

# 2021 HOUSING MARKET SURVEY & ANALYSIS

FINAL REPORT

14 December 2021



*USCG  
BASE KETCHIKAN,  
ALASKA*

**Prepared for:**

United States Coast Guard, CEU Oakland  
Mission Readiness Product Line  
Housing Asset Line

**Prepared by:**

  
ROBERT D. NIEHAUS, INC.



**UNITED STATES COAST GUARD BASE KETCHIKAN, ALASKA  
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## EXECUTIVE SUMMARY

This Housing Market Survey and Analysis (HMSA) evaluates the availability of suitable, affordable housing within a reasonable commuting distance for both accompanied and unaccompanied U.S. Coast Guard (USCG) personnel stationed at USCG Base Ketchikan, Alaska. This report represents a comprehensive, detailed investigation and five-year forecast of housing requirements based on criteria and methods approved by the USCG.

### USCG Accompanied Housing Requirements

Table ES-1 summarizes the military housing requirement and key assumptions of this analysis. For USCG personnel, the projected accompanied housing requirement totals 86 units in 2026.

**Table ES-1. Military Housing Requirements and Key Assumptions, USCG Base Ketchikan, 2021-2026**

<b>Assumptions/Results</b>						
1. Methodology as per USCG Guidance						
2. Personnel and Demographic Planning Factors from USCG PSC-PSD-FS Housing Section						
3. Market Area is Based on a 120-Minute Round-Trip Commute During Peak Traffic Times						
4. 2021 BAH plus National Out-of-Pocket (OOP) Expenses and 2021 Community Rental Costs						
5. No Floor Housing Requirements for Accompanied Personnel in 2026. E1-E3 Unaccompanied Assigned Afloat						
6. Straight-Line Transition from Current Occupancy of USCG Housing to Projected Floor Requirement						
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
<b>Total Permanent-Party Personnel [1]</b>	191	204	217	230	243	276
<b>Total Accompanied Personnel [1]</b>	139	147	155	163	171	198
Current Occupancy in 2021; Floor Requirement in 2026	1	1	1	1	1	-
Community Housing Demand	138	146	154	162	170	198
Homeowners	49	52	55	58	61	66
Renters	89	94	99	104	109	132
Suitably Housed Renters	28	33	33	36	39	46
Community Housing Shortfall	61	61	66	68	70	86
<b>TOTAL ACCOMPANIED HOUSING REQUIREMENT [2]</b>	62	62	67	69	71	<b>86</b>
USCG Accompanied Housing Inventory	1	1	1	1	1	1
Deficit/(Surplus) of USCG Accompanied Housing	61	61	66	68	70	85
<b>Total Unaccompanied Personnel [1]</b>	52	57	62	67	72	78
Floor Housing Requirement	5	7	9	10	13	14
Community Housing Demand	47	50	53	57	59	64
Homeowners	5	5	5	5	5	6
Renters	42	45	48	52	54	58
Suitably Housed Renters	19	28	32	35	37	40
Community Housing Shortfall	23	17	16	17	17	18
<b>TOTAL UNACCOMPANIED HOUSING REQUIREMENT [3]</b>	28	24	25	27	30	<b>32</b>
USCG Unaccompanied Housing Inventory	22	22	22	22	22	22
Deficit/(Surplus) of USCG Unaccompanied Housing	6	2	3	5	8	10

Notes: [1] Accompanied personnel are from PSC-PSD-FS Housing Section, calculated using USCG Planning Factors. Based on survey results, an estimated 2% of accompanied personnel are geographic bachelors and 5% are member-to-member couples.  
 [2] The current requirement for government-provided military family housing is the sum of current occupants of USCG housing and the community housing shortfall. The projected requirement is the community housing shortfall.  
 [3] The current and projected requirement for unaccompanied housing is the sum of the floor requirement and the community housing shortfall.

Sources: PSC-PSD-FS Housing Section, 2021a, 2021b; USCG Base Ketchikan Housing, 2021; and estimates RDN prepared for this study.

The projected accompanied housing requirement is comprised of 31 two-bedroom units, 29 three-bedroom units, and 26 units with four or more bedrooms (Table ES-2).

**Table ES-2. Accompanied Housing Requirement by Pay Grade and Number of Bedrooms, USCG Base Ketchikan, 2026**

2026 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+	
O7 & Above	-	-	-	-
O6	-	-	-	-
O5	2	-	1	3
O4	1	-	1	2
O3	1	-	1	2
O2	1	-	-	1
O1	1	1	-	2
Officers	6	1	3	10
W5	-	-	-	-
W4	1	-	-	1
W3	-	1	-	1
W2	2	-	1	3
W1	-	1	-	1
Warrants	3	2	1	6
E9	3	-	2	5
E8	2	1	2	5
E7	3	-	1	4
E6	6	8	8	22
E5	6	3	3	12
E4	1	8	3	12
E3	1	5	2	8
E2	-	1	1	2
E1	-	-	-	-
Enlisted	22	26	22	70
<b>Total</b>	<b>31</b>	<b>29</b>	<b>26</b>	<b>86</b>

Source: Estimates RDN prepared for this study.

It is USCG policy to rely on the private sector as the primary source to house military members (U.S. Coast Guard, 2016), therefore, this analysis assumes current occupants of government housing transition to off-base housing over the five-year planning horizon of this study. The government-provided housing requirement consists of those families who are unable to find suitable quality, affordable housing in the community. The projected accompanied housing requirement results from supply, quality, and affordability issues, which are discussed below in the Housing Market Overview section.

If there is insufficient supply, regardless of rental prices, the overall amount of rental housing may be insufficient to accommodate all Coast Guard families.

As discussed in Section 3.3, an estimated 49.9 percent of the non-mobile home rental housing stock in the market is inadequate based on interviews with local housing professionals, onsite windshield surveys, and Census data. Thus, some adequate quality housing is available to service members in the area, but quality is a general concern.

Additionally, not all the off-base housing is affordable to service members depending on rank and number of dependents. A housing unit is considered affordable if effective rent plus average utilities is less than the Maximum Acceptable Housing Cost (MAHC), defined as the Basic Allowance for Housing (BAH) plus a national out-of-pocket (OOP) amount.

Table ES-3 compares the projected (2026) accompanied housing requirements at USCG Base Ketchikan with the USCG accompanied housing inventory, broken out by number of bedrooms. The surplus or deficit is calculated as the requirement less the inventory. In the projected year, the total accompanied housing requirement is 86 units, and the projected inventory is one unit. Therefore, there is a projected deficit of 85 units, composed of a deficit of 31 two-bedroom units, 29 three-bedroom units, and 25 units with four or more bedrooms.

**Table ES-3. USCG Accompanied Housing Deficit/(Surplus), USCG Base Ketchikan, 2026**

Indicator	2-BR	3-BR	4+BR	Total
Accompanied Housing Requirement	31	29	26	86
Accompanied Housing Inventory	-	-	1	1
Deficit/(Surplus)	31	29	25	85

Source: Estimates RDN prepared for this study.

## USCG Unaccompanied Housing Requirements

The projected unaccompanied housing requirement is 32 units in 2026. Table ES-4 presents these housing requirements by pay grade and number of bedrooms. The requirement consists of 24 one-bedroom units and eight two-bedroom units. With an inventory of 22 barrack/UPH spaces, there is a projected deficit of two barrack/UPH spaces and eight two-bedroom units in 2026 (Table ES-5).

**Table ES-4. Unaccompanied Housing Requirements by Pay Grade and Number of Bedrooms, USCG Base Ketchikan, 2026**

2026 Pay Grade	Number of Bedrooms			Total
	One	Two	Three	
O7 & Above	-	-	-	-
O6	-	-	-	-
O5	-	-	-	-
O4	-	-	-	-
O3	-	-	-	-
O2	-	1	-	1
O1	-	2	-	2
Officers	-	3	-	3
W5	-	-	-	-
W4	-	-	-	-
W3	-	-	-	-
W2	-	-	-	-
W1	-	-	-	-
Warrants	-	-	-	-
E9	-	-	-	-
E8	-	-	-	-
E7	-	-	-	-
E6	-	1	-	1
E5	-	4	-	4
E4	8	-	-	8
E3	14	-	-	14
E2	2	-	-	2
E1	-	-	-	-
Enlisted	24	5	-	29
<b>Total</b>	<b>24</b>	<b>8</b>	<b>-</b>	<b>32</b>

Source: Estimates RDN prepared for this study.

**Table ES-5. USCG Unaccompanied Housing Deficit/(Surplus), USCG Base Ketchikan, 2026**

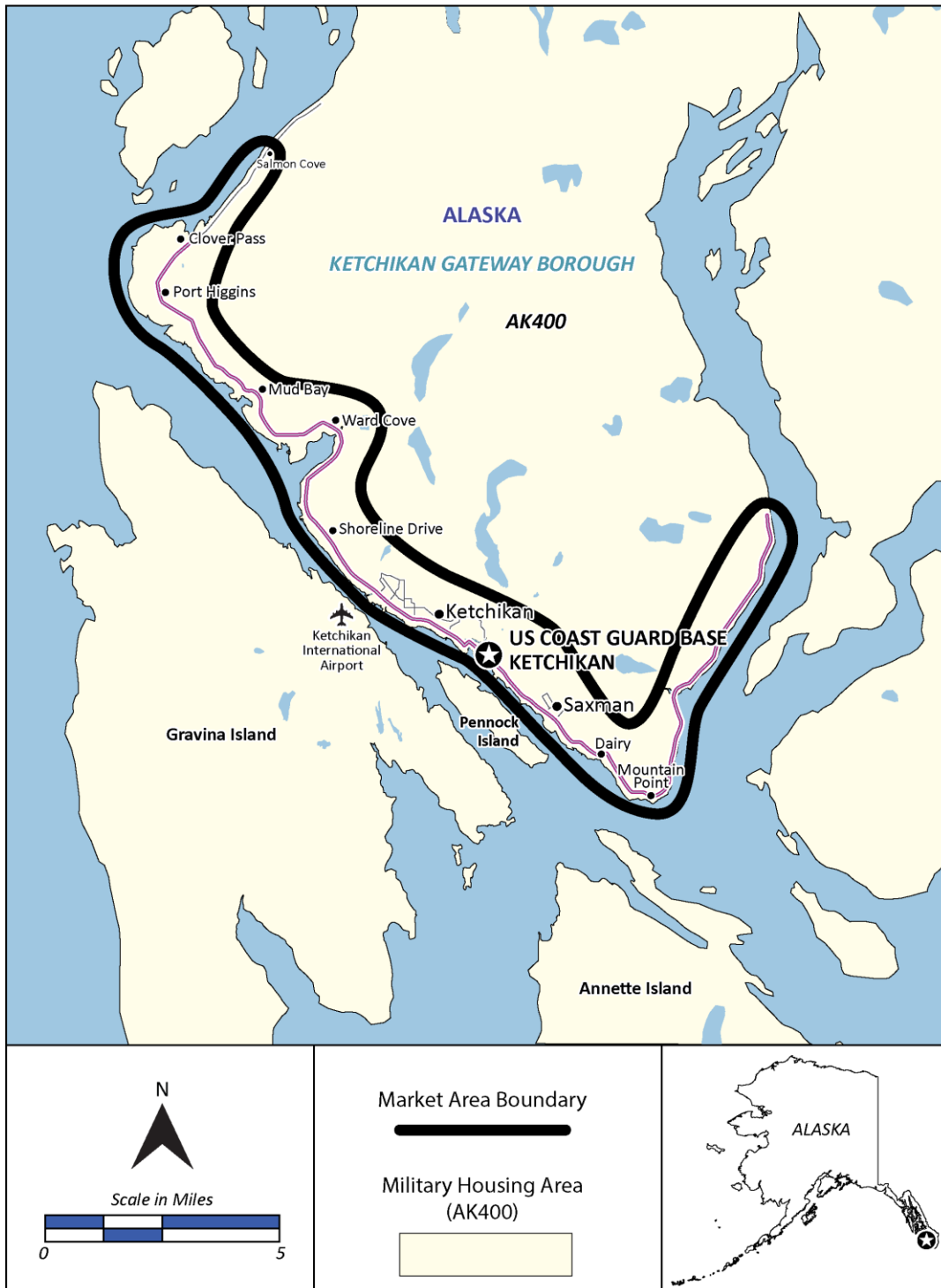
Indicator	1-BR	2-BR	3+-BR	Total
Unaccompanied Housing Requirement	24	8	-	32
Unaccompanied Housing Inventory	22	-	-	22
Deficit/(Surplus)	2	8	-	10

Source: Estimates RDN prepared for this study.

## Housing Market Overview

In accordance with USCG housing policy, the market area is defined as a 120-minute round-trip commute during peak traffic times under year-round average driving conditions. Market area limits were established based on timed drives and input from USCG leadership. Figure ES-1 presents the housing market area for USCG Base Ketchikan.

Figure ES-1. Housing Market Area, USCG Base Ketchikan, 2021



The Base Ketchikan housing market area includes all of the residential areas along the Tongass Highway including the cities of Ketchikan and Saxman as well as unincorporated areas of the borough. The market area limits are generally defined by the end of the paved roads. Unimproved/unpaved roads are excluded from the market area because they can be unsafe during inclement weather and driving conditions. Areas inaccessible by automobile such as Pennock Island are also excluded from the market area.

Ketchikan is experiencing a housing shortage. Vacancy rates are high in the winter months before the extreme rental shortage in the busier summer months. This is due to landlords renting primarily to seasonal summer workers or tourists. Median household income in Ketchikan is not enough to own a home given the high cost of building materials and labor. Furthermore, Ketchikan does not have any regulations on vacation rentals. This creates a market where lower earning households compete in an already difficult rental market.

Ketchikan Gateway Borough is also surrounded by federal lands which further constrains the areas available for development. Given the lucrative sellers market, homeowners are opting to list their homes and property for sale instead of utilizing them as rentals. The influx of seasonal workers in the summer months and low inventory provides an additional challenge to Coast Guard personnel seeking housing. Due to the difficult nature of finding available rentals at affordable prices, tenants rarely turnover and available units rent quickly, regardless of size or condition. Thus, families moving to the area may be forced to rent units with fewer bedrooms than desired and/or paying several months in advance in order to secure housing. Coast Guard personnel largely use private online groups and word of mouth to navigate the competitive rental market.

Prior to the COVID-19 pandemic, Southeast Alaska saw 1.36 million cruise ship passengers disembark in their ports in 2019. As a community that is heavily dependent on tourism, Southeast Alaska continues to struggle economically due to the ongoing pandemic. The region saw zero cruise ships in 2020 with services beginning to resume after an Executive Order signed by President Biden on May 24, 2021, allowing for their return. In total, an estimated \$700-800 million in tourist spending is lost per year of inactivity. Unfortunately, as a direct result of the pandemic, roughly 642 local tourism workers were laid off resulting in a 75% reduction in staff. This has temporarily caused some landlords to convert their seasonal rentals into long term rentals. However, with the completion of new cruise ship docks in Ketchikan, tourism is expected to grow beyond pre-pandemic levels. This will cause a strain on both short term seasonal workers as well as long term renters seeking housing in the area. Some business owners have purchased additional homes in order to ensure their staff are housed, further constraining the inventory of available homes.

The quality of housing in Ketchikan largely does not meet Coast Guard standards. With high construction costs and demand for rentals, landlords often do not maintain properties to Coast Guard standards. Based on interviews conducted during the site visit, local professionals agreed that there was a relatively high percentage of housing units “in need of repair.” Additionally, the wet weather conditions require more frequent maintenance as compared to properties in the contiguous continental states. Furthermore, much of the housing stock is considered “old” by locals and undeveloped land suitable for new homes are scarce. New construction is extremely limited and costly. Local professionals generally agree that it would be difficult to house any additional Coast Guard members in adequate, affordable housing.

## Methodology

The purpose of this analysis is to project housing requirements over a five-year planning horizon assuming service members look to the community first for their housing needs. This methodology is consistent with policy in the *Coast Guard Housing Manual* (U.S. Coast Guard, 2016, Section 2A).

Chapter 1 of this HMSA provides a detailed description of the methodology used in the analysis and the factors by which community housing is evaluated. A summary is presented below.

## Adequacy

A community rental housing unit is defined as adequate in this analysis if it meets the following standards:

- Is a complete dwelling unit with private entrance, bathroom and kitchen for sole use of occupants; is well-constructed, in a good state of repair and does not pose a health or safety hazard; is not a seasonal rental or mobile home.
- Has a reliable and adequate water supply; electric, sanitation, telephone, and HVAC services; police and fire protection services; and is in an area free from offensive noise and odors.
- Has one full bathroom and all bedrooms shall be accessible from a hallway. Kitchen has range and refrigerator connections and adequate space for food preparation. There is a permanently installed, adequately vented heating system.
- House must be arranged so that the kitchen can be accessed without passing through bedrooms. Site should have suitable roadways, walks, and steps.
- Access to parking is consistent with that generally found in the market area.

## Affordability

A housing unit is affordable if the effective rent plus average utilities is less than the Maximum Acceptable Housing Cost (MAHC), defined as a service member's Basic Allowance for Housing (BAH) plus a national out-of-pocket (OOP) amount. Appendix A presents the results of a sensitivity analysis assuming an alternate definition of MAHC: the sum of BAH, the OOP amount, and 20 percent of Non-Locality BAH.

## Availability

Housing must be located within a reasonable commute of the principal work areas of the installation, defined as those communities within a 120-minute round-trip commute during peak traffic times under year-round average driving conditions. Housing is available over the five-year planning horizon of this report when either current occupants of community housing terminate their occupancy (turnover) for whatever purpose, or when additional housing units enter the rental market through new construction or as net conversions from owner-occupancy. For analysis of current year (2021) conditions, turnover rates are undefined - military personnel currently residing in community housing are assumed not to attempt to relocate from their current residences in the current year. For the current year, the analysis evaluates the ability of the community to provide sufficient adequate-quality, affordable housing. This consists of evaluating each member's housing allowance and bedroom entitlements (based on CG planning factors) to determine whether there is a sufficient number of suitable quality rental units to meet the demand based

on the military's market share of community housing (see below). Other key assumptions and parameters include the following:

**Floor Requirement for Housing.** There is no requirement for a minimum number of family housing units on base. Consistent with the "community first" assumption, the projected year of the analysis assumes all accompanied residents currently living in government-provided family housing look for housing in the community over the five-year planning horizon of this study. For analysis of current year conditions government family housing is assumed to be occupied at recent actual levels. For unaccompanied personnel, there is a minimum number of unaccompanied quarters required on base in both the current year and the projected year - this is the floor requirement for unaccompanied housing. For USCG Base Ketchikan, this unaccompanied floor includes five E1-E3 personnel in 2021 and 14 E1-E3 personnel in 2026. All other unaccompanied personnel look for housing in the community in both years.

**Military Market Shares.** The number of military households who are expected to find adequate-quality, affordable housing is based on a market share concept. The military's market share of area housing is defined as the number of military households in the area divided by the total number of military and civilian households within a market area. The market share calculations are performed for each cost segment within which the military compete for housing with civilians, and for each bedroom type they require.

**Community Housing Shortfall.** For the current year, the community housing shortfall is defined as all service members renting in the community less those expected to find adequate-quality housing within their MAHC. The number of service members who are estimated to be housed in adequate community housing is based on their market shares and the number of adequate quality housing units in their market segment/cost band. The community housing shortfall in the projected year consists of three components:

- Military members whose housing allowances are lower than the least expensive rental found in the community (excess demand shortfall);
- Military members that transition from on-base family housing to community housing but for whom the development community is not expected to respond to the increased demand (lack of market response shortfall); and
- Military members who are not expected to be able to obtain an adequate-quality housing within their MAHC based on their market share of adequate quality units available in the community.

**Government-Provided Housing Requirement.** The government-provided accompanied housing requirement in the current year is defined as the sum of current occupants of on-base housing and the community housing shortfall. The government-provided housing requirement in the projected year is defined to be the community housing shortfall. The government-provided unaccompanied housing requirement is the sum of the floor requirement and the community housing shortfall in both years.

## 1. INTRODUCTION

The purpose of this HMSA is to assess the capacity of the area housing market to provide military personnel with housing meeting USCG-defined criteria for adequacy, affordability, and availability.

**Adequacy** – Housing must meet or exceed minimum USCG standards for decent, safe, and sanitary dwellings and have the number of bedrooms required by each service member. Families were estimated to have requirements for two-, three-, or four-bedroom units based on USCG planning factors - 40 percent are assumed to require two-bedroom units; 40 percent are assumed to require three-bedroom units, and 20 percent are assumed to require units with four or more bedrooms. The bedroom requirements for unaccompanied personnel are one-bedroom units for grades E1-E4 and two-bedroom units for all other grades.

A community rental housing unit is considered adequate in this analysis if it meets the following standards:

- Is a complete dwelling unit with private entrance, bathroom and kitchen for sole use of occupants; is well-constructed, in a good state of repair and does not pose a health or safety hazard; is not a seasonal rental or mobile home.
- Has reliable and adequate water supply; electric, sanitation, telephone, and HVAC services; police and fire protection services, and is in an area free from offensive noise and odors.
- Has one full bathroom and all bedrooms are accessible from a hallway. Kitchen has range and refrigerator connections and adequate space for food preparation. There is a permanently installed, adequately vented heating system.
- House must be arranged so that the kitchen can be accessed without passing through bedrooms. Site should have suitable roadways, walks, and steps.
- Access to parking is consistent with that generally found in each market area.

**Affordability** – A housing unit is affordable if effective rent plus average utilities is less than the Maximum Acceptable Housing Cost (MAHC), defined as the Basic Allowance for Housing (BAH) plus a national out-of-pocket (OOP) amount. Appendix A presents the results of a sensitivity analysis assuming MAHC is defined as the sum of BAH, the OOP amount, and 20 percent of Non-Locality BAH.

**Availability** – Housing must be located within a reasonable commute of the principal work areas of the installation, defined as those communities that can be reached with a 120-minute round-trip commute during peak traffic times under year-round average driving conditions. Housing is available over the five-year planning horizon of this report when current occupants of community housing terminate their occupancy (turnover) for whatever purpose, or when additional housing units enter the rental market through either new construction or net conversions from owner-occupancy. For analysis of current year conditions, turnover rates are undefined - military personnel currently residing in community housing are assumed not to attempt to relocate from their residences in the current year. For analysis of current year conditions, the analysis estimates which members are adequately housed in the community based on the number of adequate-quality units in the market area and the military's market share of those cost segments in which they compete for housing.

This analysis is conducted for two points in time: the current year (2021) and projected year (2026). Addressing projected conditions permits the USCG to plan, budget, and implement actions to provide for future needs.

## 1.1 Methodology

The analysis is consistent with current USCG guidance for the preparation of housing market surveys and analyses. The following summarizes the principal features of this guidance:

1. The focus of the housing market survey and analysis is to assess the balance between projected affordable, available, and adequate community rental housing, and the projected military demand for such housing.
2. For analysis of current year conditions, government-provided family housing is considered to be occupied at recent actual levels. For analysis of projected year conditions, all accompanied military personnel in excess of the floor (or minimum) requirement (assumed to be zero in this case) are assumed to seek housing in the community. For unaccompanied personnel, all personnel other than the floor requirement are assumed to seek housing in the community.
3. Military personnel who own and occupy their homes in the area are adequately housed by definition. This study therefore focuses primarily on the rental market within the area. The number of potential military renters is the difference between the military's overall community housing demand and the number of military homeowners.
4. This analysis also evaluates the community's ability to absorb the potentially transitioning military families over the five-year planning horizon. The potentially transitioning military personnel are those who currently live in government-provided housing in excess of the floor requirement. These personnel are assumed to transition from "renting" government-provided housing to renting in the private sector.
5. The HMSA simulates a dynamic process of adjustment between market area housing demand and supply, broken down by cost segment and number of bedrooms. The analysis incorporates changes in military manpower, competing civilian demand, and rental housing supply over a five-year period, estimating the military's market share for each year of the analysis. The military market share is based on competition among accompanied personnel, unaccompanied personnel, and civilians who actively seek housing during the year. For analysis of current year conditions, the HMSA estimates what percentage of military personnel are likely to occupy adequate quality rental units. For example:
  - a) In 2021, there are 17 accompanied personnel with housing allowances between \$2,300 and \$2,400 per month requiring market area units with three bedrooms (Table 4-11).
  - b) Total rental demand for units in this cost segment/bedroom category (civilians and military) is 65 (48 civilians and 17 military), meaning the military's market share in this cost segment/bedroom category is approximately 26.2 percent (17 divided by 65).
  - c) Of the total rental housing occupied in this cost segment/bedroom category, there are an estimated 22 adequate quality units (reference Table 3-13).

- d) Since the military's market share is 26.2 percent of total demand, they capture 26.2 percent of the 22 adequate rentals (which rounds to six units) in this cost segment/bedroom category. Thus, six accompanied renters are suitably housed.
- e) These calculations are performed for each of the 75 cost segments/bedroom categories (15 cost segments and five bedroom categories) then summed. Thus, the total number of suitably housed military family renters in 2021 is 28 families (see Table ES-1).

For years 2021 through 2026, as discussed above, the analysis incorporates changes in military manpower, competing civilian demand, and rental housing supply. The military's market share is then estimated based on competition among accompanied personnel, unaccompanied personnel, and civilians who actively seek housing during each year.

## 1.2 Organization of the Report

The remaining chapters of this report are organized to provide a comprehensive and non-technical assessment of housing supply and demand conditions in the market area, particularly as these affect housing availability for military personnel.

**Chapter 2** describes the housing market area, its population, and local economic characteristics.

**Chapter 3** presents a detailed analysis of the market area's housing stock. This analysis is provided for both the current (2021) and projected (2026) years, and addresses both supply and demand factors in evaluating future trends in area housing.

**Chapter 4** discusses USCG housing demand, affordability, and adequacy in the context of total area demand, and concludes with the accompanied and unaccompanied housing requirements.

**Chapter 5** identifies the persons and organizations contacted in the course of preparing this analysis.

**Chapter 6** presents references used in the study.

**Appendix A** presents the results of the sensitivity analysis using a higher threshold for USCG affordability.

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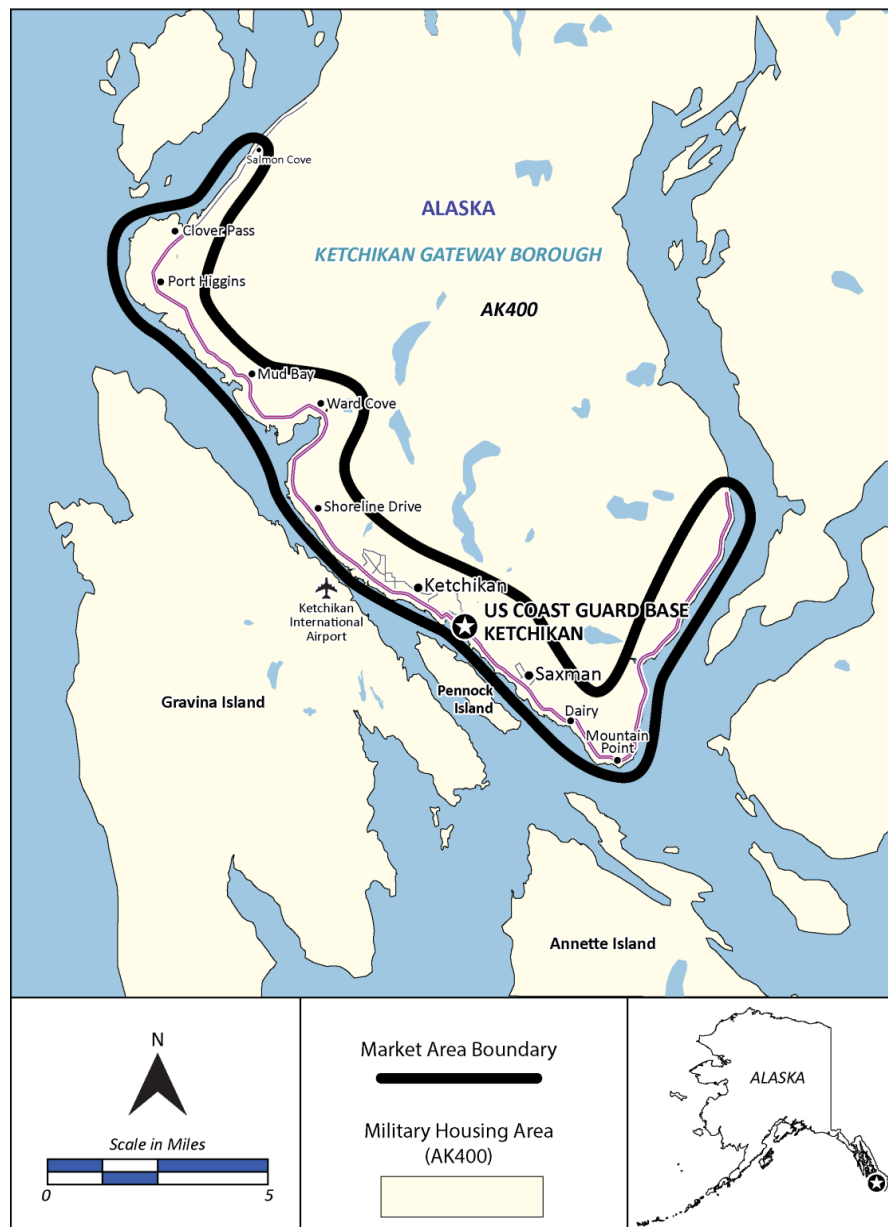
## 2. HOUSING MARKET AREA

This chapter defines the housing market area for USCG Base Ketchikan and describes the area's general population and economic characteristics.

### 2.1 Market Area Overview

The housing market area is based on the limits of a 120-minute round-trip commute during peak traffic under year-round average driving conditions. The limits of the market area were established based on timed drives and input from USCG leadership. The market area contains all of the residential areas along the Tongass Highway including the cities of Ketchikan and Saxman as well as unincorporated areas of the borough. Figure 2-1 maps the market area along with the Military Housing Area (AK400) that determines BAH rates for USCG Base Ketchikan.

Figure 2-1. Housing Market Area, USCG Base Ketchikan



The Ketchikan Gateway Borough, Alaska is served by one main road (Tongass Highway) and local roads. USCG Base Ketchikan is located at the southern end of the Ketchikan city limits. Travelling north from Base Ketchikan, through the city of Ketchikan on North Tongass Highway, the paved road ends after approximately 19 miles at the Settlers Cove recreation area. Travelling south from Base Ketchikan on South Tongass Highway past the City of Saxman, the paved road ends after approximately 12 miles. The northbound drive was completed in approximately 30 minutes and the southbound drive was completed in approximately 20 minutes.

Drives were conducted to and from the USCG Base Ketchikan during the period of 11 August - 13 August 2021. The weather ranged from overcast to sunny during the timed drives. No significant delays were encountered due to accidents or road construction. Most area roads are not particularly congested during peak commute periods for military personnel and light to no traffic was observed during the timed drives. Cruise ship activity was observed during the course of the site visit, but did not particularly impact traffic or driving conditions. While the number of docked cruise ships were limited during the site visit due to the COVID-19 pandemic, it is unlikely that increased tourism or adverse weather conditions would cause the commuting times to exceed 60-minutes one way.

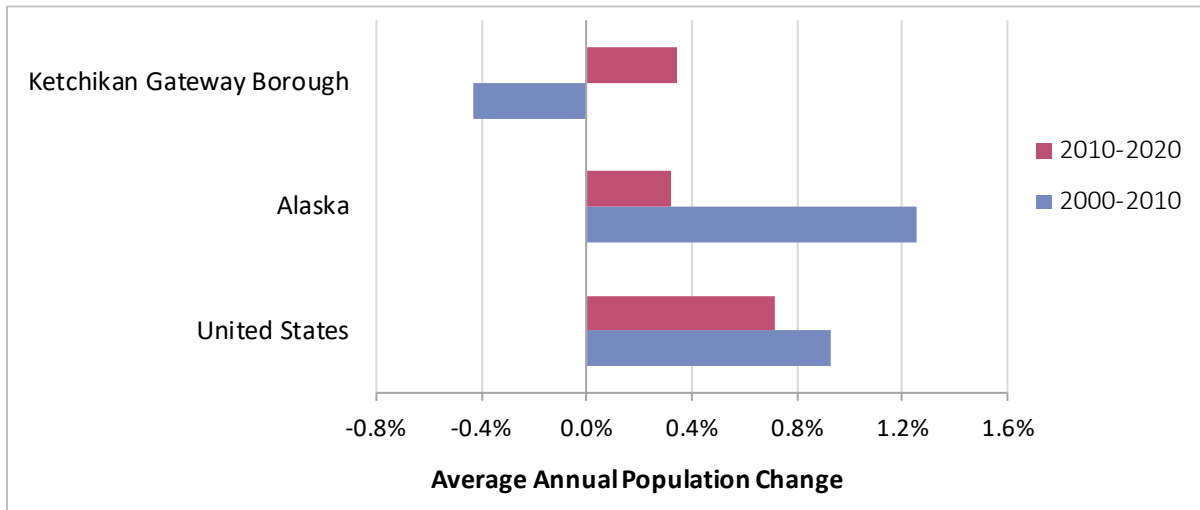
## 2.2 Population

Using geographical information system (GIS) mapping software, the market area boundary was overlaid on census tract maps to determine which census tracts are within the market area. Census Bureau data were then collected and compiled into a comprehensive database of market area population and housing characteristics as of April 2000, April 2010, and April 2020. Census tract-level estimates from the American Community Survey were used to supplement the 2010 census data to estimate the distribution of housing by type and number of bedrooms. More recent data from the U.S. Census Bureau were used to update market area estimates to the current year.

The current population of the off-base market area is approximately 13,753 persons, having increased by 0.4 percent annually since 2010 (U.S. Bureau of the Census, 2001, 2011, 2021b). The population is forecasted to grow by 0.1 percent per year, for a projected market area population of 13,853 persons in 2026 (Alaska Department of Labor and Workforce Development, Research and Analysis Section, 2020).

Figure 2-2 provides population growth rates for Ketchikan Gateway Borough, the state of Alaska, and the United States. Population growth in Ketchikan Gateway Borough averaged -0.4 percent per year from 2000 to 2010, starkly different than the average annual growth of 1.3 percent in Alaska and 0.9 percent across the United States during the same period. Between 2010 and 2020, Ketchikan Gateway Borough and Alaska's population grew by 0.3 percent per year while population grew by 0.7 percent in the United States.

**Figure 2-2. Population Growth, Ketchikan Gateway Borough, Alaska, and the United States, 2000–2010, 2010–2020**



Sources: U.S. Bureau of Economic Analysis, 2020; U.S. Bureau of the Census, 2021b.

### 2.3 Economic Conditions

Table 2-1 displays key economic indicators for the period 2000 to 2019 for Ketchikan Gateway Borough, the state of Alaska, and the United States. In 2019, the most recent year for which this comprehensive measure is available, total jobs in Ketchikan Gateway Borough stood at 10,336 (including civilian, military, wage and salary, and self-employed persons in all sectors).

Total jobs have fluctuated over the past two decades in Ketchikan Gateway Borough. Total jobs in the borough shrank by 0.6 percent per year between 2000 and 2005, while jobs increased 1.6 percent in Alaska and 0.8 percent in the U.S. overall. The recession slowed job growth between 2005 and 2010 at the state and national levels, but job growth accelerated at the local level. During this period, jobs grew annually by 0.5 percent in Ketchikan Gateway Borough, 1.0 percent in Alaska, and by only 0.1 percent in the United States as a whole. Between 2010 and 2019, jobs expanded at average annual rates of 0.3 percent in Ketchikan Gateway Borough, 0.4 percent in Alaska, and 1.8 percent across the United States.

**Table 2-1. Economic Indicators, Ketchikan Gateway Borough, Alaska, and the United States, 2000, 2005, 2010, and 2019**

Jurisdiction/Indicator	2000	2005	2010	2019
<b>Ketchikan Gateway Borough</b>				
Total Jobs[1]	10,048	9,770	10,028	10,336
Average Annual Change (%) [2]		-0.6%	0.5%	0.3%
Earnings per Job[3]	\$57,415	\$60,506	\$65,346	\$71,819
Average Annual Change (%)		1.1%	1.6%	1.1%
Per Capita Income[3]	\$54,490	\$57,424	\$64,556	\$73,527
Average Annual Change (%)		1.1%	2.4%	1.5%
<b>Alaska</b>				
Total Jobs	389,734	421,419	443,904	459,788
Average Annual Change (%)		1.6%	1.0%	0.4%
Earnings per Job	\$59,531	\$65,361	\$71,897	\$73,652
Average Annual Change (%)		1.9%	1.9%	0.3%
Per Capita Income	\$46,753	\$50,659	\$58,480	\$65,055
Average Annual Change (%)		1.6%	2.9%	1.2%
<b>United States</b>				
Total Jobs	165,370,800	172,338,400	172,901,700	203,809,500
Average Annual Change (%)		0.8%	0.1%	1.8%
Earnings per Job	\$58,457	\$60,722	\$61,733	\$66,479
Average Annual Change (%)		0.8%	0.3%	0.8%
Per Capita Income	\$44,747	\$46,663	\$47,964	\$58,513
Average Annual Change (%)		0.8%	0.6%	2.2%

Notes: [1] Total Jobs are average annual full- and part-time jobs, by place of work.  
 [2] Average Annual Change in the 2005 column is for 2000-2005; in the 2010 column, for 2005-2010; and in the 2019 column, for 2010-2019.  
 [3] Average Earnings per Job and Per Capita Income were converted to constant 2021 dollars using the implicit price deflator for personal consumption expenditures.

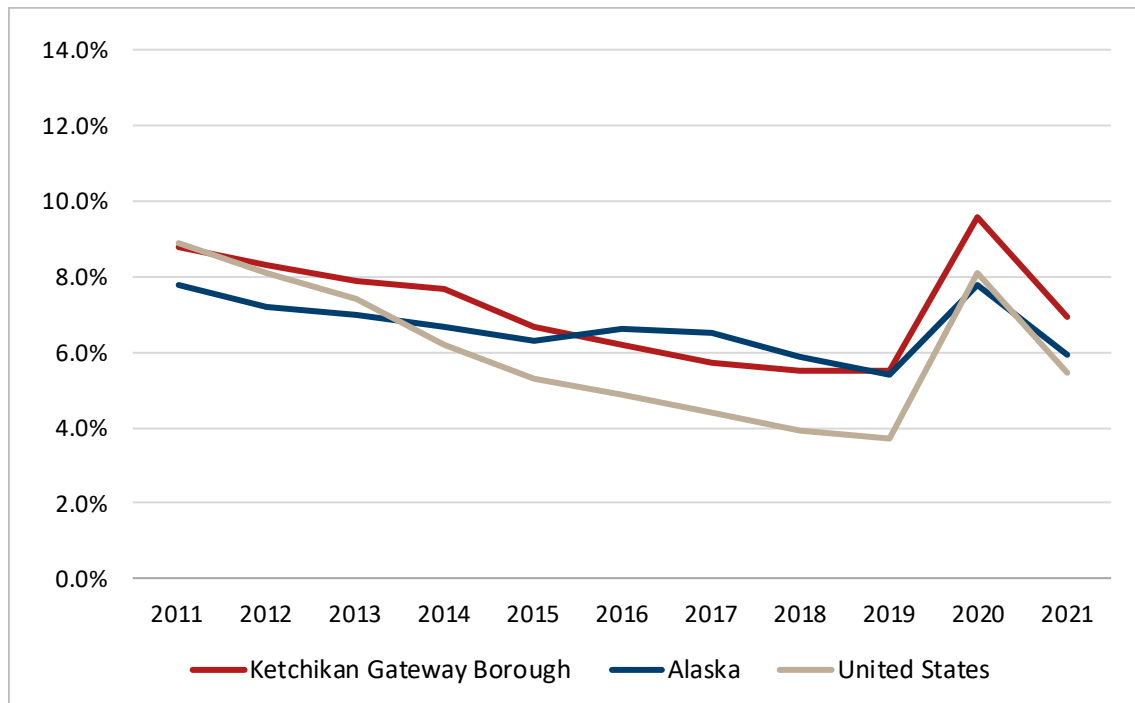
Sources: U.S. Bureau of Economic Analysis, 2020, 2021.

Per capita income is higher in Ketchikan Gateway Borough than in Alaska and the U.S. as a whole. As of 2019, per capita income in the borough was \$73,527 (in constant 2021 dollars), compared to \$65,055 in Alaska, and \$58,513 in the United States. Per capita income in Ketchikan Gateway Borough has increased in each period over the past two decades, at an average annual rate of 1.1 percent from 2000 to 2005, 2.4 percent from 2005 to 2010, and 1.5 percent from 2010 to 2019.

Like the steady gains in per capita income, average earnings per job have also grown in Ketchikan Gateway Borough. From 2000 to 2005, earnings per job increased 1.1 percent annually on average in the borough. In comparison, Alaska saw average annual earnings per job increase 1.9 percent while the U.S. increased 0.8 percent. During the next five years, 2005-2010, average earnings per job increased annually by 1.6 percent in Ketchikan Gateway Borough, 1.9 percent in Alaska, and 0.3 percent in the United States overall. During 2010-2019, earnings per job increased an average of 1.1 percent per year in the borough, outpacing average annual increases in Alaska and the U.S., which increased 0.3 percent and 0.8 percent, respectively (see Table 2-1).

Figure 2-3 charts the trend in local, state, and national civilian unemployment rates from 2011 to 2021. All three levels have seen the same trend over the last decade. Unemployment rates have declined steadily from 2010 through 2019. However, in 2020, unemployment rates spiked due to the economic downturn caused by the COVID-19 pandemic. As of August 2021, as the labor market recovers, the unemployment rates for Ketchikan Gateway Borough, Alaska, and the U.S. dropped to 5.7 percent, 5.1 percent, and 5.3 percent, respectively. The latest forecasts from the U.S. Federal Reserve indicate the national unemployment rate will trend downward over the next few years and could drop as low as 3.5 percent by 2024 (Federal Open Market Committee, 2021).

**Figure 2-3. Trends in Unemployment Rates, Ketchikan Gateway Borough, Alaska, and the United States, 2011-2021**

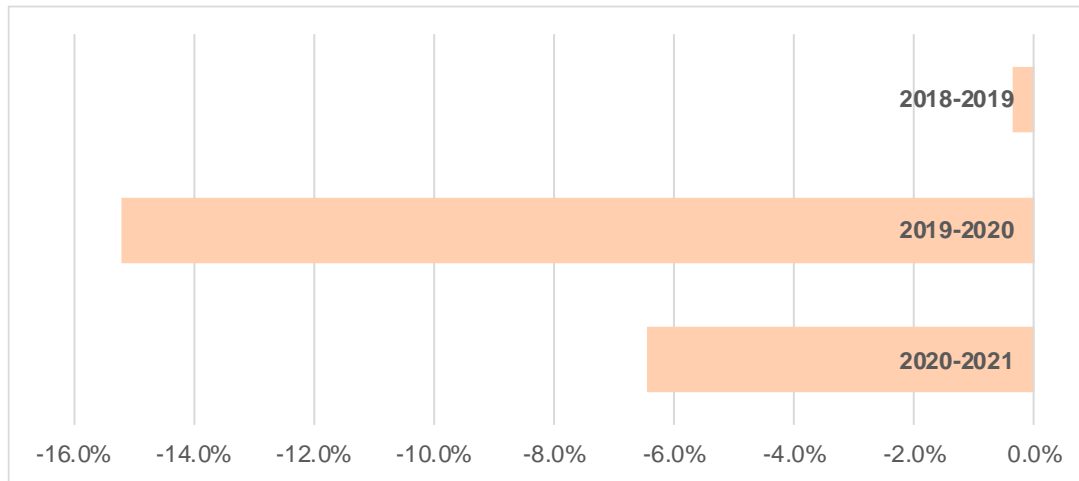


Note: 2021 unemployment estimates based on 2021 data through August relative to 2020 data through August.  
Source: U.S. Bureau of Labor Statistics, 2021.

Figure 2-4 compares the change in total wage and salary jobs (excluding self-employed workers) between 2020 and 2021 with the changes measured in the previous years (2019-2020 and 2018-2019) in Ketchikan Gateway Borough.

Between 2018 and 2019, total jobs in Ketchikan Gateway Borough shrank by 0.4 percent. As a result of the COVID-19 pandemic, Ketchikan Gateway Borough experienced further job loss (15.2 percent) over the 2019-2020 period. In the following period (2020-2021), the borough continued to lose jobs but at a slower rate (-6.4 percent) than 2019-2020. Total jobs are expected to rebound over the 2021-2022 period as the cruise ship industry recovers from the impacts of COVID-19.

**Figure 2-4. Change in Total Wage and Salary Jobs, Ketchikan Gateway Borough, 2018-2019, 2019-2020, and 2020-2021**



Note: 2021 total jobs estimate based on 2021 data through March relative to 2020 data through March.  
Source: U.S. Bureau of Labor Statistics, 2021.

Table 2-2 displays 2019 employment by economic sector for Ketchikan Gateway Borough, Alaska, and the United States. Government and government enterprises compose the largest economic sector, with 21.2 percent of total employment in Ketchikan. The majority of these jobs are in state and local government, which accounts for 16.3 percent of total employment.

Ketchikan’s second-largest employment sector is retail trade, with 11.9 percent of jobs. An additional 10.8 percent of jobs are in health care and social assistance, followed by accommodation and food services at 9.2 percent and transportation and warehousing at 7.9 percent. Other principal economic sectors include real estate and rental and leasing (5.5 percent), construction (5.1 percent), and manufacturing (4.7 percent).

**Table 2-2. Employment by Economic Sector, Ketchikan Gateway Borough, Alaska, and the United States, 2019**

Indicator	Ketchikan Gateway Borough	Alaska	United States
Government and government enterprises	21.2%	22.3%	12.1%
Federal, civilian	2.1%	3.2%	1.4%
Military	2.8%	5.6%	1.0%
State and local	16.3%	13.4%	9.8%
Retail Trade	11.9%	9.7%	9.4%
Health care and social assistance	10.8%	11.6%	11.3%
Accommodation and food services	9.2%	8.0%	7.5%
Transportation and warehousing	7.9%	5.6%	4.5%
Real estate and rental and leasing	5.5%	3.9%	4.8%
Construction	5.1%	5.2%	5.5%
Manufacturing	4.7%	3.4%	6.7%
Other services, except public administration	3.6%	4.6%	5.8%
Arts, entertainment, and recreation	3.6%	2.5%	2.4%
Professional and technical services	3.1%	5.2%	7.2%
Finance and insurance	2.6%	2.6%	5.4%
Administrative and waste services	2.2%	3.8%	6.2%
Management of companies and enterprises	1.0%	0.8%	1.4%
All other sectors	7.4%	10.8%	9.9%

Source: U.S. Bureau of Economic Analysis, 2020.

Top employers in Ketchikan Gateway Borough include: Trident Seafoods, University of Alaska Southeast, PeaceHealth Ketchikan Medical Center, City of Ketchikan, Walmart, Vigor Alaska, Ketchikan Public Utilities, Ketchikan Indian Community, and the Ketchikan Infant Learning Program (Alaska Department of Labor and Workforce Development, Research and Analysis Section, 2021).

## 2.4 Quality of Life

The following subsections present information on industrial land use and crime rates in the area, which may affect the quality of life of USCG service members and their families.

### Industrial Land Use

Ketchikan Lakes Dam, located upstream of Ketchikan Creek, is a hydroelectric rockfill dam that generates about 20-gigawatt hours of energy annually, supplying roughly 50 percent of the Ketchikan Gateway Borough’s total electricity (Ketchikan, City of, 2021). While the dam provides substantial, needed electricity to the Ketchikan Gateway Borough, it also poses the threat of flooding. If water levels overrun the dam, Ketchikan Creek would flood and cause significant damage to the City of Ketchikan. For example, in December of 2020, higher than normal rainfall threatened to overflow the dam, prompting residents to evacuate. Fortunately, while some flooding did occur, the dam did not break and no serious damage was reported.

The cruise industry, a significant part of Alaska’s tourism, is growing in Ketchikan. As the industry grows, infrastructure to accommodate the large ships must also continue to develop. Ketchikan has recently constructed new docks that are large enough for the latest, largest cruise ships (Stone, Eric, 2020). This will help ensure that Ketchikan can accommodate the cruise industry well into the future.

In 2008, the National Oceanic and Atmospheric Administration's (NOAA) Stedman Street dock was condemned as unsafe. Since then, the NOAA Ship Fairweather has docked at USCG Base Ketchikan while operating in Alaska (Austin, Nick, 2021). In April of 2021, NOAA awarded a contract to perform major improvements at the condemned NOAA facility with the intention of moving the Fairweather back to Alaska as its new permanent home and to accommodate other large vessels that visit Ketchikan (NOAA, 2021). Alaskan Senator San Sullivan anticipates that moving the Fairweather back to Ketchikan full-time will create about 50 new jobs which could have an impact on the already limited supply of housing (Stone, Eric, 2021b).

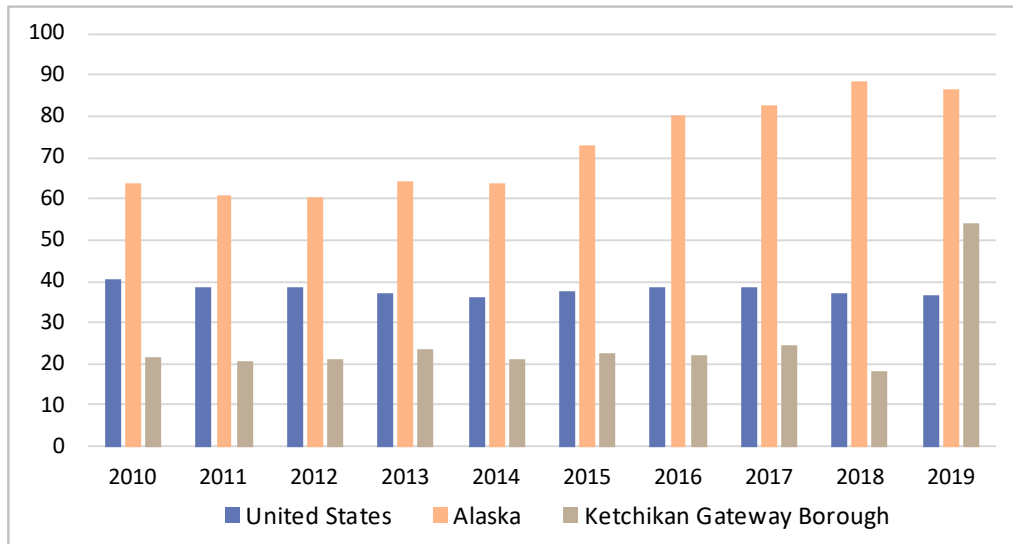
The Ketchikan Gateway Borough is home to one international airport located on Gravina Island, just across the Tongass Narrows. In 2019, the Ketchikan Airport serviced 250,000 passengers with plans for terminals expansions in the next few years to support an additional 100,000 yearly passengers (Stone, Eric, 2021a). There is no road access across the Tongass Narrows to Gravina Island. Therefore, passengers, as well as goods, need to arrive to the island by ferry.

### **Crime Rates**

Figure 2-5 and Figure 2-6 chart violent and property crime for Ketchikan Gateway Borough and for comparison, Alaska, and the United States. The violent crime rate is defined as the number of homicides, rapes, robberies, and aggravated assaults per 10,000 population. The property crime rate is defined as the number of burglaries, motor vehicle thefts, and larceny-thefts (as defined by the Federal Bureau of Investigation) per 10,000 population.

Historically, violent crime rates in Ketchikan Gateway Borough had been lower than statewide and nationwide rates. However, violent crime rate in the borough increased from 18.0 percent in 2018 to 54.0 percent in 2019 (up 36.0 percent), exceeding the nationwide rate in 2019. Over the 2010-2019 period, the violent crime rate averaged 24.9 crimes per 10,000 population in Ketchikan. In comparison, the average violent crime rate over the same period was 72.4 in Alaska and 37.9 in the nation as a whole. Ketchikan saw the annual number of violent crimes increase by 150.7 percent between 2010 and 2019.

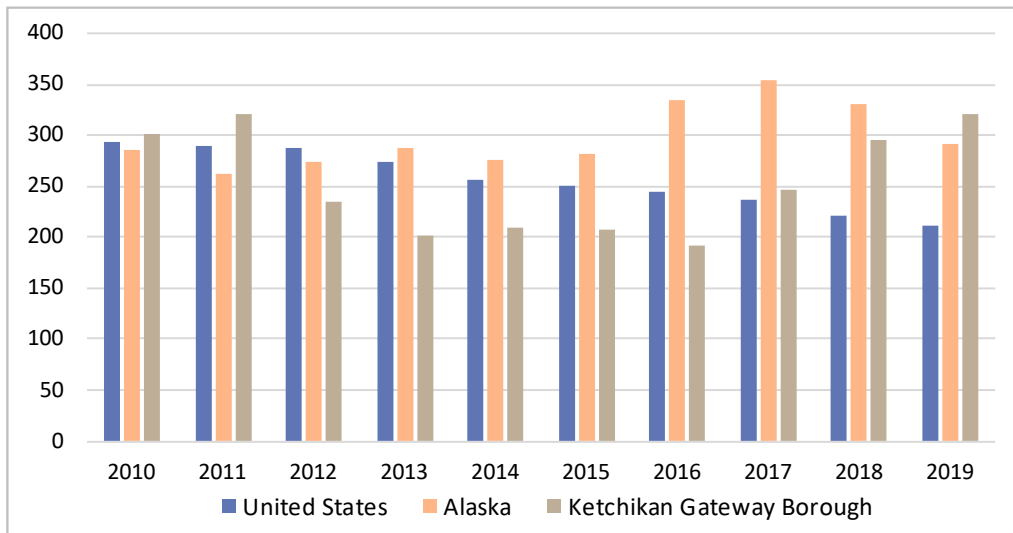
**Figure 2-5. Violent Crime Rate per 10,000 Population, Ketchikan Gateway Borough, Alaska, and the United States, 2010-2019**



Sources: Alaska Department of Public Safety, 2010-2019; U.S. Department of Justice, Federal Bureau of Investigation, 2020.

Property crime rates in Ketchikan generally trended downward between 2011 and 2016, but have been continuously increasing since 2016. Over the 2010-2019 period, Ketchikan Gateway Borough, Alaska, and the U.S. experienced average crime of 253.3 crimes per 10,000 population, compared to 297.9 statewide and 256.6 nationwide. Between 2010 and 2019, property crime rates increased in market area jurisdictions and in Alaska, but declined in the nation. Over the nine-year period, property crime rate grew 6.8 percent in market area jurisdictions and 2.0 percent statewide, while the nationwide property crime rate fell by 28.4 percent.

**Figure 2-6. Property Crime Rate per 10,000 Population, Ketchikan Gateway Borough, Alaska, and the United States, 2010-2019**



Source: Alaska Department of Public Safety, 2010-2019; U.S. Department of Justice, Federal Bureau of Investigation, 2020.

## Housing Quality Assessment

Ketchikan is experiencing a housing shortage. Vacancy rates are high in the winter months before the extreme rental shortage in the busier summer months. This is due to landlords renting primarily to seasonal summer workers or tourists. Median household income in Ketchikan is not sufficient to own a home given the high cost of building materials and labor. Furthermore, Ketchikan vacation rental market is unregulated, creating a market where lower-earning households compete for limited supply. Ketchikan Gateway Borough is also surrounded by federal lands which constrains development. The influx of seasonal workers in the summer months and low inventory provide an additional challenge to Coast Guard personnel seeking housing. Due to the difficult nature of finding available rentals at affordable prices, tenants rarely turnover and available units rent quickly, regardless of size or condition. Thus, families moving to the area may be forced to rent units with fewer bedrooms than desired and/or paying several months in advance to secure housing. Coast Guard personnel largely use private online groups and word of mouth to navigate the competitive rental market.

The quality of housing in Ketchikan largely does not meet Coast Guard standards. With high construction costs and demand for rentals, many landlords often do not maintain properties to Coast Guard standards. Based on interviews conducted during the site visit, local professionals agreed that a relatively high percentage of housing units are “in need of repair.” Additionally, the wet weather conditions require more frequent maintenance as compared to properties in the contiguous continental states. New construction is extremely limited, costly, and undeveloped land suitable for new homes are scarce. Local professionals agree that it would be difficult to house any additional Coast Guard members in adequate, affordable housing.

Local property managers, real estate brokers, and planning officials interviewed for this study were asked to estimate the share of the rental housing stock that is inadequate quality or has safety issues. Estimates ranged from 40 to 90 percent depending on the area. Given these inputs and other data, this analysis uses an average of 49.9 percent of the entire rental housing stock as inadequate by USCG criteria (Section 3.3).

### 3. COMMUNITY HOUSING

Private-sector owners control most of the market area’s housing stock. Therefore, the availability and cost of housing are subject to market forces. An integrated assessment of relevant demand and supply factors is presented in this chapter, covering recent trends, current conditions, and projected future changes in the availability and cost of housing to uniformed service families.

#### 3.1 Household Population and Tenure

The current off-base population in the USCG Base Ketchikan market area is estimated to total 13,753 persons, having increased by 0.4 percent annually since 2010 (Table 3-1). The household population (exclusive of persons in group quarters) is an estimated 13,498 persons in 2021. Average household size decreased from 2.56 persons per household in 2000 to 2.49 persons in 2010 and is estimated to have remained at 2.49 persons per household in 2021 (U.S. Bureau of the Census, 2001, 2011 and 2021a,b). The number of occupied housing units has increased from 5,201 units in 2010 to an estimated 5,432 units in 2021. There are currently an estimated 2,270 renter-occupied housing units in the market area, representing 41.8 percent of the occupied housing stock. Owner-occupied units currently account for 58.2 percent of the housing stock, up from 57.7 percent in 2010. The percentage of owner-occupied units is projected to increase to 58.5 percent by 2026.

**Table 3-1. Recent Trends and Baseline Projections of Housing Demand, USCG Base Ketchikan Market Area, 2000, 2010, 2021, and 2026**

Housing Market Indicator	2000	2010	2021	2026
Total Population	13,768	13,208	13,753	13,853
Average Annual Change (%)	N.A.	-0.4%	0.4%	0.1%
Household Population	13,539	12,963	13,498	13,598
Average Annual Change (%)	N.A.	-0.4%	0.4%	0.1%
Average Household Size	2.56	2.49	2.49	2.48
Occupied Housing Units	5,291	5,201	5,432	5,494
Average Annual Change (%)	N.A.	-0.2%	0.4%	0.2%
Owner-Occupied Units	3,195	3,002	3,162	3,216
Percent of Baseline Total	60.4%	57.7%	58.2%	58.5%
Renter-Occupied Units	2,096	2,199	2,270	2,278
Percent of Baseline Total	39.6%	42.3%	41.8%	41.5%

Note: Average annual change in 2010 column is for 2000-2010; 2021 column is for 2010-2021, and 2026 column is for 2021-2026.

Sources: Alaska Department of Labor and Workforce Development, 2020; U.S. Bureau of the Census, 2001, 2002, 2011, 2021a,b; and estimates RDN prepared for this study.

The off-base housing stock in the market area is currently estimated to total 6,144 housing units, including both occupied and vacant units (Table 3-2). Single-family houses account for 55.3 percent of the total, while multi-family units represent 41.6 percent, and mobile homes and other types of housing comprise 3.1 percent of total units. Total housing units declined at a rate of 0.1 percent per year between 2000 and 2010, but expanded by 0.2 percent per year between 2010 and 2021. Based on historical trends, recent building permit activity, and information provided by local planners in on-site interviews, total housing units are expected to increase by 0.1 percent per year between 2021 and 2026.

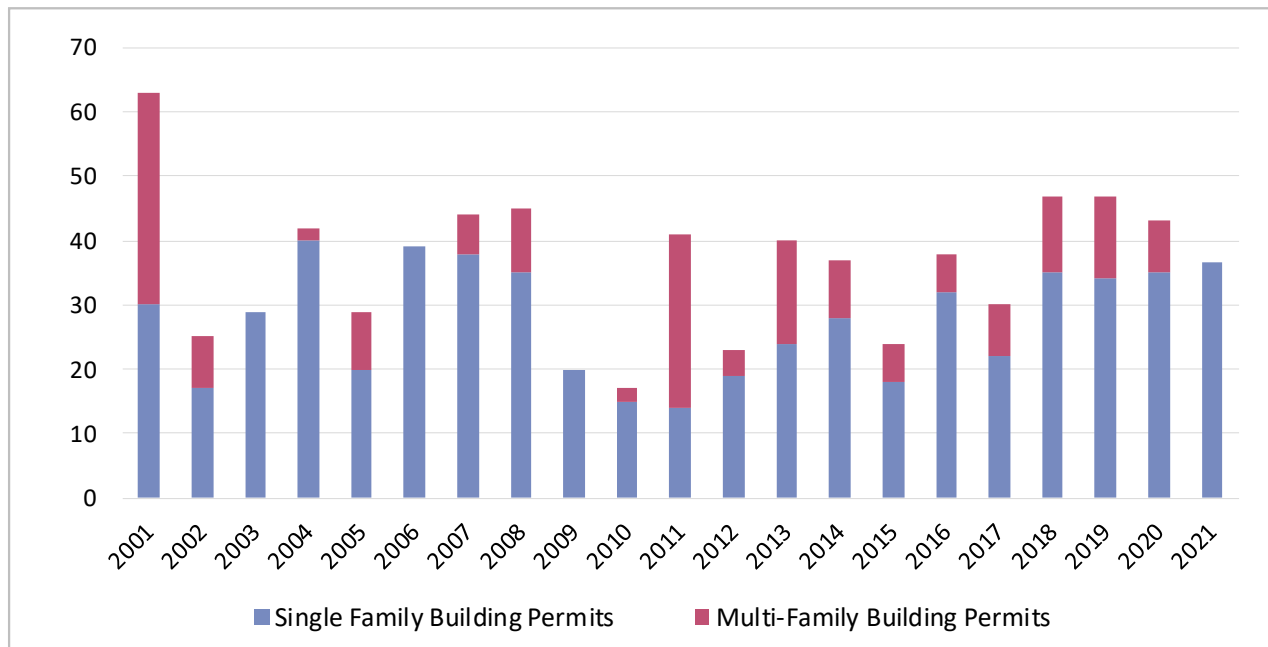
**Table 3-2. Recent Trends and Baseline Projections of Housing Supply, by Type of Structure, USCG Base Ketchikan Market Area, 2000, 2010, 2021, and 2026**

Housing Market Indicator	2000	2010	2021	2026
Total Housing Units	6,087	6,038	6,144	6,185
Average Annual Change (#)	N.A.	(5)	9	8
Average Annual Change (%)	N.A.	-0.1%	0.2%	0.1%
Single Family Units	3,208	3,293	3,395	3,435
Average Annual Change (#)	N.A.	9	9	8
Share of Total Housing (%)	52.7%	54.5%	55.3%	55.5%
Multiple Family Units	2,473	2,501	2,558	2,579
Average Annual Change (#)	N.A.	3	5	4
Share of Total Housing (%)	40.6%	41.4%	41.6%	41.7%
Manufactured/Trailers/Other	406	244	191	171
Average Annual Change (#)	N.A.	(16)	(5)	(4)
Share of Total Housing (%)	6.7%	4.0%	3.1%	2.8%

Sources: Alaska Department of Labor and Workforce Development, 2021; U.S. Bureau of the Census, 2001, 2002, 2011, 2021a,b; U.S. Department of Housing and Urban Development 2021; and estimates RDN prepared for this study.

Figure 3-1 illustrates the trend in residential building permits over the past 20 years. Permit activity peaked in 2001 when 30 single-family units and 33 multi-family units were permitted. Permit activity fell to the lowest level in 20 years in 2010 when 15 single-family units and two multi-family units were permitted. In 2021, permits were issued for an estimated 37 single-family units and no multi-family units.

**Figure 3-1. Building Permits for New Residential Units, USCG Base Ketchikan Market Area, 2001-2021**



Source: U.S. Department of Housing and Urban Development, 2021.

Table 3-3 shows recent trends in vacancy rates in the market area. The total vacancy rate in the market area is currently estimated to be 11.6 percent. Total vacancies include vacant units for sale, vacant units for rent, and vacant units held for seasonal or recreational use. This analysis estimates the current rental vacancy rate in the market area to be 5.6 percent, down from the rate observed in the 2010 census. The vacancy rate of homes for sale is estimated to be 1.5 percent at the present time. The rental vacancy rate is expected to decline to 5.4 percent in 2026, and the sales vacancy rate is also projected to decline slightly to 1.4 percent in 2026.

**Table 3-3. Recent Trends and Baseline Projections of Vacant Units, USCG Base Ketchikan Housing Market Area, 2000, 2010, 2021, and 2026**

Housing Market Indicator	2000	2010	2021	2026
Total Vacant Units	796	837	712	691
Total Vacancy Rate (%)	13.1%	13.9%	11.6%	11.2%
Vacant Units for Sale	73	60	48	47
For Sale Vacancy Rate (%)	2.2%	2.0%	1.5%	1.4%
Vacant Units for Rent	278	183	135	131
Rental Vacancy Rate (%)	11.7%	7.7%	5.6%	5.4%
Other Vacant Units (see note)	445	594	529	513
Vacancy Rate (%)	7.3%	9.8%	8.6%	8.3%

Note: Other vacant units include units rented or sold but not yet occupied; units entirely occupied by persons who have a usual residence elsewhere; boarded-up units; units held for seasonal or recreational use; units held for migrant workers; and other units.

Sources: Alaska Department of Labor and Workforce Development, 2021; U.S. Bureau of the Census, 2001, 2011, 2021a,b; and estimates RDN prepared for this study.

## Bedroom Composition of Housing

The market area’s renter-occupied housing stock is composed mostly of one-bedroom and two-bedroom units. Table 3-4 displays the breakdown of housing units by number of bedrooms (one-, two-, three-, and four-plus-bedroom units).

**Table 3-4. Units by Number of Bedrooms in Unit,  
 USCG Base Ketchikan Market Area, 2000, 2010, 2021, and 2026**

<b>Housing Market Indicator</b>	<b>2000</b>	<b>2010</b>	<b>2021</b>	<b>2026</b>
One Bedroom Units	912	931	931	932
Owner-occupied	135	123	129	131
Renter-occupied	567	581	609	613
Vacant	210	227	193	188
Vacant for Rent	75	50	37	36
Two Bedroom Units	1,758	1,734	1,754	1,762
Owner-occupied	768	700	736	748
Renter-occupied	733	771	795	797
Vacant	257	263	223	217
Vacant for Rent	88	58	43	42
Three Bedroom Units	2,057	1,995	2,051	2,070
Owner-occupied	1,464	1,361	1,433	1,457
Renter-occupied	457	498	503	501
Vacant	136	136	115	112
Vacant for Rent	46	30	22	22
Four-plus Bedroom Units	1,005	1,007	1,045	1,060
Owner-occupied	814	804	849	865
Renter-occupied	121	127	130	133
Vacant	70	76	66	62
Vacant for Rent	24	16	11	10

Sources: U.S. Bureau of the Census, 2001, 2002, 2011, and 2021a,b; and estimates RDN prepared for this study.

### 3.2 Affordability

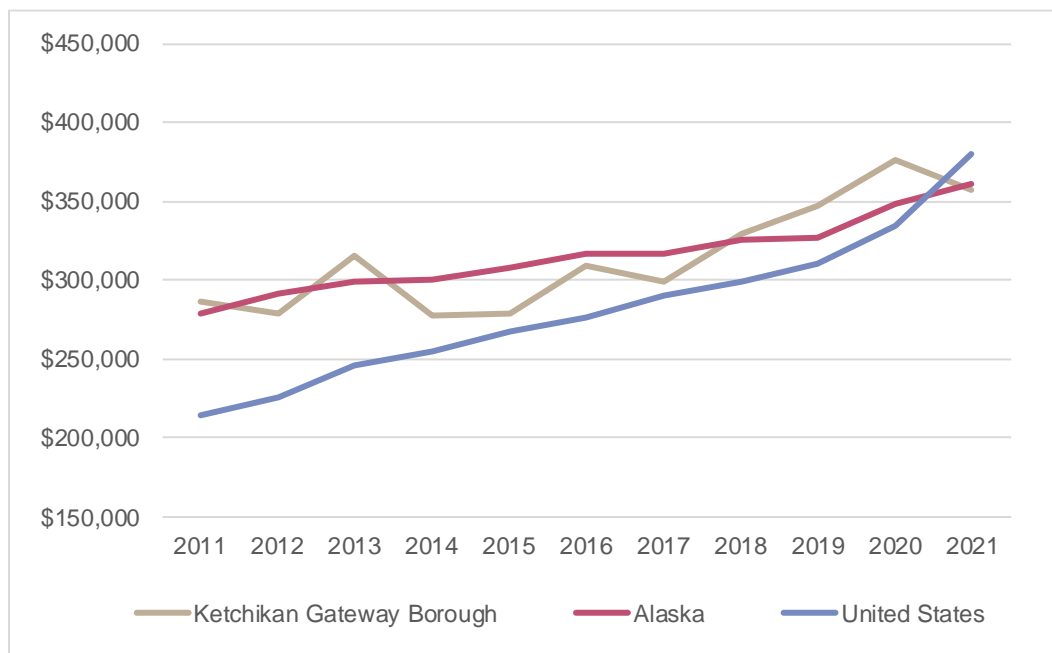
The section summarizes key indicators in the sales market and the rental housing market.

#### Sales Market

In 2021, there were 3,162 owner-occupied housing units representing 58.2 percent of the occupied housing stock. The vacancy rate in the for-sale market is currently estimated to be 1.5 percent.

Figure 3-2 charts the trend in the average sales prices of existing single family homes in the Ketchikan Gateway Borough, Alaska, and the United States between 2011 and 2021. In 2021, the average sales price in the Ketchikan Gateway Borough is estimated at \$356,768, compared to \$361,374 in Alaska, and \$379,558 in the United States. Over the past decade, sales prices in the borough fluctuated but generally trended upward. Sales prices at the state and national levels have also increased during this period. Annual increases in home prices from 2011 to 2021 averaged 2.2 percent in the Ketchikan Gateway Borough, 2.6 percent in Alaska, and 5.9 percent in the United States as a whole (Alaska Department of Labor and Workforce Development, Research and Analysis Section, 2021; and National Association of Realtors, 2021).

**Figure 3-2. Average Sales Price of Existing Single Family Homes Ketchikan Gateway, Alaska, and United States, 2011-2021**



Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section, 2021; and National Association of Realtors, 2021.

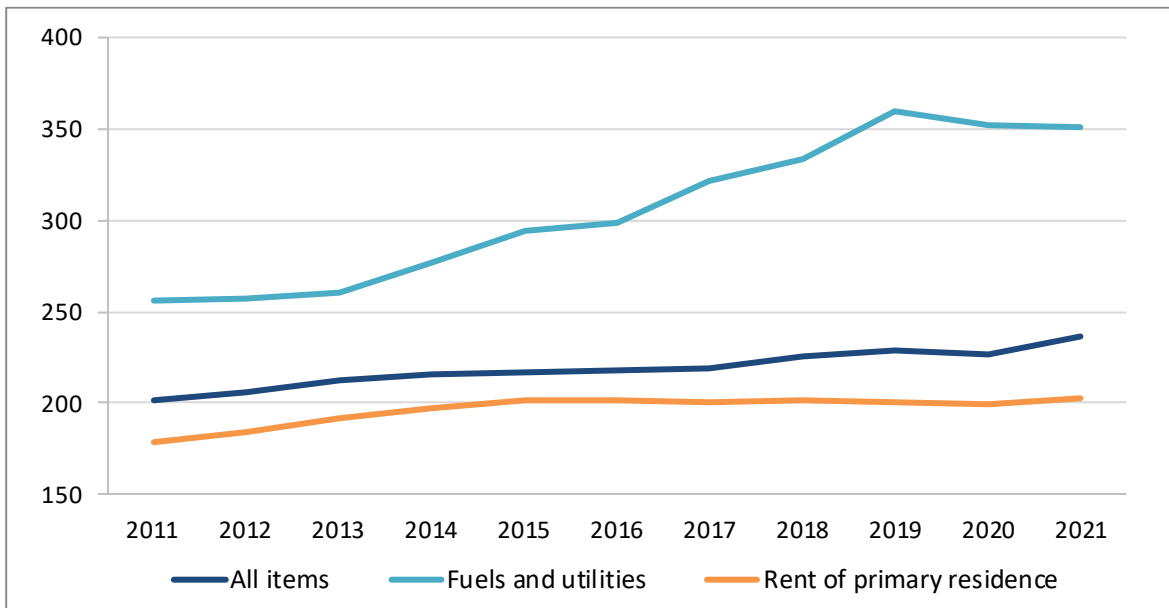
#### Rental Market

An estimated 2,270 housing units in the market area in 2021 are renter-occupied, representing 41.8 percent of the occupied housing stock. The current vacancy rate for rental units in the USCG Base Ketchikan market area is estimated to be 5.6 percent (see Table 3-1 and Table 3-3).

### Recent Trends

Long-term trends in market area rents can be approximated using the Rent of Primary Residence index for the Urban Alaska area as measured by the Consumer Price Index (CPI) program of the U.S. Bureau of Labor Statistics (2021). Figure 3-3 illustrates the average annual change in this index over the past decade. Also included in the chart, are the trends in fuels and utilities costs and the general trend of prices (the All Items index). The rent of primary residence index increased at an average annual rate of 1.3 percent between 2011 and 2021, slower than general inflation (All items), which rose 1.6 percent per year over the same period, and utility costs, which increased at an average annual rate of 3.2 percent over the past decade. Between 2011 and 2021, the largest annual region-wide increase in rent was 4.0 percent between 2012 and 2013.

Figure 3-3. Recent Trends in Consumer Price Index Components, Urban Alaska, 2011-2021



Sources: U.S. Bureau of Labor Statistics, 2021.

### Current Rental Prices

For this study, a database of 185 year-round non-mobile home rental observations was compiled for the market area based on information from local property managers (Dulan, Steve and Murphy, Joy, 2021), rental data collected for the BAH program (Robert D. Niehaus, Inc., 2021), and listings from internet websites (Coastal Keller William Alaska Group, Craigslist.org, Facebook.com, Forrent.com, Homes.mil, ListedBuy, Realtor.com, Sitka Realty, Trulia, Yahoo, and Zillow; 2021). Utility costs were estimated for one-, two-, three-, and four-plus-bedroom units using data from local housing authorities (Alaska Housing Finance Corporation, 2021), information provided by local realtors and property managers, and data collected for the BAH Program (Robert D. Niehaus, Inc., 2020).

The market area has a range of rental opportunities, which can be summarized as follows:

- Based on a sample of 50 non-mobile home rental units, ranging in rent from \$700 per month to \$1,594 per month, the median rent for one-bedroom units is \$1,108 per month. Utility costs are estimated to average \$308 per month. Median rent plus utilities is thus \$1,416 per month for a one-bedroom rental.
- Based on a sample of 72 non-mobile home rental units, ranging in rent from \$746 per month to \$2,000 per month, the median rent for two-bedroom units is \$1,400 per month. Utility costs are estimated to average \$395 per month. Median rent plus utilities is thus \$1,795 per month for a two-bedroom rental.
- Based on a sample of 60 non-mobile home rental units, ranging in rent from \$1,215 per month to \$2,565 per month, the median rent for three-bedroom units is \$1,838 per month. Utility costs are estimated to average \$537 per month. Median rent plus utilities is thus \$2,375 per month for a three-bedroom rental.
- Based on a sample of three non-mobile home rental units, ranging in rent from \$2,200 per month to \$3,965 per month, the median rent for units with four or more bedrooms is \$2,400 per month. Utility costs are estimated to average \$639 per month. Thus, median rent plus utilities is \$3,039 per month for a rental unit with four or more bedrooms.

Based on the distribution of rental prices above, Table 3-5 presents the current distribution of the market area renter-occupied housing stock by cost band and number of bedrooms, i.e., market segments. Table 3-6 presents the current distribution of the vacant rental housing stock.

**Table 3-5. Renter-Occupied Housing Units, USCG Base Ketchikan Market Area, 2021**

2021 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$3100	-	-	-	7	42	49
\$3,100	-	-	-	30	41	71
\$3,000	-	-	-	7	9	16
\$2,900	-	-	-	15	38	53
\$2,800	-	-	-	30	-	30
\$2,700	-	-	-	15	-	15
\$2,600	-	-	-	59	-	59
\$2,500	-	-	-	37	-	37
\$2,400	-	-	31	52	-	83
\$2,300	-	-	10	105	-	115
\$2,200	-	-	10	88	-	98
\$2,100	-	-	84	37	-	121
\$2,000	9	24	73	7	-	113
\$1,900	9	24	157	7	-	197
\$1800 & Below	215	561	430	7	-	1,213
<b>Total</b>	<b>233</b>	<b>609</b>	<b>795</b>	<b>503</b>	<b>130</b>	<b>2,270</b>

Source: Estimates RDN prepared for this study.

**Table 3-6. Vacant-for-Rent Units, USCG Base Ketchikan Market Area, 2021**

2021 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$3100	-	-	-	-	3	3
\$3,100	-	-	-	1	4	5
\$3,000	-	-	-	-	1	1
\$2,900	-	-	-	1	3	4
\$2,800	-	-	-	1	-	1
\$2,700	-	-	-	1	-	1
\$2,600	-	-	-	3	-	3
\$2,500	-	-	-	2	-	2
\$2,400	-	-	2	2	-	4
\$2,300	-	-	1	6	-	7
\$2,200	-	-	1	4	-	5
\$2,100	-	-	5	1	-	6
\$2,000	1	1	4	-	-	6
\$1,900	1	1	9	-	-	11
\$1800 & Below	20	35	21	-	-	76
<b>Total</b>	<b>22</b>	<b>37</b>	<b>43</b>	<b>22</b>	<b>11</b>	<b>135</b>

Source: Estimates RDN prepared for this study.

By 2026, the off-base market area is projected to contain 2,279 renter-occupied units and 131 vacant units for rent. Table 3-7 presents the distribution among cost bands and bedroom types of the occupied rental housing supply projected for 2026 and Table 3-8 presents the comparable projected distribution of the vacant-for-rent housing stock for 2026.

**Table 3-7. Renter-Occupied Housing Units, USCG Base Ketchikan Market Area, 2026**

2026 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$3100	-	-	-	8	42	50
\$3,100	-	-	-	30	42	72
\$3,000	-	-	-	8	10	18
\$2,900	-	-	-	15	39	54
\$2,800	-	-	-	30	-	30
\$2,700	-	-	-	15	-	15
\$2,600	-	-	-	60	-	60
\$2,500	-	-	-	38	-	38
\$2,400	-	-	32	52	-	84
\$2,300	-	-	11	94	-	105
\$2,200	-	-	11	90	-	101
\$2,100	-	-	84	37	-	121
\$2,000	9	24	74	8	-	115
\$1,900	9	24	158	8	-	199
\$1800 & Below	217	565	427	8	-	1,217
<b>Total</b>	<b>235</b>	<b>613</b>	<b>797</b>	<b>501</b>	<b>133</b>	<b>2,279</b>

Source: Estimates RDN prepared for this study.

**Table 3-8. Vacant-for-Rent Housing Units, USCG Base Ketchikan Market Area, 2026**

2026 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$3100	-	-	-	-	3	3
\$3,100	-	-	-	1	3	4
\$3,000	-	-	-	-	1	1
\$2,900	-	-	-	1	3	4
\$2,800	-	-	-	1	-	1
\$2,700	-	-	-	1	-	1
\$2,600	-	-	-	3	-	3
\$2,500	-	-	-	2	-	2
\$2,400	-	-	2	2	-	4
\$2,300	-	-	1	6	-	7
\$2,200	-	-	1	4	-	5
\$2,100	-	-	4	1	-	5
\$2,000	1	1	4	-	-	6
\$1,900	1	1	8	-	-	10
\$1800 & Below	19	34	22	-	-	75
<b>Total</b>	<b>21</b>	<b>36</b>	<b>42</b>	<b>22</b>	<b>10</b>	<b>131</b>

Source: Estimates RDN prepared for this study.

### 3.3 Adequacy

The minimum acceptable quality standards used in this analysis are discussed in Chapter 1 of the report. Market area housing exhibits a wide range of quality, depending on age, type of construction, building materials, location, surrounding land use, maintenance, and other factors. Although quality of housing cannot be correlated directly with age, building materials and components in newer units generally are less likely to have experienced high levels of deferred maintenance, and newer units are generally more likely to conform to current building codes and living standards. Older units, however, may have other desirable qualities, such as mature landscaping, larger lot sizes, or well-established neighborhoods.

Table 3-9 displays the renter-occupied and total housing stock in the market area by year constructed. An estimated 44.4 percent of the rental housing stock was constructed prior to 1970 and is therefore more than 51 years old.

**Table 3-9. Housing Stock by Year Unit Constructed, USCG Base Ketchikan Market Area**

Year Housing Unit Constructed	Renter-Occupied Units			Total Units		
	Number	Percent	Cumulative Percent	Number	Percent	Cumulative Percent
1939 or earlier	345	15.2%	15.2%	775	12.6%	12.6%
1940 to 1949	102	4.5%	19.7%	253	4.1%	16.7%
1950 to 1959	351	15.5%	35.2%	826	13.4%	30.2%
1960 to 1969	210	9.3%	44.4%	568	9.2%	39.4%
1970 to 1979	524	23.1%	67.5%	1,318	21.5%	60.9%
1980 to 1989	403	17.7%	85.3%	1,072	17.4%	78.3%
1990 to 1999	148	6.5%	91.8%	827	13.5%	91.8%
2000 to 2009	144	6.4%	98.1%	408	6.6%	98.4%
2010 or later	42	1.9%	100.0%	98	1.6%	100.0%

Sources: U.S. Bureau of the Census, 2021a,b; and estimates RDN prepared for this study.

Local property managers, real estate brokers, and planning officials were interviewed in August 2021 and asked to estimate the share of the rental housing stock that is inadequate with respect to quality and safety issues. Estimates ranged from 40 to 90 percent (Bingham, Corey; B.S.; Gubatayao, Justin; Johnson, Alethea; Murphy, Joy; Zaugg, Christina; 2021).

Based on age of the housing stock, local interviews, and windshield surveys conducted during the site visit, this analysis uses an average of 49.9 percent of the non-mobile home rental housing stock as inadequate by USCG criteria.

Mobile homes represent approximately 4.8 percent of the rental housing stock and by definition are unsuitable for military members (see Chapter 1 - Adequacy). This analysis therefore uses an overall estimate of 52.3 percent of the entire rental inventory as unsuitable by USCG criteria. This figure represents a weighted average of the condition assessment for the non-mobile home rental housing stock and the mobile home portion (100 percent of the 4.8 percent of the rental housing stock that are mobile homes plus 49.9 percent of the remaining 95.2 percent that are non-mobile home rentals).

### **Distribution of Unsuitable Market Area Rental Units**

As previously discussed, an estimated 49.9 percent of the non-mobile home rental housing stock is considered unsuitable because of quality and/or safety concerns. This percentage was scaled among cost band segments, assuming a higher incidence of poor quality housing is found in the less expensive units, while rental units at the higher end of the market have a lower incidence of poor quality housing.

Table 3-10 presents the percentage distribution of unsuitable units across bedroom types and cost band segments for market area non-mobile home rental units. These percentages were scaled among the cost band segments so the number of unsuitable rental units with at least one bedroom amounted to 49.9 percent of all non-mobile-home rental units with at least one bedroom.

**Table 3-10. Percentage of Unsuitable Rental Housing, by Rental Cost and Number of Bedrooms, USCG Base Ketchikan Market Area, 2021**

2021 Rental Cost	Number of Bedrooms				
	Studios	One	Two	Three	Four+
Above \$3100	100.0%	0.0%	0.0%	10.0%	18.0%
\$3,100	100.0%	0.0%	0.0%	15.0%	45.0%
\$3,000	100.0%	0.0%	0.0%	22.0%	75.0%
\$2,900	100.0%	0.0%	0.0%	30.0%	90.0%
\$2,800	100.0%	0.0%	0.0%	35.0%	100.0%
\$2,700	100.0%	0.0%	0.0%	40.0%	100.0%
\$2,600	100.0%	0.0%	0.0%	45.0%	100.0%
\$2,500	100.0%	0.0%	0.0%	50.0%	100.0%
\$2,400	100.0%	0.0%	5.0%	52.0%	100.0%
\$2,300	100.0%	0.0%	10.0%	56.0%	100.0%
\$2,200	100.0%	0.0%	20.0%	60.0%	100.0%
\$2,100	100.0%	0.0%	32.0%	65.0%	100.0%
\$2,000	100.0%	18.0%	40.0%	75.0%	100.0%
\$1,900	100.0%	32.0%	52.0%	80.0%	100.0%
\$1800 & Below	100.0%	52.0%	60.0%	85.0%	100.0%

Source: Estimates RDN prepared for this study.

The number of unsuitable rental units in the market area in 2021 is thus estimated to total 1,386 units. The distribution of these units by cost band and bedrooms is presented in Table 3-11.

**Table 3-11. Unsuitable Rental Housing Supply (Renter-Occupied and Vacant-for-Rent), USCG Base Ketchikan Market Area, 2021**

2021 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$3100	-	-	-	1	9	10
\$3,100	-	-	-	5	20	25
\$3,000	-	-	-	2	8	10
\$2,900	-	-	-	5	38	43
\$2,800	-	-	-	11	-	11
\$2,700	-	-	-	6	-	6
\$2,600	-	-	-	28	-	28
\$2,500	-	-	-	20	-	20
\$2,400	-	-	2	31	-	33
\$2,300	-	-	1	76	-	77
\$2,200	-	-	2	61	-	63
\$2,100	-	-	29	28	-	57
\$2,000	10	4	31	5	-	50
\$1,900	10	8	87	6	-	111
\$1800 & Below	235	313	288	6	-	842
<b>Total</b>	<b>255</b>	<b>325</b>	<b>440</b>	<b>291</b>	<b>75</b>	<b>1,386</b>

Source: Estimates RDN prepared for this study.

### Suitable Natural Vacancies

Not all vacant units for rent are available for occupancy by military members. Vacant units for rent are only included in the suitable rental housing supply to the extent the number of vacant units exceeds a natural, equilibrium, or “market-clearing” level of vacancies (the natural vacancy rate). The natural vacancy rate is the level below which there is upward pressure on rental prices at a rate greater than the general rate of price inflation. Natural vacancies are not considered part of the available supply for market area households. Table 3-12 presents the number of suitable quality natural vacant rental units in the market area for 2021.

**Table 3-12. Suitable Natural Vacancies, USCG Base Ketchikan Market Area, 2021**

2021 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$3100	-	-	-	-	2	2
\$3,100	-	-	-	1	2	3
\$3,000	-	-	-	-	-	-
\$2,900	-	-	-	1	-	1
\$2,800	-	-	-	1	-	1
\$2,700	-	-	-	1	-	1
\$2,600	-	-	-	2	-	2
\$2,500	-	-	-	1	-	1
\$2,400	-	-	2	1	-	3
\$2,300	-	-	1	2	-	3
\$2,200	-	-	1	1	-	2
\$2,100	-	-	3	-	-	3
\$2,000	-	1	2	-	-	3
\$1,900	-	1	4	-	-	5
\$1800 & Below	-	16	8	-	-	24
<b>Total</b>	-	<b>18</b>	<b>21</b>	<b>11</b>	<b>4</b>	<b>54</b>

Source: Estimates RDN prepared for this study.

### Suitable Rental Housing

Suitable rental housing is the sum of total renter-occupied units (Table 3-5) and total vacant units (Table 3-6), less unsuitable rental housing (Table 3-11) and suitable natural vacant units (Table 3-12). The distribution of suitable rental housing for the USCG Base Ketchikan market area by cost band and bedrooms is presented in Table 3-13. Suitable rental housing in the market area is thus 965 units in 2021.

**Table 3-13. Suitable Rental Housing, USCG Base Ketchikan Housing Market Area, 2021**

2021 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$3100	-	-	-	6	34	40
\$3,100	-	-	-	25	23	48
\$3,000	-	-	-	5	2	7
\$2,900	-	-	-	10	3	13
\$2,800	-	-	-	19	-	19
\$2,700	-	-	-	9	-	9
\$2,600	-	-	-	32	-	32
\$2,500	-	-	-	18	-	18
\$2,400	-	-	29	22	-	51
\$2,300	-	-	9	33	-	42
\$2,200	-	-	8	30	-	38
\$2,100	-	-	57	10	-	67
\$2,000	-	20	44	2	-	66
\$1,900	-	16	75	1	-	92
\$1800 & Below	-	267	155	1	-	423
<b>Total</b>	-	<b>303</b>	<b>377</b>	<b>223</b>	<b>62</b>	<b>965</b>

Source: Estimates RDN prepared for this study.

Projected suitable rental housing is calculated in the same manner as above and is presented in Table 3-14.

**Table 3-14. Suitable Rental Housing, USCG Base Ketchikan Market Area, 2026**

2026 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$3100	-	-	-	7	34	41
\$3,100	-	-	-	25	23	48
\$3,000	-	-	-	6	2	8
\$2,900	-	-	-	10	3	13
\$2,800	-	-	-	19	-	19
\$2,700	-	-	-	9	-	9
\$2,600	-	-	-	33	-	33
\$2,500	-	-	-	19	-	19
\$2,400	-	-	30	22	-	52
\$2,300	-	-	10	32	-	42
\$2,200	-	-	9	30	-	39
\$2,100	-	-	57	10	-	67
\$2,000	-	20	44	2	-	66
\$1,900	-	16	76	2	-	94
\$1800 & Below	-	269	156	1	-	426
<b>Total</b>	-	<b>305</b>	<b>382</b>	<b>227</b>	<b>62</b>	<b>976</b>

Source: Estimates RDN prepared for this study.

### 3.4 Availability

As discussed in the Executive Summary and Chapter 1, turnover rates are undefined when analyzing current year conditions - military personnel residing in community housing are assumed not to attempt to relocate from their current residences in the current year. For current year conditions, the analysis estimates which members are adequately housed in the community based on the number of adequate quality units in the market area (reference Table 3-14) and the military's market share in the cost segments in which they compete for housing.

For the projected year, not all the suitable units in Table 3-14 are considered available for occupancy by military members. Available units projected over the five-year planning horizon for this report are defined as those units that turn over, enter the market through new construction, or are net conversions from owner-occupancy. Based on interviews with real estate professionals conducted for this study and data from the American Community Survey (U.S. Bureau of the Census, 2021a), the average annual turnover rate for civilians is estimated to be 24.1 percent in the USCG Base Ketchikan market area. Turnover rates were scaled among cost segments, assuming higher turnover in the highest cost segments. Turnover is assumed to be higher in more expensive units based on the economic incentive for households to leave expensive rentals if or when they find a more affordable (but still adequate quality) unit.

In addition to the civilian turnover discussed above, 35-45 percent of suitably-housed military personnel also turn over each year. (All unsuitably-housed personnel in a given year turn over the following year; they have another opportunity to try to find suitable housing.) Suitably-housed personnel turn over when they change duty stations and are replaced by a new Coast Guard member, who may not be able to immediately secure suitable housing. As an example, a particular military family may be suitably housed for their two or three years at an installation, but their replacement may move a couple times during their stay while attempting to find suitable housing.

## 4. USCG HOUSING DEMAND

This chapter is divided into five sections covering the following: total USCG housing demand, current government-provided housing occupancy and projected floor requirements, community housing demand by housing tenure, and the affordability and adequacy of community housing.

### 4.1 Housing Demand by Pay Grade

Table 4-1 presents the current and projected housing demand of USCG Base Ketchikan. Personnel data were based on Personnel Allowance List (PAL) authorizations as of September 2021 and demographic breakdowns were based on planning factors obtained from PSC-PSD-FS Housing Section planning documents. The number of personnel assigned to USCG Base Ketchikan is expected to equal 191 personnel for the current year and 276 in the projected year.

In the current year, there are an estimated 139 families and 52 unaccompanied personnel. Bedroom entitlements for accompanied personnel in 2021 include 56 two-bedroom units, 56 three-bedroom units, and 27 units with four or more bedrooms. In the projected year there are an estimated 198 families and 78 unaccompanied personnel. Bedroom entitlements for accompanied personnel in the projected year include an estimated 79 two-bedroom units, 79 three-bedroom units, and 40 units with four or more bedrooms.

**Table 4-1. USCG Personnel by Accompaniment Status and Bedroom Entitlement, USCG Base Ketchikan, 2021 and 2026**

2021 Pay Grade	Number of Bedrooms			Military Families	Permanent Party Personnel		2026 Pay Grade	Number of Bedrooms			Military Families	Permanent Party Personnel	
	Two	Three	Four+		Single	Personnel		Two	Three	Four+		Single	Personnel
O7 & Above	-	-	-	-	-	-	O7 & Above	-	-	-	-	-	-
O6	-	-	-	-	-	-	O6	-	1	-	1	-	1
O5	1	1	1	3	-	3	O5	2	1	1	4	-	4
O4	1	1	-	2	-	2	O4	1	2	1	4	-	4
O3	2	2	1	5	2	7	O3	3	2	1	6	2	8
O2	-	1	-	1	1	2	O2	1	1	-	2	3	5
O1	1	-	-	1	3	4	O1	1	1	-	2	6	8
Officers	5	5	2	12	6	18	Officers	8	8	3	19	11	30
W5	-	-	-	-	-	-	W5	-	-	-	-	-	-
W4	1	1	1	3	-	3	W4	1	2	1	4	-	4
W3	1	1	1	3	-	3	W3	1	2	1	4	-	4
W2	1	2	-	3	-	3	W2	2	1	1	4	-	4
W1	1	1	-	2	1	3	W1	2	1	-	3	1	4
Warrants	4	5	2	11	1	12	Warrants	6	6	3	15	1	16
E9	3	3	1	7	-	7	E9	4	4	2	10	1	11
E8	2	3	1	6	1	7	E8	4	4	2	10	1	11
E7	3	2	2	7	1	8	E7	4	4	2	10	1	11
E6	13	12	6	31	4	35	E6	17	17	9	43	6	49
E5	12	12	6	30	8	38	E5	16	16	9	41	11	52
E4	11	11	5	27	20	47	E4	15	14	7	36	26	62
E3	3	3	1	7	9	16	E3	5	5	2	12	17	29
E2	-	-	1	1	2	3	E2	-	1	1	2	3	5
E1	-	-	-	-	-	-	E1	-	-	-	-	-	-
Enlisted	47	46	23	116	45	161	Enlisted	65	65	34	164	66	230
<b>Total</b>	<b>56</b>	<b>56</b>	<b>27</b>	<b>139</b>	<b>52</b>	<b>191</b>	<b>Total</b>	<b>79</b>	<b>79</b>	<b>40</b>	<b>198</b>	<b>78</b>	<b>276</b>

Source: PSC-PSD-FS Housing Section, 2021a; and estimates RDN prepared for this study.

## 4.2 Current Occupancy and Projected Floor Requirements

It is USCG policy to rely on the private sector to house military personnel to the maximum possible extent. This HMSA methodology interprets the policy to mean that the difference between current occupancy of government-provided housing and a projected minimum, or floor, requirement is the number of personnel that would seek housing in the private sector over the next five years. The following subsections show the current occupancy and projected floor requirement for accompanied and unaccompanied personnel at USCG Base Ketchikan.

### Accompanied Personnel

Table 4-2 presents the current occupancy and projected floor requirement for accompanied personnel at USCG Base Ketchikan. Data provided by USCG Base Ketchikan Housing (2021) shows that one accompanied personnel currently reside in government-provided housing. There is no projected accompanied floor requirement. Thus, by the final year of the five-year forecast period, all families are assumed to seek private-sector housing.

**Table 4-2. Current Occupancy and Projected Floor Requirement for Accompanied Personnel, USCG Base Ketchikan, 2021 and 2026**

2021 Pay Grade	Number of Bedrooms			Total	2026 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	-	-	O6	-	-	-	-
O5	-	-	1	1	O5	-	-	-	-
O4	-	-	-	-	O4	-	-	-	-
O3	-	-	-	-	O3	-	-	-	-
O2	-	-	-	-	O2	-	-	-	-
O1	-	-	-	-	O1	-	-	-	-
Officers	-	-	1	1	Officers	-	-	-	-
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	-	-	W4	-	-	-	-
W3	-	-	-	-	W3	-	-	-	-
W2	-	-	-	-	W2	-	-	-	-
W1	-	-	-	-	W1	-	-	-	-
Warrants	-	-	-	-	Warrants	-	-	-	-
E9	-	-	-	-	E9	-	-	-	-
E8	-	-	-	-	E8	-	-	-	-
E7	-	-	-	-	E7	-	-	-	-
E6	-	-	-	-	E6	-	-	-	-
E5	-	-	-	-	E5	-	-	-	-
E4	-	-	-	-	E4	-	-	-	-
E3	-	-	-	-	E3	-	-	-	-
E2	-	-	-	-	E2	-	-	-	-
E1	-	-	-	-	E1	-	-	-	-
Enlisted	-	-	-	-	Enlisted	-	-	-	-
<b>Total</b>	-	-	<b>1</b>	<b>1</b>	<b>Total</b>	-	-	-	-

Source: USCG Base Ketchikan Housing, 2021; and estimates RDN prepared for this study.

## Unaccompanied Personnel

Table 4-3 presents the current and projected floor requirement for unaccompanied personnel at USCG Base Ketchikan. The unaccompanied floor requirement totals five unaccompanied E2-E3s in 2021 and 14 unaccompanied E2-E3s in 2026.

**Table 4-3. Current and Projected Floor Requirement for Unaccompanied Personnel, USCG Base Ketchikan, AK, 2021 and 2026**

2021 Pay Grade	Number of Bedrooms			Total	2026 Pay Grade	Number of Bedrooms			Total
	One	Two	Three			One	Two	Three	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	-	-	O6	-	-	-	-
O5	-	-	-	-	O5	-	-	-	-
O4	-	-	-	-	O4	-	-	-	-
O3	-	-	-	-	O3	-	-	-	-
O2	-	-	-	-	O2	-	-	-	-
O1	-	-	-	-	O1	-	-	-	-
Officers	-	-	-	-	Officers	-	-	-	-
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	-	-	W4	-	-	-	-
W3	-	-	-	-	W3	-	-	-	-
W2	-	-	-	-	W2	-	-	-	-
W1	-	-	-	-	W1	-	-	-	-
Warrants	-	-	-	-	Warrants	-	-	-	-
E9	-	-	-	-	E9	-	-	-	-
E8	-	-	-	-	E8	-	-	-	-
E7	-	-	-	-	E7	-	-	-	-
E6	-	-	-	-	E6	-	-	-	-
E5	-	-	-	-	E5	-	-	-	-
E4	-	-	-	-	E4	-	-	-	-
E3	4	-	-	4	E3	12	-	-	12
E2	1	-	-	1	E2	2	-	-	2
E1	-	-	-	-	E1	-	-	-	-
Enlisted	5	-	-	5	Enlisted	14	-	-	14
<b>Total</b>	<b>5</b>	<b>-</b>	<b>-</b>	<b>5</b>	<b>Total</b>	<b>14</b>	<b>-</b>	<b>-</b>	<b>14</b>

Source: PSC-PSD-FS Housing Section, 2021a; Estimates RDN prepared for this study.

### 4.3 Community Housing Demand

The total accompanied community housing demand is defined for 2021 as those personnel in excess of the current occupants of government-provided housing and for 2026 as those personnel in excess of the projected floor requirement, which is zero in this analysis.

#### Accompanied Personnel

USCG Base Ketchikan community housing demand totals 138 families in 2021 and 198 families in 2026. The bedroom entitlements of these personnel, by grade, are shown in Table 4-4.

**Table 4-4. Community-First Accompanied Housing Demand, USCG Base Ketchikan, 2021 and 2026**

2021 Pay Grade	Number of Bedrooms			Total	2026 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	-	-	O6	-	1	-	1
O5	1	1	-	2	O5	2	1	1	4
O4	1	1	-	2	O4	1	2	1	4
O3	2	2	1	5	O3	3	2	1	6
O2	-	1	-	1	O2	1	1	-	2
O1	1	-	-	1	O1	1	1	-	2
Officers	5	5	1	11	Officers	8	8	3	19
W5	-	-	-	-	W5	-	-	-	-
W4	1	1	1	3	W4	1	2	1	4
W3	1	1	1	3	W3	1	2	1	4
W2	1	2	-	3	W2	2	1	1	4
W1	1	1	-	2	W1	2	1	-	3
Warrants	4	5	2	11	Warrants	6	6	3	15
E9	3	3	1	7	E9	4	4	2	10
E8	2	3	1	6	E8	4	4	2	10
E7	3	2	2	7	E7	4	4	2	10
E6	13	12	6	31	E6	17	17	9	43
E5	12	12	6	30	E5	16	16	9	41
E4	11	11	5	27	E4	15	14	7	36
E3	3	3	1	7	E3	5	5	2	12
E2	-	-	1	1	E2	-	1	1	2
E1	-	-	-	-	E1	-	-	-	-
Enlisted	47	46	23	116	Enlisted	65	65	34	164
<b>Total</b>	<b>56</b>	<b>56</b>	<b>26</b>	<b>138</b>	<b>Total</b>	<b>79</b>	<b>79</b>	<b>40</b>	<b>198</b>

Source: Estimates RDN prepared for this study.

**Homeowners**

PSC-PSD-FS Housing Section completed a personnel survey in September 2021 to determine current homeownership rates among USCG Base Ketchikan personnel. Based on the survey, 49 families, or 35.3 percent of total families as determined by USCG planning factors, are estimated to be homeowners in the current year.

Table 4-5 presents the current (2021) and projected (2026) number of accompanied homeowners at USCG Base Ketchikan. It is projected that 66 military families will be homeowners in 2026, representing 33.3 percent of all families.

**Table 4-5. Accompanied Homeowners, USCG Base Ketchikan, 2021 and 2026**

2021 Pay Grade	Number of Bedrooms			Total	2026 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	-	-	O6	-	-	-	-
O5	-	-	-	-	O5	-	-	-	-
O4	-	1	-	1	O4	-	2	-	2
O3	1	1	-	2	O3	2	1	-	3
O2	-	1	-	1	O2	-	1	-	1
O1	-	-	-	-	O1	-	-	-	-
<b>Officers</b>	<b>1</b>	<b>3</b>	<b>-</b>	<b>4</b>	<b>Officers</b>	<b>2</b>	<b>4</b>	<b>-</b>	<b>6</b>
W5	-	-	-	-	W5	-	-	-	-
W4	-	1	1	2	W4	-	2	1	3
W3	1	-	1	2	W3	1	-	1	2
W2	-	1	-	1	W2	-	1	-	1
W1	1	-	-	1	W1	2	-	-	2
<b>Warrants</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>6</b>	<b>Warrants</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>8</b>
E9	1	1	-	2	E9	1	1	-	2
E8	1	1	-	2	E8	2	1	-	3
E7	1	-	1	2	E7	1	-	1	2
E6	2	2	1	5	E6	2	2	1	5
E5	5	6	3	14	E5	5	10	6	21
E4	6	5	3	14	E4	10	5	4	19
E3	-	-	-	-	E3	-	-	-	-
E2	-	-	-	-	E2	-	-	-	-
E1	-	-	-	-	E1	-	-	-	-
<b>Enlisted</b>	<b>16</b>	<b>15</b>	<b>8</b>	<b>39</b>	<b>Enlisted</b>	<b>21</b>	<b>19</b>	<b>12</b>	<b>52</b>
<b>Total</b>	<b>19</b>	<b>20</b>	<b>10</b>	<b>49</b>	<b>Total</b>	<b>26</b>	<b>26</b>	<b>14</b>	<b>66</b>

Source: PSC-PSD-FS Housing Section, 2021a, 2021b; Estimates RDN prepared for this study.

**Renters**

The number of accompanied personnel owning homes in the area is subtracted from the total community housing demand to obtain the number of accompanied renters. The number of accompanied renters at USCG Base Ketchikan is thus 89 families in 2021 and 132 families in 2026 (Table 4-6).

**Table 4-6. Accompanied Renters, USCG Base Ketchikan, 2021 and 2026**

2021 Pay Grade	Number of Bedrooms			Total	2026 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	-	-	O6	-	1	-	1
O5	1	1	-	2	O5	2	1	1	4
O4	1	-	-	1	O4	1	-	1	2
O3	1	1	1	3	O3	1	1	1	3
O2	-	-	-	-	O2	1	-	-	1
O1	1	-	-	1	O1	1	1	-	2
<b>Officers</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>7</b>	<b>Officers</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>13</b>
W5	-	-	-	-	W5	-	-	-	-
W4	1	-	-	1	W4	1	-	-	1
W3	-	1	-	1	W3	-	2	-	2
W2	1	1	-	2	W2	2	-	1	3
W1	-	1	-	1	W1	-	1	-	1
<b>Warrants</b>	<b>2</b>	<b>3</b>	<b>-</b>	<b>5</b>	<b>Warrants</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>7</b>
E9	2	2	1	5	E9	3	3	2	8
E8	1	2	1	4	E8	2	3	2	7
E7	2	2	1	5	E7	3	4	1	8
E6	11	10	5	26	E6	15	15	8	38
E5	7	6	3	16	E5	11	6	3	20
E4	5	6	2	13	E4	5	9	3	17
E3	3	3	1	7	E3	5	5	2	12
E2	-	-	1	1	E2	-	1	1	2
E1	-	-	-	-	E1	-	-	-	-
<b>Enlisted</b>	<b>31</b>	<b>31</b>	<b>15</b>	<b>77</b>	<b>Enlisted</b>	<b>44</b>	<b>46</b>	<b>22</b>	<b>112</b>
<b>Total</b>	<b>37</b>	<b>36</b>	<b>16</b>	<b>89</b>	<b>Total</b>	<b>53</b>	<b>53</b>	<b>26</b>	<b>132</b>

Source: Estimates RDN prepared for this study.

## Unaccompanied Personnel

For USCG Base Ketchikan, the total unaccompanied community housing demand is 47 personnel in 2021 and 64 personnel in 2026. The bedroom entitlements of these personnel by grade are shown in Table 4-7.

**Table 4-7. Community-First Unaccompanied Housing Demand, USCG Base Ketchikan, 2021 and 2026**

2021 Pay Grade	Number of Bedrooms			Total	2026 Pay Grade	Number of Bedrooms			Total
	One	Two	Three			One	Two	Three	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	-	-	O6	-	-	-	-
O5	-	-	-	-	O5	-	-	-	-
O4	-	-	-	-	O4	-	-	-	-
O3	-	2	-	2	O3	-	2	-	2
O2	-	1	-	1	O2	-	3	-	3
O1	-	3	-	3	O1	-	6	-	6
Officers	-	6	-	6	Officers	-	11	-	11
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	-	-	W4	-	-	-	-
W3	-	-	-	-	W3	-	-	-	-
W2	-	-	-	-	W2	-	-	-	-
W1	-	1	-	1	W1	-	1	-	1
Warrants	-	1	-	1	Warrants	-	1	-	1
E9	-	-	-	-	E9	-	1	-	1
E8	-	1	-	1	E8	-	1	-	1
E7	-	1	-	1	E7	-	1	-	1
E6	-	4	-	4	E6	-	6	-	6
E5	-	8	-	8	E5	-	11	-	11
E4	20	-	-	20	E4	26	-	-	26
E3	5	-	-	5	E3	5	-	-	5
E2	1	-	-	1	E2	1	-	-	1
E1	-	-	-	-	E1	-	-	-	-
Enlisted	26	14	-	40	Enlisted	32	20	-	52
<b>Total</b>	<b>26</b>	<b>21</b>	<b>-</b>	<b>47</b>	<b>Total</b>	<b>32</b>	<b>32</b>	<b>-</b>	<b>64</b>

Source: Estimates RDN prepared for this study.

Table 4-8 presents the current and projected number of unaccompanied homeowners at USCG Base Ketchikan. In 2021, five unaccompanied service members are estimated to own a home in the area and six unaccompanied service members are projected to be homeowners in 2026.

**Table 4-8. Unaccompanied Homeowners, USCG Base Ketchikan, 2021 and 2026**

2021 Pay Grade	Number of Bedrooms			Total	2026 Pay Grade	Number of Bedrooms			Total
	One	Two	Three			One	Two	Three	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	-	-	O6	-	-	-	-
O5	-	-	-	-	O5	-	-	-	-
O4	-	-	-	-	O4	-	-	-	-
O3	-	-	-	-	O3	-	-	-	-
O2	-	-	-	-	O2	-	-	-	-
O1	-	-	-	-	O1	-	-	-	-
Officers	-	-	-	-	Officers	-	-	-	-
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	-	-	W4	-	-	-	-
W3	-	-	-	-	W3	-	-	-	-
W2	-	-	-	-	W2	-	-	-	-
W1	-	-	-	-	W1	-	-	-	-
Warrants	-	-	-	-	Warrants	-	-	-	-
E9	-	-	-	-	E9	-	-	-	-
E8	-	-	-	-	E8	-	-	-	-
E7	-	-	-	-	E7	-	-	-	-
E6	-	2	-	2	E6	-	3	-	3
E5	-	1	-	1	E5	-	1	-	1
E4	2	-	-	2	E4	2	-	-	2
E3	-	-	-	-	E3	-	-	-	-
E2	-	-	-	-	E2	-	-	-	-
E1	-	-	-	-	E1	-	-	-	-
Enlisted	2	3	-	5	Enlisted	2	4	-	6
<b>Total</b>	<b>2</b>	<b>3</b>	<b>-</b>	<b>5</b>	<b>Total</b>	<b>2</b>	<b>4</b>	<b>-</b>	<b>6</b>

Source: Estimates RDN prepared for this study.

**Renters**

The number of unaccompanied personnel owning homes in the area is subtracted from total community housing demand to obtain the number of unaccompanied renters. The number of unaccompanied renters at USCG Base Ketchikan is thus 42 in 2021 and 58 in 2026. Table 4-9 displays the grade and bedroom entitlements of these renters.

**Table 4-9. Unaccompanied Renters, USCG Base Ketchikan, 2021 and 2026**

2021 Pay Grade	Number of Bedrooms			Total	2026 Pay Grade	Number of Bedrooms			Total
	One	Two	Three			One	Two	Three	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	-	-	O6	-	-	-	-
O5	-	-	-	-	O5	-	-	-	-
O4	-	-	-	-	O4	-	-	-	-
O3	-	2	-	2	O3	-	2	-	2
O2	-	1	-	1	O2	-	3	-	3
O1	-	3	-	3	O1	-	6	-	6
Officers	-	6	-	6	Officers	-	11	-	11
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	-	-	W4	-	-	-	-
W3	-	-	-	-	W3	-	-	-	-
W2	-	-	-	-	W2	-	-	-	-
W1	-	1	-	1	W1	-	1	-	1
Warrants	-	1	-	1	Warrants	-	1	-	1
E9	-	-	-	-	E9	-	1	-	1
E8	-	1	-	1	E8	-	1	-	1
E7	-	1	-	1	E7	-	1	-	1
E6	-	2	-	2	E6	-	3	-	3
E5	-	7	-	7	E5	-	10	-	10
E4	18	-	-	18	E4	24	-	-	24
E3	5	-	-	5	E3	5	-	-	5
E2	1	-	-	1	E2	1	-	-	1
E1	-	-	-	-	E1	-	-	-	-
Enlisted	24	11	-	35	Enlisted	30	16	-	46
<b>Total</b>	<b>24</b>	<b>18</b>	<b>-</b>	<b>42</b>	<b>Total</b>	<b>30</b>	<b>28</b>	<b>-</b>	<b>58</b>

Source: Estimates RDN prepared for this study.

#### 4.4 USCG Housing Affordability

Affordability is one of the key factors used to determine whether available housing may be suitably occupied by USCG service members.

##### Maximum Acceptable Housing Cost

A unit is considered affordable to a military member if the total housing cost (effective rent plus average utilities) is less than the member’s maximum acceptable housing cost (MAHC). Under the base case of this analysis as defined in the statement of work, MAHC equals service members’ Basic Allowance for Housing (BAH) plus a national out-of-pocket (OOP) expense. This report also includes a sensitivity analysis that assumes a higher threshold for MAHC, equal to BAH plus OOP plus 20.0 percent of Non-Locality BAH (NLB). The results of this sensitivity analysis are summarized in Appendix A.

Table 4-10 displays the accompanied and unaccompanied MAHC amounts used in the base case and sensitivity analysis. Under the base case scenario, the monthly MAHC for accompanied personnel is estimated to range between \$1,925 to \$3,059 depending on the grade, and from \$1,450 to \$2,701 for unaccompanied personnel.

**Table 4-10. Maximum Acceptable Housing Cost, With Dependents and Without Dependents, USCG Base Ketchikan, 2021**

Pay Grade	Base Case		Sensitivity Analysis (See Appendix A)	
	With Dependents BAH + OOP	Without Dependents BAH + OOP	With Dependents BAH + OOP + 20% NLB	Without Dependents BAH + OOP + 20% NLB
O7 & Above	\$3,059	\$2,701	\$3,481	\$3,052
O6	\$3,030	\$2,648	\$3,410	\$2,970
O5	\$2,999	\$2,523	\$3,365	\$2,833
O4	\$2,852	\$2,448	\$3,174	\$2,735
O3	\$2,639	\$2,173	\$2,906	\$2,403
O2	\$2,328	\$1,853	\$2,556	\$2,036
O1	\$2,317	\$1,752	\$2,521	\$1,909
W5	\$2,817	\$2,462	\$3,128	\$2,754
W4	\$2,723	\$2,342	\$3,009	\$2,601
W3	\$2,649	\$2,136	\$2,911	\$2,354
W2	\$2,486	\$1,997	\$2,726	\$2,191
W1	\$2,326	\$1,748	\$2,534	\$1,910
E9	\$2,702	\$2,123	\$2,976	\$2,336
E8	\$2,566	\$2,007	\$2,819	\$2,203
E7	\$2,432	\$1,834	\$2,666	\$2,014
E6	\$2,336	\$1,763	\$2,553	\$1,930
E5	\$2,312	\$1,746	\$2,507	\$1,896
E4	\$1,925	\$1,450	\$2,094	\$1,580
E3	\$1,925	\$1,450	\$2,083	\$1,571
E2	\$1,925	\$1,450	\$2,075	\$1,566
E1	\$1,925	\$1,450	\$2,075	\$1,566

Sources: U.S. Department of Defense, 2021; and estimates RDN prepared for this study.

### USCG Renters by Market Segment

The rental housing market may be divided into different market segments based on a unit’s estimated total housing cost (effective rent plus average utilities) and number of bedrooms. USCG personnel who seek private sector rental housing in the market area compete with civilians for available rentals in the specific market segment corresponding to their MAHC and bedroom entitlements.

### Accompanied Personnel

Table 4-11 presents current and projected accompanied renters at USCG Base Ketchikan by market segment.

**Table 4-11. Accompanied Renters, by Market Segment, USCG Base Ketchikan, 2021 and 2026**

2021 Rental Cost	Number of Bedrooms				2026 Rental Cost	Number of Bedrooms			
	Two	Three	Four+	Total		Two	Three	Four+	Total
Above \$3100	-	-	-	-	Above \$3100	-	-	-	-
\$3,100	-	-	-	-	\$3,100	-	1	-	1
\$3,000	1	1	-	2	\$3,000	2	1	1	4
\$2,900	1	-	-	1	\$2,900	1	-	1	2
\$2,800	3	2	1	6	\$2,800	4	3	2	9
\$2,700	1	2	1	4	\$2,700	1	3	1	5
\$2,600	1	2	1	4	\$2,600	2	3	2	7
\$2,500	3	3	1	7	\$2,500	5	4	2	11
\$2,400	19	17	8	44	\$2,400	28	23	11	62
\$2,300	-	-	-	-	\$2,300	-	-	-	-
\$2,200	-	-	-	-	\$2,200	-	-	-	-
\$2,100	-	-	-	-	\$2,100	-	-	-	-
\$2,000	8	9	4	21	\$2,000	10	15	6	31
\$1,900	-	-	-	-	\$1,900	-	-	-	-
\$1800 & Below	-	-	-	-	\$1800 & Below	-	-	-	-
<b>Total</b>	<b>37</b>	<b>36</b>	<b>16</b>	<b>89</b>	<b>Total</b>	<b>53</b>	<b>53</b>	<b>26</b>	<b>132</b>

Source: Estimates RDN prepared for this study.

**Unaccompanied Personnel**

Table 4-12 presents current and projected unaccompanied renters at USCG Base Ketchikan by market segment.

**Table 4-12. Unaccompanied Renters, by Market Segment, USCG Base Ketchikan, 2021 and 2026**

2021 Rental Cost	Number of Bedrooms			Total	2026 Rental Cost	Number of Bedrooms			Total
	One	Two	Three			One	Two	Three	
Above \$3100	-	-	-	-	Above \$3100	-	-	-	-
\$3,100	-	-	-	-	\$3,100	-	-	-	-
\$3,000	-	-	-	-	\$3,000	-	-	-	-
\$2,900	-	-	-	-	\$2,900	-	-	-	-
\$2,800	-	-	-	-	\$2,800	-	-	-	-
\$2,700	-	-	-	-	\$2,700	-	-	-	-
\$2,600	-	-	-	-	\$2,600	-	-	-	-
\$2,500	-	-	-	-	\$2,500	-	-	-	-
\$2,400	-	-	-	-	\$2,400	-	-	-	-
\$2,300	-	-	-	-	\$2,300	-	-	-	-
\$2,200	-	2	-	2	\$2,200	-	3	-	3
\$2,100	-	1	-	1	\$2,100	-	1	-	1
\$2,000	-	-	-	-	\$2,000	-	-	-	-
\$1,900	-	2	-	2	\$1,900	-	4	-	4
\$1800 & Below	24	13	-	37	\$1800 & Below	30	20	-	50
<b>Total</b>	<b>24</b>	<b>18</b>	<b>-</b>	<b>42</b>	<b>Total</b>	<b>30</b>	<b>28</b>	<b>-</b>	<b>58</b>

Source: Estimates RDN prepared for this study.

## 4.5 USCG Base Ketchikan Housing Requirements

As discussed previously, the current requirement for government-provided accompanied housing is the sum of the accompanied community housing shortfall and current occupants of family housing. The projected requirement is simply the community housing shortfall since all families are expected to look to the community first for their housing needs. The current and projected requirement for unaccompanied housing is the sum of the community housing shortfall and the unaccompanied floor requirement.

### Accompanied Personnel

Table 4-13 presents the estimated accompanied community housing shortfall by market segment. The community housing shortfall is 61 units in 2021 and 86 units in 2026. Table 4-14 presents the community shortfall by pay grade.

**Table 4-13. Accompanied Community Housing Shortfall by Market Segment, USCG Base Ketchikan, 2021 and 2026**

2021 Rental Cost	Number of Bedrooms			Total	2026 Rental Cost	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
Above \$3100	-	-	-	-	Above \$3100	-	-	-	-
\$3,100	-	-	-	-	\$3,100	-	-	-	-
\$3,000	1	-	-	1	\$3,000	2	-	1	3
\$2,900	1	-	-	1	\$2,900	1	-	1	2
\$2,800	3	1	1	5	\$2,800	4	-	2	6
\$2,700	1	1	1	3	\$2,700	1	1	1	3
\$2,600	1	1	1	3	\$2,600	2	1	2	5
\$2,500	3	2	1	6	\$2,500	5	-	2	7
\$2,400	8	11	8	27	\$2,400	14	13	11	38
\$2,300	-	-	-	-	\$2,300	-	-	-	-
\$2,200	-	-	-	-	\$2,200	-	-	-	-
\$2,100	-	-	-	-	\$2,100	-	-	-	-
\$2,000	3	8	4	15	\$2,000	2	14	6	22
\$1,900	-	-	-	-	\$1,900	-	-	-	-
\$1800 & Below	-	-	-	-	\$1800 & Below	-	-	-	-
<b>Total</b>	<b>21</b>	<b>24</b>	<b>16</b>	<b>61</b>	<b>Total</b>	<b>31</b>	<b>29</b>	<b>26</b>	<b>86</b>

Source: Estimates RDN prepared for this study.

**Table 4-14. Accompanied Community Housing Shortfall by Pay Grade,  
 USCG Base Ketchikan, 2021 and 2026**

2021 Pay Grade	Number of Bedrooms			Total	2026 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	-	-	O6	-	-	-	-
O5	1	-	-	1	O5	2	-	1	3
O4	1	-	-	1	O4	1	-	1	2
O3	1	-	1	2	O3	1	-	1	2
O2	-	-	-	-	O2	1	-	-	1
O1	-	-	-	-	O1	1	1	-	2
<b>Officers</b>	<b>3</b>	<b>-</b>	<b>1</b>	<b>4</b>	<b>Officers</b>	<b>6</b>	<b>1</b>	<b>3</b>	<b>10</b>
W5	-	-	-	-	W5	-	-	-	-
W4	1	-	-	1	W4	1	-	-	1
W3	-	1	-	1	W3	-	1	-	1
W2	1	1	-	2	W2	2	-	1	3
W1	-	1	-	1	W1	-	1	-	1
<b>Warrants</b>	<b>2</b>	<b>3</b>	<b>-</b>	<b>5</b>	<b>Warrants</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>6</b>
E9	2	1	1	4	E9	3	-	2	5
E8	1	1	1	3	E8	2	1	2	5
E7	2	1	1	4	E7	3	-	1	4
E6	5	6	5	16	E6	6	8	8	22
E5	3	4	3	10	E5	6	3	3	12
E4	2	5	2	9	E4	1	8	3	12
E3	1	3	1	5	E3	1	5	2	8
E2	-	-	1	1	E2	-	1	1	2
E1	-	-	-	-	E1	-	-	-	-
<b>Enlisted</b>	<b>16</b>	<b>21</b>	<b>15</b>	<b>52</b>	<b>Enlisted</b>	<b>22</b>	<b>26</b>	<b>22</b>	<b>70</b>
<b>Total</b>	<b>21</b>	<b>24</b>	<b>16</b>	<b>61</b>	<b>Total</b>	<b>31</b>	<b>29</b>	<b>26</b>	<b>86</b>

Source: Estimates RDN prepared for this study.

As discussed previously, the accompanied housing requirement in the current year is the sum of current occupants of family housing and the community housing shortfall. The accompanied housing requirement thus totals 62 units in the current year (Table 4-15). In 2026, the accompanied housing requirement is defined as the community housing shortfall and totals 86 units. The current and projected year requirements by pay grade and number of bedrooms are presented in Table 4-15.

**Table 4-15. Accompanied Housing Requirements, USCG Base Ketchikan, 2021 and 2026**

2021 Pay Grade	Number of Bedrooms			Total	2026 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	-	-	O6	-	-	-	-
O5	1	-	1	2	O5	2	-	1	3
O4	1	-	-	1	O4	1	-	1	2
O3	1	-	1	2	O3	1	-	1	2
O2	-	-	-	-	O2	1	-	-	1
O1	-	-	-	-	O1	1	1	-	2
Officers	3	-	2	5	Officers	6	1	3	10
W5	-	-	-	-	W5	-	-	-	-
W4	1	-	-	1	W4	1	-	-	1
W3	-	1	-	1	W3	-	1	-	1
W2	1	1	-	2	W2	2	-	1	3
W1	-	1	-	1	W1	-	1	-	1
Warrants	2	3	-	5	Warrants	3	2	1	6
E9	2	1	1	4	E9	3	-	2	5
E8	1	1	1	3	E8	2	1	2	5
E7	2	1	1	4	E7	3	-	1	4
E6	5	6	5	16	E6	6	8	8	22
E5	3	4	3	10	E5	6	3	3	12
E4	2	5	2	9	E4	1	8	3	12
E3	1	3	1	5	E3	1	5	2	8
E2	-	-	1	1	E2	-	1	1	2
E1	-	-	-	-	E1	-	-	-	-
Enlisted	16	21	15	52	Enlisted	22	26	22	70
<b>Total</b>	<b>21</b>	<b>24</b>	<b>17</b>	<b>62</b>	<b>Total</b>	<b>31</b>	<b>29</b>	<b>26</b>	<b>86</b>

Source: Estimates RDN prepared for this study.

Table 4-16 compares the projected (2026) accompanied housing requirements at USCG Base Ketchikan with the USCG accompanied housing inventory, broken out by number of bedrooms. The surplus or deficit is calculated as the requirement less the inventory. In the projected year, the total accompanied housing requirement is 86 units, and the projected inventory is one unit. Therefore, there is a projected deficit of 85 units, composed of a deficit of 31 two-bedroom units, 29 three-bedroom units, and 25 units with four or more bedrooms.

**Table 4-16. USCG Accompanied Housing Deficit/(Surplus), USCG Base Ketchikan, 2026**

Indicator	2-BR	3-BR	4+-BR	Total
Accompanied Housing Requirement	31	29	26	86
Accompanied Housing Inventory	-	-	1	1
Deficit/(Surplus)	31	29	25	85

Source: Estimates RDN prepared for this study.

### Unaccompanied Personnel

Table 4-17 presents the estimated unaccompanied community housing shortfall by market segment. The community housing shortfall is 23 units in 2021 and 18 units in 2026. Table 4-18 presents the community shortfall by pay grade.

**Table 4-17. Unaccompanied Community Housing Shortfall by Market Segment, USCG Base Ketchikan, 2021 and 2026**

2021 Rental Cost	Number of Bedrooms				2026 Rental Cost	Number of Bedrooms			
	One	Two	Three	Total		One	Two	Three	Total
Above \$3100	-	-	-	-	Above \$3100	-	-	-	-
\$3,100	-	-	-	-	\$3,100	-	-	-	-
\$3,000	-	-	-	-	\$3,000	-	-	-	-
\$2,900	-	-	-	-	\$2,900	-	-	-	-
\$2,800	-	-	-	-	\$2,800	-	-	-	-
\$2,700	-	-	-	-	\$2,700	-	-	-	-
\$2,600	-	-	-	-	\$2,600	-	-	-	-
\$2,500	-	-	-	-	\$2,500	-	-	-	-
\$2,400	-	-	-	-	\$2,400	-	-	-	-
\$2,300	-	-	-	-	\$2,300	-	-	-	-
\$2,200	-	1	-	1	\$2,200	-	-	-	-
\$2,100	-	-	-	-	\$2,100	-	-	-	-
\$2,000	-	-	-	-	\$2,000	-	-	-	-
\$1,900	-	1	-	1	\$1,900	-	1	-	1
\$1800 & Below	13	8	-	21	\$1800 & Below	10	7	-	17
<b>Total</b>	<b>13</b>	<b>10</b>	<b>-</b>	<b>23</b>	<b>Total</b>	<b>10</b>	<b>8</b>	<b>-</b>	<b>18</b>

Source: Estimates RDN prepared for this study.

**Table 4-18. Unaccompanied Community Housing Shortfall by Pay Grade, USCG Base Ketchikan, 2021 and 2026**

2021 Pay Grade	Number of Bedrooms			Total	2026 Pay Grade	Number of Bedrooms			Total
	One	Two	Three			One	Two	Three	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	-	-	O6	-	-	-	-
O5	-	-	-	-	O5	-	-	-	-
O4	-	-	-	-	O4	-	-	-	-
O3	-	1	-	1	O3	-	-	-	-
O2	-	-	-	-	O2	-	1	-	1
O1	-	2	-	2	O1	-	2	-	2
Officers	-	3	-	3	Officers	-	3	-	3
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	-	-	W4	-	-	-	-
W3	-	-	-	-	W3	-	-	-	-
W2	-	-	-	-	W2	-	-	-	-
W1	-	1	-	1	W1	-	-	-	-
Warrants	-	1	-	1	Warrants	-	-	-	-
E9	-	-	-	-	E9	-	-	-	-
E8	-	-	-	-	E8	-	-	-	-
E7	-	1	-	1	E7	-	-	-	-
E6	-	1	-	1	E6	-	1	-	1
E5	-	4	-	4	E5	-	4	-	4
E4	9	-	-	9	E4	8	-	-	8
E3	3	-	-	3	E3	2	-	-	2
E2	1	-	-	1	E2	-	-	-	-
E1	-	-	-	-	E1	-	-	-	-
Enlisted	13	6	-	19	Enlisted	10	5	-	15
<b>Total</b>	<b>13</b>	<b>10</b>	<b>-</b>	<b>23</b>	<b>Total</b>	<b>10</b>	<b>8</b>	<b>-</b>	<b>18</b>

Source: Estimates RDN prepared for this study.

As discussed previously, the unaccompanied housing requirement is the sum of the unaccompanied floor requirement and the community housing shortfall. The unaccompanied requirement by pay grade is presented in Table 4-19 and totals 28 units in 2021 and 32 units in 2026.

**Table 4-19. Unaccompanied Housing Requirements, USCG Base Ketchikan, 2021 and 2026**

2021 Pay Grade	Number of Bedrooms			Total	2026 Pay Grade	Number of Bedrooms			Total
	One	Two	Three			One	Two	Three	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	-	-	O6	-	-	-	-
O5	-	-	-	-	O5	-	-	-	-
O4	-	-	-	-	O4	-	-	-	-
O3	-	1	-	1	O3	-	-	-	-
O2	-	-	-	-	O2	-	1	-	1
O1	-	2	-	2	O1	-	2	-	2
Officers	-	3	-	3	Officers	-	3	-	3
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	-	-	W4	-	-	-	-
W3	-	-	-	-	W3	-	-	-	-
W2	-	-	-	-	W2	-	-	-	-
W1	-	1	-	1	W1	-	-	-	-
Warrants	-	1	-	1	Warrants	-	-	-	-
E9	-	-	-	-	E9	-	-	-	-
E8	-	-	-	-	E8	-	-	-	-
E7	-	1	-	1	E7	-	-	-	-
E6	-	1	-	1	E6	-	1	-	1
E5	-	4	-	4	E5	-	4	-	4
E4	9	-	-	9	E4	8	-	-	8
E3	7	-	-	7	E3	14	-	-	14
E2	2	-	-	2	E2	2	-	-	2
E1	-	-	-	-	E1	-	-	-	-
Enlisted	18	6	-	24	Enlisted	24	5	-	29
<b>Total</b>	<b>18</b>	<b>10</b>	<b>-</b>	<b>28</b>	<b>Total</b>	<b>24</b>	<b>8</b>	<b>-</b>	<b>32</b>

Source: Estimates RDN prepared for this study.

The projected unaccompanied housing requirement consists of 24 one-bedroom units and eight two-bedroom units. With an inventory of 22 barrack/UPH spaces, there is a projected deficit of two barrack/UPH spaces and eight two-bedroom units. Table 4-20 compares the projected unaccompanied housing requirement and the inventory, by number of bedrooms.

**Table 4-20. USCG Unaccompanied Housing Deficit/(Surplus), USCG Base Ketchikan, 2026**

Indicator	1-BR	2-BR	3+-BR	Total
Unaccompanied Housing Requirement	24	8	-	32
Unaccompanied Housing Inventory	22	-	-	22
Deficit/(Surplus)	2	8	-	10

Source: Estimates RDN prepared for this study.

## 5. ORGANIZATIONS CONTACTED

<b>Organization</b>	<b>Representative</b>
Alpine Real Estate 500 Mission Street, Suite 4 Ketchikan, AK 99901	Justin Gubatayao <i>Realtor Agent</i> 907/225-7777
City of Ketchikan 2930 Tongass Avenue Ketchikan, AK 99901	Corey Bingham <i>Building Official</i> 907/228-4737
Coastal Keller Williams Realty Alaska Group 344 Front Street Ketchikan, AK 99901	Mary Wanzer <i>Owner/Associate Broker</i> 907/617-0196
Gateway City Realty, Inc. 2050 Sea Level Drive, Suite 107 Ketchikan, AK 99901	Bill Bolling <i>Broker</i> 907/225-2545
Ketchikan Apartments 652 Park Street Ketchikan, AK 99901	Steven Dulan <i>Owner</i> 907/225-3300
Ketchikan Chamber of Commerce 2417 Tongass Avenue, Suite 223A Ketchikan, AK 99901	Michelle O'Brien <i>Executive Director</i> 907/225-3184
Ketchikan Gateway Borough 1900 First Avenue, Suite 126 Ketchikan, AK 99901	Alethea Johnson <i>Assistant Planner</i> 907/228-6636
	Shelly Acteson <i>Lands Administrative Assistant</i> 907/228-6622
Ketchikan Visitors Bureau 131 Front Street Ketchikan, AK 99901	B.S. <i>Representative</i> 907/225-6166
Legacy Real Estate Firm 2417 Tongass Avenue, Suite 225 Ketchikan, AK 99901	Joy Murphy <i>Licensed Office Manager</i> 907/617-0091
Providence Properties 2206 Tongass Avenue Ketchikan, AK 99901	Christina Zaugg <i>Realtor Agent</i> 907/225-7427
USCS Base Ketchikan 1300 Stedman Street Ketchikan, AK 99901	Johnathan Willard <i>Chief Warrant Officer</i>

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## APPENDIX A – SENSITIVITY ANALYSIS

A sensitivity analysis of housing requirements was conducted based on a higher affordability threshold, defined as the sum of BAH, a national out-of-pocket amount (OOP), and 20 percent of Non-Locality BAH (NLB). The purpose of the sensitivity analysis is to determine how changes in housing allowances affect the housing requirement. This sensitivity analysis raises monthly Maximum Allowable Housing Costs (MAHC) by between \$150 and \$422 for accompanied personnel and between \$116 and \$351 for unaccompanied personnel, depending on the pay grade. These amounts correspond to a 9.3 percent increase in weighted-average MAHC across all grades for accompanied personnel and an increase of 9.0 percent for unaccompanied personnel.

Table A-1 summarizes the results of the sensitivity analysis. Higher housing allowances allow service members to afford better quality homes, and thus the accompanied community housing shortfall in this sensitivity analysis is 81 units, which is five units lower than the baseline requirement of 86 units.

**Table A-1. Housing Market Survey and Analysis Results, USCG Base Ketchikan, Based on BAH plus National Out-of-Pocket (OOP) Expense Plus 20% of Non-Locality-BAH (NLB), 2021-2026**

<b>Results</b>						
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
<b>Total Permanent-Party Personnel [1]</b>	191	204	217	230	243	276
<b>Total Accompanied Personnel [1]</b>	139	147	155	163	171	198
Current Occupancy in 2021; Floor Requirement in 2026	1	1	1	1	1	-
Community Housing Demand	138	146	154	162	170	198
Homeowners	49	52	55	58	61	66
Renters	89	94	99	104	109	132
Suitably Housed Renters	29	34	35	38	40	51
Community Housing Shortfall	60	60	64	66	69	81
<b>TOTAL ACCOMPANIED HOUSING REQUIREMENT [2]</b>	61	61	65	67	70	<b>81</b>
USCG Accompanied Housing Inventory	1	1	1	1	1	1
Deficit/(Surplus) of USCG Accompanied Housing	60	60	64	66	69	80
<b>Total Unaccompanied Personnel [1]</b>	52	57	62	67	72	78
Floor Housing Requirement	5	7	9	10	13	14
Community Housing Demand	47	50	53	57	59	64
Homeowners	5	5	5	5	5	6
Renters	42	45	48	52	54	58
Suitably Housed Renters	19	28	32	36	38	41
Community Housing Shortfall	23	17	16	16	16	17
<b>TOTAL UNACCOMPANIED HOUSING REQUIREMENT [3]</b>	28	24	25	26	29	<b>31</b>
USCG Unaccompanied Housing Inventory	22	22	22	22	22	22
Deficit/(Surplus) of USCG Unaccompanied Housing	6	2	3	4	7	9

Notes: [1] Accompanied personnel are from PSC-PSD-FS Housing Section, calculated using USCG Planning Factors. Based on survey results, an estimated 2% of accompanied personnel are geographic bachelors and 5% are member-to-member couples.  
 [2] The current requirement for government-provided military family housing is the sum of current occupants of USCG housing and the community housing shortfall. The projected requirement is the community housing shortfall.  
 [3] The current and projected requirement for unaccompanied housing is the sum of the floor requirement and the community housing shortfall.

Sources: PSC-PSD-FS Housing Section, 2021a, 2021b; USCG Base Ketchikan Housing, 2021; and estimates RDN prepared for this study.

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