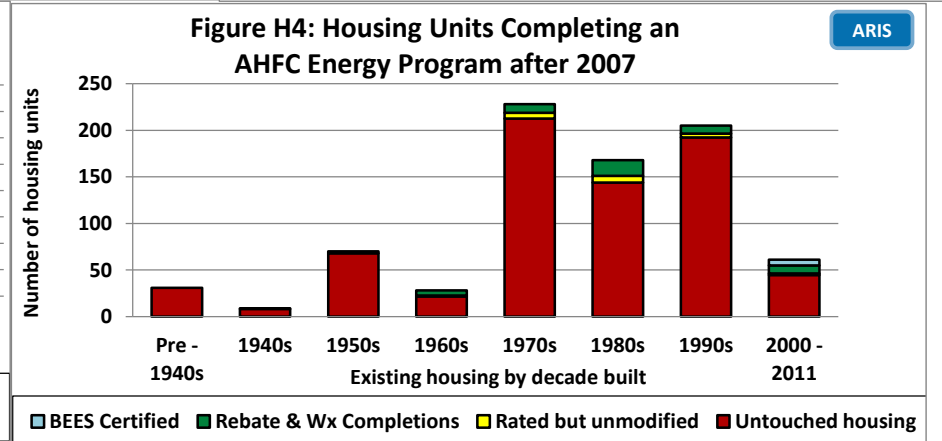
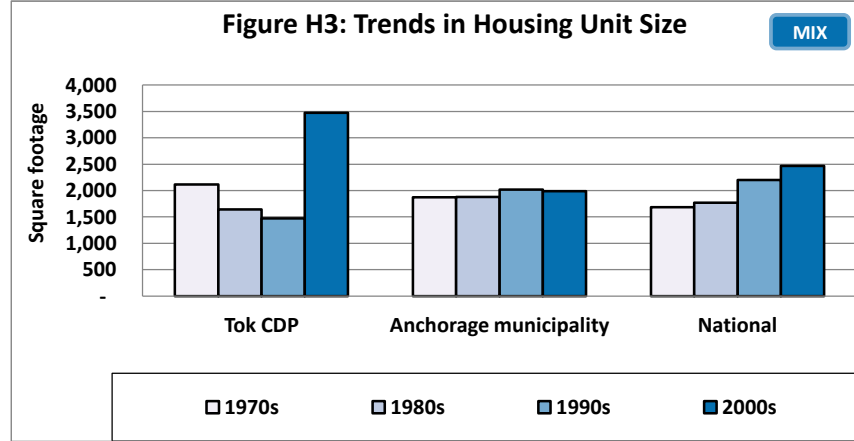
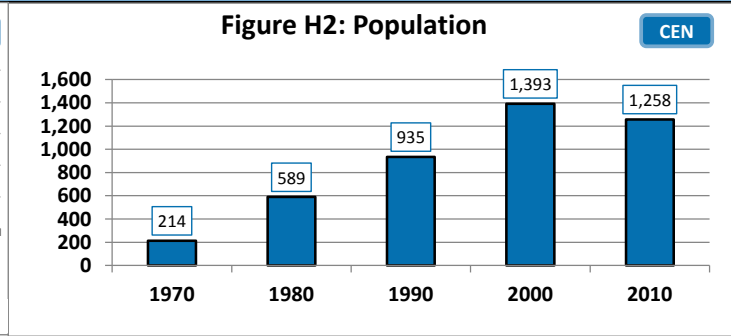
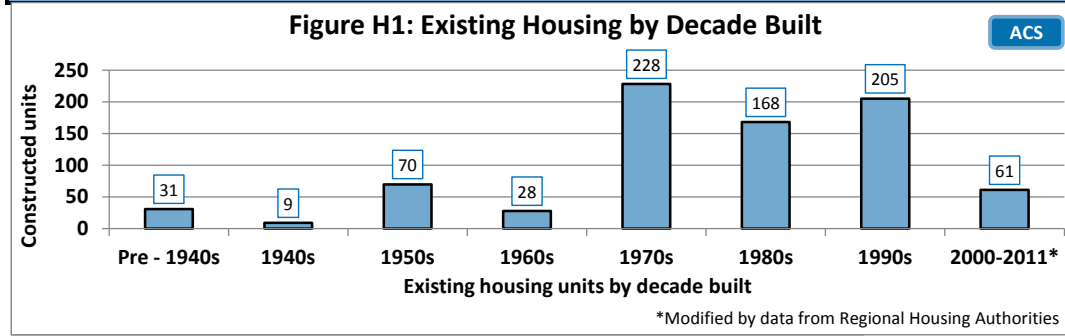
Community Profile for: Tok CDP

ANCSA Region: Doyon

Regional Housing Authority: Interior Regional Housing Authority

BEES Climate Zone (Heating Degree Days): Zone 8 (15,400 HDD)

COMMUNITY - Tok CDP



Houses Lacking Complete Plumbing or Kitchen Facilities	Households	
	Number	Percent
Lack complete plumbing	65	12%
Lack complete kitchen	65	12%

Avg Annual Energy Cost with PCE	\$8,371
Avg Annual Energy Cost without PCE	\$10,250

Weatherization Program Retrofits (funding increased in 2008)	
Date Range	Units
2008-2011	39
2003-2007	12
1990-2002	38

Estimated Total Annual Community Space Heating Fuel Use		
Fuel Oil	582,639	(gallons)
Nat Gas	-	(ccf)
Electricity	514,333	(kWh)
Wood	2,065	(cords)
Propane	50,727	(gallons)
Coal	-	(tons)

Estimated Energy Prices as of January 2013	
#1 Fuel oil cost (\$ / gallon)	\$4.05
Electricity with PCE (\$/kWh)	\$0.18
Electricity cost without PCE (\$/kWh)	\$0.51

Housing Stock Estimates	Number of Units
All Housing	800
All Occupied Housing	547
All Vacant housing	253
Vacant Housing for Sale or Rent	46

OVERCROWDING & VENTILATION - Tok CDP

Figure H5: Overcrowded Units

ACS

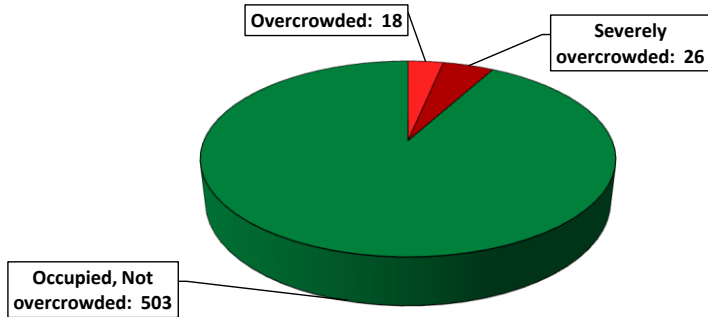


Figure H6: Housing Occupancy

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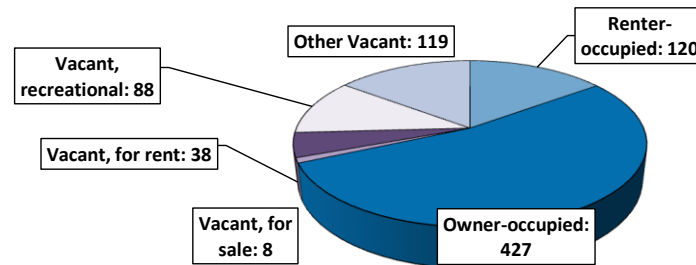


Figure H7: Average Air-Tightness of Current Homes by Decade Built

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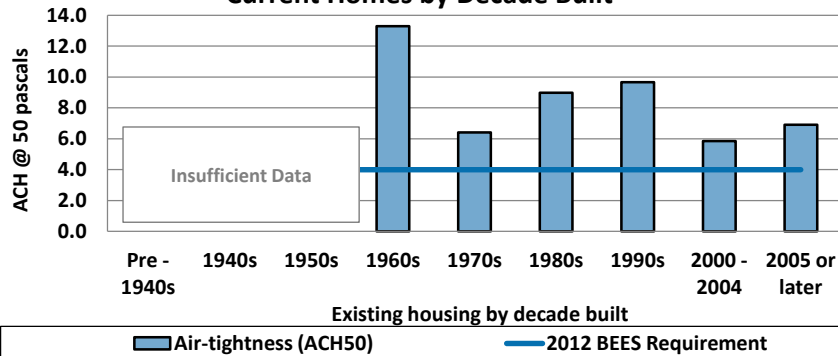


Figure H8: Existing Ventilation Type by Decade Built

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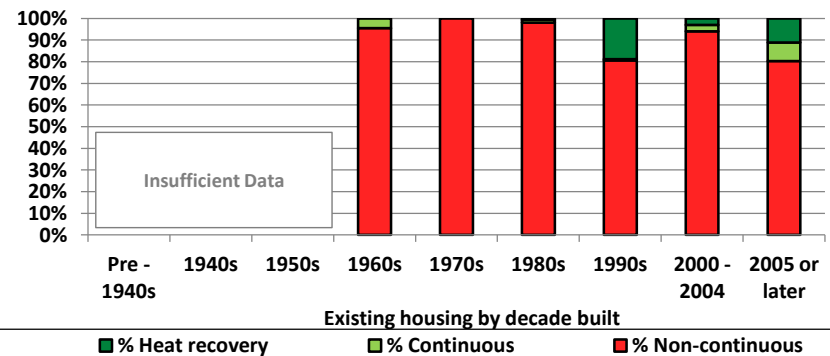


Figure H9: Percent of Housing Stock at High Risk of Moisture and Air Quality Problems

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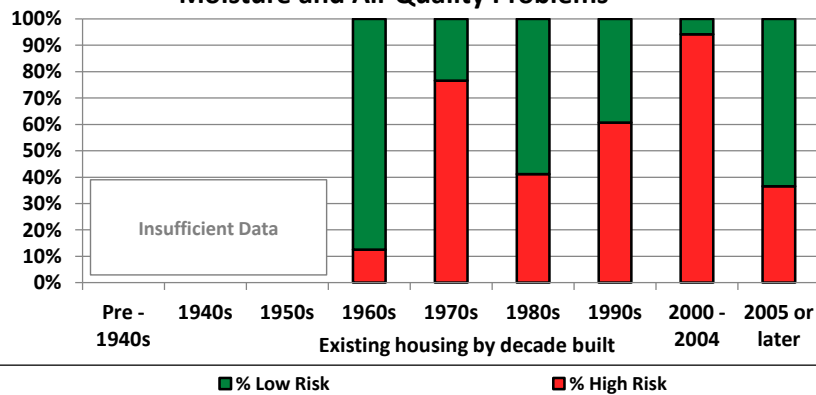
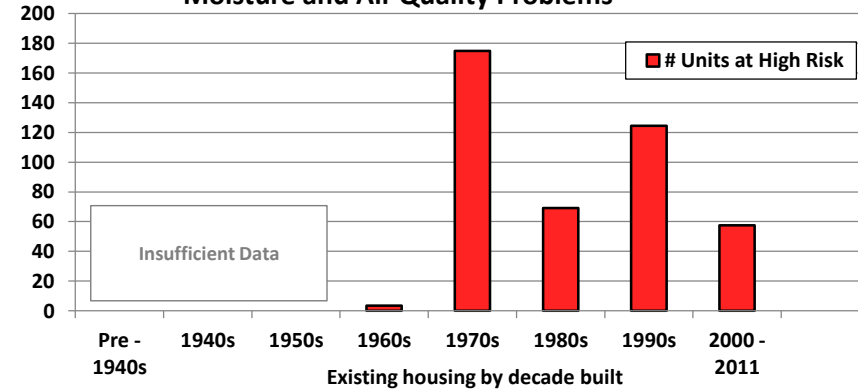


Figure H10: Quantity of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS



ENERGY - Tok CDP

Current Tok 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	91	2-star plus	65.9	1,736	\$ 8,371	271	218	22	31	193	\$ 5.28	10.5
Pre- 1940	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1940- 49	2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1950- 59	2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1960- 69	7	2-star	55.1	1,366	\$ 8,459	264	215	25	25	194	\$ 6.31	10.3
1970- 79	20	2-star plus	64.3	2,114	\$ 10,860	350	290	27	32	184	\$ 5.72	10.1
1980- 89	28	2-star plus	63.9	1,643	\$ 7,875	276	223	24	29	184	\$ 4.89	9.8
1990- 99	14	3-star	72.2	1,472	\$ 5,993	189	143	18	28	220	\$ 5.25	12.1
2000- 2004	6	4-star	82.2	3,475	\$ 13,333	365	299	31	35	110	\$ 3.98	5.9
2005 or later	12	2-star plus	62.4	1,127	\$ 4,796	203	165	8	31	221	\$ 4.76	12.4

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

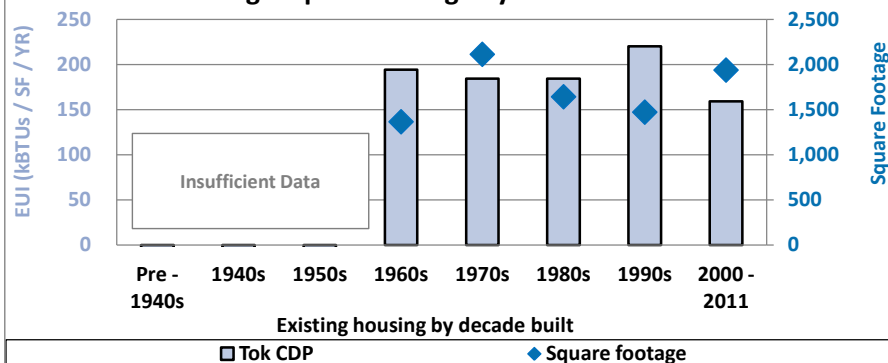
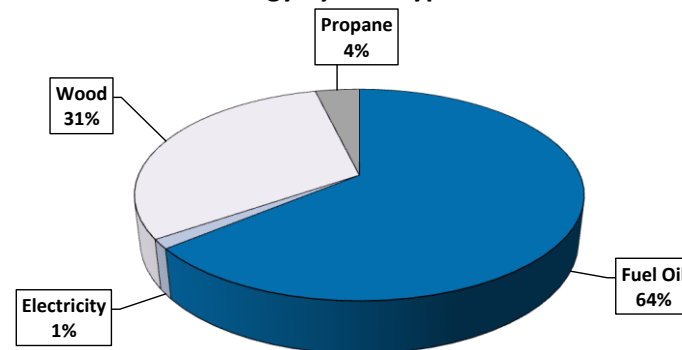


Figure H12: Percent of Total Residential Space Heating Energy by Fuel Type

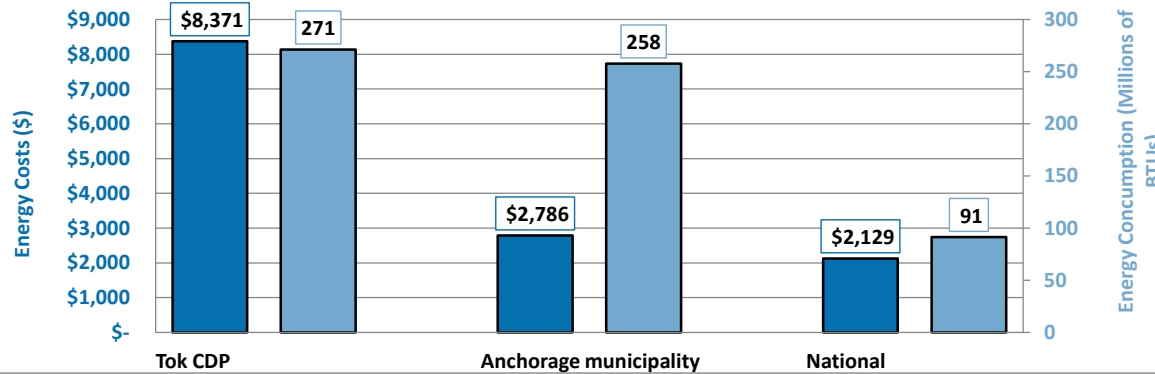


Current Tok CDP Housing Envelope Characteristics By Decade Built

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	91	8.7	26	12	5	20	3	3	0.40	0.28	0.51
Pre- 1940	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1940- 49	2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1950- 59	2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1960- 69	7	13.3	28	14	NR	NR	3	NR	0.62	NR	0.64
1970- 79	20	6.4	25	9	4	18	2	3	0.37	NR	0.51
1980- 89	28	9.0	21	13	5	18	2	2	0.42	NR	0.53
1990- 99	14	9.7	35	16	14	24	5	8	0.43	NR	0.43
2000- 2004	6	5.8	44	16	NR	NR	NR	NR	0.19	NR	0.49
2005 or later	12	6.9	28	13	20	NR	3	NR	0.35	NR	0.39
BEES 2009 - Climate Zone 8		7.0	38	30	15	38	15	15	0.22	0.22	0.22
BEES 2012 - Climate Zone 8		4.0	48	30	15	38	15	15	0.22	0.22	0.22

AFFORDABILITY - Tok CDP

Figure H13: Average Annual Home Energy Costs and Use



Housing Information	Avg Household Size (# of people)
All-occupied	2.6
Owner-occupied	2.4
renter-occupied	3.5

Owner-occupied House with Mortgage, Median Value	\$182,800
Owner-occupied House without a Mortgage, Median Value	\$88,600

Median Annual Household Income	
Housing Units	Household Income
All-occupied	\$ 48,309
Renter-occupied	\$ 34,375
Owner-occupied	\$ 53,021
w/ mortgage	\$ 61,616
w/o mortgage	\$ 33,229

	Median Housing Costs	
	Monthly	Annual
All-occupied	\$ 694	\$ 8,328
Gross rent	\$ 689	\$ 8,268
Owner-occupied	\$ 696	\$ 8,352
Housing units w/ mortgage	\$ 1,496	\$ 17,952
Housing units w/out a mortgage	\$ 337	\$ 4,044

Avg % of Median Income Spent on Energy	17.3%
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Figure H14: Affordability - Housing Costs as a Percent of Income

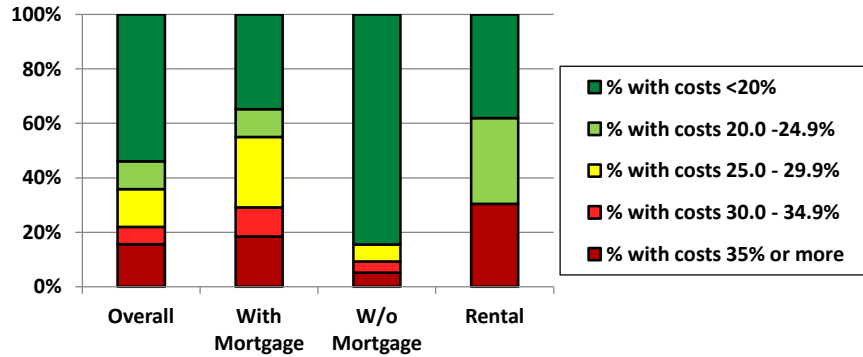


Figure H15: Number of Cost-Burdened Housing Units

