Ketchikan 2020 & Gravina Access Project

Existing Conditions Demographic and Socioeconomic Analysis

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Abbreviations

ADF&G	Alaska Department of Fish and Game
ADOT&PF	Alaska Department of Transportation and Public Facilities
AHFC	Alaska Housing Finance Corporation
ASD	Alaska Ship & Drydock, Inc.
BEA	U.S. Bureau of Economic Analysis
CFEC	Alaska Commercial Fisheries Entry Commission
DCED	Alaska Department of Commerce and Economic Development
DOLWD	Alaska Department of Labor and Workforce Development
IFQ	Individual Fishing Quota
REIS	Regional Economic Information System
USFWS	U.S. Fish and Wildlife Service

1.0 Executive Summary

1.1 Population Trends

In recent years, many changes have affected Ketchikan area population, including the March 1997 closure of the pulp mill, the decline of the timber industry, the growth of the Ketchikan Shipyard, and the rise of the tourism industry.

- From 1990 to July 2000, the population of the Ketchikan Gateway Borough, including the cities of Ketchikan and Saxman, and outlying communities, showed an overall increase of 1.0%, from 13,828 to 13,961 people. The population in the borough had increased annually from 1990, reaching a peak of 14,764 in 1995, and then proceeded to decline.
- From 1990 to 1999, Ketchikan city population increased slightly less than the borough population, from 8,263 people to 8,320 people, or by 0.7%.
- The population of the Prince of Wales/Outer Ketchikan census area increased by 5.0% from 1990 to 1999, from 6,278 to 6,589 people.

1.2 Employment Trends

The number of jobs in the Ketchikan Gateway Borough increased from 1980 until 1995 and began to decrease after 1995. Employment changes in the Borough are mostly due to the 1997 closure of the pulp mill and the decline of the timber industry Changes in the forest products industry are the primary cause of fluctuations in total employment in the Prince of Wales/Outer Ketchikan area.

- In 1980, the total number of jobs in the Ketchikan Gateway Borough was 5,842, compared to 7,025 in 1998—an overall increase of 20.2% for the 19-year period. Employment increased from 5,842 in 1980 to 7,981 in 1995, a change of 36.6%, and then decreased by 12.0% to 7,025 in 1998. It is therefore clear that drastic reductions after 1995 had a significant effect on the overall growth of employment.
- Employment in the Prince of Wales/Outer Ketchikan census area steadily increased from 1,278 jobs in 1980 to 2,239 jobs in 1991. After 1991 employment began to fluctuate, resulting in an employment level of 2,201 in 1998.

1.3 Personal Income Trends

Personal income statistics are a function of several factors, including employment and population, and are an important indicator of an area's economic well being. If personal income declines, the decline indicates that the economy cannot support as many jobs as it did previously.

- The most recent data from the U.S. Bureau of Economic Analysis indicate that personal income increased in the Ketchikan Gateway Borough until 1996 but decreased by 3% from 1996 to 1997. Overall, total personal income increased by 840% from $44.8 million in 1969 to $421.0 million in 1997.
- Personal income in the Prince of Wales/Outer Ketchikan census area increased from 1979 until 1997. However, personal income did decrease from 1990 to 1991 and from 1995 to

1996. Overall, total personal income increased by 238% from $35.8 million 1979 to $121.2 million in 1997.

1.4 Housing Market Trends

Housing markets are often evaluated by the number of houses sold in a year, the change in sale price, and vacancy rates.

- Alaska Housing Finance Corporation (AHFC) housing units showed an increase in average sales price by 33%, from $137,871 in 1992 to $183,363 in 1999. The number of AHFC housing loans declined, from 62 loans in 1992 to 46 loans in 1999.
- Vacancy rates for rental housing in the Ketchikan area increased steadily from 1994 to 1999.
- While the nominal average list price for all Ketchikan Gateway Borough properties has increased from $127,825 to $209,812 from 1990 to 1999, the percentage of all properties put on the market that have sold has decreased from 97% to 23%. The percentage of properties sold showed the greatest decrease after 1997.

1.5 Recreation Trends

Gravina Island offers a variety of recreational activities and it is important to examine the trend of recreational activities over the last few years.

- Deer hunting has been a popular activity in the Ketchikan area. The number of hunters increased by 68.8% from 221 hunters in 1990 to 373 hunters in 1997. The number of hunter days increased by 58.1%, from 614 days in 1990 to 971 days in 1997.
- In the past, sportfishing in the Ketchikan area has been an extremely popular activity. The total number of fishing days has shown a decline from 91,127 days in 1990 to 83,901 days in 1997.
- Alaska State Parks offer another popular recreational activity in the Ketchikan area. Ketchikan District State Marine Parks include Dall Bay, Thom's Place, Beecher Pass, Joe Mace Island, and Black Sands Beach. More than 3,400 people visited area parks in 1999.
- Alaska State Parks offer a number of cabins for rent by the public and cabin usage in Ketchikan has remained popular. The number of paid cabin days has remained relatively constant, decreasing only slightly from 637 days in 1987 to 589 days in 1997.

1.6 Economy and Economic Development Outlook

The forestry industry has always been an important part of Alaska’s economy. Recent years have been difficult because the Tongass Land Use Management Plan reduced allowable harvest levels in 1997, the Sitka pulp mill closed in 1993 and the Ketchikan pulp mill closed in 1997.

- Weak Japanese markets, pulp mill closures, and a declining timber supply have caused the Ketchikan area harvest to decline from 491 million board feet in 1989 to 120 million board feet in 1998, the lowest it has been in years.

- The total value of international exports declined by 56.3% from $474.7 million in 1988 to $207.6 million in 1998, and the value of international exports of soft wood logs declined by 27.8% from $261.6 million in 1988 to $188.8 million in 1998.

Ketchikan’s seafood industry, like many industries in the area, is undergoing dramatic changes. The combined effects of many changes within the seafood sector potentially could hurt Ketchikan's economy by reducing employment and earnings for fishermen and processors.

- Agriculture, forestry, and fishing accounted for only 1.0% of total employment in 1998. This employment includes those people who receive a wage for fish harvesting and other support industries. Self-employed individuals and seafood processors would not be included.
- Seafood processing in all areas of Alaska is predominantly seasonal. At times, winter seafood processing employment in Ketchikan may be only 10% of the August level.
- Gross earnings for the seafood processing industry in Ketchikan from 1996 to 1998 ranged from approximately $9.2 million to $10.4 million. As a share of gross earnings for all industry in Ketchikan, seafood processing was approximately 4.0% to 4.4%.
- Commercial fish harvesting employment in 1997 was approximately 700 individuals. The number employed in commercial fishing peaked around 1980 and has since declined.
- In 1990, approximately 19.5% of the total labor force employed in Ketchikan commercial fisheries were Ketchikan residents.

The Ketchikan area, like many areas, has benefited from substantial growth in the tourism industry in Alaska.

- Data indicate that in the summer of 1993, 47% of all Alaska visitors visited Ketchikan.
- Substantial revenue is generated by the cruise industry. This sector of the visitor industry accounts for more than $40 million in spending by summer visitors in Ketchikan, more than $2 million in spending by cruise ship crews, and $40 million in spending by the cruise lines.

Government employment and spending play an extensive role in the Ketchikan area economy. Local and state government employment are heavily dependent on population, the demand for government services, and available revenue.

- Government jobs represented 25.6% of total wage employment, 1800 jobs, in the Ketchikan Gateway Borough in 1998 and an average of 25.9% of employment between 1980 and 1998.

Other sectors in Ketchikan have resulted in significant employment and contribute to Ketchikan’s economy.

- Airport employees are a large part of the traffic to and from Gravina Island. As of January 2000, the airport had 185 summer employees and 136 winter employees.
- Annual gross revenue for Alaska Ship and Drydock (ASD), the Ketchikan Shipyard operator, has increased, from $2.4 million in 1994 to $14.9 million in 1999. ASD Employment has also increased, from 21 to 109 employees from 1994 to 1999.

- From 1990 to 1999, the Alaska Marine Highway System's regular wintertime full-time employment has decreased by 4.6% from 564 to 538 employees. Regular summertime full-time employment has increased from 582 to 660 employees, an increase of 13.4%.

Passenger and traffic volumes for the Ketchikan International Airport and the ferry service have changed in the last few years.

- Deplanements of inbound passengers at the Ketchikan International Airport has grown, showing an increase of 29.5% from 74,567 passengers in 1988 to 96,532 passengers in1999.
- Enplanements of outbound passengers also grew, from 78,188 passengers in 1988 to 97,118 passengers in 1999, increasing by 24.2%.
- The number of airport ferry passengers increased from 329,637 passengers in 1988 to 385,332 passengers in 1999, an increase of 16.9%.
- The number of vehicles that used the Ketchikan airport ferry changed from 66,901 vehicles in 1988 to 91,884 vehicles in 1999, an increase of 37.3%.
- The number of floatplane landings at the Ketchikan International Airport seaplane dock increased by 15.1% from 7,665 landings in 1988 to 8,822 landings in 1999.

2.0 Demographics and Socioeconomics

2.1 Population Trends

2.1.1 Ketchikan Gateway Borough Population

In recent years, many changes have affected Ketchikan area population, including the March 1997 closure of the pulp mill, the decline of the timber industry, the growth of the Ketchikan Shipyard, and the rise of the tourism industry. From 1990 to 1999, the population of the Ketchikan Gateway Borough, including the cities of Ketchikan and Saxman, and outlying communities, increased by only 1.0% (Alaska Department of Labor and Workforce Development [DOLWD] 2000). The population increased from 13,828 people in 1990 to 13,961 people in July 2000. However, these percentages do not portray the changes that occurred during the intervening years. Figure 2.1 illustrates that population increased annually from 1990, reaching a peak of 14,764 in 1995, and then began to decrease. Changes in Ketchikan's economy had an effect on borough population from 1997 to 1999, including the closure of the Ketchikan pulp mill in 1997.

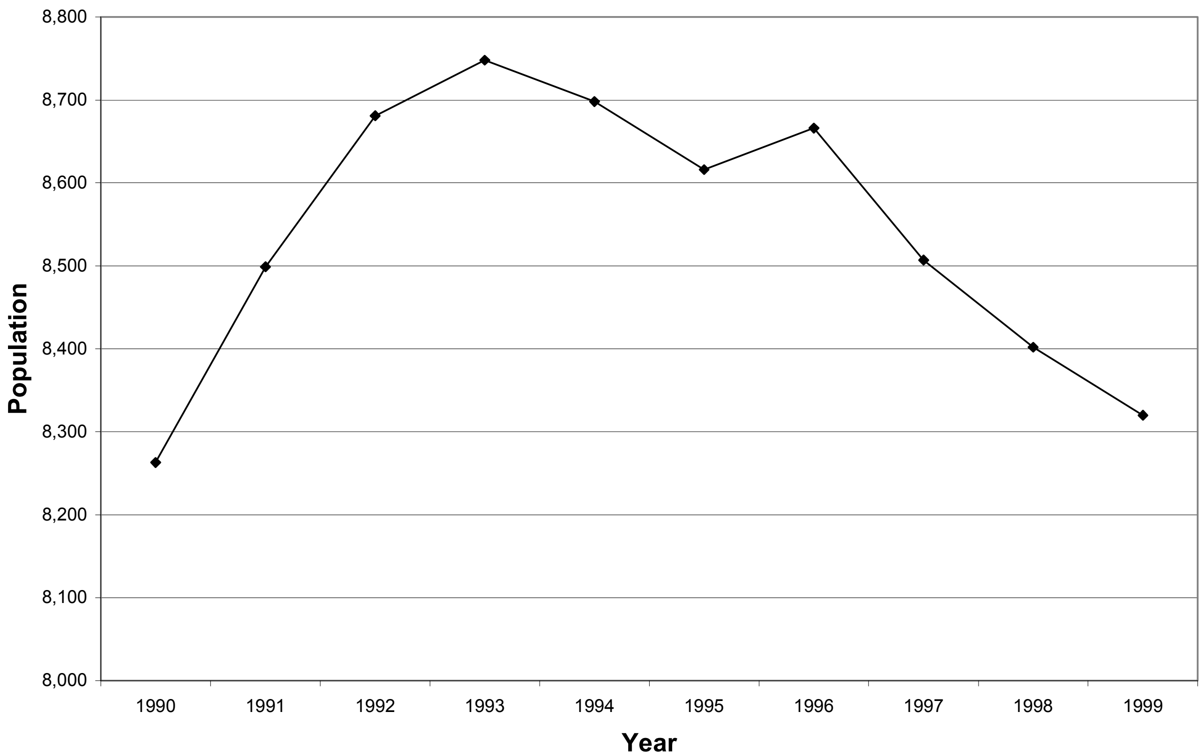
Figure 2.1. Ketchikan Gateway Borough Population, 1990-1999

Source: DOLWD 2000.

2.1.2 Ketchikan City Population

Over the past decade, the city of Ketchikan population trend has been similar to that of the Ketchikan Gateway Borough. Figure 2.2 shows that from 1990 to 1999, the city population increased slightly less than the borough population, from 8,263 people to 8,320 people, or by 0.7%. The city population decreased from 1993 to 1995, but then experienced a slight increase from 1995 to 1996, before decreasing again after 1996. This decline in population is in part due to the closure of the pulp mill in 1997.

Figure 2.2. Ketchikan City Population, 1990-1999

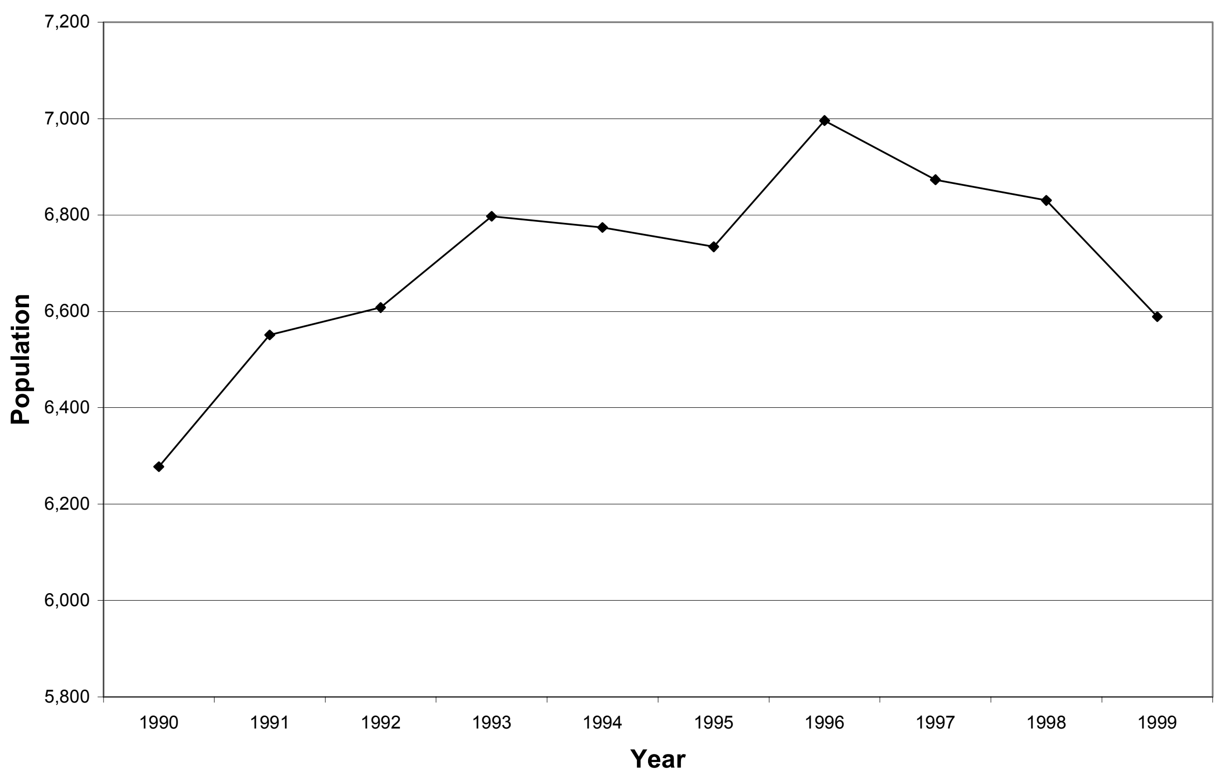


Source: DOLWD 2000.

2.1.3 Prince of Wales/Outer Ketchikan Population

The population of the Prince of Wales/Outer Ketchikan census area is illustrated in Figure 2.3. Included in this census area are Prince of Wales Island, Annette Island (Metlakatla), and other outlying communities. About 75% (4,652 people) of the census area's total population of 6,278 resided on Prince of Wales Island in 1990. The population of this area increased by 5.0% from 1990 to 1999, from 6,278 to 6,589 people. Population decline in the Prince of Wales/Outer Ketchikan area is largely a result of the pulp mill closure in Ketchikan and the issuance in 1997 of the Tongass Land Use Management Plan, which reduced allowable harvest levels. The population decreased because many communities on Prince of Wales Island were logging camps or support communities for timber operations.

Figure 2.3. Prince of Wales/Outer Ketchikan Population



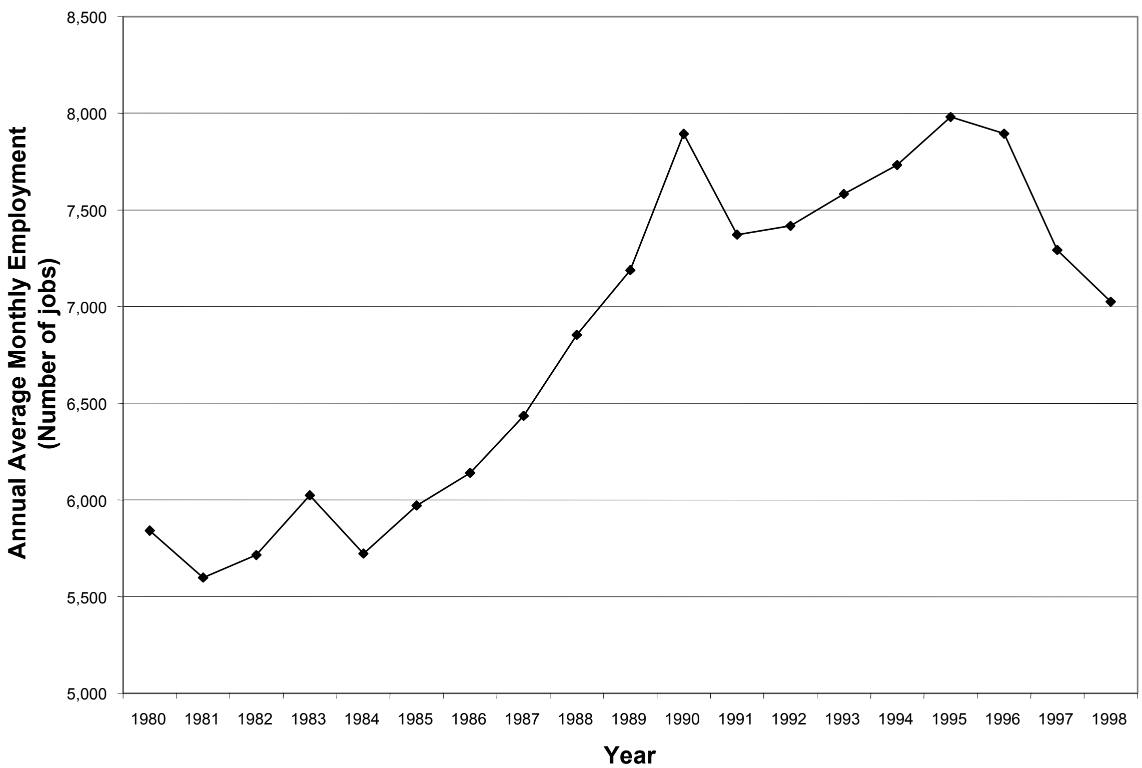
Source: DOLWD 2000.

2.2 Employment Trends

2.2.1 Ketchikan Gateway Borough Employment

The number of jobs in the Ketchikan Gateway Borough increased steadily from 1980 until 1995 and began to decrease after 1995, as shown in Figure 2.4. In 1980, the total number of jobs in the borough was 5,842, compared to 7,025 in 1998—an increase of 20.2% for the 19-year period. Because employment increased by 36.6% from 1980 to 1995, it is clear that drastic reductions in employment after 1995 had a significant effect on the overall growth of employment during the entire period.

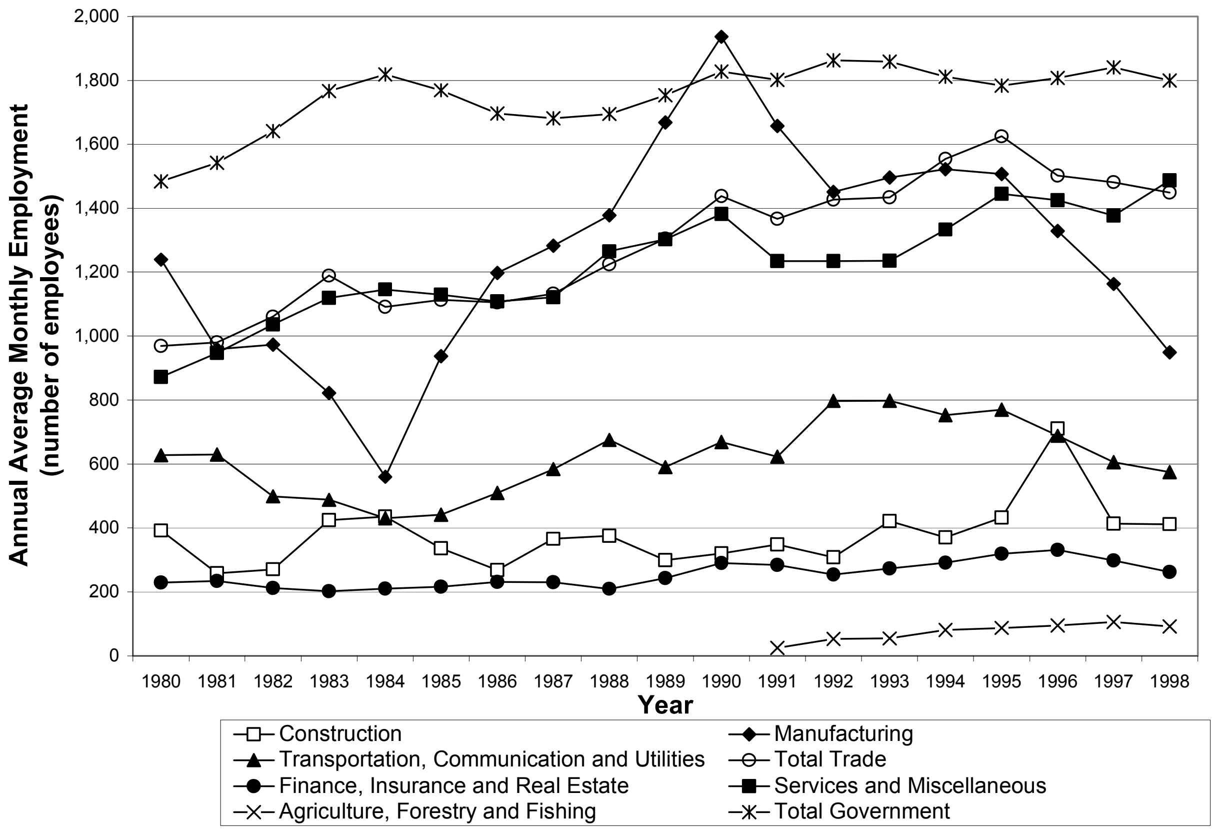
Figure 2.4. Annual Average Ketchikan Gateway Borough Employment, 1980-1998



Source: DOLWD 2000.

In the last few years, the Borough economy has undergone many changes. The increase of the tourism industry and the closing of the pulp mill in 1997 have had various effects on other sectors of Ketchikan's economy. Employment by industry from 1980 through 1998 is illustrated in Figure 2.5. Figure 2.6 and Table 2-1 illustrate recent (1998) employment in the Borough, and the percentage of total employment that each industry represented. In 1998, the government sector employed the largest percentage of workers in the borough, accounting for 26% of total employment. The industry sector with the smallest percentage of employment was agriculture, forestry, and fishing, accounting for only 1.0% of total employment.[1] The closing of the pulp mill in 1997 is reflected in the decrease of manufacturing jobs in the late 1990s, and the rise of the tourism industry is reflected in the increasing number of jobs in the services industry sector.

Figure 2.5. Ketchikan Gateway Borough Employment by Industry, 1980-1998



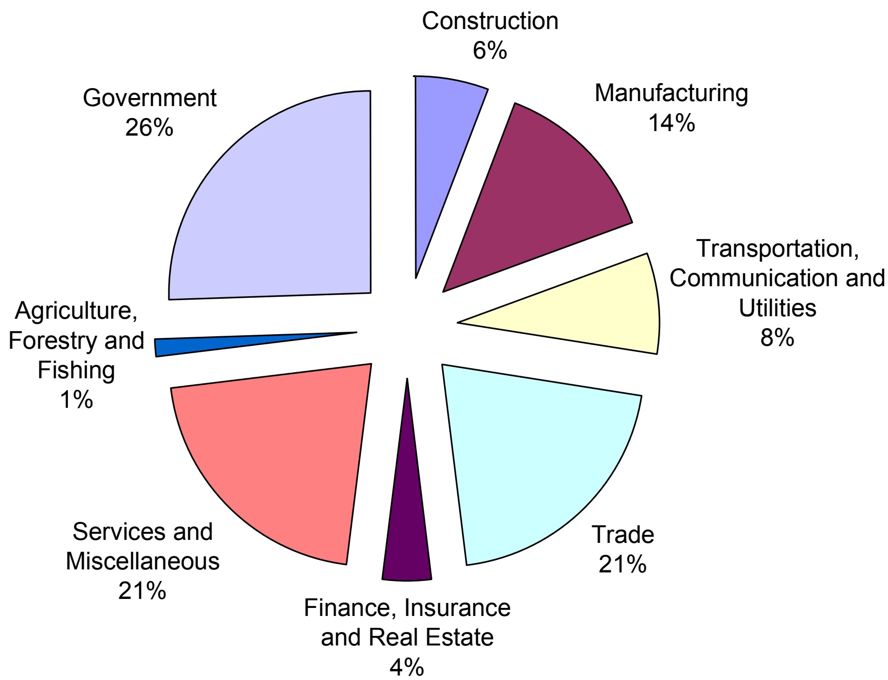
Source: DOLWD 2000.

Note: Data were not available for the mining industry because of nondisclosure requirements for the entire period and were not available until 1991 for the agriculture, forestry, and fishing industry sector.

Agriculture, forestry, and fishing employment includes those people who receive a wage for fish or timber harvesting and other support industries. Self-employed individuals would not be included. Seafood processors and logging camp employment are included in manufacturing employment.

[1] Agriculture, forestry, and fishing employment includes those people who receive a wage for fish or timber harvesting and other support industries. Self-employed individuals would not be included. Seafood processors and logging camp employment are included in manufacturing employment.

Figure 2.6. Ketchikan Gateway Borough Annual Average Employment by Industry, 1998



Source: DOLWD 2000.
Note: Data were not available for the mining industry.

Table 2-1. Ketchikan Gateway Borough Average Monthly Employment by Industry, 1998

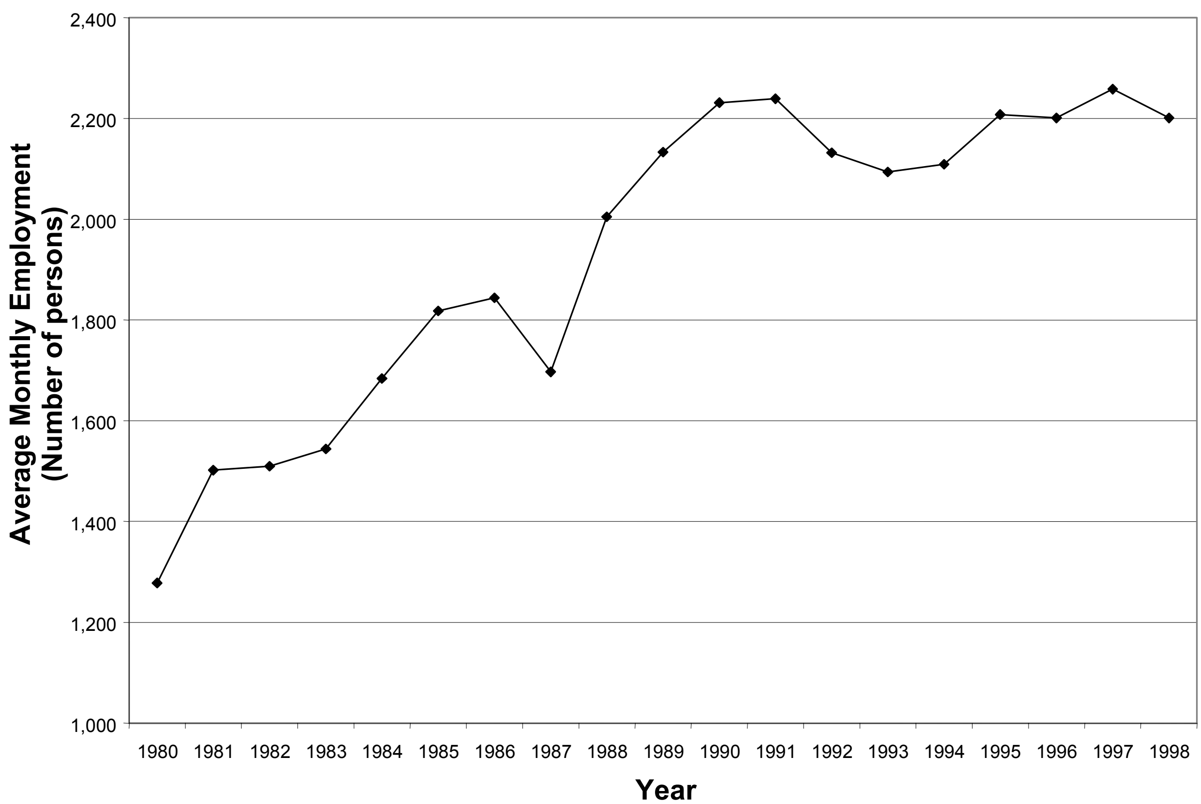
Industry	Average Monthly Employment (No. of Persons)	Percentage of Total Employment
Total Industries	7,025	100
Total Government	1,800	26
Local Government	945	13
State Government	580	8
Federal Government	275	4
Total Trade	1,449	21
Retail Trade	1,250	18
Wholesale Trade	199	3
Services and Miscellaneous	1,487	21
Manufacturing	949	14
Transportation, Communication, and Utilities	574	8
Construction	412	6
Finance, Insurance, and Real Estate	262	4
Agriculture, Forestry, and Fishing	92	1
Mining	a	a

Source: DOLWD 2000.
[a] Data were unavailable for the mining industry.

2.2.2 Prince of Wales/Outer Ketchikan Employment

Employment in the Prince of Wales/Outer Ketchikan census area steadily increased from 1,278 jobs in 1980 to 2,239 jobs in 1991, and then began to fluctuate, resulting in an employment level of 2,201 in 1998. Changes in the forest products industry are the primary cause for fluctuations in total employment in the past few years. The seafood industry also contributed to the growth of employment levels through the 1980s. Figure 2.7 illustrates the trend in wage and salary employment for this census area from 1980 until 1998.

Figure 2.7. Average Monthly Prince of Wales/Outer Ketchikan Employment by Year, 1980-1998



Source: DOLWD 2000.

Table 2-2 shows 1998 employment and the percentage of total employment that each industry represented. The 1998 data, the most recent available, indicate that the Prince of Wales/Outer Ketchikan census area has a high percentage of people employed in the government sector, as does the Ketchikan Gateway Borough. The government sector provides 35% of the jobs in the area. Local government accounts for 83% of the combined government sector, or 29% of total employment. Agriculture, forestry, and fishing has the smallest percentage of reported employment, accounting for only 1% of the total.

Table 2-2. Prince of Wales/Outer Ketchikan Average Monthly Employment by Industry, 1998

Industry	Average Monthly Employment (Number of Persons)	Percentage of Total Employment
Total Industries	2,201	100
Total Government	773	35
Local Government	644	29
Federal Government	99	4
State Government	29	1
Manufacturing	455	21
Total Trade	363	16
Retail Trade	345	16
Wholesale Trade	18	1
Services and Miscellaneous	231	10
Transportation, Communication, and Utilities	186	8
Finance, Insurance, and Real Estate	97	4
Construction	57	3
Mining	23	1
Agriculture, Forestry, and Fishing	18	1

Source: DOLWD 2000.

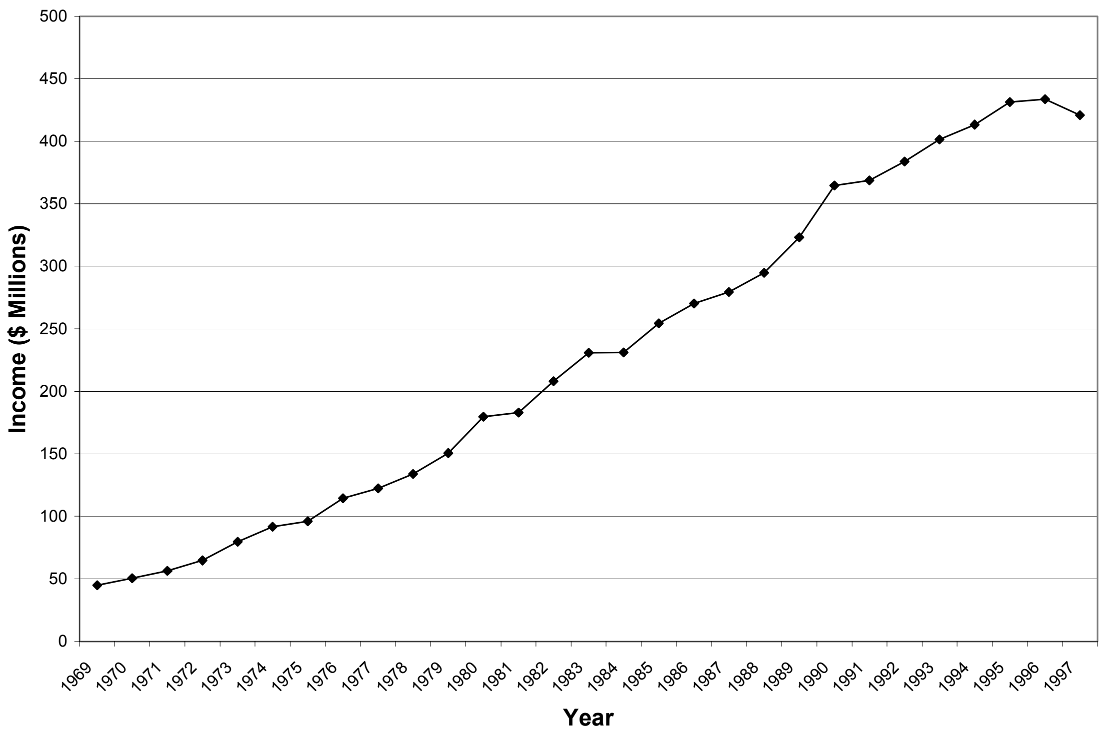
2.3 Personal Income Trends

2.3.1 Ketchikan Gateway Borough Personal Income

Personal income statistics are a function of several factors, including employment and population, and are a critical indicator of an area's output and economic well being. Personal income is the sum of employment earnings minus social security contributions, other income (rents, dividends, and interest), and transfer payments (social security or welfare payments). If total personal income for an area declines, the decline indicates that the economy cannot support as many jobs as it did previously. In statistical data, personal income is measured before the deduction of personal income taxes and is reported in current dollars, with no adjustment made for price changes (BEA 2000). All personal income levels are expressed in current (nominal) dollars in the figures that follow in this document.

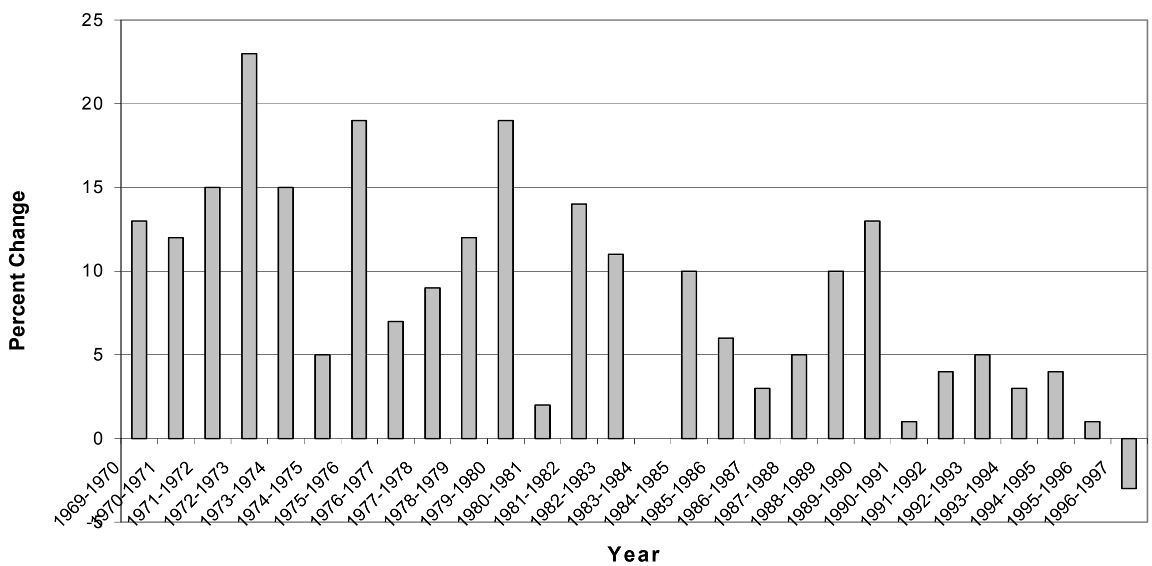
The most recent data available from the U.S. Bureau of Economic Analysis (BEA) Regional Economic Information System (REIS) indicate that total personal income steadily increased in the Ketchikan Gateway Borough until 1996 and decreased by 3.0% from 1996 to 1997 (see Figure 2.8). Overall, nominal personal income increased by 840% from $44.8 million in 1969 to $421.0 million in 1997. The percent change in personal income for each year in that period is shown in Figure 2.9. While the percent change fluctuated, there was only one instance in which the percent change fell below zero, or personal income actually decreased, and that occurred from 1996 to 1997.

Figure 2.8. Ketchikan Gateway Borough Total Personal Income, 1969-1997



Source: BEA 2000.

Figure 2.9. Ketchikan Gateway Borough Percent Change in Personal Income, 1969-1997



Source: BEA 2000.

Table 2-3 illustrates personal income, population, per capita personal income, and total private earnings from 1990 until 1998. Total personal income steadily increased until 1996, and then decreased. Per capita personal income, on the other hand, increased until 1995 and then also began to decline. The numerous changes in the seafood and timber industries, which are partially illustrated by the decline of total private earnings after 1996, help to explain these decreases.

Table 2-3. Ketchikan Gateway Borough Personal Income, 1990-1998

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998
Personal Income ($ Thousands)	364,553	368,743	383,690	401,515	413,288	431,223	433,709	420,960	[a]
Population (number of persons)	13,955	14,113	14,128	14,211	14,278	14,351	14,506	13,849	[a]
Per Capita Personal Income ($)	26,123	26,128	27,158	28,254	28,946	30,048	29,899	30,396	[a]
Total Private Earnings ($)	242,564	238,766	245,318	255,326	256,098	274,415	274,720	253,182	[a]

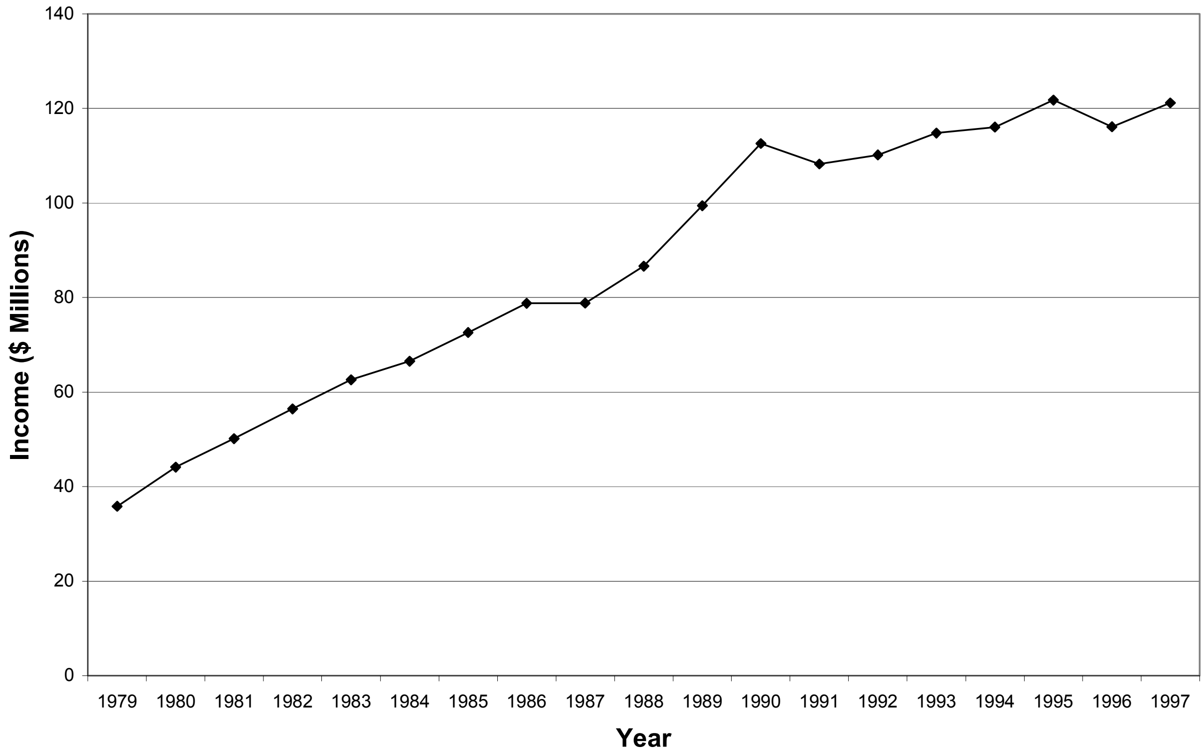
Source: BEA 2000.
[a] REIS data for 1998 will be available in June 2000.

2.3.2 Prince of Wales/Outer Ketchikan Personal Income

Personal income in the Prince of Wales/Outer Ketchikan census area steadily increased from 1979 until 1997. However, there were decreases in personal income from 1990 to 1991 and from 1995 to 1996, as illustrated in Figure 2.10. Overall, total personal income increased by 238% from $35.8 million 1979 to $121.2 million in 1997. The percent change in personal income for each year in that period is shown in Figure 2.11. The periods when the percent change in income fell below zero reveal actual decreases in personal income.

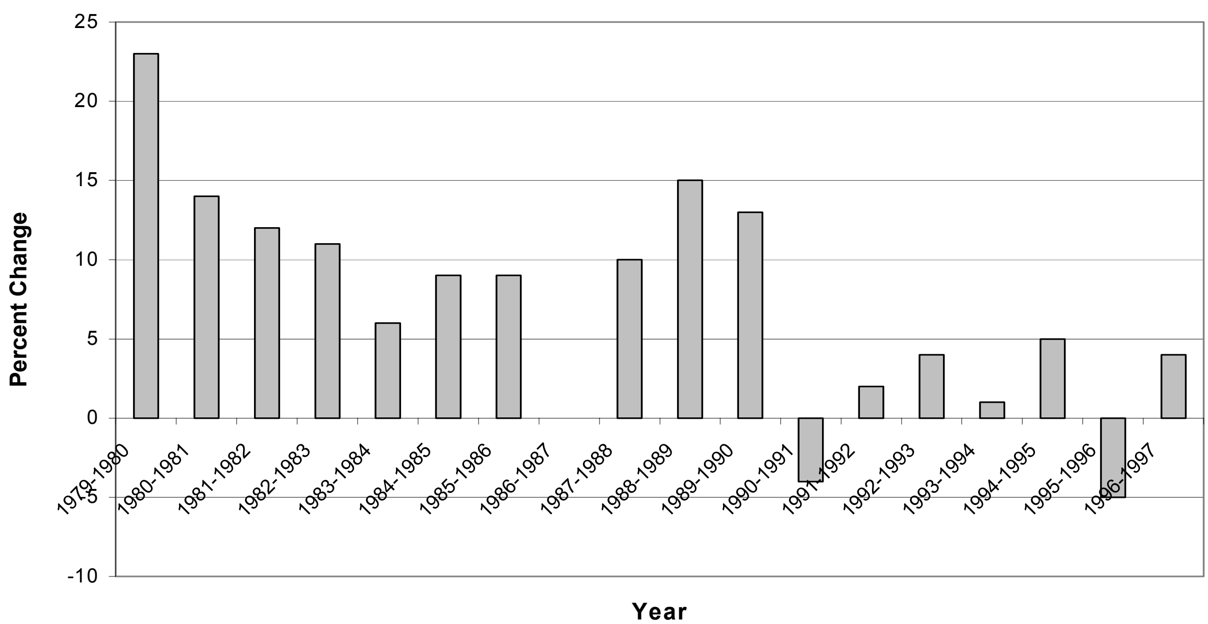
Table 2-4 illustrates personal income, population, per capita personal income, and total private earnings from 1990 until 1998. Total personal income fluctuated after 1994, but did show an increase from 1996 to 1997. Per capita personal income fluctuated as well and also increased from 1996 to 1997. The numerous changes in the seafood and timber industries, which are partially illustrated by the decline of total private earnings after 1995, help to explain these fluctuations.

Figure 2.10. Prince of Wales/Outer Ketchikan Personal Income, 1969-1997



Source: BEA 2000.

Figure 2.11. Prince of Wales/Outer Ketchikan Percent Change in Personal Income, 1969-1997



Source: BEA 2000.

Table 2-4. Prince of Wales/Outer Ketchikan Personal Income, 1990-1998

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998
Personal Income ($Thousands)	112,591	108,237	110,154	114,827	116,067	121,787	116,104	121,165	[a]
Population (Number of Persons)	6,295	6,439	6,421	6,761	6,910	7,100	7,147	7,147	[a]
Per Capita Personal Income ($)	17,886	16,810	17,155	16,984	16,797	17,153	16,245	16,953	[a]
Total Private Earnings ($)	61,228	55,769	58,482	58,431	58,915	64,215	52,124	57,840	[a]

Source: BEA 2000.

[a] REIS data for 1998 will be available in June 2000.

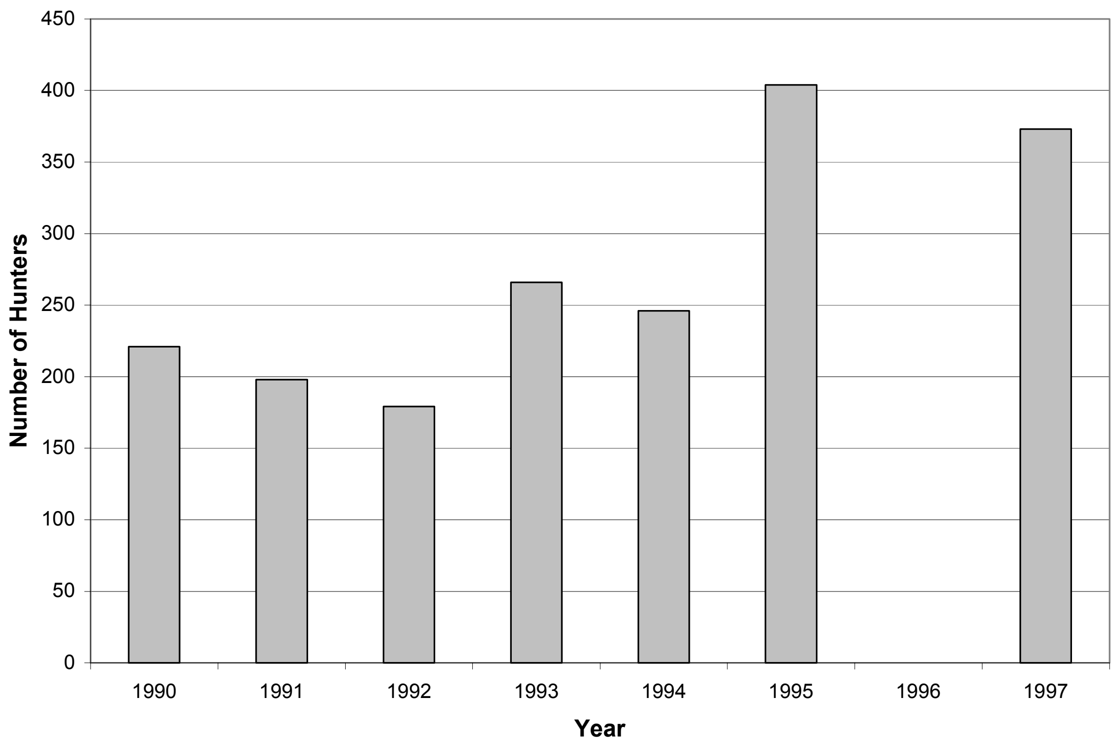
3.0 Recreational Trends

Another trend that is important to examine for the Ketchikan area is the recent recreational activities. Gravina Island presents a variety of recreational activities including fishing and hunting. The following sections provide a snapshot of the popularity of these activities over the last few years.

3.1 Hunting in Ketchikan

Bear hunting is a popular sport in the Ketchikan area—recent data indicated that 0.5% of total bear hunting days from 1994 to 1999 occurred on Gravina Island. Deer hunting has also been popular in the Ketchikan area for years and Figure 3.1 illustrates that the number of deer hunters reached a peak in 1995 (data were unavailable for 1996) and decreased only slightly in 1997. Overall, the total number of hunters increased by 68.8% from 1990 to 1997.

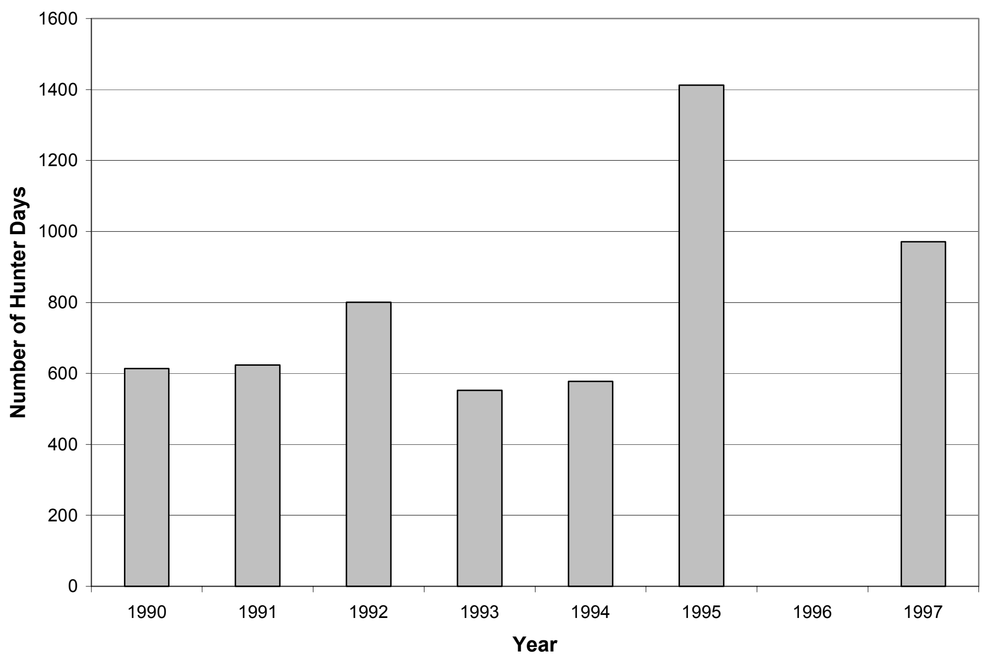
Figure 3.1. Number of Deer Hunters on Gravina Island, 1990-1997



Source: ADF&G 1998.
Note: 1996 data were unavailable.

Figure 3.2 illustrates that the total number of hunter days followed the same trend, increasing overall by 58.1% from 1990 to 1997.

Figure 3.2. Number of Deer Hunter Days on Gravina Island, 1990-1997



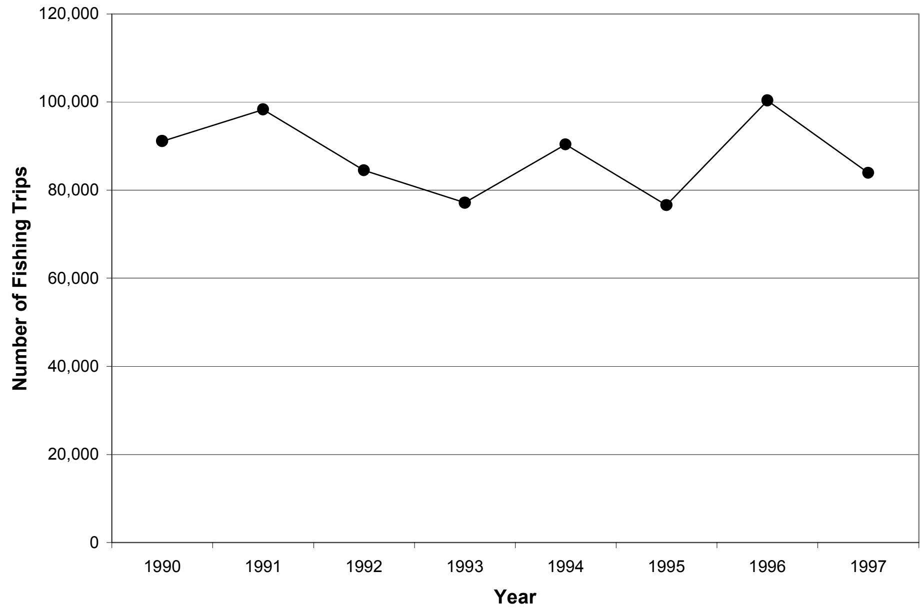
Source: ADF&G 1998.
Note: 1996 data were unavailable.

3.2 Fishing in Ketchikan

Sportfishing in the Ketchikan area is an extremely popular recreational activity. Because recreational activity is a function of population, the total number of fishing trips and fishing days has decreased since 1990.

Figure 3.3 shows the number of sportfishing trips and Figure 3.4 shows the number of sportfishing days. Both figures illustrate that the activity remains popular.

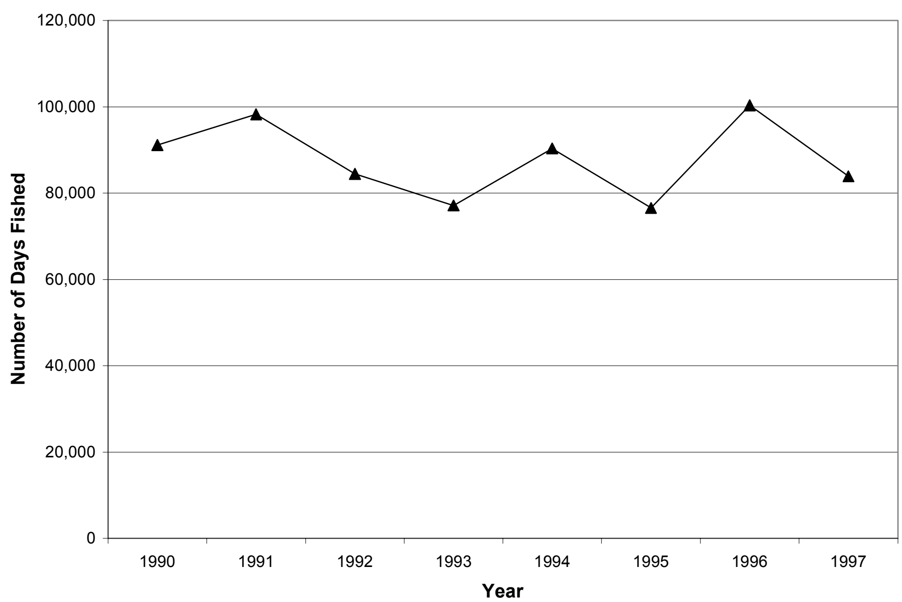
Figure 3.3. Ketchikan Area Sportfishing Trips, 1990-1997



Source: ADF&G 1998.

Note: Ketchikan Area includes all surrounding Alaska waters, including drainages, from Portland Inlet to, but not including, Ernest Sound; including Duke, Annette, and Gravina Islands.

Figure 3.4. Ketchikan Area Sportfishing Days, 1990-1997



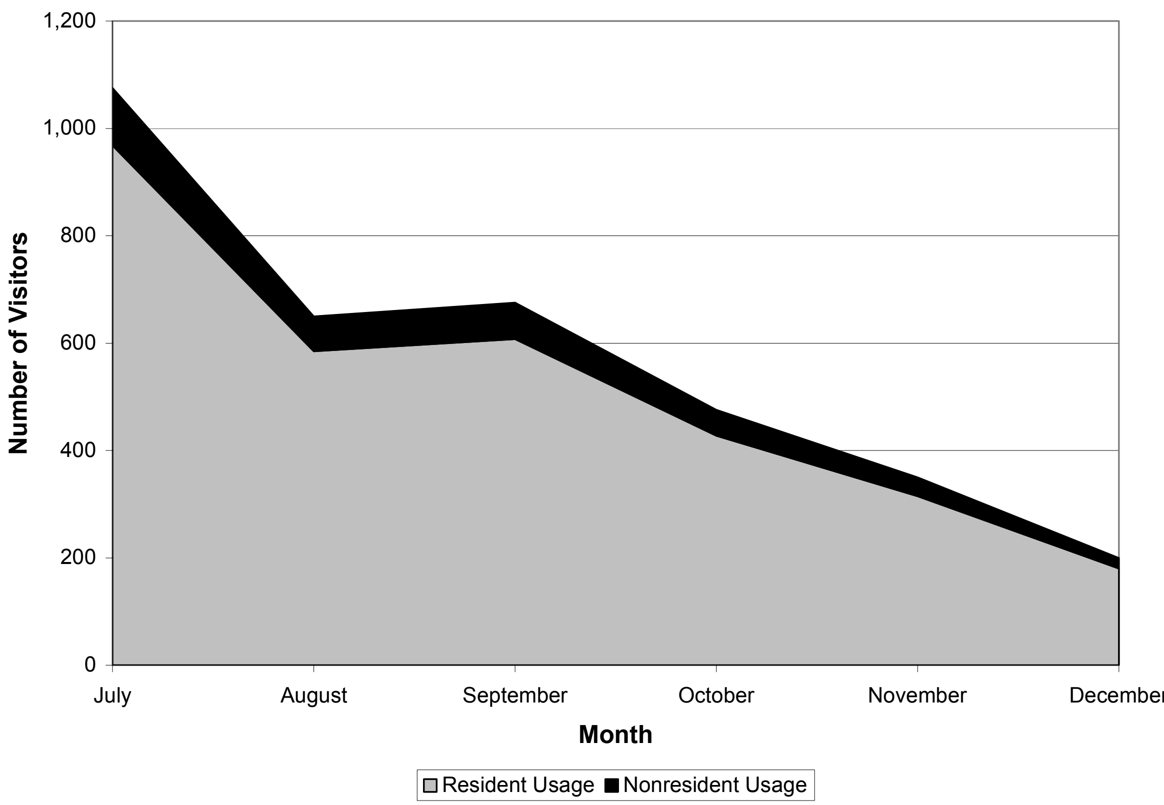
Source: ADF&G 1998.

Note: Ketchikan area includes all surrounding Alaska waters, including drainages, from Portland Inlet to, but not including, Ernest Sound; including Duke, Annette, and Gravina Islands.

3.3 State Park Usage

Alaska state parks offer another popular recreational activity in the Ketchikan area. Ketchikan District state marine parks include Dall Bay, Thom's Place, Beecher Pass, Joe Mace Island, and Black Sands Beach. Dall Bay and Black Sands Beach are on Gravina Island and offer numerous possibilities for recreation. As Figure 3.5 demonstrates, the Ketchikan area state marine parks were very popular in 1999, with more than 3,400 people visiting them.

Figure 3.5. Ketchikan Area State Marine Park Usage, Resident and Nonresident, Fiscal Year 1999

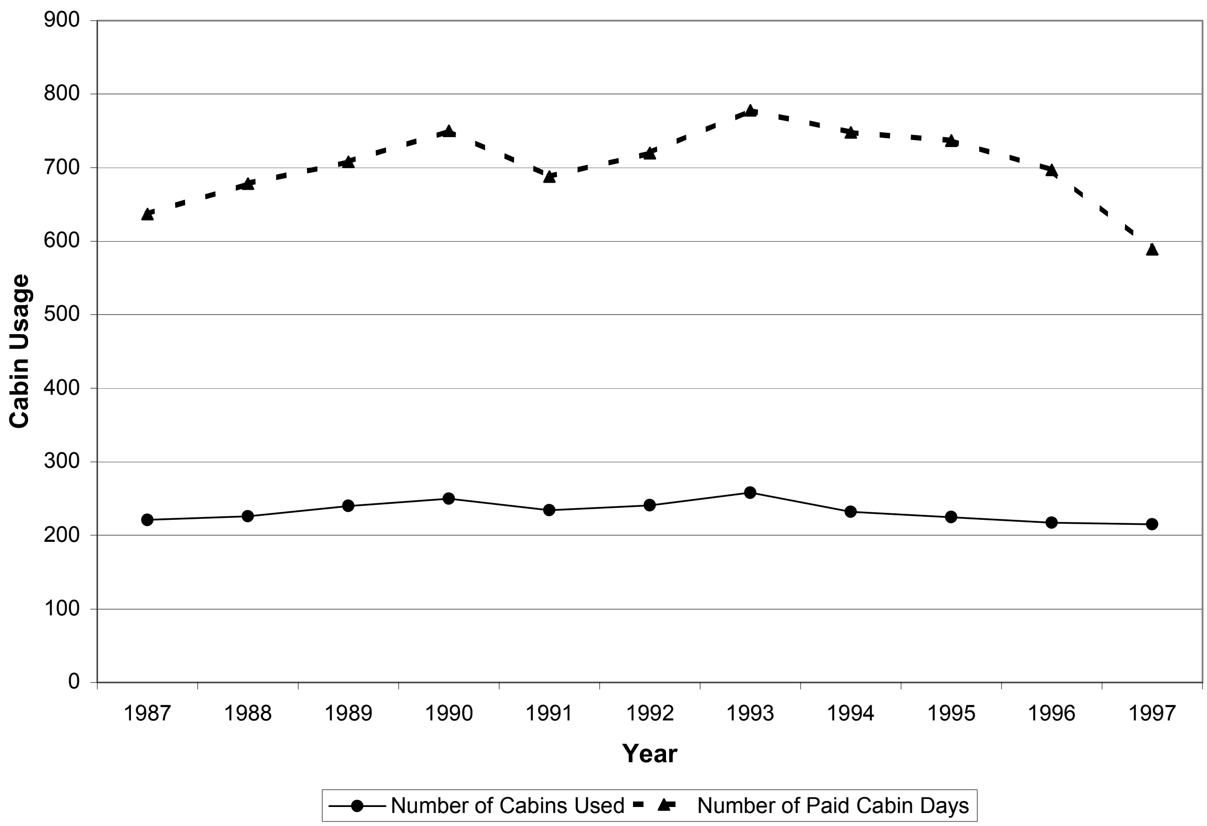


Source: Klugherz and Associates 2000b.

3.4 Cabin Usage

Alaska state parks offer a number of cabins for rent by the public. Cabin usage in Ketchikan has remained a popular activity over the last 10 years. Figure 3.6 illustrates that the number of cabins used and the number of paid cabin days have remained relatively constant. The number of paid cabin days decreased only slightly from 637 days in 1987 to 589 days in 1997.

Figure 3.6. Ketchikan Area Cabin Use, Number of Cabins Used, and Number of Paid Cabin Days, 1987 to 1997



Source: Klugherz and Associates 2000b.

4.0 Economy and Economic Development Outlook

4.1 Forest Products

The forest products industry has been an important part of Alaska's economy for more than half a century. Sitka spruce, hemlock, and other species have been exported as logs, lumber, and timber for the past 40 years. The lower-quality timber was used to produce dissolving pulp, which was sold to produce rayon, pharmaceuticals, and paper products. This practice ended with the closure of the Ketchikan pulp mill in March 1997.

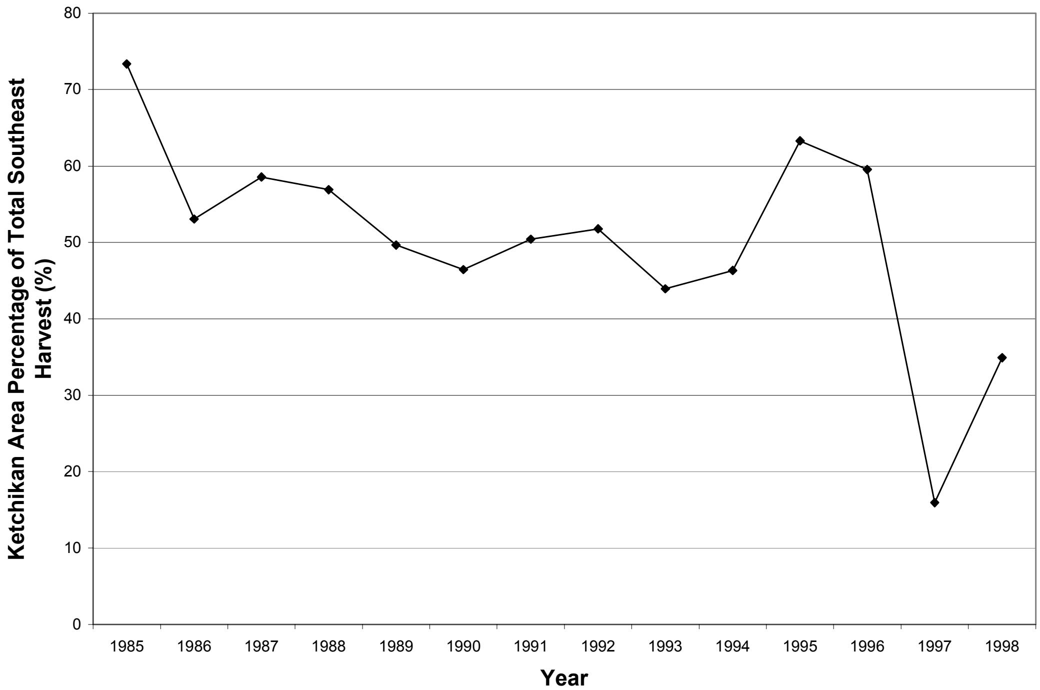
Recent years have been difficult, but significant changes are moving the industry toward value-added processing and long-term sustainability. The Tongass Land Use Management Plan issued in 1997 reduced allowable harvest levels, and most Asian markets are experiencing downturns in price and demand. The Sitka pulp mill closed in 1993 and the Ketchikan pulp mill closed in 1997. However, Southeast Alaska is responding with a new focus on value-added processing. As shown in, Ketchikan historically has produced a large percentage of Southeast Alaska's timber, and therefore is being affected by the many changes in the industry.

4.1.1 Timber Supplies and Lumber Markets

Because of changes in the forest products industry, including reduced supply of Tongass National Forest timber and lower quality of the remaining timber inventory, producers in Ketchikan have begun to explore and develop value-added markets. Figure 4.1, Figure 4.2, and Figure 4.3 show timber harvests in Southeast Alaska and the Ketchikan area for the last few years. Weak Japanese markets, pulp mill closures, and declining and unpredictable timber supply have caused the Tongass harvest to be the lowest in years.

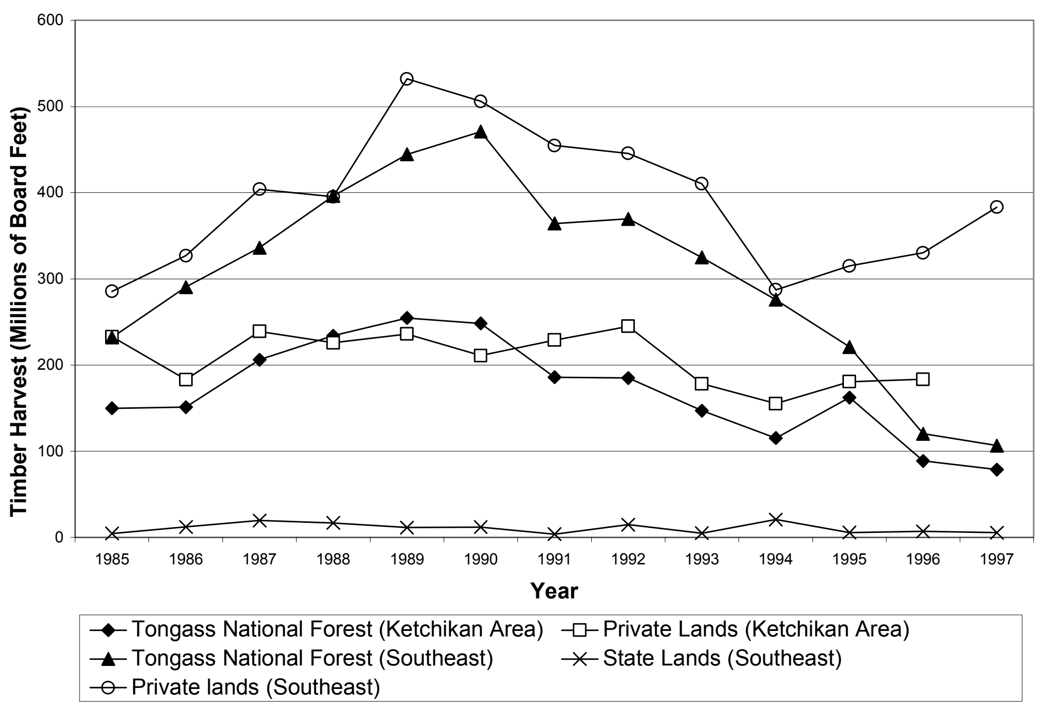
Investing in new technology and increasing the production of more value-added goods is necessary to meet the challenges that a diminished timber supply presents. In addition, uncertainty about timber supplies may lead to further decline because of lack of investment due to the risk that is involved with the presence of an uncertain supply of quality timber. To maintain strong lumber markets, producers must be able to guarantee a reliable timber supply. It is becoming more important that Southeast producers, including Ketchikan area enterprises, create specialized products to promote success in many markets. Figure 4.4 illustrates that the total value of international exports declined by 56.3% from $474.7 million in 1988 to $207.6 million in 1998, and the value of international exports of soft wood logs declined by 27.8% from $261.6 million in 1988 to $188.8 million in 1998. These declines might indicate a need for businesses to make more investment to compete in markets that typically require more varied and precise cutting and milling.

Figure 4.1. Ketchikan Area Percentage of Total Southeast Harvest, 1985-1998



Source: U.S. Forest Service (USFS) 1998; Ketchikan Gateway Borough 1999.

Figure 4.2. Ketchikan Area and Southeast Alaska Timber Harvest, 1985-1997

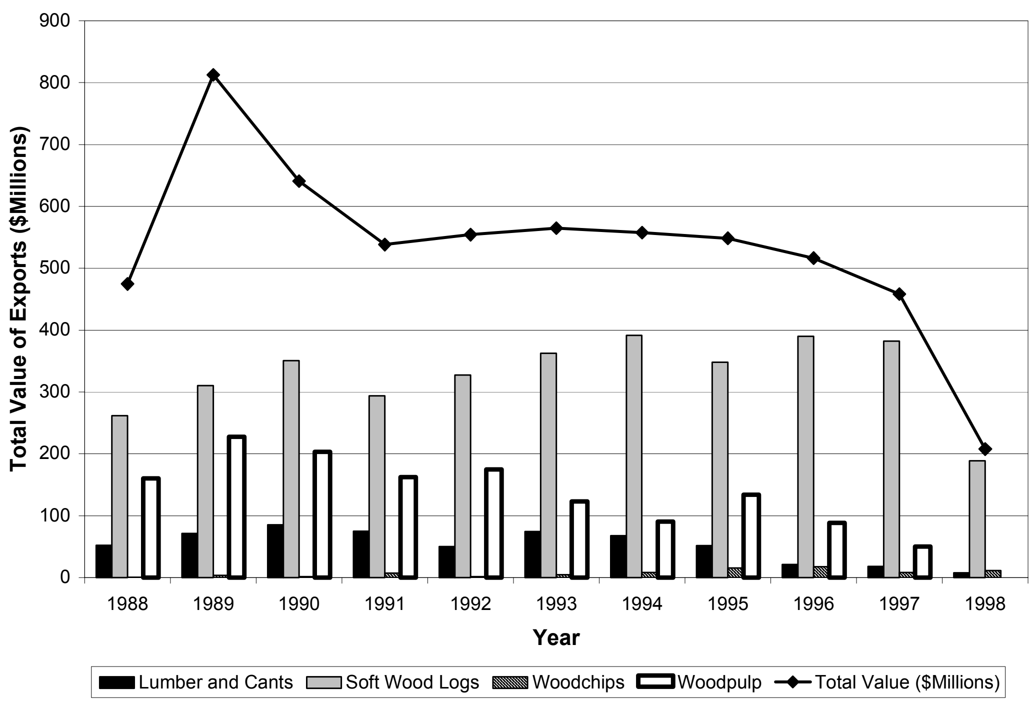


Source: USFS 1998; Ketchikan Gateway Borough 1999.

Figure 4.3. Timber Harvest Activity in the Former Ketchikan Area (Misty Fjords, Craig, and Thorne Bay Ranger Districts), 1989-1999

Source: Tongass National Forest, Ketchikan/Misty Fjords Ranger District 2000.

Figure 4.4. Value of International Exports of Alaskan Wood Products, 1988-1998



Source: USFS 1998.

4.2 Seafood Industry

Ketchikan's seafood industry, like many industries in the area, is undergoing dramatic changes in response to changes in the world market for salmon, the cornerstone of the industry. The combined effect of the changes within the seafood sector could potentially hurt Ketchikan's economy by reducing employment and earnings for fishermen.

4.2.1 Seafood Processing

Seafood processing in all areas of Alaska is predominantly seasonal. The industry employs many out-of-state residents each year, and Ketchikan is no exception. The largest period of seafood processing employment in Ketchikan is during the summer salmon season, when millions of pounds of salmon are processed during a few months. The pink salmon season peaks in August. This is the highest month of seafood processing employment because pinks are the most abundant salmon species in the Southeast area. July and September follow August in having the highest monthly employment levels. Figure 4.5 shows employment in the Ketchikan seafood-processing sector for 1996 through 1998. The difference between employment in August and the winter months of November, December, January, and February is extreme. At times, winter seafood processing employment may be only 10% of total August seafood processing employment.

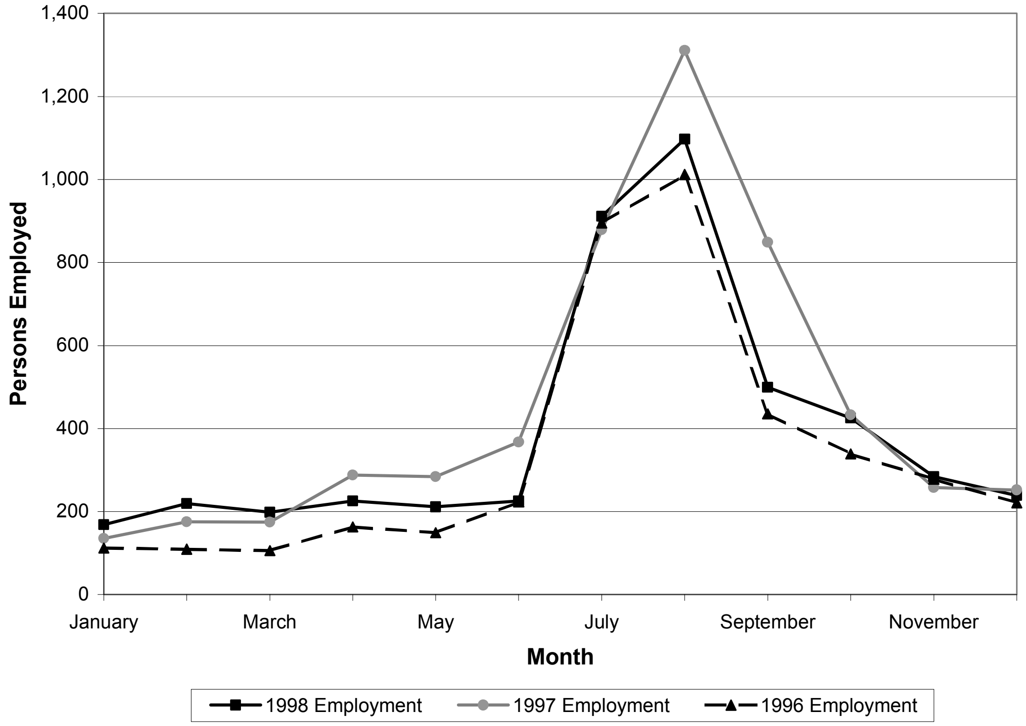
The seafood processing workforce is primarily nonresidents. Figure 4.6 shows the portion of seafood processing employment in Ketchikan by residency status for 1996 through 1998 using percentages available from DOLWD. The percentage of nonresidents in the Alaska seafood processing industry in 1997 was 73%. Applying this percentage to seafood processing data for the years 1996 through 1998 provides the employment estimates shown in Figure 4.6.

Estimates of average numbers of resident and nonresident seafood processing employees were calculated in the same manner as monthly employment, and are shown in Table 4-1. Average monthly employment in the seafood processing industry in Ketchikan (Table 4-1) is substantially lower than the number employed during the peak month of August (Figure 4.5).

Seafood processing employment is largely dependent on annual seafood harvest quantities and the respective amount of processing labor needed. Most processing employees are hired based upon the harvest forecast for each season (such as the summer salmon season). Another factor that can influence seafood processing employment is market conditions for seafood. For example, a depressed market may convince many seafood processing plants to limit the amount of processing done (and labor needed), either because of an industry agreement between harvesters and processors, or a lower value associated with seafood heading to depressed markets.

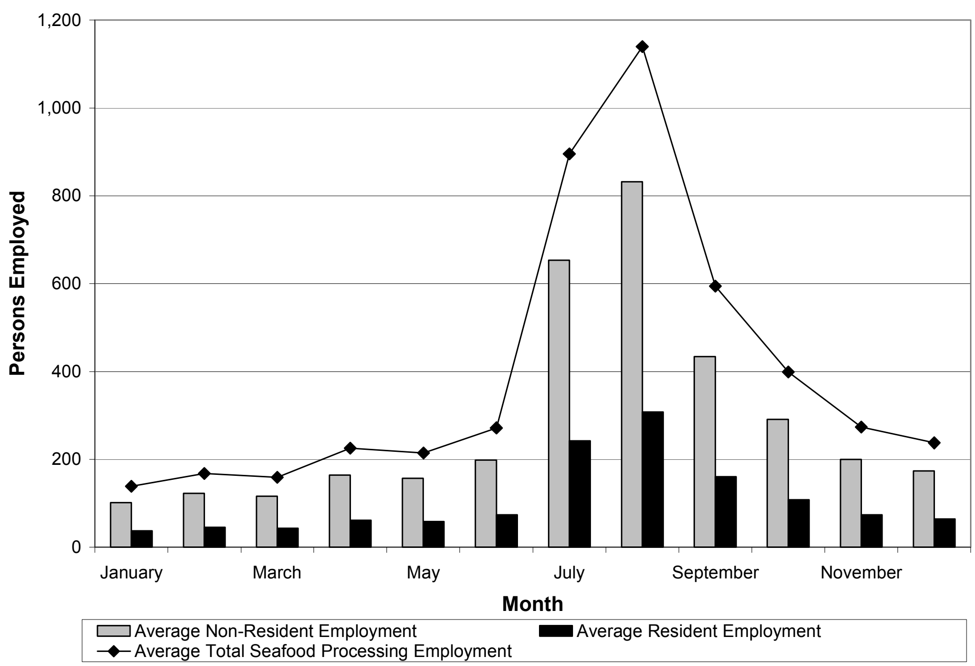
Gross earnings for the seafood processing industry in Ketchikan from 1996 to 1998 ranged from approximately \$9.2 million to \$10.4 million (Figure 4.7). As a share of gross earnings for all industry in Ketchikan, seafood processing was approximately 4.0% to 4.4%. Seafood processing often involves floating processing vessels that are not counted in Ketchikan seafood processing, but may purchase fish from Ketchikan resident seafood harvesters. In addition, crew members onboard floating processors may visit Ketchikan during shore leave.

Figure 4.5. Seafood Processing Employment in Ketchikan, 1996-1998



Source: DOLWD 2000.

Figure 4.6. Three-Year Average Monthly Seafood Processing Employment for Residents and Nonresidents in Ketchikan, 1996-1998



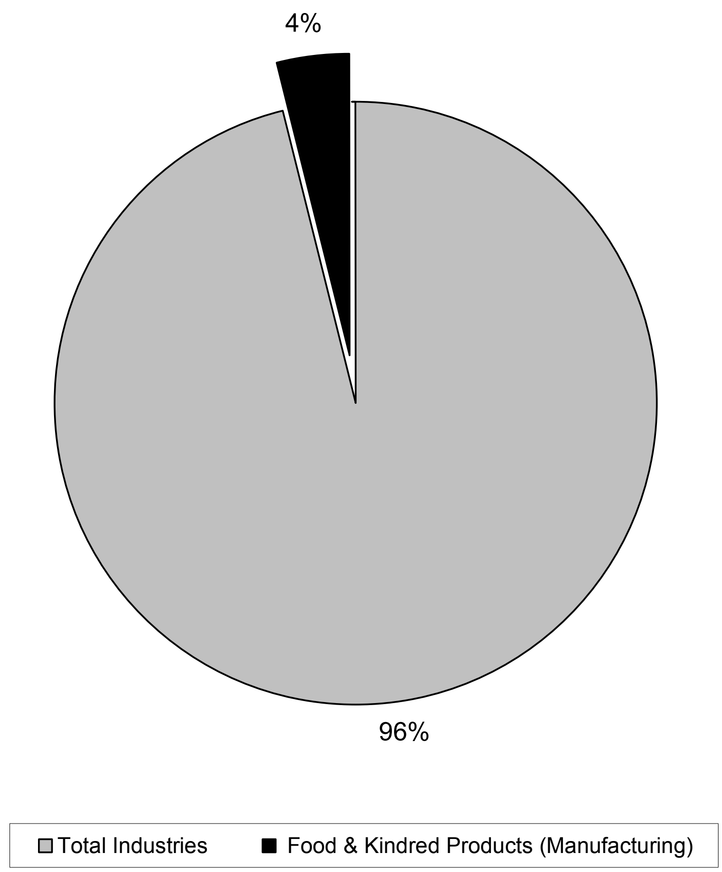
Source: DOLWD 2000.

Table 4-1. Yearly 12-Month Averages for Resident and Nonresident Seafood Processing Employment in Ketchikan, 1996-1998

	12-Month Average Employment (No. of Persons)		
Year	**All**	**Nonresident**	**Resident**
1996	246	91	337
1997	329	122	450
1998	286	106	392

Source: DOLWD 2000.

Figure 4.7. Average Seafood Processing Earnings as a Share of Ketchikan Gateway Borough Total Industry Earnings, 1996-1998



Source: DOLWD 2000

4.2.2 Ketchikan Commercial Fisheries Employment

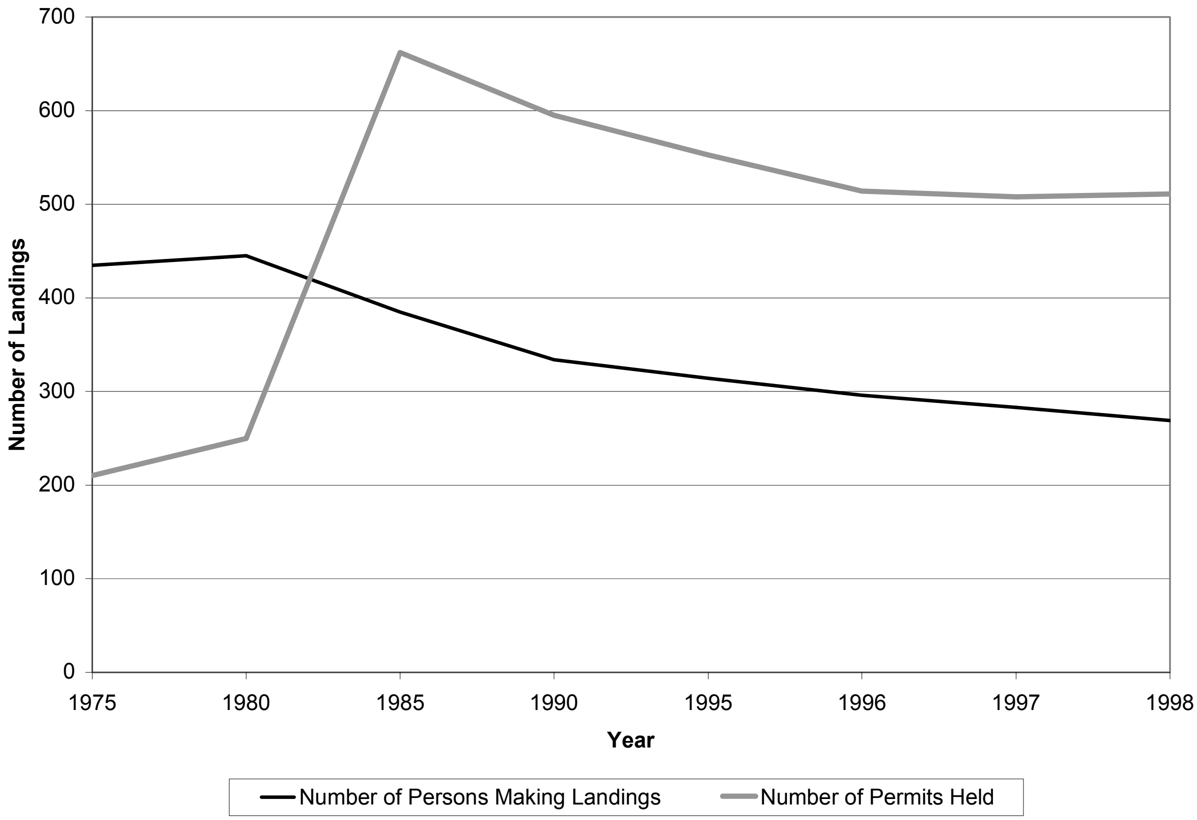
Employment in the commercial fisheries sector is largely underreported by traditional reporting agencies. Reports published by DOLWD, the U.S. Census, and the REIS published by the BEA report only wage and salary employment. Wage and salary employment does not capture many self-employed individuals, or individuals earning their entire wages as a share of company income. Persons employed in commercial fish harvesting are predominantly self-employed and work for a share of gross revenue. Furthermore, if during reporting periods, individuals involved in commercial fisheries are not actively fishing and commercial fishing is their sole source of income, then these individuals may not be counted in the labor force. Since data from DOLWD, the U.S. Census, and REIS are the most widely used employment and earnings data, the full importance of commercial fisheries to Ketchikan (and the state of Alaska) often remains undocumented.

Several reports published by the Alaska Commercial Fisheries Entry Commission (CFEC) provide data on the total number of persons making commercial fisheries landings and number of limited entry permits or restricted access management landings. Data from these reports were used to estimate the total number of persons involved in commercial fish harvesting activities in Alaska. The number of persons making landings usually does not include crewmembers.

Figure 4.8 provides data on persons residing in Ketchikan that made commercial fisheries landings from 1975 through 1997 and the total number of Ketchikan residents participating in some form of restricted access fishery from 1975 through 1998. In 1975 and 1980, the number of persons making landings exceeded the number of limited entry permits because many fisheries did not have limited access during this period. Since 1985, the number of permits has exceeded the number of persons making landings, suggesting there may be consolidation (persons holding more than one permit) of commercial fisheries by Ketchikan residents and there also may be inactive permits held by Ketchikan residents. Changes in number of permits also reflect fisheries that were recently restricted. The number of persons making landings includes those making halibut and sablefish landings.

The composition of commercial fisheries effort by Ketchikan residents has changed since 1975. Salmon remains a large portion of the commercial fisheries harvest for Ketchikan residents, but salmon hand troll and power troll effort have diminished rapidly (traditionally there has been a high rate of salmon trolling by Ketchikan residents). Salmon purse seine and salmon drift-gillnet effort in Southeast Alaska have remained relatively stable, with some slight decline. Halibut and sablefish also remain important portions of commercial fisheries landings. The relatively new sea cucumber and sea urchin dive fisheries have become a significant part of the commercial fisheries effort, and herring spawn on kelp remains a fairly large portion of the harvest effort along with shrimp pot gear (vessels under 60 feet in length).

Figure 4.8. Ketchikan Area Resident Commercial Fisheries Landings and State of Alaska Limited Entry Permits Held, 1975-1998



Sources: CFEC 2000a and 2000b.

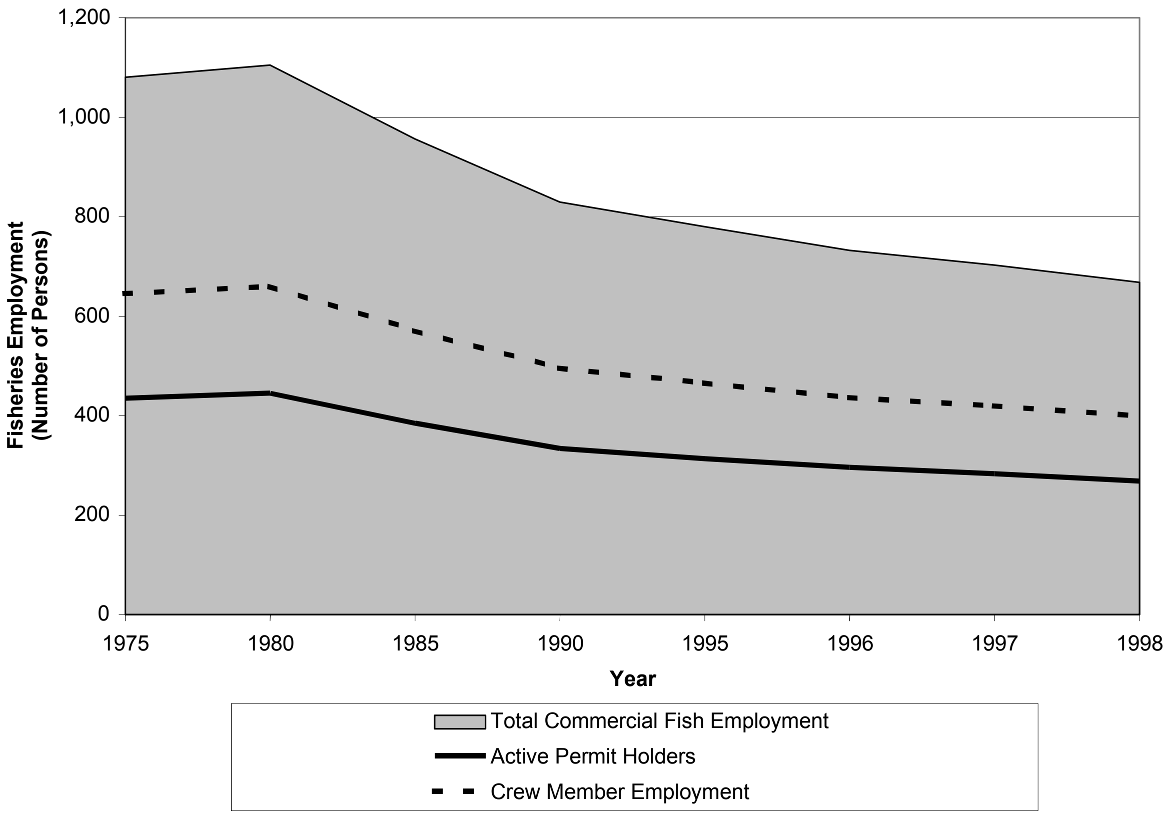
Note: A commercial fisheries landing is defined as an occurrence in which a fishing vessel delivers harvested fish to a seafood processor.

The number of persons making commercial fisheries landings in the Ketchikan area does not represent the total number of persons employed in commercial fish harvesting activities. Many vessels also employ crewmembers that are not recorded in landing numbers. There are several fisheries in which Ketchikan residents participate that may not involve crewmembers, or may involve the entire crew being counted in landing figures because crewmembers also hold permits (quota shares). Some of these fisheries are the sea urchin and sea cucumber dive fisheries, the salmon troll fisheries, and the halibut and sablefish Individual Fishing Quota (IFQ) fisheries. Some vessels in other fisheries may not involve crewmembers. Conversely, those vessels participating in salmon seine, herring seine, salmon drift gillnet, herring gillnet, crab, and shrimp fisheries may involve multiple-person crew sizes of up to four persons per vessel, including the vessel operator. Figure 4.9 displays an estimated range of employment in the commercial fish harvesting industry by Ketchikan area residents. The figure uses active permit holder data and crewmember data reported by CFEC.[2] As shown in Figure 4.9, commercial fish harvesting

[2] Pre-1998 crewmember counts are estimates based on a ratio of crewmembers to active permit holders in 1998. Crewmember counts were readily available for 1998 only.

employment in 1997 was approximately 700 individuals. The number of individuals employed in commercial fishing peaked around 1980 and has since declined. This decline is likely attributable to a decreased level of profits associated with commercial fishing and restricted access to more fisheries, resulting in a lower rate of participation. A large portion of the employment decline seems to be associated with the salmon troll fishery, which has been put under increasing restrictions over the past several years and represented an extremely large portion of commercial fishing activity by Ketchikan area residents.

Figure 4.9. Commercial Fishing Employment of Ketchikan Area Residents, 1975-1998



Sources: CFEC 2000a, 2000b, and 2000c.

Notes:
1. Years 1975 through 1995 are in 5-year increments. The years 1995 through 1998 are consecutive years.
2. Crewmember counts previous to 1998 are estimates based on a ratio of crewmembers to permit holders in 1998.
3. Crewmember data for 1998 were the only data readily available.

The percentage of the total employed labor force represented by Ketchikan residents employed in Ketchikan commercial fisheries in 1990 was approximately 19.5%.

Table 4-2 shows commercial fish employment as a portion of the employed labor force in Ketchikan in 1990 as reported by the 1990 U.S. Census. The ratio probably has declined since 1990 as the number of active permit holders has fallen and population has grown in Ketchikan. In addition, some residents involved in commercial fisheries may also be involved in wage and salary employment.

Table 4-2. Commercial Fishing Employment Relative to Employed Labor Force, 1990

Indicator	Commercial Fishing Employment (No. of Persons)		
	Permit Holder	Crewmember	Total
Total Number	334	495	829
Percent of Employed Labor Force (%)	7.8	11.6	19.5

Sources: 1990 U.S. Census data from Alaska Department of Community and Economic Development. (DCED) 2000b; CFEC 2000a and 2000b.

Gross earnings of Ketchikan residents involved in the commercial fish harvesting industry were substantially greater in 1997 than in 1975 and 1980, but lower than in 1985, 1990, and 1995.[3] Gross earnings per person have followed the same general trend, although gross earnings per person were greater in 1997 than in 1975, 1980, and 1985. A large portion of the decline may be from a diminished value per pound of salmon since the late 1980s. Table 4-3 illustrates how the number of active permit holders has fallen and the changes in gross earnings from 1975 to 1998.

Table 4-3. Ketchikan Area Resident Commercial Fishing Gross Earnings, 1975-1998

Year	Number of Active Permit Holders	Gross Earnings ($)	
		Total	Per Permit Holder
1975	435	2,418,754	5,560
1980	445	8,975,419	20,169
1985	385	16,417,737	42,643
1990	334	17,978,988	53,829
1995	314	18,256,429	58,141
1996	296	16,040,468	54,191
1997	283	14,499,301	51,234
1998	269	[a]	[a]

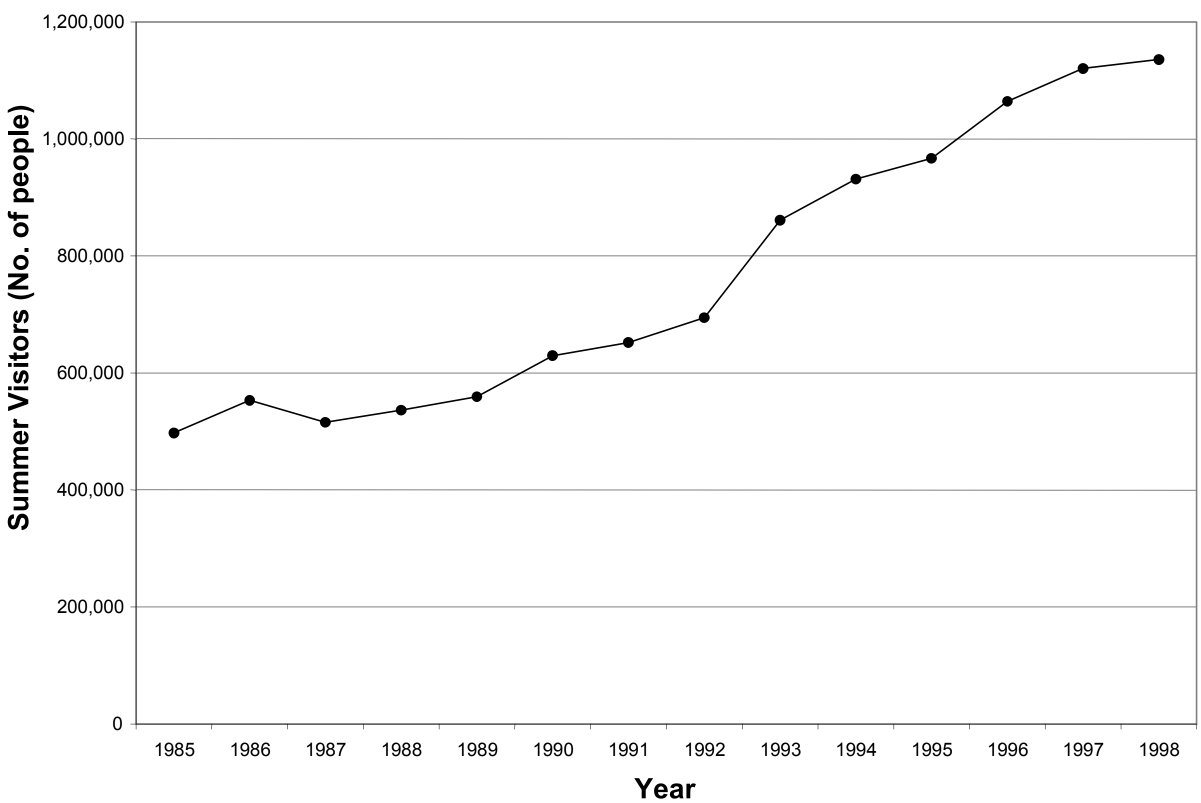
Sources: CFEC 2000a and 2000b.
[a] 1998 gross earnings data are not yet available.

[3] Gross earnings data are representative only of Ketchikan resident permit holders making landings in a given year. Crewmembers that reside in Ketchikan and are employed by Ketchikan resident permit holders typically work for a share of gross revenue and would have their earnings included in Ketchikan resident permit holder gross earnings. Earnings of Ketchikan resident crewmembers employed by permit holders not residing in Ketchikan are not included in Ketchikan gross earnings data. Therefore, actual gross earnings of persons in the commercial fish harvesting sector are likely to be higher than reported. Crewmember gross earnings data were not available.

4.3 Tourism

The Ketchikan area, like many areas, has benefited from the substantial growth in the tourism industry in Alaska. As Figure 4.10 illustrates, the total number of summer visitors to Alaska increased by 128% from 1985 to 1998. However, the growth of tourism has slowed in recent years. The percent increase in visitors from summer 1995 to summer 1996 was 10.1%; from summer 1996 to summer 1997, the increase was only 5.3%. Between the summers of 1997 and 1998, the growth in tourism was even less, only 1.3%. During the 12-month period from October 1997 through September 1998, 1.35 million nonresident visitors, including vacationers and business travelers, came to Alaska (The McDowell Group 1999). The Alaska visitor market has grown at a rapid rate over the last few years because of an increasing interest in Alaska as a vacation destination and the rapid growth of the cruise industry.

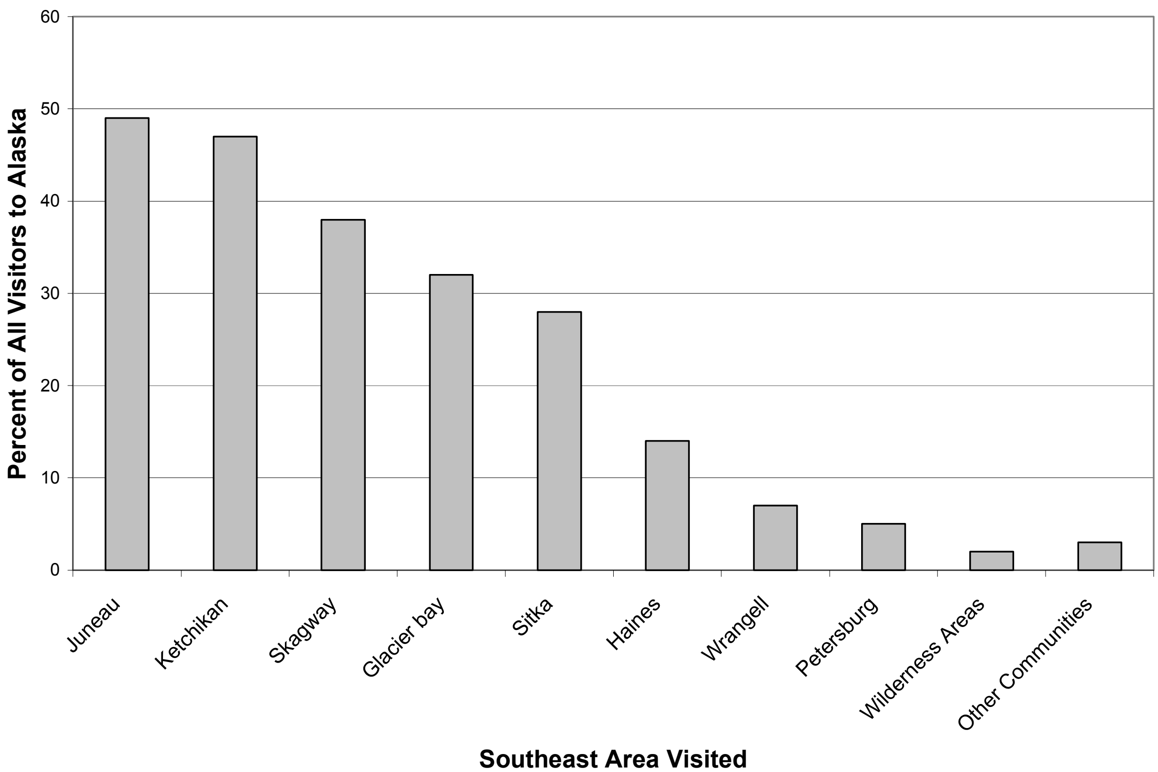
Figure 4.10. Total Number of Summer Visitors to Alaska, 1985-1998



Source: DCED 2000a.

Figure 4.11 illustrates that in summer 1993, 47% of all Alaska visitors visited Ketchikan.

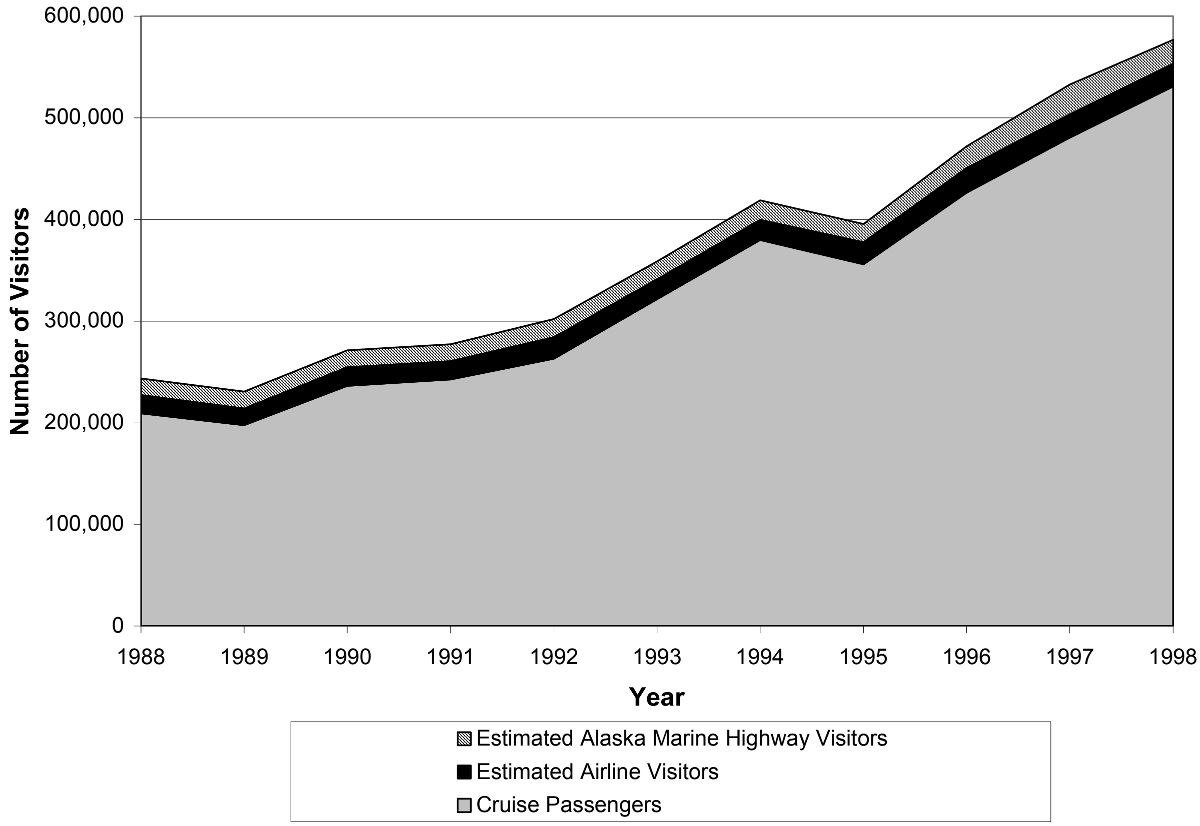
Figure 4.11. Percent of Alaska Visitors Visiting Southeast Alaska Communities, Summer 1993



Source: The McDowell Group 1994.

The Ketchikan area has benefited from increased tourism to Alaska in many ways, in terms of both spending and employment. Figure 4.12 depicts the growth of the number of summer visitors to the Ketchikan area from 1988 to 1998. Over the 10-year period, there was a 137% increase in summer visitors, with the cruise industry playing a major role in this growth.

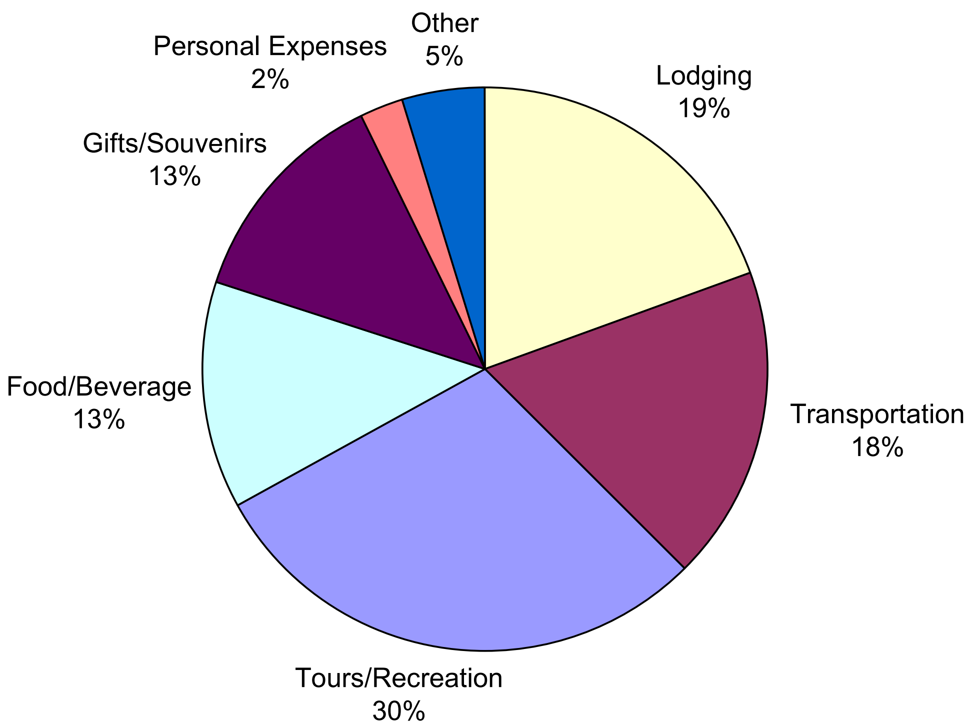
Figure 4.12. Estimated Number of Visitors to Ketchikan, 1988-1998



Sources: Ketchikan Visitors Bureau 1999; The McDowell Group 1998.

The tourism industry in Alaska generates substantial income for the state and also generates employment in a variety of industries such as transportation, retail trade and services. Nonresident visitors spent $949 million in Alaska from October 1997 through September 1998. Figure 4.13 shows expenditures by expenditure category during summer 1993. Based on 1998 visitor arrivals, summer visitor spending increased by $11 million from summer 1997. Based on 1998 data, an annual average of 15,900 wage and salary jobs and an average of $310 million in payroll are generated by the state's visitor industry (The McDowell Group 1999).

Figure 4.13. Expenditures in Alaska by Type, Summer 1993



Source: DCED 2000a.

Table 4-4 illustrates some of the economic impacts of Alaska's visitor industry in 1998.

Table 4-4. Economic Impacts of Alaska's Visitor Industry, 1998

Economic Impact	All Visitors	Vacation/Pleasure Visitors
Direct Full-Year Spending	$949 million	$811 million
Direct Summer Season Spending	$845 million	$774 million
Total Direct and Indirect Spending[a]	$1.6 billion	$1.4 billion
Total Direct Employment (annual average)	20,300 jobs	16,400 jobs
Total Direct Earnings	$390 million	$315 million
Total Direct and Indirect Employment	30,700 jobs	24,800 jobs
Total Direct and Indirect Earnings	$640 million	$520 million

Source: The McDowell Group 1999.

[a] Total direct and indirect spending was calculated by Northern Economics based on The McDowell Group data.

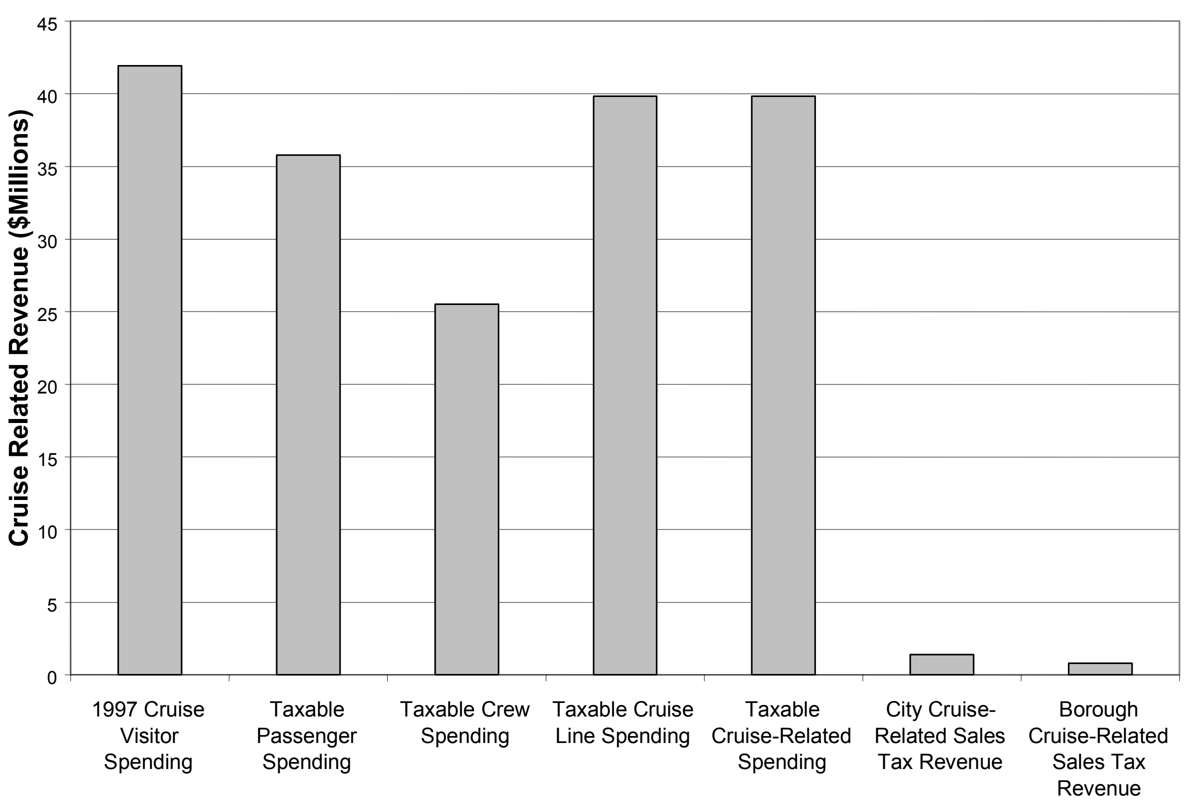
Table 4-5 provides an overview of spending by all visitors to Ketchikan based on 1990 data from all sources of visitors, including visitors from other areas of Alaska. From 1988 to 1998, there was a 137% increase in summer visitors, with the cruise industry playing a major role in this growth. This level of growth suggests that the 1990 visitor spending data are conservative estimates of estimated current visitor spending. Figure 4.14 illustrates the volume of estimated revenue generated by the cruise industry in Ketchikan in 1997. This sector of the visitor industry alone now accounts for more than $40 million in spending by summer visitors in Ketchikan, more than $2 million in spending by cruise ship crews, and $40 million in direct spending by the cruise lines.

Table 4-5. Total Visitor Spending in Ketchikan, 1990

	Visitor Spending ($Millions - 1990 Dollars)			
Industry Sector	**Non-Alaskan Visitors**	**Alaskans from Prince of Wales and Metlakatla**	**Other Alaskans**	**Total**
Transportation	8.0	5.5	1.0	14.5
Retail	9.9	4.9	1.2	16.0
Services	5.7	0.7	0.6	7.0
Total	23.6	11.1	2.8	37.5

Source: The McDowell Group 1992.

Figure 4.14. Cruise-Related Revenue in Ketchikan, 1997

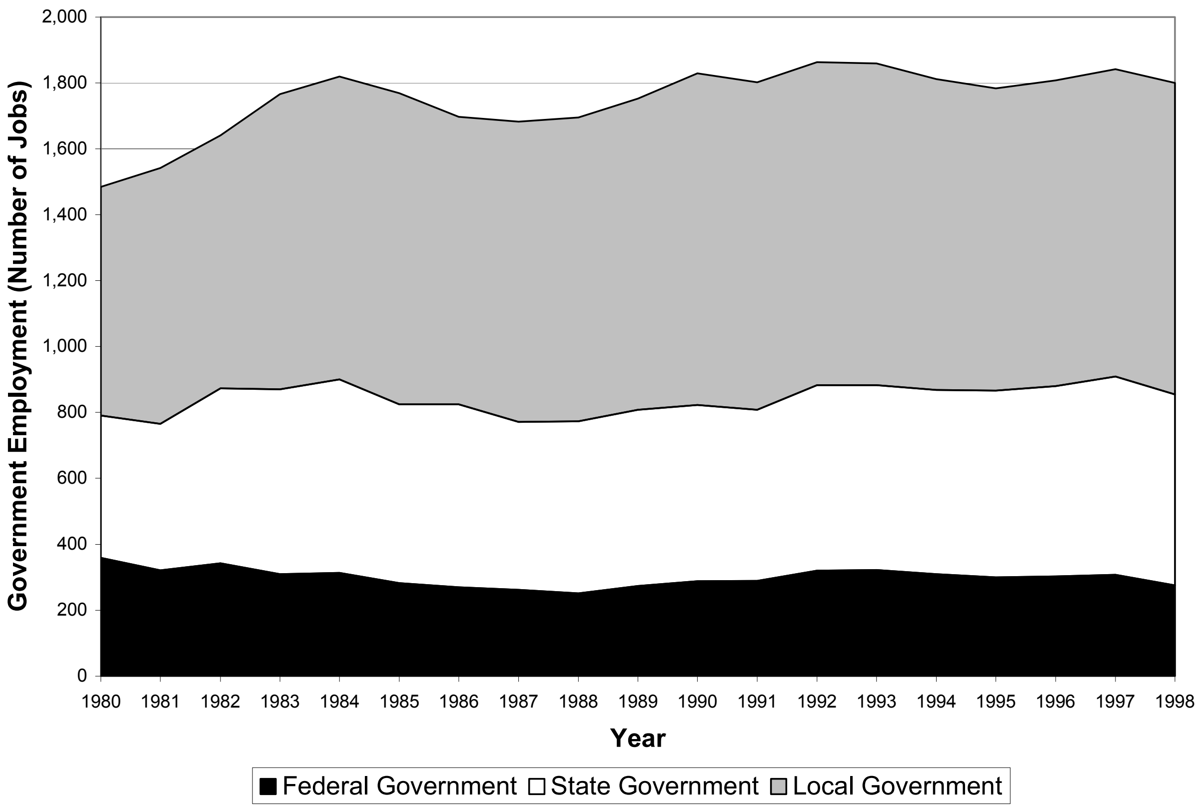


Source: The McDowell Group 1998.

4.4 Government

Government employment and spending play an extensive role in the Ketchikan area economy and in Southeast Alaska in general. Local and state government employment are heavily dependent on the population of the area, the demand for government services, and available revenue. As Figure 4.15 illustrates, government is a key employer in the Ketchikan area. In fact, government jobs represented 1800 jobs or 25.6% of total wage employment in the Borough in 1998 and an average of 25.9% of employment over the 1980 through 1998 period. Figure 4.16 and Figure 4.17 illustrates the percentage of total personal income that government and government enterprises represent in the Ketchikan Gateway Borough and in the Prince of Wales/Outer Ketchikan area, respectively.

Figure 4.15. Government Employment in the Ketchikan Gateway Borough by Sector, 1980-1998



Source: DOLWD 2000.

Figure 4.16. Government and Government Enterprises, Percentage of Total Personal Income in the Ketchikan Gateway Borough, 1969-1997

Source: BEA 2000.

Figure 4.17. Government and Government Enterprises, Percentage of Total Personal Income in the Prince of Wales/Outer Ketchikan Area, 1979-1997

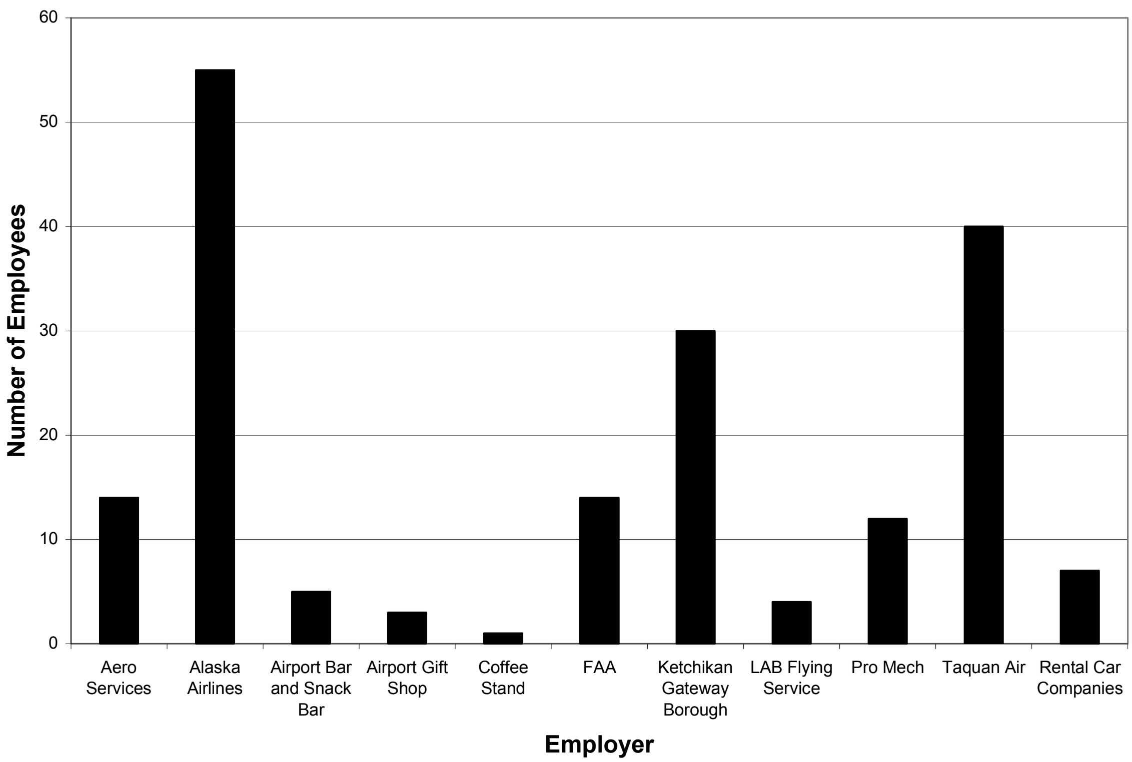
Source: BEA 2000.

4.5 Transportation

4.5.1 Ketchikan International Airport Employees

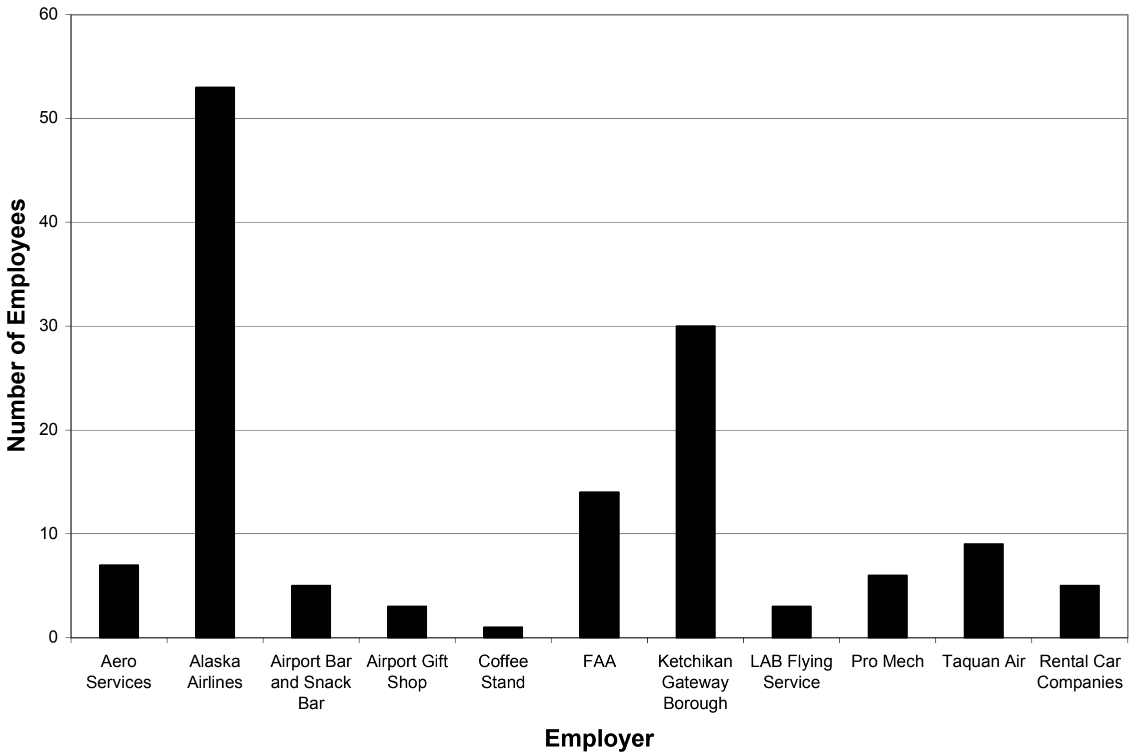
Airport employees are an important part of traffic volumes to and from Gravina Island. Figure 4.18 and Figure 4.19 illustrate the number of airport employees as of January 2000, during the summer (185 employees) and winter months (136 employees). The greatest difference in seasonal employment is associated with Taquan Air employment. Before Taquan Air shut down operations this year there were 40 employees—as of January 2000, there were only 9.

Figure 4.18. Summer Employment at Ketchikan International Airport by Employer, as of January 2000



Source: Klugherz and Associates 2000.

Figure 4.19. Winter Employment at Ketchikan International Airport by Employer, as of January 2000



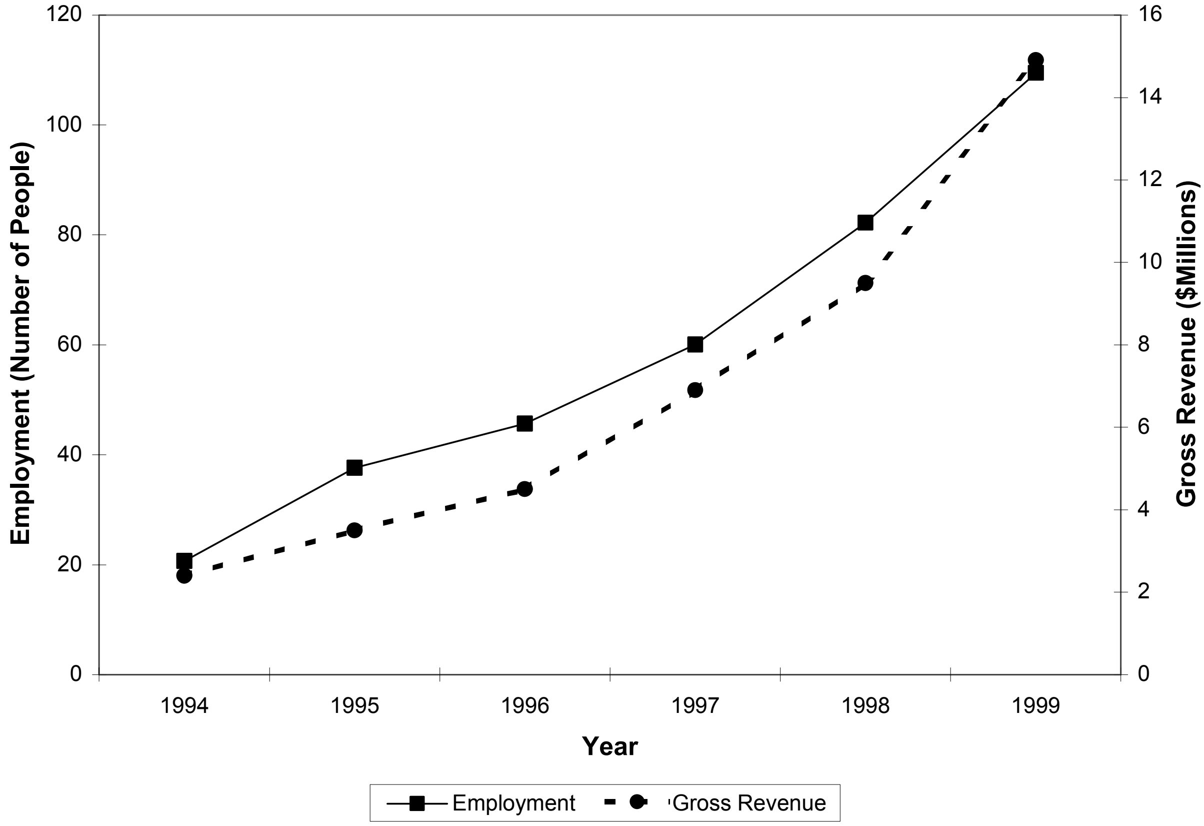
Source: Klugherz and Associates 2000.

4.5.2 Alaska Ship and Drydock, Inc.

Alaska Ship and Drydock, Inc. (ASD) has been an important part of Ketchikan's economy since the late 1970s. Annual ASD gross revenue has increased from $2.4 million in 1994 to $14.9 million in 1999. ASD employment has also increased, from 21 employees in 1994 to 109 employees in 1999. Figure 4.20 illustrates the steady increase of gross revenue and annual employment at ASD from 1994 to 1999.

In the late 1970s, Ketchikan community leaders recognized that constructing a shipyard capable of supporting the Alaska Marine Highway System (AMHS) ferries could strengthen Southeast Alaska's economy. With the assistance of the Alaska congressional delegation, Ketchikan and ASD are planning to develop the Ketchikan Shipyard into a world-class building and repair facility for ships. The goal is to help to expand Ketchikan's role as Alaska's premier maritime support community (Alaska State Chamber of Commerce 2000).

Figure 4.20. Alaska Ship and Drydock Employment and Annual Gross Revenue, 1994-1999



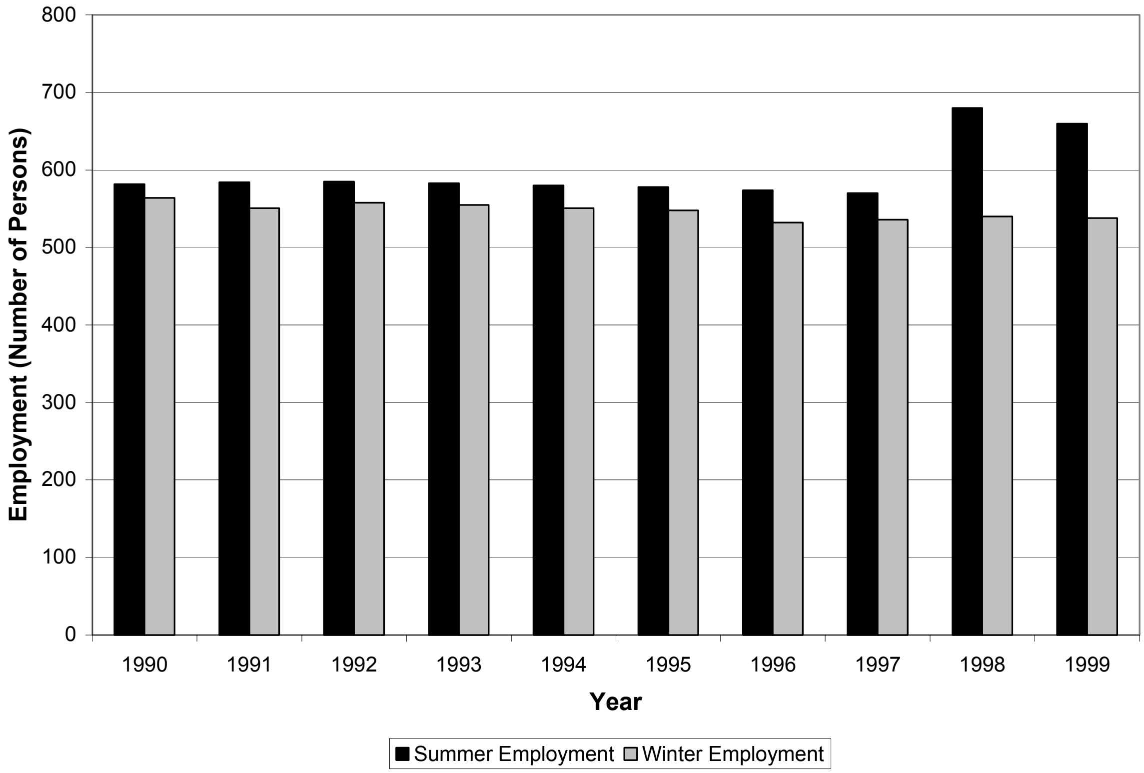
Source: Alaska Ship and Drydock, Inc. 2000.

4.5.3 Alaska Marine Highway System and Inter-Island Ferry Authority

The Alaska Marine Highway System is an important employer in the Ketchikan area as well. Figure 4.21 illustrates that from 1990 to 1999, regular wintertime full-time employment has decreased from 564 employees to 538 employees, a decline of 4.6%. Regular summertime full-time employment has increased from 582 employees to 660 employees, an increase of 13.4%.

The Inter-Island Ferry Authority estimates that in its first full year of operation, 38 jobs will be created: 16 deck and engine crew jobs, 12 food and beverage jobs, and 10 shore side staff jobs.

Figure 4.21. Alaska Marine Highway Full-Time Employment, 1990-1999



Source: Alaska Department of Transportation and Public Facilities (ADOT&PF) March 2000.

4.5.4 Passenger and Traffic Volumes

This subsection examines trends in passenger and traffic volumes for the Ketchikan International Airport and the ferry service. The airport ferry is the primary transport link between Revilla and Gravina islands. Table 4-6 demonstrates the air passenger volumes and ferry traffic that have occurred at the Ketchikan Airport from 1988 to 1999. Substantial portions of the total number of passengers traveling on the ferry are associated with air transportation. Table 4-7 shows results of a survey conducted at the airport ferry in Ketchikan in December 1999. The results illustrate that more than half of ferry trips occur in connection with flying in or out of Ketchikan.

Table 4-6. Ketchikan International Airport Passenger and Traffic Volumes, 1988-1999

Year	Number of Inbound Airport Passengers	Number of Outbound Airport Passengers	Total Number of Ferry Passengers	Total Number of Ferry Vehicles
1988	74,567	78,188	329,637	66,901
1989	79,669	82,539	347,797	74,150
1990	81,601	85,052	350,878	77,333
1991	81,597	79,409	341,290	76,328
1992	98,265	99,302	402,816	88,362
1993	85,734	86,937	363,574	82,764
1994	89,937	89,941	369,178	81,609
1995	98,781	97,690	397,059	88,626
1996	98,365	96,639	381,114	86,775
1997	99,926	100,193	397,024	93,573
1998	92,256	93,908	393,557	93,523
1999	96,532	97,118	385,332	91,884

Source: Ketchikan International Airport 2000.

Table 4-7. Percent of Ketchikan Airport Ferry Travel by Trip Purpose, 1999

Trip Purpose	Percent of Trips
Fly in/out	51.5
Meet/See off someone at airport	5.5
Airport Business	1.4
Work at airport	31.1
Work elsewhere on island	10.5
Recreation	0.1

Source: Klugherz and Associates in association with Northern Economics 2000.

4.5.5 Scheduled Air Service Trends

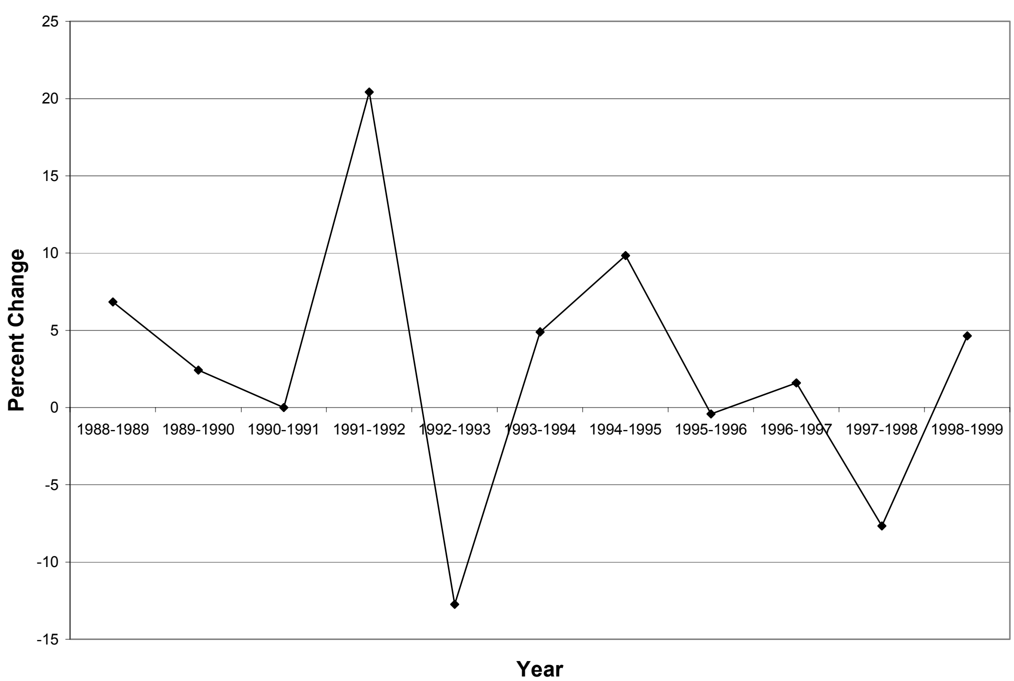
In recent years, the number of Ketchikan International Airport deplanements of inbound passengers has generally increased, showing an overall increase of 29.5% from 74,567 passengers in 1988 to 96,532 passengers in1999. There was an increase of 20.4% from 1991 to 1992, and a noteworthy decrease of 12.8% from 1992 until 1993. Figure 4.22 illustrates deplanements from 1988 until 1999, while Figure 4.23 illustrates the percent change of inbound passengers over that period.

Enplanements of outbound passengers also increased from 78,188 passengers in 1988 to 97,118 passengers in 1999, showing an overall increase of 24.2%, slightly less than the increase for inbound passengers. Outbound passengers increased by 25.1% from 1991 to 1992, and by 12.5% from 1992 until 1993. Figure 4.24 illustrates the number of airport enplanements from 1988 until 1999, while Figure 4.25 illustrates the percent change for outbound passengers over that same period.

Figure 4.22. Ketchikan International Airport Deplanements/Inbound Passengers, 1988-1999

Source: Ketchikan International Airport 2000.

Figure 4.23. Ketchikan Airport Deplanements/Inbound Passengers, Percent Change, 1988-1999

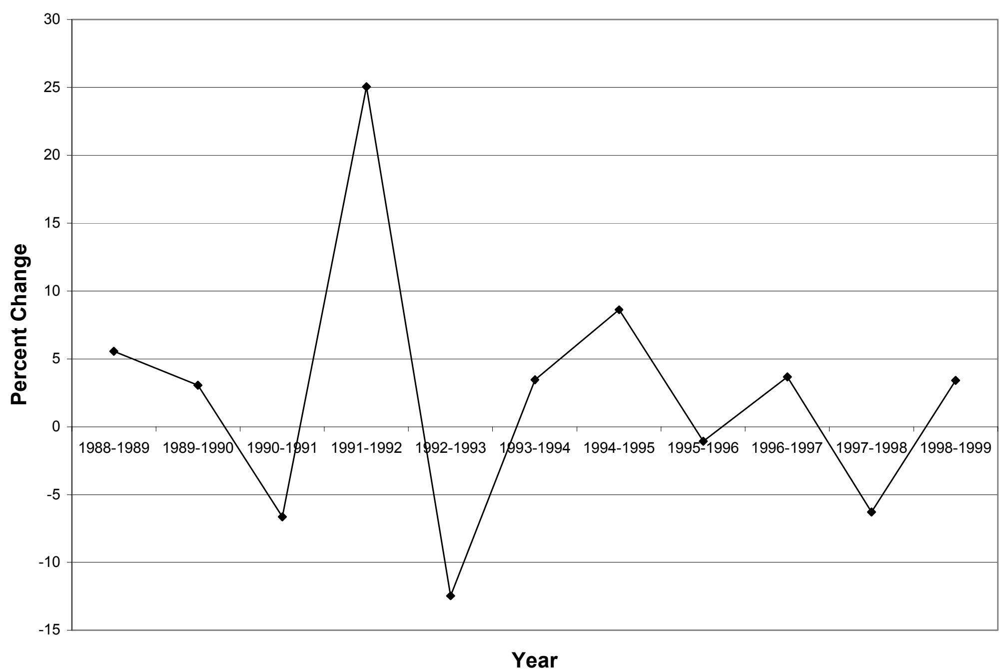


Source: Ketchikan International Airport 2000.

Figure 4.24. Ketchikan International Airport Enplanements/Outbound Passengers, 1988-1999

Source: Ketchikan International Airport 2000a.

Figure 4.25. Ketchikan Airport Enplanements/Outbound Passengers, Percent Change, 1988-1999



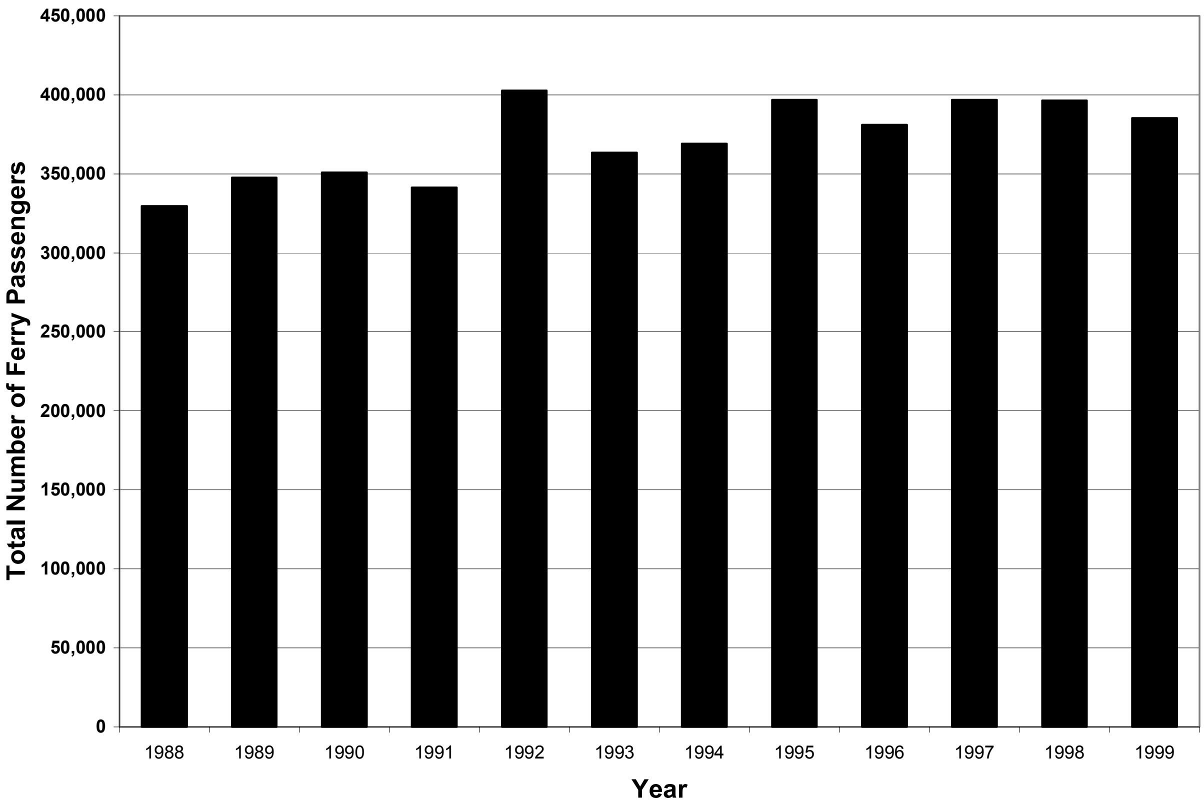
Source: Ketchikan International Airport 2000a.

4.6 Airport Ferry Trends

The number of ferry passengers at the Ketchikan International Airport increased by 16.9%, from 329,637 passengers in 1988 to 385,332 passengers in 1999, a considerably smaller increase than for airport passengers. Total ferry passengers increased, by 18.0% from 1991 to 1992, and decreased, by 9.7% from 1992 until 1993. Figure 4.26 illustrates the number of passengers from 1988 until 1999.

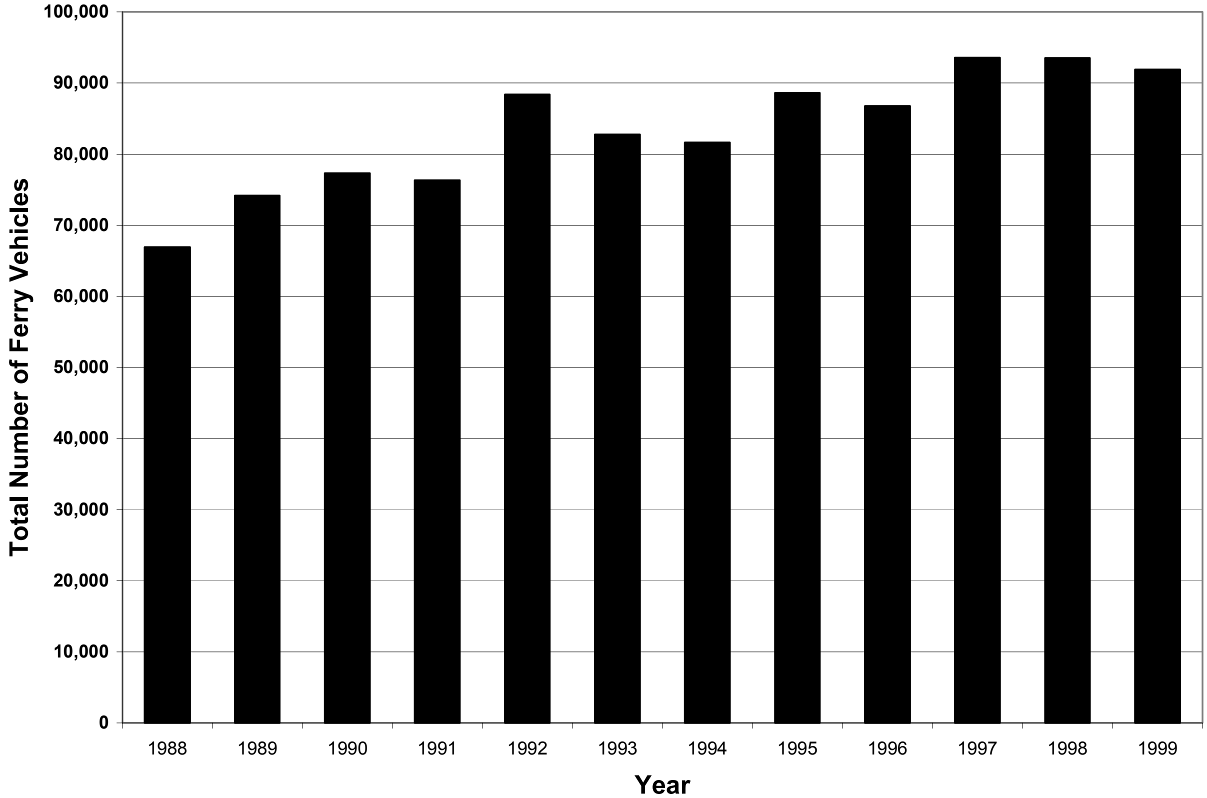
Figure 4.27 demonstrates the number of vehicles that used the Ketchikan airport ferry from 1988 until 1999. This number increased from 66,901 vehicles in 1988 to 91,884 vehicles in 1999, a 37.3% change over the time period, the largest increase of the passenger and traffic volumes examined. The number of ferry vehicles also increased, by 15.8% from 1991 to 1992.

Figure 4.26. Ketchikan International Airport Ferry Passengers, 1988-1999



Source: Ketchikan International Airport 2000.

Figure 4.27. Vehicle Usage of Ketchikan International Airport Ferry, 1988-1999



Source: Ketchikan International Airport 2000.

4.7 Floatplane Trends and Outlook

Figure 4.28 demonstrates the number of floatplanes that used the seaplane dock at the Ketchikan International Airport from 1988 until 1999. The number of floatplane landings increased by 15.1% over the entire period, from 7,665 landings in 1988 to 8,822 landings in 1999. As with airport passengers and ferry passengers, the number of floatplane landings showed a considerable 13.2% increase from 1991 to 1992.

Figure 4.28. Ketchikan International Airport Floatplane Landings, 1988-1999

Source: Ketchikan International Airport 2000.

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