ALASKA ECONOMIC TRENDS

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Anchorage Neighborhoods

ALASKA ECONOMIC TRENDS

jobs

ALASKA DEPARTMENT OF LABOR
& WORKFORCE DEVELOPMENT

Sean Parnell, Governor
Dianne Blumer, Commissioner

On the cover: This photograph of a float plane on Lake Hood in Anchorage was taken by Flickr user Keith Cuddeback.

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Water a vital path for transporting goods, people in Alaska

**By Dianne Blumer,
Commissioner**

This month's *Alaska Economic Trends* features Anchorage, Alaska's largest city with almost 300,000 residents and 40 percent of the state's population. A University of Alaska study recently noted that the city's Mountain View area is the most diverse census tract nationwide.

The Anchorage Community Land Trust's revitalization of Mountain View is attracting investment and new businesses including retail, housing, medical providers, restaurants, and financial institutions. The efforts are paying off in hundreds of new jobs and the 2013 Award for Excellence in Community Development from the National Development Council.

This issue also highlights water transportation as part of the critical infrastructure that helps move people and goods around Alaska. Ninety percent of the goods entering Alaska communities west of Cordova go through the Port of Anchorage.

Celebrating its 50th anniversary, the Alaska Marine Highway System provides transportation for Alaskans from the Aleutians to Bellingham, Wash. The system's 11 vessels connect roadless and coastal communities to each other and to commercial opportunities in and outside the state.

Alaska lands and waterways stretch to the Arctic. The Parnell Administration's statewide goals and priorities reflect the state's Arctic policy, whether it is energy, health, education, fiscal, or transportation, among others. More transportation and commerce will occur with diminished sea ice, and the administration is actively working to ensure environmental and human safety.

In our Arctic environment and with more than 6,600 miles of coastline — more than the Lower 48 states combined — training for maritime industry jobs presents great challenges and also great opportunity.

AVTEC's Alaska Maritime Training Center provides Alaskans with the technical skills and knowledge to work in the state's maritime industry. A part of the Alaska Department of Labor and Workforce Development, AVTEC works closely with industry, U.S. Coast Guard, Alaska Marine Highway System, and state pilot associations to ensure its hands-on training continues to meet industry standards and the coming demand posed by the opening of our Arctic waters.

The AMTC provides a variety of courses including master mate, oiler, and on-board fire-fighting, plus customized training for maritime companies.

The center's state-of-the-art, full-mission bridge simulation provides a new level of capability for marine-based training to international standards. Three interactive bridges provide computer-based, real-time simulations of the actual vessels, waterways, and operations students will encounter in Alaska's diverse maritime trades.

Center databases include about 30 waterways, which allow pilots to experience not only heavily traveled Alaska waters like Cook Inlet, Resurrection Bay, and Wrangell Narrows, but also new locations like Port Angeles, Wash., that support company, area, and vessel-specific training. The three-bay simulators allow training on vessels from fishing trawlers to oil tankers to tug boats, and even the University of Alaska Fairbanks' research vessel Sikuliak.

In January, AVTEC will be the first institution in the nation to provide USCG-approved training on ice navigation. The curriculum will include ice physics, climatology, remote sensing, air and sea interactions with ice, environmental protection, ice piloting, and emergency response.

A proactive maritime industry is working with AVTEC as it looks ahead to a 2016 implementation of the International Maritime Organization's Polar Code that will require ships operating in the Arctic to have advanced training and credentials for Arctic operations.

By EDDIE HUNSINGER and ERIC SANDBERG

Anchorage Neighborhoods

Great diversity within Alaska's largest city

Though almost all of Anchorage's population still lives within a fairly small area, its growth since 1980 has spread out from the more densely populated areas around downtown and midtown.

To the north alongside the booming communities of the Matanuska-Susitna Borough, Eagle River and Chugiak have nearly tripled in size since 1980.

To the south, the contiguous areas around Ted Stevens International Airport and Jewell Lake, down to Campbell Lake and Oceanview, over to Abbott Loop and Girdwood/Turnagain Arm, and the communities that make up Hillside have each more than doubled in population.

Between 2010 and 2012 there has also been significant population growth just north and east of downtown, with Mountain View, Northeast Anchorage, and Muldoon/Baxter each gaining more than 500 residents and the Merrill Field area growing by just under 500. (See Exhibit 1.)

Fewer young people near downtown and midtown

Young families have been responsible for much of

the growth since 1980 in outer areas such as Hillside and Eagle River, creating a higher share of kids in those areas.

Aside from Mountain View and Merrill Field just north and east of downtown, all of the areas with over 25 percent children are well beyond the greater downtown and midtown areas. The only area with less than a quarter of its population under 18 that isn't near downtown or midtown is Girdwood/Turnagain Arm, which has many nonfamily households.

Two areas with a high proportion of residents under 18 cover Joint Base Elmendorf-Richardson, which is mainly young military families with children and has virtually no seniors. (See Exhibit 2.)

Larger shares of seniors west of downtown

As of 2010, areas with older housing and higher home values had the highest concentrations of people age 65 or older. These include places just west of the downtown core, near Bootleggers Cove/Westchester and around Turnagain, and southeast of downtown near Rogers Park and Tudor Road.

Through the 1980s and into the 1990s, Anchorage's

How we defined these areas

The areas in this article are based on statistical areas called census tracts, which are relatively permanent areas of several thousand people that are not affiliated with any local government. A census area's population is typically subdivided when it grows beyond 8,000 people.

The Municipality of Anchorage has had 55 census tracts since the 1990 Census, and last year the Alaska Department of Labor and Workforce Development began estimating annual total population for each. For this article, the department condensed

Anchorage's 55 census tracts into the 29 that existed in 1980 and gave them informal names, which are not part of U.S. Census Bureau data. These 29 areas follow the municipality's historical population density, with more tracts located around downtown and midtown and fewer tracts in the South Anchorage and Eagle River regions.

In some cases, the names this article uses are the same as those of Anchorage Community Councils, which are the 38 areas that make up Anchorage's Federation of Community Councils, but it's important to note that there may be substantial differences between the two.

Notes: These areas are based on census tracts and groups of census tracts that make up the Municipality of Anchorage. The names are not official, and are not part of U.S. Census Bureau data. The areas should not be confused with Anchorage Community Councils.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

1 Populations of Anchorage Areas
1980 to 2012

Area	Census April 1980	Census April 1990	Census April 2000	Census April 2010	Estimate July 2011	Estimate July 2012
Chugiak	5,330	8,387	9,307	10,995	11,267	11,233
Eagle River	7,528	16,937	20,610	23,987	24,361	24,254
Fort Richardson	8,157	7,979	5,470	8,000	7,552	7,935
Elmendorf AFB	9,189	7,118	6,626	5,937	5,461	5,789
Government Hill	1,707	1,732	1,948	1,988	2,117	2,125
Mountain View	5,505	5,566	6,727	7,747	8,050	8,317
Northeast Anchorage	9,428	11,600	13,710	16,762	17,186	17,344
Russian Jack	7,649	8,780	10,488	11,730	11,755	11,775
Merrill Field Vicinity	5,195	6,355	7,157	8,047	8,509	8,539
West Fairview	2,972	3,153	3,404	4,131	4,304	4,400
Downtown Anchorage Core	1,131	818	1,458	940	950	1,049
Bootleggers Cove/Westchester	3,766	3,736	3,907	3,718	3,632	3,627
Turnagain	3,363	3,278	3,255	3,059	3,108	3,103
Fireweed	4,682	4,878	5,083	5,224	4,908	5,020
Rogers Park/Tudor Area	5,581	5,264	5,275	5,104	5,067	5,035
University/Airport Heights	7,691	7,649	8,334	8,316	8,567	8,554
Muldoon/Baxter	16,616	20,783	23,251	24,103	24,622	24,869
Campbell Park Area	5,260	6,828	8,243	10,444	10,511	10,722
Midtown	3,115	3,895	4,181	4,194	4,396	4,420
Spenard	3,201	3,238	3,423	3,748	3,883	3,873
Woodland Park/Spenard	3,703	3,498	3,761	3,787	3,934	4,042
East Turnagain/Fish Creek	4,008	6,990	7,923	8,013	8,005	7,982
Airport/Jewell Lake	11,113	15,612	18,626	21,152	21,846	21,972
Northwood	3,339	2,922	2,917	3,299	3,326	3,351
Arctic	4,951	7,722	9,245	10,229	10,448	10,499
Abbott Loop Area	3,501	10,271	13,872	16,930	17,114	17,482
Campbell Lake/Oceanview	12,654	17,234	21,309	25,327	25,804	25,762
Hillside	13,220	22,755	28,682	32,345	32,744	33,085
Girdwood/Turnagain Arm	876	1,360	2,091	2,570	2,657	2,684
Anchorage	174,431	226,338	260,283	291,826	296,084	298,842
Alaska	401,851	550,043	626,932	710,231	723,136	732,298

Notes: These areas are based on census tracts and groups of census tracts that make up the Municipality of Anchorage. The names are not official, and are not part of U.S. Census Bureau data. The areas should not be confused with Anchorage Community Councils.
Sources: U.S. Census Bureau; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

senior population was clearly centered in the downtown core, and people aged 65-plus made up a tiny part of the population far beyond it.

Anchorage's senior population is spreading out, though, as residents beyond downtown age. Although the areas with the largest shares of seniors are still near downtown, senior populations are increasing in South Anchorage areas in particular.

Increasing racial diversity

Anchorage has become more racially diverse over the past few decades. In 1980, just 15 percent of the municipality's population was nonwhite, but as of 2010 that number was up to 34

percent. (See Exhibit 2.)

Though the white population is the largest single race group in each of the areas, five of the areas are less than 50 percent white: Mountain View, Merrill Field Vicinity, Russian Jack, Midtown, and Spenard. The Mountain View area in particular stands out — a University of Alaska professor recently noted it was the most racially diverse census tract in the entire United States, based on a technical diversity index.

Asians and Pacific Islanders especially have gained population in Anchorage in recent years. They were just 2 percent of the city in 1980, and by 2010 they had grown to over 10 percent. The two largest single Asian ancestries in Anchorage are Filipino and Ko-

2 Demographic Characteristics of Anchorage Areas
2010 Census

	Age			Race							Ethnicity
	18 to 64	Under 18	65+	White	Alaska Native/ Amer. Indian	Asian	Hawaiian/ Pac. Islander	Black	Other	2+ Races	Hispanic (any race)
Chugiak	67%	26%	7%	85%	5%	2%	0%	1%	1%	6%	4%
Eagle River	67%	28%	5%	84%	4%	3%	0%	2%	1%	6%	6%
Fort Richardson	67%	33%	0%	74%	2%	2%	1%	12%	3%	6%	13%
Elmendorf AFB	60%	40%	0%	79%	1%	2%	0%	10%	2%	7%	11%
Government Hill	68%	22%	9%	52%	8%	16%	3%	7%	6%	8%	12%
Mountain View	61%	34%	5%	27%	17%	18%	9%	14%	5%	11%	12%
Northeast Anchorage	64%	29%	7%	50%	11%	11%	3%	12%	2%	11%	9%
Russian Jack	66%	28%	6%	43%	11%	14%	6%	11%	4%	11%	11%
Merrill Field Vicinity	64%	27%	9%	39%	16%	10%	6%	14%	4%	11%	10%
West Fairview	80%	14%	6%	57%	16%	6%	3%	7%	2%	8%	8%
Downtown Anchorage Core	84%	5%	11%	66%	16%	4%	1%	7%	1%	5%	7%
Bootleggers Cove/Westchester	69%	12%	19%	88%	3%	3%	1%	1%	1%	4%	4%
Turnagain	63%	22%	15%	87%	3%	3%	1%	1%	1%	4%	4%
Fireweed	74%	18%	8%	56%	12%	9%	3%	6%	4%	10%	10%
Rogers Park/Tudor Area	64%	20%	16%	74%	6%	6%	2%	5%	1%	6%	5%
University/Airport Heights	66%	24%	10%	62%	10%	7%	3%	6%	3%	9%	7%
Muldoon/Baxter	65%	26%	9%	64%	8%	6%	2%	8%	2%	10%	7%
Campbell Park Area	71%	22%	7%	57%	11%	11%	1%	5%	4%	10%	10%
Midtown	71%	20%	9%	44%	13%	17%	4%	7%	5%	10%	12%
Spenard	69%	24%	7%	47%	14%	15%	4%	4%	6%	10%	13%
Woodland Park/Spenard	73%	19%	7%	63%	11%	9%	4%	3%	2%	9%	7%
East Turnagain/Fish Creek	70%	22%	8%	62%	8%	14%	2%	4%	2%	8%	7%
Airport/Jewell Lake	66%	27%	7%	67%	8%	10%	2%	3%	2%	9%	7%
Northwood	69%	21%	10%	65%	10%	8%	3%	3%	2%	8%	7%
Arctic	69%	23%	8%	65%	8%	8%	2%	5%	3%	9%	8%
Abbott Loop Area	67%	28%	5%	62%	9%	12%	2%	4%	3%	10%	8%
Campbell Lake/Oceanview	66%	27%	8%	70%	7%	9%	1%	3%	2%	8%	7%
Hillside	66%	26%	8%	81%	5%	5%	0%	2%	1%	5%	5%
Girdwood/Turnagain Arm	77%	18%	5%	91%	2%	3%	0%	0%	1%	3%	4%
Anchorage	67%	26%	7%	66%	8%	8%	2%	6%	2%	8%	8%
Alaska	66%	26%	8%	67%	15%	5%	1%	3%	2%	7%	6%

Sources: U.S. Census Bureau, 2010 Census; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

rean. People of Samoan descent make up well over half of Anchorage's Pacific Islander population.

Alaska Natives are also a growing share of Anchorage, and in 2010 about 8 percent of Anchorage residents were Alaska Native alone. Adding those who reported they were Alaska Native in combination with another race puts the 2010 share at over 12 percent. In 1980, Alaska Natives were less than 5 percent of the municipality.

As the state's major population center, Anchorage has significant populations of all the major Alaska Native groups — Athabascan, Aleut, Inupiat, Tlingit, Haida, Tsimshian, and Yupik — and it is home to more Alaska Natives than any other city in the nation.

Incomes lower in younger areas

As with any large city, Anchorage neighborhoods show significant differences in income. The city's overall median household income was approximately $75,000 at the release of the 2007-2011 American Community Survey, meaning half of households' incomes were above $75,000 and half were below.

Looking at median household incomes by the householder's age reveals pronounced variation. For householders under age 25, median income was around $45,000. Between ages 25 and 44 it was around $75,000, and it was approximately $90,000 for those between 45 and 64. For residents 65 and older, median income was roughly $50,000.

3 Income and Poverty Levels by Anchorage Area
2007 to 2011

	Households with Income Above $50,000	Households with Income Above $75,000	Households with Income Above $100,000	Population Below Poverty Level
Chugiak	77% (+/-10)	60% (+/-8)	45% (+/-7)	2% (+/-1)
Eagle River	82% (+/-6)	68% (+/-6)	49% (+/-5)	3% (+/-2)
Fort Richardson	57% (+/-11)	24% (+/-7)	11% (+/-5)	5% (+/-3)
Elmendorf AFB	58% (+/-14)	28% (+/-10)	15% (+/-8)	7% (+/-4)
Government Hill	39% (+/-16)	13% (+/-13)	10% (+/-13)	8% (+/-5)
Mountain View	31% (+/-9)	11% (+/-7)	3% (+/-5)	26% (+/-8)
Northeast Anchorage	58% (+/-7)	40% (+/-6)	20% (+/-4)	14% (+/-4)
Russian Jack	49% (+/-7)	29% (+/-5)	16% (+/-4)	20% (+/-5)
Merrill Field Vicinity	44% (+/-8)	25% (+/-7)	12% (+/-6)	18% (+/-5)
West Fairview	40% (+/-11)	21% (+/-8)	10% (+/-5)	20% (+/-9)
Downtown Anchorage Core	55% (+/-22)	25% (+/-14)	20% (+/-13)	20% (+/-18)
Bootleggers Cove/Westchester	74% (+/-13)	62% (+/-12)	43% (+/-9)	2% (+/-1)
Turnagain	83% (+/-15)	66% (+/-13)	53% (+/-12)	5% (+/-3)
Fireweed	40% (+/-10)	25% (+/-8)	14% (+/-5)	11% (+/-6)
Rogers Park/Tudor Area	75% (+/-13)	59% (+/-11)	41% (+/-9)	8% (+/-8)
University/Airport Heights	76% (+/-10)	49% (+/-8)	28% (+/-6)	7% (+/-3)
Muldoon/Baxter	73% (+/-6)	53% (+/-5)	36% (+/-4)	9% (+/-2)
Campbell Park Area	63% (+/-8)	43% (+/-6)	25% (+/-5)	8% (+/-3)
Midtown	42% (+/-10)	21% (+/-8)	12% (+/-5)	21% (+/-7)
Spenard	45% (+/-13)	23% (+/-10)	10% (+/-7)	12% (+/-6)
Woodland Park/Spenard	53% (+/-11)	26% (+/-7)	12% (+/-5)	12% (+/-6)
East Turnagain/Fish Creek	72% (+/-9)	48% (+/-7)	33% (+/-6)	5% (+/-2)
Airport/Jewell Lake	69% (+/-7)	53% (+/-6)	39% (+/-5)	7% (+/-3)
Northwood	75% (+/-14)	52% (+/-12)	31% (+/-9)	9% (+/-4)
Arctic	77% (+/-9)	56% (+/-8)	39% (+/-7)	7% (+/-3)
Abbott Loop Area	81% (+/-7)	61% (+/-6)	40% (+/-5)	4% (+/-2)
Campbell Lake/Oceanview	78% (+/-7)	59% (+/-6)	41% (+/-5)	4% (+/-1)
Hillside	84% (+/-5)	75% (+/-5)	61% (+/-4)	3% (+/-1)
Girdwood/Turnagain Arm	63% (+/-18)	44% (+/-15)	29% (+/-12)	8% (+/-5)
Anchorage	69% (+/-2)	50% (+/-1)	34% (+/-1)	8% (+/-1)
Alaska	65% (+/-1)	46% (+/-1)	31% (+/-1)	10% (+/-0)

Notes: Incomes are in 2011 inflation-adjusted dollars.
Poverty thresholds are set by the U.S. Census Bureau and vary by family size and composition.
Margins of error are given in parentheses.

Sources: U.S. Census Bureau, 2007-2011 American Community Survey; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

In eight of the 29 areas, more than half of households brought in less than $50,000 per year. Most of these areas are north and east of the downtown core, and just south in areas including Midtown and Spenard. (See Exhibit 3.)

More than one in five people in the areas covering Mountain View, Russian Jack, Downtown and West Fairview, and Midtown were living below the poverty level. Factors linked to lower incomes and even higher poverty in certain areas include the relative affordability of housing, educational attainment, and age distribution.

High income in Hillside, Turnagain

Two far-apart areas with distinct histories stand out for high incomes, with more than half of households bringing in $100,000 or more per year. These two areas are Turnagain, the older neighborhood west of downtown, and Hillside, the large South Anchorage area that covers many smaller communities.

Commutes are fairly short

The average commute to work for Anchorage resi-

4 Housing and Occupancy
Anchorage areas, 2007 to 2011

	Total Housing Units	Occupied Housing Units
Chugiak	3,961 (+/-150)	91% (+/-3)
Eagle River	8,576 (+/-167)	97% (+/-2)
Fort Richardson	1,919 (+/-117)	94% (+/-2)
Elmendorf AFB	1,475 (+/-106)	91% (+/-5)
Government Hill	1,019 (+/-62)	98% (+/-4)
Mountain View	2,464 (+/-146)	90% (+/-5)
Northeast Anchorage	6,384 (+/-186)	92% (+/-3)
Russian Jack	4,582 (+/-151)	92% (+/-3)
Merrill Field Vicinity	3,288 (+/-111)	94% (+/-3)
West Fairview	2,248 (+/-86)	85% (+/-7)
Downtown Anchorage Core	494 (+/-17)	81% (+/-13)
Bootleggers Cove/Westchester	2,116 (+/-99)	88% (+/-6)
Turnagain	1,331 (+/-36)	97% (+/-3)
Fireweed	2,629 (+/-121)	89% (+/-3)
Rogers Park/Tudor Area	2,162 (+/-51)	96% (+/-5)
University/Airport Heights	3,066 (+/-92)	93% (+/-3)
Muldoon/Baxter	9,197 (+/-194)	96% (+/-2)
Campbell Park Area	4,394 (+/-118)	95% (+/-2)
Midtown	1,710 (+/-108)	93% (+/-4)
Spenard	1,592 (+/-71)	89% (+/-6)
Woodland Park/Spenard	1,960 (+/-58)	86% (+/-7)
East Turnagain/Fish Creek	3,470 (+/-80)	93% (+/-3)
Airport/Jewell Lake	7,663 (+/-155)	96% (+/-2)
Northwood	1,333 (+/-37)	85% (+/-7)
Arctic	4,430 (+/-130)	95% (+/-2)
Abbott Loop Area	5,830 (+/-112)	97% (+/-2)
Campbell Lake/Oceanview	9,684 (+/-143)	94% (+/-2)
Hillside	12,252 (+/-123)	94% (+/-2)
Girdwood/Turnagain Arm	1,575 (+/-79)	62% (+/-8)
Anchorage	112,804 (+/-338)	92% (+/-1)
Alaska	304,373 (+/-160)	83% (+/-0)

Note: Margins of error are given in parentheses.
Sources: U.S. Census Bureau, 2007-2011 American Community Survey; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

5 Owner Occupancy by Area
Anchorage, 2007 to 2011
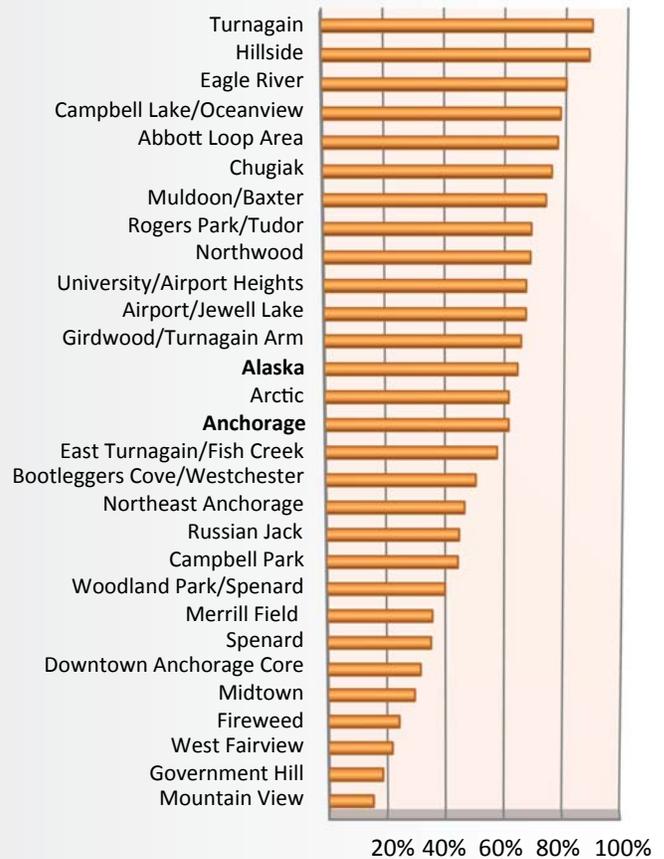
Note: Joint Base Elmendorf-Richardson has no privately owned land, so its owner occupancy is fixed at zero.
Sources: U.S. Census Bureau, American Community Survey 2007-2011; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

dents is fairly brief, at around 18 minutes according to 2007-2011 American Community Survey data. The Fairbanks North Star Borough and the state as a whole both have average commutes of around 18 minutes as well. For comparison, Seattle commute times average 25 minutes, and Los Angeles averages 29 minutes.

Across the tracts that make up Anchorage, average commute times don't differ much, with a range of roughly 10 to 20 minutes. The exception is the northern part of the municipality covering Eagle River and Chugiak, where the average drive time — often to work in the Anchorage bowl — is around 30 minutes, comparable to the Matanuska-Susitna Borough's average. The longer commute is reflected in the time people leave for work, which is by 7:30 a.m. for most Eagle River and Chugiak workers and by 8:00 a.m. for the majority of Anchorage as a whole.

Mostly high occupancy rates

Housing occupancy is generally high across Anchorage, with only the Girdwood/Turnagain Arm area having a low occupancy rate by Census Bureau definitions. It's important to note that Girdwood/Turnagain Arm includes many seasonal and vacation homes, which the Census Bureau counts as vacant.

6 Median Monthly Housing Costs
By Anchorage area, 2007 to 2011

Hillside
Eagle River
Campbell Lk/Oceanview
Turnagain
Abbott Loop Area
Chugiak
Airport/Jewell Lake
Arctic
Muldoon/Baxter
Bootleggers Cove
University/Apt Heights
Anchorage
Northwood
East Turnagain/Fish Crk
Rogers Park/Tudor Area
Northeast Anchorage
Alaska
Campbell Park Area
Russian Jack
Girdwood/Turnagain Arm
Woodland Park/Spenard
Midtown
West Fairview
Fireweed
Merrill Field Vicinity
Downtown Core
Mountain View
Spenard
Government Hill

$0 $500 $1,000 $1,500 $2,000

Note: This analysis excludes areas covering Joint Base Elmendorf-Richardson.
*Sources: U.S. Census Bureau, 2007-2011 American Community Survey; and Alaska
Department of Labor and Workforce Development, Research and Analysis Section*

Also, though the downtown core stands out as having relatively low occupancy, the uncertainty for that estimate is very large, as shown by its margin of error. (See Exhibit 4.)

Owner occupancy varies greatly across Anchorage, from more 80 percent in Turnagain, Hillside, and Eagle River to less than 20 percent in Mountain View and Government Hill, where most homes are rented. (See Exhibit 5.) Land covered by Joint Base Elmendorf-Richardson has no privately owned residences, so its owner occupancy is fixed at zero.

Housing costs highest in Hillside and Eagle River

The median monthly cost of housing varies by about $1,000 across all Anchorage areas, with the highest costs in Hillside and Eagle River at more than $1,900 per month and the lowest in Spenard and Government Hill at $800 to $900.

7 Decades Homes Were Built
By Anchorage area

Chugiak
Eagle River
Fort Richardson
Elmendorf AFB
Government Hill
Mountain View
Northeast Anchorage
Russian Jack
Merrill Field Vicinity
West Fairview
Downtown Anchorage Core
Bootleggers Cove/Westchester
Turnagain
Fireweed
Rogers Park/Tudor Area
University/Airport Heights
Muldoon/Baxter
Campbell Park Area
Midtown
Spenard
Woodland Park/Spenard
East Turnagain/Fish Creek
Airport/Jewell Lake
Northwood
Arctic
Abbott Loop Area
Campbell Lake/Oceanview
Hillside
Girdwood/Turnagain Arm
Anchorage

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

- 1949 or earlier
- 1950 to 1959
- 1960 to 1969
- 1970 to 1979
- 1980 to 1989
- 1990 to 1999
- 2000 or later

Sources: U.S. Census Bureau, 2007-2011 American Community Survey; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

Though Hillside already tops the list, within that area are smaller tracts with median monthly housing costs as high as $2,500. (See Exhibit 6.)

Age of homes reflects history

Looking at the years homes were built reflects the history of the Anchorage bowl's development. Almost all of the existing housing built before 1950 is around downtown, particularly in Government Hill, Bootleggers Cove/Westchester, and the downtown core. The areas covering Spenard, Woodland Park, and Turnagain each grew the most in the 1950s and 1960s. (See Exhibit 7.)

In the 1970s, building peaked in East Anchorage, including Mountain View and the Merrill Field vicinity, and picked up in places farther out including Hillside and Eagle River. Eagle River/Chugiak and Hillside construction finally hit their zenith in the 1980s.

The neighboring Mat-Su Borough has seen a housing boom since 1990, but there have been no sweeping changes in Anchorage housing since then, aside from construction on the base. There's no doubt that Anchorage's population and socioeconomic conditions will continue to change, and that those changes will be reflected in the makeup of the city's neighborhoods.

By CAROLINE SCHULTZ

Water Transportation in Alaska

Small share of jobs but crucial to economy

Alaska's location, geography, and lack of basic transportation infrastructure heighten the challenge of moving goods to and around the state. With a limited highway and rail system and the relatively high cost of moving goods by air, Alaska relies heavily on its vast water transportation network to move freight.

With more than 33,900 miles of shoreline and 6,000-plus miles of navigable inland waterways, Alaska depends more on water transport than nearly any other state, using the system to haul bulk cargo such as oil or coal out of the state and bring in freight ranging from refrigerated containers of lettuce to drill rigs.

Transportation as a whole is a bigger industry in Alaska than elsewhere, and water transport is also a larger share of the overarching transporta-

tion industry, at 10.5 percent in Alaska versus 3.0 percent for the U.S. as a whole.

Although it's critical to the economy, water transportation's share of total jobs doesn't necessarily reflect this importance — less than 1 percent of Alaska's average private monthly employment in 2012 was in water transportation, or just 2,077 positions. (See Exhibit 1 on page 14.) It's important to note these numbers don't include the Alaska Railroad and the Alaska Marine Highway System, which are operated by the state.

Early water transportation

Alaska's water transportation has a long and complex history. Early Alaska settlers frequently used coastal and inland waterways for fishing, hunting, and transportation. Skin-covered watercraft were used by Inupiat, Yupik, Aleut, and Alutiiq populations along the northern, western, and southcentral coast, while birch bark canoes and dugout log canoes were more common among upper Yukon Athabascans and the Tlingit and Haida of Southeast Alaska, respectively.

Europeans first arrived in the late 18th century. Russian explorer Vitus Bering is credited with making the first European contact with Aleuts in 1741, an event that led to the untimely demise of both Bering and the majority of the Aleut population. The Russian-American Company gained a monopoly charter over the Alaska fur trade in 1799, and the company, in conjunction with the Russian navy, feebly maintained a hold on parts of coastal Alaska.

The steam era

Regular boat service from U.S. ports to Sitka

Above, this 1987 photo shows the S.S. Alaska, the Alaska Steamship Company's third ship named Alaska. Photo courtesy of the Alaska Steamship Company Collection, Elmer E. Rasmuson Library, University of Alaska Fairbanks

began in 1867 after the purchase of Alaska from Russia. Steamers departed Portland and San Francisco several times a year carrying soldiers, tourists, cargo, and mail to Southeast Alaska towns on an irregular basis.

The North Pacific Railroad extended its terminus to Seattle in 1887. With access to inexpensive line-hauled overland freight, Seattle was poised to become a competitive port for the Alaska trade.

Demand for space on board increases

Mining stories began making their way south for years before the Klondike gold discovery in 1897, but none would parallel the impact the Klondike rush had on Alaska's transportation network.

Demand for Alaska-bound vessels suddenly eclipsed the number of ships, and carriers scrambled to get more ships online. During the early rush, vessels carried prospectors to Skagway or Dyea, where miners could make the treacherous overland passes to the Yukon.

Construction of the Yukon-White Pass Railway from Skagway to the Yukon between 1898 and 1900 ensured steamships were loaded with construction materials as well as prospectors. Hopeful miners weren't able to enjoy passage to the interior on the new railroad, however. By the time of its completion, Yukon mining claims had been swept up by large mining firms and the rush was over.

The Yukon River

The transfer of Alaska from Russia led to increased commercialization of the Yukon River. The now-defunct Russian-American Company sold its holdings to the Alaska Commercial Company, which introduced the first sternwheeler, the Yukon. The Yukon ran from St. Michael's, a trading hub on Norton Sound north of the Yukon terminus, to as far east as the Canadian border. Slowly, more operators and vessels came on the scene carrying fur, supplies, passengers, and mail to settlements along the Yukon River.

The Klondike gold rush changed river trans-
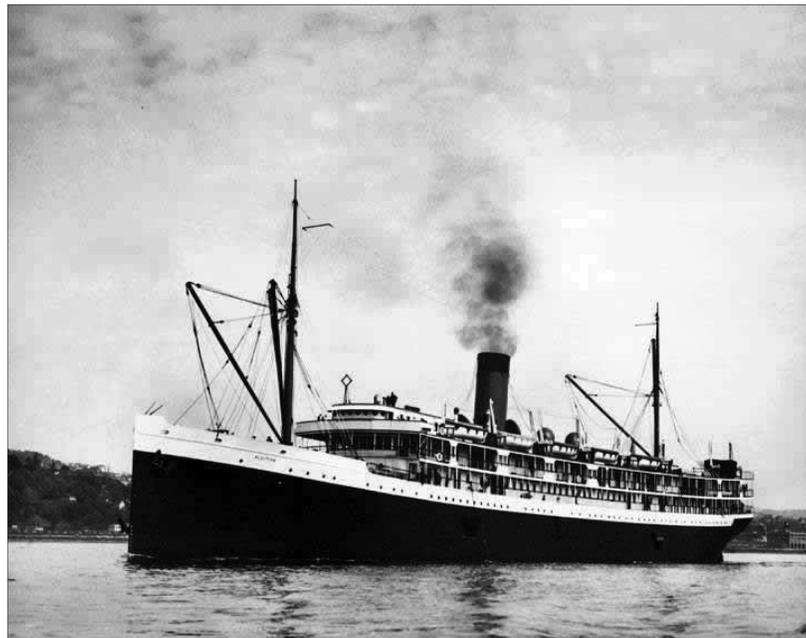
Above, the Alaska Steamship Company vessel is the second S.S. Aleutian purchased by the company, in May of 1930. The first S.S. Aleutian sunk in 1929. Photo by Walter P. Miller, Alaska Steamship Company Collection, Elmer E. Rasmuson Library, University of Alaska Fairbanks

portation on the Yukon the same way it altered steamer travel in the Inside Passage. In 1897, two sternwheelers carried a half-ton of gold from Dawson, a Yukon River boom town, back to St. Michael's, where the gold and happy miners were transferred to seafaring steamers bound for San Francisco and Seattle. Once the news broke, many prospectors still opted for the quicker but more challenging overland route to the Klondike from Skagway or Dyea, but the longer journey by steamer to St. Michael's and up the river to Dawson was also popular, albeit much more expensive. St. Michael's became a boom town in its own right, with an estimated 20,000 people passing through in the summer of 1898.

The completion of the Yukon White Pass Railroad changed the way sternwheelers operated on the Yukon, but it didn't make them obsolete. Now freight could be hauled overland from Skagway rather than shipped up the Inside Passage, across the Gulf of Alaska to Dutch Harbor, up to St. Michael's, and another 1,600 miles up the Yukon River.

The commercial importance of St. Michael's and the lower Yukon River eventually declined. Although the army maintained a presence in St. Michael's and freight continued to move from

1 A Small Share of Alaska Jobs
Private industry breakdown, 2012

The pie chart shows the following segments (starting from top, going clockwise):
- Natural Resources and Mining
- Construction
- Manufacturing
- Water transport and related jobs
- Transportation and Warehousing, 7.8%
- Professional and Business Services
- Education and Health Services
- Leisure and Hospitality
- Retail and Wholesale Trade
- Information and Financial Services
- Utilities and Other Services

Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section; and Quarterly Census of Employment and Wages

Norton Sound up the Yukon, much of the river traffic was on the upper Yukon and Tanana rivers, especially after the discovery of gold near Fairbanks and the development of settlements at Tanana, the confluence of the Tanana and Yukon rivers, and at Chena, at the confluence of the Tanana and Chena rivers.

The Rise of Alaska Steamship Company

The 1900 discovery of a massive copper deposit near present-day McCarthy led to the consolidation of shipping firms operating in Alaska. The development of the Kennecott Mine and the construction of a 102-mile railroad to the mine from Cordova were backed by the Alaska Syndicate, a group of East Coast financiers that included the Guggenheim and Morgan banking interests.

The syndicate began buying up shipping companies to supply railroad and mine construction and eventually carry the copper to market. The existing Alaska Steamship Company was consolidated with other firms, forming a new Alaska Steamship Company.

Copper from the Kennecott Mine helped mitigate one of the classic problems of Alaska shipping: much more is shipped to Alaska than from. Canned fish was sometimes shipped south via common carrier, like Alaska Steamship, but the traffic was highly seasonal. Acquiring southbound cargo was a constant challenge for Alaska shippers, both for ballast and revenue.

Alaska Steamship Company expanded under the Alaska Syndicate, operating four main routes: Seattle to Skagway, Seward, and Nome, and Seward to Unalaska. Passenger service gained popularity for more than just prospectors, and tourism to Alaska became more and more widespread. Construction of the Alaska Railroad and Richardson Highway increased both freight and passenger transit to Seward, Anchorage, and Valdez. Demand for copper during World War I ensured that shipping from Cordova was profitable.

By the onset of World War II, Alaska Steamship Company had a near monopoly on the Alaska shipping industry. The passage of the Merchant Marine Act in 1920 — also known as the Jones Act — hurt Canadian-owned companies because it mandated that all ships carrying goods or passengers between two U.S. ports be majority American owned, operated, and manufactured.

The Great Depression of the 1930s was hard on Alaska Steamship's competitors, who didn't have the lucrative Kennecott connection. Alaska Steamship bought out the Pacific Steamship Company, the successor of the Pacific Coast Steamship Company, Alaska's Steamship's original and last substantial rival.

Decoupling of freight and passenger services

World War II further connected Alaska to the Lower 48 with the construction of the Alaska Highway and the expansion of scheduled air service.

Air transportation to Alaska became a federal priority, and existing federal subsidies and contracts for steamers were redirected toward airlines. More airfields sprung up for both civilian and defense purposes. By 1949, Alaska Steamship Company was the only steamship company with service to Alaska and in 1954, the company dis-

continued its passenger service and sold off its passenger liners.

Rail barge service began in Alaska in 1953, which meant rail cars could roll directly onto a barge with embedded tracks. The first service was between the Ward Cove pulp mill near Ketchikan and Prince Rupert, the terminus of the Canadian National Railway, operated by an arm of Crowley that is now the world's largest tug and barge operator.

In 1962, rail barge service began in Whittier, which linked the Alaska Railroad to the rest of the North American rail network. The Alaska Railroad, in conjunction with Crowley tugs, operated the route from Whittier to Seattle, and Canadian National operated the route from Whittier to Prince Rupert. The Alaska Steamship Company quickly entered the railcar market and began operating a train ship between Whittier and Vancouver.

By the time Alaska achieved statehood in 1959, Alaska Steamship was sending two ships each week from Seattle to both Southeast and Southwest Alaska. Smaller vessels carried goods to

ports too small for the container ships.

Containerization further modernizes the industry

Alaska Steamship Company had begun experimenting with containerization even before exiting the passenger service industry. Early containers were much smaller and more difficult to manage than modern shipping containers, but they did make loading and unloading freight easier and reduced pilfering.

Containerization also helped keep temperatures more consistent, which meant produce was more likely to make it to Alaska before spoiling. Refrigeration and heating techniques improved, and generators were installed on ships to keep temperatures controlled. This service reached Juneau and Ketchikan in 1961, and it was a boon for local grocers.

Alaska Steamship was no longer the only company pursuing containerization. Tug-and-barge operations required far less labor than a typical self-propelled ship, and because of containerization they could get in and out of port quickly.

Crowley was the first company to offer common carrier container barge service to Alaska in 1958, after already making a splash in Alaska by supplying the Air Force's Distant Early Warning Line radar installations along the northern and western Alaska coasts.

Alaska's marine freight transportation industry was truly modernizing. Sea-Land Service, a major American shipping firm, entered the Alaska market with year-round fully containerized deep draft service from Seattle to Anchorage and Kodiak.

Alaska Steamship also introduced container ship service between Seward and Seattle. Alaska Steamship's older fleet couldn't compete with the new operators, however, and after three-quarters of a century of service in Alaska, it went out of business in 1971.

Good Friday earthquake

The 1964 earthquake devastated coastal South-

2 **Freight Entering Railbelt**
Source by tonnage, 2009

Air
1%

Highway
5%

Barge
13%

Port of Anchorage
81%
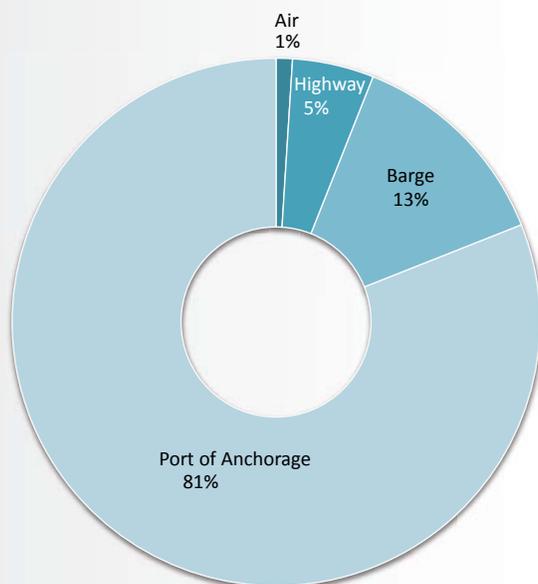
Sources: University of Alaska Anchorage, College of Business and Public Policy; and Port of Anchorage

3 Port of Anchorage Dock Tonnage by Commodity
2003 to 2012

Legend:
- Iron, Steel, Vehicles, and other
- Cement, Bulk Dry
- Vans, Flats, Containers
- Petroleum

Y-axis: 6 million lbs, 5 million lbs, 4 million lbs, 3 million lbs, 2 million lbs, 1 million lbs, 0

X-axis: 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012
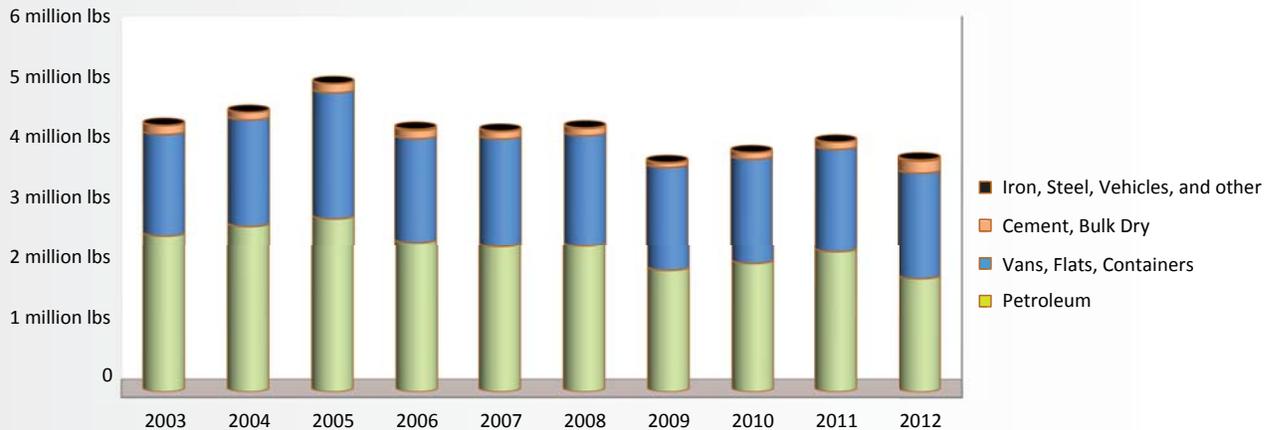
Source: Port of Anchorage

central Alaska. Waves and fire destroyed the docks in Seward, Whittier, Valdez, and Kodiak and decimated entire smaller Southcentral communities such as Chenega and Portage. Anchorage suffered the most damage as the largest city in the area, but largely from subsidence rather than waves.

Seward's port was not rebuilt. The Port of Anchorage, which had just been built three years prior, was relatively unscathed by the earthquake. Rail barge service continued out of Whittier once the tracks were repaired, but the earthquake hastened the inevitable concentration of shipping at Anchorage's new port. (See Exhibit 2.)

Oil and shipments by water

When oil was discovered in Cook Inlet in 1957, tugboats became essential to the oil industry, especially with the development of offshore oil platforms. Cook Inlet has some of the most extreme tides and currents in the world and isn't ice-free year-round, so specialized techniques were developed to haul barges for construction and supply of oil industry facilities.

This expertise in working in difficult conditions became even more useful with the discovery of oil at Prudhoe Bay in 1968. Crowley continues to be a major supplier of tug-and-barge services

to oil operations on the North Slope, and it has delivered more than a million tons of cargo since 1968.

The construction of the pipeline between Prudhoe Bay and Valdez in 1974 was another major project for the shipping industry. Most of the steel pipe for the pipeline came to Alaska on the rail barge to Whittier, where some was reloaded onto barges bound for Valdez. The Valdez waterfront even featured rail siding, though it had no connecting railroad, so pipe-laden rail cars could unload.

Other pipe was transported north on the Alaska Railroad, then trucked farther north on the Haul Road. An estimated 120 shiploads were required to carry 550,000 tons of pipe for the construction of the pipeline.

Once the pipeline was finished, Valdez became a major port. Two or three supertankers would arrive and depart Valdez daily, bound for West Coast refineries. Daily average throughput peaked in 1988 at just over 2 million barrels a day. By the end of 1988, more than 6.6 billion barrels had been shipped out of Valdez.

The aftermath of the 1989 grounding of the Exxon Valdez tanker and subsequent spill of up to 11 million gallons of oil in Prince William Sound had a lasting effect on water transportation and

its support services. The Ship Escort/Response Vessel System, or SERVS, was established after the spill, and two tugboats were required to escort tankers out of Prince William Sound. They also helped with both navigation and immediate spill response.

SERVS currently operates with two enhanced tractor tugs, three prevention response tugs, and five other vessels that include docking tugs and a utility boat. The SERVS vessel of opportunity program began in 1990 to employ local boat captains in spill response. Alyeska Pipeline Services contracts with more than 400 area vessels — mostly fishing boats — and crew for response readiness. SERVS provides training and drills to ensure captains are prepared for an incident.

Water transport today

Oil isn't the only bulk cargo that leaves Alaska's ports. Alaska's other mines rely on water transportation to get their materials to market. Red Dog Mine in the Northwest Arctic Borough and the Greens Creek and Kensington mines near Juneau have their own docks for loading material onto barges and ships. Interior mines use Alaska's intermodal transportation network to get their minerals to shipping vessels bound for ports all over the world.

Cargo entering the Port of Anchorage accounts for 90 percent of merchandise in Alaska communities west of Cordova, according to a joint study by the University of Alaska Anchorage and the port. Nearly all of these goods originate from the Port of Tacoma, which has replaced Seattle as Alaska's shipping hub. An estimated 30 percent of Tacoma's total cargo is bound for Alaska. (See Exhibit 2.)

Two main firms, Horizon Lines and Totem Ocean Trailer Express, or TOTE, supply two ships per week at the port. Horizon Lines uses container cranes to lift containers from the ships, while TOTE ships are designed to carry wheeled cargo.

The Port of Anchorage is a major fuel hub as well. Up to two-thirds of jet fuel bound for Ted Stevens Anchorage International Airport passes through the port as well as two-thirds of the fuel used by military and federal agencies in Alaska.

4 **Port of Anchorage Revenues**
By source, 2012

- Crane Rentals 1%
- Other 9%
- Industrial Park Lease Rentals 38%
- Wharfage, General Cargo 32%
- Dockage 10%
- Wharfage, Liquid Bulk 8%
- Wharfage, Dry Bulk 2%
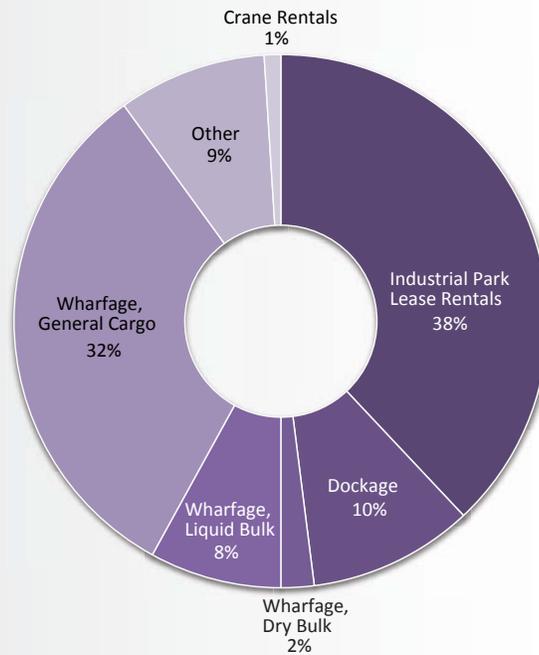
Source: Port of Anchorage

All of the aviation gas used by smaller planes comes to Alaska through the Port of Anchorage, and up to 90 percent of gasoline used in motor vehicles and small boats passes through the port before delivery to the rest of the state.

In 2012, 3.8 million tons of cargo came in through the Port of Anchorage, including container cargo, mail, fuel, construction materials, drill pipe, cement, and military equipment. (See Exhibit 3.)

Around 700,000 tons of cargo entered at other railbelt ports, including private Anchorage docks, Whittier, and Seward. This includes cargo that arrives in Whittier from Seattle and Prince Rupert from two rail barge operations.

Anchorage-bound freight is typically trucked to its final destination. The Alaska Railroad transports around 60 percent of cargo bound for other railbelt communities, and the remaining 40 percent is trucked. Goods for rural Alaska are primarily trucked to warehouses and distribution centers and then flown in by air freight and bypass mail carriers. Some cargo originating at the Port of Anchorage is also air-freighted to Southeast.

Bypass mail serves much of rural Alaska's freight needs, allowing rural retails to fly cargo directly from designated wholesalers in Anchorage and Fairbanks at the cost of Parcel Post mail while bypassing the USPS sorting facilities. Although bypass mail is competition to barge service, it substantially increases the demand for aviation gas in rural Alaska, creating a different opportunity for coastal and inland tug operators.

Some cargo bound for Western Alaska is loaded onto barges and towed north. The majority of cargo barged to Western Alaska, however, comes directly out of Seattle.

Horizon Lines provides direct container ship service to Kodiak and Dutch Harbor along with Anchorage. Horizon Lines ships bound for farther western ports typically unload cargo in Anchorage, then load Asia-destined frozen fish from Southcentral Alaska and Kodiak and carry it to Dutch Harbor, where it travels on ships that cross the North Pacific.

Frozen fish from Kodiak and Dutch Harbor are also backhauled to Tacoma for domestic consumption. Backhaul remains a challenge for Alaska shippers because so much goes into Alaska with relatively little outbound freight. On average, two of every 10 containers are loaded with cargo for the return trip to Tacoma, usually with recycling, frozen fish, rental fleet inventories, and household goods and cars for people moving out of Alaska.

While container ships arriving at the Port of Anchorage handle the bulk of Alaska-bound cargo, Alaska's network of tug-and-barge operations are essential to communities off the railbelt and in shallow or inland water. An estimated 90 percent of freight bound for Southeast Alaska travels by tug and barge. Barges' benefits are shallow draft and large flat surfaces that can haul just about anything. Inclement weather, particularly in the winter, can hold up barges for weeks, which means an occasional bare grocery store shelf isn't uncommon off the railbelt.

Off-road Alaska communities depend heavily on fuel barges as well. All fuel shipped to Southeast Alaska, with the exception of aviation gas, is towed up from the Lower 48 and stored in bulk fuel storage facilities. During the ice-free summer, barges tow fuel to Western and Northern Alaska from the Lower 48 and Anchorage, then river tug and barge outfits haul it up the Yukon River.

The Marine Highway System

Jobs and ridership on Alaska's ferries

Alaska purchased its first ferry, the Chilkat, in 1959 after the Alaska Ferry Transportation Act established state operation of terminals and regulation of ferry operators. Four years later, the state formed the Division of Marine Transportation and added three mainline ferries — the Taku, the Matanuska, and the Malaspina — which began service throughout Southeast Alaska and Canada.

As the system celebrates its 50th anniversary this year, these three boats still operate on expanded routes along with a larger fleet. Today, 11 vessels travel a combination of routes stretching from the Aleutians to Bellingham, Wash.

1 **Ferry Traffic by Area**
Alaska, 1982 to 2012
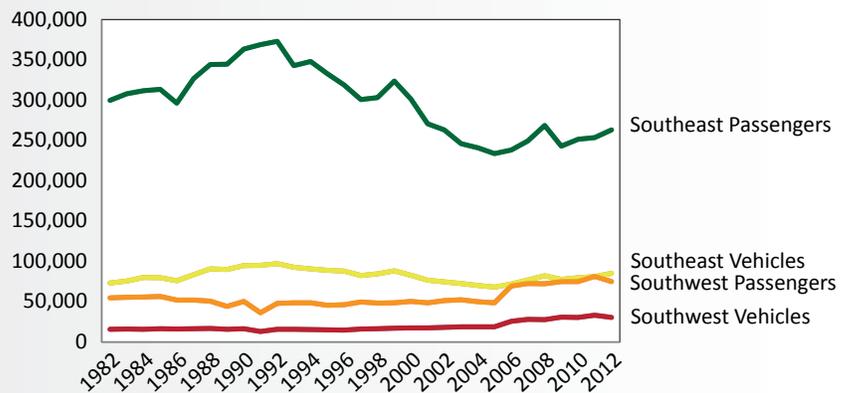
Source: Annual Traffic Volume Report, Alaska Marine Highway System. Published for the Alaska Department of Transportation and Public Facilities

Mainly used by residents

Originally conceived as public transportation for the large portions of Alaska's population living in roadless river, island, and coastal communities, the ferries' appeal to recreational motorists was soon realized.

Like a terrestrial highway, Alaska's ferries serve both visitors and residents, including resident tourists. A recent system analysis estimated that two-thirds of ferry users are Alaska residents, and 20 percent of resident users live more than 50 miles from a ferry-serviced community.

Ridership has grown along the southwest route over the past decade (see Exhibit 1), with about 30 percent of southwest traffic going in and out of Whittier, the closest port to Anchorage. On the southeast route, the largest percentage of traffic goes in and out of Juneau. (See Exhibits 2 and 3.)

Shippers of refrigerated cargo vans also use the ferries regularly because the schedules and regularity

of service provide a cheap, reliable alternative to transporting perishables by air.

Who runs the ferries

Vessel operations is the largest of the system's five components, both in budget and employment. (See Exhibit 4.) The Alaska budget calls for 724 full-time positions and 128 part-time and nonpermanent positions for vessel operations. However, there are generally more workers than positions due to seasonality, turnover, and workers on leave without pay.

Vessel operations has several departments: command, deck, stewards, and engineering. These workers are state employees covered under three different bargaining units, and each position requires special skills and certifications.

Masters and mates command the vessels and are subject to the highest level of Coast Guard certi-

2 Southwest Passengers and Vehicles
Ferry traffic by community, 2012
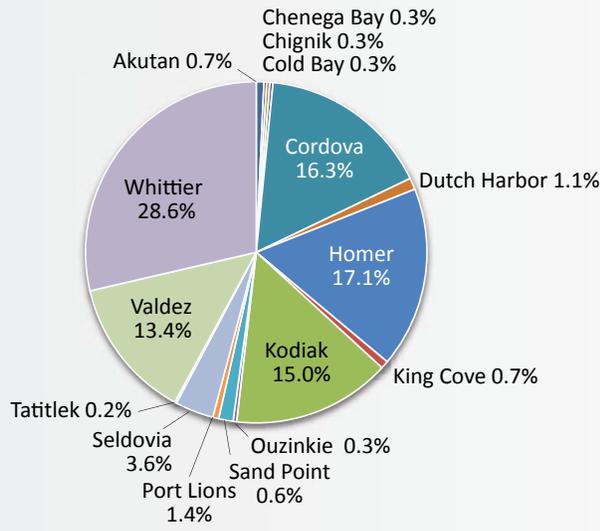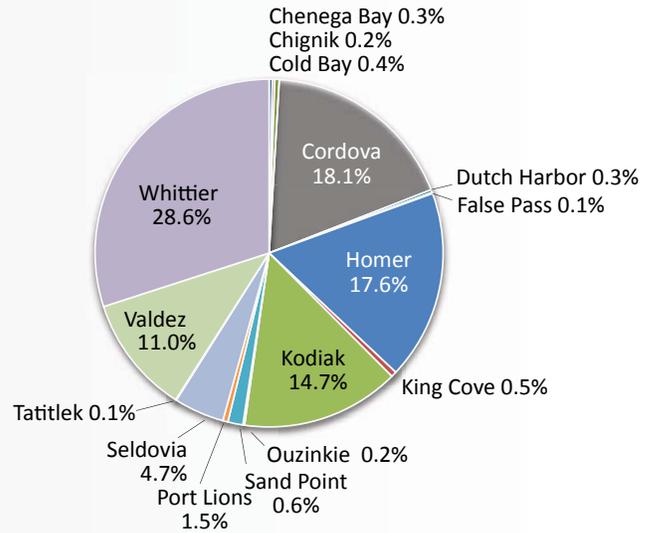
Passengers

- Chenega Bay 0.3%
- Chignik 0.3%
- Cold Bay 0.3%
- Akutan 0.7%
- Cordova 16.3%
- Dutch Harbor 1.1%
- Whittier 28.6%
- Homer 17.1%
- Valdez 13.4%
- Kodiak 15.0%
- King Cove 0.7%
- Tatitlek 0.2%
- Seldovia 3.6%
- Ouzinkie 0.3%
- Sand Point 0.6%
- Port Lions 1.4%

Vehicles

- Chenega Bay 0.3%
- Chignik 0.2%
- Cold Bay 0.4%
- Cordova 18.1%
- Dutch Harbor 0.3%
- False Pass 0.1%
- Whittier 28.6%
- Homer 17.6%
- Valdez 11.0%
- Kodiak 14.7%
- King Cove 0.5%
- Tatitlek 0.1%
- Seldovia 4.7%
- Ouzinkie 0.2%
- Sand Point 0.6%
- Port Lions 1.5%

Source: Alaska Department of Transportation and Public Facilities, Alaska Marine Highway System

3 Southeast Passengers and Vehicles
Ferry traffic by community, 2012
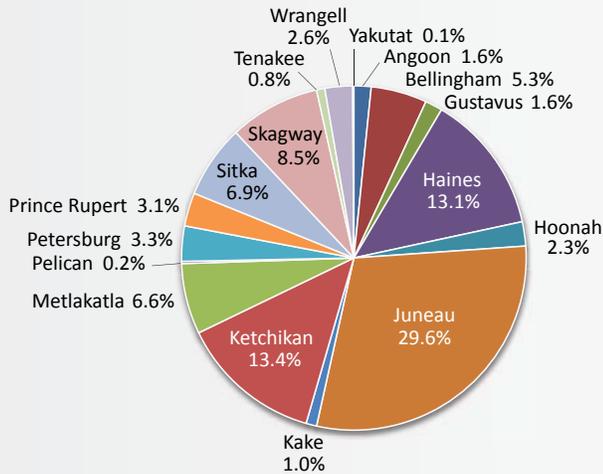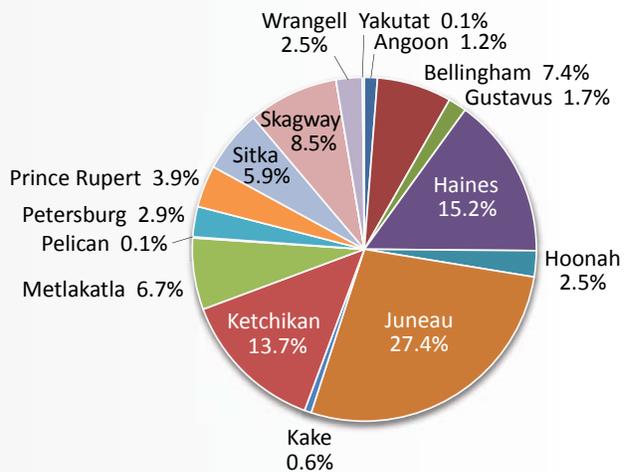
Passengers

- Wrangell 2.6%
- Yakutat 0.1%
- Tenakee 0.8%
- Angoon 1.6%
- Bellingham 5.3%
- Gustavus 1.6%
- Skagway 8.5%
- Sitka 6.9%
- Haines 13.1%
- Prince Rupert 3.1%
- Hoonah 2.3%
- Petersburg 3.3%
- Pelican 0.2%
- Metlakatla 6.6%
- Juneau 29.6%
- Ketchikan 13.4%
- Kake 1.0%

Vehicles

- Wrangell 2.5%
- Yakutat 0.1%
- Angoon 1.2%
- Bellingham 7.4%
- Gustavus 1.7%
- Skagway 8.5%
- Sitka 5.9%
- Prince Rupert 3.9%
- Haines 15.2%
- Petersburg 2.9%
- Pelican 0.1%
- Hoonah 2.5%
- Metlakatla 6.7%
- Juneau 27.4%
- Ketchikan 13.7%
- Kake 0.6%

Source: Alaska Department of Transportation and Public Facilities, Alaska Marine Highway System

4. Components of the Marine Highway System

Positions and location, Fiscal Year 2012

	Positions	Location
Vessel Operations	852	On the boats
Reservations and Marketing	26	Juneau, Ketchikan
Marine Shore Operations	87	Statewide ports
Marine Engineering	24	Ketchikan, Juneau, Bellingham
Vessel Operations Management	42	Ketchikan

Source: State of Alaska Office of the Governor, Office of Management and Budget

fication and training. The State of Alaska personnel directory lists 100 masters, mates, and pilot workers as well as 125 engineers, 55 wipers and oilers, and 165 able seamen, porters, and boatswains. (See Exhibit 5.)

Also on board are service workers, whose tasks include everything from cleaning staterooms to overseeing passengers and cargo. The workers in the stewards department, purser's office, and galley also require additional Coast Guard certification and marine safety training, unlike their land-based counterparts.

Some routes include naturalists who serve as informal tour guides. The ferry system also hosts cadets from maritime academies who get sea time and training aboard these large vessels through summer internships.

On-shore jobs

The other four system components are on shore, with vessel operations management located at system headquarters in Ketchikan. Vessel operations includes dispatchers, accountants, computer programmers, safety managers, port captains, and other office and administrative workers.

The marine engineering component is responsible for keeping the fleet in good condition with maintence and repairs, requiring vessel construction managers and journeymen. Marine shore operations are mainly terminal operations, with positions at all ports to welcome and send off the vessels.

The reservations and marketing component is responsible for the Alaska Marine Highway System Web site, reservations, and ticketing while working with chambers of commerce, economic development, the visitor industry, and local government groups to market the ferries to both residents and visitors. Reservations and marketing also coordinated the 50th birthday festivities this year at ports of call.

5. On-Board Jobs

Alaska ferries

	Workers
Third Mate	30
Master	27
Second Mate	24
Chief Mate	17
Pilot	2
Oiler	38
Third Assistant Engineer	34
Chief Engineer	27
First Assistant Engineer	24
Junior Engineer	19
Second Assistant Engineer	18
Wiper	17
Port Engineer	3
Able Seaman	65
Ordinary Seaman	51
Watchman Porter	18
A/B Boatswain	15
Ordinary Seaman Porter	13
FVF Deck Rating	3
Steward	247
Chief Purser	16
Chief Steward	11
Senior Assistant Purser	10
Head Bedroom Steward	8
Second Steward	7
FVF Passenger Service Worker	7
Junior Assistant Purser	6
FVF Passenger Svc Wkr-In-Chg	3
Deck/Steward Utility, Lituya	2
Second Cook	20
Chief Cook	17
Mess Steward	14
Assistant Second Cook	13
Bartender	7
Head Waiter	3
Cashier/Gift Shop Operator	24
Storekeeper	4

Source: Alaska Department of Transportation and Public Facilities employee directory

Employment Scene — The month in numbers

1 Unemployment Rates
January 2003 to July 2013

Seasonally adjusted
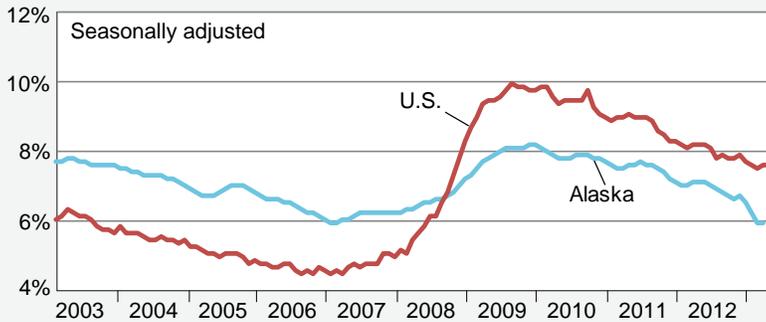
Source: Alaska Department of Labor and Workforce Development, Research and Analysis; and U.S. Bureau of Labor Statistics

2 Statewide Employment
Nonfarm wage and salary

Alaska	Preliminary 7/13	Revised 6/13	Revised 7/12	Year-Over-Year Change 7/12	90% Confidence Interval
Total Nonfarm Wage and Salary[1]	356,500	352,400	357,700	-1,200	-7,277 / 4,877
Goods-Producing[2]	59,900	53,400	61,100	-1,200	-4,166 / 1,766
Service-Providing[3]	296,600	299,000	296,600	0	– / –
Mining and Logging	18,600	18,300	17,900	700	-535 / 1,935
Mining	18,000	17,700	17,500	500	– / –
Oil and Gas	14,700	14,500	14,000	700	– / –
Construction	20,700	19,900	19,700	1,000	-513 / 2,513
Manufacturing	20,600	15,200	23,500	-2,900	-5,259 / -541
Wholesale Trade	6,300	6,100	6,500	-200	-539 / 139
Retail Trade	38,100	38,000	37,500	600	-184 / 1,384
Food and Beverage Stores	6,500	6,300	6,600	-100	– / –
General Merchandise Stores	10,100	10,300	10,100	0	– / –
Transportation, Warehousing, Utilities	24,800	24,700	24,400	400	-434 / 1,234
Air Transportation	6,400	6,400	6,400	0	– / –
Information	6,200	6,200	6,300	-100	-375 / 175
Telecommunications	4,100	4,100	4,200	-100	– / –
Financial Activities	14,300	13,900	14,000	300	-567 / 1,167
Professional and Business Services	29,700	29,300	30,200	-500	-1,856 / 856
Educational[4] and Health Services	47,100	47,600	46,300	800	-335 / 1,935
Health Care	34,100	34,100	33,000	1,100	– / –
Leisure and Hospitality	40,400	38,700	40,600	-200	-2,869 / 2,469
Other Services	12,100	11,800	11,800	300	-521 / 1,121
Government	77,600	82,700	79,000	-1,400	– / –
Federal Government[5]	15,400	15,400	17,000	-1,600	– / –
State Government[6]	25,100	25,200	25,100	0	– / –
State Government Education[7]	6,000	6,400	5,900	100	– / –
Local Government	37,100	42,100	36,900	200	– / –
Local Government Education[8]	17,500	22,300	17,900	-400	– / –
Tribal Government	3,700	3,700	4,300	-600	– / –

A dash means confidence intervals aren't available at this level.
[1]Excludes the self-employed, fishermen and other agricultural workers, and private household workers. For estimates of fish harvesting employment and other fisheries data, go to labor.alaska.gov/research/seafood/seafood.htm.
[2]Goods-producing sectors include natural resources and mining, construction, and manufacturing.
[3]Service-providing sectors include all others not listed as goods-producing sectors.
[4]Private education only
[5]Excludes uniformed military

3 Unemployment Rates
Boroughs and census areas

	Prelim. 7/13	Revised 6/13	Revised 7/12
SEASONALLY ADJUSTED			
United States	**7.4**	**7.6**	**8.2**
Alaska Statewide	**6.3**	**6.0**	**7.1**
NOT SEASONALLY ADJUSTED			
United States	**7.7**	**7.8**	**8.6**
Alaska Statewide	**5.9**	**6.5**	**6.6**
Anchorage/Mat-Su Region	**5.3**	**5.7**	**6.0**
Municipality of Anchorage	4.9	5.3	5.6
Matanuska-Susitna Borough	6.7	7.1	7.6
Gulf Coast Region	**5.9**	**6.7**	**6.8**
Kenai Peninsula Borough	6.2	6.9	7.2
Kodiak Island Borough	5.0	5.8	5.8
Valdez-Cordova Census Area	5.9	6.7	6.2
Interior Region	**6.0**	**6.6**	**6.7**
Denali Borough	3.6	4.2	4.0
Fairbanks North Star Borough	5.3	5.9	6.0
Southeast Fairbanks Census Area	10.2	10.9	10.6
Yukon-Koyukuk Census Area	14.5	14.3	13.6
Northern Region	**9.6**	**10.2**	**10.3**
Nome Census Area	12.4	12.5	12.9
North Slope Borough	5.2	5.6	5.7
Northwest Arctic Borough	14.0	15.1	15.0
Southeast Region	**5.1**	**5.7**	**5.8**
Haines Borough	5.2	6.9	5.4
Hoonah-Angoon Census Area	9.4	10.4	10.1
Juneau, City and Borough of	4.2	4.5	4.8
Ketchikan Gateway Borough	4.8	5.5	5.4
Petersburg Census Area[1]	5.8	6.8	8.5
Prince of Wales-Hyder Census Area	10.6	12.8	12.2
Sitka, City and Borough of	4.4	5.2	5.0
Skagway, Municipality of	2.3	1.8	1.9
Wrangell, City and Borough of	7.4	7.4	5.7
Yakutat, City and Borough of	6.5	7.9	7.1
Southwest Region	**11.2**	**13.4**	**11.4**
Aleutians East Borough	8.7	12.7	8.8
Aleutians West Census Area	7.2	9.5	7.1
Bethel Census Area	16.2	17.0	16.2
Bristol Bay Borough	1.1	1.8	1.4
Dillingham Census Area	7.3	8.6	7.8
Lake and Peninsula Borough	4.3	5.7	4.7
Wade Hampton Census Area	23.9	25.0	24.7

Sources for Exhibits 1, 2, and 3: Alaska Department of Labor and Workforce Development, Research and Analysis Section; and U.S. Department of Labor, Bureau of Labor Statistics

[6]This number is not a count of state government positions, but the number of people who worked during any part of the pay period that included the 12th of the month (the same measure used for all employment numbers in this table). The numbers can vary significantly from month to month; when attempting to identify trends, annual averages are more useful.
[7]Includes the University of Alaska. Variations in academic calendars from year to year occasionally create temporarily large over-the-year changes.
[8]Includes public school systems. Variations in academic calendars from year to year occasionally create temporarily large over-the-year changes.

Employer Resources

Employing a veteran provides a variety of incentives

Alaska's employers are finding out that it's good for business to hire veterans. According to American Legion National Commander Jim Koutz, "Veterans have undergone strenuous training, performed in high-stress environments, and bring a set of skills and discipline from which most employers and communities can truly benefit."

Hiring veterans also provides a variety of incentives, including tax credits, on-the-job training, and apprenticeships.

• Under the Work Opportunity Tax Credit "Vow to Hire Heroes Act," employers can receive up to $9,600 for hiring an unemployed veteran. Tax credits are based on criteria such as the veteran's length of employment and service-connected disability status.

• The State of Alaska Veteran Tax Credit provides credit for employing a disabled veteran, employing a veteran who is not disabled, or hiring a veteran for a seasonal position.

• Employers who hire qualified veterans into on-the-job training positions can be reimbursed for up to 50 percent of the veteran's salary for up to six months.

• Employers can hire qualified veterans at an apprentice wage, and the Department of Veteran Affairs will supplement the employee's salary up to a journeyman's wage. As the veteran progresses through training, employers begin to pay a greater percentage of the wage.

Alaska Job Centers offer priority of service to veterans and their eligible spouses. This means they receive head-of-the-line privileges for job seeker services, first access to jobs posted in ALEXsys (the Alaska Labor Exchange System), and first consideration for job training.

You can find qualified veterans through any of the Alaska Job Center offices statewide. Contact your local job center or call (877) 724-2539 for additional program information or to locate qualified applicants.

Safety Minute

Help workers understand hazards and proper use of chemicals

The Occupational Safety and Health Administration, or OSHA, estimates that more than 43 million workers in more than 5 million workplaces across the country produce or handle hazardous chemicals. With new chemical products on the market daily, it is more important than ever to be aware of the chemicals you are working with and the hazards they present.

Chemicals can have multiple physical and health hazards such as flammability, corrosivity, and toxicity. Knowing the identity of the product you are using and its potential hazards allows you to protect yourself from the ill effects of overexposure or improper use.

All chemicals are required to be labeled by the manufacturer, distributor, or importer. Employers are responsible for ensuring labels on incoming containers are not defaced and that any secondary containers are labeled with the product name and hazards. Labels serve as an immediate warning but are not intended to be the sole source of information on a product.

Additional product information is contained in a safety data sheet. These publications list the supplier, uses of the product, first-aid measures in case of exposure, appropriate personal protective equipment, and engineering controls to minimize exposure. They also include physical properties such as color, flash point, pH, and exposure limits. These data sheets are available where you purchase chemicals and most manufacturers also provide them online. Employers are required to maintain a safety data sheet for each hazardous chemical in the workplace, and employees should review the material prior to use.

OSHA has recently revised its Hazard Communication Standard to align with the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals. This system standardizes the classification of chemical hazards and how that information is conveyed through labels and safety data sheets.

The Alaska Occupational Safety and Health Consultation and Training Section will offer free training in October to help employers meet the December 1 deadline for educating employees on new label elements and SDS format. Sessions will be available in Anchorage, Juneau, and Fairbanks. For more information visit www.labor.alaska.gov/lss/oshhome or call our office at (907) 269-4955.