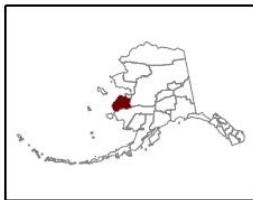
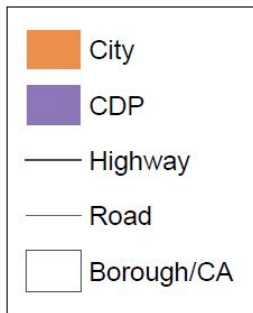


Wade Hampton Census Area



Map Prepared by:
Alaska Department of Labor
& Workforce Development

September 2011

Source: US Census
2010 TIGERline



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| | | |
|-----------------|-----------------------------|----|
| Russian Mission | Data Quantity: Low | 23 |
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| St. Mary's | Data Quantity: Medium | 28 |

Wade Hampton Census Area Dashboard

Population: The Alaska Department of Labor and Workforce Development's current (2012) population estimate for the Wade Hampton Census Area is 7,700—an increase of 10% from 2000.

Housing Units: There are currently 2,177 housing units in the Wade Hampton Census Area. Of these, 1,714 are occupied, 21 are for sale or rent, and the remaining 442 are seasonal or otherwise vacant units (Profile Figure C6).

Energy: The average home in the Wade Hampton Census Area is 781 square feet and uses 187,000 BTUs of energy per square foot annually, 37% more than the statewide average of 137,000 BTUs per square foot.

Energy Costs: Using AKWarm estimates, average annual energy cost for homes in the Wade Hampton Census Area is \$5,960, which is approximately 2.1 times more than the cost in Anchorage, and 2.8 times more than the national average (Profile Figure C13).

Energy Programs: Approximately 16% of occupied housing in the Wade Hampton 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 1960s are currently rated at 1-star, 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 meet the 2009 BEES standard of 7 air-changes per hour at 50 pascals (ACH50). In contrast, homes built in the 1960s are 2.9 times leakier than those built since 2000 (Profile Figure C7).

Ventilation: An estimated 301 occupied housing units (or 18%) in the Wade Hampton 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: 51% of occupied units are estimated to be either overcrowded (20%) or severely overcrowded (31%). This is roughly 17 times the national average, and makes the Wade Hampton Census Area the most overcrowded census area in the state.

Affordability: On average, approximately 17% of households in the Wade Hampton 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 15% of census median area income for occupied housing.

Wade Hampton Census Area Summary

Community

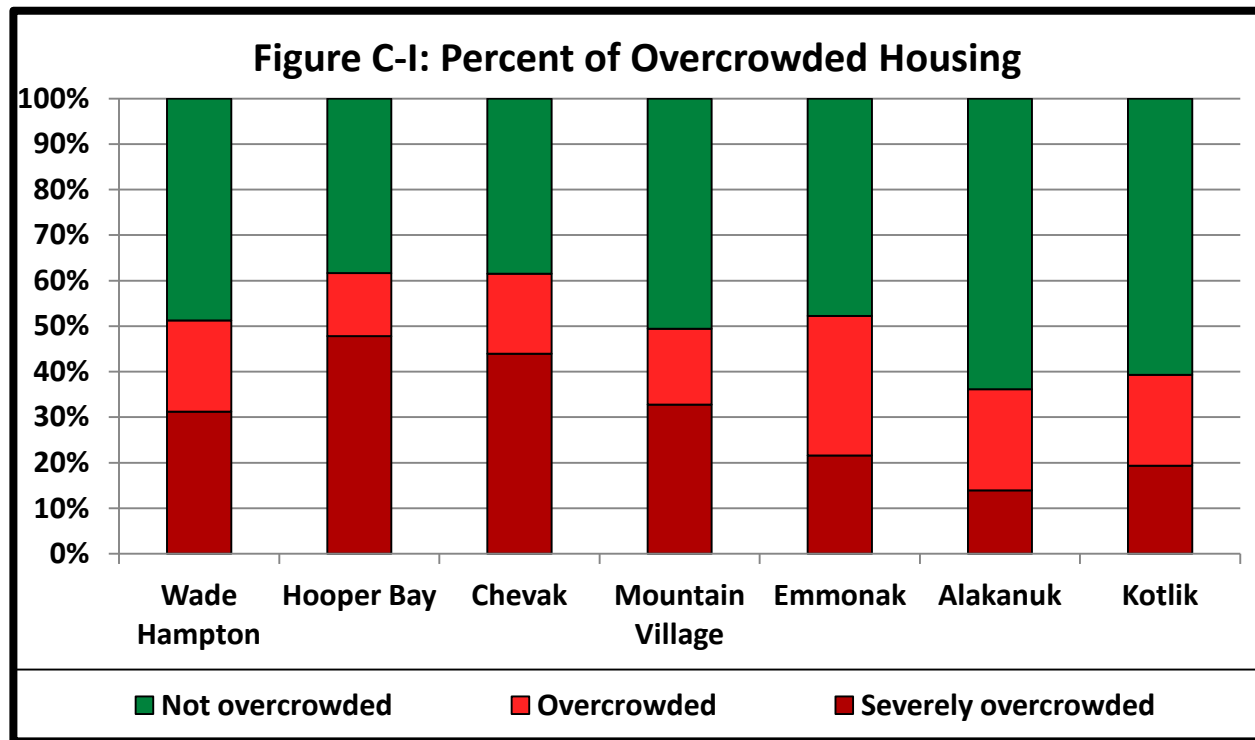
The Wade Hampton census area sits on the western coast of Alaska and is bisected by the Yukon River. It is in the Calista Native Corporation ANCSA region. The 13 communities in the census area are located on the banks of the Yukon and on the coast of Bering Sea. Average homes in the census area range in size from 679 square feet in Hooper Bay to 787 square feet in Marshall.

Overcrowding

The Wade Hampton census area has the smallest homes of all census areas in Alaska, with average sizes for all communities at 781 square feet. Wade Hampton Census Area has a low vacancy rate, with only 1% of the census area’s housing vacant (for sale or rent), and seven of 13 of the communities having no units for sale or rent. The highest vacancy rate, 5%, is located in Nunam Iqua.

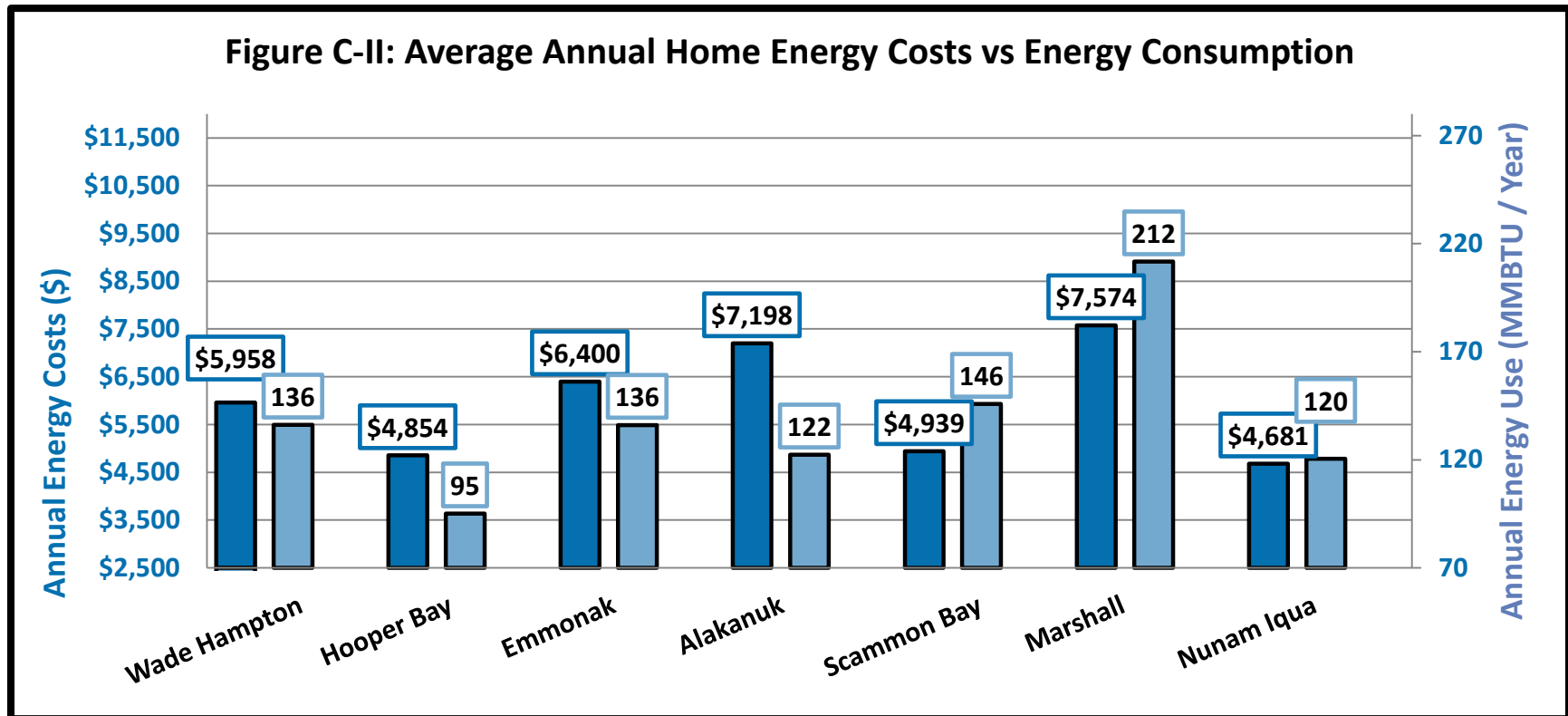
Slightly more than half (51%) of homes in Wade Hampton are classified as overcrowded or severely overcrowded. For housing units in the six most populous communities, overcrowding rates

range from 36% in Alakanuk to 62% in Chevak (Figure C-I). The least and most crowded communities in the region are not among the six most populous communities. St. Mary’s is the least crowded, with only 29% of households experiencing overcrowding, and Russian Mission is the most overcrowded, with 71% of houses holding more than one person per room.



Energy

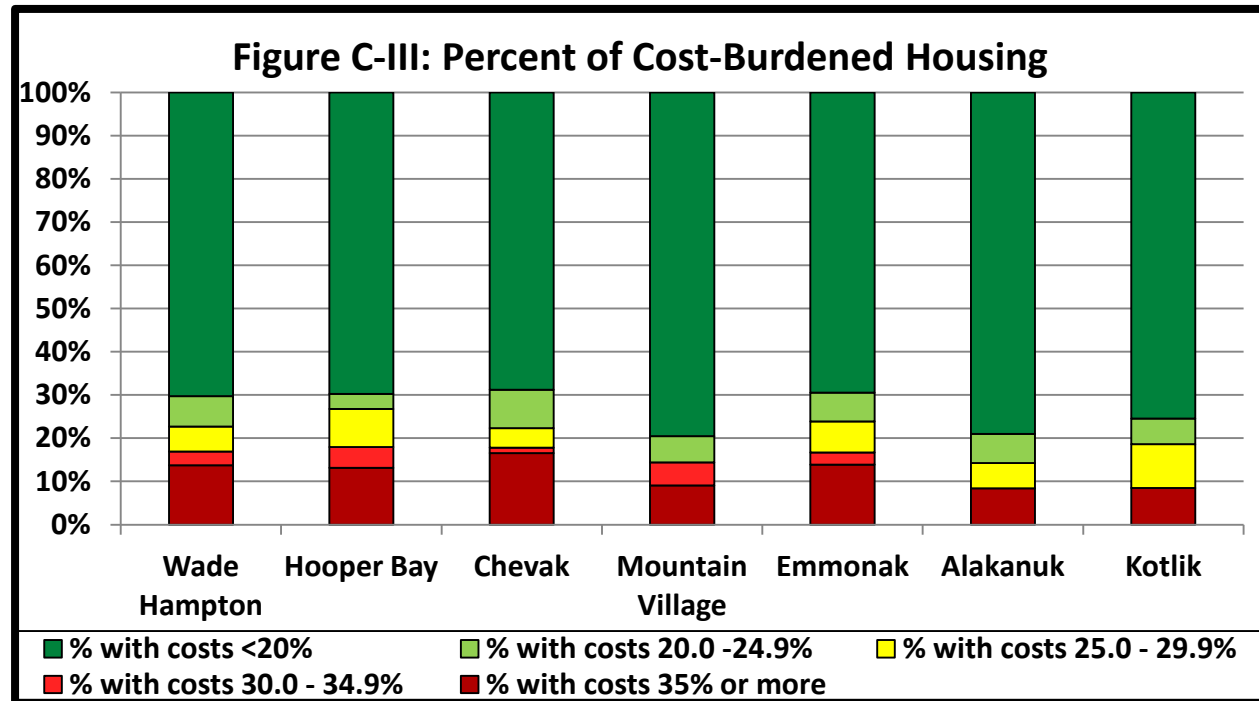
The average annual energy use per home in Wade Hampton census area is 136 million BTUs, for an annual cost of \$5,958 (see Figure C-II, far left columns). Nunam Iqua has the lowest annual energy costs at \$4,681. The highest energy costs are found in Marshall, where residents pay annual energy costs of \$7,574. Marshall also has the highest home heating index in the census area of 16.6 BTUs/ft²/HDD. This is more than double the heating index in Hooper Bay, which has the lowest index in the census area at 7.5 BTUs/ft²/HDD.



Since 2003, approximately 22% of homes in Wade Hampton census area have completed the Weatherization Program, Home Energy Rebate Program, or a BEES program. Hooper Bay has had the greatest participation, with 73% of houses completing one of the programs. The lowest participation is found in Kotlik, which has not had any homes participate in an energy program.

Affordability

According to ACS estimates¹, residents of Wade Hampton have more affordable housing than all other Alaskan census areas except two (Bristol Bay and North Slope Borough). Between 5% and 36% of households in Wade Hampton are “cost-burdened,” or spend more than 30% of household income on housing costs. Some communities in Wade Hampton, including Alakanuk, Kotlik, and Nunam Iqua, have less than 10% of households spending over 30% of income on housing costs. Nunam Iqua has only 5% of houses considered cost-burdened, making it the most affordable community in the census area. The most cost-burdened community is St. Mary’s, where 36% of households are considered cost-burdened. Figure C-III shows the affordability of housing in the 6 largest communities in the Wade Hampton census area. These communities include Chevak, which has the lowest median household income in the region at \$33,269, and Emmonak, which has the highest median income at \$59,875.



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

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.

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.

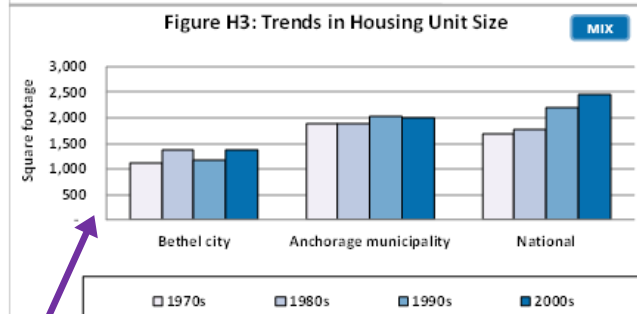
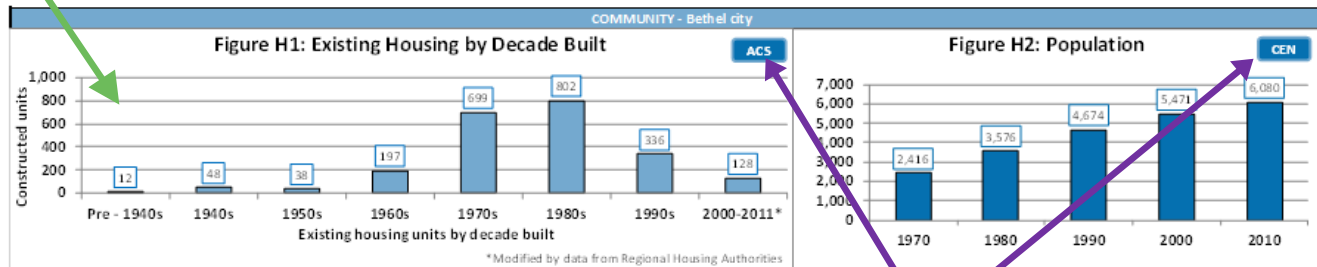
How to Interpret the Profile: Data Sources, Definitions & Clarifications

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:

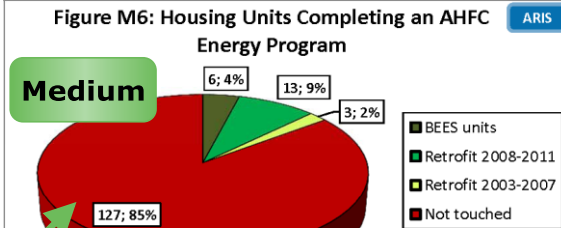
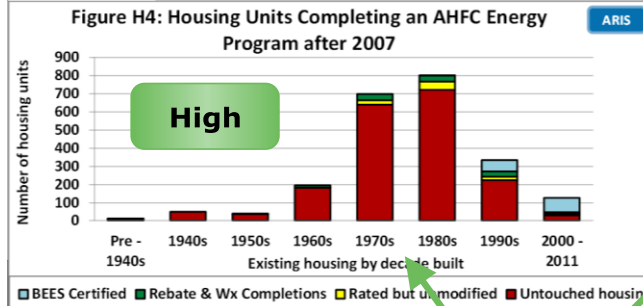
- 2011 American Community Survey 5 year estimates (ACS) **ACS**
- Alaska Retrofit Information System energy audits **ARIS**
- 2010 Decennial Census **CEN**
- Mixed data source; see individual graphs for details. **MIX**

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.

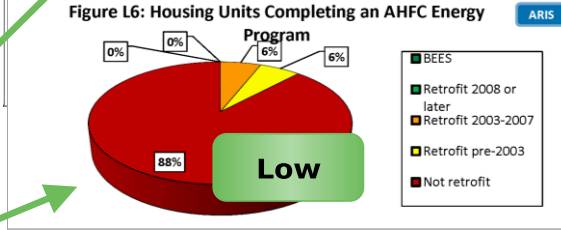
How to Interpret the Profile: Data Sources, Definitions & Clarifications

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 | |

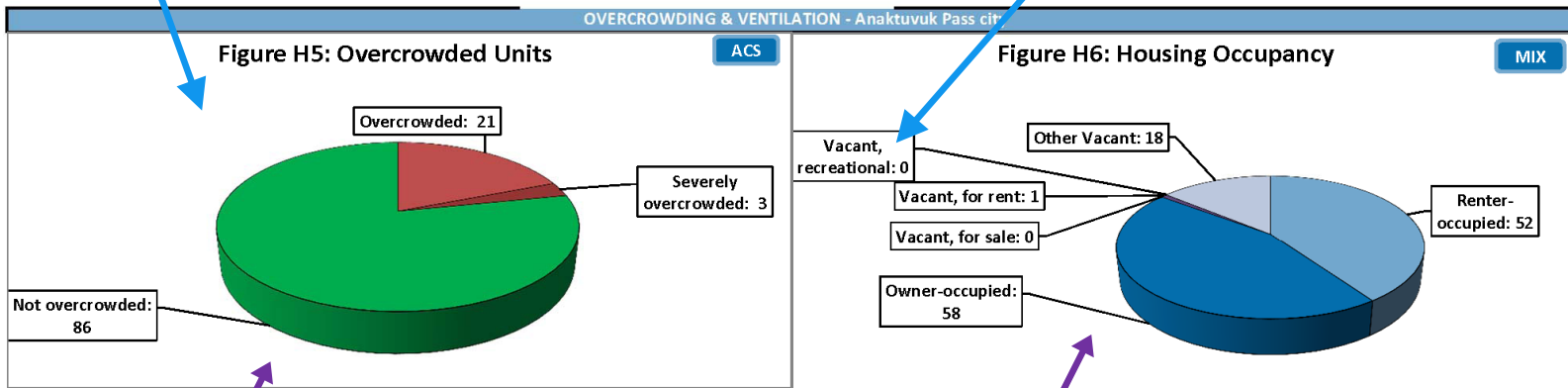
Units weatherized before 2008 are eligible to participate in the program again. (Data source: Alaska Housing Finance Corporation).

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.

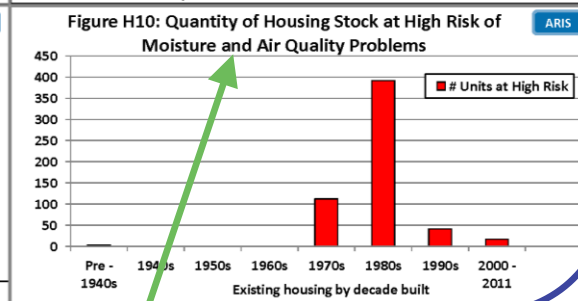
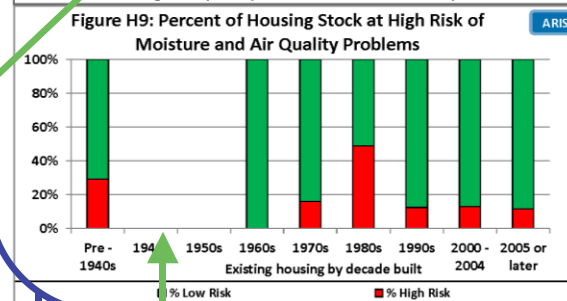
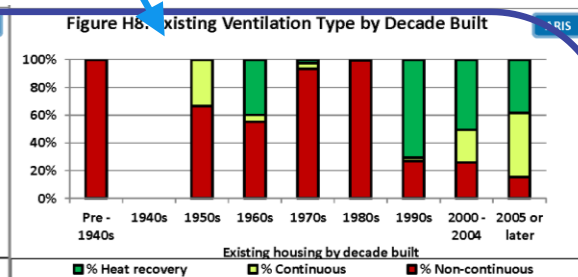
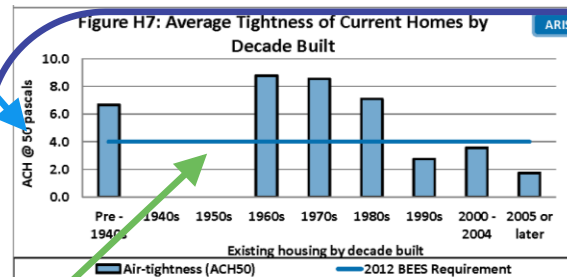
Continuous: Mechanical ventilation without heat recovery operated with automatic controls.

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.

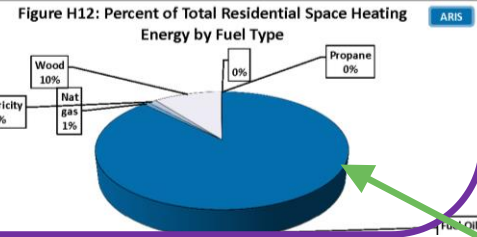
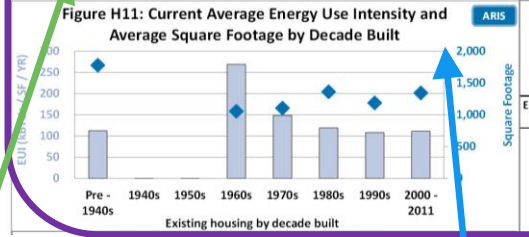
Space Heating, DHW, Appliances:
Estimated annual energy for the end uses of: Space Heating, Domestic Hot Water, and all other energy including lights, appliances, and electronics.

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

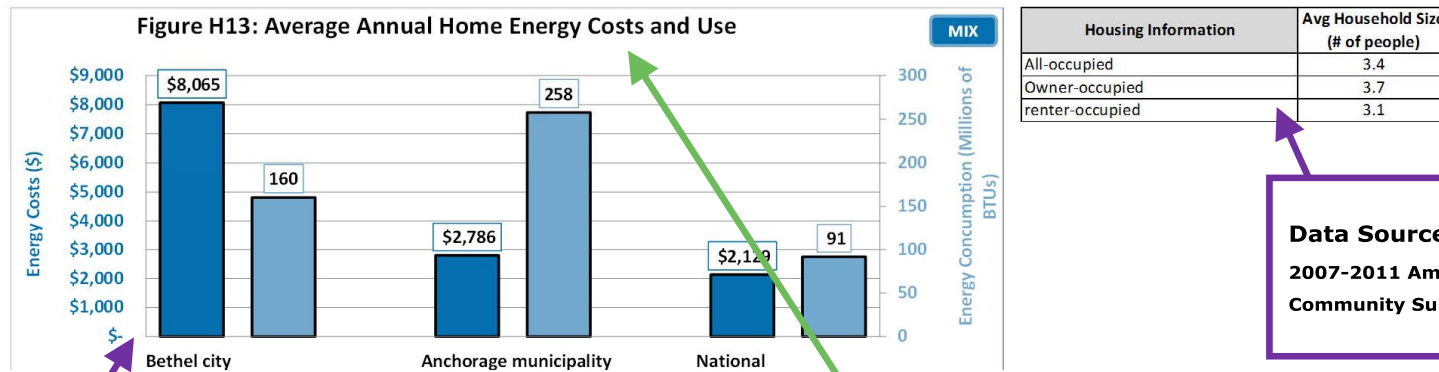
Communities are categorized in this report by the amount of ARIS data available, and reporting is more extensive for locations with more data. Data quantities are defined as--

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 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.

Data Source:
2007-2011 American Community Survey

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

4

Data Source:
2007-2011
American
Community
Survey.

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

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

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

| |
|--|
| Owner-occupied House with Mortgage, Median Value |
| \$226,800 |
| Owner-occupied House without a Mortgage, Median Value |
| \$119,600 |

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

| Median Household Expenses | | |
|---|-------------|-----------|
| | Monthly | Annual |
| All-occupied | \$ 1,369 | \$ 16,428 |
| Gross rent | \$ 1,201 | \$ 14,412 |
| Owner-occupied | \$ 1,610 | \$ 19,320 |
| Housing units w/ mortgage | \$ 1,854 | \$ 22,248 |
| Housing units w/out a mortgage | \$ 680 | \$ 8,160 |
| Avg % of Median Income Spent on Energy | 8.8% | |

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

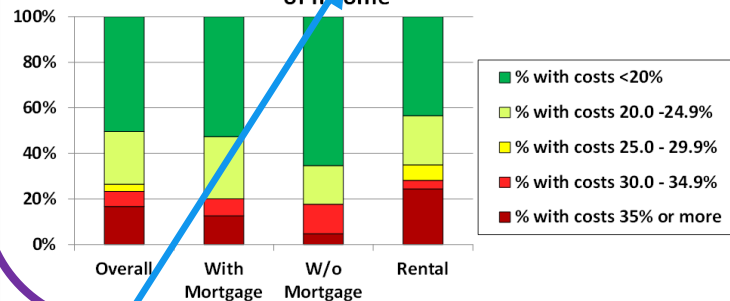
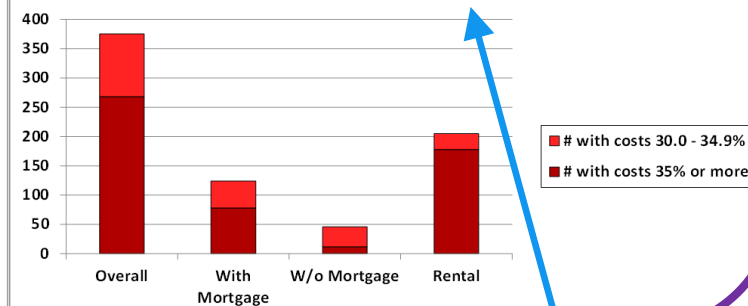


Figure H15: Number of Cost-Burdened Housing Units



Rental housing costs: Contract rent, fuels, utilities.

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

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

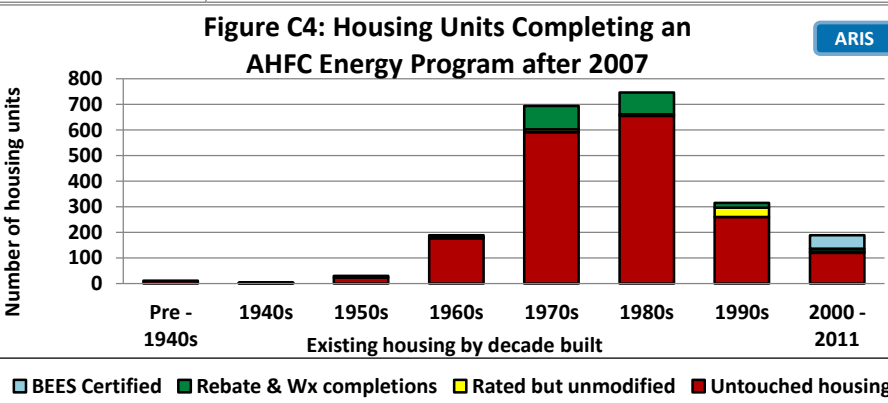
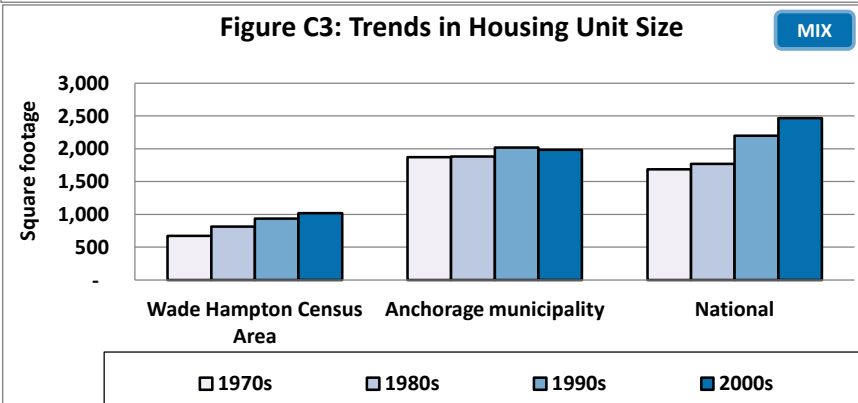
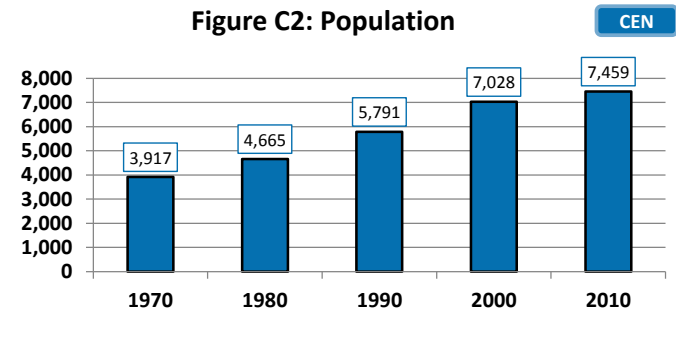
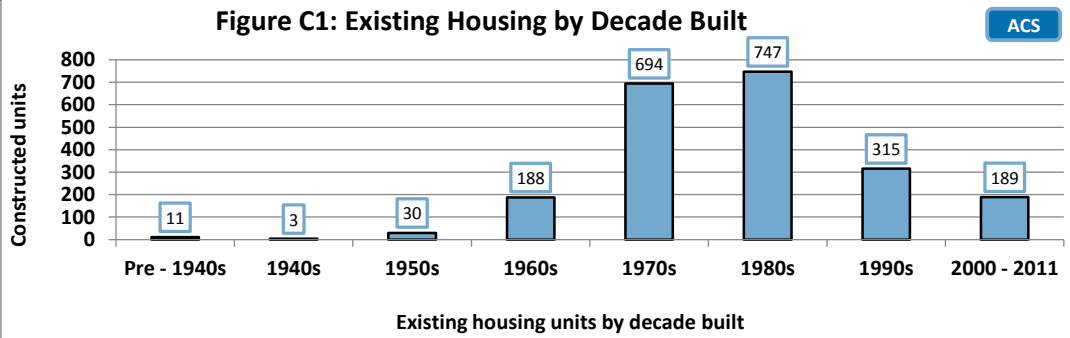
Census Area Profile for: Wade Hampton Census Area

ANCSA Region: Wade Hampton Census Area

Regional Housing Authority: AVCP Regional Housing Authority

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

COMMUNITY - Wade Hampton Census Area



| Houses Lacking Complete Plumbing or Kitchen Facilities | Households | |
|--|------------|---------|
| | Number | Percent |
| Lack complete plumbing | 617 | 36% |
| Lack complete kitchen | 487 | 28% |

| | |
|------------------------------------|---------|
| Avg Annual Energy Cost with PCE | \$5,958 |
| Avg Annual Energy Cost without PCE | \$7,659 |

| Weatherization Retrofits (funding increased 2008) | |
|---|-------|
| Date Range | Units |
| 2008 - 2011 | 220 |
| 2003 - 2007 | 108 |
| 1990 - 2002 | 25 |

| Estimated Total Annual Community Space Heating Fuel Use | | |
|---|---------|-----------|
| Fuel Oil | 698,691 | (gallons) |
| Natural Gas | - | (ccf) |
| Electricity | 588,658 | (kWh) |
| Wood | 4,322 | (cords) |
| Propane | - | (gallons) |
| Coal | - | (tons) |

| Housing Need Indicators | Number of Units | % Occupied Housing |
|-------------------------|-----------------|--------------------|
| Overcrowded | 878 | 51% |
| Housing cost burdened | 245 | 14% |
| 1 Star Homes | 416 | 24% |

| Housing Stock Estimates | Number of Units |
|---------------------------------|-----------------|
| All Housing | 2,177 |
| All Occupied Housing | 1,714 |
| All Vacant housing | 463 |
| Vacant Housing for Sale or Rent | 21 |

OVERCROWDING & VENTILATION - Wade Hampton Census Area

Figure C5: Overcrowded Units

ACS

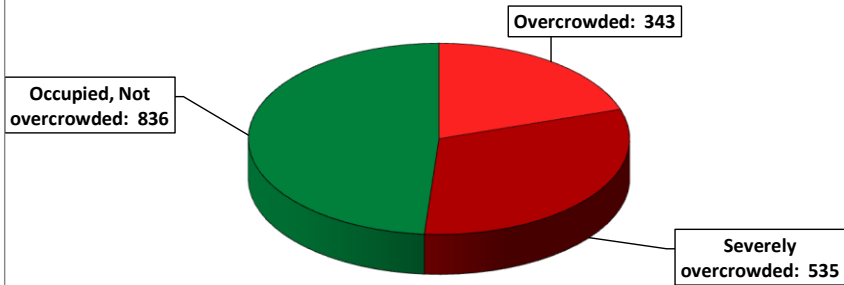


Figure C6: Housing Occupancy

MIX

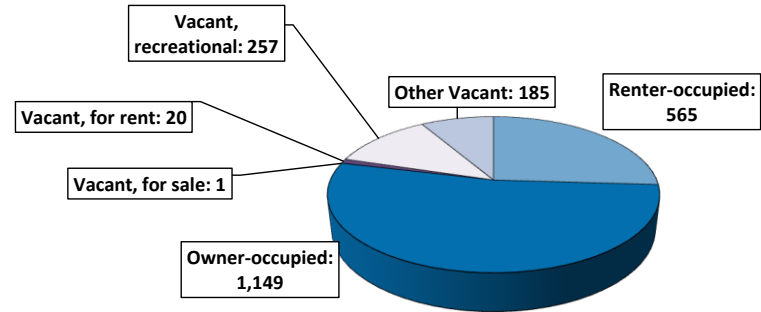


Figure C7: Average Air-Tightness of Current Homes by Decade Built

ARIS

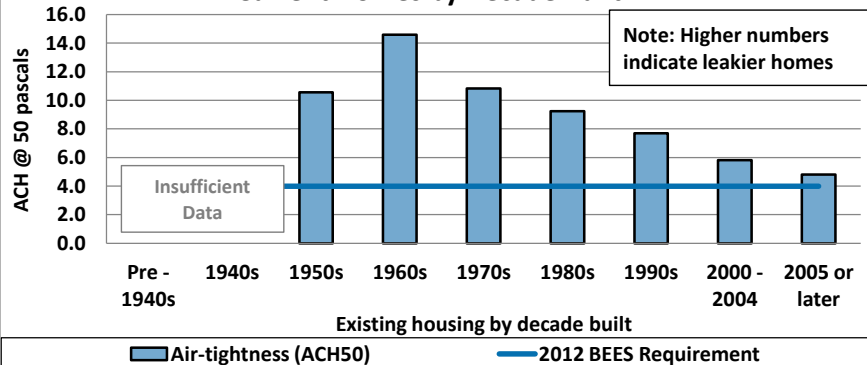


Figure C8: Existing Ventilation Type by Decade Built

ARIS

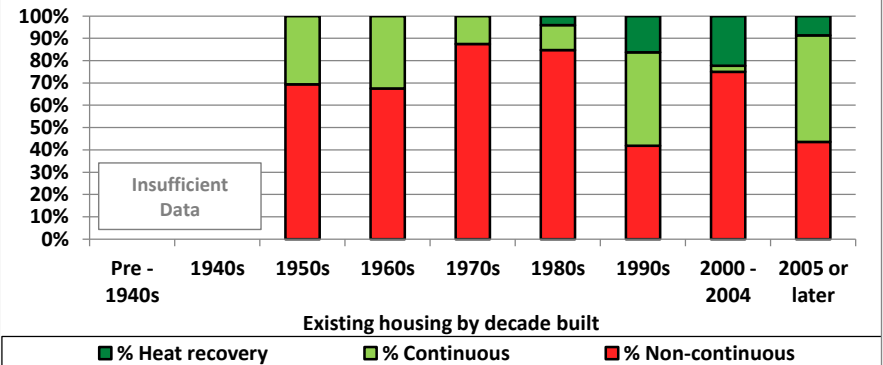


Figure C9: Percent of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS

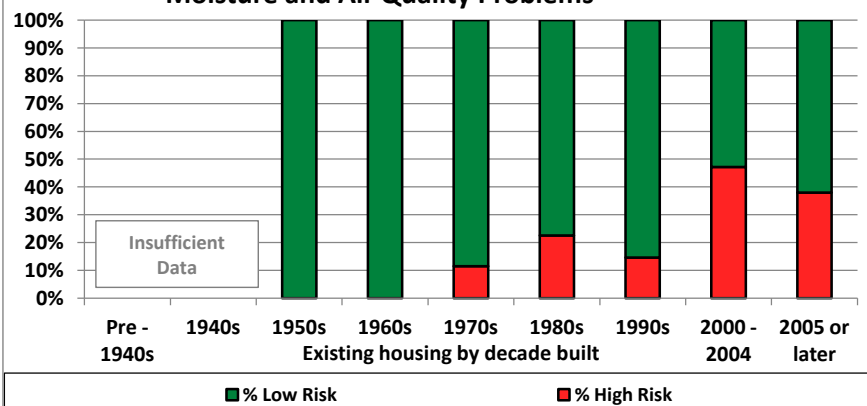
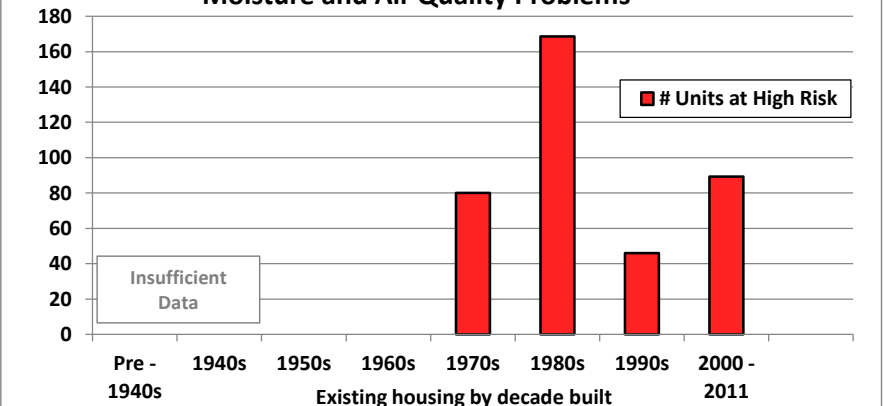


Figure C10: Quantity of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS



| ENERGY - Wade Hampton Census Area | | | | | | | | | | | | |
|---|---------------------|-------------------------|--------------------------|--------------|------------------------------------|---------------------------------------|--|-----|------------|-----------------------|--------------------|-------------------------|
| Current Wade Hampton 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 | 339 | 2-star | 56.5 | 781 | \$5,958 | 136 | 101 | 14 | 21 | 187 | \$8.18 | 10.9 |
| 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 | 7 | 1-star plus | 46.0 | 632 | \$4,894 | 157 | 127 | 7 | 24 | 314 | \$7.56 | 21.4 |
| 1960- 69 | 12 | 1-star | 38.4 | 542 | \$3,489 | 111 | 94 | 0 | 17 | 224 | \$7.25 | 14.8 |
| 1970- 79 | 102 | 1-star plus | 48.3 | 670 | \$5,785 | 140 | 108 | 12 | 20 | 213 | \$9.23 | 12.7 |
| 1980- 89 | 93 | 2-star | 60.0 | 813 | \$6,767 | 145 | 105 | 19 | 21 | 183 | \$8.51 | 10.3 |
| 1990- 99 | 55 | 2-star plus | 66.7 | 934 | \$5,914 | 124 | 93 | 9 | 22 | 145 | \$6.82 | 8.1 |
| 2000- 2004 | 17 | 3-star | 71.5 | 1,019 | \$6,672 | 148 | 97 | 26 | 25 | 150 | \$6.95 | 7.6 |
| 2005 or later | 53 | 4-star plus | 84.4 | 1,206 | \$5,022 | 93 | 47 | 26 | 20 | 82 | \$4.32 | 3.3 |

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

ARIS

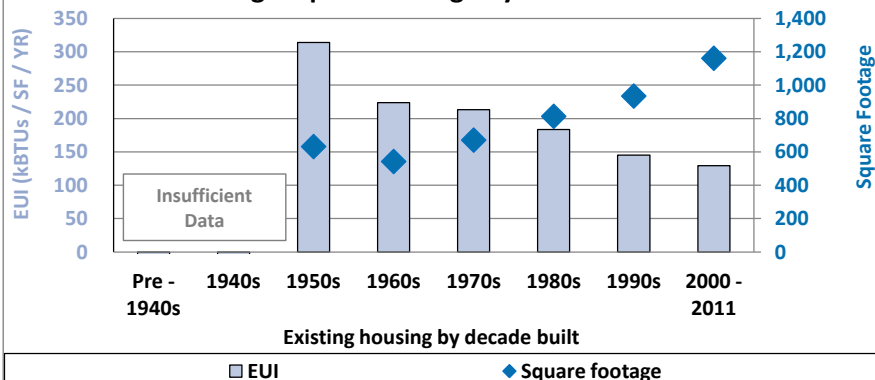
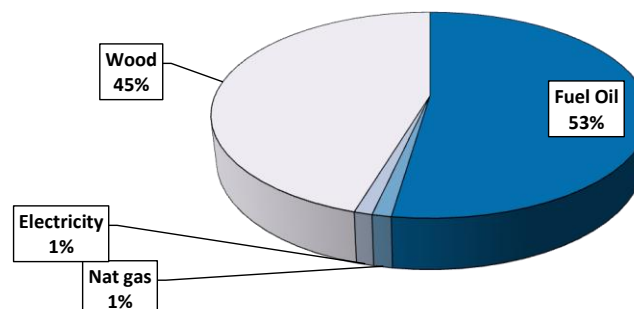


Figure C12: Percent of Total Residential Space Heating Energy by Fuel Type

ARIS

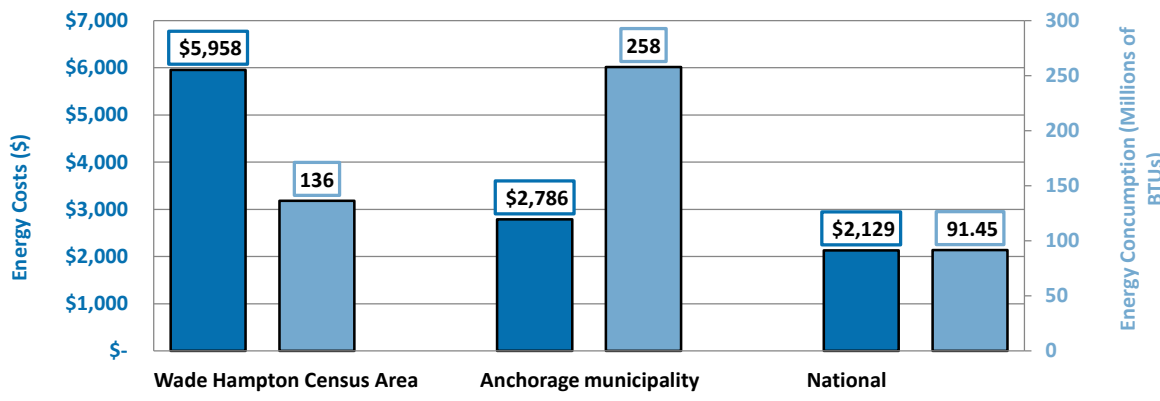


| Current Wade Hampton Census Area Housing Envelope Characteristics By Decade Built | | | | | | | | | | | |
|---|---------------------|--------|-----------|--------------------|--------------------|---------------------|------------------|---------------------|--------|---------------|----------|
| Current 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 | 339 | 9.4 | 23 | 16 | NR | 22 | NR | NR | 0.51 | NR | 0.70 |
| 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 | 7 | 10.6 | 25 | 13 | NR | 20 | NR | NR | 0.70 | NR | 0.82 |
| 1960- 69 | 12 | 14.6 | 12 | 13 | NR | 19 | NR | NR | 0.43 | NR | 0.66 |
| 1970- 79 | 102 | 10.8 | 19 | 14 | NR | 19 | NR | NR | 0.51 | NR | 0.76 |
| 1980- 89 | 93 | 9.2 | 26 | 18 | NR | 23 | NR | NR | 0.57 | NR | 0.69 |
| 1990- 99 | 55 | 7.7 | 26 | 20 | NR | 28 | NR | NR | 0.43 | NR | 0.69 |
| 2000- 2004 | 17 | 5.8 | 30 | 18 | NR | 26 | NR | NR | 0.39 | NR | 0.61 |
| 2005 or later | 53 | 4.8 | 40 | 21 | NR | 37 | NR | NR | 0.23 | NR | 0.35 |

| | | | | | | | | | | |
|----------------------------|-----|----|----|----|----|----|----|------|------|------|
| 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 - Wade Hampton Census Area

Figure C13: Average Annual Home Energy Cost and Use



| Housing Information | Avg Household Size (# of people) |
|---------------------|----------------------------------|
| All-occupied | 4.4 |
| Owner-occupied | 4.8 |
| Renter-occupied | 3.5 |

| Median Value of Owner-occupied House with Mortgage |
|--|
| \$114,400 |

| Median Value of Owner-occupied House without a Mortgage |
|---|
| \$73,400 |

| Median Annual Household Income | |
|--------------------------------|------------------|
| Housing Units | Household Income |
| All-occupied | \$ 39,583 |
| Renter-occupied | \$ 37,457 |
| Owner-occupied | \$ 41,332 |
| w/ mortgage | \$ 51,042 |
| w/o mortgage | \$ 35,302 |

| Median Housing Costs | | |
|--------------------------------|---------|----------|
| | Monthly | Annual |
| All-occupied | \$ 434 | \$ 5,208 |
| Gross rent | \$ 532 | \$ 6,384 |
| Owner-occupied | \$ 417 | \$ 5,004 |
| Housing units w/ mortgage | \$ 565 | \$ 6,780 |
| Housing units w/out a mortgage | \$ 342 | \$ 4,104 |

Avg % of Median Income Spent on Energy: **15.1%**

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

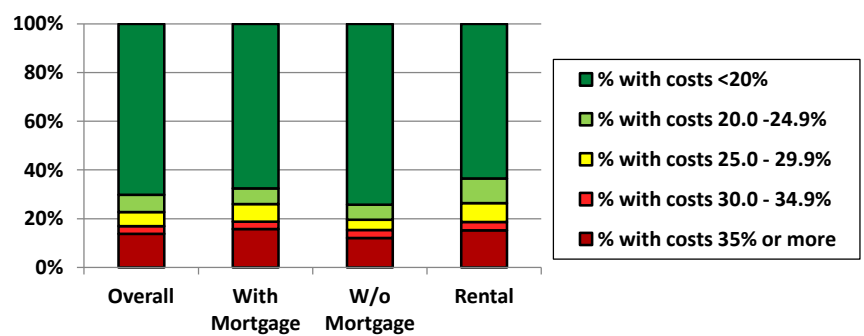
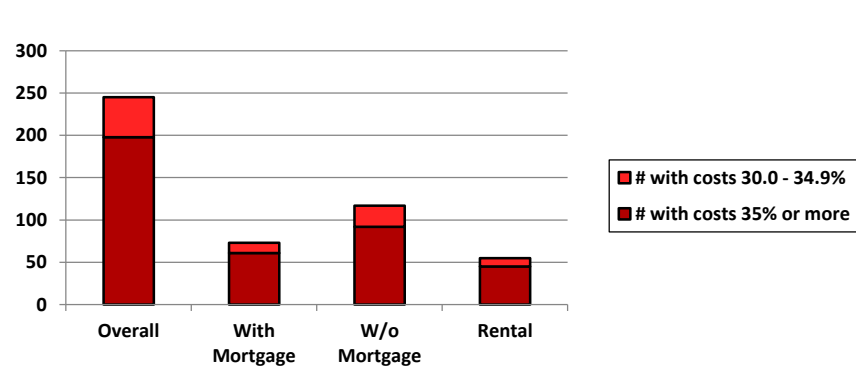


Figure C15: Number of Cost-Burdened Housing Units

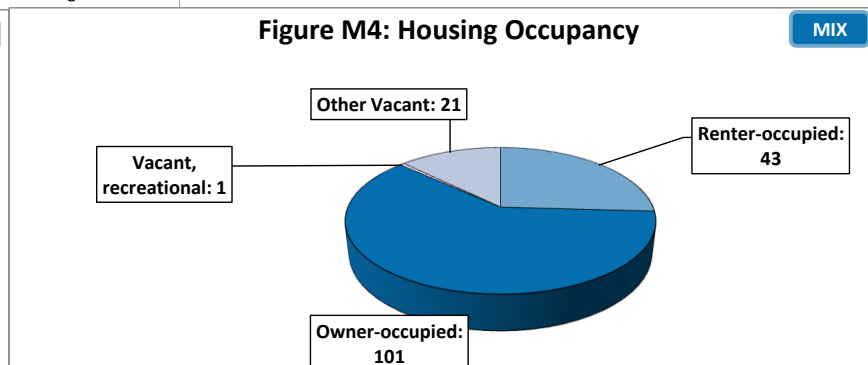
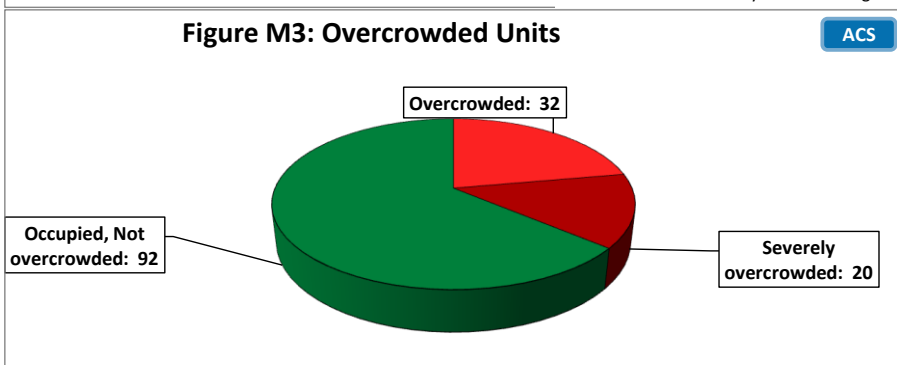
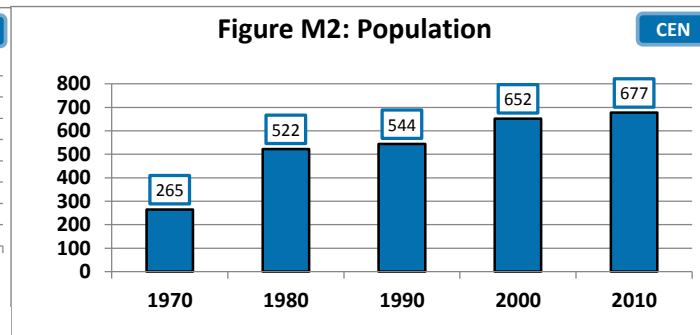
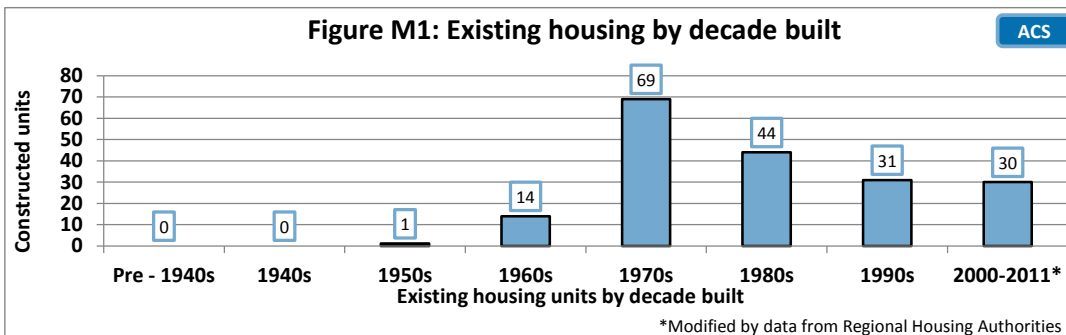


Community Profile for: Alakanuk city

ANCSA Region Calista

Regional Housing Authority AVCP Regional Housing Authority

BEES Climate Zone (Heating Degree Days) Zone 8 (13,339 HDD)



Alakanuk city Housing Energy Characteristics

| Residential Unit Categories | Number of records | Avg Energy Rating Stars | Avg Energy Rating Points | Avg Sq. Feet | Avg. Ann Energy Cost w/ PCE | Avg. Ann Energy Use (million BTUs) | Avg. EUI (kBtus/SF) | Avg. ECI | Avg. Home Heating Index | % Tight Homes, No Ventilation |
|-----------------------------|-------------------|-------------------------|--------------------------|--------------|-----------------------------|------------------------------------|---------------------|----------|-------------------------|-------------------------------|
| Pre-retrofit units | 64 | 2-star | 52.2 | 775 | \$ 7,864 | 148 | 202 | \$10.75 | 10.7 | 13% |
| Retrofit units | 63 | 3-star | 72.4 | 778 | \$ 6,108 | 81 | 108 | \$8.21 | 3.6 | 30% |
| New construction | 0 | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| Overall | 127 | 2-star | 59.8 | 776 | \$ 7,198 | 122 | 167 | \$9.79 | 8.0 | 19% |

Alakanuk city Housing Envelope Characteristics

| Residential Unit Categories | Number of Records | ACH 50 | Ceiling R | Above Grade Wall R | Below Grade Wall R | Above Grade Floor R | On Grade Floor R | Below Grade Floor R | Door U | Garage Door U | Window U |
|-----------------------------|-------------------|--------|-----------|--------------------|--------------------|---------------------|------------------|---------------------|--------|---------------|----------|
| Pre-retrofit units | 64 | 9.8 | 26 | 14 | NR | 22 | NR | NR | 0.62 | NR | 0.71 |
| Retrofit units | 63 | 6.2 | 38 | 20 | NR | 30 | NR | NR | 0.19 | NR | 0.39 |
| New construction | 0 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| Overall | 127 | 8.8 | 29 | 15 | NR | 24 | NR | NR | 0.50 | NR | 0.62 |

| | | | | | | | | | | |
|-----------|-----|----|----|----|----|----|----|------|------|------|
| BEES 2009 | 7.0 | 38 | 30 | 15 | 38 | 15 | 15 | 0.22 | 0.22 | 0.22 |
| BEES 2012 | 4.0 | 48 | 30 | 15 | 38 | 15 | 15 | 0.22 | 0.22 | 0.22 |

Figure M5: Average Annual Home Energy Costs and Use

MIX

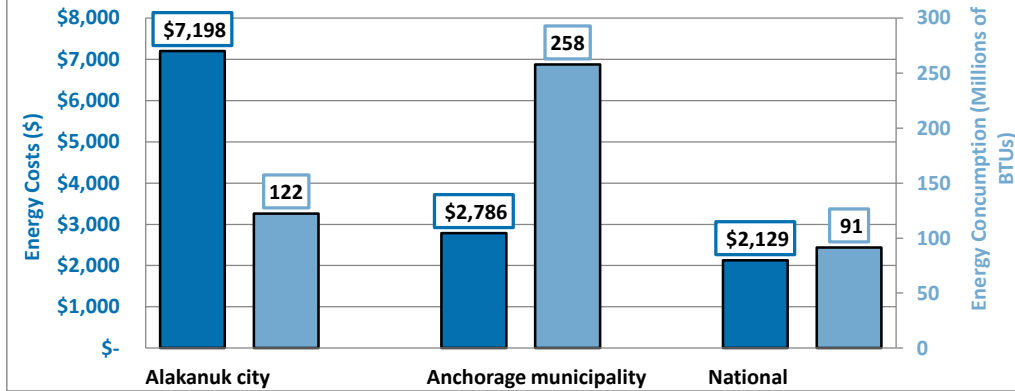
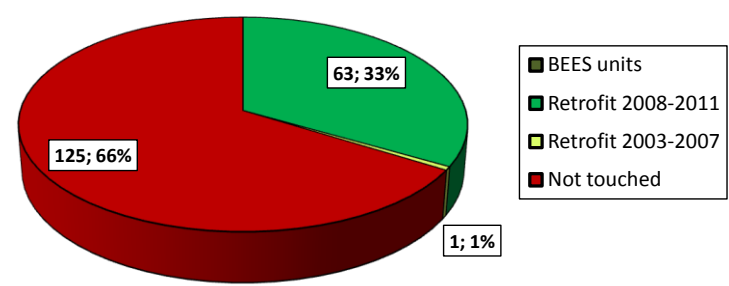


Figure M6: Housing Units Completing an AHFC Energy Program

ARIS



AFFORDABILITY - Alakanuk city

| Owner occupied House with Mortgage, Median Value | | Median Annual Household Income | | Median Housing Costs | | |
|---|---------|--------------------------------|------------------|--------------------------------|---------|-----------------|
| \$120,500 | | Housing Units | Household Income | | Monthly | Annual |
| | | All-occupied | \$ 38,333 | All-occupied | \$ 374 | \$ 4,488 |
| | | Renter-occupied | \$ 28,958 | Gross rent | \$ 394 | \$ 4,728 |
| | | Owner-occupied | \$ 41,023 | Owner-occupied | \$ 366 | \$ 4,392 |
| | | w/ mortgage | \$ 40,833 | Housing units w/ mortgage | \$ 450 | \$ 5,400 |
| | | w/o mortgage | \$ 41,094 | Housing units w/out a mortgage | \$ 328 | \$ 3,936 |
| Owner-occupied House without a Mortgage, Median Value | | Average Annual Energy Cost | | Housing Stock Estimates | | Number of Units |
| \$74,100 | | With PCE | \$7,198 | All Housing | 166 | |
| | | Without PCE | \$9,322 | All Occupied Housing | 144 | |
| | | | | All Vacant housing | 22 | |
| | | | | Vacant Housing for Sale/Rent | 0 | |
| Estimated Energy Prices as of January 2013 | | Avg % Income on Energy | | | | |
| #1 Fuel oil cost (\$ / gallon) | \$ 6.45 | 18.8% | | | | |
| Electricity with PCE (\$/kWh) | \$ 0.21 | | | | | |
| Electricity without PCE (\$/kWh) | \$ 0.58 | | | | | |

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

ACS

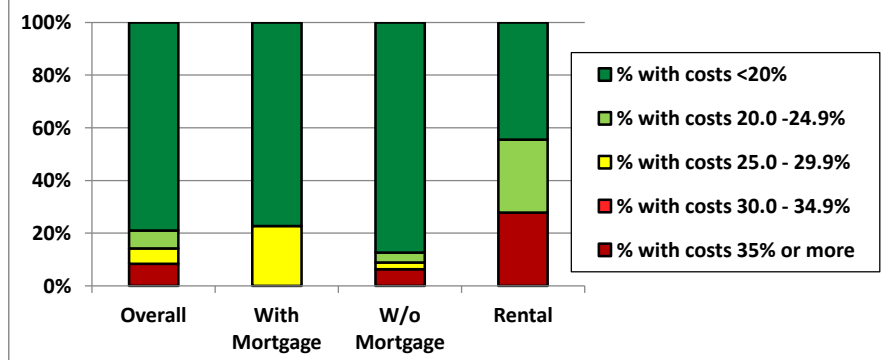
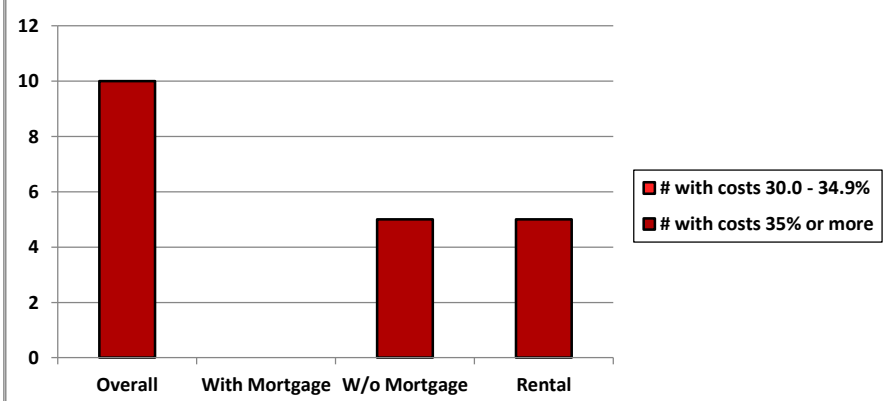


Figure M8: Number of Cost-Burdened Housing Units

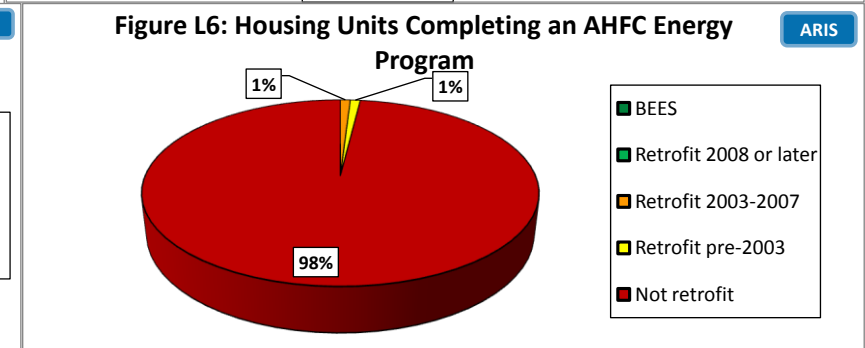
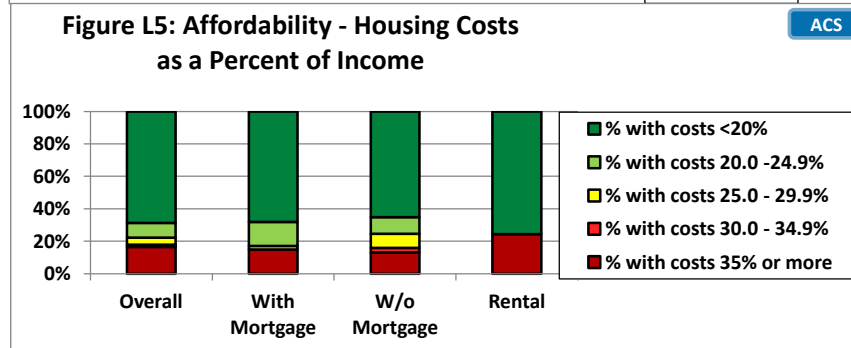
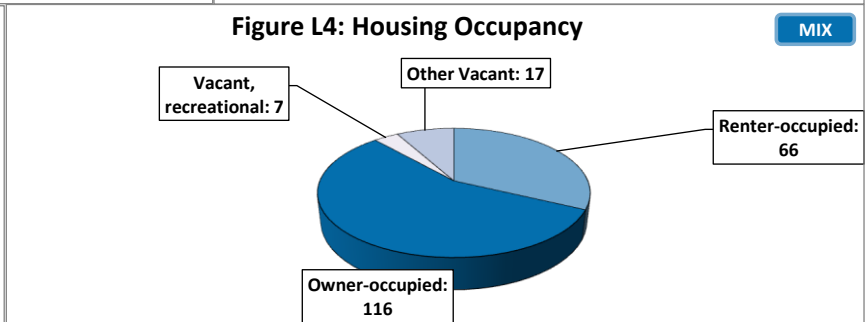
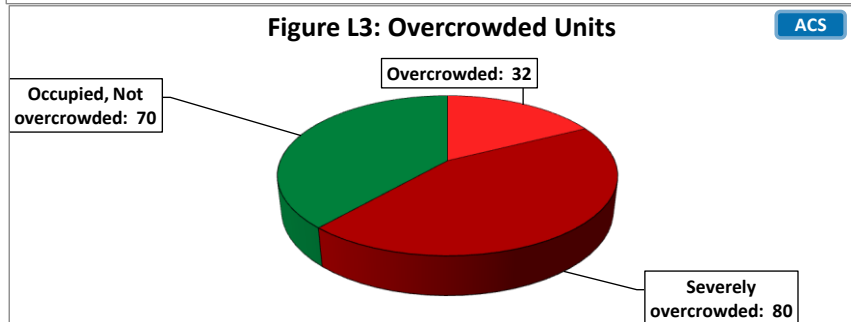
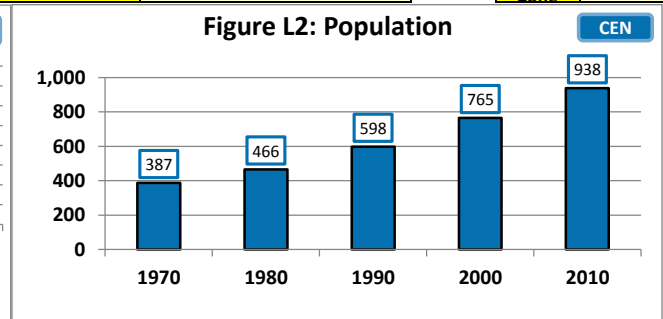
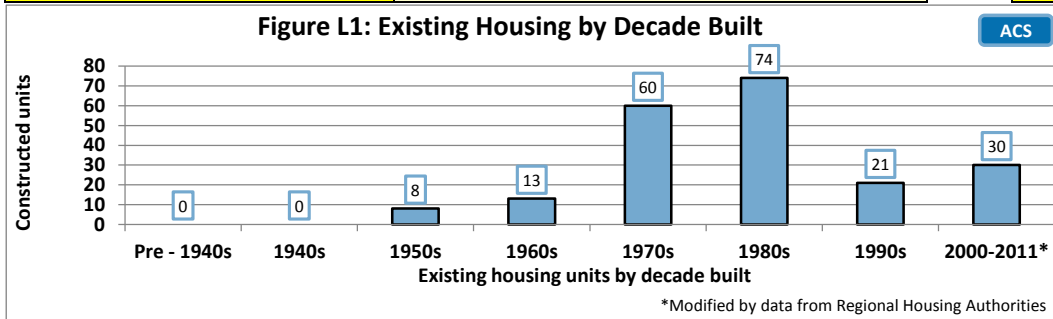
ACS



Community Profile for: Chevak city

ANCSA Region: Calista

Climate Zone: 8



| |
|---|
| Owner-occupied House with Mortgage, Median Value |
| \$122,500 |

| |
|--|
| Owner-occupied House without a Mortgage, Median Value |
| \$101,000 |

| | |
|---|---------|
| Estimated Energy Prices as of January 2013 | |
| #1 Fuel oil cost (\$ / gallon) | \$ 5.95 |
| Electricity with PCE (\$/kWh) | \$ 0.20 |
| Electricity without PCE (\$/kWh) | \$ 0.49 |

| | |
|---------------------------------------|------------------|
| Median Annual Household Income | |
| Housing Units | Household Income |
| All-occupied | \$ 33,269 |
| Renter-occupied | \$ 28,750 |
| Owner-occupied | \$ 35,000 |
| w/ mortgage | \$ 63,750 |
| w/o mortgage | \$ 28,750 |

| | |
|--------------------------------|-----------------|
| Housing Stock Estimates | |
| Housing Stock Estimates | Number of Units |
| All Housing | 206 |
| All Occupied Housing | 182 |
| All Vacant housing | 24 |

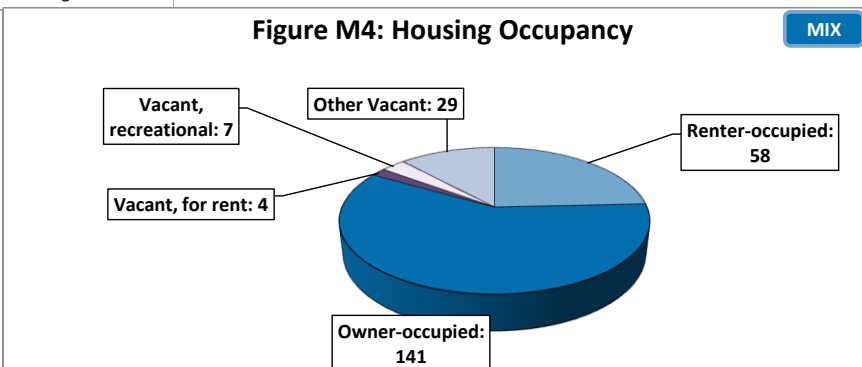
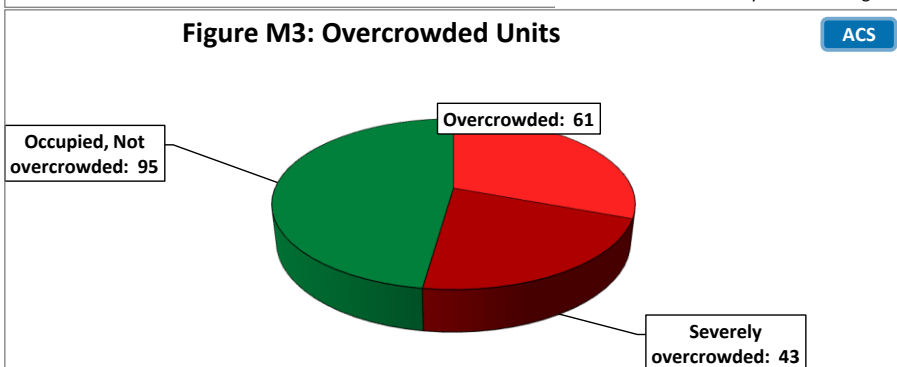
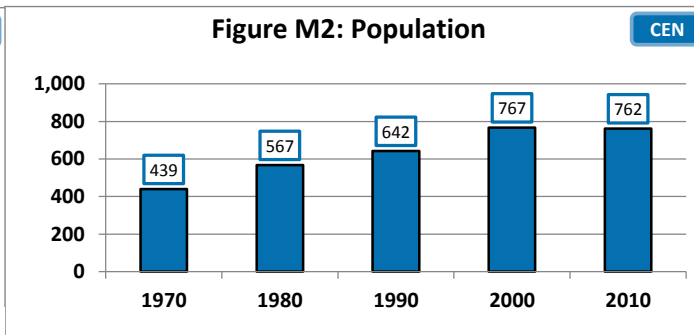
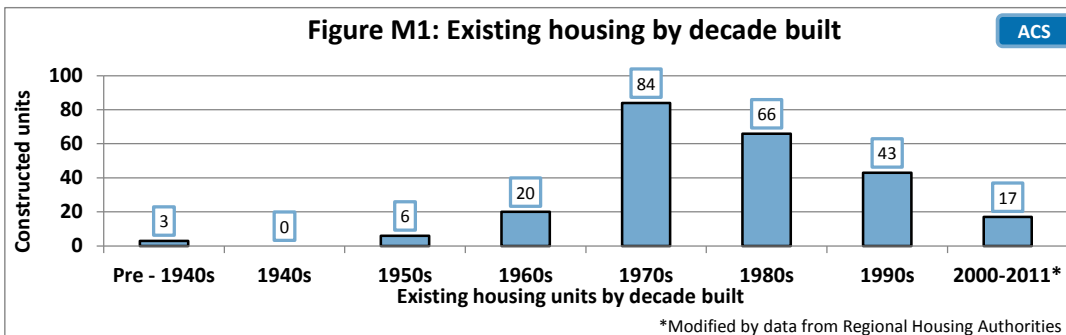
| | | |
|--------------------------------|---------|----------|
| Median Housing Costs | | |
| | Monthly | Annual |
| All-occupied | \$ 507 | \$ 6,084 |
| Gross rent | \$ 469 | \$ 5,628 |
| Owner-occupied | \$ 516 | \$ 6,192 |
| Housing units w/ mortgage | \$ 654 | \$ 7,848 |
| Housing units w/out a mortgage | \$ 356 | \$ 4,272 |

Community Profile for: Emmonak city

ANCSA Region Calista

Regional Housing Authority AVCP Regional Housing Authority

BEES Climate Zone (Heating Degree Days) Zone 8 (13,467 HDD)



Emmonak city Housing Energy Characteristics

| Residential Unit Categories | Number of records | Avg Energy Rating Stars | Avg Energy Rating Points | Avg Sq. Feet | Avg. Ann Energy Cost | Avg. Ann Energy Use (million BTUs) | Avg. EUI (kBtus/SF) | Avg. ECI | Avg. Home Heating Index | % Tight Homes, No Ventilation |
|-----------------------------|-------------------|-------------------------|--------------------------|--------------|----------------------|------------------------------------|---------------------|----------|-------------------------|-------------------------------|
| Pre-retrofit units | 31 | 1-star plus | 48.2 | 776 | \$ 6,817 | 148 | 194 | \$9.07 | 10.5 | 23% |
| Retrofit units | 31 | 3-star | 68.9 | 646 | \$ 3,684 | 60 | 99 | \$6.32 | 3.3 | 0% |
| New construction | 1 | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| Overall | 63 | 2-star | 51.1 | 760 | \$ 6,400 | 136 | 181 | \$8.69 | 9.5 | 20% |

Emmonak city Housing Envelope Characteristics

| Residential Unit Categories | Number of Records | ACH 50 | Ceiling R | Above Grade Wall R | Below Grade Wall R | Above Grade Floor R | On Grade Floor R | Below Grade Floor R | Door U | Garage Door U | Window U |
|-----------------------------|-------------------|--------|-----------|--------------------|--------------------|---------------------|------------------|---------------------|--------|---------------|----------|
| Pre-retrofit units | 31 | 8.9 | 21 | 15 | NR | 16 | NR | NR | 0.52 | NR | 0.79 |
| Retrofit units | 31 | 7.4 | 37 | 22 | NR | 28 | NR | NR | 0.19 | NR | 0.39 |
| New construction | 1 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| Overall | 63 | 8.8 | 22 | 16 | NR | 16 | NR | NR | 0.50 | NR | 0.76 |

| | | | | | | | | | | |
|-----------|-----|----|----|----|----|----|----|------|------|------|
| BEES 2009 | 7.0 | 38 | 30 | 15 | 38 | 15 | 15 | 0.22 | 0.22 | 0.22 |
| BEES 2012 | 4.0 | 48 | 30 | 15 | 38 | 15 | 15 | 0.22 | 0.22 | 0.22 |

Figure M5: Average Annual Home Energy Costs and Use

MIX

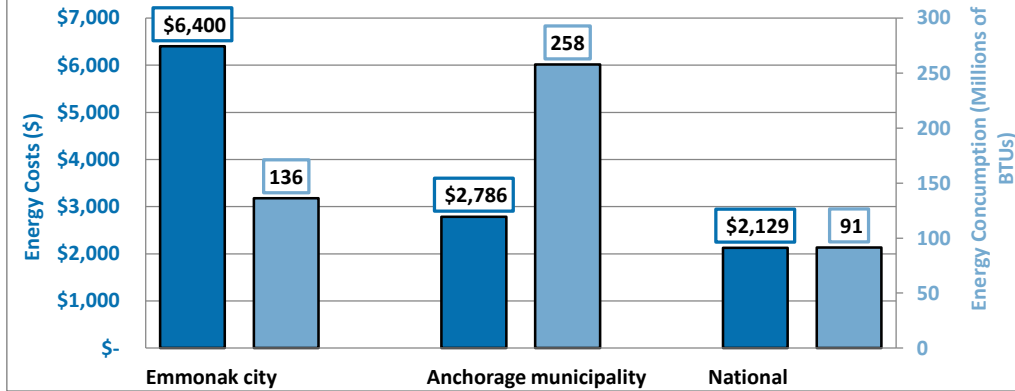
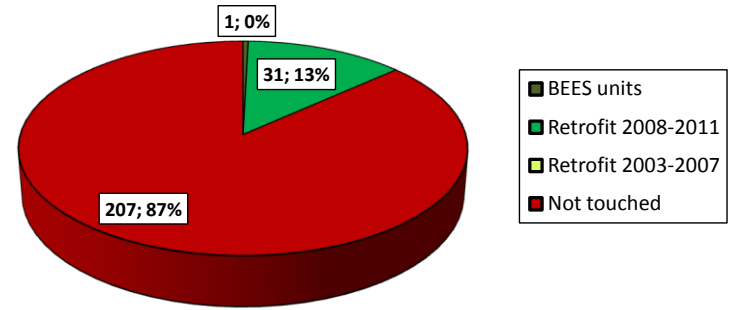


Figure M6: Housing Units Completing an AHFC Energy Program

ARIS



AFFORDABILITY - Emmonak city

| Owner occupied House with Mortgage, Median Value | | Median Annual Household Income | | Median Housing Costs | | |
|---|---------|--------------------------------|------------------|--------------------------------|---------|-----------------|
| \$120,300 | | Housing Units | Household Income | | Monthly | Annual |
| | | All-occupied | \$ 59,875 | All-occupied | \$ 485 | \$ 5,820 |
| | | Renter-occupied | \$ 59,000 | Gross rent | \$ 493 | \$ 5,916 |
| | | Owner-occupied | \$ 65,234 | Owner-occupied | \$ 480 | \$ 5,760 |
| | | w/ mortgage | \$ 72,188 | Housing units w/ mortgage | \$ 654 | \$ 7,848 |
| | | w/o mortgage | \$ 45,000 | Housing units w/out a mortgage | \$ 404 | \$ 4,848 |
| Owner-occupied House without a Mortgage, Median Value | | Average Annual Energy Cost | | Housing Stock Estimates | | Number of Units |
| \$75,700 | | With PCE | NO PCE | All Housing | 239 | |
| | | Without PCE | \$8,229 | All Occupied Housing | 199 | |
| | | | | All Vacant housing | 40 | |
| | | | | Vacant Housing for Sale/Rent | 4 | |
| Estimated Energy Prices as of January 2013 | | Avg % Income on Energy | | | | |
| #1 Fuel oil cost (\$ / gallon) | \$ 6.94 | 13.7% | | | | |
| Electricity with PCE (\$/kWh) | \$ 0.21 | | | | | |
| Electricity without PCE (\$/kWh) | \$ 0.54 | | | | | |

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

ACS

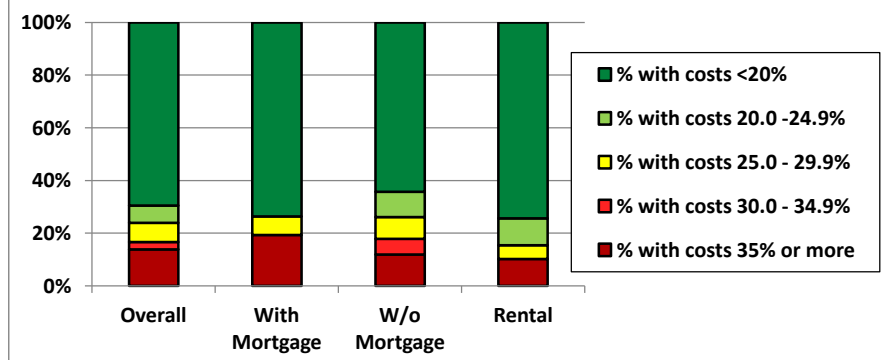
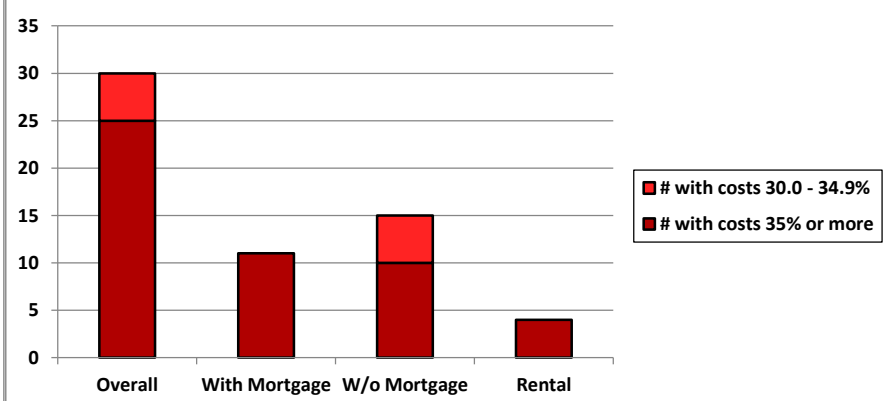


Figure M8: Number of Cost-Burdened Housing Units

ACS

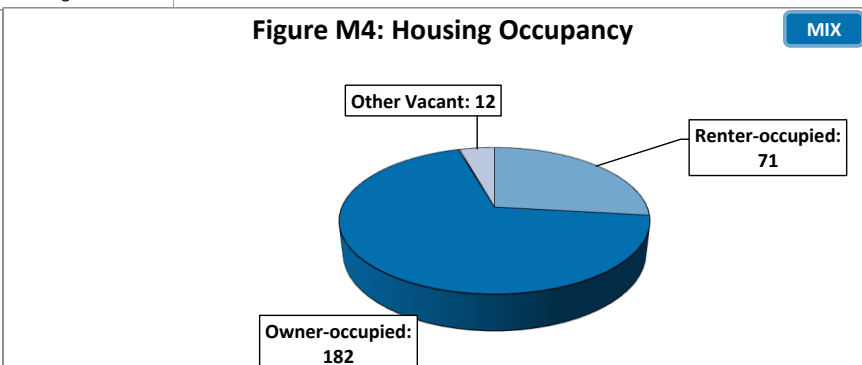
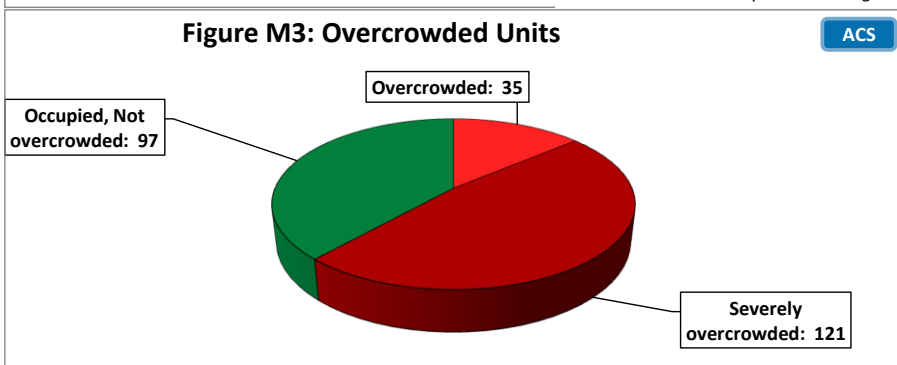
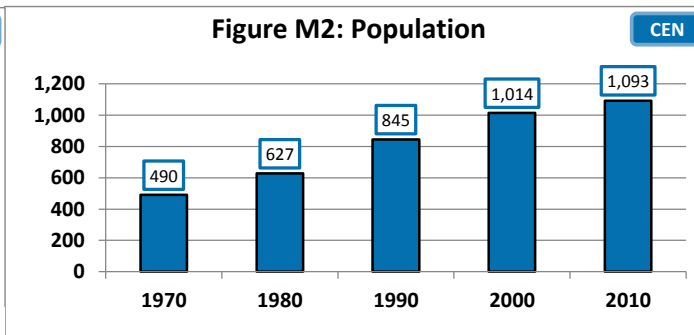
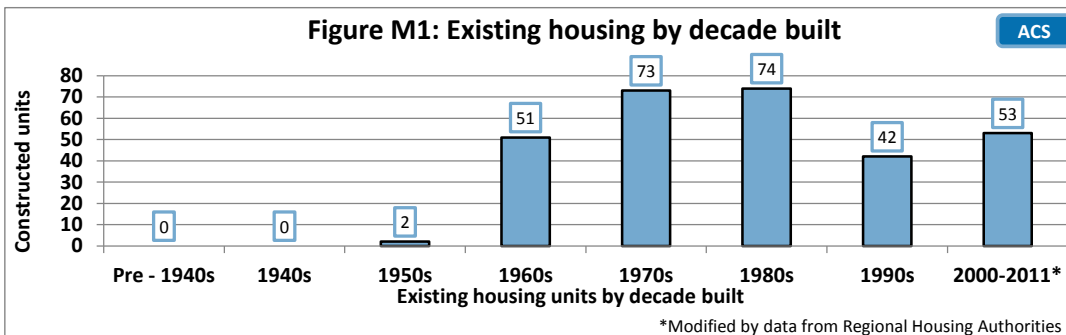


Community Profile for: Hooper Bay city

ANCSA Region Calista

Regional Housing Authority AVCP Regional Housing Authority

BEES Climate Zone (Heating Degree Days) Zone 8 (13,339 HDD)



Hooper Bay city Housing Energy Characteristics

| Residential Unit Categories | Number of records | Avg Energy Rating Stars | Avg Energy Rating Points | Avg Sq. Feet | Avg. Ann Energy Cost w/ PCE | Avg. Ann Energy Use (million BTUs) | Avg. EUI (kBtus/SF) | Avg. ECI | Avg. Home Heating Index | % Tight Homes, No Ventilation |
|-----------------------------|-------------------|-------------------------|--------------------------|--------------|-----------------------------|------------------------------------|---------------------|----------|-------------------------|-------------------------------|
| Pre-retrofit units | 83 | 2-star plus | 60.5 | 773 | \$ 4,886 | 99 | 138 | \$6.90 | 8.8 | 17% |
| Retrofit units | 26 | 3-star | 71.2 | 820 | \$ 3,867 | 71 | 103 | \$5.57 | 6.1 | 4% |
| New construction | 46 | 4-star plus | 86.6 | 208 | \$ 5,275 | 93 | 75 | \$4.27 | 2.5 | 0% |
| Overall | 155 | 2-star plus | 66.1 | 679 | \$ 4,854 | 95 | 124 | \$6.31 | 7.5 | 13% |

Hooper Bay city Housing Envelope Characteristics

| Residential Unit Categories | Number of Records | ACH 50 | Ceiling R | Above Grade Wall R | Below Grade Wall R | Above Grade Floor R | On Grade Floor R | Below Grade Floor R | Door U | Garage Door U | Window U |
|-----------------------------|-------------------|--------|-----------|--------------------|--------------------|---------------------|------------------|---------------------|--------|---------------|----------|
| Pre-retrofit units | 83 | 9.1 | 21 | 18 | NR | 21 | NR | NR | 0.40 | NR | 0.77 |
| Retrofit units | 26 | 7.7 | 26 | 21 | NR | 33 | NR | NR | 0.42 | NR | 0.59 |
| New construction | 46 | 4.5 | 44 | 21 | NR | 40 | NR | NR | 0.22 | NR | 0.31 |
| Overall | 155 | 8.2 | 23 | 19 | NR | 23 | NR | NR | 0.37 | NR | 0.67 |

| | | | | | | | | | | |
|-----------|-----|----|----|----|----|----|----|------|------|------|
| BEES 2009 | 7.0 | 38 | 30 | 15 | 38 | 15 | 15 | 0.22 | 0.22 | 0.22 |
| BEES 2012 | 4.0 | 48 | 30 | 15 | 38 | 15 | 15 | 0.22 | 0.22 | 0.22 |

Figure M5: Average Annual Home Energy Costs and Use

MIX

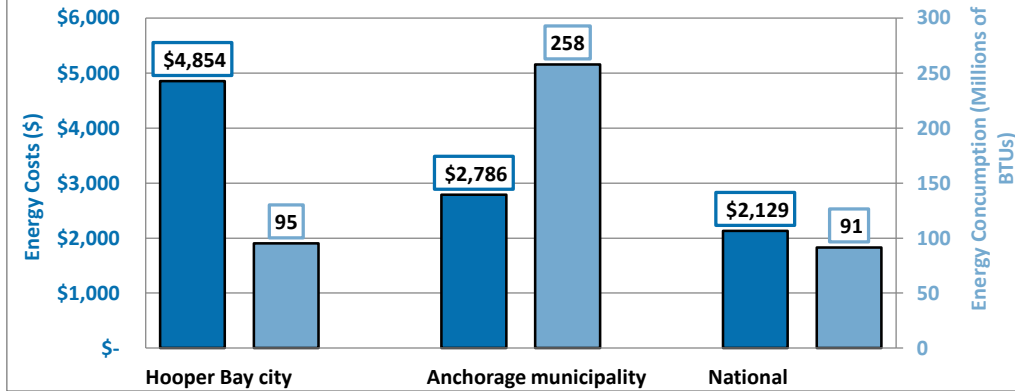
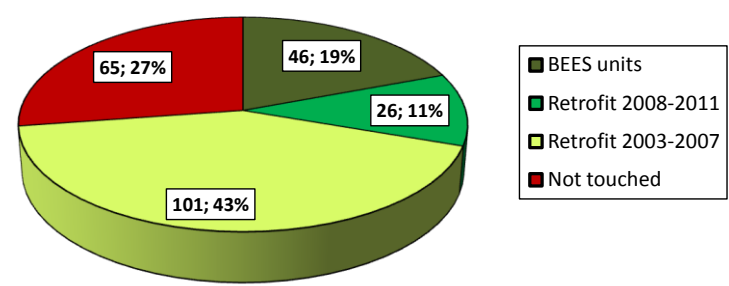


Figure M6: Housing Units Completing an AHFC Energy Program

ARIS



AFFORDABILITY - Hooper Bay city

| |
|--|
| Owner occupied House with Mortgage, Median Value |
| \$208,300 |
| Owner-occupied House without a Mortgage, Median Value |
| \$52,800 |

| Median Annual Household Income | |
|--------------------------------|------------------|
| Housing Units | Household Income |
| All-occupied | \$ 35,938 |
| Renter-occupied | \$ 34,659 |
| Owner-occupied | \$ 40,500 |
| w/ mortgage | \$ 44,375 |
| w/o mortgage | \$ 30,469 |

| Median Housing Costs | | |
|--------------------------------|---------|----------|
| | Monthly | Annual |
| All-occupied | \$ 337 | \$ 4,044 |
| Gross rent | \$ 380 | \$ 4,560 |
| Owner-occupied | \$ 322 | \$ 3,864 |
| Housing units w/ mortgage | \$ 430 | \$ 5,160 |
| Housing units w/out a mortgage | \$ 246 | \$ 2,952 |

| Estimated Energy Prices as of January 2013 | |
|--|---------|
| #1 Fuel oil cost (\$ / gallon) | \$ 7.37 |
| Electricity with PCE (\$/kWh) | \$ 0.21 |
| Electricity without PCE (\$/kWh) | \$ 0.51 |

| Average Annual Energy Cost | |
|----------------------------|---------|
| With PCE | \$4,854 |
| Without PCE | \$6,320 |

| Housing Stock Estimates | Number of Units |
|------------------------------|-----------------|
| All Housing | 265 |
| All Occupied Housing | 253 |
| All Vacant housing | 12 |
| Vacant Housing for Sale/Rent | 0 |

| | |
|-------------------------------|--------------|
| Avg % Income on Energy | 13.5% |
|-------------------------------|--------------|

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

ACS

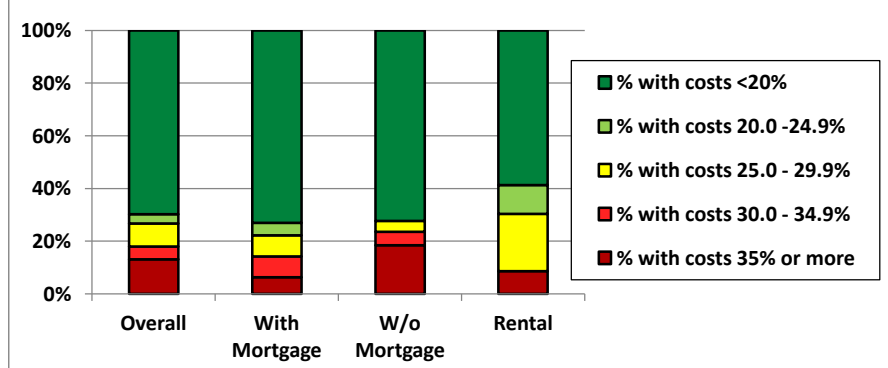
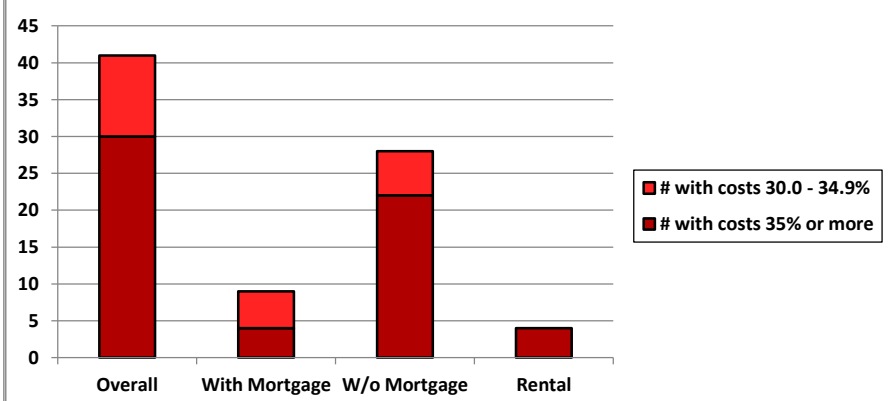


Figure M8: Number of Cost-Burdened Housing Units

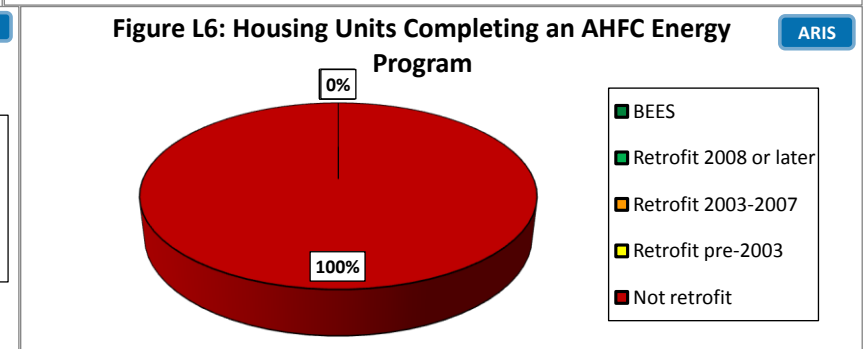
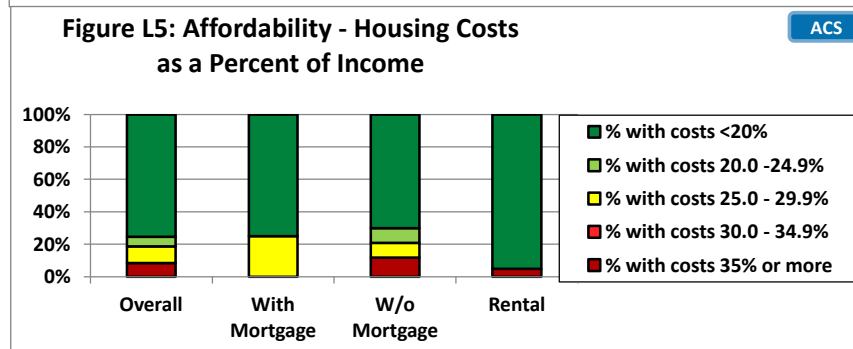
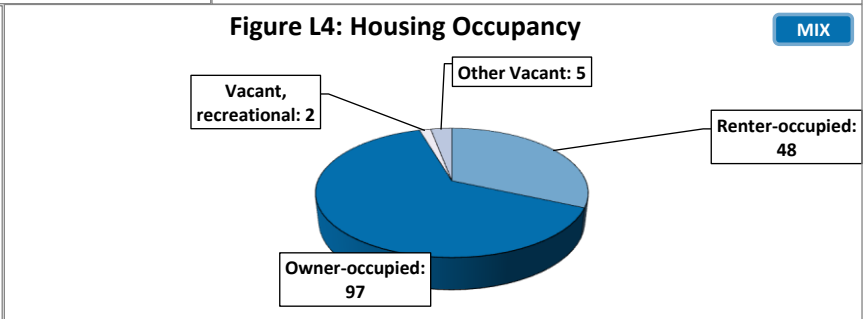
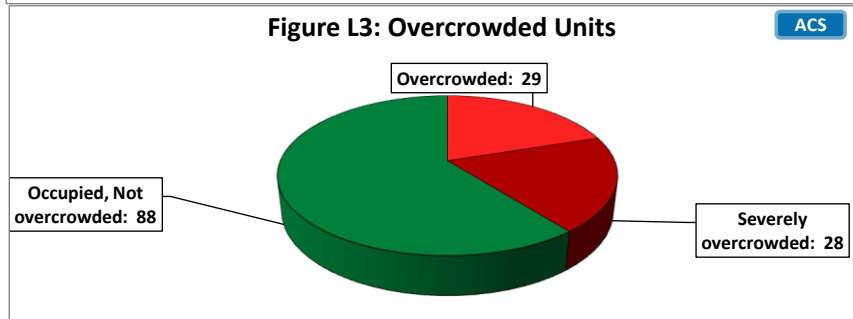
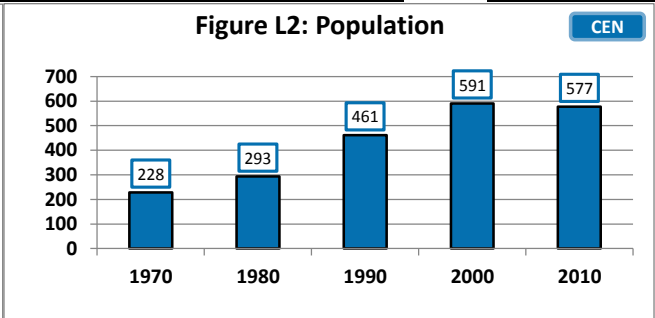
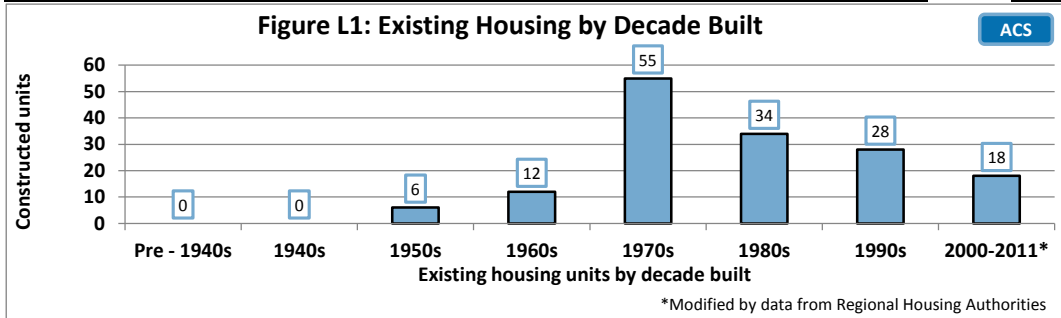
ACS



Community Profile for: Kotlik city

ANCSA Region: Calista

Climate Zone: 8



| Owner-occupied House with Mortgage, Median Value |
|--|
| \$33,300 |

| Owner-occupied House without a Mortgage, Median Value |
|---|
| \$69,000 |

| Median Annual Household Income | |
|--------------------------------|------------------|
| Housing Units | Household Income |
| All-occupied | \$ 33,438 |
| Renter-occupied | \$ 34,167 |
| Owner-occupied w/ mortgage | \$ 66,875 |
| Owner-occupied w/o mortgage | \$ 30,781 |

| Median Housing Costs | | |
|--------------------------------|---------|----------|
| | Monthly | Annual |
| All-occupied | \$ 379 | \$ 4,548 |
| Gross rent | \$ 339 | \$ 4,068 |
| Owner-occupied | \$ 393 | \$ 4,716 |
| Housing units w/ mortgage | \$ 467 | \$ 5,604 |
| Housing units w/out a mortgage | \$ 353 | \$ 4,236 |

| Estimated Energy Prices as of January 2013 | |
|--|---------|
| #1 Fuel oil cost (\$ / gallon) | \$ 6.85 |
| Electricity with PCE (\$/kWh) | \$ 0.21 |
| Electricity without PCE (\$/kWh) | \$ 0.58 |

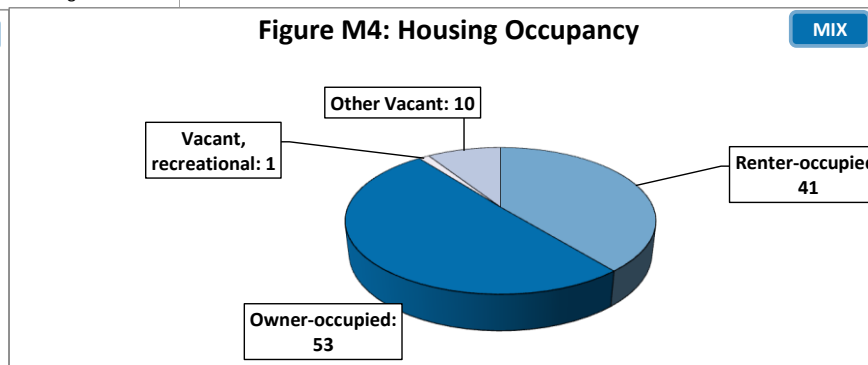
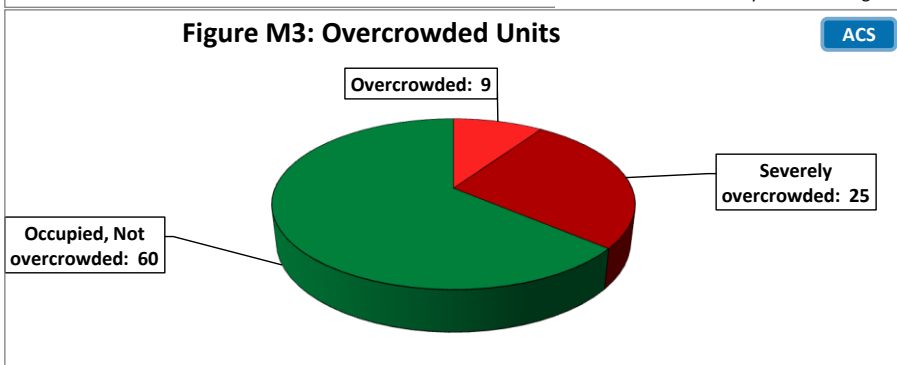
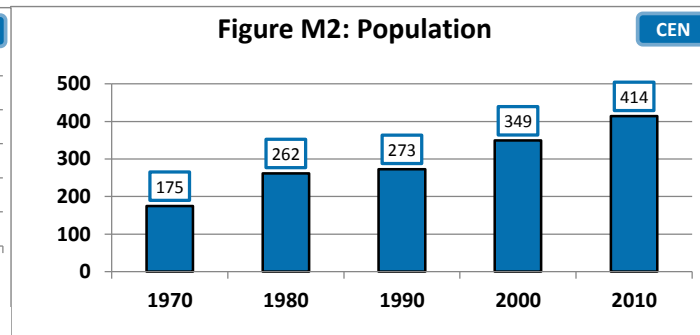
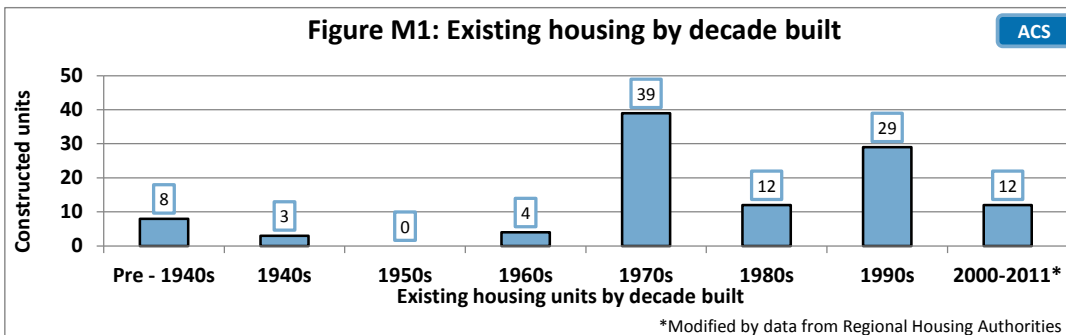
| Housing Stock Estimates | Number of Units |
|-------------------------|-----------------|
| All Housing | 152 |
| All Occupied Housing | 145 |
| All Vacant housing | 7 |

Community Profile for: Marshall city

ANCSA Region: Calista

Regional Housing Authority: AVCP Regional Housing Authority

BEES Climate Zone (Heating Degree Days): Zone 8 (12,785 HDD)



| Residential Unit Categories | Number of records | Avg Energy Rating Stars | Avg Energy Rating Points | Avg Sq. Feet | Avg. Ann Energy Cost | Avg. Ann Energy Use (million BTUs) | Avg. EUI (kBtus/SF) | Avg. ECI | Avg. Home Heating Index | % Tight Homes, No Ventilation |
|-----------------------------|-------------------|-------------------------|--------------------------|--------------|----------------------|------------------------------------|---------------------|----------|-------------------------|-------------------------------|
| Pre-retrofit units | 15 | 1-star plus | 44.6 | 804 | \$ 7,733 | 217 | 302 | \$10.76 | 17.1 | 60% |
| Retrofit units | 0 | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| New construction | 4 | 5-star plus | 94.1 | 351 | \$ 3,578 | 69 | 49 | \$2.55 | 1.8 | 0% |
| Overall | 19 | 1-star plus | 46.5 | 787 | \$ 7,574 | 212 | 292 | \$10.45 | 16.6 | 58% |

| Residential Unit Categories | Number of Records | ACH 50 | Ceiling R | Above Grade Wall R | Below Grade Wall R | Above Grade Floor R | On Grade Floor R | Below Grade Floor R | Door U | Garage Door U | Window U |
|-----------------------------|-------------------|--------|-----------|--------------------|--------------------|---------------------|------------------|---------------------|--------|---------------|----------|
| Pre-retrofit units | 15 | 8.8 | 17 | 10 | NR | 19 | NR | NR | 0.38 | NR | 0.84 |
| Retrofit units | 0 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| New construction | 4 | 3.3 | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| Overall | 19 | 8.5 | 17 | 10 | NR | 19 | NR | NR | 0.38 | NR | 0.84 |

| | | | | | | | | | | |
|-----------|-----|----|----|----|----|----|----|------|------|------|
| BEES 2009 | 7.0 | 38 | 30 | 15 | 38 | 15 | 15 | 0.22 | 0.22 | 0.22 |
| BEES 2012 | 4.0 | 48 | 30 | 15 | 38 | 15 | 15 | 0.22 | 0.22 | 0.22 |

Figure M5: Average Annual Home Energy Costs and Use

MIX

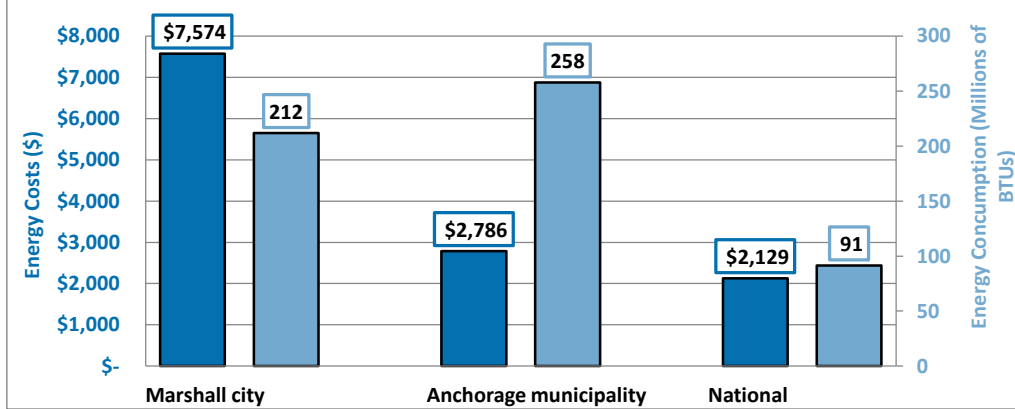
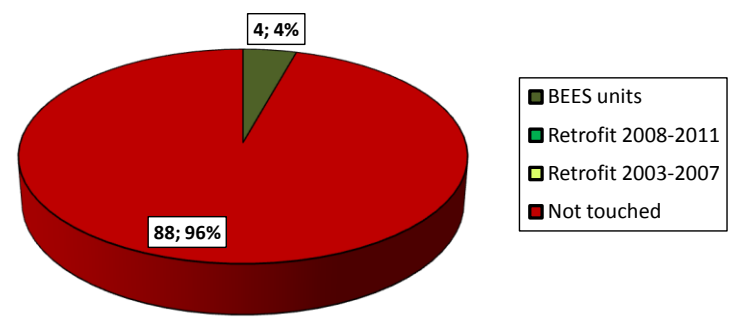


Figure M6: Housing Units Completing an AHFC Energy Program

ARIS



AFFORDABILITY - Marshall city

| | |
|--|-----------|
| Owner occupied House with Mortgage, Median Value | \$145,800 |
| Owner-occupied House without a Mortgage, Median Value | \$57,500 |

| Median Annual Household Income | |
|--------------------------------|------------------|
| Housing Units | Household Income |
| All-occupied | \$ 38,333 |
| Renter-occupied | \$ 36,250 |
| Owner-occupied | \$ 38,750 |
| w/ mortgage | \$ 66,250 |
| w/o mortgage | \$ 32,500 |

| Median Housing Costs | | |
|--------------------------------|---------|----------|
| | Monthly | Annual |
| All-occupied | \$ 615 | \$ 7,380 |
| Gross rent | \$ 600 | \$ 7,200 |
| Owner-occupied | \$ 612 | \$ 7,344 |
| Housing units w/ mortgage | \$ 659 | \$ 7,908 |
| Housing units w/out a mortgage | \$ 544 | \$ 6,528 |

| Estimated Energy Prices as of January 2013 | |
|--|---------|
| #1 Fuel oil cost (\$ / gallon) | \$ 6.73 |
| Electricity with PCE (\$/kWh) | \$ 0.20 |
| Electricity without PCE (\$/kWh) | \$ 0.49 |

| Average Annual Energy Cost | |
|----------------------------|---------|
| With PCE | NO PCE |
| Without PCE | \$9,198 |

| Housing Stock Estimates | Number of Units |
|------------------------------|-----------------|
| All Housing | 105 |
| All Occupied Housing | 94 |
| All Vacant housing | 11 |
| Vacant Housing for Sale/Rent | 0 |

Avg % Income on Energy **24.0%**

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

ACS

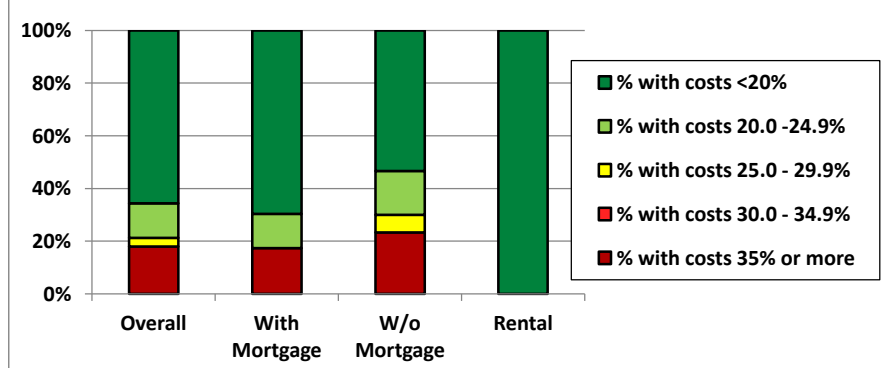
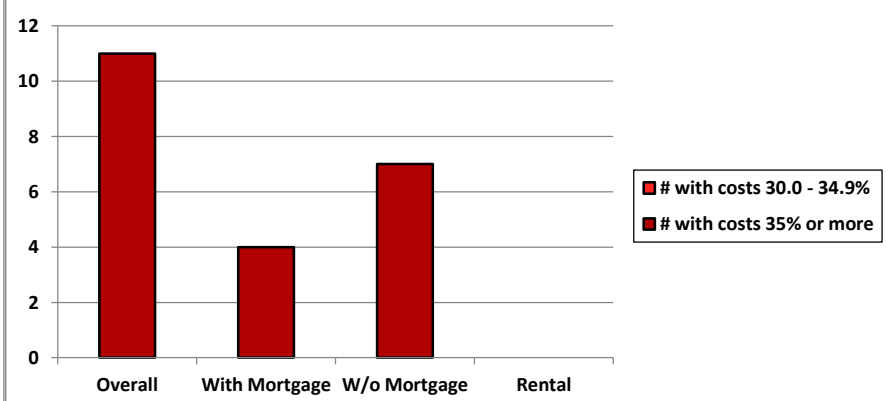


Figure M8: Number of Cost-Burdened Housing Units

ACS

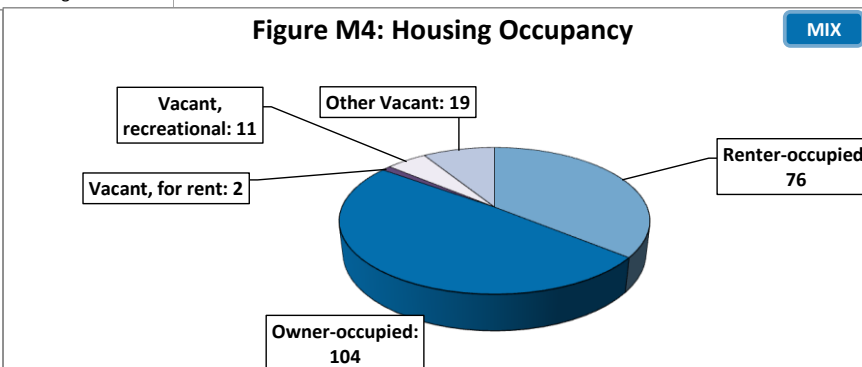
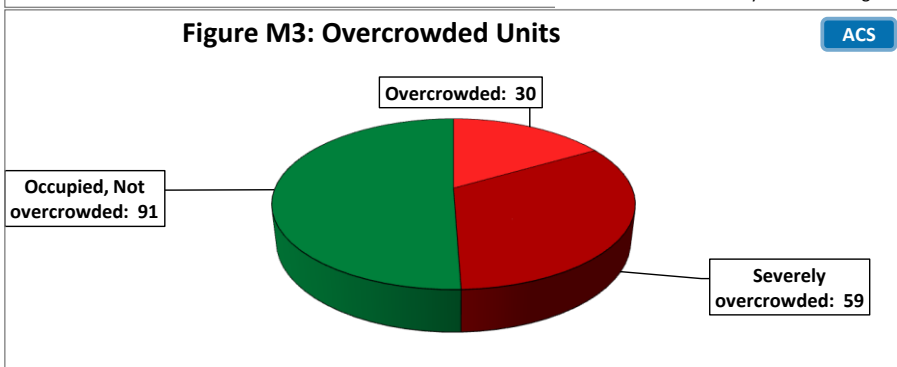
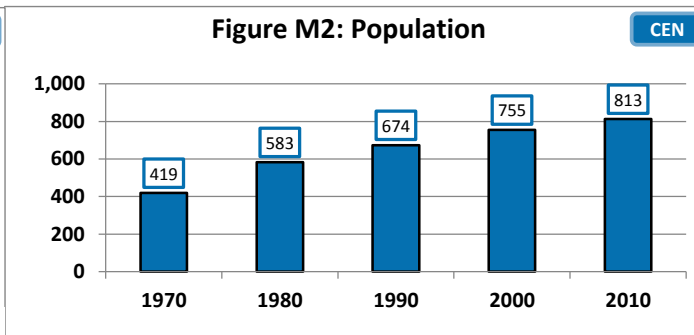
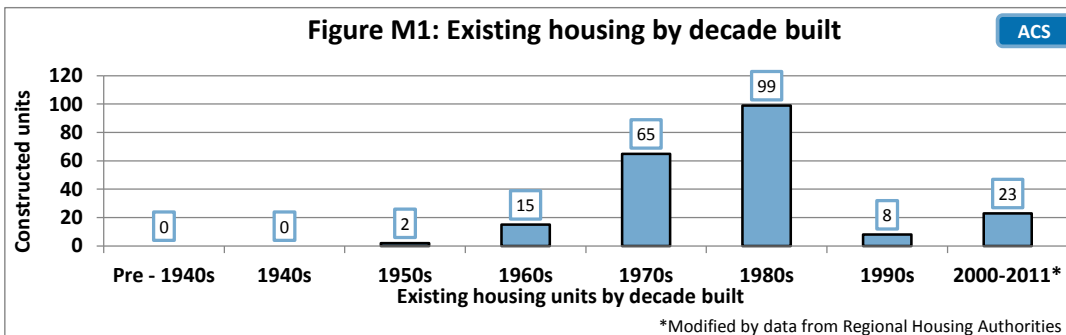


Community Profile for: Mountain Village city

ANCSA Region Calista

Regional Housing Authority AVCP Regional Housing Authority

BEES Climate Zone (Heating Degree Days) Zone 8 (13,448 HDD)



| Mountain Village city Housing Energy Characteristics | | | | | | | | | | |
|--|-------------------|-------------------------|--------------------------|--------------|----------------------|------------------------------------|---------------------|----------|-------------------------|-------------------------------|
| Residential Unit Categories | Number of records | Avg Energy Rating Stars | Avg Energy Rating Points | Avg Sq. Feet | Avg. Ann Energy Cost | Avg. Ann Energy Use (million BTUs) | Avg. EUI (kBtus/SF) | Avg. ECI | Avg. Home Heating Index | % Tight Homes, No Ventilation |
| Pre-retrofit units | 17 | 2-star plus | 63.4 | 867 | \$ 7,747 | 194 | 233 | \$9.16 | 12.0 | 41% |
| Retrofit units | 0 | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| New construction | 0 | NR | NR | NR | NR | NR | NR | NR | NR | NR |

| Mountain Village city Housing Envelope Characteristics | | | | | | | | | | | |
|--|-------------------|--------|-----------|--------------------|--------------------|---------------------|------------------|---------------------|--------|---------------|----------|
| Residential Unit Categories | Number of Records | ACH 50 | Ceiling R | Above Grade Wall R | Below Grade Wall R | Above Grade Floor R | On Grade Floor R | Below Grade Floor R | Door U | Garage Door U | Window U |
| Pre-retrofit units | 17 | 8.2 | 22 | 18 | NR | 31 | NR | NR | 0.36 | NR | 0.84 |
| Retrofit units | 0 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| New construction | 0 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |

| | | | | | | | | | | |
|-----------|-----|----|----|----|----|----|----|------|------|------|
| BEES 2009 | 7.0 | 38 | 30 | 15 | 38 | 15 | 15 | 0.22 | 0.22 | 0.22 |
| BEES 2012 | 4.0 | 48 | 30 | 15 | 38 | 15 | 15 | 0.22 | 0.22 | 0.22 |

Figure M5: Average Annual Home Energy Costs and Use

MIX

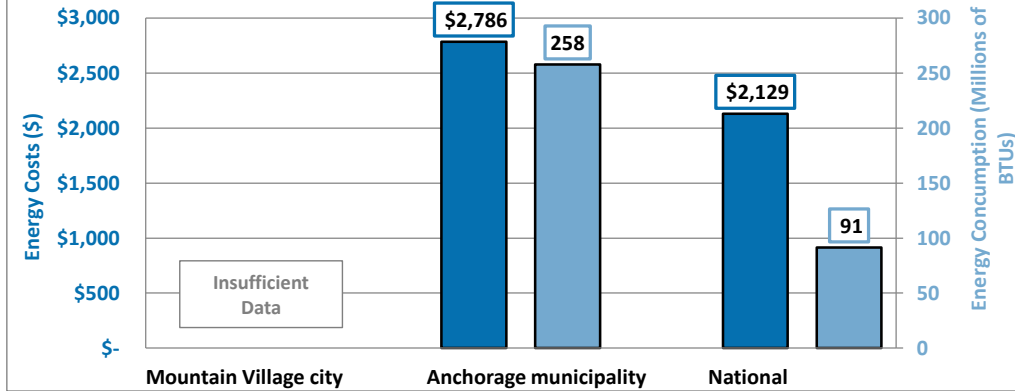
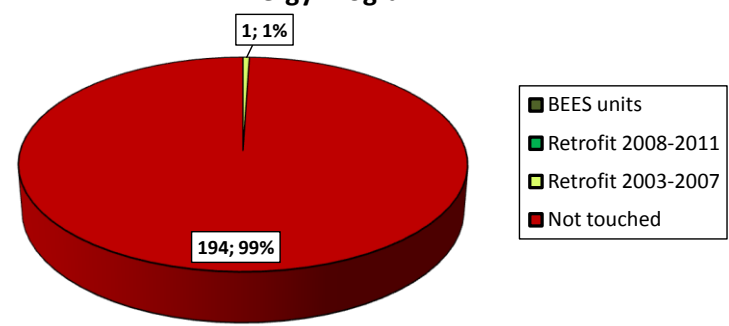


Figure M6: Housing Units Completing an AHFC Energy Program

ARIS



AFFORDABILITY - Mountain Village city

| |
|--|
| Owner occupied House with Mortgage, Median Value |
| \$71,700 |
| Owner-occupied House without a Mortgage, Median Value |
| \$70,500 |

| Median Annual Household Income | |
|--------------------------------|------------------|
| Housing Units | Household Income |
| All-occupied | \$ 47,000 |
| Renter-occupied | \$ 46,875 |
| Owner-occupied | \$ 48,750 |
| w/ mortgage | \$ 41,563 |
| w/o mortgage | \$ 50,375 |

| Median Housing Costs | | |
|--------------------------------|---------|----------|
| | Monthly | Annual |
| All-occupied | \$ 441 | \$ 5,292 |
| Gross rent | \$ 575 | \$ 6,900 |
| Owner-occupied | \$ 445 | \$ 5,340 |
| Housing units w/ mortgage | \$ 664 | \$ 7,968 |
| Housing units w/out a mortgage | \$ 421 | \$ 5,052 |

| Estimated Energy Prices as of January 2013 | |
|--|---------|
| #1 Fuel oil cost (\$ / gallon) | \$ 7.76 |
| Electricity with PCE (\$/kWh) | \$ 0.21 |
| Electricity without PCE (\$/kWh) | \$ 0.53 |

| Average Annual Energy Cost | |
|----------------------------|---------|
| With PCE | NO PCE |
| Without PCE | \$9,532 |

| Housing Stock Estimates | Number of Units |
|------------------------------|-----------------|
| All Housing | 212 |
| All Occupied Housing | 180 |
| All Vacant housing | 32 |
| Vacant Housing for Sale/Rent | 2 |

| | |
|-------------------------------|--------------|
| Avg % Income on Energy | 20.3% |
|-------------------------------|--------------|

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

ACS

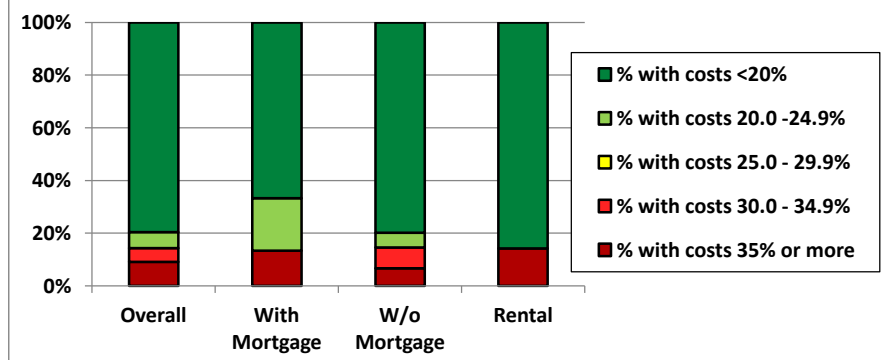
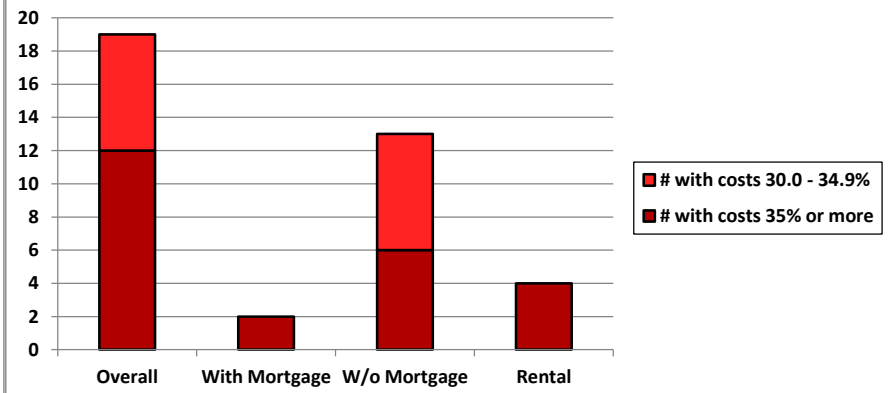


Figure M8: Number of Cost-Burdened Housing Units

ACS



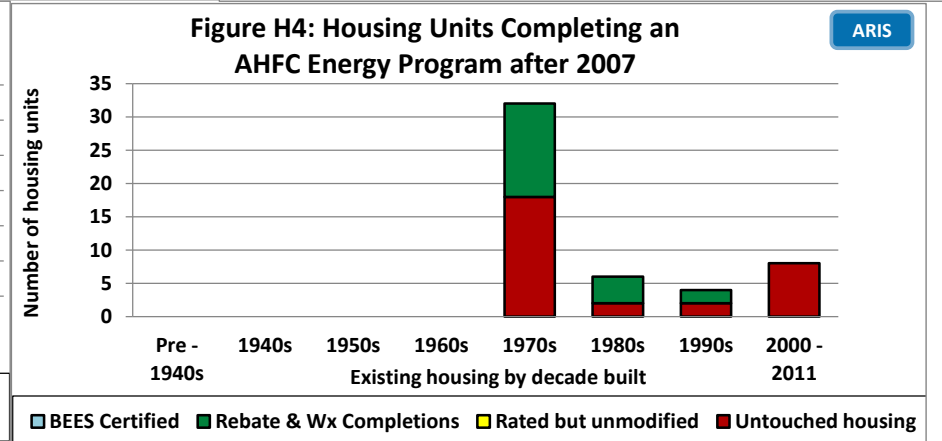
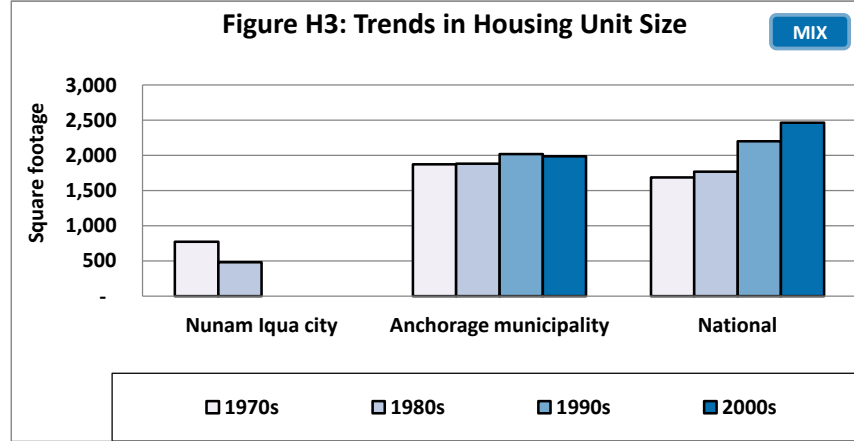
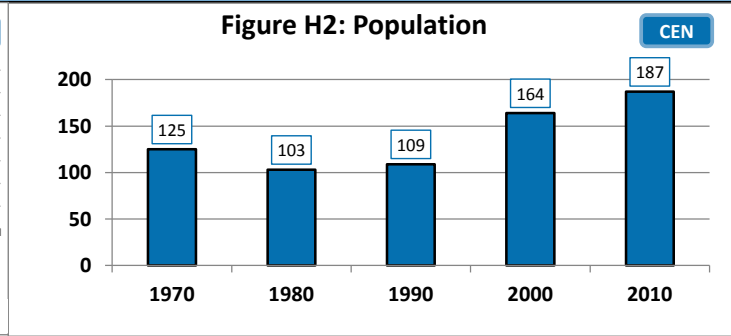
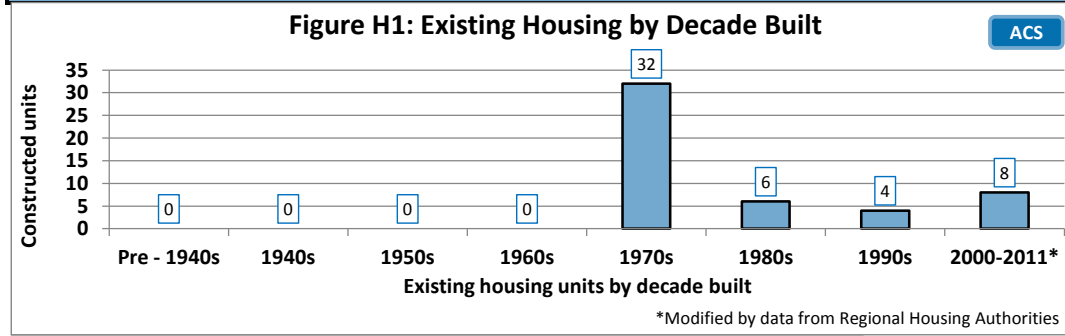
Community Profile for: Nunam Iqua city

ANCSA Region: Calista

Regional Housing Authority: AVCP Regional Housing Authority

BEES Climate Zone (Heating Degree Days): Zone 8 (13,467 HDD)

COMMUNITY - Nunam Iqua city



| Houses Lacking Complete Plumbing or Kitchen Facilities | Households | |
|--|------------|---------|
| | Number | Percent |
| Lack complete plumbing | 23 | 61% |
| Lack complete kitchen | 20 | 53% |

| | |
|------------------------------------|---------|
| Avg Annual Energy Cost with PCE | \$4,681 |
| Avg Annual Energy Cost without PCE | \$5,857 |

| Weatherization Program Retrofits (funding increased in 2008) | |
|--|-------|
| Date Range | Units |
| 2008-2011 | 20 |
| 2003-2007 | - |
| 1990-2002 | 1 |

| Estimated Total Annual Community Space Heating Fuel Use | | |
|---|--------|-----------|
| Fuel Oil | 12,531 | (gallons) |
| Nat Gas | - | (ccf) |
| Electricity | 11,010 | (kWh) |
| Wood | 102 | (cords) |
| Propane | - | (gallons) |
| Coal | - | (tons) |

| Estimated Energy Prices as of January 2013 | |
|--|--------|
| #1 Fuel oil cost (\$ / gallon) | \$6.76 |
| Electricity with PCE (\$/kWh) | \$0.30 |
| Electricity cost without PCE (\$/kWh) | \$0.53 |

| Housing Stock Estimates | Number of Units |
|---------------------------------|-----------------|
| All Housing | 45 |
| All Occupied Housing | 38 |
| All Vacant housing | 7 |
| Vacant Housing for Sale or Rent | 2 |

OVERCROWDING & VENTILATION - Nunam Iqua city

Figure H5: Overcrowded Units

ACS

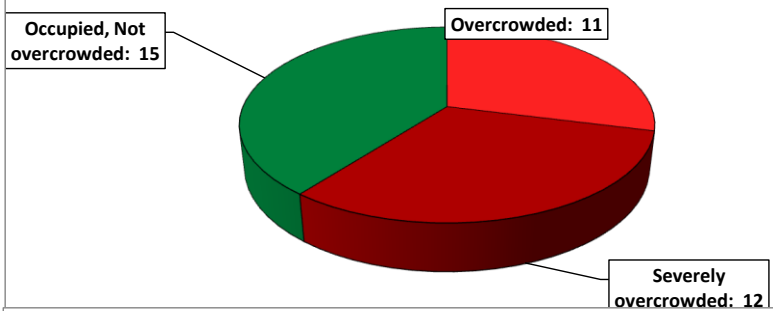


Figure H6: Housing Occupancy

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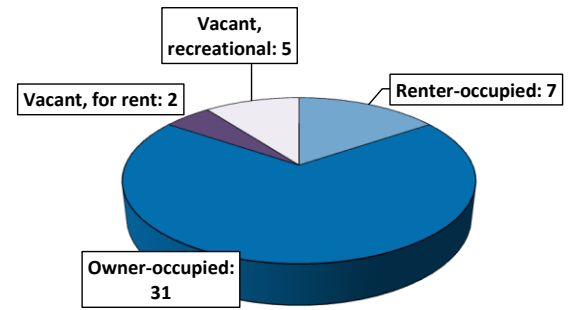


Figure H7: Average Air-Tightness of Current Homes by Decade Built

ARIS

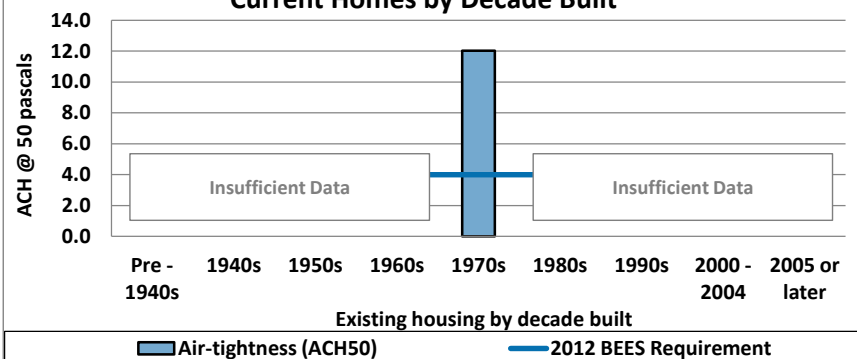


Figure H8: Existing Ventilation Type by Decade Built

ARIS

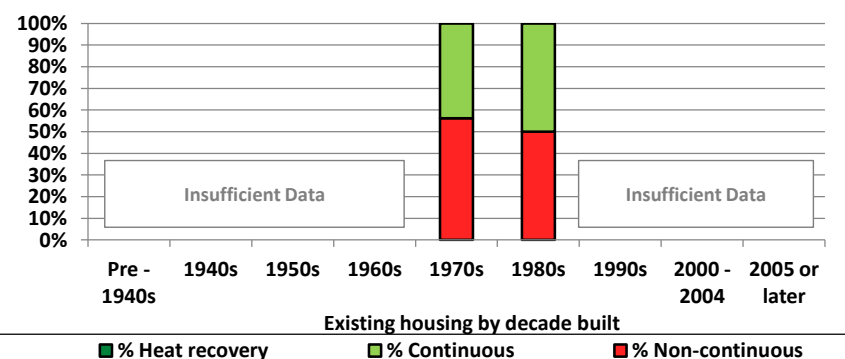


Figure H9: Percent of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS

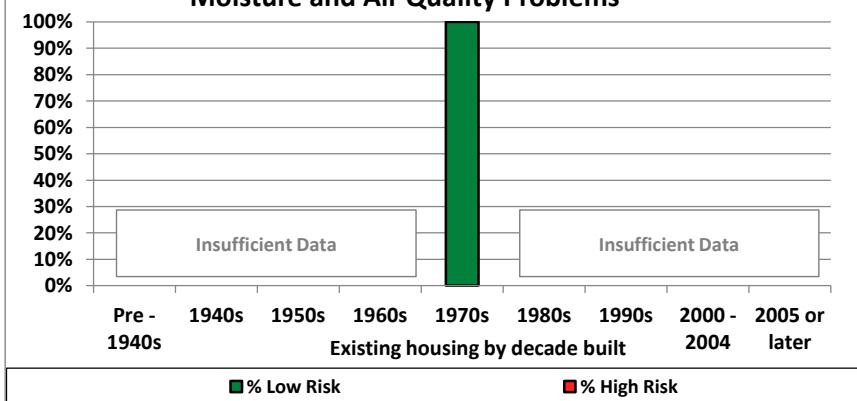
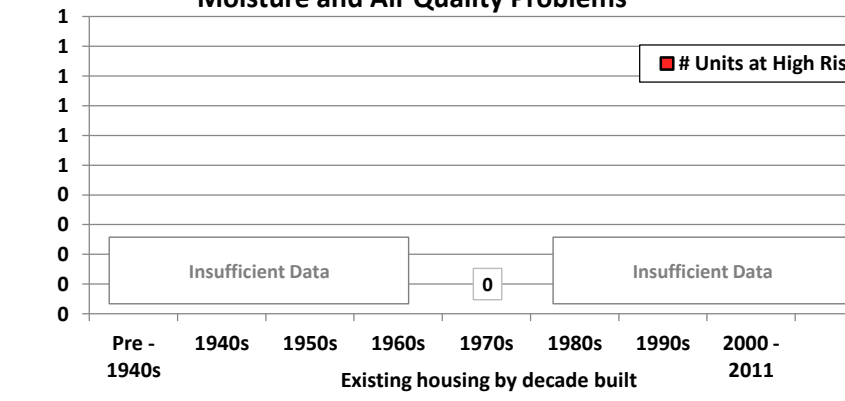


Figure H10: Quantity of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS



| ENERGY - Nunam Iqua city | | | | | | | | | | | | |
|--|-------------------|-------------------------|--------------------------|--------------|------------------------------------|---------------------------------------|--|-----|------------|---------------------|--------------------|-------------------------|
| Current Nunam Iqua 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 (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 | 20 | 2-star plus | 63.5 | 754 | \$ 4,681 | 120 | 93 | 3 | 25 | 158 | \$ 6.56 | 9.6 |
| 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 plus | 62.1 | 771 | \$ 5,025 | 138 | 110 | 4 | 24 | 179 | \$ 6.53 | 11.2 |
| 1980- 89 | 4 | 2-star plus | 65.1 | 481 | NR | 55 | 37 | 0 | 18 | 121 | \$ 7.14 | 6.4 |
| 1990- 99 | 2 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| 2000- 2004 | 0 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| 2005 or later | 0 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |

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

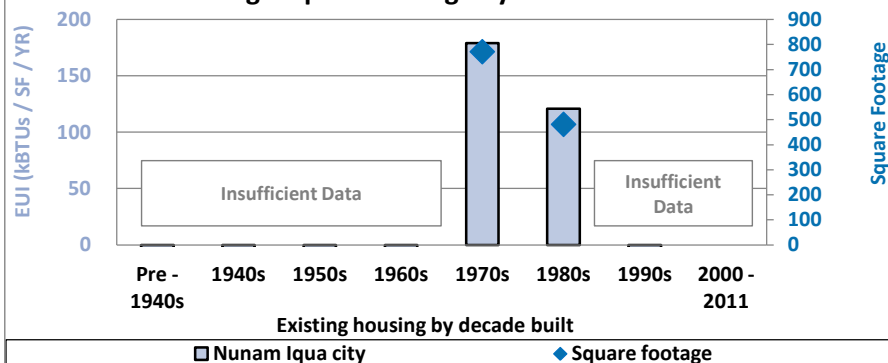
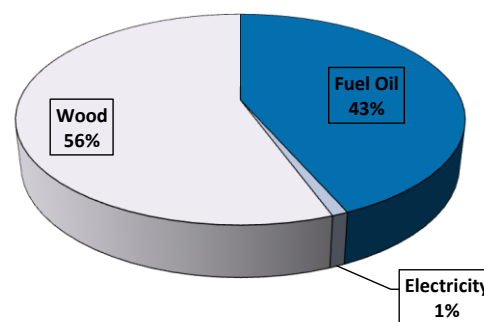


Figure H12: Percent of Total Residential Space Heating Energy by Fuel Type

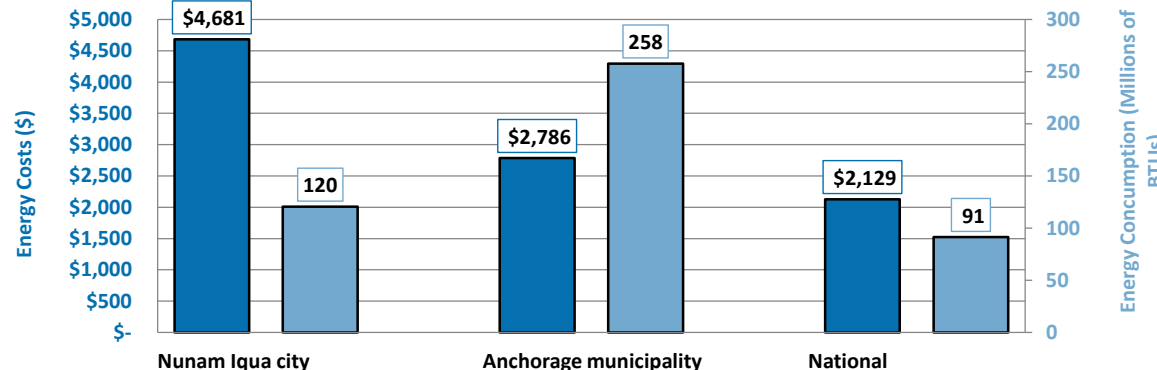


| Current Nunam Iqua city Housing Envelope Characteristics By Decade Built | | | | | | | | | | | |
|--|-------------------|--------|-----------|--------------------|--------------------|---------------------|------------------|---------------------|--------|---------------|----------|
| Current Residential 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 | 20 | 11.4 | 30 | 21 | NR | 26 | NR | NR | 0.41 | NR | 0.52 |
| 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 | 12.0 | 32 | 22 | NR | 29 | NR | NR | 0.40 | NR | 0.54 |
| 1980- 89 | 4 | NR | 28 | 19 | NR | 21 | NR | NR | 0.44 | NR | 0.50 |
| 1990- 99 | 2 | NR | 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 | 0 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |

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

AFFORDABILITY - Nunam Iqua city

Figure H13: Average Annual Home Energy Costs and Use



| Housing Information | Avg Household Size (# of people) |
|---------------------|----------------------------------|
| All-occupied | 4.6 |
| Owner-occupied | 5.2 |
| renter-occupied | 2.0 |

| | |
|--|-----------|
| Owner-occupied House with Mortgage, Median Value | \$58,300 |
| Owner-occupied House without a Mortgage, Median Value | \$116,700 |

| Median Annual Household Income | |
|--------------------------------|------------------|
| Housing Units | Household Income |
| All-occupied | \$ 50,833 |
| Renter-occupied | \$ 45,313 |
| Owner-occupied | \$ 53,750 |
| w/ mortgage | \$ 65,179 |
| w/o mortgage | \$ 22,500 |

| Median Housing Costs | | |
|--------------------------------|---------|----------|
| | Monthly | Annual |
| All-occupied | \$ 311 | \$ 3,732 |
| Gross rent | \$ 138 | \$ 1,656 |
| Owner-occupied | \$ 332 | \$ 3,984 |
| Housing units w/ mortgage | \$ 417 | \$ 5,004 |
| Housing units w/out a mortgage | \$ 250 | \$ 3,000 |

| | |
|---|-------------|
| Avg % of Median Income Spent on Energy | 9.2% |
|---|-------------|

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

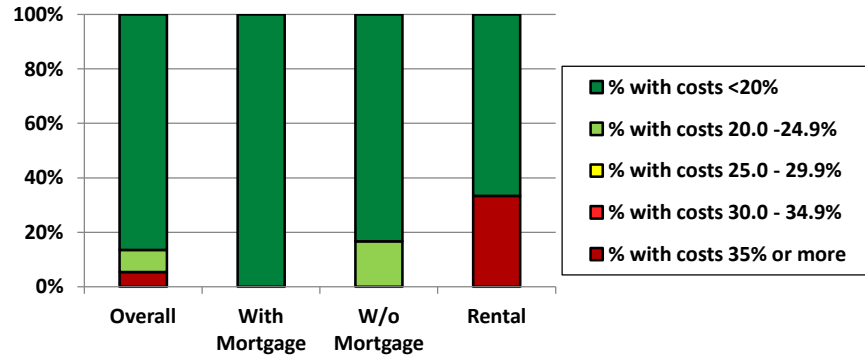
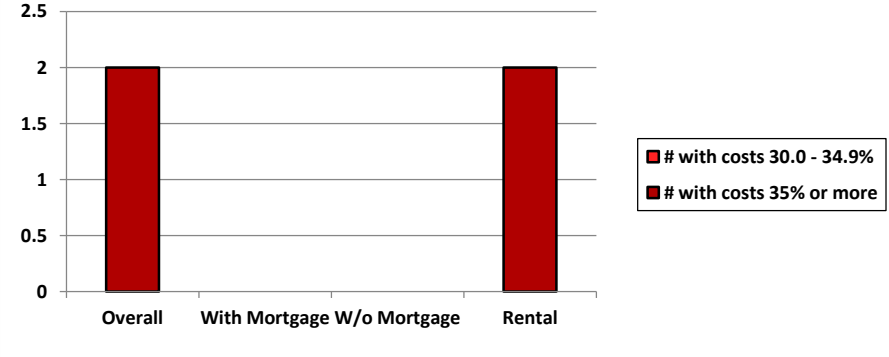


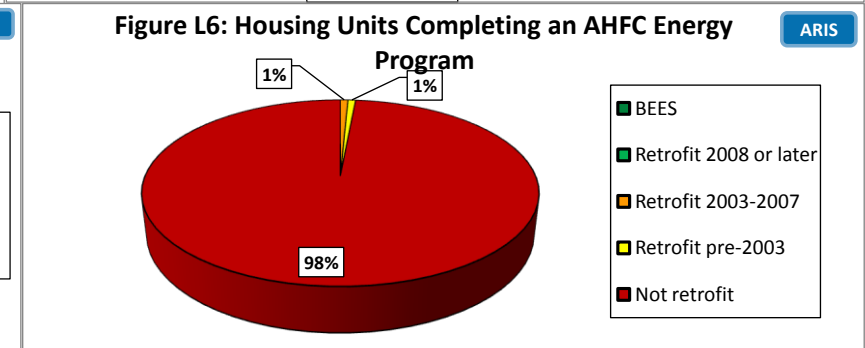
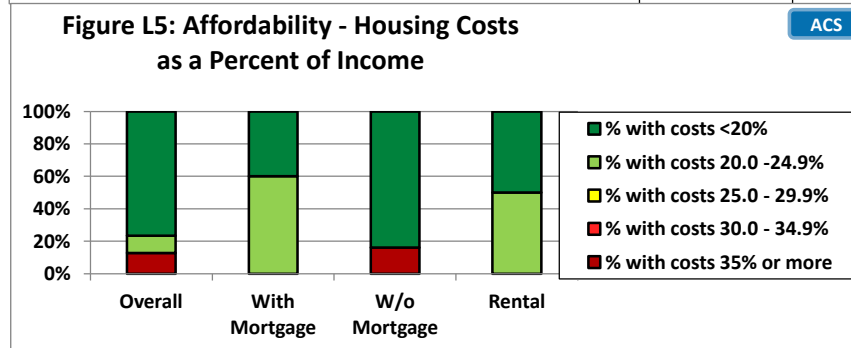
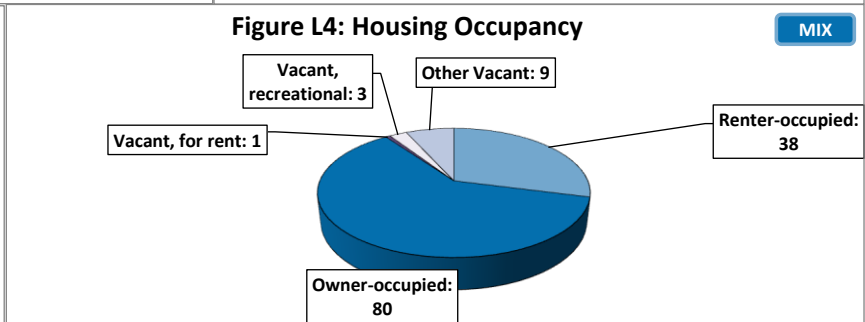
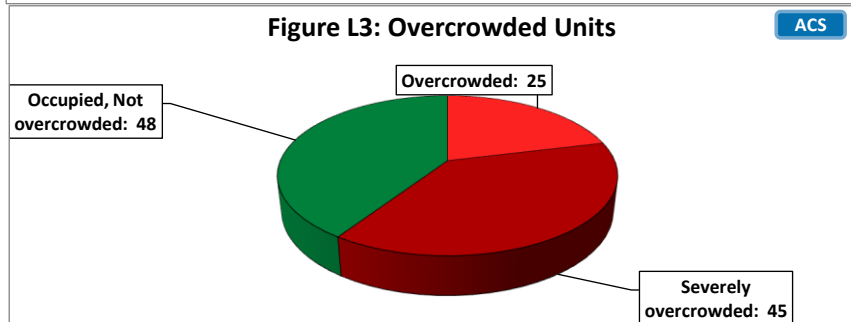
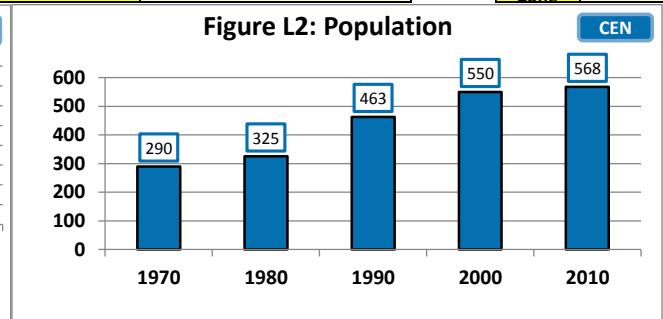
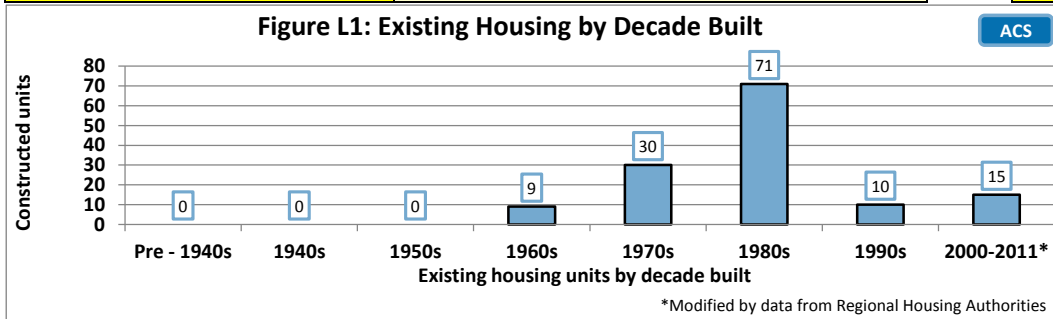
Figure H15: Number of Cost-Burdened Housing Units



Community Profile for: Pilot Station city

ANCSA Region: Calista

Climate Zone: 8



| Owner-occupied House with Mortgage, Median Value |
|--|
| \$39,200 |

| Owner-occupied House without a Mortgage, Median Value |
|---|
| \$59,000 |

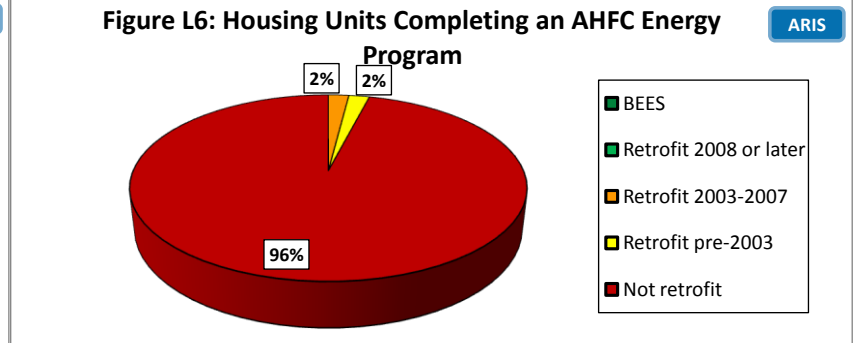
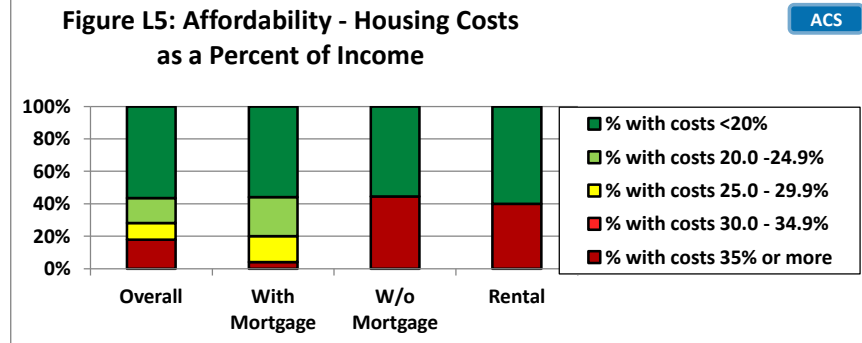
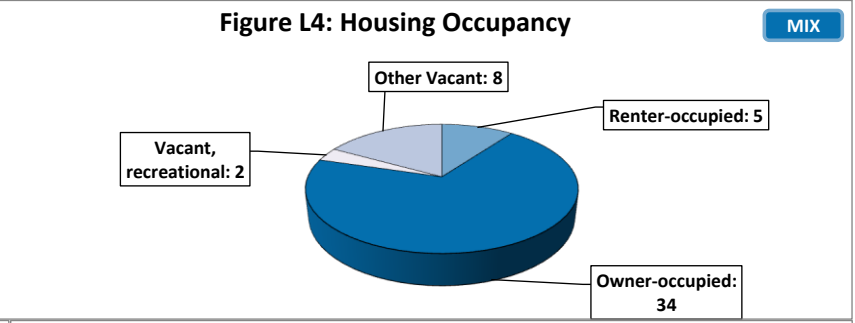
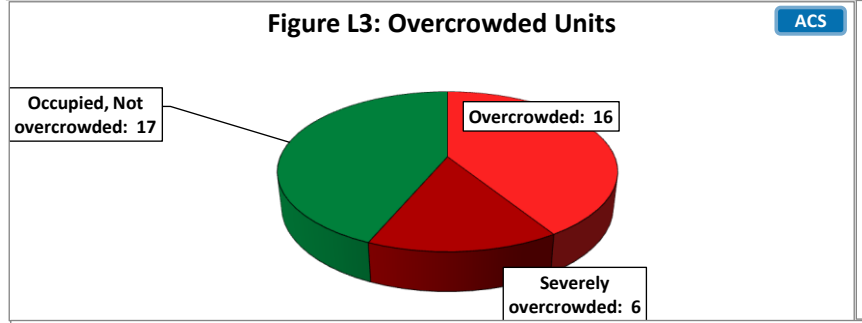
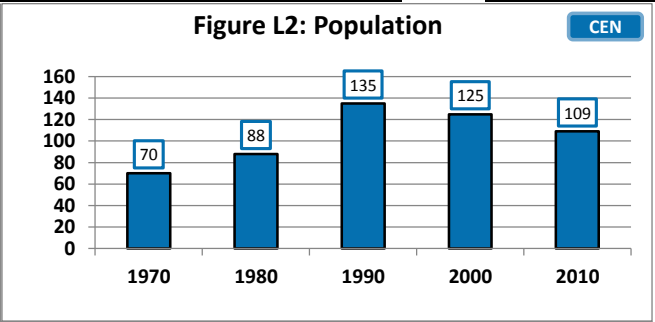
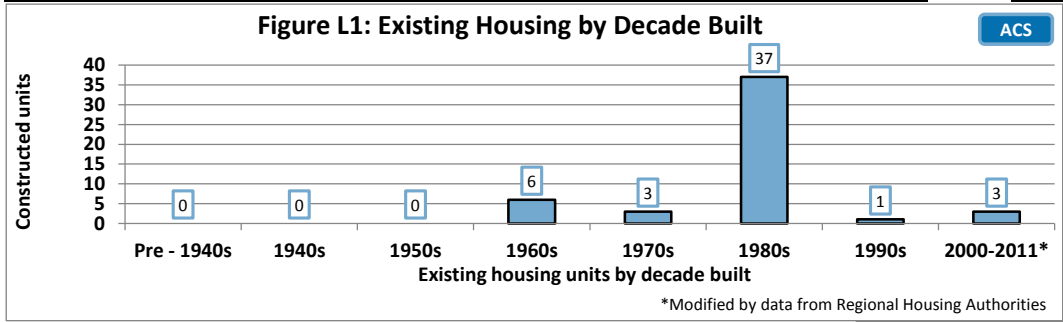
| Median Annual Household Income | |
|--------------------------------|------------------|
| Housing Units | Household Income |
| All-occupied | \$ 41,250 |
| Renter-occupied | \$ 28,750 |
| Owner-occupied w/ mortgage | \$ 29,583 |
| Owner-occupied w/o mortgage | \$ 44,375 |

| Median Housing Costs | | |
|--------------------------------|---------|----------|
| | Monthly | Annual |
| All-occupied | \$ 423 | \$ 5,076 |
| Gross rent | \$ 675 | \$ 8,100 |
| Owner-occupied | \$ 410 | \$ 4,920 |
| Housing units w/ mortgage | \$ 517 | \$ 6,204 |
| Housing units w/out a mortgage | \$ 407 | \$ 4,884 |

| Estimated Energy Prices as of January 2013 | |
|--|---------|
| #1 Fuel oil cost (\$ / gallon) | \$ 7.32 |
| Electricity with PCE (\$/kWh) | \$ 0.21 |
| Electricity without PCE (\$/kWh) | \$ 0.53 |

| Housing Stock Estimates | Number of Units |
|-------------------------|-----------------|
| All Housing | 131 |
| All Occupied Housing | 118 |
| All Vacant housing | 13 |

| | | | | | |
|-------------------------------|------------------|---------------------|---------|---------------------|---|
| Community Profile for: | Pitkas Point CDP | ANCSA Region | Calista | Climate Zone | 8 |
|-------------------------------|------------------|---------------------|---------|---------------------|---|



| | |
|--|-----------|
| Owner-occupied House with Mortgage, Median Value | \$102,500 |
| Owner-occupied House without a Mortgage, Median Value | \$212,500 |

| Median Annual Household Income | |
|--------------------------------|------------------|
| Housing Units | Household Income |
| All-occupied | \$ 41,563 |
| Renter-occupied | \$ 67,917 |
| Owner-occupied | \$ 41,250 |
| w/ mortgage | \$ 40,938 |
| w/o mortgage | \$ 43,125 |

| Median Housing Costs | | |
|--------------------------------|---------|----------|
| | Monthly | Annual |
| All-occupied | \$ 489 | \$ 5,868 |
| Gross rent | \$ 608 | \$ 7,296 |
| Owner-occupied | \$ 475 | \$ 5,700 |
| Housing units w/ mortgage | \$ 523 | \$ 6,276 |
| Housing units w/out a mortgage | \$ 225 | \$ 2,700 |

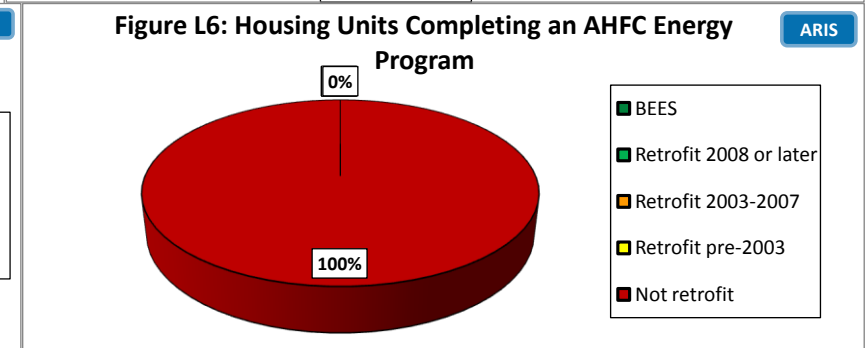
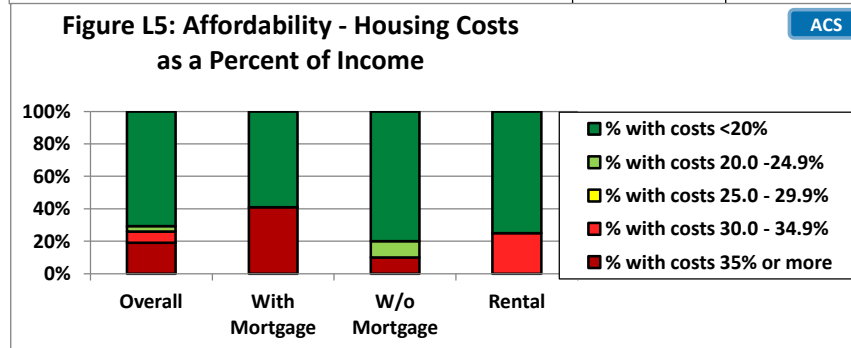
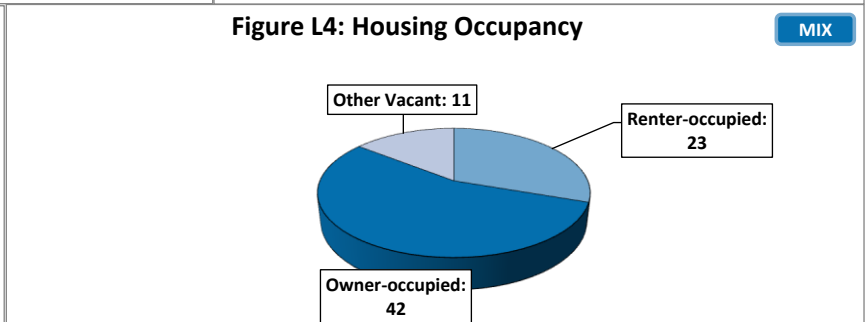
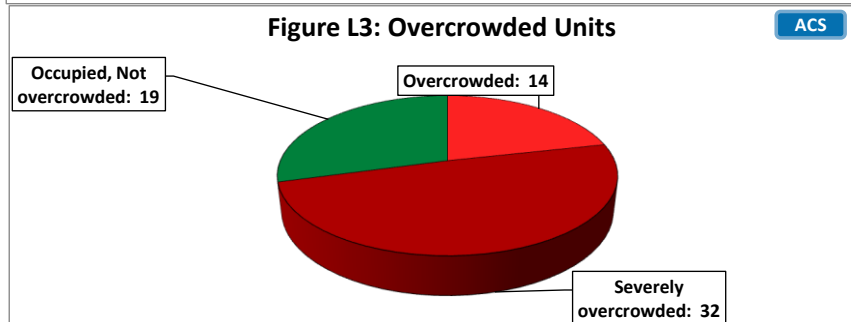
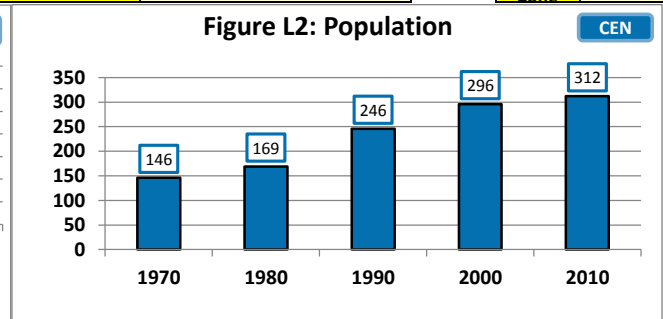
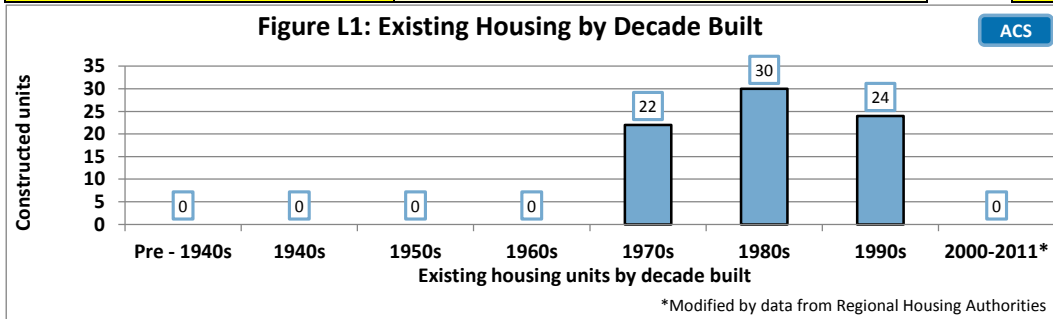
| Estimated Energy Prices as of January 2013 | |
|--|---------|
| #1 Fuel oil cost (\$ / gallon) | \$ 6.03 |
| Electricity with PCE (\$/kWh) | No PCE |
| Electricity without PCE (\$/kWh) | \$ 1.00 |

| Housing Stock Estimates | Number of Units |
|-------------------------|-----------------|
| All Housing | 49 |
| All Occupied Housing | 39 |
| All Vacant housing | 10 |

Community Profile for: Russian Mission city

ANCSA Region: Calista

Climate Zone: 8



| Owner-occupied House with Mortgage, Median Value |
|--|
| \$162,500 |

| Owner-occupied House without a Mortgage, Median Value |
|---|
| \$86,700 |

| Estimated Energy Prices as of January 2013 | |
|--|---------|
| #1 Fuel oil cost (\$ / gallon) | \$ 5.75 |
| Electricity with PCE (\$/kWh) | \$ 0.21 |
| Electricity without PCE (\$/kWh) | \$ 0.51 |

| Median Annual Household Income | |
|--------------------------------|------------------|
| Housing Units | Household Income |
| All-occupied | \$ 43,750 |
| Renter-occupied | \$ 41,250 |
| Owner-occupied | \$ 45,833 |
| w/ mortgage | \$ 47,083 |
| w/o mortgage | \$ 33,750 |

| Housing Stock Estimates | |
|-------------------------|-----------------|
| Housing Stock Estimates | Number of Units |
| All Housing | 76 |
| All Occupied Housing | 65 |
| All Vacant housing | 11 |

| Median Housing Costs | | |
|--------------------------------|---------|----------|
| | Monthly | Annual |
| All-occupied | \$ 421 | \$ 5,052 |
| Gross rent | \$ 325 | \$ 3,900 |
| Owner-occupied | \$ 471 | \$ 5,652 |
| Housing units w/ mortgage | \$ 650 | \$ 7,800 |
| Housing units w/out a mortgage | \$ 370 | \$ 4,440 |

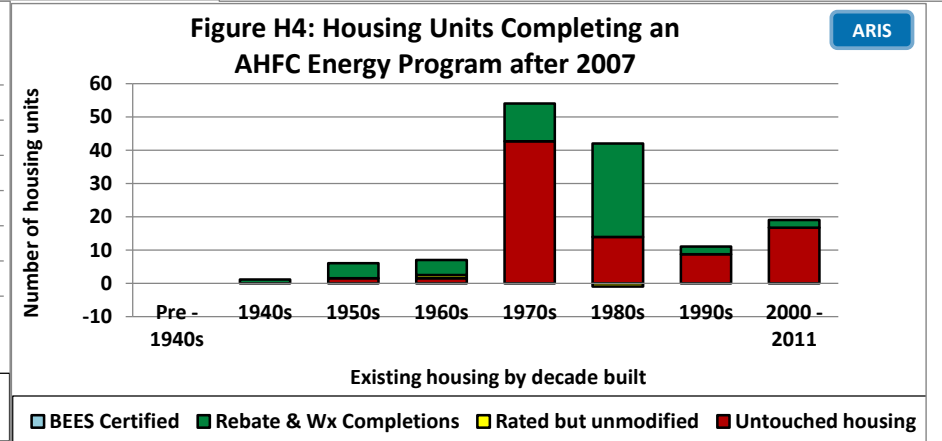
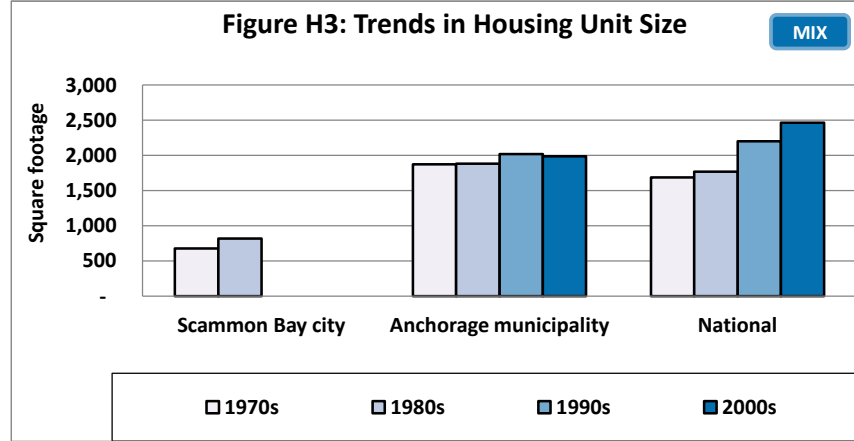
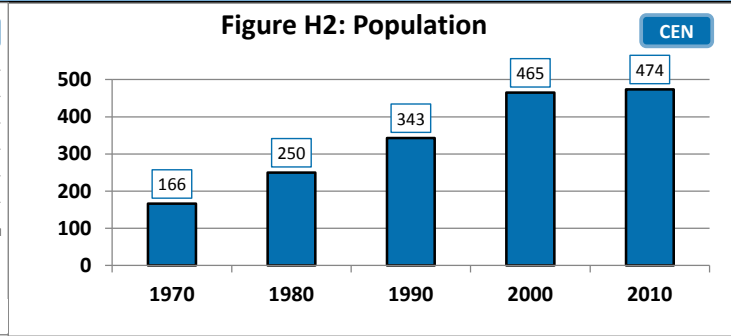
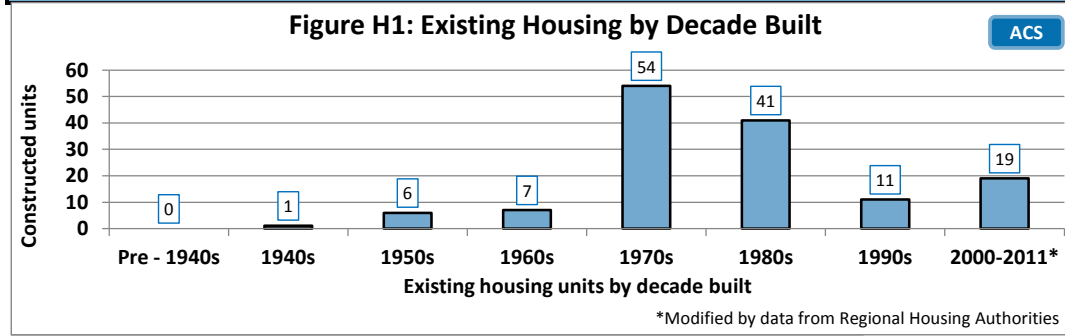
Community Profile for: Scammon Bay city

ANCSA Region: Calista

Regional Housing Authority: AVCP Regional Housing Authority

BEES Climate Zone (Heating Degree Days): Zone 8 (13,048 HDD)

COMMUNITY - Scammon Bay city



| Houses Lacking Complete Plumbing or Kitchen Facilities | Households | |
|--|------------|---------|
| | Number | Percent |
| Lack complete plumbing | 80 | 74% |
| Lack complete kitchen | 54 | 50% |

| | |
|------------------------------------|---------|
| Avg Annual Energy Cost with PCE | \$4,939 |
| Avg Annual Energy Cost without PCE | \$6,783 |

| Weatherization Program Retrofits (funding increased in 2008) | |
|--|-------|
| Date Range | Units |
| 2008-2011 | 53 |
| 2003-2007 | - |
| 1990-2002 | 2 |

| Estimated Total Annual Community Space Heating Fuel Use | | |
|---|--------|-----------|
| Fuel Oil | 37,919 | (gallons) |
| Nat Gas | - | (ccf) |
| Electricity | 32,486 | (kWh) |
| Wood | 416 | (cords) |
| Propane | - | (gallons) |
| Coal | - | (tons) |

| Estimated Energy Prices as of January 2013 | |
|--|--------|
| #1 Fuel oil cost (\$ / gallon) | \$7.48 |
| Electricity with PCE (\$/kWh) | \$0.21 |
| Electricity cost without PCE (\$/kWh) | \$0.55 |

| Housing Stock Estimates | Number of Units |
|---------------------------------|-----------------|
| All Housing | 119 |
| All Occupied Housing | 108 |
| All Vacant housing | 11 |
| Vacant Housing for Sale or Rent | 2 |

OVERCROWDING & VENTILATION - Scammon Bay city

Figure H5: Overcrowded Units

ACS

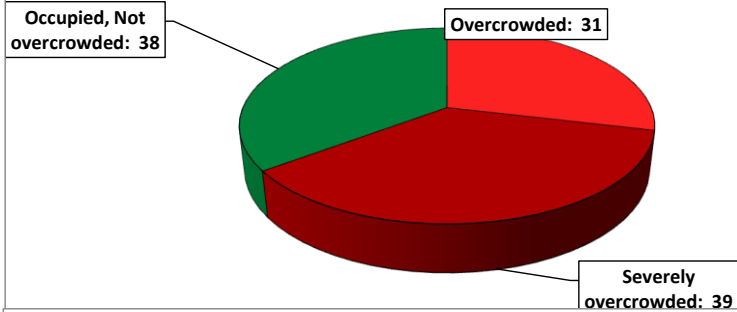


Figure H6: Housing Occupancy

MIX

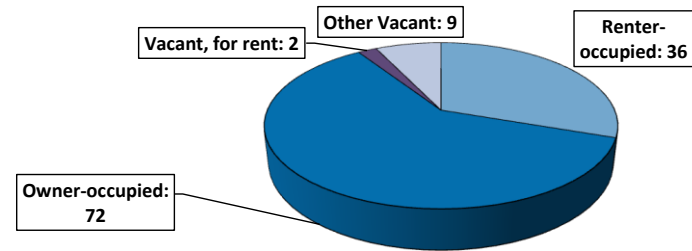


Figure H7: Average Air-Tightness of Current Homes by Decade Built

ARIS

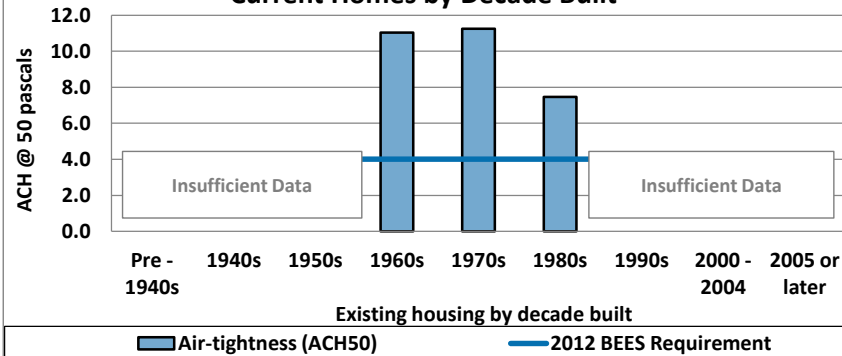


Figure H8: Existing Ventilation Type by Decade Built

ARIS

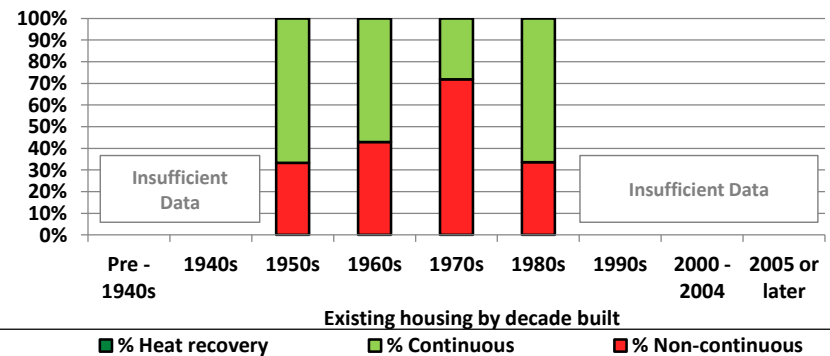


Figure H9: Percent of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS

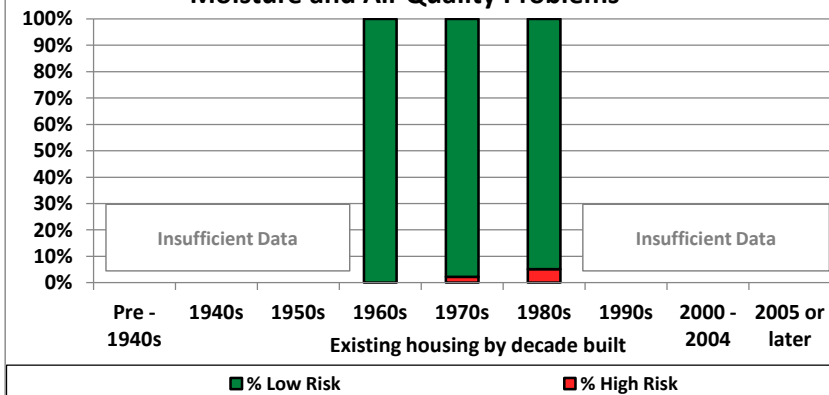
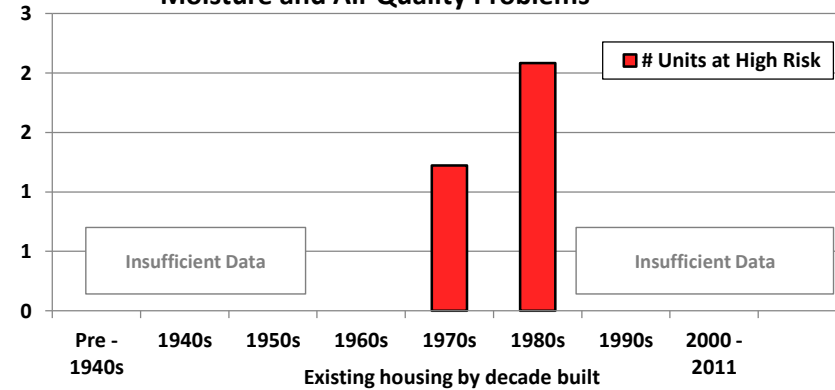


Figure H10: Quantity of Housing Stock at High Risk of Moisture and Air Quality Problems

ARIS



| ENERGY - Scammon Bay city | | | | | | | | | | | | |
|---|-------------------|-------------------------|--------------------------|--------------|------------------------------------|---------------------------------------|--|-----|------------|---------------------|--------------------|-------------------------|
| Current Scammon Bay 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 (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 | 55 | 2-star | 57.0 | 718 | \$ 4,939 | 146 | 110 | 12 | 24 | 198 | \$ 6.67 | 11.9 |
| 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 | 5 | 2-star plus | 64.3 | 492 | NR | 98 | 79 | 0 | 19 | 251 | \$ 6.05 | 16.8 |
| 1960- 69 | 6 | 2-star plus | 61.3 | 501 | \$ 2,208 | 76 | 54 | 0 | 22 | 154 | \$ 4.30 | 9.4 |
| 1970- 79 | 11 | 1-star | 39.7 | 678 | \$ 4,984 | 185 | 156 | 4 | 25 | 308 | \$ 8.35 | 20.6 |
| 1980- 89 | 28 | 3-star plus | 75.3 | 818 | \$ 5,554 | 118 | 75 | 22 | 22 | 147 | \$ 6.70 | 7.5 |
| 1990- 99 | 2 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| 2000- 2004 | 1 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| 2005 or later | 1 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |

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

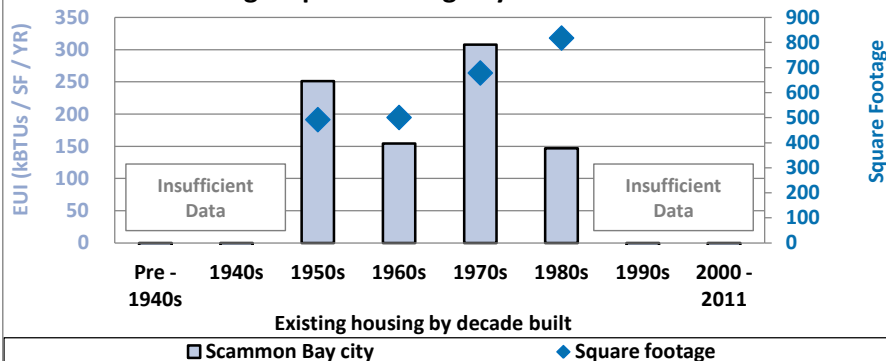
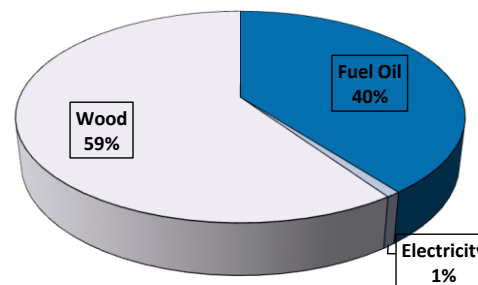


Figure H12: Percent of Total Residential Space Heating Energy by Fuel Type

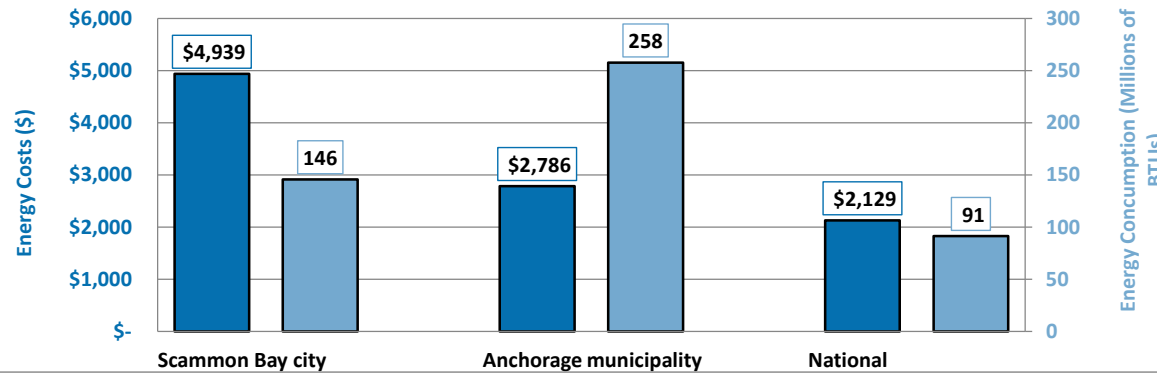


| Current Scammon Bay city Housing Envelope Characteristics By Decade Built | | | | | | | | | | | |
|---|-------------------|--------|-----------|--------------------|--------------------|---------------------|------------------|---------------------|--------|---------------|----------|
| Current Residential 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 | 55 | 9.0 | 25 | 19 | NR | 28 | NR | NR | 0.55 | NR | 0.56 |
| 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 | 5 | NR | 29 | 14 | NR | 25 | NR | NR | 0.63 | NR | 0.60 |
| 1960- 69 | 6 | 11.0 | 25 | 15 | NR | 27 | NR | NR | 0.30 | NR | 0.45 |
| 1970- 79 | 11 | 11.2 | 11 | 13 | NR | 19 | NR | NR | 0.71 | NR | 0.77 |
| 1980- 89 | 28 | 7.5 | 35 | 26 | NR | 33 | NR | NR | 0.39 | NR | 0.45 |
| 1990- 99 | 2 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| 2000- 2004 | 1 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| 2005 or later | 1 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |

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

AFFORDABILITY - Scammon Bay city

Figure H13: Average Annual Home Energy Costs and Use



| Housing Information | Avg Household Size (# of people) |
|---------------------|----------------------------------|
| All-occupied | 5.0 |
| Owner-occupied | 5.5 |
| renter-occupied | 4.0 |

| Owner-occupied House with Mortgage, Median Value |
|--|
| \$75,000 |

| Owner-occupied House without a Mortgage, Median Value |
|---|
| \$86,900 |

| Median Annual Household Income | |
|--------------------------------|------------------|
| Housing Units | Household Income |
| All-occupied | \$ 35,893 |
| Renter-occupied | \$ 36,250 |
| Owner-occupied | \$ 35,625 |
| w/ mortgage | \$ 48,438 |
| w/o mortgage | \$ 28,750 |

| Median Housing Costs | | |
|--------------------------------|---------|----------|
| | Monthly | Annual |
| All-occupied | \$ 385 | \$ 4,620 |
| Gross rent | \$ 650 | \$ 7,800 |
| Owner-occupied | \$ 367 | \$ 4,404 |
| Housing units w/ mortgage | \$ 425 | \$ 5,100 |
| Housing units w/out a mortgage | \$ 318 | \$ 3,816 |

| | |
|--|--------------|
| Avg % of Median Income Spent on Energy | 13.8% |
|--|--------------|

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

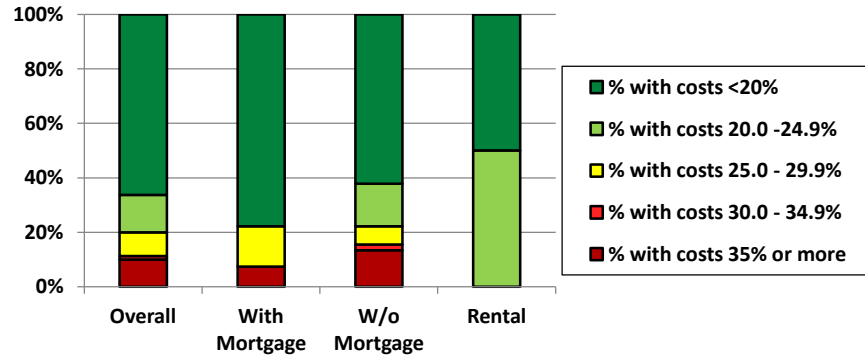
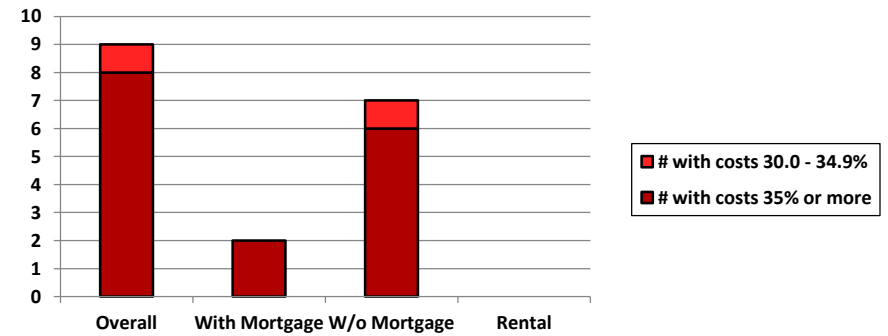


Figure H15: Number of Cost-Burdened Housing Units

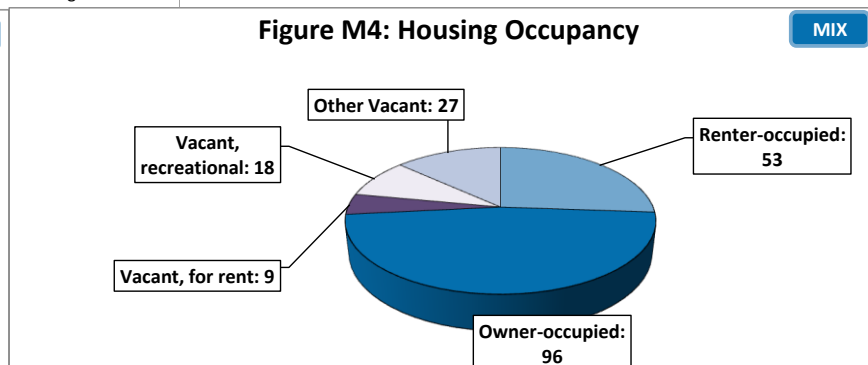
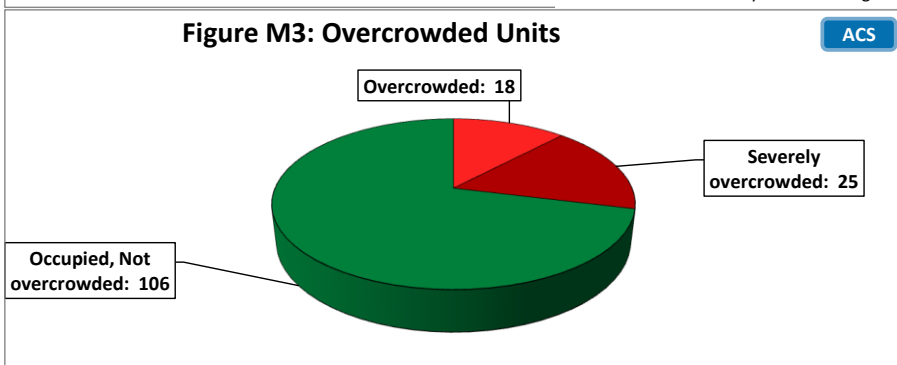
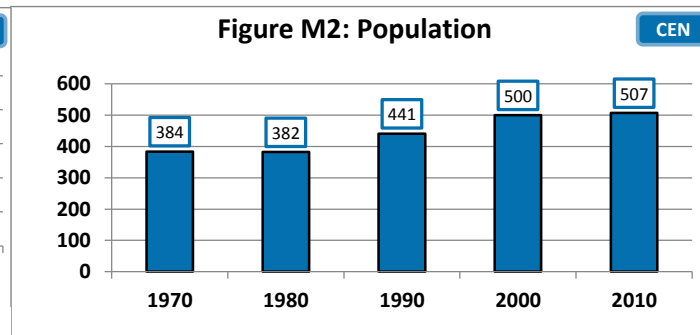
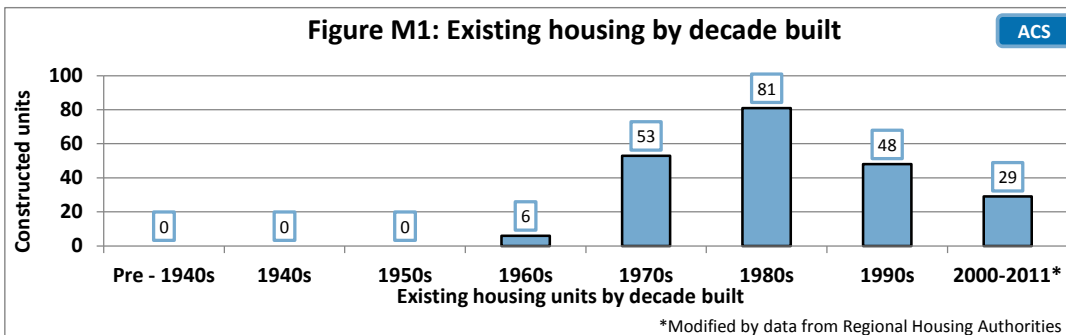


Community Profile for: St. Mary's city

ANCSA Region: Calista

Regional Housing Authority: AVCP Regional Housing Authority

BEES Climate Zone (Heating Degree Days): Zone 8 (12,785 HDD)



| Residential Unit Categories | Number of records | Avg Energy Rating Stars | Avg Energy Rating Points | Avg Sq. Feet | Avg. Ann Energy Cost | Avg. Ann Energy Use (million BTUs) | Avg. EUI (kBtus/SF) | Avg. ECI | Avg. Home Heating Index | % Tight Homes, No Ventilation |
|-----------------------------|-------------------|-------------------------|--------------------------|--------------|----------------------|------------------------------------|---------------------|----------|-------------------------|-------------------------------|
| Pre-retrofit units | 0 | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| Retrofit units | 26 | 3-star plus | 74.3 | 1,188 | \$ 7,431 | 147 | 124 | \$6.30 | 6.0 | 0% |
| New construction | 2 | NR | NR | NR | NR | NR | NR | NR | NR | NR |

| Residential Unit Categories | Number of Records | ACH 50 | Ceiling R | Above Grade Wall R | Below Grade Wall R | Above Grade Floor R | On Grade Floor R | Below Grade Floor R | Door U | Garage Door U | Window U |
|-----------------------------|-------------------|--------|-----------|--------------------|--------------------|---------------------|------------------|---------------------|--------|---------------|----------|
| Pre-retrofit units | 0 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| Retrofit units | 26 | 5.7 | 32 | 22 | NR | 41 | NR | NR | 0.40 | NR | 0.51 |
| New construction | 2 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |

| | | | | | | | | | | |
|-----------|-----|----|----|----|----|----|----|------|------|------|
| BEES 2009 | 7.0 | 38 | 30 | 15 | 38 | 15 | 15 | 0.22 | 0.22 | 0.22 |
| BEES 2012 | 4.0 | 48 | 30 | 15 | 38 | 15 | 15 | 0.22 | 0.22 | 0.22 |

Figure M5: Average Annual Home Energy Costs and Use

MIX

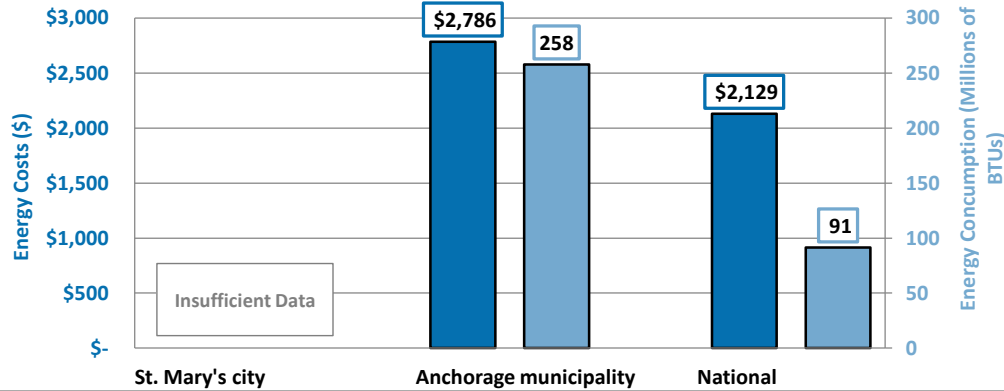
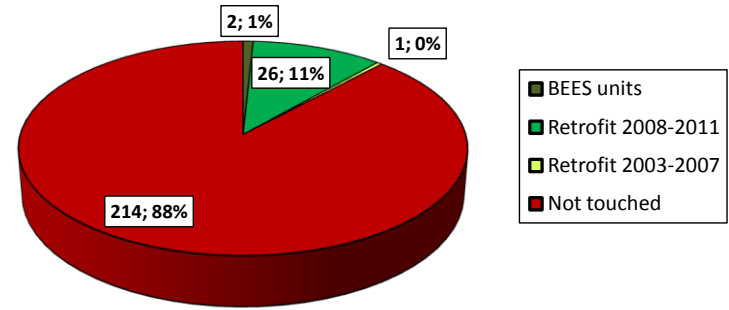


Figure M6: Housing Units Completing an AHFC Energy Program

ARIS



AFFORDABILITY - St. Mary's city

| Owner occupied House with Mortgage, Median Value | | Median Annual Household Income | | Median Housing Costs | | |
|---|---------|--------------------------------|------------------|--------------------------------|---------|-----------------|
| \$110,600 | | Housing Units | Household Income | | Monthly | Annual |
| | | All-occupied | \$ 38,162 | All-occupied | \$ 686 | \$ 8,232 |
| | | Renter-occupied | \$ 38,897 | Gross rent | \$ 890 | \$ 10,680 |
| | | Owner-occupied | \$ 32,500 | Owner-occupied | \$ 550 | \$ 6,600 |
| | | w/ mortgage | \$ 31,250 | Housing units w/ mortgage | \$ 656 | \$ 7,872 |
| | | w/o mortgage | \$ 35,313 | Housing units w/out a mortgage | \$ 292 | \$ 3,504 |
| Owner-occupied House without a Mortgage, Median Value | | Average Annual Energy Cost | | Housing Stock Estimates | | Number of Units |
| \$83,100 | | With PCE | NO PCE | All Housing | 203 | |
| | | Without PCE | \$1,232 | All Occupied Housing | 149 | |
| | | | | All Vacant housing | 54 | |
| | | | | Vacant Housing for Sale/Rent | 9 | |
| Estimated Energy Prices as of January 2013 | | Avg % Income on Energy | | | | |
| #1 Fuel oil cost (\$ / gallon) | \$ 6.85 | 3.2% | | | | |
| Electricity with PCE (\$/kWh) | \$ 0.20 | | | | | |
| Electricity without PCE (\$/kWh) | \$ 0.48 | | | | | |

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

ACS

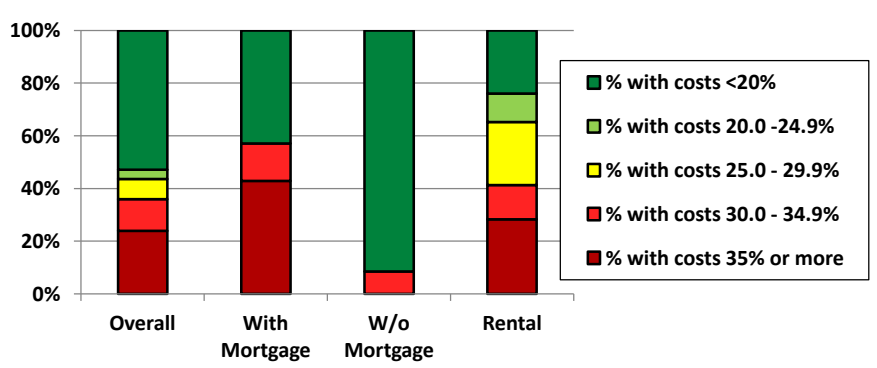


Figure M8: Number of Cost-Burdened Housing Units

ACS

