

Ketchikan Economic Indicators 2010

Volume II: Industry Profiles



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Ketchikan Gateway Borough
Planning and Community Development

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Preface from the Ketchikan Gateway Borough

Ketchikan Gateway Borough commissioned the McDowell Group to produce this series of industry reports examining the economic impacts of a wide range of industries present in Ketchikan. The information developed in these reports will serve as a springboard for further targeting of those industries that offer the greatest opportunities for expansion and the creation of living wage jobs. In keeping with the proper role of the economic development function to be a community-based process, the Borough invited community members with expertise in each industry to review and comment on the reports about their industries. Borough staff also contributed their expertise with reviews and comments. Some of these reviews and comments have been incorporated into the body of the reports. Others appear at the end of each report in a section titled **Reviewers' Comments and Suggestions**. The Borough expresses its gratitude to those who contributed their time and provided thoughtful examinations of the material.

Introduction

This component of the Ketchikan Economic Indicators Project provides an overview of each sector of the local economy. It is intended to provide a brief, basic description of each industry, its current economic impact in terms of jobs and payroll (to the extent data is available), an indication of the indirect economic (multiplier) impacts of the industry, and a preliminary assessment of opportunities and challenges facing the industry. Basic industries most important to the local economy today, or industries where significant future development opportunity may exist, are given somewhat more detailed analysis than industries that play a primarily support sector role.

These industry profiles are not intended to be a comprehensive examination of the industries, but rather set the stage for prioritizing next steps in the on-going effort to learn more about the drivers of the local economy and where opportunity for sustainable economic development is greatest.

This document is one of four work products developed as part of the Ketchikan Economic Indicators Project. The four work products include:

- Ketchikan Economic Indicators Summary Analysis (an overview of key economic trends in the local economy)
- Ketchikan Economic Indicators Industry Profiles (this document)
- Ketchikan Economic Indicators Electronic Data Base (an Excel data set including historical and current measures of approximately 50 socioeconomic indicators)
- Ketchikan Economic Indicators PowerPoint Presentation (a concise summary of the key findings from the other three project components).

To the extent the industry profiles are part of a process to explore potential economic development strategies and opportunities, they should be considered as interrelated pieces of the borough's economy rather than in isolation. The seafood industry, for example, benefits from a healthy ship building and repair industry. Quality workforce development programs can likewise benefit every other industry by providing a source of workers with the skills and aptitudes local businesses need to thrive.

The primary focus in most of the profiles is on jobs. A recent report from the International Economic Development Council emphasized the central importance of jobs in economic development strategies: "Quality jobs benefit people, companies, and places. They are the seeds from which broader prosperity grows, providing workers with the opportunity for self-sufficiency, economic security, and a sense of control over their lives."¹ Where possible and practical, the profiles consider other relevant economic indicators as well and also look at specific potential projects, although examining the feasibility of individual projects in detail is beyond the scope of this summary document.

¹ *Creating Quality Jobs, Transforming the Economic Development Landscape*, International Economic Development Council, March 2010.

Overview of the Industry

Fishing and fish processing go back to Ketchikan's beginnings. The Tlingit people had fished the area for generations before some of the state's first canneries were built there in the 1880s. By the late 1920s, more than a dozen canneries operated in the area, and the seafood industry was Ketchikan's primary economic driver. The region's mining boom, which began with the Klondike Gold Rush of 1898, had quieted because of low mineral prices, among other factors.

Overfishing nearly destroyed the salmon runs, however, and by the 1950s only four canneries were still operating. Alaska statehood in 1959 led to the banning of fish traps – which had depleted salmon resources by not letting enough fish escape up river to spawn – and the runs slowly recovered. Alaska's commercial fishing industry has been marked by other key events, such as enactment of the Limited Entry law in 1973, the creation of hatcheries such as the Ketchikan-based Southern Southeast Regional Aquaculture Association (SSRAA) to help rebuild stocks, and the implementation of individual fishing quota (IFQ) programs beginning in 1995. Throughout all of these changes the seafood industry has remained a variable, but critical source of employment and income for Alaskans.

More recently, the commercial fishing industry has been challenged by large-scale salmon farming, particularly in Norway and Chile, which dramatically increased world supply and depressed prices. Fewer fishermen fished and processors struggled to remain in business. After hitting a low point in 2002, the industry has rebounded moderately since then as a result of a number of factors, including growing world demand, setbacks for both the production and marketing of farmed salmon, successful marketing of wild Alaska salmon, and a shift by Alaska processors away from canned salmon and toward higher-value product forms.

Although salmon is the dominant player in Ketchikan's seafood industry, it's not the only one. Other fish harvested include halibut, herring, blackcod, rockfish, shellfish, sea cucumbers, and shrimp. These species have provided diversity for the industry – both fishermen and processors – and cushioned some of the shock from the salmon market's ups and downs.

Economic Impact of the Seafood Industry

In very broad terms, the seafood industry affects the Ketchikan economy in the following ways:

- Employment and income for fishermen (permit holders and their crew) who permanently reside in Ketchikan, or who are nonresidents but spend part of their season in the Ketchikan area (and purchase goods and services while in Ketchikan)
- Employment, income, and business sales for the providers of goods and services purchased by commercial fishermen (food, fuel, gear, etc.)

- Employment and income for seafood processing workers, including both those who permanently reside in Ketchikan and the much larger number of nonresident workers who are in town seasonally, but spend some of their income while in Ketchikan
- Employment, income, and sales for the providers of goods and services purchased by seafood processors (food, transportation, fuel, power, etc.)
- Employment and income directly associated with hatchery production of salmon
- Local tax revenues from the seafood industry, including sales tax revenues and revenues from seafood processing companies located in the borough (property taxes, fish landing taxes, etc.)
- Charitable contributions to the community by seafood processing companies and fishing groups and associations

Employment and Wages

There are three main groups directly involved in Ketchikan’s seafood industry: 1) commercial fishing permit holders and crew members; 2) seafood processing companies and their employees; and 3) the Southern Southeast Regional Aquaculture Association and its employees.

PERMIT HOLDERS AND CREW MEMBERS

In 2008, 212 of 337 Ketchikan-based commercial fisheries permit holders earned some income from commercial fishing (fishing either in Southeast fisheries or elsewhere in the state). Ketchikan permit holders made up about 2 percent of total active permit holders in Alaska and 3 percent of Alaska resident permit holders who fished their permits. Ketchikan permit holders caught 24.7 million pounds of fish and had estimated gross earnings of \$20 million in 2008.

CFEC Permit & Fishing Activity by Year, Ketchikan Gateway Borough, 2008

	# of Permit Holders	# of Fishermen Who Fished	Totals Lbs. Landed	Estimated Gross Earnings
All Fisheries Combined	337	212	24,690,219	\$19,990,107

Source: Alaska Commercial Fisheries Entry Commission.

Salmon constituted about 80 percent of the catch, by weight, by Ketchikan fishermen and about 70 percent of the value. Herring and halibut were distant seconds for pounds and value, respectively.

Another 269 Ketchikan residents purchased commercial fishing crew licenses in 2008. That number was 1.4 percent of all commercial crew licenses sold in Alaska and 2.6 percent of crew licenses sold to Alaska residents (47 percent of Alaska commercial crew licenses are sold to nonresidents).

It is difficult to determine the relative importance of commercial fishing in the Ketchikan economy because employment and payroll in the industry are not captured in published government reports. Typically, however, for all fisheries combined approximately 60 percent of gross earnings become income for permit holders and crew (the balance is spent on fuel, gear, groceries, boat and permit payments, etc.). To the

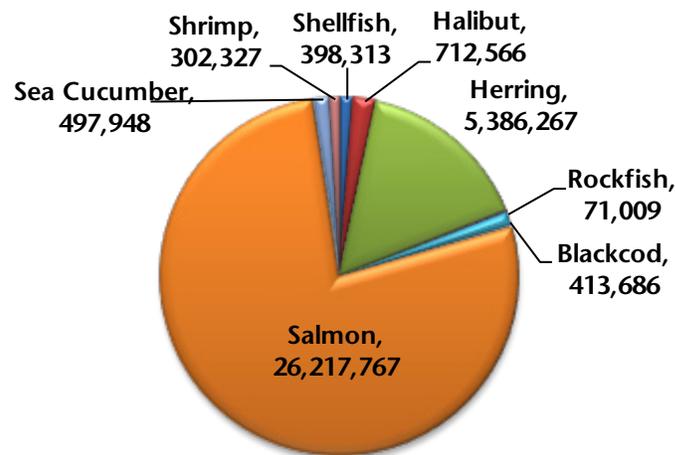
extent that this is true for Ketchikan’s commercial fleet, the industry directly added about \$12 million in personal income to the local economy in 2008.

SEAFOOD PROCESSING

Seafood processors in the Southern Southeast Alaska area² purchased 45 million pounds of fish for \$37 million in 2008. Note that not all Ketchikan fishermen fish only in Southeast fisheries and not all fish purchased by southern Southeast processors are caught by Ketchikan fishermen. Therefore, the pounds and value of fish caught by Ketchikan fishermen – 24.7 million pounds and \$20 million – do not match the 45 million pounds and \$37 million value of fish purchased by Ketchikan processors.

Processors converted the 45 million pounds of fish into 34 million pounds of processed fish products, which were then sold for \$72 million (first wholesale value, which is defined as the price received at sale of product by a processor to a buyer outside their affiliate network). By weight, slightly more than three-fourths of the fish processed was salmon, with pink and chum salmon making up the dominant share of salmon processed. Herring made up the next largest piece at 16 percent.

Net Weight of Fish at First Wholesale, Southern Southeast (COAR Area B), Pounds, by Species, 2008

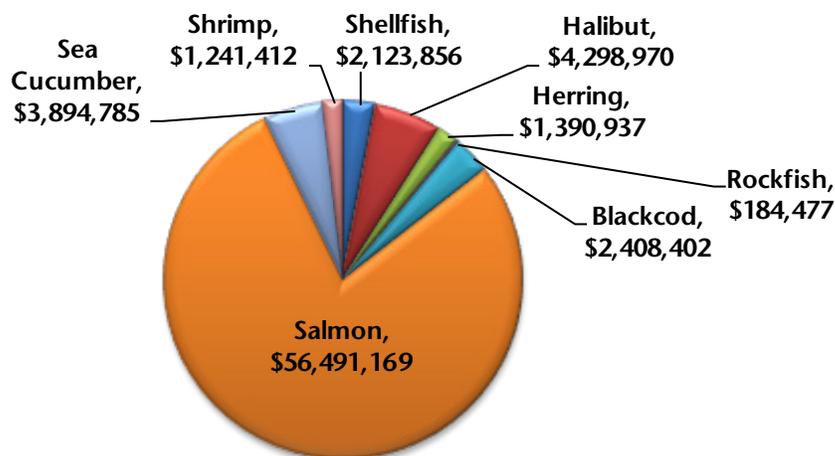


Source: ADF&G, Division of Commercial Fisheries, 2009.

² Includes the Ketchikan Gateway Borough and the Prince of Wales/Outer Ketchikan Census Area. Data for seafood processors’ employment and wages is for processors in the Ketchikan Gateway Borough only.

In terms of value, salmon accounted for 78 percent of the total first wholesale value of fish processed. Halibut had the next highest share of total value at 6 percent.

First Wholesale Value, Southern Southeast (COAR Area B), by Species, 2008



Source: ADF&G, Division of Commercial Fisheries, 2009.

In terms of employment, Trident Seafoods is the biggest Ketchikan processor, employing hundreds of people from July through September. (Trident employed a peak of over 500 in Ketchikan and an annual average of 160 in 2007, the latest available data.) The two other major processors in the Ketchikan area are E.C. Phillips and Alaska General Seafoods (formerly Kanaway Seafoods). Smaller processors include Signature Seafoods, which uses a floating processing plant to produce primarily frozen chum and pink salmon products.

The Ketchikan processing companies provided an average of 346 jobs in 2008 and paid about \$10.5 million in wages. Those numbers equate to 4.8 percent of Ketchikan's total wage and salary employment and 3.8 percent of total wages paid to workers in the borough. The average monthly wage for a seafood processing job was \$2,537, compared to the borough average of \$3,180.

In July and August, the job numbers grow to nearly 1,000, but even during the lowest activity months of January and February, there are more than 100 seafood processing jobs in Ketchikan. A significant number of those jobs, however, are held by nonresident workers. The seafood processing industry has the state's highest percentage of nonresident workers and in Ketchikan specifically, 85 percent of processing jobs were held by nonresidents in 2008. A smaller share of total wages go to nonresidents – 67 percent – indicating that, on average, the jobs held by Alaskans are higher paying than the ones held by nonresidents.

SOUTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION HATCHERY WORKERS

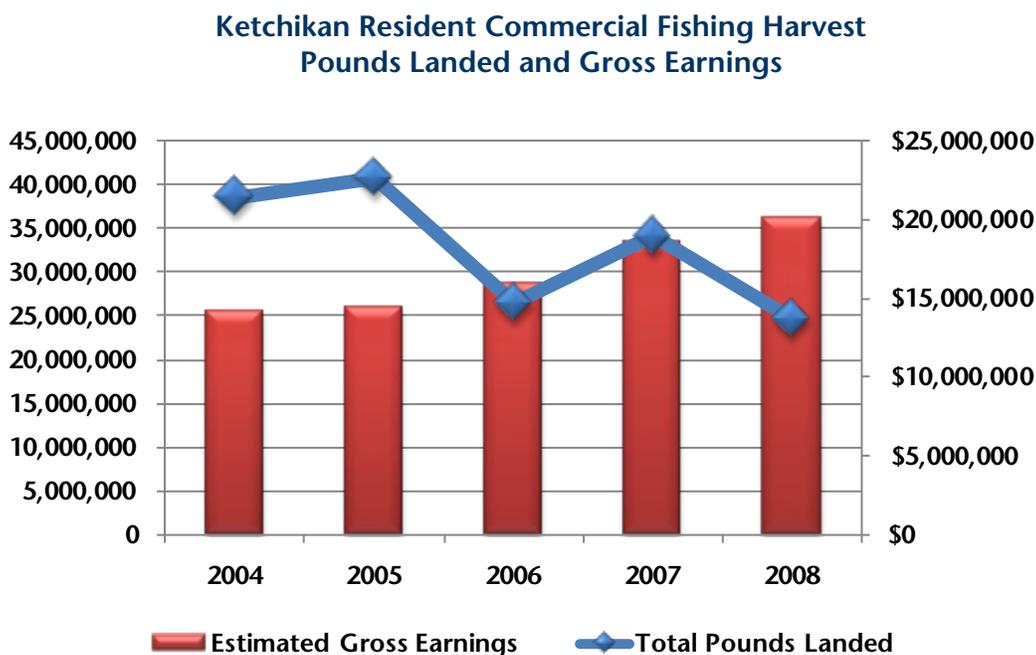
Another major participant in Ketchikan's seafood industry is the Southern Southeast Regional Aquaculture Association (SSRAA), a non-profit corporation created in 1976 to enhance salmon production. In 2007, SSRAA's four hatcheries produced 2.2 million fish harvested by commercial fishermen. Twelve percent of all salmon commercially harvested that year and sold to southern Southeast area processors were produced by

SSRAA, and 31 percent of the total ex-vessel value came from SSRAA salmon. Processors were paid \$18.1 million in first wholesale value for salmon produced by SSRAA.

A 2008 McDowell Group report estimated the total economic impact of SSRAA on Ketchikan to be \$26 million in economic output, 220 jobs, and \$6 million in labor income. SSRAA spent an additional \$2.2 million in goods and services in Southern Southeast Alaska. Although the SSRAA production overlaps with the harvest value of Ketchikan-based fishermen and the first-wholesale value of Southern Southeast processors, the direct jobs provided by SSRAA does not. In 2007, the association provided an annual average of 38 jobs and had a payroll of \$1.7 million.

Industry Trends

Ketchikan fishermen have seen steadily increasing ex-vessel earnings over the last five years even as the pounds of fish caught has fluctuated. The 2008 decline in pounds landed was mostly due to a reduced harvest of pink salmon, but a per-pound price increase more than compensated for the loss in harvest volume.



Source: Alaska Commercial Fisheries Entry Commission.

Gross earnings for Ketchikan-based fishermen grew by nearly \$6 million from 2004 to 2008. Since bottoming out in 2002 – Ketchikan fishermen’s gross earnings fell below \$10 million that year – salmon prices have rebounded solidly over the last several years. Most recently, gross earnings increased from \$18.5 million in 2007 to \$20 million in 2008.

The number of Ketchikan permit holders who fished declined slightly in 2008 to 212, about 8 percent below the 2007 level. Active Ketchikan permit holders earned an average of \$94,300 in ex-vessel income, well above the 2007 average of \$80,600.

On the processor side, the total first wholesale value of fish sold has been up and down. It reached a high point in 2007 at nearly \$107 million before a dramatic decline in the pink salmon harvest knocked 2008 levels down.

Net Weight and First Wholesale Value for Ketchikan and Craig (COAR Area B Processors)

Year	Net Weight (lbs)	1 st Wholesale
2004	72,353,139	\$75,627,295
2005	59,322,746	73,658,007
2006	42,959,694	66,076,515
2007	75,499,044	106,871,466
2008	33,999,883	72,034,007

Source: ADF&G, Department of Commercial Fisheries, 2009.

Ketchikan seafood processing employment has been trending down in recent years. In 2002, annual average employment totaled 475 jobs, accounting for \$13.4 million in payroll. The decline since then has been steady, with employment dropping to 466 in 2003, 409 in 2004, and 375 in 2005. Employment stabilized for a short period, averaging 385 jobs in 2006, but the decline continued in 2007 to 347 jobs.

The declines have come mostly during the peak activity months of summer, indicating that they are related to salmon processing. For example, in 2002, July employment totaled over 1,400 workers. In 2004, processing employment peaked at about 1,075 jobs in both July and August; in 2008, there were about 100 fewer processing jobs in those two months and smaller job counts in September and October as well.

Other Relevant Indicators and Trends

Global production of fish continues to increase as does per-capita consumption. Data from the Food and Agriculture Organization of the United Nations (FAO) reveals strong growth in total world production and consumption of salmon in particular. Since 2002, both the capture production and aquaculture production of salmon have increased, although the gains have been bigger in aquaculture. Total salmon exports worldwide grew from 411,748 tons and \$2.0 billion in 1987 to 2.7 million tons and \$11.4 billion in 2007. As a share of total worldwide exports, salmon has increased from 1.4 percent in 1987 to 5.0 percent in 2007.

Salmon consumption and demand has also benefitted from being recognized as a protein source low in saturated fat and high in heart-healthy omega-3 fatty acids. The American Heart Association, for example, recommends eating fish at least twice a week and especially recommends salmon for its omega-3 benefits and low to environmental pollutants such as mercury.

Indirect and Induced Impacts on Ketchikan's Economy

In addition to the direct economic impacts the seafood industry has on Ketchikan in the form of jobs, wages, and spending by fishermen, SSRAA, and seafood processing companies, the seafood industry also has indirect and induced impacts on the borough's economy. As dollars that are imported into Ketchikan – by virtue of producing a product that is primarily sold to outside markets – circulate through the economy, additional

business sales, jobs, and wages are created. Indirect and induced effects are often described as multiplier effects.

The indirect impacts of the seafood industry are those resulting from commercial fishermen and seafood processors purchasing local goods and services in support of their operations. Induced impacts are those that result from local spending of wages and personal income by commercial fishermen and processing employees in support of their households.

In considering the multiplier effects of industry activity, it is useful to assess the key factors that determine the magnitude of indirect and induced impacts. These factors include:

- Residency of the labor force. Greater resident participation results in higher multipliers, as residents spend more of their payroll dollars locally than do nonresident workers. Commercial fishing and especially seafood processing have comparatively high nonresident components.
- Average wages paid to the industry's labor force. Higher-wage jobs result in greater local spending than lower-wage jobs. Data is not available on net earnings for commercial fishermen, but the Alaska Commercial Fisheries Entry Commission reports gross earnings of slightly more than \$20 million for the 213 active permit holders in 2008 (average gross earnings of \$94,070). Crew members' earnings vary depending on a variety of factors, and seafood processing workers earn less than average for the borough (annualized earnings of about \$30,400 compared to \$38,200 overall).
- Seasonality of the industrial activity. All other things being equal, a year-round industry has greater multiplier effects than a seasonal industry. The seafood industry is seasonal, though somewhat less so than in the past (especially with the development of specialty fisheries and long-line seasons now extending from March through November).
- The volume and value of goods and services that are purchased locally versus purchases from outside vendors. Commercial fishermen have a relatively high indirect impact. The services and supplies they require are generally available locally, and the support sector has had many years to develop the necessary business practices. A large share of processing supplies and equipment are most likely purchased from out of state suppliers.
- Tax payments to local governments. The seafood industry generates sales tax revenues, property tax revenues (especially from seafood processing facilities) and taxes connected with the value of fish landed in Ketchikan and processed locally. These tax revenues are shared equally between the community and State of Alaska. Overall, the seafood industry is an above average (relative to other local industries) contributor of tax revenues to local government.

There are different ways to measure an industry's multiplier effect, including using economic input-output models. One of the most commonly used models is IMPLAN, a program originally developed by the U.S. Forest Service in the 1970s. IMPLAN is a tool that helps analyze relationships within an economy – how much a certain amount of spending in one sector generates in a different sector, for example – so that the total effect of specific changes in an economy can be measured. While IMPLAN is a useful tool for estimating the

multiplier effects of most industries, it is not a good tool for measuring the indirect and induced effects of the seafood industry, in the absence of detailed research and analysis to modify the model.

For every million dollars in ex-vessel income earned by local permit holders, approximately \$750,000 in total personal income is generated in the community including direct, indirect, and induced income. In seafood processing, for every million dollars in first wholesale value generated locally, approximately \$250,000 in total local personal income is generated including direct, indirect, and induced income (though it does not include the personal income earned by the fishermen who sell fish to the processors). The relationship between first wholesale values and personal income is highly variable year-to-year depending on fish prices and production volumes.

Key Forces Influencing the Industry

Ketchikan's seafood industry is subject to broad range of economic, biological, and political forces that are too complex to consider in detail here. One of the key issues is the price of salmon. Prices will likely remain below their recent peak of 2008 but should be stable over the next several years, given the general balance between supply and demand.

Allowable catches for halibut, a high-value species, are continuing to trend down. The Southeast Alaska allowable catch for 2010 has been set at 4.4 million pounds, reflecting a steady decline from the 10 million pound allowable catch of five years ago. Blackcod allowable catches have also been trending down.

National and international economic conditions will continue to influence Ketchikan's seafood industry. Demand and prices for high-value species (halibut, blackcod, King and Coho salmon) were affected by the global recession in late 2008 and 2009. All other forces being equal, as the global economy recovers, demand for these high value species should increase.

Conditions in the global farmed salmon industry are also important. Recessionary impacts on Alaska salmon prices may have been at least partially offset by recent production problems in the farmed salmon sector. Though limited data is available, those problems have likely resulted in a significant short-term decrease in world salmon supply, on the order of 5 to 10 percent.

Outlook

As a base for seafood industry activity, Ketchikan has a number of advantages relative to some other Alaska ports, and disadvantages relative to others. Among the advantages, it is closer to Lower 48 markets than many communities, with good jet service from Alaska Airlines for moving fresh product and regular barge service for moving frozen product. It does not have the same advantages as communities with road access to markets, however, in terms of lower cost shipment of fresh product. Ketchikan's status as a transportation and population hub for southern Southeast Alaska also makes it well-positioned to be the hub for the regional dive and farmed shellfish fisheries. The hatcheries associated with SSRAA are another advantage because salmon prices are not influenced by local supply, meaning that an increase in hatchery production would likely increase total ex-vessel earnings and first wholesale values.

Reviewers' Comments and Suggestions

- Explore the details of the shift away from canned salmon and towards higher-value product forms (flash frozen filets, etc.). How big has the change been (what percentage is canned now compared to 10 years ago, for example), how much opportunity exists for more changes of this type?
- Determine the potential for expanding the mariculture industry within the existing dive fisheries and the farming of native species of shellfish including oysters.
- Determine what percentage of processor equipment and supplies are purchased locally and assess the potential of increasing that percentage.
- Assess the potential for accessing the Prince Rupert container port and rail line as a source for transporting seafood to new and existing markets.

Overview

Tourism has played a role in Ketchikan's economy for over a century, but its role has grown dramatically over the last 25 years as a result of steadily increasing cruise ship traffic on ever-bigger ships. The loss of Ketchikan's pulp mill in 1997, which had been the borough's largest private sector employer, also increased the borough's dependence on tourism as a generator of revenue, jobs, and income.

In 1983, an estimated 90,000 people visited Ketchikan on cruise ships, a number that increased more than ten-fold by 2005 when the passenger count first surpassed 900,000. To gauge the role of tourism in Ketchikan's economy, McDowell Group conducted a study for the Ketchikan Visitors Bureau in 2007 that measured visitor traffic and spending, cruise line spending, and the employment and payroll that was attributable to the visitor industry.³

The study found that the industry spent a total of \$162.6 million in Ketchikan in 2006 and created 1,150 jobs directly and another 350 indirectly. About 14 percent of Ketchikan's payroll jobs were attributable to tourism and 12 percent of all wages. The largest share of the jobs created were in retail trade (37 percent) followed by tours and transportation (27 percent). The industry also contributed \$6.2 million in cruise ship moorage and passenger fees, \$4 million in sales tax revenue (24 percent of all sales tax revenue), and \$1.1 million in property tax revenue.

Industry Trends

CRUISE SHIP VISITORS

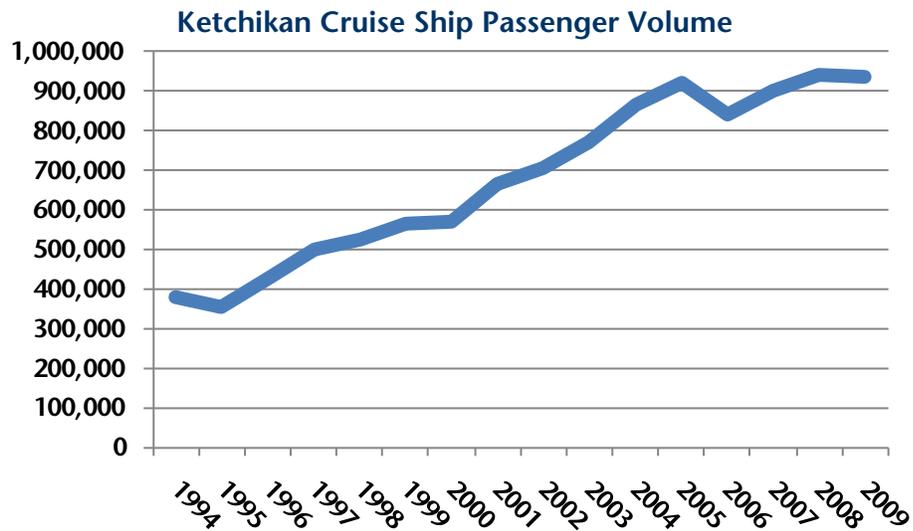
The dominant share of visitors to Ketchikan are cruise ship passengers. In 2009, they numbered 937,419 compared to 50,835 non-business air travelers, and 11,978 ferry passenger visitors.⁴ The cruise industry is large enough that the approximately 22,000 cruise ship crewmembers that were on ships that stopped in Ketchikan in 2009 are also a significant economic force. Combined, cruise passengers and crew members make up nearly 90 percent of total visitor spending.⁵

After growing strongly throughout the 1980s and 1990s, the number of cruise ship passengers reached a peak in 2005 of 921,000 before falling back to 839,000 in 2006. The numbers rose again in the next two years and then essentially held steady in 2009 at around 940,000.

³ *Economic Impacts of the Visitor Industry in Ketchikan, Summer 2006*. Prepared by McDowell Group for Ketchikan Visitor Bureau, November 2007. The terms "tourism" and "visitor industry" are used somewhat interchangeably to refer to leisure travel and the companies who sell goods or services to those travelers.

⁴ Estimate is of disembarking cruise passengers and for air and ferry passengers who came from out of state primarily for pleasure rather than business purposes.

⁵ *Economic Impacts of the Visitor Industry in Ketchikan, 2006*.



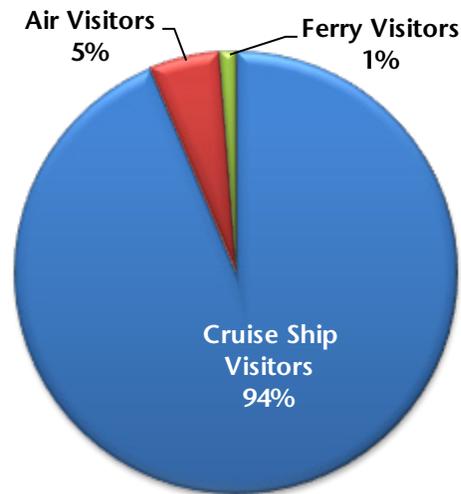
Source: Cruise Line Agencies of Alaska.

There's an unusual amount of uncertainty about what will happen to cruise ship traffic in the next three to five years. Several ships were redeployed to other markets for the 2010 season, which will cut Ketchikan's visitor count by an estimated 112,000, or 13 percent. Two cruise lines – Holland America and Princess – have announced additional cuts in 2011, but Disney Cruise Line will begin sailing to Ketchikan and elsewhere in Alaska in 2011 and Crystal Cruises – a luxury cruise line – will return after having left the Alaska market in 2006.

The reasons for the ships being redeployed is a contested issue with some blaming new environmental regulations and taxes passed in a 2006 initiative and others pointing to the national and international economic troubles. Whatever the reasons for the redeployments, future cruise ship growth may have been restrained by limited dock space in Alaska's busiest and most popular ports. Even before the redeployment issue arose, there were signs that cruise ship visitor numbers may have leveled off at somewhere around 1 million.

AIR AND FERRY VISITORS

Visitors to Ketchikan by Transportation Mode, 2009



Sources: Cruise Line Agencies of Alaska and McDowell Group estimates.

Although they make up a relatively small share of total visitors and neither air nor ferry passenger visitor volumes to Ketchikan have grown much in recent years, they are still a relevant part of the industry, especially since per-passenger spending for both air and ferry visitors is higher than it is for cruise visitors. By the most recent estimate,⁶ cruise passengers spent an average of \$159 per person compared to \$278 for ferry visitors and \$408 for visitors who came by air.

Retail Trade

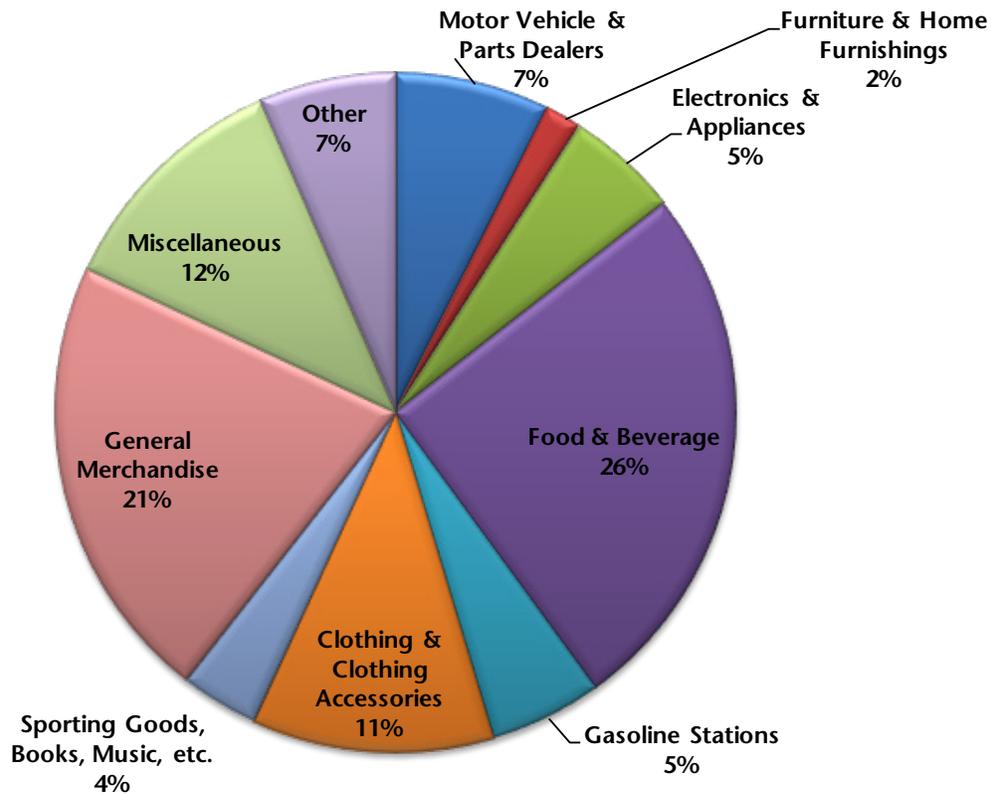
Tourism generates jobs in a variety of industry categories, from transportation and guiding companies to restaurants and retail stores. This profile focuses limits its focus primarily to the impact tourism has on retail trade.

About 14 percent of Ketchikan's payroll jobs were in retail trade in 2008 compared to 11 percent for the state as a whole. Retail jobs generally pay less than average, partly because many of them are part-time. In 2008, the average monthly wage for a retail job in Ketchikan was \$2,260 compared to the borough average of \$3,180. The pattern is similar for the state as a whole, where the average monthly wage for a retail job was \$2,307 and the overall average was \$3,779. (The statewide overall average monthly wage is significantly higher than Ketchikan's primarily because of the very high-wage oil and gas jobs located mostly in the North Slope Borough and Anchorage.)

Ketchikan's retail trade jobs fall in largest numbers into the two broad categories of food and beverage stores and general merchandise stores.

⁶ *Economic Impacts of the Visitor Industry in Ketchikan, 2006.*

Ketchikan's Retail Mix, 2008



Source: Alaska Department of Labor and Workforce Development.

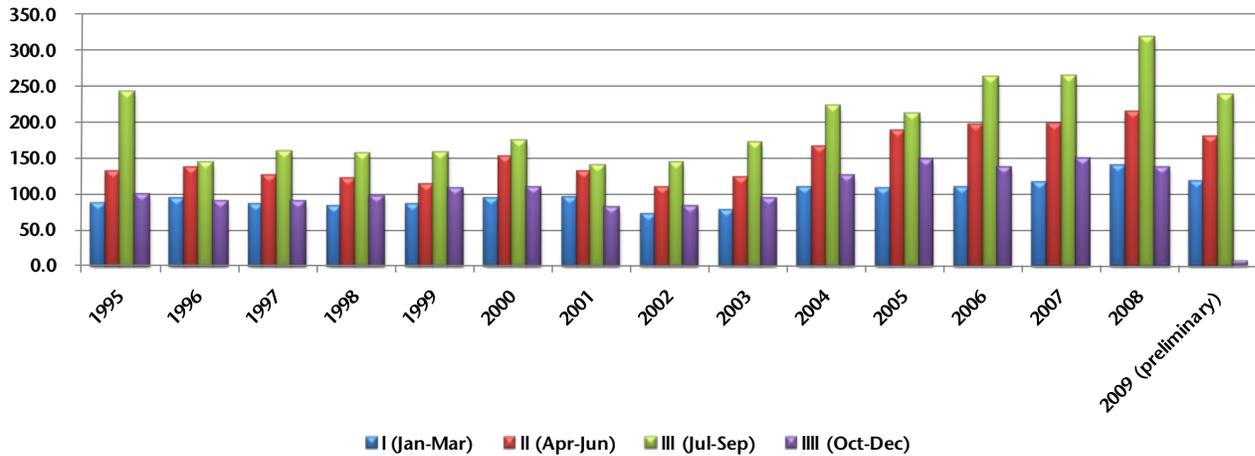
Over the 2002 to 2008 period, retail jobs increased from an annual average of 936 to 1,047, a 12 percent increase. To give context to those numbers, Ketchikan's resident population fell by 5 percent over that period and cruise ship passenger traffic grew by 34 percent.

More than just summer impacts

An economy without the large tourism component that Ketchikan has would be unlikely to see the combination of a declining population and a growing number of retail jobs. The first conclusion one could draw from a falling population and a growing count of retail jobs is that tourism is simply creating growth in seasonal retail sector jobs for nonresidents—college students or other itinerant workers who come for the summer and then take their earnings and leave at the end of the season.

But Ketchikan's retail growth and its connection to tourism are more complicated than the annualized numbers may suggest. Although the summer peak in retail jobs was up 9 percent (from 1,211 in June 2002 to 1,314 in June 2008), the retail job count in January—a month when nearly all of the sales would be to locals—was up 18 percent (from 741 in 2002 to 848 in 2008).

Ketchikan Gross Business Sales, 1995-2009



Source: Ketchikan Gateway Borough

Quarterly gross business sales also suggest that tourism does more than generate retail jobs during the May-to-September cruise season. First quarter sales of \$70 million in 2002 had more than doubled by 2008, when they exceeded \$138 million. In percentage terms, the growth of 97 percent in first quarter sales wasn't far behind the 123 percent increase in third quarter sales—\$142 million to \$318 million.

A more detailed analysis of retail trade would be required to say with more certainty how summer tourism spending affects Ketchikan's year-round retail sector, or whether there were other economic forces at work to explain the off-season growth in retail jobs and sales. But both the quarterly sales numbers and the monthly job numbers indicate that it's an oversimplification to assume that summer tourism growth has no impact on Ketchikan's economy in the off-season months.

One possible explanation for the off-season growth in jobs and sales is that tourism dollars make certain retail businesses feasible in Ketchikan that otherwise wouldn't be. Those businesses then serve the year-round Ketchikan population, creating jobs and capturing sales that might otherwise go to outside markets. In other words, leakage is reduced as Ketchikan residents are able to spend a larger share of their retail dollars in Ketchikan.

Along those lines, increasing sales for summer tourism businesses brings additional money into the local Ketchikan economy, and that money circulates throughout the broader economy, creating opportunities for other businesses and income that can be spent in other months. Yet another way the summer activity is spread throughout the year is through sales tax revenue. A disproportionate share of sales tax is generated during the second and third quarters of the year during tourism months, but the money is available to the borough to spend on projects and services throughout the year.

Indirect and Induced Impacts on Ketchikan's Economy

With the understanding that not all of tourism's impacts are captured in the retail industry and not all retail activity is attributable to tourism, the multiplier effects of tourism discussed below are limited to retail trade.

The factors that determine the magnitude of indirect and induced impacts include:

- Residency of the labor force. Greater resident participation results in higher multipliers, as residents spend more of their payroll dollars locally than do nonresident workers. Retail has a lower than average share of nonresident workers. In 2008, the Alaska Department of Labor reported the percentage of nonresident employment in retail trade at 14.3 percent, compared to 19.6 percent overall. Wages paid to nonresident retail trade workers made up just 6.8 percent of total wages statewide, compared to 13.3 percent statewide across all industries.
- Average wages paid to the industry's labor force. Higher-wage jobs result in greater local spending than lower-wage jobs. On average, retail jobs in Ketchikan pay less than other jobs—\$2,260 a month in 2008 compared to \$3,180 for Ketchikan overall.
- Seasonality of the industrial activity. All other things being equal, a year-round industry has greater multiplier effects than a seasonal industry. Ketchikan has about 54 percent more retail jobs at its annual high point than at its annual low, compared to a 43 percent difference for all Ketchikan payroll jobs.
- The volume and value of goods and services that are purchased locally versus purchases from outside vendors. Goods sold by Ketchikan retailers would vary widely in terms of where they were produced. Sales of locally-produced art would obviously have a much greater multiplier effect than the sale of diamonds.
- Tax payments to local governments. Tourism and retail trade generate substantial sales tax revenue for Ketchikan and the stores themselves are significant sources of property tax revenue to the borough.

IMPLAN indicates that retail multipliers range from 1.1 to 1.4 for employment. That means that every retail job generated in the local economy generates an additional 0.1 to 0.4 jobs in the local support sector. Similarly, for every retail payroll dollar, an additional \$0.20 to \$0.30 in payroll is generated in Ketchikan's support sector. Output, a measure of total retail spending (including payroll) has multipliers ranging from 0.2 to 0.4. That means \$1 million in direct retail spending produces another \$200,000 to \$400,000 in spending elsewhere in the economy.

Ketchikan Area Retail Trade Multipliers

	Multiplier
Employment	1.1 - 1.4
Labor Income	1.1 - 1.3
Output	1.1 - 1.4

Source: IMPLAN, 2007.

Outlook

The beauty of the Inside Passage and Southeast Alaska combined with Ketchikan’s recreational and cultural offerings make it almost certain that tourism will continue to be a significant contributor to the borough’s economy. The numbers may rise and fall from year to year, but it is difficult to imagine a time when people will not be attracted to this unique part of the world.

Ketchikan’s location as the first U.S. stop on an Inside Passage cruise—or last, depending on direction—may give it a slight advantage over other Alaska cruise stops in the competition for retail spending. For retail sellers, cruise ships deliver an astounding number of potential customers to the community every year from May through September. That exposure creates significant opportunities to sell goods, especially to travelers inclined to buy everything from small souvenir items to expensive artwork and luxury household goods such as jewelry or handmade rugs.

Ketchikan’s comparative disadvantages as a tourist market include the limited amount of control the borough has over key factors that affect visitor counts. Ketchikan is almost always just one stop out of many on an Alaska or Inside Passage cruise; if the number of cruise offerings declines, the number of visitors to Ketchikan will also decline through no fault of Ketchikan’s. This is one of several reasons why independent travelers are especially desirable.

Reviewers’ Comments and Suggestions

- Assess the extent to which summer tourism growth impacts Ketchikan’s year-round industries, especially those not directly associated with tourism.
- Assess the potential of promoting Ketchikan to a greater degree as a unique brand and not just one of several stops on the Inside Passage cruise itineraries (much of the promotion for which is done by the cruise industry). Are there opportunities for Ketchikan to assume more control through over its tourism marketing through independent efforts or by increased partnering with the cruise industry and what are the likely benefits from such efforts?
- Regularly assess trends in the visitor industry and the local population’s attitudes towards the industry. What types of community investments would both enhance the experience of Ketchikan for visitors and provide quality-of-life benefits to the year-round population?
- Survey households and businesses to determine what percentages of their retail needs are met locally and what percentage of the retail goods they purchase come from outside Ketchikan. What are the specific opportunities for capturing additional retail sales locally?

Overview of the Industry

The modern forest products industry in Southeast Alaska dates back to the 1950s when two pulp mills were drawn to the area through the efforts of the U.S. Forest Service, manager of the 16.8 million-acre Tongass National Forest—the nation’s largest—and Alaska territorial officials.⁷ For many years, distance from markets and the high construction and labor costs had discouraged the development of a Southeast forest products industry beyond the small-scale harvesting and processing that was done for local use.⁸

The critical development was the assurance of long-term timber harvesting contracts from the Forest Service. With confidence in a regular timber supply from the Tongass, companies were willing to make the large initial investment of building mills. The Ketchikan Pulp Company completed construction of its mill in 1954. Five years later, the Alaska Lumber and Pulp Company pulp mill was completed in Sitka.

Combined, the two mills employed more than 900 workers in some years and created hundreds of additional logging and sawmill jobs throughout the region. The mills would be Ketchikan’s and Sitka’s largest employers for decades and forest products the region’s leading industry. The mills processed as much as 600 million board feet of Tongass timber annually into high grade dissolving pulp, sawn lumber and chips, and round logs. Most of the output was exported to Asia with the largest share going to Japan.

Tongass timber harvests began declining in the 1970s, however. The pulp mills initially made up for the declining supply from the Tongass with timber harvested on Native lands made available under the 1971 Alaska Native Claims Settlement Act. Later, timber from state forests was also used to supply the industry.

To oversimplify what has been a complicated and contentious issue, the loss of Tongass timber was the result of legislative and agency changes to forest management, both generally and for the Tongass in particular. The bottom line, however, was that without a dependable, steady timber supply, and faced with depressed markets in Asia and greater competition from new mills in other countries, the Sitka mill closed in 1993 followed by the Ketchikan mill in 1997. Since then, the forest products industry in Southeast Alaska has shrunk considerably, including the loss of over 3,000 jobs and \$100 million in annual payroll.

Timber Supply

The volume of Tongass timber sold over the last 10 years has ranged from 170 million board feet (mmbf) to 5 mmbf. The amount actually harvested has ranged from 147 mmbf to 19 mmbf.

⁷ *Role of the Forest Products Industry in the Southeast Alaska Economy, 1993 Update*. Prepared by McDowell Group for Alaska Forest Association, June 1993.

⁸ *The Global Market for Timber from the Tongass National Forest, Final Report*. Prepared by McDowell Group for Ketchikan Gateway Borough, April 2000.

Tongass National Forest Timber Sold and Harvested (million board feet)

Fiscal Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Sold	170	50	24	36	87	65	85	30	5	48
Harvested	147	48	34	51	46	50	43	19	28	61

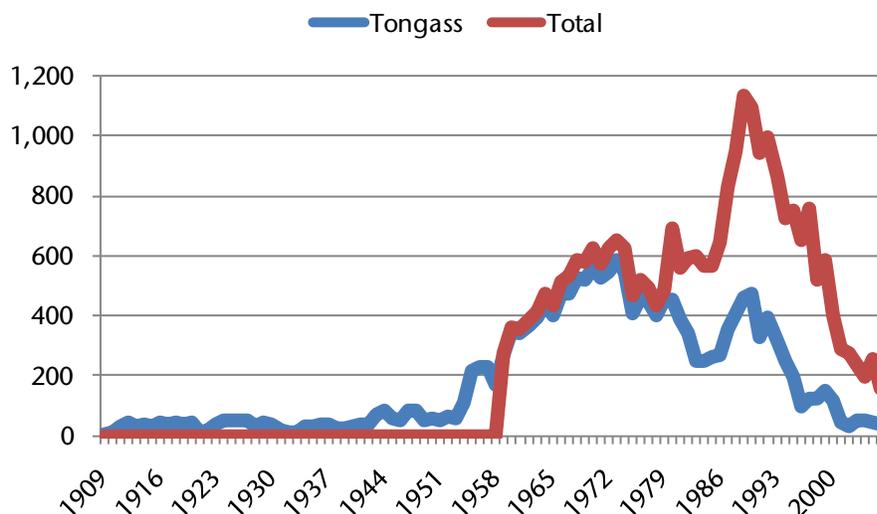
Source: USFS *Timber Cut and Sold Report*

The table gives an idea of harvest sales and harvests in the post-pulp mill era. For perspective, as recently as 1992 when both mills were still operating, 438 mmbf of Tongass timber were sold and 370 mmbf harvested.

Timber harvested from ANCSA corporation lands has supplemented Tongass harvests for years, though most Native corporation timber was exported as round-logs and therefore did not serve to supply regional sawmills. In any case, ANCSA corporation harvests declined sharply as timber supplies were exhausted. Today, only Sealaska Corporation is still logging its timber resource.

State of Alaska timber sales have also played an important role in providing timber at times when Tongass volumes have been very low. The State owns relatively little land in Southeast Alaska, however, and the volume of state-owned timber available to harvest is expected to decline, from about 20 mmbf in 2008 to 12 mmbf in 2013.

Southeast Timber Harvests, 1909-2006 (million board feet)



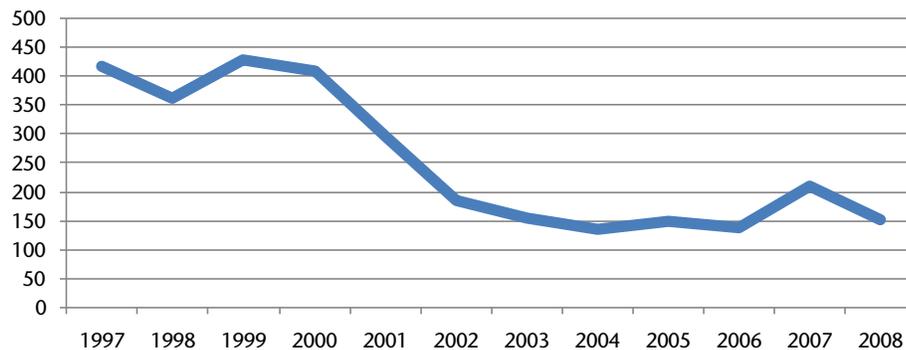
Source: USDA Forest Service report: *Timber Harvests in Alaska: 1910-2006* (a small percentage of the non-Tongass harvests shown in the graph took place outside of Southeast Alaska).

Current State of the Industry

The forest products industry plays a relatively small role in the Ketchikan economy today, certainly relative to pre-mill closure days. In 1995, for example, the Alaska Department of Labor reported over 1,200 forest products industry jobs based in Ketchikan with over \$40 million in annual payroll. Closure of the Ketchikan Pulp Company mill in 1997 ultimately cost the local economy 450 jobs and over \$20 million in annual payroll. In following years, as both Tongass and private timber harvests declined, Ketchikan area forest products industry employment trended steadily down. Efforts to revive forest products manufacturing in Ketchikan were largely unfruitful, including unsuccessful development of a veneer plant. The Ketchikan Veneer Mill employed as many as 35 workers for a short period in 2007, but closed permanently in February 2008.

More recently, in 2008, ADOL reported an annual average of 122 logging industry jobs based in Ketchikan, accounting for \$6.6 million in total annual payroll. Local sawmill employment accounted for approximately 25 to 30 additional jobs in Ketchikan in 2008. Closure (about a year ago) of the Pacific Log & Lumber mill on Gravina Island has pushed Ketchikan forest products industry employment still lower. Pacific Log and Lumber owned one of only two operating industrial-scale sawmills in Southeast Alaska, along with the Viking Lumber mill in Klawock.

Ketchikan Forest Products Employment



Employment

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
417	363	429	408	296	186	154	134	150	137	211	152

Source: Alaska Department of Labor and Workforce Development

Today, Ketchikan continues to serve as the service and supply center for what remains of the logging industry in Southeast Alaska. Logging companies, road-building companies, marine services firms (ship loading, tug and barge operations), and other companies that serve the industry are based in Ketchikan. Ketchikan is headquarters for Sealaska Timber Corporation (STC), a key player in the region's timber industry. In 2007 and 2008, STC spent about \$15 million annually with Ketchikan-based companies in support of its Prince of Wales Island timber harvests.⁹ Alcan Forest Products is harvesting timber on Alaska Mental Health Trust land in the Leask Lake area, creating 40 to 50 Ketchikan area jobs. Seley Corporation (owners of the idled Pacific Log &

⁹ *The Impact of Sealaska Corporation on the Southeast Alaska Economy, 2009 Update*. Prepared by McDowell Group for Sealaska Corporation, August 2009.

Lumber sawmill on Gravina) operates Alaska Chip, a firewood producer and supplier that serves a region-wide market.

Industry Outlook and Efforts to Adapt

Since Southeast Alaska's two pulp mills closed, the region's sawmills have been forced to bid on federal timber sales without an economical use for the low-grade timber that formerly was used to produce pulp. The low-grade timber makes up approximately 40 percent of most sales, which means that the viability of a timber sale depends heavily on high-value timber—mainly spruce and cedar.¹⁰ If the commercial value of those trees is not high enough or they are too expensive to harvest, the timber sale will not be profitable.

Integrating the industry to include operations that use the low-grade timber with operations such as sawmills that use the higher grades has been recognized as a key to renewed viability. In essence, an integrated forest products industry would include a spectrum of operations that matches the nature of the timber supply.

Private interests have examined value-added investment opportunities in Southeast Alaska and the Alaska Forest Association has long pushed the federal government to provide enough timber to support a vertically integrated industry. Integrated manufacturing would include sawmills and at least one major processor of low-grade logs, chips, and mill residuals. Potential low-grade production could include medium density fiberboard (MDF), pellets, ethanol, and others. A variety of factors present obstacles for large-scale, value-added development in Southeast, however. Timber supply is the primary constraint on investment and growth in the forest products industry. Without a reliable and adequate supply of timber, acquiring financing for new facilities or the purchase of existing facilities is difficult.

Based on preliminary analysis of a Medium Density Fiberboard (MDF) plant, approximately 200 mmbf is the minimum harvest capable of sustaining an integrated industry. A more diversified industry that includes intra-regional competition among similar types of manufacturers could use twice that much timber. Recent Tongass sales offerings have been far below 200 mmbf.

Wood pellet production may have better potential for development in Southeast, as it is possible on a much smaller scale than MDF, requiring less upfront investment and lower feed stock requirements. However, production at a scale that would generate meaningful economic benefits for a host community faces many of the same obstacles as other value added manufacturing facilities. Sustainable pellet production requires an affordable, reliable supply of biomass materials, sawdust, or wood chips—the waste or byproduct of sawmill operations. As such, co-location with an operating sawmill is important. (In fact, the logical operator of a pellet manufacturing facility would be the owner of an operating sawmill.) Operation of a pellet plant at a location other than in proximity to a sawmill would face the cost burden of transporting feedstock materials to the plant. A pellet business in Southeast would be, over the long term, directly tied to the health of the sawmill business, which regionally has been in steady decline over the past decade or more.

What remains of Ketchikan's forest products industry will depend on timber supply and market conditions. Sealaska is attempting to secure the remainder of its original land entitlement from the 1971 Alaska Native Claims Settlement Act. In the absence of additional timberland conveyance from the federal government, it is

¹⁰ *Timber Markets Update and Analysis of an Integrated Southeast Alaska Forest Products Industry, Final Report*. Prepared by McDowell Group for Southeast Conference, September 2004.

very unlikely, given the harvest cost and marketability of its remaining timber resources, Sealaska would continue logging at its current pace of approximately 50 million board feet annually. Efforts to make more Tongass National Forest timber available for harvest continue to be hampered by litigation, creating a difficult if not impossible business climate for firms dependent on that source of timber. Long-term timber contracts are essential for inducing any future private sector investment in wood products manufacturing in Southeast.

Indirect and Induced Impacts on Ketchikan's Economy

In addition to the direct economic impacts the forest products industry has on Ketchikan in the form of jobs, wages, and spending, the industry also has indirect and induced impacts. When forest products are sold to outside markets, the money imported into Ketchikan circulates to a degree within the local economy, generating additional business sales, jobs, and wages.

Indirect impacts include those that result from the industry's purchase of goods and services in Ketchikan in support of their operations. Induced impacts are defined as those that are generated by local spending of wages and personal income by the loggers and other wood products industry workers. Indirect and induced effects are often described as multiplier effects.

The factors that determine the magnitude of indirect and induced impacts include:

- Residency of the labor force. Logging and wood products jobs in Alaska tend to be held by a relatively high percentage of nonresident workers. In 2008, the Alaska Department of Labor reported the percentage of nonresident employment in logging and wood products at 31.1 percent, compared to 19.6 percent overall.
- Average wages paid to the industry's labor force. Ketchikan logging jobs in 2008 paid an average of about \$54,000 a year compared to the overall average for the borough of \$38,000. Specific data for wood products wages is not available, but statewide, those jobs pay just slightly less than the average Ketchikan yearly wage. Historically, wages paid by KPC were among the highest in the community.
- Seasonality of the industrial activity. Logging is dependent on the weather and thus relatively seasonal (but still can operate nine or more months per year) while wood products employment is more constant.
- The volume and value of goods and services that are purchased locally versus purchases from outside vendors.
- Tax payments to local governments. Logging directly generates relatively little tax revenue, mostly just sales tax on the local purchase of goods and services. Sawmills generate more since they pay both property tax on their land and facilities and sales tax on any purchases.

IMPLAN data for 2007 indicates that the employment multiplier for logging is 1.69. That means that for every logging job in the local economy, slight less than one (0.69) additional job is created in the local support sector. Similarly, for every logging payroll dollar, an additional \$0.46 in payroll is generated in the Ketchikan's support sector. Output, a measure of total logging-related spending (including payroll), has a

multiplier of 1.33. That means \$1 million in direct logging related expenditures produces another \$333,000 in spending elsewhere in the local economy.

Sawmill multipliers are higher, meaning that job-for-job, the impact of a sawmill job is greater than a logging job. According to IMPLAN, sawmills have an employment multiplier of about 2.0 (1.99), a labor income multiplier of 1.93, and an output multiplier of 1.74. This means that, for example, a sawmill that employed 50 workers earning \$2 million annually would have a total employment impact in Ketchikan of 100 jobs and about \$2.9 million in annual payroll. If that hypothetical sawmill had total direct output of \$10 million, its total annual economic impact would be about \$17 million.

Ketchikan Area Forest Products Industry Multipliers

	Multiplier
Logging	
Employment	1.69
Labor Income	1.46
Output	1.33
Sawmills	
Employment	1.99
Labor Income	1.93
Output	1.74

Source: IMPLAN, 2007.

Outlook

As the regional headquarters of logging companies, Sealaska Timber Corporation, and other road-building and logging-related transportation companies, any increase in Tongass timber harvests will likely benefit Ketchikan. The area’s logging tradition and experienced work force are also advantages. In terms of being in a position to benefit from value-added manufacturing, the loss of the area’s sawmill puts Ketchikan at a slight disadvantage compared to a community like Klawock where the Viking Lumber mill continues to operate and would have lower costs by virtue of being able to co-locate complementary operations.

The main disadvantages Ketchikan’s forest products industry faces are not specific to Ketchikan but are the same ones that the region has faced for decades: the lack of a reliable supply of timber, which discourages private investment, and the difficulty of competing in lower-value commodity markets as a result of the region’s high logging, manufacturing, and transportation costs relative to the Pacific Northwest and other global suppliers.

Reviewers’ Comments and Suggestions

- Explore the feasibility of supporting small manufacturers of cabinets, kit homes, and other specialty wood products with timber from Sealaska, Mental Health Trust, and other private landholders.

Overview of the Industry

Marine-related industries form the backbone of Ketchikan's economy, including commercial fishing and seafood processing, ship/boat building and repair, the U.S. Coast Guard, cruise ships, marine freight transportation, marine civil construction (dock and harbors) and other sectors. This industry profile focuses on shipbuilding and repair (other marine sectors are profiled individually).

Ketchikan's shipbuilding and repair industry, led by Alaska Ship & Drydock (ASD), has become an important part of the local economy. Ketchikan Shipyard (KSY) is owned by the Alaska Industrial Development and Export Authority (AIDEA) and operated under contract by ASD. KSY is the largest vessel repair and construction facility in Alaska. It is the primary maintenance facility for Alaska Marine Highway System (AMHS) vessels. Economic benefits related to the Ketchikan shipyard are detailed in a recently completed McDowell Group study *Economic Benefits of Shipyard Improvements*, prepared for AIDEA. Key measures of ASD's economic impact are summarized below.

ECONOMIC BENEFITS OF THE KETCHIKAN SHIPYARD

- Annual average employment of 120 workers in 2009, and an estimated \$7 million in total annual payroll (these figures do not include contract workers).
- Excluding local, state and federal government agencies, Alaska Ship & Drydock Company (ASD) is the fifth-largest employer in Ketchikan in terms of annual average employment and second-largest in terms of annual payroll.
- Wages paid by ASD are among the highest in the community. Average annual earnings of shipyard employees in 2008 (\$55,400) was 45 percent above the Ketchikan average of \$38,160.
- In 2008, ASD spent \$5.3 million with 130 Ketchikan businesses and organizations.
- Including direct, indirect and induced employment (the "multiplier effect"), the shipyard accounts for 170 jobs (120 direct jobs and 50 indirect and induced jobs) and total annual payroll of approximately \$8.75 million.

OTHER VESSEL REPAIR AND CONSTRUCTION SERVICES IN KETCHIKAN

The industry also includes a number of businesses offering a wide range of vessel-related repair services and facilities. Ketchikan Marine has a vessel lift and launch facility including a 150-ton Marine Travelift capable of lifting vessels up to 125 feet long. Air Marine Services has a 35-ton hydraulic trailer, a 50-ton travel lift, and marine railway capable of hauling vessels up to 300 tons. The site is about 14 acres with space for about 210 vessels and includes a 40 feet by 100 feet enclosed paint/fiberglass work area. A number of Ketchikan businesses offer shipwright services, diesel and outboard repair, fiberglass work, welding, machining, and other services to vessel owners and operators.

The economic impact of maintenance and repair of smaller vessels is difficult to measure because little or no data is available concerning the volume and value of this work currently performed in Ketchikan. The same is true for small boat construction in Ketchikan. Data from the U.S. Coast Guard’s Boating Safety Division indicates there are two boat builders in business in Ketchikan (Homestead Skiffs and Hewitt Equipment), though no information is available concerning their level of construction activity.¹¹

Indirect and Induced Impacts on Ketchikan’s Economy

As described above, shipbuilding and repair has direct, indirect and induced impacts in the Ketchikan economy. The factors that determine the magnitude of indirect and induced impacts include:

- Residency of the labor force. For 2008, the Alaska Department of Labor reported the percentage of nonresident employment at ASD at 24.5 percent. This is a lower nonresident component than Ketchikan’s private sector average of 31.4 percent.¹²
- Average wages paid to the industry’s labor force. Shipyard jobs in 2008 paid an average of about \$55,400 a year compared to the overall average for the borough of \$38,000.
- Seasonality of the industrial activity. New ship construction provides year round jobs. With most of the demand for ship repair services in the fall, winter, and spring, the counter-cyclical seasonality of the ship repair business is also an important local benefit.
- The volume and value of goods and services that are purchased locally versus purchases from outside vendors. Shipbuilding has specialized high-value service and supply needs. Though local spending by ASD is substantial (\$5.3 million in 2008), several million dollars are spent each year with Lower 48 vendors for materials and services not available in Ketchikan. However, as the scale and sustainability of shipyard operations grow, opportunities will be created to recruit outside businesses that serve the shipyard, or for existing Ketchikan businesses to competitively meet more of the shipyard’s needs.

IMPLAN data for 2007 indicates that the Ketchikan employment multiplier for ship-building and repair is 1.44. For every shipyard job in the local economy, slightly less than one half (0.44) additional job is created in the local support sector. Similarly, for every shipyard payroll dollar, an additional \$0.26 in payroll is generated in the Ketchikan’s support sector. Output, a measure of total shipyard-related spending (including payroll), has a multiplier of 1.25. That means \$1 million in direct shipyard-related expenditures produces another \$250,000 in spending elsewhere in the local economy.

Ketchikan Area Ship Building and Repair Multipliers

	Multiplier
Employment	1.44
Labor Income	1.26
Output	1.25

Source: IMPLAN, 2007.

¹¹ <http://www.uscgboating.org/recalls/mic1.aspx>

¹² *Nonresidents Working in Alaska 2008*, Alaska Department of Labor and Workforce Development.

Outlook and Opportunities

KETCHIKAN SHIPYARD

Detailed planning and development work has been done to position Ketchikan Shipyard to take advantage of the demand for ship building and repair services in the North Pacific. The *Draft 2009 Ketchikan Shipyard Improvement Plan* outlines a multi-year construction plan that would give the shipyard the capacity to simultaneously build or service multiple vessels at two dry docks and three onshore work berths. Planned improvements include (among other facilities) grid no. 2, covered repair and assembly halls, a production complex, steel shop, blast and paint buildings, hazardous materials storage and industrial waste treatment, business and operations offices.

The ship repair and assembly halls will make it possible to repair vessels and build new ships in a well-lit, weather-protected environment. The shipyard will have the capacity to accommodate 95 percent of the vessels in its target market for maintenance and repairs. The shipyard will be better equipped to compete in the new-build market, which could include the first of potentially four new AMHS Alaska-Class ferries. To the extent that KSY is able to capture a larger share of the shipbuilding and repair market, its labor needs will grow. With full build-out and utilization of the shipyard, direct employment could average 360 jobs. The total potential employment and payroll impact (including direct and indirect effects) has been estimated at approximately 575 jobs and \$27 million in total annual payroll.¹³

SMALL BOAT REPAIR AND CONSTRUCTION

Several coastal Alaska communities have recently invested substantially in facilities and equipment to encourage more local boat repair activity. Alaska's commercial fleet has traditionally used services and facilities available in Puget Sound to meet its major service and repair needs. Communities see economic opportunity in developing the infrastructure needed by vessel owners and businesses that offer marine repair and maintenance services. The communities of Wrangell, Craig, Hoonah, and Kodiak, for example, have all invested public money in vessel lift equipment and uplands development. The Wrangell Harbor Department has a 150-ton Travelift and marine repair facility and storage yard.

Craig purchased an 80-ton hydraulic trailer in 2006, capable of hauling vessels up to about 50 to 55 feet. Uplands include a wash down pad with a catchment system and a small storage yard that will hold about up to 20 vessels. Hoonah's new Marine Industrial Center includes a 220-ton capacity Travelift (operational in 2009) and approximately 3.5 acres of space for storage and boat work.

Wrangell's Marine Center includes a 150-ton Travelift (installed in November 2006) and a 40-ton hydraulic trailer (purchased June 2008). The facility includes workspaces (with electricity) on a concrete pad and a wash-down pad with a catchment system. Petersburg is considering purchasing a 150-ton Travelift and development of related marine services uplands.¹⁴ Kodiak recently purchased an \$18 million 600-ton Travelift capable of lifting vessels 180 feet long and up to 45 feet wide. Kodiak also has a 150-ton lift.

¹³ *Economic Benefits of Shipyard Improvements*, prepared by McDowell Group for Alaska Industrial Development and Export Authority, January 2010.

¹⁴ Demand Potential for a Petersburg Haul-out, Work Yard, and Storage Facility

In previous research, McDowell Group estimated there are about 1,650 to 1,750 annual vessel haul-outs in Southeast Alaska of vessels 30 feet or greater in length, with Ketchikan capturing approximately 20 percent of that volume. Sitka has the largest share with about a third of the market.

Ketchikan’s Comparative Advantages and Disadvantages

Ketchikan’s principal advantage in the ship-building and repair business is the installed infrastructure and knowledge base at the shipyard. To the extent that Alaska can play a greater role in serving the ship construction and repair needs of the various North Pacific marine industries, Ketchikan is best positioned to lead the effort because of the existing infrastructure. Additional investment in infrastructure and facilities will be required (as described above) to develop a nationally competitive and sustainable shipyard, but no other Alaska location is a better place to make that investment.

Ketchikan’s future in the small vessel repair and maintenance business is unclear. Competition in Southeast Alaska is growing, with a number of Southeast coastal communities aggressively pursuing marine services-related development and significant public investment already in place. It is unclear at this time if this investment will generate sustainable local economic development. To the extent fuel prices rise, the cost of sailing to Puget Sound will continue to rise, increasing the financial incentive for Southeast boat-owners to work with marine repair facilities located in Southeast Alaska.

Reviewers’ Comments and Suggestions

- Explore the details of businesses offering shipwright services, diesel and outboard repair, fiberglass work, welding, machining, and other services to boat owners and operators who live or operate in the Ketchikan area. Are there opportunities for new business development? What are the specific boat-related services or equipment that cannot be obtained in Ketchikan?
- Explore the market for small-boat manufacturing in detail. Are there opportunities for growth or do larger-scale Lower 48 manufacturers (and existing Southeast manufacturers such as Allen Marine) have significant advantages?
- Examine the spending of Alaska Ship and Drydock to determine if in addition to the \$5.3 million they spend each year locally (2008), there are opportunities for business development to capture some of what they spend on vendors outside of Ketchikan.
- Examine Alaska Ship and Drydock’s business to assess issues such as long-term sustainability, target markets, and current and potential scale of operations.¹⁵ What are ASD’s specific comparative advantages that could allow it to capture market share? At what point is ASD’s future secure enough to warrant investment in related businesses that would depend on ASD? What effect will the Alaska Marine Highway Service’s purchase of land in Ward Cove have and would land made available by AMHS’s move to new facilities give ASD an opportunity to expand?

¹⁵ Some of this type of research was conducted and explained in McDowell Group’s 2010 *Economic Benefits of Shipyard Improvements*, prepared for the Alaska Industrial Development and Export Authority.

- Assess whether investment in marine-related industries could significantly complement the Borough's economic development strategy to expand the commercial fishing fleet? What efficiencies are available by considering the two together?
- Determine the dollar value of the 1,650 – 1,750 annual vessel haul-outs in Southeast Alaska of vessels at least 30 feet in length. Are there opportunities to capture more of this market (estimated at about 20 percent)?
- Examine the growth potential of Power Systems and Supplies (a Ketchikan company with a specialized boat capable of providing cargo and fuel delivery services, spill response, emergency medical response, logistics support, etc.) and related businesses.

Overview of the Industry

The transportation industry in Ketchikan is a blend of basic industry and support industry activity. Basic industries are those that provide goods or services to outside markets and draw new money into the local economy. Support industries are those that largely service a local market and re-circulate money already in the economy. Alaska Airlines, for example, serves basic and support industry functions in Ketchikan. To the extent the airline serves visitors traveling to Ketchikan, or residents of outlying southern Southeast Alaska communities, it is playing a basic industry role (in other words, it brings money into the local economy). To the extent that it serves Ketchikan residents, it is fulfilling a support sector function (in other words, it helps circulate money already in the local economy). Numerous other transportation businesses play a similar dual role in the Ketchikan economy.

Ketchikan's transportation industry includes air carriers, ferry systems, barge lines, trucking companies, bus and taxi companies, among a variety of other companies. In 2008, the air transportation sector employed an average of about 225 workers, with peak employment of 285 workers in August of that year.¹⁶ Payroll totaled an estimated \$7.8 million in the air transportation sector in 2008. Ten air transportation businesses reported employment in Ketchikan in 2008, led by Alaska Airlines with an average of approximately 65 employees, according to Alaska Department of Labor and Workforce Development (DOLWD) data. Promech, Taquan Air Temsco Helicopters and Pacific Airways were other large local employers in the air transportation sector.

In Ketchikan's water transportation sector,¹⁷ employment averaged approximately 130 jobs (private sector only), led by Boyer Towing with a reported average employment of approximately 75 jobs and Amak Towing with about 35 jobs. Payroll data is not available for this sector due to confidentiality restrictions. Employers in the "support services" related to water transportation included Southeast Stevedoring (average of about 30 jobs) and Cruise Line Agencies of Alaska (average employment of 45, with peak employment almost twice that).

Six truck transportation firms reported employment in Ketchikan in 2008 with the largest being Alaska Marine Trucking. These firms employed an average of 32 workers with peak employment of 38 in September of that year. Annual payroll in the local truck transportation sector totaled \$1.5 million.

The "scenic and sightseeing" sector of Ketchikan's transportation industry is mostly composed of businesses in the tourism industry. This sector employed an average of 148 workers in 2008, though with a seasonal peak of 328 and an off-season low-point of 22. Payroll totaled \$4.1 million for the year. Westours Motorcoaches (peak employment of about 80) and Allen Marine Tours (peak employment of about 40) are the largest employers in this sector.

Government plays an important role in Ketchikan's transportation sector. DOLWD reported approximately 325 Alaska Department of Transportation and Public Facilities jobs in Ketchikan in 2008. This includes AMHS

¹⁶ This total is higher than ADOLWD's published total because Promech employment was reported under transportation "support activities" rather than air transportation.

and highway maintenance crews. It is not clear if this total includes AMHS employees with Ketchikan as their duty station but who actually reside elsewhere. The federal Transportation Security Administration (TSA) employed an average of approximately 35 workers in Ketchikan in 2008.

Employment Trends

Employment levels in the transportation sector have been relatively stable over the past few years. For the transportation industry overall, Ketchikan averaged 646 jobs in 2004, with peak employment of 921. Since then reported employment increased to a high of 713 (peak of 1,001) before settling at the 2008 level of 632 jobs (peak of 928).

Employment in Ketchikan's air transportation sector has grown steadily in recent years, from an annual average of 136 jobs in 2005 (peak of 177) to 165 jobs in 2008 (peak 204). Water transportation employment has also increased, growing steadily from an average of 53 jobs (peak of 61) in 2003 to 88 jobs in 2007 (peak of 101). Employment data for the water transportation sector is not available for 2008.

Indirect and Induced Impacts on Ketchikan's Economy

Like other Ketchikan industries, transportation activity has direct, indirect, and induced impacts in the local economy (multiplier effects). The direct impacts are discussed above; the factors affecting the industry's multiplier effects include:

- Residency of the labor force. Businesses in the transportation sector range from those with almost entirely resident workforces to those with high nonresident components. Though Ketchikan-specific data is not available for nonresident hire at this level of detail, it is unlikely that nonresident participation in the transportation sector is significantly different than statewide averages. Statewide, the air transportation workforce was 24 percent nonresident in 2008, water transportation was 35 percent nonresident, and scenic and sightseeing transportation 49 percent. Ketchikan's total private sector average was 31 percent in 2008.¹⁸
- Average wages paid to the industry's labor force. Transportation jobs in 2008 paid an average of about \$3,454 a month, or \$41,400 a year compared to the overall average for the borough of \$38,000.
- Seasonality of the industrial activity. Transportation activity in Alaska has a significant seasonal component. In Ketchikan, transportation sector employment averaged 632 jobs in 2008, with peak employment of 928 jobs in August and a low point of 406 jobs in January. The visitor-dominated "scenic and sightseeing" sector accounts for most of this seasonality, though only the relatively small truck transportation sector does not have a significant seasonal influence.
- The volume and value of goods and services that are purchased locally versus purchases from outside vendors. Labor, fuel, maintenance, and insurance are the primary operating expenses associated with the transportation business. Maintenance services and supplies, whether for vessels or aircraft, can have a significant local economic impact, if local vendors are used.

¹⁸ *Nonresidents Working in Alaska 2008*, Alaska Department of Labor and Workforce Development.

IMPLAN data for 2007 indicates that Ketchikan’s employment multiplier for transportation-related sectors range quite widely, from 1.29 for scenic and sightseeing transportation to 2.8 for marine transportation. The very high employment and payroll multiplier for marine transportation indicates a relatively greater amount of operations and maintenance work is contracted out rather than handled by in-house employees. Caution is urged in applying this multiplier to any particular marine transportation business, given the diversity within the industry.

Ketchikan Transportation Industry Multipliers

	Air Transportation	Water Transportation	Scenic & Sightseeing Transportation
Employment	1.86	2.80	1.29
Labor Income	1.60	2.12	1.24
Output	1.34	1.33	1.36

Source: IMPLAN, 2007.

Industry Outlook and Opportunities

The outlook for the transportation sector is varied. Conditions in the seafood industry, tourism, and the economy overall will dictate the demand for transportation services. The Southeast rural regional marine freight transportation industry has been in a period of transition over the past decade. Beginning with the demise of Alaska Outport in 2000, a non-profit barge operator serving small communities throughout Southeast, the marine freight sector has been unstable. Western Pioneer filled the gap left by Alaska Outport for a few communities, but it, too, recently quit the freight business. For the larger marine freight transportation providers, the cost and logistics of serving small communities are difficult (and sometimes not possible).

One Ketchikan company, Power Systems and Supplies of Alaska, is carving a niche in the southern Southeast marine freight business by offering freight and fuel delivery services in custom-built, high-speed landing craft. The flexibility of the 44-foot landing craft makes it possible to serve a broad range of large and small customers. The PSSA operating model may have application throughout the Southeast region and elsewhere in Alaska.

Ketchikan’s Comparative Advantages and Disadvantages

Ketchikan has certain advantages in the transportation industry. First, its position as the regional transportation hub for southern Southeast means that passengers and much of the freight destined for outlying communities must move through Ketchikan. Population growth and economic development, (particularly resource development) on Prince of Wales Island, for example, are good for Ketchikan’s economy. Proximity to Prince Rupert with its cargo facilities and rail connection to major population centers is also an asset.

Ketchikan’s other significant advantage in the transportation industry is the established infrastructure to repair and build ships, barges, and other vessels. The shipyard’s capacity to provide scheduled and emergency vessel repair services positions Ketchikan well to expand its role in the marine transportation industry.

High fuel costs, and their volatility in recent years, present challenges for Ketchikan's transportation industry, although these are challenges faced by transportation providers everywhere. In some respects, Ketchikan is a small market for transportation companies, but the more than one million annual summer visitors create substantial opportunities for scenic and sightseeing companies and others that can access that market.

The quantity of fish caught and processed in the area and shipped to outside markets also gives Ketchikan transportation companies access to a very large market. To the extent an increasing percentage of fish are shipped fresh to high-end markets, there are likely to be opportunities for related growth in the transportation industry (although the total pounds of fish transported don't necessarily change when more fish is shipped as filets and less as canned product, the transportation demands of shipping change and grow as new higher-end markets develop and there is an increased demand for smaller, more targeted shipments).

Reviewers' Comments and Suggestions

- Look at the individual parts of the transportation industry (air, water, scenic and sightseeing, public, etc.) in more detail to determine whether there are specific challenges, concerns, or unmet demand for services.
- Examine the connection between the transportation and tourism industries (water transportation employment has increased in recent years despite a declining population and the most likely source of that growth is tourism, which has also been growing).
- What impact do seasonal transportation workers (and seasonal workers in general) have on Ketchikan's housing and rental markets?
- Explore the opportunities for growth connected to Ketchikan's proximity to Prince Rupert's transportation facilities, shipping routes, etc.

Education and Workforce Training

Overview

In addition to the elementary and secondary schools in the Ketchikan Gateway Borough School District, the University of Alaska Southeast (UAS) Ketchikan offers a variety of education and workforce training programs in Ketchikan. The Ketchikan Indian Community (KIC) is also in the planning phase of a vocational training center that would serve both tribal and nontribal members in the area. The school district employs an annual average of 300 to 350 people and UAS Ketchikan employs 60-70. A small amount of KIC's total employment of 100 to 150 is currently devoted to education and workforce training.¹⁹

UAS Ketchikan's on-campus career education efforts are focused on fisheries technology, marine transportation, and welding. There are also a variety of other programs available from other University of Alaska campuses through distance delivery. In conjunction with University of Alaska Anchorage (UAA), the UAS nursing program is an important source of staff for Ketchikan General Hospital.

UAS Ketchikan Campus

McDowell Group recently completed a study²⁰ of the impacts of the UAS Ketchikan campus from which much of the following information is drawn. UAS Ketchikan offers associate's degrees, a range of professional and vocational certificates and degrees in marine transportation, fisheries technology, and welding, and nursing assistant programs. Students are also able to earn bachelor's and master's degrees in a variety of fields of study through distance classes.

The **Fisheries Technology Program** offers a professional certification and an associate of applied science degree. The program prepares students for entry-level employment in state and federal agencies, hatcheries, and the private sector. The program helps address a shortage of fisheries technicians and biologists throughout the state.

The **Marine Transportation Program** offers Coast Guard approved coursework to students who will become everything from entry-level deckhands to deck officers. The program also offers classes in vessel operation and navigation.

The **Welding Program** offers an 18-credit occupational endorsement after two semesters of coursework. The American Welding Society-certified program emphasizes aluminum and steel welding techniques. After completing the required coursework and passing an exam, students become certified by the American Welding Society as entry-level welders.

In addition, UAS Ketchikan offers associate's degrees in general education, apprenticeship technology, business administration, computer information and office systems, fisheries technology, health sciences, and nursing. Through distance education, students can earn a bachelor's degree in accounting, entrepreneurship,

¹⁹ KIC also provides health care services, housing programs, and veteran's assistance in addition to their employment, training, and cultural education programs.

²⁰ *UAS Ketchikan Campus Impact Study*, McDowell Group, November 2009

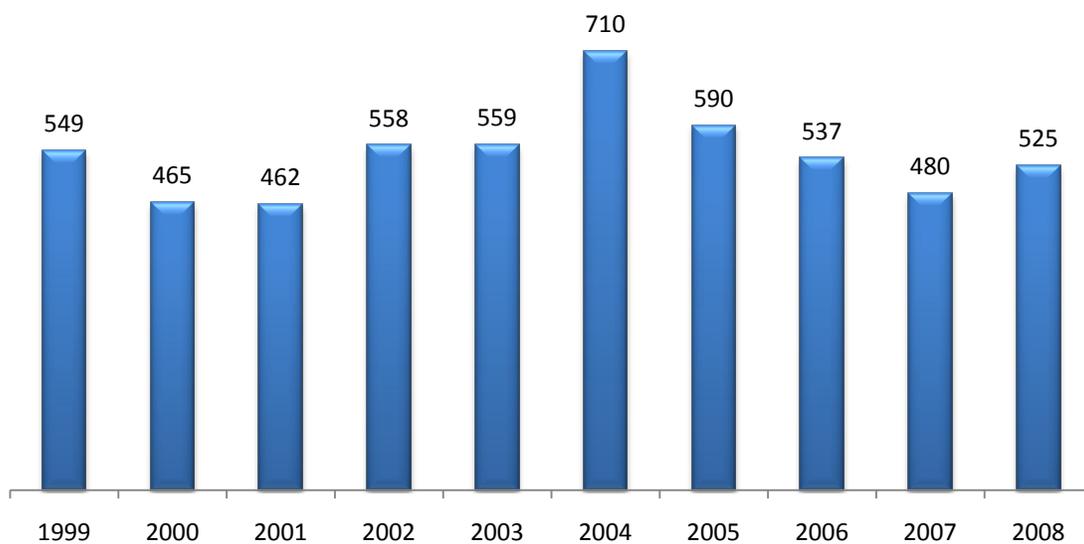
health care administration, human resources management, marketing, general studies, and elementary education. Master's degrees are available through distance learning in teaching, business administration, education, and public administration.

A variety of occupational endorsements, certificates, and associate degrees are available in early childhood education, technology, accounting, wellness, health care, and business administration, among others.

ENROLLMENT TRENDS

Over the last 10 years, the number of students enrolled at UAS Ketchikan has ranged from 462 to 710. In 2008, the most recent year available, there were 525 students enrolled.

UAS Ketchikan, Number of Students Enrolled



Source: UA Statewide Planning and Budget.

Of the 525 students enrolled in 2008, 324 were part-time and 201 were full-time; 345 were degree-seeking and 180 were non-degree-seeking. About 90 percent of the students were Alaskans; 197 from the Ketchikan area (Ketchikan, Prince of Wales, and Metlakatla); and 282 from other Alaska communities. After Ketchikan, the next largest groups of students were from Juneau (73), Sitka (41), and Anchorage (39).

EFFECTIVENESS

A Department of Labor and Workforce Development report on training providers found that for 128 UAS Ketchikan vocational program graduates, wages increased by 15 percent following completion of the program.²¹ Prior to completing the training programs, 56 percent of the attendees were employed; after completion, that percentage rose to 70 percent.

In interviews, local leaders credited UAS Ketchikan with being an important supplier of trained workers to local businesses with particular emphasis on the nursing assistant program. One hospital official said: "Eight

²¹ Alaska Department of Labor and Workforce Development, Training Program Performance 2006, February 2008

to ten nurses a year go through the program, and eight to ten go to work for us. There's a real sense of loyalty, and folks are able to get their education and stay near home."²²

Ketchikan Indian Community Programs

Tribal members of KIC are offered employment and training services in an effort to “develop and expand vocational training opportunities in occupations that are in our tribal community and Alaska.”²³ Career development staff members work with program recipients to assess their skills and identify likely career paths and then help find appropriate training programs, apprenticeships, on-the-job training, and job shadowing opportunities. KIC also has a summer youth program designed to help 14 to 18-year-old tribal members acquire meaningful job experience. KIC is currently working on developing a vocational training center that will allow it to expand its training programs and open them up to nontribal members living in Ketchikan.

Other programs

The Alaska Department of Labor and Workforce Development's AVTEC-Alaska's Institute of Technology also provides vocational training opportunities to state residents. Programs include the Alaska Culinary Academy, the Alaska Maritime Training Center, the Allied Health Department, the Applied Technologies Department, the Career & Technical Education Department, the Information Technology Department, and the Building Trades Technology Department. The main campus for AVTEC is in Seward; there is also a health training center in Anchorage.

Outlook

A considerable amount of federal money and effort is being directed towards employment training and re-training as a response to high national unemployment rates and large job losses in industries such as manufacturing and construction. Although the recession has had a milder effect on Ketchikan than in other parts of the country, the community is still adapting to the loss of high-paying logging and pulp mill jobs. Ensuring that a community has a well-educated and well-trained population of workers helps stimulate home-grown industry and also attracts projects from outside the community.

Reviewers' Comments and Suggestions

- Compare how other local economies have used workforce training and education to recover from the economic shock of losing a major employer. For example, Ponca City, Oklahoma (population of about 25,000) lost 3,500 jobs when Conoco merged with Phillips Petroleum. Ponca City made collaboration with the local career training program and education system key parts of the effort to reconstruct its economy on a stronger, more sustainable foundation.²⁴

²² UAS Ketchikan Campus Impact Study

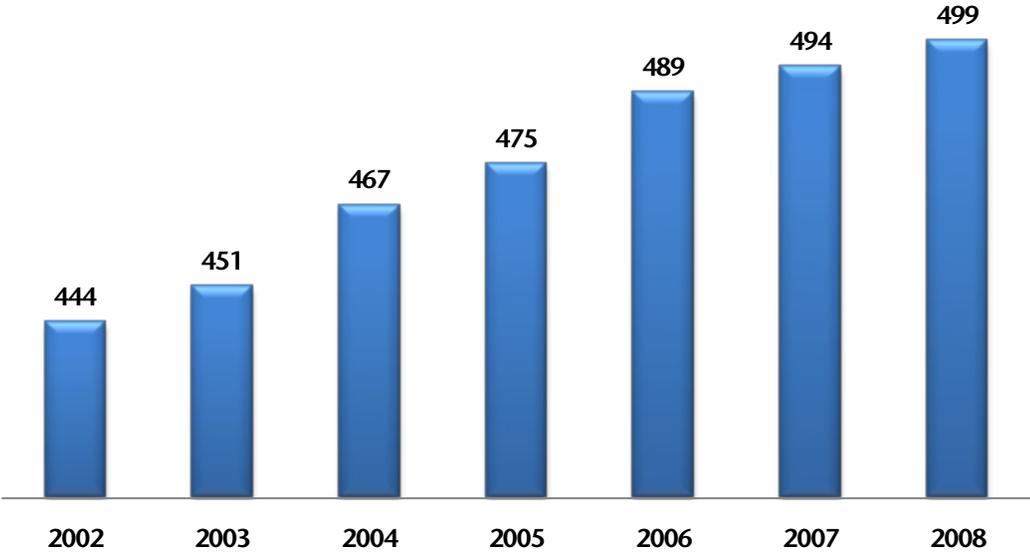
²³ <http://www.kictribe.org/programs/chas/employment/index.html>

²⁴ *Creating Quality Jobs, Transforming the Economic Development Landscape*, p. 29, International Economic Development Council, March 2010

Overview

The health care industry — defined here to include out-patient health care providers (dentists, health clinics, physical therapists, mental health providers, etc.), hospitals, and nursing and residential care centers — has been growing steadily in Ketchikan, similar to nearly everywhere else. Employers range in size from Ketchikan General Hospital, with more than 300 employees, to small chiropractors’ and optometrists’ offices with just one or two employees.

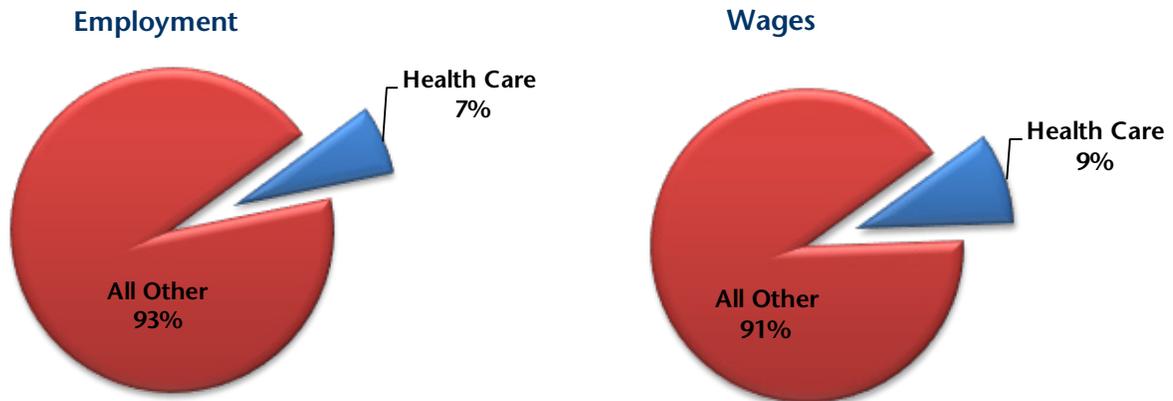
Health Care Employment



Source: Alaska Department of Labor and Workforce Development.

In 2008, the industry provided 499 jobs and paid over \$26.3 million in wages. Those numbers equate to about 7 percent of all payroll jobs and 9 percent of all wages. The numbers would be noticeably higher if Ketchikan Indian Community’s health care services, which include a health clinic, dental clinic, and behavioral health center, were included.²⁵ All of KIC’s employment (100 to 150 average monthly jobs) is lumped together by the Department of Labor under tribal government although the majority of those jobs, according to KIC are related to health care. In addition to health care services, KIC provides housing assistance to tribal members, employment, training, and language programs, and veterans’ assistance.

²⁵ In the late 1990s, KIC negotiated with the Indian Health Service to provide health care services in Ketchikan. KIC built a new ambulatory health facility in 2000 and has pursued additional sources of funding through grants and expanded services, including a diabetes program, optometry, and lab services.

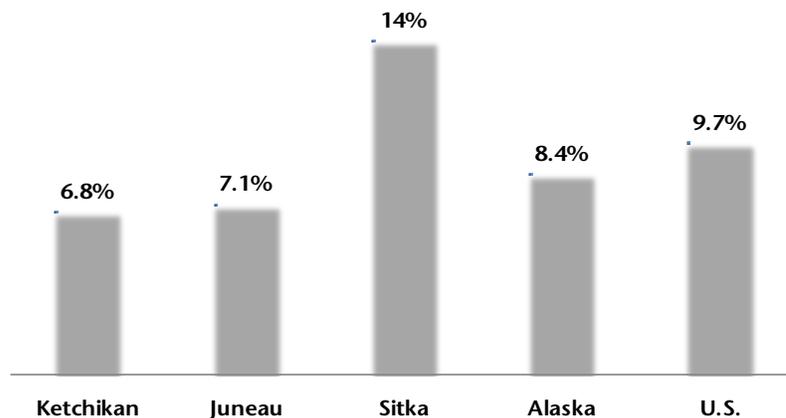


Source: Alaska Department of Labor and Workforce Development.

The average annual wage for health care jobs in 2008 was \$52,700, well above the overall average for the borough of \$38,200.²⁶ An additional 33 health care businesses without employees earned \$1.9 million.²⁷

Health care's share of total jobs in Ketchikan is roughly the same as in Juneau (although both Ketchikan's and Juneau's shares would be higher if KIC's health care jobs and Juneau's Bartlett Hospital jobs were included in the respective numbers; in both cases, those jobs are counted under local government and are not separately available). Sitka's share of health care jobs is especially high as a result of the Southeast Alaska Regional Health Consortium (SEARHC) hospital and clinics, which provide services to much of the region's Alaska Native population and employed 400 to 450 people in 2008. If KIC health care numbers were included for Ketchikan, it would likely have a similar share of health care jobs as the state as a whole, although still well below the national percentage (which is partly the result of demographic differences, but may also signal that the industry has room to grow to meet a higher percentage of Ketchikan residents' health care needs).

Health Care's Share of Total Payroll Jobs, 2008



Sources: Alaska Department of Labor and Workforce Development; U.S. Bureau of Labor Statistics.

²⁶ The wage figures include all jobs provided by employers classified as being in a health care industry. It includes, for example, receptionists, administrative support staff, and technicians, in addition to doctors and nurses. Also, there are health care professionals in other industries not counted here because their employers' primary purpose is not to provide health care. School nurses would be an example of this.

²⁷ U.S. Census Bureau Nonemployer Statistics, 2007. Further detail on the specific types of businesses is not available.

Indirect and Induced Impacts on Ketchikan's Economy

Under economic base theory analysis, which attempts to divide local economies into basic (industries that export goods or services and thus import money into the local economy) and non-basic sectors (industries that provide goods and services to the local population), health care is generally considered non-basic. However, to the extent local providers serve residents of other southern Southeast Alaska communities, as well as the approximately 1 million summer tourism visitors, Ketchikan's health care sector is bringing new money into the local economy and therefore fulfilling a basic industry function.

Changes to employment, payroll, and spending by businesses have ripple effects in a local economy often described as multipliers. When a business spends more, for example, the recipients of that additional spending — other businesses in the community — benefit. These are described as "indirect effects." Likewise, when a business hires additional employees or raises its employees' wages, some of those additional wages are spent in the local economy. The extent of that spending is described as "induced effects." The combination of indirect and induced effects constitutes the total multiplier effect. Irrespective of whether health care consumers in Ketchikan are local or nonlocal, job growth and increased spending by those companies have multiplier effects on the broader economy²⁸ as hiring and spending decisions by health care providers ripple through the community.

A number of factors affect an industry's multiplier effects:

- Residency of the labor force. Data specific to Ketchikan is not readily available, but statewide, health care employers have a lower than average percentage of nonresident workers. Compared to the overall average of 19.6 percent, the nonresident share for these employers is just 9.9 percent. Nonresident workers in this category earn 6.5 percent of all wages paid compared to 13.3 percent overall.²⁹
- Average wages paid to the industry's work force. In 2008, health care and social assistance employers paid \$52,700 a year in Ketchikan, well above the overall average wage for the borough of \$38,200.
- Seasonality of the industrial activity. Health care jobs are much less seasonal than others in Ketchikan, varying only slightly from winter to summer months.

²⁸ The analysis of multiplier effects often focuses on basic sector industries, but growth in a local economy's non-basic industries — grocery stores, hospitals, movie theatres, etc. — can increase basic sector multiplier effects by reducing the "leakage" of dollars from the local economy that occurs when those goods and services are not available locally. Additionally, whether an industry or firm is basic or non-basic, changes in its employment, wages, or spending have multiplier effects based on interactions within the local economy.

²⁹ Data on nonresidents is from the Alaska Department of Labor and Workforce Development publication *Nonresidents Working in Alaska in 2008*. Other employment and wage data is also from the Alaska Department of Labor and Workforce Development.

IMPLAN indicates that health care providers have employment multipliers ranging from 1.3 to 1.7. In other words, for every job generated in health care, an additional 0.3 to 0.7 jobs are created in the broader economy. Labor income (wages) and output, a measure of total spending by health care employers (including payroll), have a narrower range of multipliers.

Health Care Multipliers

	Multiplier
Employment	1.3 - 1.7
Labor income	1.2 - 1.3
Output	1.3 - 1.4

Source: IMPLAN, 2007.

Outlook

Ketchikan’s health care growth reflects state and national trends. Over the 2002 to 2008 period, Ketchikan’s health care employment grew 12 percent, compared to 15 percent for the nation and more than 20 percent for Alaska. (Both the U.S. and Alaska populations grew over this period while Ketchikan’s declined slightly.) For the borough, state, and nation, health care jobs have consistently increased as a percent of total jobs, and health care and government are the only two major employment sectors that did not suffer significant losses during the national recession.

It is uncertain what the recently passed health care legislation will mean for these trends, but the aging and disproportionately large baby-boomer generation makes it unlikely that the demand for health care services will decline in the near future. National and state forecasts project more growth for health care in the next decade.

Ketchikan’s status as the regional population center is an advantage since any population growth in the region will raise the demand for health care services and many of those services are available only in Ketchikan. A possible comparative disadvantage in the broader Southeast region is Sitka’s established presence as a provider of Alaska Native health care services at its SEARHC facility, although KIC fills a similar role on a smaller scale for the Alaska Native population in Ketchikan.

Reviewers’ Comments and Suggestions

- Explore health care occupations to determine where there are shortages and the likely impacts of any shortages (the focus of this general profile is on the industry itself rather than the health care occupations, within and outside of the industry). Are there unmet training needs?
- Given demographic trends (primarily the aging of the very large “baby-boom” population cohort), to what extent will there be growing demand for nursing and residential care facilities in Ketchikan? Are there opportunities to capture that demand rather than losing residents who are forced to leave Ketchikan to obtain residential or stay-at-home care?

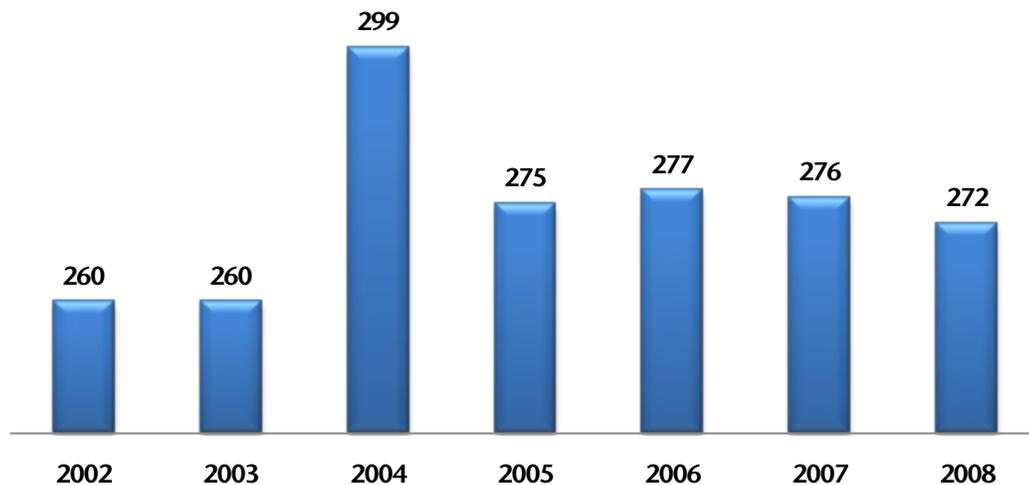
Overview

Payroll jobs in Ketchikan’s construction industry have been relatively flat since 2005 at around 275. In 2008, 138 of the 272 jobs were in companies categorized as “specialty trade contractors” (such as electricians and plumbers), 97 were in companies whose main activity was “construction of buildings,” and the remaining 37 were in “heavy construction” (mostly companies who build roads).

The reason for the 2004 spike in employment and then the smaller drop in 2005 is not entirely clear. All three major categories – construction of buildings, specialty trade contractors, and heavy construction – increased in 2004, suggesting that it was a combination of factors. Some of the temporary growth was likely due to a renovation project at Ketchikan General Hospital.

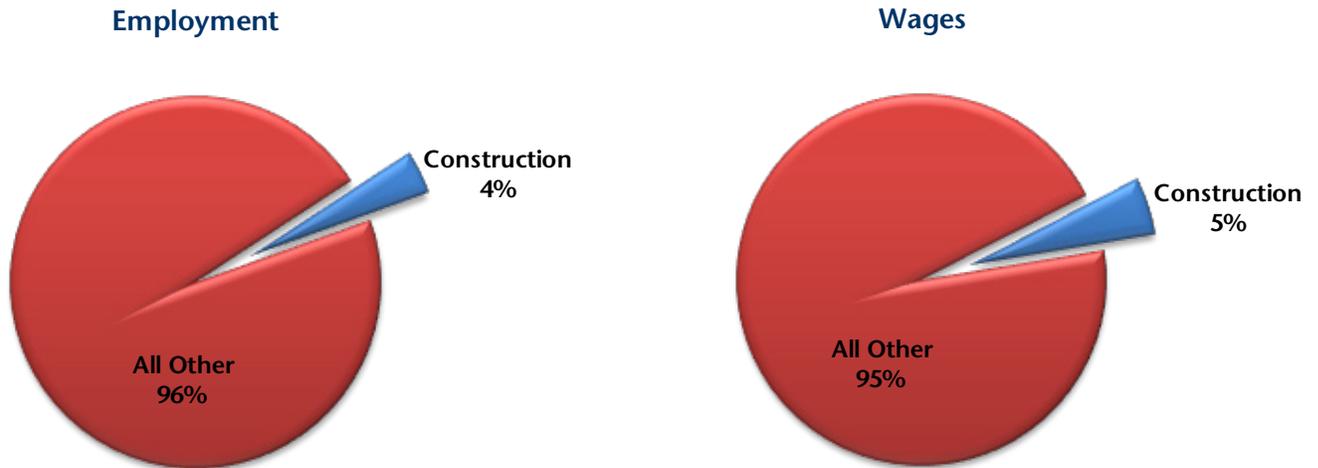
The largest construction employer in 2008 was Dawson Construction, which had 40 to 49 employees. Other employers with at least 10 employees in 2008 included Schmolck Mechanical Contractors, Ketchikan Mechanical, Channel Electric, First City Electric, and Southeast Engineering.

Construction Employment



Source: Alaska Department of Labor and Workforce Development.

Total 2008 wages for the 272 jobs were \$13.8 million. Those numbers represent about 4 percent of Ketchikan’s 2008 payroll jobs and 5 percent of all wages.

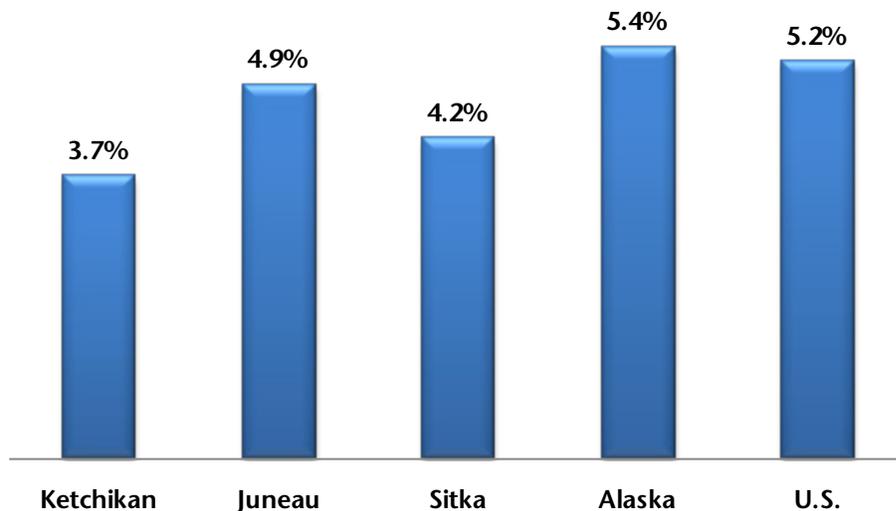


Source: Alaska Department of Labor and Workforce Development.

The average annual wage for construction jobs in 2008 was \$50,700, well above the overall average for the borough of \$38,200. In addition to construction’s payroll jobs, a substantial number of people are self-employed in the industry. In 2007, the most recent year available, 123 businesses without employees (mostly self-employed people) earned an additional \$8.0 million.³⁰ Those numbers indicate that average earnings for this group were \$65,000 in 2007.

Ketchikan has a slightly smaller share of construction payroll jobs in its economy than Sitka, Juneau, the state as a whole, or the nation.

Construction’s Share of Total Payroll Jobs, 2008



Sources: Alaska Department of Labor and Workforce Development and U.S. Bureau of Labor Statistics.

³⁰ U.S. Census Bureau Nonemployer Statistics, 2007

Indirect and Induced Impacts on Ketchikan's Economy

Factors that affect the size of the construction industry's multipliers include:

- Residency of the labor force. Data specific to Ketchikan is not readily available, but statewide, nonresident construction workers make up 18.7 percent of total construction workers compared to the overall average for all workers of 19.6 percent. Nonresident construction workers tend to hold the lower wage jobs in the industry since only 12.8 percent of total construction wages are paid to nonresidents (a significantly smaller percentage than the 18.7 percent nonresident workers).³¹
- Average wages paid to the industry's work force. Construction's 2008 average annual wage of \$50,700 is substantially higher than the \$38,200 total average wage for the borough.
- Seasonality of the industrial activity. Because many types of construction are weather-dependent, it is one of Alaska's more seasonal industries, although Ketchikan's relatively temperate climate compared to other parts of the state reduces its seasonality somewhat. In 2008, the peak month for construction employment was August at 320; the low-point for the year was January's 219.

IMPLAN indicates that the construction industry has employment multipliers ranging from 1.4 to 1.7. In other words, for every construction job generated an additional 0.4 to 0.7 jobs are created in the broader economy. Labor income (wages) has a similar range of multipliers while output, a measure of total spending by the construction industry (including payroll), has a narrower range of multipliers.

Construction Multipliers

	Multiplier
Employment	1.4 - 1.7
Labor income	1.2 - 1.5
Output	1.3 - 1.4

Source: IMPLAN, 2007.

Outlook

The portion of the construction industry that is driven by the private sector is likely to remain flat in the short term as Ketchikan faces at least a temporary decline in cruise ship tourism and the borough's population has been essentially unchanged since 2004. Other private basic-sector industries such as fishing and ship building will be stabilizing influences on the economy.³²

Public-sector construction got a boost from federal efforts to stimulate the economy through such measures as the American Recovery and Reinvestment Act in 2009. On the other hand, a lean 2010 state capital budget slightly reduced the amount of state-controlled construction spending (2011's capital budget looks to be much higher). One major publicly-funded Ketchikan project that could occur in the next few years is a

³¹ Data on nonresidents is from the Alaska Department of Labor and Workforce Development publication *Nonresidents Working in Alaska in 2008*. Other employment and wage data is also from the Alaska Department of Labor and Workforce Development.

³² Although there is significant growth potential for both, current trends suggest that the most likely scenario is for job counts to stay relatively constant or grow by relatively small amounts in the near future.

new Alaska Marine Highway ferry terminal. Other major projects that could be built include a new borough swimming pool and an Inter-Island Ferry Authority terminal, in addition to a variety of road projects.

Both private and public projects throughout the southern Southeast region will likely benefit Ketchikan as the regional population and supply center. Ketchikan's construction industry is sufficiently large and experienced to handle most of the types of projects that would occur there or in the region.

Reviewers' Comments and Suggestions

- Explore the degree to which the tourism industry affects construction. How significant to the industry are periodic updates to the interiors and exteriors of tourism stores?
- Trace American Recovery and Reinvestment Act spending in Ketchikan to determine its impact on the construction industry.
- Trace state capital budget spending over the last several years. What are the specific projects that were funded and what is the likelihood that specific large projects will be funded in future capital budgets.

Overview of the Industry

In the early years of Ketchikan's history, mining was an important part of the local economy, primarily in its role as a service and supply center for Prince of Wales Island mining and exploration projects. Though a small part of the local economy today, Ketchikan continues to serve in that role. Several interesting projects in the southern Southeast area are in early to mid-stage exploration.

NIBLACK

The most advanced exploration project underway on Prince of Wales Island today (and being supported out of Ketchikan) is the Niblack copper-gold-zinc-silver project located on eastern POW Island. Niblack was a producing mine in the early 1900s, and during its years of active mining produced 700 tons of copper, 11,000 ounces of gold and 15,000 ounces of silver.³³ There was renewed interest in the property in the mid-1970's, when several companies, including Cominco-Alaska, Inc., Anaconda Minerals, Noranda Exploration, Houston Oil and Minerals, LAC Minerals, and Abucus Mining, among others, carried out exploration on several deposits in the Niblack area.³⁴ Heatherdale Resources Ltd of Vancouver, British Columbia, Canada is now the majority owner of the Niblack property. According to the most recent estimates, the Niblack deposit contains 2.6 million tons of indicated resource containing 67 million pounds of copper, 193,600 ounces of gold, 125 million pounds of zinc, and 2.8 million ounces of silver. Resource estimates also include another 1.7 million tons of inferred resource containing 58 million pounds of copper, 114,300 ounces of gold, 120 million pounds of zinc, and 1.8 million ounces of silver.³⁵

In 2007 and 2008, 3,300 feet of underground development was completed as the first step to initiating an extensive underground drilling program.³⁶ Underground drilling in 2008 intersected high-grade zones of mineralization, including one 15-foot section grading 3 percent copper, 18.5 percent zinc, 0.23 ounces of gold per ton, and 3.5 ounces of silver per ton. The 2009 \$5.35 million exploration program included a planned 24,000-foot underground drill program. The full dimensions of the mineral deposit are yet to be determined; however, there is potential for Greens Creek or Kensington-scale, high-grade underground mine development. Ketchikan, as the regional service and supply center, would benefit substantially from mine development and operations. A decision to proceed with mine development is several years away, pending the results of additional drilling, feasibility analysis, and permitting.

BOKAN MOUNTAIN

Another mineral exploration project in the southern Southeast region is Ucore Uranium's Bokan Mountain rare earth element project on southeast Prince of Wales Island about 37 miles from Ketchikan. Based on U.S. Geological Survey data, Bokan Mountain contains an estimated resource of 11 million pounds of U₃O₈, and the largest combined heavy and light Rare Earth Elements (REE) resource in the US. The project area includes

³³ Alaska's Mineral Industry 2008, Special Report 63, Division of Geological and Geophysical Surveys.

³⁴ <http://www.mindat.org/loc-198518.html>

³⁵ <http://www.heatherdaleresources.com/hdr/Home.asp>

³⁶ North of 60 Mining News, various issues.

the old Ross Adams Mine, the only mine in Alaska to ever produce uranium. The Ross Adams mine operated intermittently between 1957 and 1971, first as an open pit and later an underground mine, producing a total of 1.3 million pounds of U₃O₈. The high-grade Ross Adams zone is one of more than 30 uranium occurrences known at Bokan Mountain.³⁷ With key infrastructure already in place, including an access road system and underground haulage levels, near-term reactivation of the Ross Mine is possible, should the project prove economically feasible. In 2009, the drilling program totaled 9,400 feet of core from 27 diamond drill holes. The 2010 exploration program will include approximately 10,000 feet of drilling, geological mapping, airborne and ground-based geophysical surveying, mineralogical studies, environmental baseline data collection, and bench-scale metallurgical testing. Ucore Uranium is headquartered in Halifax, Nova Scotia.

MOUNT ANDREW

Other exploration programs in the Prince of Wales Island area include the Mount Andrew Property, an area with significant copper-gold mineralization on the Kasaan Peninsula. The property is owned by Full Metals Minerals and Pan Global Resources, both of Vancouver, B.C.³⁸ The deposit was discovered in 1898 and the first ore was shipped in 1906 to the Tacoma smelter. There was intermittent production until 1918 and historic production from Mount Andrew and other nearby mines (Stevenstown and Mamie) totaled approximately 6,300 tons of copper, 120,000 ounces of silver, and 7,600 ounces of gold. Mount Andrew was the target of iron ore exploration activity in the 1950s and 1960s. Utah Construction and Mining did geologic mapping and geophysical surveys in 1957 and drilled the deposit from 1960 to 1962 and in 1968. The Utah drilling program totaled 28,000 feet.³⁹ Kaiser Resources drilled the property in 1970 and 1971. In the mid-1990s, American Copper Nickel Company (INCO) completed an airborne geophysical survey of the area.

Full Metals Minerals conducted drilling programs in 2006 (five shallow holes) and 2007 (approximately 5,000 feet), identifying several areas of notable copper, gold, and silver mineralization. The 2009 exploration program included a review of the geological mapping and sampling and an IP/resistivity geophysical survey program. The program was estimated to cost \$200,000.⁴⁰

CJ GOLD

Along with Altair Ventures, Full Metal Minerals has also been conducting exploration work on the CJ Gold Project, near Hollis. Drilling programs were conducted in 2007 and 2008. The area has a history of gold mining activity, including the Puyallup, Crackerjack, Dawson, and Hollis mines, which together produced an estimated 30,000 to 50,000 ounces of gold, mostly between the early 1900s and 1940 (though the Dawson mine operated occasionally until as recently as 1980).⁴¹

³⁷ <http://www.ucoreuranium.com/bokan.asp>

³⁸ <http://www.fullmetalsminerals.com/s/MtAndrew.asp>

³⁹ <http://www.mindat.org/loc-199004.html>

⁴⁰ <http://www.fullmetalsminerals.com/s/MtAndrew.asp>

⁴¹ <http://www.altairventuresinc.com/news.aspx>

DUKE ISLAND

Recent exploration activity has been occurring on Duke Island, about 30 miles south of Ketchikan. Quaterra Resources has been examining a copper-nickel-PGE occurrence since 2001. The Duke Island project includes 129 unpatented federal claims and 11 state claims. Samples of the mineralization contained up to 1.95 percent copper, 0.25 percent nickel, and platinum and palladium values. Limited drilling programs were conducted in 2002 and 2005.

In September 2009, Quaterra signed an agreement with Copper Ridge Exploration Corporation, whereby Copper Ridge can earn up to a 51 percent interest in the Duke Island property by spending \$3 million (Canadian) on exploration by December 31, 2012. Of that amount, \$750,000 must be spent by December 31, 2010. Drilling is scheduled for summer 2010.⁴²

OTHER PROJECTS

There are a numerous other historic mines and known mineral deposits on Prince of Wales and elsewhere in southern Southeast which have been or may be the target of exploration programs. In general, POW is richly mineralized, with significant long-term mine development potential.

Economic Impacts of Mining-Related Activity

Currently, the direct economic benefits in Ketchikan from mining-related activity stems from its role as a regional service and supply center. For example, information from Full Metal Minerals indicates approximately 20 Ketchikan-area businesses have provided various services or materials in support of the Niblack project. Other projects in southern Southeast have related impacts, depending on the scale of those operations.

Long-term, a more permanent and more significant economic impact can stem from mine development and mine operations. Mines are an attractive form of economic development for communities. Mines are labor intensive, with year-round, high-paying jobs. For example, Greens Creek Mine on Admiralty Island near Juneau currently employs approximately 300 workers. It is the largest private sector employer in Juneau, in terms of annual average payroll. The Kensington Mine, also in the Juneau area, will employ 225 workers full-time, year-round, when it begins production later this year.

The factors that determine the magnitude of a mine's direct, indirect, and induced impacts on a local economy, include:

- Residency of the labor force. In the mining industry, the location of the mine can play a role in determining nonresident participation in the labor force. Camp-supported, or partially camp-supported mines, tend to have higher nonresident participation. The labor force at Greens Creek Mine included 27 percent nonresidents in 2008 (some workers reside at the mine site, most commute daily from Juneau). The Fort Knox Mine near Fairbanks has only 10 percent nonresident labor participation. Ketchikan's private sector average was 31 percent nonresident labor in 2008.⁴³

⁴² <http://www.quaterraresources.com/index.php?page=projects&projectid=6>

⁴³ *Nonresidents Working in Alaska 2008*, Alaska Department of Labor and Workforce Development.

- Average wages paid to the industry’s labor force. Statewide, metal mining jobs paid an average of about \$7,684 a month in 2008, or \$92,200 a year compared to the overall Alaska average of \$45,300 and the Ketchikan average of \$38,000.
- Seasonality of the industrial activity. Exploration activity can be somewhat seasonal, but the relatively mild winters in southern Southeast make more year-round activity possible. Producing mines operate year-round.
- Tax payments to local governments. Mines are capital-intensive, requiring investment in millions of dollars in infrastructure, facilities, and equipment. Greens Creek Mine is Juneau’s single largest property tax payer. Once the Kensington mine is operational, local mines will be the top two property tax payers for the City and Borough of Juneau. The Red Dog Mine is the single largest source of revenue for the Northwest Arctic Borough.
- The volume and value of goods and services that are purchased locally versus purchases from outside vendors. Mines can have significant local business impacts. For example, Greens Creek Mine spends approximately \$20 million with Juneau-based businesses, government agencies, and other organizations for goods, services, and other items. This includes items such as fuel, equipment parts, office supplies, tires, electronics, food, and clothing, as well as for services such as construction, camp support, telecommunications, transportation, hotels, and legal assistance. In addition to goods and services, payments such as property taxes, permits, dues and fees, and donations are included in this total.

These factors mean that mining activity can generate high economic multiplier effects. Statewide, metal ore mining has an employment multiplier of just under 2.0, meaning that for every job at a mine, there is one additional job in the support sector that is the result of mining-related activity. IMPLAN provides mining multipliers for Ketchikan specifically, but given the absence of any significant mining activity in the local economy, these multipliers should be interpreted with caution.

Ketchikan and Statewide Mining Industry Multipliers

	Ketchikan	Statewide
Employment	1.61	1.97
Labor Income	1.36	1.52
Output	1.22	1.36

Source: IMPLAN, 2007.

Outlook

The outlook for mine development in the southern Southeast Alaska area is good. The area is richly mineralized, and several firms are actively evaluating prospects. However, mine development typically occurs over a very long time during which many millions of dollars may be spent determining if a prospect can be profitably mined. Ore grade, tonnage, and mineral/metal prices are critical in determining mine feasibility. Also critical are the cost of preparing the ore body for mining, building a mill (concentrator), mining a ton of ore, and crushing, grinding, and refining a product from that ton of ore. Inherent in all these costs are labor costs, the cost of electric power, the cost of shipping supplies to the mine site, tax burdens, the cost of acquiring the necessary permits to develop a mine, and the cost to reclaim the mine after closing down production.

Five years may elapse between discovery (or re-discovery) and development, but 15 years is more the norm. For example, the Greens Creek Mine was discovered in 1975, but the mine did not start production until 1989. Sometimes, even after years of work and millions of dollars invested, mine development never occurs. U.S. Borax spent \$100 million over 20 years on its Quartz Hill molybdenum deposit near Ketchikan.

Ketchikan's opportunity today is as a service and supply center for exploration activity in southern Southeast. Over time, should a project like Niblack prove to be economically feasible, Ketchikan businesses and local workers could play a significant role in mine development (typically a two to three-year construction process) and operations for the life of the mine.

Overview

The Ketchikan arts industry is examined in two different ways here. The first group is the employers and self-employed workers (or other businesses without employees) classified under the category of “performing arts” in the North American Industry Classification System (NAICS).⁴⁴ As with any industry, especially a basic-sector industry that sells goods or services to people outside the local economy, it is difficult to entirely capture the arts industry and its effects in a general profile such as this. The retail trade industry, for example, is obviously impacted by the production of local art, as is tourism and a number of others.

The second piece of the arts industry examined here is the group of people who produce tangible art. The material for this second group comes primarily from a recent McDowell Group study of the impacts of Ketchikan arts on the visitor industry.⁴⁵

In 2008, three employers were categorized under “performing arts:” the Great Alaskan Lumberjack Show, the First City Players community theatre, and Nathan P. Jackson, a Tlingit master carver.⁴⁶ Combined, the three provided about 20 annualized jobs in 2008 (the job count is much higher during the summer visitor season and lower in the off-season months). Wage data was not available.

An additional 39 businesses without employees, most of them self-employed workers, were identified as “independent artists, writers, and performers.” This group combined had receipts of \$572,000 in 2007, the most recent year available.⁴⁷ The McDowell Group study identified 90 artists who earn some income from producing tangible artwork (the study did not include performing artists).

Ketchikan hosts 17 annual arts events and a variety of monthly gallery shows, concerts, dances, and performances. An active arts community is also part of Ketchikan’s appeal to tourists, not to mention a quality-of-life asset for attracting businesses and employees to Ketchikan.

Who are the artists?

A survey of Ketchikan artists found that 61 percent of Ketchikan’s artists work part-time year-round, 22 percent work full-time, year-round, and the remaining work either full- or part-time seasonally. For about 40 percent of the artists, their work as artists was either their primary source of income or a secondary but important source of income.

Fifty percent of the artists are engaged in painting or drawing, 39 percent in jewelry or metal work, 22 percent in textiles or weaving, and the rest are a mix of sculptors, carvers, photographers, or ceramics/glass

⁴⁴ The system used by the U.S. Census Bureau to classify businesses without employees, and the U.S. Bureau of Labor Statistics and the Alaska Department of Labor and Workforce Development to classify employers.

⁴⁵ *Impacts of Ketchikan Arts in the Visitor Industry*, Prepared for Ketchikan Visitors Bureau, February 2010.

⁴⁶ Other groups which also perform may be classified elsewhere. For example, the Ketchikan Theater Ballet is classified under a NAICS code for fine arts schools.

⁴⁷ U.S. Census Bureau Nonemployer Statistics (businesses with less than \$1,000 in receipts are not counted).

workers. The artists sell their work both directly to local residents and visitors and also to galleries in Ketchikan and elsewhere.

Slightly more than 40 percent of the artists who responded to the survey said they earned less than \$5,000 a year from their art and an additional 30 percent earned somewhere between \$5,000 and \$10,000. About 18 percent of the artists earned between \$10,000 and \$50,000. At the high end of the earnings spectrum, 6 percent of the artists earned between \$50,000 and \$100,000 and another 6 percent earned more than \$100,000.

Impacts on Ketchikan's Economy

Recent national studies have recognized the arts as an important economic contributor. A 2005 report estimated that the nonprofit arts and culture industry generates \$166 billion in economic activity every year in the U.S. and supports 5.7 million full-time equivalent jobs.⁴⁸

In Ketchikan, an estimated \$1.4 to \$1.7 million in art sales are made each year to visitors. Between the artists themselves and the retail merchants who sell much of the art, the total direct impact on Ketchikan's economy is estimated to be \$2.1 million. Including indirect and induced impacts brings the total to \$2.6 million.

Impacts on Quality of Life

It is difficult to talk exclusively of the economic impacts of art when much of the benefit is in enhancing residents' quality of life. A community survey found that Ketchikan's art community improved residents' sense of belonging and attachment to the community, built community identity and pride, brought diverse elements of the population closer together, and increased the overall attractiveness of the city.

Unlike other industries, the downside – real or perceived – of an active arts industry are minimal. A Ketchikan resident who has no interest in the arts personally and does not see his own experience in Ketchikan enriched by local artists will probably see no need to campaign against the arts or try to reduce their influence in the city. At worst, the arts are probably a neutral factor for this type of person. In contrast to many of the other industries that are important to Ketchikan, the arts industry is largely without vocal opposition and generally recognized as an important reflection of the area's culture and history.

An authentic arts community also enhances the experience for visitors to Ketchikan in difficult-to-quantify ways. According to surveys, historical and cultural shore excursions tend to be the most popular among cruise ship passengers⁴⁹ and one of the community's development strategies is to encourage an arts community that is based on locally-produced, culturally authentic work.

For the artists themselves, a city with a strong arts community and a customer base as broad as Ketchikan's allows them to earn money through a personally meaningful pursuit. The work is flexible and can often be done part-time or seasonally to supplement other sources of income.

⁴⁸ *Arts & Economic Prosperity III: The Economic Impact of Nonprofit Arts and Culture Organizations and their Audiences*, conducted by Americans for the Arts, 2006.

⁴⁹ *The State of the Cruise Industry in 2010: Confident and Offering New Ships, Innovation and Exceptional Value*, Cruise Lines International Association, January 10, 2010.

Outlook

The future of Ketchikan’s arts community is closely tied to the future of its visitor industry. The approximately 1 million annual visitors to the city are the dominant source of customers for Ketchikan’s artists, so increases or decreases to those numbers will have an effect on sales. As with other industries, a strong core group of artists tends to attract more artists. According to one count, Ketchikan has more authentic Alaska Native artists than any other city in Alaska except Anchorage and Barrow.⁵⁰

A loss of cruise ship passengers in 2010 raises short-term concerns, although an improved national economy bodes well for the willingness of passengers who do visit to spend more than the average passenger did in 2009. Ameliorated national and international economic conditions will also encourage independent tourism visits and spending. When Ketchikan artists were asked how dependent they were on the visitor industry, 56 percent said “heavily” and 39 percent said “moderately.” Overall, the arts industry has a symbiotic relationship with tourism: a thriving arts industry will enhance the experience of visitors to the area and encourage growth, and a thriving tourism industry will create opportunities for artists and related businesses.

Reviewers’ Comments and Suggestions:

- Assess the degree to which locally-produced art is purchased by Ketchikan residents? What value do residents place on a strong and vibrant arts community?
- Determine how much value tourists place on the arts as part of their experience visiting Ketchikan. How much of a factor is it for independent visitors?
- Explore in detail the market for art produced in Ketchikan. How much is sold locally, how much is sold over the internet or through galleries outside of Ketchikan? What are the trends?
- Research other communities that have made conscious efforts to expand the arts as an economic development strategy. Have the efforts paid off (this would be hard to quantify with any precision, but community leaders may have opinions as to what was effective and what wasn’t)?

⁵⁰ Alaska Silver Hand Program.

Overview

It is helpful when discussing the potentially ambiguous term “energy” to separate the discussion into two major pieces: 1) electricity generation, and 2) transportation fuels and fuels used for home heating. It is also important to recognize that the two categories are related and that there is a considerable amount of crossover between them. Across the country, electric power fuels a growing share of public transportation, for example, and natural gas is used for both electricity generation and as a transportation and heating fuel.

The bulk of electric power generated in the United States continues to come from coal, although natural gas, nuclear, and renewable energy sources are all increasing both in absolute terms and as a share of the total. In 2008, out of the 4,119 thousand megawatts of power produced in the U.S., 1,986 thousand megawatt hours were produced by coal, 883 by natural gas, 806 by nuclear, and 126 by renewable sources other than hydroelectric (wind, solar, geothermal, and wood and other biomass).⁵¹ Hydroelectric sources generated 254 thousand megawatt hours, but that number is down from 323 a decade earlier.⁵² Petroleum-generated production was just 46 thousand megawatt hours in 2008, down considerably from the 1998 total of 129.

Energy was a major focus of the American Recovery and Reinvestment Act of 2009, which allocated \$47 billion for renewable energy, smart grid, and energy efficiency programs. An additional \$20 billion was made available in the form of tax credits related to renewable energy and \$17 billion was set aside to improve public transit.

Broadly speaking, energy issues get more attention in Alaska because heating and lighting needs are greater, the ability to connect to a large power grid are limited, and transportation costs have such a large impact on the overall costs of trade. Alaska consumes more energy per person – 1,112 million Btu – than any other state and more than three times the national average. Life in Alaska’s rural communities in particular would change dramatically if they had reliable, inexpensive sources of heat and power. In many locations, it may mean the difference between being viable in the long term or not.

Despite being a state that exports billions of dollars of oil, much of Alaska struggles with high energy costs. Most communities in Southeast Alaska, including Ketchikan, benefit from relatively cheap hydroelectric power. Hydroelectric power supplies 24 percent of the state’s electricity from 37 hydro projects. However, Southeast communities (including Ketchikan) supplement hydroelectric power generation with expensive diesel-fueled generators. Many smaller communities in the region rely exclusively on diesel power generation and depend heavily on power cost subsidies from the state.

Ketchikan Public Utilities Electric Division, a branch of the Ketchikan city government, purchases power from the state-owned Swan Lake Hydro Facility and owns three hydroelectric plants: Ketchikan, Beaver Falls, and Silvis. The city also operates two diesel-fueled plants to supplement hydroelectric power when necessary.

⁵¹ U.S. Energy Information Administration Annual Energy Review 2008

⁵² U.S. Energy Information Administration

Four Dam Pool Power Agency

In 1981 the Alaska State Legislature established the Four Dam Pool Initial Project, which consists of four hydroelectric projects (Swan Lake, Lake Tyee, Solomon Gulch, and Terror Lake). The purpose of the project was to help provide uniform rates and share operating risks among the communities served. Costs of operation and maintenance are pooled and each of the various local purchasing utilities all purchase power at the same wholesale rates, even though none of the utilities obtained power from more than one project.

Until 2002, the project was owned and managed by the Alaska Energy Authority (AEA), a subdivision of the State of Alaska. The local utilities that purchased power from the four projects – the cities of Ketchikan, Wrangell, and Petersburg, and the Copper Valley Electric Association and Kodiak Electric Association – then formed a joint action agency and purchased the project from AEA.

In 2009, the agency sold or transferred the Terror Lake and Solomon Gulch projects to the Kodiak Electric Association and Copper Valley Electric Association, respectively and renamed itself to the Southeast Alaska Power Agency (SEAPA) to better reflect the location of the remaining projects (Swan Lake and Tyee Lake).

Swan Lake-Tyee Intertie

A 57-mile grant-funded intertie connecting the Swan Lake Project in Ketchikan and the Lake Tyee Project was developed over more than 10 years and became operational in 2009. It is expected that the surplus capacity from Lake Tyee will offset a shortage of available hydroelectric power in Ketchikan and reduce the need for Ketchikan to supplement with expensive diesel-fueled generators.⁵³

In the longer term, planning is underway to develop an Alaska-British Columbia intertie that could lead to a number of hydroelectric projects in Southeast Alaska that would both provide for local needs and also generate surplus power for export. Significant public investment would be required to complete the intertie and its likelihood is unknown, but the benefits to Southeast Alaska could be significant.

Transportation Fuels and Home Heating

Other than the North Slope Borough, which receives subsidized residential use heating fuel, Southeast communities (including Ketchikan) have some of the state's lowest home heating and gasoline prices in the state.⁵⁴ Costs for heating fuel #1 ranged from a high of \$4.60 per gallon to a low of \$3.11 per gallon in Southeast Alaska in January 2010. For context, some Interior communities paid as much as \$10.00 per gallon and average costs in Southeast were lower than every other region except the Northern Region.

Similarly, the highest gas prices in Southeast were \$4.79 per gallon in January 2010 compared to \$10 per gallon in the Interior Region, and nearly \$8 a gallon in the Northern and Northwest Regions. Average gas

⁵³ Alaska Energy Authority and Alaska Industrial Development and Export Authority

⁵⁴ *Current Community Conditions: Fuel Prices Across Alaska*, January 2010; Department of Commerce, Community, and Economic Development

prices in Southeast were \$3.74 per gallon, at least 40 cents lower than the average price for any other region in the state.⁵⁵

Outlook

Ketchikan, like much of Southeast Alaska's population, benefits from relatively cheap hydroelectric power. Through participation in the Four Dam Pool Power Agency, Ketchikan is partially insulated from dramatic swings in prices by virtue of sharing costs and risks with the other Agency members.

The current focus on developing clean, renewable energy sources creates considerable growth potential for new hydroelectric projects and the possibility of energy export to population centers in British Columbia.⁵⁶ These projects will require large public investments, but this type of investment is increasing as a result of concerns about energy independence and carbon emissions.

At minimum, hydroelectric power will keep costs relatively low for Ketchikan residents. Potentially, adding hydroelectric projects and connectivity through electric interties could boost growth by spreading cheaper power throughout the region, creating jobs, and adding a new export industry to the region's economy.⁵⁷

Reviewers' Comments and Suggestions

- How much energy per person do Ketchikan residents consume? (Alaskans consume three times the national average per person; do Ketchikan's unique light and temperature conditions result in more or less consumption per person than the average for the state?)
- Although Ketchikan's access to hydroelectric power makes electricity relatively cheap for Alaska, how do power costs compare to Lower 48 markets? Is there potential to market cheap power to potential businesses or do Lower 48 cities have a comparative advantage in power costs? What are the average and low-end rates for Lower 48 cities?
- To what degree is Ketchikan dependent on diesel and other fossil fuels for residential and commercial heating? What effect does this have on Ketchikan's attractiveness to businesses and individuals?
- Explore the extra demand being created from conversion of home heating from diesel to electric and assess what that will mean for KPU's ability to continue supplying electricity without supplemental diesel generation.
- Examine in detail the projects being considered for transmitting electricity to British Columbia or other population centers.
- Explore the feasibility of alternative energy sources including wind, geothermal, tidal energy, etc., both for local use and potential export.

⁵⁵ The perception that Alaska has a high cost of living – accurate in many cases, but less so in others – is an important factor to understand and consider in efforts to attract and retain both businesses and individuals. Of particular relevance are energy costs because of the general lack of options for substitution (as opposed to consumer goods, for example).

⁵⁶ http://www.seconference.org/pdf/KPI-FinalDraftReport_2.pdf

⁵⁷ The potential development of a natural gas pipeline to take vast stores of North Slope natural gas to market would also impact Ketchikan to the extent it generated an important new source of state tax revenue.

Overview

Manufacturing jobs, in the broad sense, are often sought after by communities looking for ways to sustain and develop their local economies. Historically, manufacturing companies have paid relatively high wages and, to the extent the manufactured products are exported out of the local economy, they bring new money in. That in turn fuels growth in retail, construction, health care, and the many other support sectors of an economy.

In assessing the current state of Ketchikan manufacturing and the potential for growth, it is helpful to think about manufacturing in general terms. Economies at every level produce some combination of goods and services depending on the resources available to them and the skill of their labor forces, among other things. Economic analysis in Alaska often focuses on natural resources—appropriately, since it is the core of the state’s economy—but discussion of manufacturing presents an opportunity to consider human resources as another type of contributor to an economy.

MANUFACTURING’S CONNECTION TO PEOPLE AND PLACES

Many American cities were built around a specific type of manufacturing and carry that association as part of their identity: Detroit and cars, Seattle and computers and airplanes, Milwaukee and beer, Pittsburgh and steel, and Atlanta and soft drinks, to name a few. In most cases, the types of manufacturing that developed in those cities were more a function of the people who were there to develop them than to other factors. Seattle is the home of Microsoft not primarily because of geographic or natural resource advantages, for example, but because it is where Bill Gates was raised, learned a great deal about computers, and wanted to live.

The key point is that many of the highest profile examples of job and industry growth – for other industries as well as manufacturing – have come not from recruiting or attracting existing industries, but from home-grown success. This fact highlights the importance of focusing efforts on education, quality of life, and a fertile climate for entrepreneurial activity, in addition to looking for specific economic development opportunities.⁵⁸

THE U.S. MANUFACTURING SECTOR AND MACROECONOMIC TRENDS

U.S. manufacturing employment reached a peak in the late 1970s at nearly 20 million jobs before trending downward in fits and starts over the last 30 years. By early 2010, U.S. manufacturing jobs totaled just 11.5 million. Despite the frequent refrain that “America doesn’t make anything anymore,” the United States’ 11.5 million manufacturing jobs are still an important piece of the national economy. Manufacturing jobs make up 11 percent of the total private sector employment, and manufacturing wages make up 14 percent of all private sector wages.

⁵⁸ Littleton, Colorado tapped into this idea, for instance, when it pioneered the concept of “economic gardening” – growing jobs in the community – as an alternative to traditional economic development recruitment strategies. *Creating Quality Jobs, Transforming the Economic Development Landscape*, International Economic Development Council, March 2010.

While national manufacturing employment has fallen, the value added by manufacturing operations has increased. U.S. Census Bureau data shows that from 1977 to 2005 (the most recent year available), manufacturing value-added increased from \$585 billion to \$2.2 trillion. Much of the increase should be attributable to inflation, but manufacturing's value increase of 376 percent outpaced the broadest measure of inflation over that period, which increased 322 percent.

What the employment and value numbers for manufacturing suggest is that the nature of U.S. manufacturing has changed. While the U.S. may have trouble competing with lower-wage countries in manufacturing labor-intensive or low-priced goods, the country still performs well in terms of producing higher value products and those for which labor costs are not a high percentage of total manufacturing costs.

ALASKA MANUFACTURING

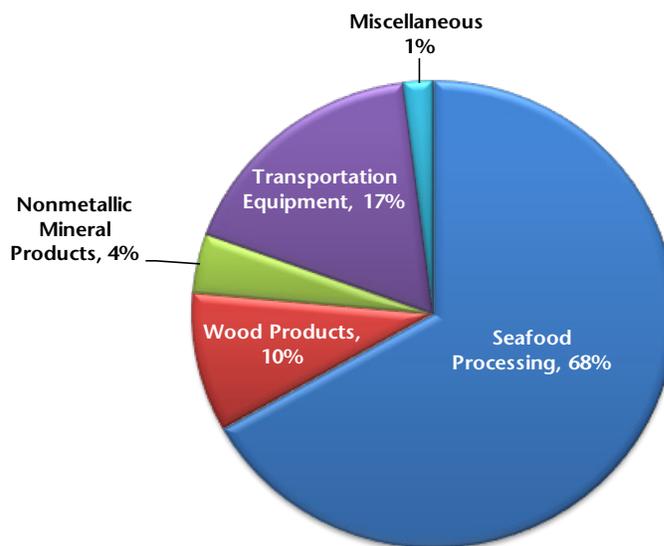
In Alaska, the bulk of manufacturing jobs have always been closely tied to the state's resource wealth. Fish, timber, and oil created manufacturing jobs in seafood processing, wood product manufacturing, and oil refining. Of these, seafood processing has been the largest and most consistent contributor to the state's economy.

The state also has a mix of smaller manufacturing companies that include everything from breweries and coffee makers to printing companies and marine-parts manufacturers. With a few exceptions, seafood processing being the biggest, Alaska's manufacturing sector does not export a significant amount of goods outside of the state and consequently does not bring a lot of money into the state.

KETCHIKAN MANUFACTURING

Ketchikan's manufacturing industry consists mostly of seafood processing, shipbuilding, and wood product manufacturing, all of which are profiled separately. In 2007, these three types of manufacturers made up 95 percent of all employment classified as manufacturing.

Ketchikan Manufacturing Employment, 2007



Source: Alaska Department of Labor and Workforce Development.

More recent data is unavailable at the same level of detail, but other than an ongoing decline in wood products employment, Ketchikan's manufacturing sector does not appear to have changed significantly in terms of its basic makeup.

In fact, there are only a handful of manufacturing employers in Ketchikan that are not seafood processors, shipbuilders, or involved in some type of wood product processing. The largest was Ketchikan Ready Mix and Quarry, which employed an average of 21 people in 2007 in support of the local construction industry, which will also be profiled separately. Otherwise, Ketchikan's three remaining manufacturing companies were Raven's Brew Coffee, which employed 7 people on average in 2007, and Sign Pro and KetchiCandies, which employed from 3 to 5.

Indirect and Induced Impacts on Ketchikan's Economy

The small number of manufacturing employers in Ketchikan (exclusive of seafood processing, wood products, ship building, and construction-related manufacturers) makes it difficult to draw conclusions about specific multiplier effects, but it's useful to keep in mind the factors that affect whether a multiplier is large or small.

- Residency of the labor force. Manufacturing of the type that either already exists in Ketchikan in very small numbers or could potentially develop would likely have a lower than average share of nonresident workers because they would be created by people who want to live in Ketchikan for lifestyle reasons.
- Average wages paid to the industry's labor force. At least initially, small entrepreneurial efforts to start manufacturing companies would likely create relatively low-paying jobs. However, as the scale of operations increase, average wages tend to grow as the number of specialized jobs increases (personnel managers, marketing managers, etc.).
- Seasonality of the industrial activity. For companies that target summer cruise ship visitors as their markets, activity is likely to be quite seasonal, at least in terms of sales. As a manufacturer's market grew, its business would likely become less seasonal.
- The volume and value of goods and services that are purchased locally versus purchases from outside vendors. Ketchikan has a very limited supply of raw materials (coffee beans, for example, or materials used in candy making), so most of those types of purchases would have to be made from outside vendors.
- Tax payments to local governments. Miscellaneous manufacturing employers have modest sales and contribute only minimally to tax revenue. However, as manufacturers invest and grow, they can become significant sources of tax revenues for local governments, especially through property tax payments.

IMPLAN indicates that manufacturers other than those profiled separately have multipliers ranging from 1.2 (sign manufacturing) to 1.9 (coffee and tea manufacturing). That means that every manufacturing job generated in the local economy generates an additional 0.2 to 0.9 jobs in the local support sector. Labor income (wages) and output, a measure of total spending by manufacturers (including payroll) have similarly wide ranges of multipliers.

Ketchikan Area Manufacturing Multipliers

	Multiplier
Employment	1.2 - 1.9
Labor Income	1.6 – 2.9
Output	1.2 - 1.3

Source: IMPLAN, 2007.

Outlook

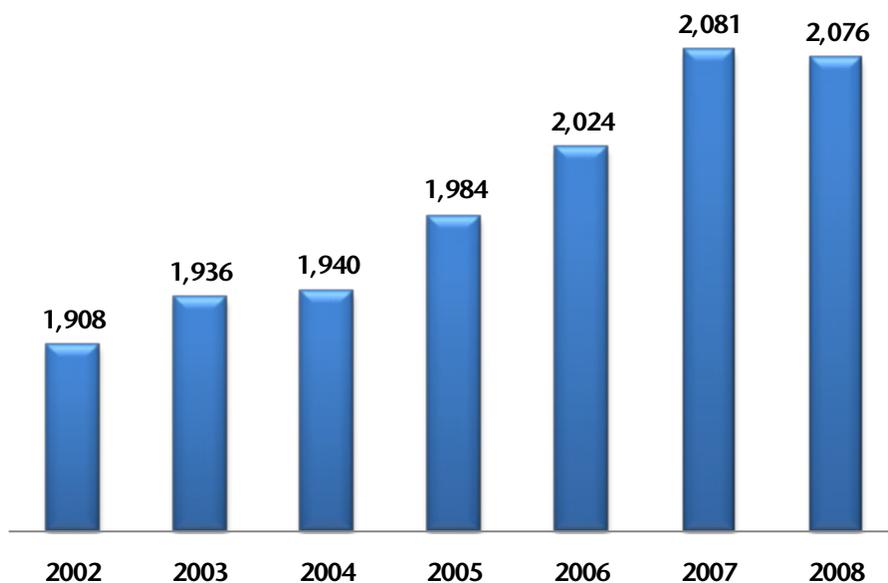
The success of small manufacturing companies in Ketchikan depends largely on the community's ability to retain, nurture, and attract people who have the entrepreneurial skills and business ability to start and grow companies that make things people want to buy. The unique lifestyle available to people who live in Ketchikan is both an asset and a liability. Existing and potential small niche manufacturers have a significant asset in Ketchikan's well-developed visitor industry and the access it gives them to more than a million potential customers a year.

Ketchikan's distance from population centers and relatively small local market are comparative disadvantages for most manufacturers (although less so for small or very high-end goods where shipping costs are a smaller fraction of total production and wholesale/retail costs). Shipping costs generally are higher to and from Alaska, which makes getting materials and shipping a final product more expensive than it would be for a similar producer in other parts of the country. Compared to other Alaska communities, however, Ketchikan has the advantage of being closer to Lower 48 markets and having relatively good access to water and air transportation. Although it seems unlikely that Ketchikan will become home to large manufacturing companies of the type that still drive local economies in other parts of the country because of its geographic disadvantages, those disadvantages are not so large as to prevent small to medium-sized companies from thriving.

Overview

From 2002 to 2007, total government employment in Ketchikan steadily grew.⁵⁹ The 173 jobs added over the period equate to a 9 percent increase. The numbers dropped off slightly in 2008 and the partial-year data for 2009 shows very little change compared to the same months in 2008. In 2008, 285 of the jobs were federal, 689 state⁶⁰, and 1,102 local⁶¹ (including Ketchikan Indian Community's 100 to 149 employees that are categorized under local government because KIC⁶² is a federally recognized Indian tribe).

Government Employment



Source: Alaska Department of Labor and Workforce Development.

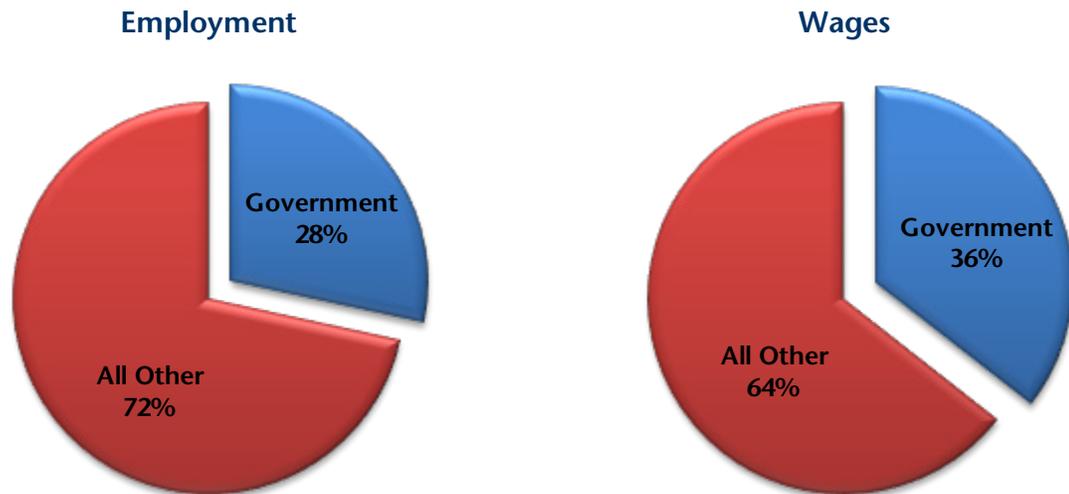
⁵⁹ Government employment includes the University of Alaska system, local school districts, the City of Saxman (including Saxman's Public Health Facility), and the Ketchikan Indian Community.

⁶⁰ Includes the University of Alaska System.

⁶¹ Includes school district employment.

⁶² KIC stands for "Ketchikan Indian Corporation" on the list of federally-recognized tribal entities that are counted under local government, although the organization has long referred to itself as the Ketchikan Indian Community.

Government jobs – which include University of Alaska jobs and jobs in the local school district – make up more than a fourth of all payroll jobs in Ketchikan and more than a third of all wages.



Source: Alaska Department of Labor and Workforce Development.

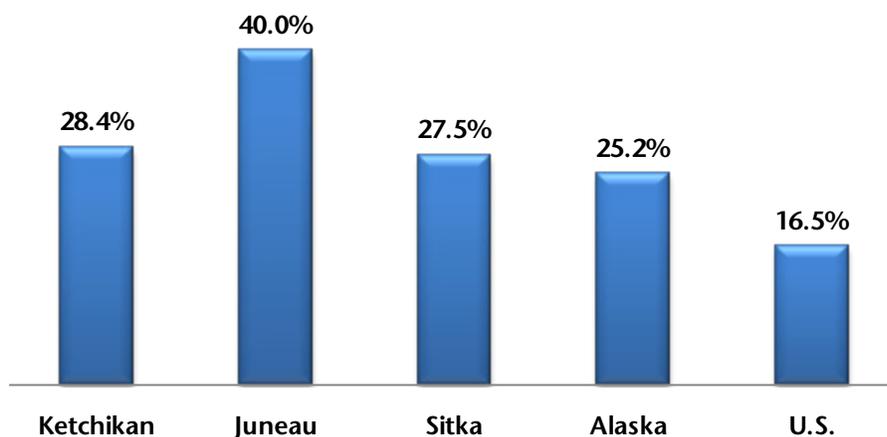
Ketchikan has a similar share of government jobs as Sitka, although that comparison should only be made with the understanding that KIC and its health care employment is counted as part of local government and Sitka's Southeast Alaska Regional Health Consortium (SEARHC) is counted in the private sector. As the state capital, Juneau's share of government jobs is substantially higher than the two Southeast communities or the state as a whole.

For a variety of reasons, Alaska has a higher percentage of government jobs than the U.S. as a whole. Alaska's nearly 600,000 square miles make up about one-sixth of the nation's total of 3.7 million. More than half the state's lands are federally managed with significant resources invested in fisheries and forest management, among other things. Nationally, federal government jobs make up 2 percent of total payroll employment while in Alaska 5 percent of all payroll jobs are federal (neither percentages include the uniformed military, of which Alaska has a disproportionately large number as well).

Alaska's oil industry gives the state an enviable source of revenue, which is one factor in the state's higher than average contingents of state and local government workers. Nationally, state jobs made up 4 percent of all payroll jobs in 2008 and local government jobs made up 11 percent; in Alaska, 8 percent of all payroll jobs were in state government and 13 percent were in local government.

Ketchikan has a slightly smaller share of federal government jobs than the state, but higher percentages of state jobs (9 percent compared to 8 percent for the state) and also local government jobs (15 percent compared to 13 percent for the state), although KIC employment, which is all counted under local government, accounts for much of that difference.

Government's Share of Total Jobs, 2008



Sources: Alaska Department of Labor and Workforce Development and U.S. Bureau of Labor Statistics.

Indirect and Induced Impacts on Ketchikan's Economy

The magnitude of indirect and induced impacts (multiplier effects) of government activity depends on labor force residency, wages, seasonality and local purchases:

- Residency of the labor force. Data on residency is not available for federal government workers, but statewide, state and local government workers that are nonresidents make up just 6.9 and 6.6 percent of total workers in those categories respectively.⁶³ Those percentages are significantly lower than the overall statewide average of 19.6 percent.
- Average wages paid to the industry's work force. In 2008, government jobs in Ketchikan paid an average of \$48,000 a year in Ketchikan compared to the overall average wage for the borough of \$38,200. Federal jobs were especially high paying at \$66,100 compared to \$48,000 for state government jobs and \$42,900 for local government jobs.
- Seasonality of the industrial activity. Government employment shows very little seasonality. The only significant variation over the course of the year comes during the summer months when schools take their summer break. As a result, government is one of relatively few sectors of Ketchikan's economy that does not reach peak activity levels during the summer months.
- The volume and value of goods and services that are purchased locally versus purchases from outside vendors. Much of what government produces is intangible – police protection, for example, or education – so fewer goods are purchased as part of its operation than with industries such as manufacturing or construction.

⁶³ Even this large of a share of nonresident government workers may seem odd since so few government jobs are seasonal or otherwise of the type more likely to be held by nonresidents (North Slope oil workers, for example, who often for two weeks and then fly home for two weeks off and can fairly easily fly "home" to somewhere outside of Alaska). One reason why at least some government workers are classified as being nonresidents is because it takes time to establish residency. As a result, new workers to the state who intend to stay are initially classified as nonresidents until their residency is established.

- Tax payments to local governments. Government facilities are generally exempt from local property taxes, which tends to lower government’s multiplier effects. In 2008, Ketchikan’s largest payers of property tax were tourism-related businesses, seafood processing companies, and retail stores (in contrast to 10 years earlier when the Ketchikan Pulp Company paid more than four times as much in property tax as any other entity).

IMPLAN indicates that government has employment multipliers ranging from 1.2 to 1.4. That means that every government job in the local economy generates an additional 0.2 to 0.4 jobs. Government labor income (wages) and output, a measure of total spending by manufacturers (including payroll), have similar multipliers.

Government Multipliers

	Multiplier
Employment	1.2 – 1.4
Labor income	1.1 - 1.4
Output	1.2 - 1.4

Source: IMPLAN, 2007.

Outlook

Nationally, government and health care were the only two major employment sectors that did not see significant employment losses during the deep national recession of 2008-2009. From 2008 to 2009, government jobs in the U.S. increased by 40,000 (+66,000 for federal government, +3,000 for state government, and -29,000 for local government) while the private sector shed 5.9 million jobs. Consequently, government’s share of total jobs grew from 16.5 percent in 2008 to 17.2 percent in 2009.

Government also fared relatively well in Alaska during the national recession, although Alaska’s private sector did not incur losses on the same scale as the nation. Over the same 2008 to 2009 time period, government jobs in Alaska increased by 1,500 (+100 federal, +500 state, and +900 local) while the private sector lost 2,400 jobs.

Final 2009 data is not yet available for Ketchikan, but there is no reason to believe the pattern was significantly different there; the Southeast region as a whole showed an increase of 100 government jobs and a decrease of 950 private sector jobs from 2008 to 2009.

Over the last decade, federal government employment in Ketchikan has been essentially flat (2008’s total of 285 jobs was just 10 more than in 1998). State government jobs, on the other hand, have increased from 580 in 1998 to 689 in 2008, and local government jobs have increased from 945 to 1,102, although nearly all of the local government increase came from a change in how tribal governments such as KIC are classified (since 2001 they have been counted as part of local government; prior to 2001 they were counted in the private sector).

It is difficult to say with any certainty what the outlook is for government employment in Ketchikan, although unlike the private sector, government job counts do not usually change quickly or by significant amounts from year to year. Assuming a gradual recovery in the national economy and continued high oil prices,

government jobs will most likely continue in their role as a stabilizing influence on Ketchikan. The biggest short-term concern is the loss of cruise ship passengers for the 2010 season and what that will mean for local sales tax revenue. Over the longer term, a flat or declining cruise industry would also affect property tax revenues since many of the borough's highest assessed properties are tourism businesses.

One possible example of Ketchikan's location being a comparative advantage was the 2004 move of the Alaska Marine Highway's ferry system administrative offices from Juneau to Ketchikan. By occupying the vacant Ketchikan Pulp Company's administrative building and cutting ferry worker transportation costs, the move was projected to save the state money in rent and other operating costs.

Reviewers' Comments and Suggestions:

- Examine the extent to which local government in Ketchikan performs services traditionally provided by the private sector or the state in other communities in order to make more meaningful comparisons of the size of the government sector in Ketchikan and the size of the government sector elsewhere.

Information Technology

Overview

A definition is the first order of business when talking about information technology as an industry sector. Wage and salary jobs are grouped under a broad sector called “information” that includes establishments that “produce and distribute information and cultural products, provide the means to transmit or distribute these products as well as data or communications, or process data.”⁶⁴

For Ketchikan, the information sector included 11 companies in 2008, the largest of which was the Ketchikan Daily News with average employment of 30 to 39 people. The next largest group includes Alaska Power & Telephone, Gross Alaska Theatres, and TLP Communications (the parent company of local radio station KFMJ and the producer of a local shopping publication) all of which employed from 10 to 19 people in 2008.

The remaining seven Ketchikan employers categorized under information include five telecommunications companies and two more radio broadcasting companies (one associated with local public broadcasting, CoastAlaska, and the other, Alaska Broadcast Communications, a commercial broadcaster with an AM and FM station in Ketchikan).

Average employment in 2008 for the information sector was 97 with total wages of \$3,686,814. Those numbers equaled 2 percent of all private sector jobs in Ketchikan and 2 percent of private sector wages. Since 2002, the job count has fluctuated between 88 and 101 without showing a clear trend up or down. Within the sector, jobs related to newspaper publication have trended down, mirroring national trends, and telecommunications jobs grew strongly from 2002 to 2006 and then remained flat over the next two years.

COMPARISONS WITH STATE AND NATIONAL DATA

Statewide, the information sector has a higher percentage of telecommunications jobs—62 percent compared to 33 percent for Ketchikan (based on 2007 numbers, the last year for which specific job counts are available for Ketchikan at this level of detail). Nationally, the makeup of the information sector is more similar to Ketchikan’s than to Alaska’s as a whole with 34 percent of the U.S. information jobs represented by telecommunications. The reason that the telecommunications industry makes up a larger slice of the information sector in Alaska than for the country as a whole is not immediately clear, although it is partly because Alaska has relatively small numbers of other types of information sector employment—software publishing and movie and video production companies, for example.

Even before the global economic crisis caused widespread job losses, information jobs had been on a steadily declining trend nationally, falling from 3.6 million in 2000 to less than 3 million by 2008. The trend in Alaska was in the same downward direction, with information jobs falling from 7,500 in 2000 to 7,000 by 2008.

⁶⁴ Wage and salary employment data come from the Alaska Department of Labor and Workforce Development and the U.S. Bureau of Labor Statistics.

OTHER INFORMATION EMPLOYMENT

Additional information sector activity also comes from independent operators who do not have employees. Nationally, there were over 300,000 of these businesses or individuals who reported income from information-sector activities. The number for Alaska was 527 and in Ketchikan there were seven who had combined receipts of \$121,000.⁶⁵

INFORMATION TECHNOLOGY AS AN OCCUPATION

The small numbers of employers classified under the information category disguises the reality that information technology is everywhere and nearly every business either has in-house IT specialists or relies on outside contractors to maintain their computer and internet systems. Roughly 1,700 Alaska workers were classified as computer support specialists in 2008 and another 2,800 were computer programmers, engineers, or operators of some type. In a sense, information technology is more a part of doing business—almost any business—than it is a separate industry sector.

Indirect and Induced Impacts on Ketchikan's Economy

To the extent it can be isolated as an industry sector, information has direct impacts on the local economy, as well as multiplier effects.

The same set of factors, as other industries, affects the industry's multiplier effects. The small number of information sector employers in Ketchikan makes it difficult to draw conclusions from the specific multipliers.

- Residency of the labor force. Specific data is unavailable for Ketchikan, but statewide, the information sector has a very low percentage of nonresident workers. Compared to the statewide average of 19.6 percent nonresident employment, only 8.3 percent of information sector workers were nonresidents in 2008. Ketchikan information workers in the newspaper and radio business, in particular, would be more likely to be residents and telecommunications workers would be at least as likely as the general working population to be residents.
- Average wages paid to the industry's labor force. Information sector wages are very close to the average of all wage and salary workers and slightly higher than the average for private sector workers.
- Seasonality. Information sector employment is noticeably less seasonal than average with only about a 10 percent variation between the annual high and low points.
- Local purchases. Information sector businesses' product is largely intangible—information, entertainment or cable or internet connectivity, for example—which means there are fewer goods necessary to purchase locally or otherwise. Services purchases locally would include things like advertising services for newspaper and radio companies and transportation and delivery services for newspapers. All told, the volume and value of goods and services purchased locally by the information sector would tend to be smaller than other industries.

⁶⁵ U.S. Census Bureau, Nonemployer Statistics, 2007.

- Tax payments to local governments. Information sector businesses often have small footprints so property taxes would be smaller than average among industries. The retail value of the goods and services produced by the information sector is also relatively small so sales tax revenue would be less than for other industries.

IMPLAN indicates that information sector employers have multipliers ranging from 1.3 (newspaper publishers) to 1.8 (telecommunications). That means that every information job generated in the local economy generates an additional 0.3 to 0.8 jobs in the local support sector. Labor income (wages) and output, a measure of total spending by manufacturers (including payroll) have similarly wide ranges of multipliers.

Ketchikan Area Manufacturing Multipliers

	Multiplier
Employment	1.3 – 1.8
Labor Income	1.3 – 2.2
Output	1.3 – 1.4

Source: IMPLAN, 2007.

Outlook

Ketchikan’s local providers of information and entertainment—newspapers, radio stations, movie theatres—are mostly dependent on the health of the broader economy, although there are also larger factors at work in the background. Newspapers nationwide have struggled with profitability, for example, as online publishing has grown in importance and advertisers have shifted some of their dollars to the internet. Truly local radio stations have also grown scarcer as consolidation and national programming have changed the business model for radio businesses.

Generally, however, these traditional information sector businesses are connected to the local economy much the same way as other support-sector employers are. Relative to smaller regional communities, Ketchikan has a comparative advantage as the most likely headquarters for these types of businesses.

Telecommunications companies also play a supporting role to the extent they provide telephone, internet, and television connectivity services to the local economy. If the local and regional populations grow, these types of businesses will grow correspondingly, although improved labor-saving technology and an increasing reliance on satellite-based technology are factors to consider and both national and statewide trends are downward.

Technological advancements and the growth of the internet open up opportunities for people and companies to operate from a variety of locations. In that respect, Ketchikan’s unique lifestyle is a comparative advantage for a certain type of person. Similarly, the general quality of life, including everything from the school system and the local art and entertainment climate to access to hunting, fishing and other outdoor opportunities, are factors in keeping and attracting people who could work from any number of locations because their work is not tied to the local population and market.

Opportunities for significant basic industry development in the communications technology sector (where facilities, products or services are provided to a regional, statewide or even national market) are probably limited for Ketchikan. It is interesting to note, however, that other Alaska communities are looking for ways to take advantage of low-cost power and cool climates to participate in the development of energy-intensive cloud computing infrastructure and other information storage-related facilities.

Real Estate, Rental, and Leasing

Overview

Ketchikan's payroll jobs in real estate, rental, and leasing companies have gradually increased over the 2002 to 2008 period, but remain a relatively small piece of the borough's total count of wage and salary jobs (though a larger share of total self-employment). Most of the growth appears to have come from Tyler Rental, an equipment rental company that serves both the construction industry and do-it-yourself customers. Other employers in the category include apartment management companies, real estate companies, self-storage facilities, and movie rental companies.

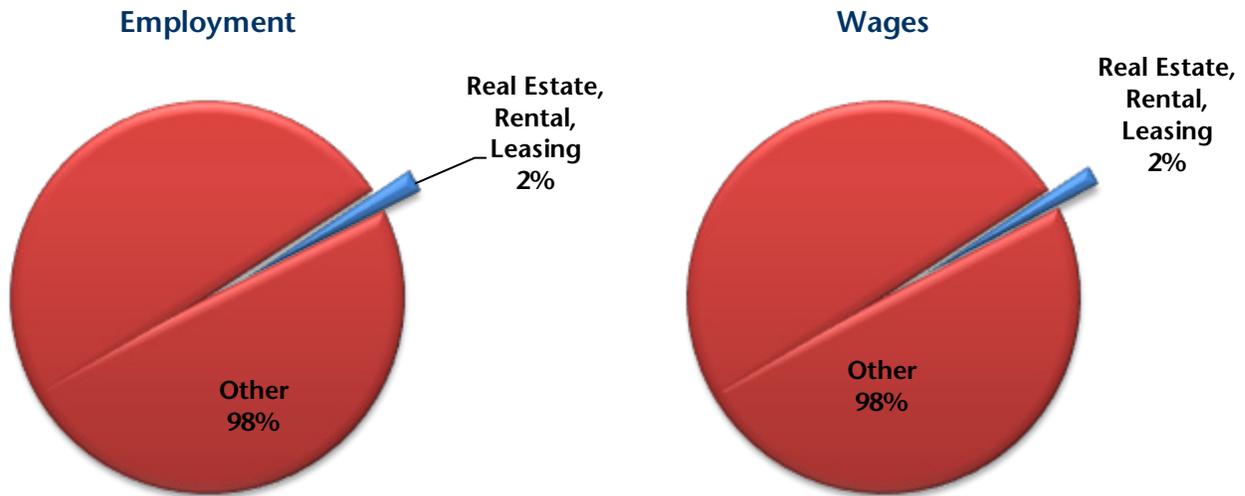
On the whole, the category can offer some insight into the general state of Ketchikan's non-basic sector employers, those which grow and decline with the net changes to the region's basic sectors such as tourism, forest products, mining, and state and federal government.

This type of employment tends to be more heavily concentrated in cities, so some growth is expected as an area's population grows and is able to supply more of these types of services that previously had been available only from outside the local economy. However, the small number of employers and total employment in the category dictate caution in interpreting the numbers and drawing firm conclusions.



Source: Alaska Department of Labor and Workforce Development.

In 2008, these employers provided 135 jobs and paid \$4.5 million in wages. Those numbers equate to about two percent of all payroll jobs and a similar share of total wages.

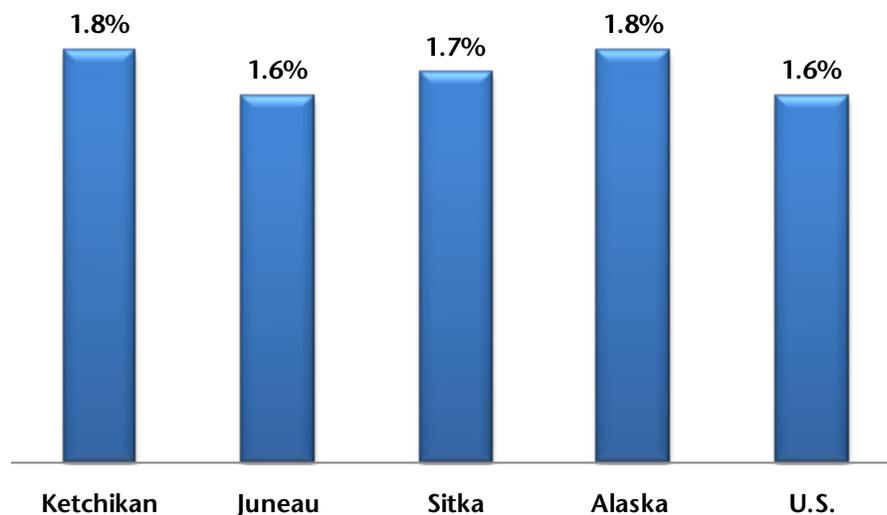


Source: Alaska Department of Labor and Workforce Development.

The average annual wage for these jobs in 2008 was \$33,700, noticeably below the overall average for the borough of \$38,200.

Ketchikan's share of real estate, rental, and leasing jobs is very similar to Sitka's and Juneau's and also to the statewide and U.S. percentages.

Real Estate, Rental and Leasing Share of Total Payroll Jobs, 2008



Sources: Alaska Department of Labor and Workforce Development, U.S. Bureau of Labor Statistics.

More significant than the relatively small number of payroll jobs in this industry are the substantial numbers of establishments without employees (mostly self-employed people) doing this kind of work. In 2008, 118

establishments categorized as real estate, rental, and leasing earned \$14.3 million.⁶⁶ The only category from the nonemployer data set with more establishments and higher earnings in Ketchikan was the category that includes commercial fishermen (agriculture, forestry, fishing, and hunting). Ninety-five of the establishments without employees were involved in real estate and \$13 million of the earnings came from real estate.

Indirect and Induced Impacts on Ketchikan’s Economy

This sector’s multiplier affects depend on the following factors:

- Residency of the labor force. Data specific to Ketchikan is not readily available, but statewide, real estate, rental, and leasing employers have a lower than average percentage of nonresident workers. Compared to the overall average of 19.6 percent, the nonresident share for these employers is just 10.3 percent. Nonresident workers in this category earn just 5.8 percent of all wages paid compared to 13.3 percent overall.⁶⁷
- Average wages paid to the industry’s work force. In 2008, real estate, rental, and leasing jobs paid an average of \$33,800 a year in Ketchikan compared to the overall average wage for the borough of \$38,200.
- Seasonality of the industrial activity. Real estate, rental, and leasing jobs are some of Ketchikan’s least seasonal, varying from 125 in January to 148 in August during 2008.

IMPLAN indicates that real estate, rental, and leasing companies have employment multipliers ranging from 1.2 (real estate establishments) to 2.1 (commercial and industrial machinery and equipment rental). In other words, for every job generated in real estate, rental, and leasing companies, an additional 0.2 to 1.1 jobs are created in the broader economy. Labor income (wages) and output, a measure of total spending by manufacturers (including payroll), have a narrower range of multipliers.

Real Estate, Rental, and Leasing Multipliers

	Multiplier
Employment	1.2 - 2.1
Labor income	1.3 - 1.8
Output	1.1 - 1.4

Source: IMPLAN, 2007.

Outlook

The outlook for this group of employers in the long term is closely connected to Ketchikan’s broader economic outlook. They are the types of businesses that are necessary for an economy of Ketchikan’s size and although specific employers may come and go, expand or contract, the group as a whole is unlikely to see dramatic change unless something significant occurs with one or more of Ketchikan’s basic-sector industries.

⁶⁶ U.S. Census Bureau, Nonemployer Statistics.

⁶⁷ Data on nonresidents is from the Alaska Department of Labor and Workforce Development publication *Nonresidents Working in Alaska in 2008*. Other employment and wage data is also from the Alaska Department of Labor and Workforce Development.

As with other sectors, Ketchikan benefits from being the regional center for southern Southeast communities. For example, growth or development in surrounding communities will benefit Ketchikan equipment rental companies. Any employment or population growth in the broader region will similarly create opportunities for Ketchikan-based real estate companies.

Reviewers' Comments and Suggestions:

- Explore in more detail the large numbers and high earnings of the “nonemployer statistics” data from the U.S. Census showing significant numbers and very high average earnings for real estate establishments.
- Examine the connection between vacancy rates and indicators of general economic health such as population, personal income, total wages, etc. Are there revealing correlations between vacancy rates and economic growth, for example?

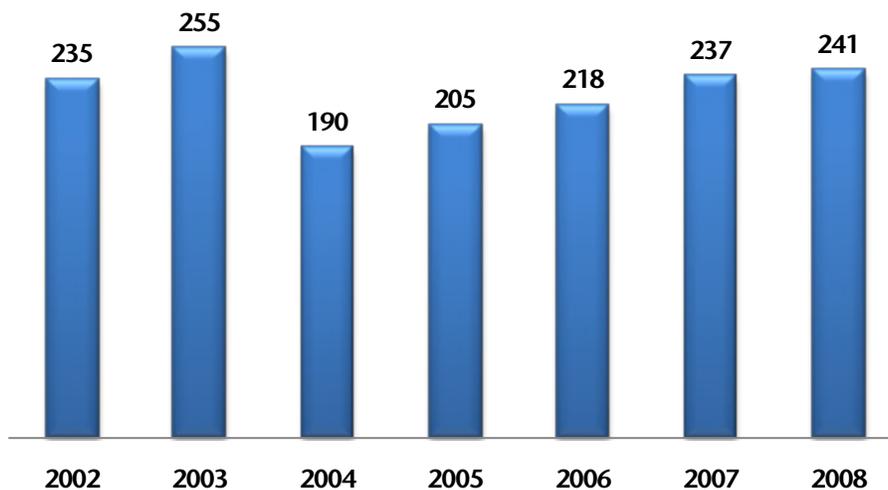
Finance and Insurance

Overview

Ketchikan's finance and insurance sector is made up of approximately 20 banks, credit unions, title and escrow companies, insurance companies, and miscellaneous investment and trust companies. First Bank is the largest employer, with two branches in Ketchikan each providing 40 to 49 jobs in 2008. Other large employers include the Tongass Federal Credit Union with 30 to 39 jobs and Wells Fargo's three branches, which provided a total of 30 to 39 jobs.

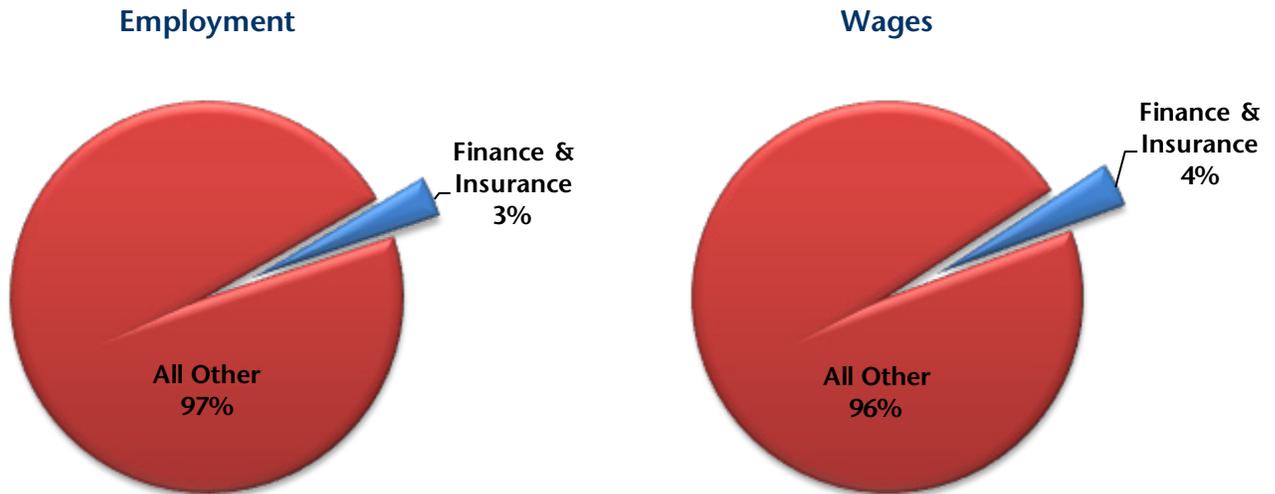
Since 2004, total employment in the sector has gradually increased and reached 241 (annual average) in 2008. From 2003 to 2004, however, the job count fell by 65 jobs, and the 2008 level was only slightly above 2002's number.

Finance and Insurance Employment, 2008



Source: Alaska Department of Labor and Workforce Development.

Finance and insurance jobs constituted about 3 percent of total payroll employment and 4 percent of total wages.

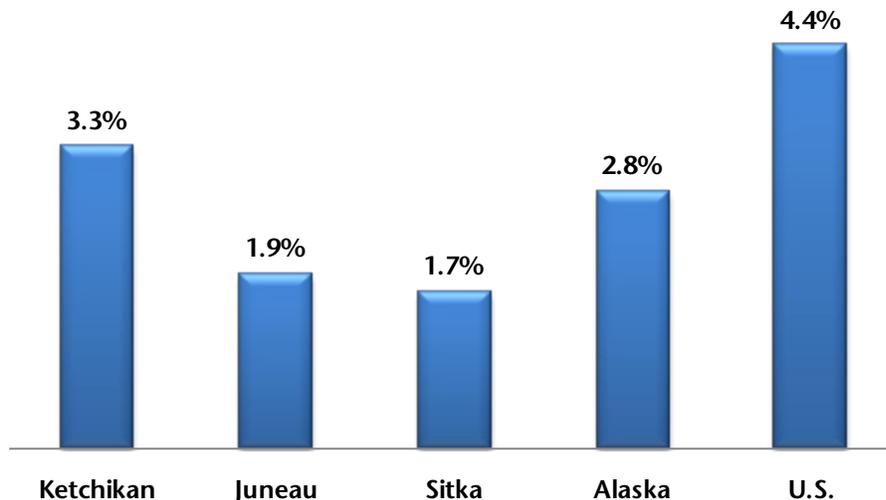


Source: Alaska Department of Labor and Workforce Development.

The average annual wage for these jobs in 2008 was \$42,800, a step above the overall average for the borough of \$38,200. Within the sector, jobs in securities and investment companies paid the least (\$31,200) and jobs in funds and trust companies paid the most (\$51,700) although both of those groups had a relatively small number of jobs compared to the bank/credit union and insurance company categories.

Ketchikan has larger share of these types of jobs than either Juneau or Sitka and also more than the statewide average. This is noticeably lower than the nationwide average as a result of Alaska's financial sector being almost entirely limited to providing service to in-state customers unlike some major metropolitan areas that are the headquarters of international banks, credit card companies, or insurance companies.

Finance and Insurance's Share of Total Payroll Jobs, 2008



A small number of businesses without employees (mostly self-employed individuals operating unincorporated businesses) also did this kind of work in Ketchikan. In 2007, 12 of these businesses earned receipts of \$717,000. Nearly all of the receipts (\$700,000) came from six securities or investment firms, which gave them average annual receipts of \$117,000. The remaining six companies were insurance carriers with very small average annual receipts (\$17,000 total, or an average of just \$2,833).

Indirect and Induced Impacts on Ketchikan's Economy

This sector's multiplier effects depend on the following factors:

- Residency of the labor force. Data specific to Ketchikan is not available, but statewide, finance and insurance employers have a much lower than average percentage of nonresident workers. Compared to the overall average of 19.6 percent, the nonresident share for these employers is just 7.1 percent, lower than any other major private sector category. Nonresident workers in this category earn just 3.5 percent of all wages paid compared to 13.3 percent overall.⁶⁸
- Average wages paid to the industry's work force. In 2008, finance and insurance jobs paid an average of \$42,800 a year in Ketchikan compared to the overall average wage for the borough of \$38,200.
- Seasonality of the industrial activity. The number of finance and insurance jobs varies only slightly over the course of the year. In 2008, the high point was 318 jobs in June and the low point was 295 in February.

IMPLAN multipliers for employment range from 2.1 for insurance carriers to 1.4 for banks and credit unions. Insurance carriers also have relatively high multipliers for labor income and output compared to the other categories within the sector.

Finance and Insurance Multipliers

	Multiplier
Employment	1.4 - 2.1
Labor income	1.3 - 1.9
Output	1.2 - 1.5

Source: IMPLAN, 2007.

Outlook

Like other support-sector pieces of Ketchikan's economy, the fortunes of this sector are closely tied to basic sector industries such as tourism, fishing, forest products, and ship building (state and federal government also play an important role in bringing jobs, wages, and spending into Ketchikan's economy). With business development and population growth, there is natural growth in banking and insurance needs.

⁶⁸ Data on nonresidents is from the Alaska Department of Labor and Workforce Development publication *Nonresidents Working in Alaska in 2008*. Other employment and wage data is also from the Alaska Department of Labor and Workforce Development.

Aside from that, it is worth noting that technological changes and society's adaptation to them will present opportunities for employment in these types of fields where the work can be done from a distance. Managing investment portfolios, for example, does not require a person to be in New York or San Francisco or even Anchorage. To the extent entrepreneurs want to live in Ketchikan for its unique quality of life, this is one of several sectors in which profitable work could be done from a distance for clients who do not live in Ketchikan or Alaska.

For reasons not readily apparent, Ketchikan has a larger share of these types of jobs than other Southeast communities or the state as a whole. Ketchikan undoubtedly benefits from being the regional supply and service center for southern Southeast Alaska; it does not have any obvious or significant comparative disadvantages.

Reviewers' Comments and Suggestions:

- Explore the occupational makeup of payroll employment for the industry and look at the nonemployer establishments (and their earnings) in more detail.
- In addition to the jobs in the industry, examine its makeup in terms of deposits, funds managed by local companies, and impact on the local economy.