



2011-2016

COMPREHENSIVE ECONOMIC DEVELOPMENT
STRATEGY



Prepared for the United States Department of Commerce
Economic Development Administration
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Alaska Department of Community and Economic Development,
Division of Community Advocacy



AGNEW
::BECK

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Prince William Sound Economic Development District

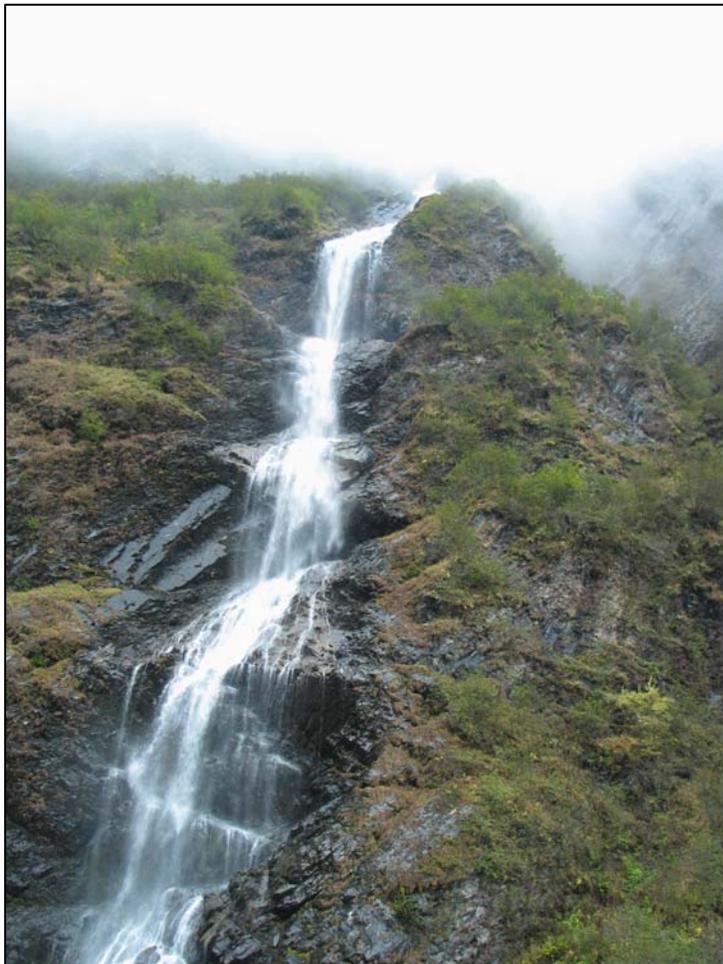
Comprehensive Economic Development Strategy (CEDS) 2011-2016

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Acknowledgements

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Bridal Veil Falls – Valdez

I::INTRODUCTION

Prince William Sound Economic Development District

Prince William Sound Economic Development Council was designated an Alaska Regional Development Organization (ARDOR) in November, 1991, under authority of the Alaska Regional Economic Assistance Program. In 2001, the council received approval from the U. S. Department of Commerce, Economic Development Administration (EDA) to become a federal Economic Development District (EDD). The mission of Prince William Sound Economic Development District is to serve as a forum for the discussion of regional economic issues and to foster economic growth and job creation through strategic planning and infrastructure development.

PWSEDD is funded by the State of Alaska, private and corporate donations through a membership program, and Planning Partnership funds from the U. S. Department of Commerce, Economic Development Administration. Project management fees, in certain cases, provide additional funding.

PWSEDD is governed by a board of directors in compliance with the Economic Development Administration and State of Alaska. Nine members comprise this board: Five members are appointed by city or village councils, four are elected by the membership. All have affiliation with government, Native organizations, communication, education, small business or corporations. Current PWSEDD board members include:

Dave Dengel, President	Copper Valley Telephone Cooperative
Dave Cobb, Vice President	Valdez Fisheries Development Assoc./Mayor of Valdez
Clay Koplín, Treasurer	Cordova Electric Cooperative, AMHS Advisory Board
Marilynn Heddell, Secretary	Captain Cookbooks and Gifts
Bob Prunella	City of Whittier
Mark Lynch	City of Cordova
Charles Totemoff	Chenega Corporation
GayDell Trumble	Chenega Bay IRA Council
David Totemoff	Tatitlek IRA Council

This document, the Comprehensive Economic Development Strategy (CEDS), 2011-2016, provides an overview of economic indicators in Prince William Sound with a focus on economic development clusters for the region and priority projects that will support and/or grow these clusters to create more jobs and increase wealth for the Prince William Sound region.

Context for the 2011-2016 CEDS

The context for this CEDS report is an increasingly competitive federal and state funding climate. As a whole, federal funding opportunities for economic development projects and programming are on a dramatic decline. Specifically, funding entities like the Economic Development Administration are recalibrating the ways in which they evaluate and award projects with an eye toward projects that have regional impact and benefits. At the same time, the

economic development needs of communities in the state and the Prince William Sound region continue to grow so do the costs of goods and services in the region. Prince William Sound communities need more and better paying jobs that best utilize the region's resources, that lower the costs of living and doing business in the region, and that will ultimately create a sustainable economy and increased quality of life for residents. The projects in this CEDS directly reflect those needs.

This project, as required by the EDA, aims to highlight the region's economic development strengths, challenges and opportunities and proposes a set of projects that will build on and enhance the region's economic development potential. The realization and success of these projects depends solely on the support and leadership of Prince William Sound public, private and non-profit sectors. Leadership and support in the form of good communication, collaboration and follow-through on projects and individual action items is critical to project success. Regional leadership must work together to strike the right balance between enhancing and growing key industries while also working to maintain the region's natural environment and rural, small town character of its communities.

Planning Process

Outlined below are the main steps in the PWS CEDS planning process. The process began in January of 2011 and ended in June of 2011.

Reconvene CEDS Committee

The CEDS Committee is comprised of the PWSEDD Board of Directors, Doug Desorcie, the president of Prince William Sound Community College, Twilah Beck, the regional Alaska Department of Labor and Workforce Development director and Deb Daisy, a representative of Chenega Corporation. In January of 2011, this group met to direct the overall effort of the 2011-2016 planning process. Specifically, the CEDS Committee gave direction on the project approach, helped convene community and economic development leaders, and provided direct feedback on regional economic development data and project ideas.

Define Cluster, Evaluation Criteria + Prioritization Process

As mandated by recent updates to the EDA CEDS requirements¹, PWSEDD utilized an industry cluster approach to assess and plan for the economic development challenges and opportunities in the Prince William Sound region. Two helpful definitions of "economic development cluster" used during the CEDS planning process were as follows:

- Geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries and associated institutions (e.g. technical schools, universities, standards agencies, trade associations) that compete but also cooperate.²
- System of businesses and institutions engaged with one another at various levels³

Later, project evaluation criteria and prioritization processes were developed to help refine regional project ideas. The evaluation criteria included:

- Positive Impacts of a Project

¹ <http://www.eda.gov/PDF/CEDSFlyer081706.pdf>

² *The Competitive Advantage of Nations*, Michael Porter, 1990.

³ *Industry Cluster Analysis of the Northern EDGE Region*, University of Wisconsin-Extension, Center for Economic Development, <http://www.uwex.edu/ces/cced/economics/northernedge/industryclusterindex.cfm>.

- Jobs – How many and what types (FT, PT/seasonal) of jobs will the project generate? What will the jobs pay? Are the jobs the right quality and match for PWS residents? Is there a good distribution of jobs to all communities in the region?
- Timing – Is the project something we can move on quickly or is it a longer-term project?
- Need – Is there a community that needs a project to individually thrive and therefore contribute to the region’s wealth? Is it a small, individual community project that requires a leader to carry the weight?
- Breadth – How does it impact other sectors and/or create opportunities for new economic development sectors and small businesses?
- Sustainability and duration – How long will the project last and impact on the region?
- Regional Wealth – Does the project create more wealth for the region?
- Adverse Impacts of the Project
 - Environment – What impact will the project have on the environmental assets of the region?
 - Community character – Is the project compatible with the local culture and characteristics of a community, the region?
- Feasibility of the Project
 - Leveraging ability – What local resources can match grant funding?
 - Regulatory challenges – What regulations could hinder the project’s success? Are there clear strategies for addressing these challenges?
 - Community and political support – Is there a strong advocate or leader for the project? Is it a good project for the EDD to lead and/or facilitate?

The CEDS Committee, working with PWSEDD staff, used these criteria as a guide for evaluating and finalizing the CEDS project list.

Conduct Background Research + Community Outreach

An important component of the planning process included research and analysis of past and current trends for each economic development cluster as well as the synthesis of current local and regional planning documents to ensure the CEDS aligned with those efforts. This information was presented to the CEDS Committee and to regional industry leaders, including representatives from the public, non-profit and private sector, in a series of community outreach meetings conducted March through May of 2011. Key outcomes of the outreach process included confirmation, expansion or modification of background data as well as a list of potential regional projects for CEDS Committee consideration.

Draft Report + Public Review Process

This document represents the draft CEDS report and has been reviewed and approved for release by the PWSEDD Board and CEDS Committee. The document was made available for public comment for 30 days, beginning May 28, 2011, ending on June 28, 2011. The final CEDS report was submitted to the Economic Development Administration on **July XX, 2011**.

Key Outcomes + Report Organization

The key outcomes of this report include the identification and definition of PWS economic development clusters and regional and community projects that support and grow opportunities in these clusters. Each cluster, a brief definition (i.e. sample businesses and job types), and PWSEDD priorities for 2011-2016, are shown in Table 1.1 below followed by an overview of how the full report is organized. The implementation plan in Chapter 4 provides more detail for each priority including objectives, specific regional and community projects that will help meet objectives, project partners and corresponding action plans and performance measures.

Table 1.1

PWS Economic Development Clusters + EDD Priorities		
Cluster	Definition (Businesses + Job Types)	Priorities
Tourism + Travel	Day cruises, sport fish charters, kayak rentals, bed and breakfasts, restaurants, gift and equipment manufacturing, support services	<ul style="list-style-type: none"> • Support recreation and tourism improvements in individual towns (which expand the attraction of the region as a whole). • Improve outlying camping and cabins. • Improve information about recreational routes and activities and encourage marine safety and stewardship.
Commercial Fisheries	Fishing, processing, seafood production and preparation, manufacturing and support services	<ul style="list-style-type: none"> • Develop business relationship with CDQ fisheries groups. • Market both PWS and Copper River as a source of fish and a place to visit; both commercial fishing and tourism benefit from telling a similar story about a clean, vital ecosystem.
Transportation	Air, water, truck, transit/ground, rail pipeline, scenic and sightseeing, warehousing and storage	<ul style="list-style-type: none"> • Advocate for improved predictability, frequency and timing of ferries and infrastructure in every community to accept all AMHS ferries. • Develop a coordinated transportation system for residents and visitors. • Develop regional port facilities in Valdez and Whittier to better support current and potential commercial fisheries and other commodities and expand the Cordova haul out to accommodate boat repair services.
Community + Regional Services	Government, public and private schools, universities and community colleges, health, social advocacy, housing, support services	<ul style="list-style-type: none"> • Provide support for regional projects in this cluster.
Emerging Clusters	Product manufacturing, communications, energy	<ul style="list-style-type: none"> • Work with small business owners interested in manufacturing products for local consumption and/or export to other areas of the state/nation.

This report is organized to first provide the reader with an overview of key background data on the people and places of Prince William Sound, followed by a review of the region's economic

trends and prominent industries. Next, the report takes a closer look at each regional economic development cluster with a focus on compelling data, associated opportunities and challenges within the cluster, ending with a list of regional project ideas specific to the cluster. For example, with transportation, the regional overview provides general information on the region's current transportation system including an inventory of existing transportation infrastructure. Later, in the transportation cluster chapter, the report provides a more detailed analysis of the current transportation trends, building a case for regional project ideas like improvement to the current ferry system, a project that will provide businesses with lower cost reliable transportation, and create easier access for visitors and improve the quality of life for residents.

2::BACKGROUND + REGIONAL OVERVIEW

Geography + History

Prince William Sound region (shown on the map below) is located along the coast in Southcentral Alaska, at the north end of the Gulf of Alaska, approximately 1,000 miles northwest of Seattle. This extremely mountainous area covers about 20,000 square miles of ocean, ice and land, extending from 250 miles west of Icy Bay on the west, to the eastern boundaries of the Municipality of Anchorage and Kenai Peninsula Borough on the west. It is made up of coastal areas surrounding Prince William Sound and the islands within the sound. On the south, the area is bounded by the Gulf of Alaska, the southerly extreme being located at the southwestern corner of Montague Island. On the north, the area is traversed by section, township and range lines that cross the Richardson Highway near Mile 45.

Geographically, Chugach Mountains on the east and north, the highest rising to 13,000 feet, and Kenai Mountains on the west, provide boundaries for Prince William Sound. Islands of Hawkins, Hinchinbrook, Montague, Latouche, Elrington and Bainbridge, separate the sound from the Gulf of Alaska. High coastal mountain ranges, over one hundred fifty glaciers and numerous rivers make Prince William Sound wild and inaccessible.



People of Prince William Sound

Population

Prince William Sound area is a Census-designated subarea (Chugach Census Subarea) of the Valdez-Cordova Census Area. The subarea is made up of the communities of Chenega Bay, Cordova (including Eyak), Tatitlek, Valdez, and Whittier and residents in the area who do not reside in any of those communities. For the purposes of this planning document, the following table presents 2000, 2008, 2009 and 2010 population counts provided by the Census Bureau (2000 and 2010 counts), the Alaska Department of Labor and Workforce Development (2008 and 2009 estimates for all but Valdez) and the City of Valdez (2008 and 2009 Valdez estimates).

Between 2009 and 2010, most communities in Prince William Sound experienced a population increase, led by Whittier (up 38.0%) and followed by Tatitlek (up 6 %). Valdez is the only community that lost population (down 8.7%). Most communities in the region, with the exception of Whittier, lost population in between the 2000 and 2010 Census. It is not possible to compare the current population in Valdez with the 2000 Census count as the 2000 Census count is not comparable to the City of Valdez population estimates for 2008 and 2009 used in this report.

Table 2.1 Population Estimates for Prince William Sound Communities, 2000 to 2010

Community	2010 Census	2009 Estimate	2008 Estimate	2000 Census	Percent Change 2009 to 2010	Percent Change 2000 to 2010
Chenega Bay	76	71	77	82	7.0	-7.3
Cordova (including Eyak)	2,239	2,233	2,274	2,622	0.3	-14.6
Tatitlek	88	83	102	107	6.0	-17.8
Valdez*	3,976	4,353	4,616	4,036	-8.7	*NA
Whittier	220	159	159	182	38.0	20.9
PWS EDD Region**	6,599	6,899	7,228	6,947	-4.3	-5.0

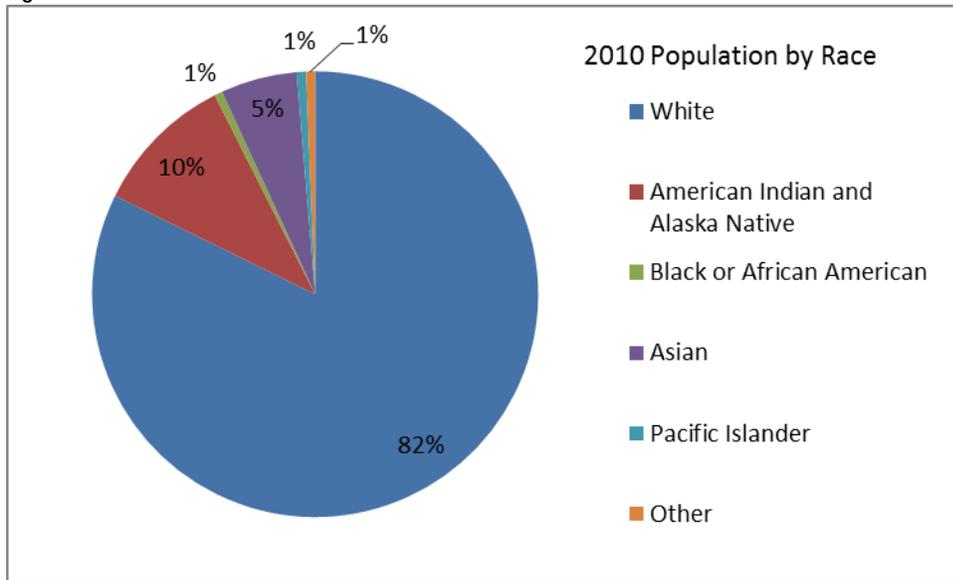
Sources: Alaska Department of Labor and Workforce Development, City of Valdez, 2010, 2010 Census

*2008 and 2009 Valdez population was estimated by the Valdez City Council. As no comparable population estimate is available for 2000, a comparison with 2000 Census figures for Valdez is not appropriate.

**The "PWS EDD Region" includes the communities of Chenega Bay, Cordova (including Eyak), Tatitlek, Valdez and Whittier. These communities are within the Prince William Sound Economic Development District.

Figure 2.1 shows 2010 population data by race. The most significant changes from 2000 Census data include a slightly higher percentage of White residents (77% in 2000, 82% in 2010) and a big decrease of residents that identified themselves in the "other" category (down six %). This change is most likely due to changes in the 2010 Census Survey question on race. In 2010, "Pacific Islander" was not an option. Numbers for American Indian/Alaska Native, Asian, Black or African American populations remained the same, 10%, 5% and 1%, respectively.

Figure 2.1



Sources: 2010 Census

The Communities⁴

The Prince William Sound region is represented by the five communities, cultures and histories of Chenega Bay, Cordova, Tatitlek, Valdez and Whittier. Following is a brief description of each community. These descriptions were adapted from the Alaska Department of Commerce, Community and Economic Development Community Profile. Community leaders had the opportunity to review and revise their community's description.

Chenega Bay

Chenega Bay is located on Evans Island at Crab Bay, 42 miles southeast of Whittier in Prince William Sound. It is 83.91 miles from Cordova and 87.08 miles from Valdez. It is 104 air miles southeast of Anchorage and 50 miles east of Seward. Winter temperatures range from 17 to 28 degrees, summer temperatures range 49 to 63 degrees Fahrenheit. Average annual precipitation includes 66 inches of rain and 80 inches of snowfall. Chenega Bay is located in the Valdez Recording District and the community is represented by Chugach Alaska Corporation, a regional Alaska Native corporation.

Chenega was first reported by Ivan Petroff in an 1880 census. This village was located on the southern tip of Chenega Island. It was destroyed and over half of all residents perished in tsunamis following the 1964 Good Friday earthquake. Twenty years later Chenega village was rebuilt at the present site on Evans Island. Chenega Bay is an Aluti̅iq village practicing a subsistence lifestyle. A system is in place to track the harvest of fish and game in subsistence hunting and fishing areas through community reports to the Alaska Department of Fish and Game.

⁴Each of these community profiles was adapted from the Alaska Department of Commerce, Community and Economic Development Community Database and was approved by community leaders

Cheneg Bay has accomplished some major achievements in a relatively short time. A 3,000 foot long airstrip was built in 1994, so air charter service is available. Lighting and other improvements have been recently added to the airfield. Additional infrastructure includes a floating dock with moorage and bulk fuel storage. In 1999, the Russian Orthodox Church was rebuilt and is an important part of the community.



Cheneg Bay Russian Orthodox Church

Cordova

Cordova is located at the southeastern end of Prince William Sound in the Gulf of Alaska. The City of Cordova lies at the base of Eyak Mountain on Orca Inlet and is 52 air miles southeast of Valdez and 150 miles southeast of Anchorage. Winter temperatures average from 17 to 28 degrees, summer temperatures average from 49 to 63 degrees Fahrenheit. Average annual rainfall is 167 inches, average snowfall is 80 inches. Cordova is in the Cordova Recording District.

The Cordova area has historically been home to the Alutiiq and migrating Athabascan and Tlingit natives who called themselves Eyaks, as well as other Native groups. Orca Inlet was originally named “Puerto Cordova” honoring a famous Spanish general, by Fidalgo in 1790. In 1902, one of the first producing oil fields in Alaska was discovered 47 miles southeast of Cordova, at Katalla. Michael Heney, builder of the Copper River and Northwestern Railroad, named the town Cordova in 1906. Cordova became the railroad terminus and ocean shipping port for copper ore from the Kennecott Mine up the Copper River. Shipment of ore began in 1911. The Bonanza-Kennecott Mines operated until 1938, yielding over \$200 million in copper, silver and gold. Oil was produced at Katalla until 1933, when the drilling site was destroyed by fire. Fishing became the economic base in the 1940s.

Tatitlek

Tatitlek is located on the northeast shore of Tatitlek Narrows, on the Alaska Mainland in Prince William Sound. It is 30 miles east of Valdez by sea near Bligh Island and 30 air miles northwest of Cordova. Winter temperatures range from 17 to 28 degrees, summers average 49 to 63 Fahrenheit. Annual precipitation includes 28 inches of rain and 150 inches of snow.

Mentioned in Spanish journals of the late 18th century, Tatitlek is an Alutiiq village, first appearing in the U. S. Census in 1880. Tatitlek is a fishing and subsistence based culture. The sale or importation of alcohol is banned in the village. Winter temperatures range from 17 to 28 degrees, summers average 49 to 63. Annual precipitation is 28 inches of rain and 150 inches of snowfall. Tatitlek lies in the Cordova Recording District and the community is represented by Chugach Alaska Corporation, a regional Alaska Native corporation.

Valdez

The City of Valdez is located on the north shore of Port Valdez, a deep water fjord in Prince William Sound, 305 road miles east of Anchorage, and 364 road miles south of Fairbanks. It is the terminus for the Trans-Alaska oil pipeline. January temperatures range from 21 to 30 degrees, 46 to 61 degrees Fahrenheit in July. Average annual rainfall is 62 inches. The average snowfall is 27 feet annually. Valdez is in the Valdez Recording District.

The Port of Valdez was named in 1790 by don Salvador Fidalgo for the famous Spanish naval officer Antonio Valdes y Basan. The town was first settled in 1898 as a debarkation point for those seeking routes to the interior gold fields. Valdez became an incorporated City in 1901. Ft. Liscum was built in 1900, with a sled and wagon road linking Valdez to Eagle in the interior soon after. By the 1920s, a road linked Valdez to Fairbanks.

In 1964, a 9.2 magnitude earthquake destroyed the original town site, killing several residents. The city was rebuilt four miles west on more stable bedrock. Construction of the Trans-Alaska oil pipeline terminal and other cargo facilities brought thousands to Valdez during the 1970s. In 1989, Valdez was the center for the massive *Exxon Valdez* oil spill clean-up effort.

Whittier

Whittier is located on the northeast shore of the Kenai Peninsula at the head of Passage Canal, on the west side of Prince William Sound, 75 miles southeast of Anchorage. Winter temperatures range from 17 to 28 degrees, summer temperatures average 49 to 63 degrees Fahrenheit. Average annual precipitation includes 66 inches of rain, 80 inches of snowfall. Whittier is in the Anchorage Recording District.

Passage Canal has been used for centuries by Chugach Natives as a route from Prince William Sound to Cook Inlet, as they fished and hunted in the region. Nearby Whittier Glacier was named by the Harriman Expedition in 1899, after American poet John Greenleaf Whittier. A port and rail terminal built by the U. S. Army in 1941 was followed by a two and a half mile tunnel through Mt. Maynard in 1943. As a secret World War II port, troops and supplies were shipped to military bases in Alaska. Following WWII, Whittier was a base for the U. S. Army. The 14 story Begich Towers was built in 1948 to house Army officers and dependents. The Army also constructed the Buckner Building, completed in 1953. It housed 1,000 Army personnel and had a hospital, bowling alley, theater, gym, swimming pool and shops.



Whittier

Education + Workforce Development

Table 2.2 provides an overview of educational attainment, 2005-2009, for Prince William Sound residents compared to statewide and national figures. The region's education trends are similar to the statewide and national trends with the largest percentages of residents having attained a high school diploma, GED or alternative. The region also has a slightly higher percentage of residents having achieved a high school equivalency or higher (92% versus 91% statewide and 83% nationally). Most significant are the estimated figures for residents that have taken some college courses. This figure, over 36%, represents that most PWS residents have taken some college courses (36.5%). These numbers bode well for the educational achievements and potential of Prince William Sound residents and provide the basis for investment in Prince William Sound's postsecondary educational institutions. The community and regional services section of Chapter 3 provides an overview of the region's current workforce development resources including educational, training, recruitment and other employment services provided by the Alaska Department of Labor and Workforce Development and the Prince William Sound Community College, an extension of the University of Alaska system.

Table 2.2 Educational Attainment for the Population 25 years and over, 2005-2009

	PWS Region	Alaska	US
Attainment	Estimate	Estimate	Estimate
Population 25 years and over	4373	419,058	197,440,772
Less than 9th grade	2.3%	3.5%	7.0%
9th to 12th grade	5.5%	5.8%	9.0%
High school graduate, GED, or alternative	25.2%	28.5%	29.0%
Some college, no degree	36.5%	27.8%	20.0%
Associate's degree	9.8%	7.9%	7.0%
Bachelor's degree	15.0%	17.1%	17.0%
Graduate or professional degree	5.7%	9.5%	10.0%
Percent high school graduate or higher	92%	91%	83%
Percent bachelor's degree or higher	21%	27%	27%

Source: US Census Bureau, 2005-2009 American Community Survey

Note: All of these estimates have a margin of error and in some cases, in the smaller percentages, that margin of error is large.

Regional Employment + Earnings

In 2009, 3,121 Prince William Sound residents were employed in the region. That is a loss of 100 jobs held by residents since the prior year. This count does not include self-employed residents such as commercial fishermen or small business owners who have no employees, nor does it include non-residents working in the five communities of Chenega Bay, Cordova, Tatitlek, Valdez and Whittier. It also does not account for individuals residing in the region but working outside the region; e.g. in the oil industry on the North Slope. Tables 2.3 and 2.4 show more detail for 2009, with an overview of industry jobs counts by Prince William Sound community. Table 2.3 also shows the most current (2009) average per capita income for the region at \$26,649 (ranging from \$17,180 in Tatitlek to \$33,851 in Whittier). This compares to the statewide per

capita income figure for the same year of \$29,382. Again, these figures do not capture critical figures for self-employed residents. Also missing from this data are relevant data on the number of PWS individuals living below poverty level. 2010 Economic Census data has yet to be released, but 2000 figures indicated that approximately 8.1% (478 residents) of PWS residents were living below the poverty level. Although the overall poverty rate is low, individual communities may have a higher poverty rate. The most current unemployment rates for the Valdez-Cordova Census Area (8.1 in 2011 compared to 7.4 statewide).

Table 2.3 Employment and Earnings for Prince William Sound Residents, 2008 and 2009

	2010/2011	2009	2008	Change	Percent Change
Employment by Industry					
Private Sector	N/A	2,273	2,382	-109	-4.60%
State Government	N/A	189	188	1	0.50%
Local Government	N/A	659	651	8	1.20%
Total Employment	N/A	3,121	3,221	-100	-3.10%
Total Wages Paid	N/A	\$131,456,520	\$134,521,844	(\$3,065,324)	-2.30%
Average Annual Wage	N/A	\$42,120	\$41,764	\$356	0.90%
Other Employment*					
Commercial Fishing Permits		364	377	-13	-3.40%
Com Fishing Crew Licenses		333	365	-32	-8.80%
Business Licenses (2010 & 2009)		852	748	104	13.90%
Average Per Capita Income**	N/A	\$26,649	---	---	---
Unemployment Rate***	8.1	---	---	---	---

Sources: Alaska Department of Labor and Workforce Development, US Census Bureau, 2005-2009 American Community Survey, Alaska Department of Fish and Game, and Alaska Department of Commerce, Community and Economic Development, 2010.

N/A – this data has not yet been released.

*Includes Prince William Sound residents who work outside of the area, but does not include non-residents who may work in Prince William Sound.

***As of May 2011, according to Alaska Department of Labor and Workforce Development.

Table 2.4 Employment and Earnings by Prince William Sound by Community – 2009

	Chenega Bay	Cordova	Tatitlek	Valdez	Whittier	Total
Residents age 16+	45	1,684	63	2,738	188	4,718
Total Employed	32	1,019	39	1,920	111	3,121
Private Sector	12	682	17	1,484	78	2,273
State Government	0	65	1	116	7	189
Local Government	20	272	21	320	26	659
Total Wages (\$000)	\$647.70	\$29,648.60	\$668.90	\$97,381.90	\$3,109.70	\$131,456.80
Avg Annual Wage	\$20,240	\$29,096	\$17,152	\$50,720	\$28,015	\$42,120

Source: Alaska Department of Labor and Workforce Development, 2010. Note: Includes Prince William Sound residents who work outside of the area, but does not include non-residents who may work in Prince William Sound.

According to the Alaska Department of Labor and Workforce Development, the major industries in the district for 2009 include the following:

- Trade, Transportation and Utilities (includes the petroleum industry in the district as well as the transportation and shipping sectors) – about 750 resident workers;
- Local Government (includes local public schools and tribal governments) – about 659 resident workers;
- Leisure and Hospitality (includes work in the tourism industry) – about 310 resident workers;
- Education and Health (including private sector education and health care workers) – about 254 resident workers;
- Manufacturing (including fish processing) – about 247 resident workers; and,
- State Government (includes State schools such as University of Alaska and State-run vocational programs) – about 189 resident workers.

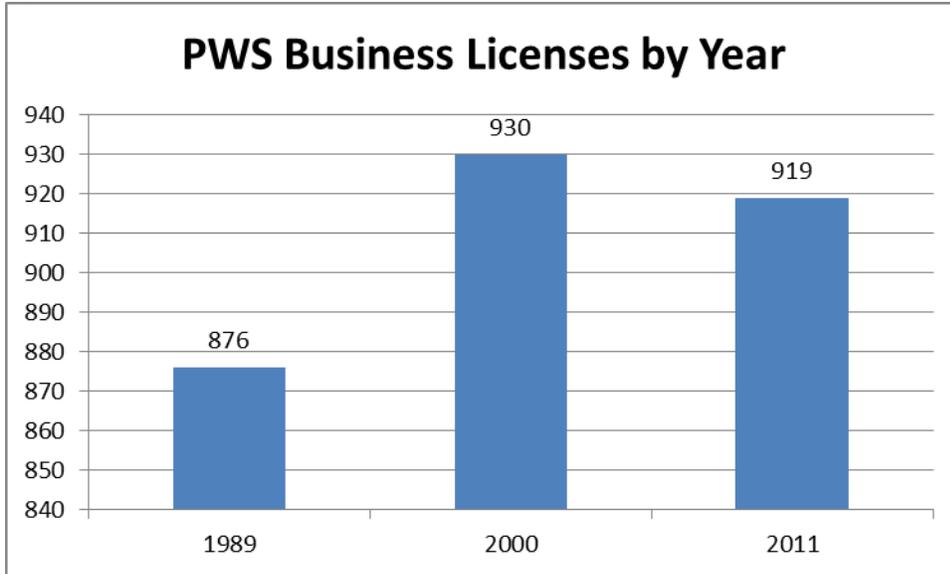
The top employers of Prince William Sound District residents during 2009 were:

- Alyeska Pipeline Service Company, Inc.
- State of Alaska (excluding the University)
- City of Valdez
- Valdez City Schools
- Trident Seafoods Corporation
- Cordova School District
- University of Alaska
- City of Cordova
- Providence Hospital

An additional factor that helps describe economic activity for a region is the total number of active businesses and the change in that number over time. This factor is best measured by the number of active business licenses, as documented by the Alaska Department of Commerce, Community and Economic Development, Division of Corporations, Business and Licensing. Figure 2.2 below shows annual business license numbers for Prince William Sound in 1989, 2000 and 2011(as of June 2011). From 1989 to 2011, the region has experienced an approximate 5%

increase in the total number of licensed businesses. The 2011 numbers are down slightly from 2000 with 11 less businesses operating in the region. What these figures do not show is the relative financial health or success of these businesses.

Figure 2.2 Annual Business Licenses for Prince William Sound



Source: Alaska Division of Corporations, Business and Professional Licensing

The sections that follow provide an overview and in-depth analysis of the economic development problems and opportunities for Prince William Sound.

3::ANALYSIS OF ECONOMIC DEVELOPMENT PROBLEMS + OPPORTUNITIES

This section of the CEDS provides an overview and analysis of the economic development problems and opportunities in Prince William Sound. Included are the following subsections:

- Major Sectors of the Economy – Includes a description of the region’s major economic sectors, including each sector’s past and current contributions to the Prince William Sound economy and highlights the strengths and weaknesses of each sector. Sectors include the following:
 - Travel and Tourism
 - Commercial Fish Harvest and Processing
 - Transportation
 - Petroleum Oil and Gas
- Economic Development Clusters – Includes an overview of economic development opportunities in the region, defined as “economic development clusters”, or those economic sectors that have the highest potential for growth. Also includes the current and future challenges and threats to each cluster and a snapshot of current and planned investment in the cluster. PWS economic development clusters include:
 - Travel and Tourism
 - Commercial Fish Harvest and Processing
 - Transportation
 - Community and Regional Services
 - And, the following “Emerging Clusters”
 - Energy
 - Manufacturing
 - Communications

Major Sectors of the Economy

Travel and Tourism

The Prince William Sound region provides an abundance of what draws people to visit and live in Alaska: dramatic mountain peaks and glaciers, an intricate coastline, old growth rainforest, alpine meadows, frequently seen wildlife, and interesting small towns. Perhaps the region’s most striking characteristic is its combination of accessibility and wilderness solitude. While located adjacent to the state’s largest population base and offering ready access, the region is largely still a wild, natural place where, if you are a boater or kayaker, you can frequently have a whole bay to yourself. Outside of the region’s five small communities, there are few commercial lodges, businesses or houses in the area.



Kayaking in Prince William Sound

This combination of spectacular terrain and undeveloped character brings over 250,000 out-of-state visitors each summer (most of who pass through on cruise ships) and substantial numbers of in-state visitors. Tourism is one of Prince William Sound’s major economic activities.

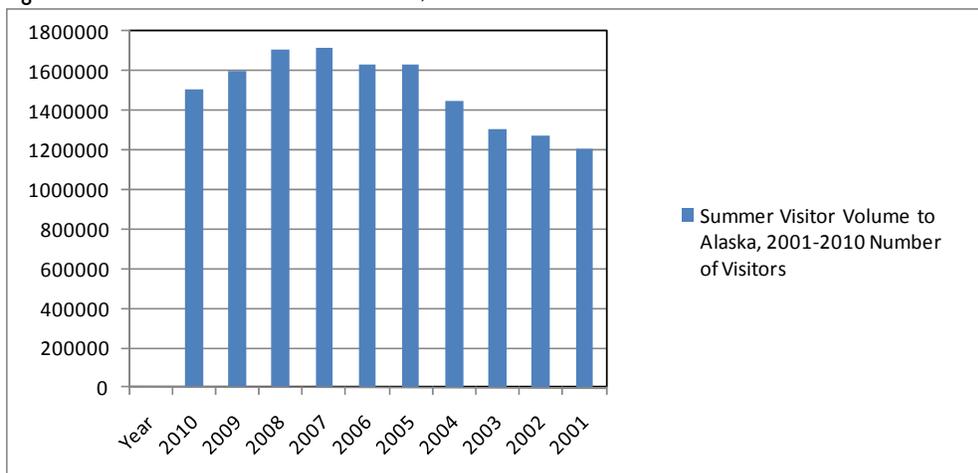
Tourism businesses and employment in the region include lodging, food and related services in the region’s communities; a handful of small fishing lodges scattered around the Sound; and day activities like sportfishing charters, sightseeing cruises and flightseeing, and overnight cruises. A related, important part of the region’s tourism economy is the set of support services provided to visitors including ferry and plane service, kayak drop-off, rentals, and fuel sales.

Precise information on the numbers of visitors to Prince William Sound and trends in use is not available. But a reasonable general sense of the magnitude and trends in visitation can be derived by looking at several less direct indicators of tourism related economic activity. This is done in the remainder of this section beginning with an overview of statewide tourism trends and then continuing with information on economic activities within the region.

Statewide Tourism Trends

Out of state visitation to Prince William Sound largely reflects trends in statewide tourism activity. The figures below give an overview of statewide trends, focused on summer visitors, which make up about 90% of the people visiting Alaska from outside the state.

Figure 2.3 Summer Visitor Volume to Alaska, 2001-2010



Source: Alaska Visitor Statistics Program VI, Interim Visitor Volume Report, Summer 2010

Out of state travel has grown dramatically over the last three decades, rising from less than 500,000 visitors in the mid 1980's to over 1,500,000 visitors in recent years. Most recently, the state has experienced a decline in visitation. This downturn, the first in the State's history, was driven primarily by the national and global recession.

Figure 2.4 Visitor Volume by Exit Mode, 2008-2010

Visitor Volume, by Exit Mode and Cruise Market, Summers 2008-2010

Exit Mode	2010	2009	2008	% change 2009-2010	% change 2008-2010
Air	693,400	702,800	800,600	-1.30%	-13.40%
Cruise ship	742,700	835,000	836,500	-11.10%	-11.20%
Highway	59,500	55,200	59,900	7.80%	-0.70%
Ferry	10,000	8,700	10,400	14.90%	-3.80%
Total	1,505,600	1,601,700	1,707,400	-6.00%	-11.80%
Cruise Market					
Cruise	878,000	1,026,600	1,033,100	-14.50%	-15.00%
Non-cruise	627,600	575,100	674,300	9.10%	-6.90%

Source: Alaska Visitor Statistics Program VI, Interim Visitor Volume Report, Summer 2010

Figure 2.4 above shows variations in the quantities and trends in visitation and brings out the fact that the recent decline was concentrated in the cruise sector.

The non-cruise portions of the market - ferry, highway and air - substantially rebounded in 2010, although they have not yet returned to the pre-recession levels.

In recent years, a statewide effort has taken place with the goal of better understanding the State's economic prospects including tourism. This project, labeled "Alaska Forward", was sponsored through the Alaska Partnership for Economic Development (APED). APED was created through the cooperation of economic development organizations from around the state. APED carried out background evaluations of the state's economy. Below is an extract of results of one of the results of this effort, the "Alaska Forward Full Phase I Report":

- The study defines a concept called 'core' travel and tourism which allows comparisons to other industries in the state. Travel and tourism's core industry (only the direct impact of end-providers of goods and services to travelers) generated \$856 million in local value added in 2002—3% of gross state product. The study ranked travel and tourism as the seventh-largest private sector industry in the state in terms of value added and the third-largest private sector employer with 26,158 direct full-time equivalent jobs in 2002, about 9% of total state employment. The study also found that travel and tourism is a valuable source of revenues for the state and local governments of Alaska. In 2002, \$152.4 million in state and local tax revenue was generated by the travel and tourism sector in Alaska.
- More recently, a 2006 study by McDowell Group found that non-resident visitors spent \$1.7 billion in Alaska during the 2006-07 visitor year (May 06 through April 07). That included \$1.5 billion in spending by summer visitors and about \$200 million in off-

season visitor spending. A 2008 McDowell Group study found that the cruise component of the visitor industry generated the annual equivalent of 14,500 jobs and \$565 million in annual payroll. The industry accounted for \$100 million in state and local government taxes and fees in 2007.

- Within the statistics compiled by the State Department of Labor, the leisure and hospitality industry is the closest proxy to travel and tourism. Over the last two decades the real gross state product of this industry sector expanded at a 1.3% compounded annual rate. Our expectation is that this industry will continue to grow at a rate in excess of the state average. While Alaska's visitor industry experienced a decline in 2009 and 2010, over the long term the industry is expected to resume its growth track.

In Region Tourism Activities and Trends

Building on the statewide trends information above, this section looks at the specifics of tourism in Prince William Sound.

Tourism in the region is a combination of three categories of users: in-region residents, Alaska residents and out of state visitors. As noted previously, there is no single clear source on the total amount of resident and non-resident tourism activity in the area but a good sense of magnitudes and trends in visitation can be gained through a review of a number of secondary sources. Before looking at the statistics, below is a summary of the major types of recreation and tourism activity in the sound.

Overnight Cruise, Large Ships

The largest numbers of visitors to the Sound, approximately 225,000 people, barely touch the ground as they pass through the Sound in large groups. The majority of these ships dock in Whittier and Valdez and the passengers quickly board trains or motor coaches en route to points north.

Overnight Small Cruise

About 10 companies/commercial licensed boat owners offer small custom overnight tours in the sound. These typically carry less than 12 passengers and go for 4-6 days. This sector carries a fraction of the number of visitors that travel on the large cruise boats.

Day Cruises

Several companies offer sightseeing tours of glaciers and wildlife departing daily out of Whittier and Valdez all summer. These operations include several that feature relatively large ships, capable of carrying 300 + passengers. In addition, the Alaska Marine Highway System ferry ride between Whittier and Valdez effectively provides the equivalent of a day cruise, as one leg of the popular driving loop from Anchorage along the Glenn and Richardson Highways.

Fishing and Hunting

PWS is a popular destination for sport fishing and hunting including fishing for salmon, halibut and other bottom fish and hunting for bear and deer. Anglers and hunters can go with chartered guides or travel on their own. There are approximately 75 charter boat companies operating in the Sound, a set of operators who come into the area from Seward, and a much smaller number (about 10) small outlying fishing lodges in the region. Excluding large cruise ships, this is the largest, most important sector of Prince William Sound tourism.

Boating, Kayaking, Hiking

PWS is a popular destination for people who are sightseeing and exploring. The state and USFS offer rentable public use cabins and tent platforms in the area, and there are countless moorings and informal campsites in the Sounds' bays and shorelines. The cabins in particular are very popular - attempting to reserve a summer cabin requires a 6:00 AM computer exercise precisely 6 months ahead of the intended use date. A number of companies in Whittier, Cordova and Valdez offer chartered drop off/pick-up services for kayakers. Likewise companies in each town offer guided kayak trips. There is a 5-10 year waiting list for a small boat mooring in Whittier.

In-Town Services

Each of the Sound's three major communities offers a range of lodging, restaurants, gift shops, museums, walking trails, main street strolling and other attractions. Cordova offers a 60 mile road system that leads across the Copper River Delta to the Childs Glacier; Valdez and Whittier are connected to the State Highway system.

Winter Tourism

Valdez and, more recently, Cordova have become among the most well-known and well publicized extreme skiing destinations in the world. Both communities have successful heli-ski operations that attract visitors from all over the globe. Cordova has a small in-town ski lift and Valdez will soon have a community ski area.

Other Activities

Each larger community in the Sound offers a series of festivals and events that annually attract many visitors. Examples include salmon and halibut derbies in Valdez, including the largest women's fishing derby in the nation, May Day Fly-In Air Show, snowmachining, ice climbing and shorebird and salmon festivals in Cordova.

The figures below show summer 2006 out-of-state visitation to Southcentral Alaska. As can be seen, Prince William Sound receives a small portion of the total out-of-state travelers to Alaska.

Table 2.5 Destinations Visited by Summer 2006 Out-of-State Travelers

Total	1,631,500
Southcentral	907,000
Anchorage	814,000
Kenai Peninsula	439,000
Seward	341,000
Kenai/Soldotna	173,000
Homer	153,000
Other Kenai Peninsula	77,000
Whittier	232,000
Talkeetna	207,000
Palmer/Wasilla	139,000
Girdwood/Alyeska	135,000
Prince William Sound	106,000
Portage	98,000
Valdez	67,000
Other Southcentral	73,000
Alaska Visitors Statistics Program 2006 - Note: this is the most recent year the state has conducted the full AVSP; while statewide visitor counts which are	

conducted annually it is only the full AVSP that provides details like the table above. Any areas not listed here had less visits than the destinations shown.

The remainder of this section looks at other indications of travel in the region. Details of two important travel indicators - ferry and plane travelers - are presented in the Transportation section of this report. About 18,000 people board ferries in Whittier; about 13,000 in Cordova. Ferry use has steadily increased in the last 10 years and jumped dramatically in 2006, when the fast ferry service was introduced.

In contrast to ferry use, the number of people boarding planes has slowly declined over the last 10 years. Approximately 15,000 people boarded planes in Cordova in 2009, a drop from nearly 20,000 in 2002; in Valdez the numbers were about 14,000 in 2009, a drop from about 19,000 in 2002. Ferry and plane figures both include a combination of resident and visitor travel.

It is important to note that both the ferry and jet service are heavily subsidized by the government. Stated in different terms, these two key elements of the travel industry in the region do not generate sufficient revenue to cover their costs and only exist at current service levels because of government support. More on this topic is presented in the transportation section.

Another way to consider trends in Prince William Sound's current success and potential for travel and tourism growth is local sales tax, bed tax and other visitor related taxes. Whittier, Cordova and Valdez each have sales or bed taxes. Additionally, Whittier has a passenger transportation tax and Cordova collects a tax on rental cars. The bed tax is a proxy for overnight visitation while sales tax is a measure of retail activity in each community. In most categories, particularly sales and bed tax, these data suggest a steady increase in the economic impact of tourism activity and related employment and earnings in three Prince William Sound communities. Tax figures include a combination of resident and visitor spending.

More so than other indicators, changes in tax revenues suggest the increasing importance of tourism as an economic activity in the region.

Table 2.6 - Prince William Sound Community Taxes, Rates and Revenues 2003-2010

Community	2010	2009	2008	2007	2006	2005	2004	2003	change
Whittier									
Sales Tax	\$572,364	\$597,638	\$422,755	\$258,102	\$248,256	\$252,195	\$176,461	\$117,418	397%
Sales Tax (%)	5%	5%	5%	3%	3%	3%	3%	3%	
“apples to apples” sales tax at 3%	\$343,418	\$358,583	\$253,653						290%
Psngr. Transp. Tax	\$186,277	\$194,236	\$127,490	\$118,244	\$126,181	\$130,728	\$120,887	\$87,296	113%
PT Tax (%)	\$2.50	\$2.50	\$2.50	3%	3%	3%	3%	3%	
Cordova									
Sales Tax (6%)	\$2.88 million	\$2.67 million	\$2.75 million	\$2.60 million	\$2.47 million	\$2.32 million	\$2.03 million	\$2.12 million	36%
Bed Tax (6%)	\$99,481	\$141,812	\$90,587	\$134,213	\$84,901	\$64,689	\$79,030	\$54,418	82%
Car Rental (6%)	\$12,662	\$9,752	\$12,749	\$19,188	\$17,080	\$12,509	\$13,509	\$12,919	---
Valdez									
Bed Tax (6%)	\$389,169	\$358,349	\$375,206	\$329,056	\$232,907	\$320,859	\$358,349	\$256,803	52%

Source: Alaska Taxable, 2003-2010. Chenega and Tatitlek have no sales or special taxes. In 2008, Whittier changed to summer only sales tax and increased rate from 3% to 5%.

Another indicator, business license activity, is a measure of the number of businesses in a community and is generally a good indicator of economic health and trends in a community or region. Business licenses are required to operate a business in the State of Alaska and can be renewed yearly or every two years. As part of the application process, businesses are required to indicate their industry, or activity. Several of these categories can be aggregated to give a rough estimation of the Travel and Tourism cluster. These categories are fishing and hunting, which includes sport fishing; transportation; arts, entertainment and recreation; and accommodation and food. While these categories can be highly variable as they are self-selected by the businesses an analysis of the trends can still be helpful. A summary of those categories is provided in the table below. A general increase in the number of tourism-related business licenses occurred between 1989 and 2006. For example, the number of business licenses in Accommodation and Food in the communities increased from 65 in 1998 to 131 in 2006. The number of business licenses in Arts, Entertainment and Recreation increased from 20 in 1998 to 88 in 2006.

Table 2.7 Business License Activity, Tourism subset, 1989-2006

Community	2006	2000	1998	1993	1989
Chenega	3	4	2	0	0
Cordova	115	109	79	88	68
Tatitlek	0	0	0	1	2
Valdez	179	160	95	164	122
Whittier	26	18	11	10	10
Total	323	291	187	263	202

Source: Prince William Sound Tourism Economic Indicators, 2008.

Prince William Sound is a popular fishing destination. While not one of the state's premier fishing destinations, the Sound offers a range of on and off-shore fishing opportunities. Valdez is a particularly popular destination for Fairbanks and other interior Alaskan communities. The community features over 900 RV parking spots, and these regularly fill up as Alaska residents and other visitors drive to Valdez for summer fishing and sightseeing. At least 14 fishing lodges welcome summer visitors and numerous charter fishing boats take visitors into the Sound. The latest count available (2004) listed nearly 80 registered charter fishing vessels in the five communities. The Prince William Sound Charter Boat Association currently has 25 members, some of which may have more than one boat, and about half of which are based outside of the Sound, although they operate there seasonally.

The following Table 2.8 shows sport fishing effort in the North Gulf Coast/Prince William Sound estimated from surveys conducted by the Alaska Department of Fish and Game. While some of this fishing activity is by Sound residents much of it is also by out-of-region visitors. Sport fishing activity has certainly grown over time within the Sound. It is interesting to note that the amount of fishing effort as measured by number of angler-days fished has grown much faster than the actual number of anglers.

Table 2.8 Estimates of Sport Fishing Effort in the North Gulf Coast/Prince William Sound, 1999 to 2009

Year	Number of Anglers	Percent Change	Angler-days Fished	Percent Change
2008	92,790	-10.20%	262,336	-17.70%
2007	103,373	10.50%	318,595	26.90%
2006	93,545	-9.30%	251,048	-5.50%
2005	103,148	6.40%	265,673	-5.20%
2004	96,977	4.00%	280,213	16.00%
2003	93,272	17.30%	241,527	12.70%
2002	79,495	-3.40%	214,282	-2.10%
2001	82,327	9.00%	218,895	63.00%
2000	75,534	6.60%	134,288	19.40%
1999	70,848		112,447	
Change 1999-2008		27.4%		133.30%

Source: Estimates from surveys performed by the Alaska Department of Fish and Game, 1999 through 2009

Hunting is also a popular activity in the Sound by people outside the region and also by local residents who rely on hunting for subsistence purposes. Hunting areas include outer islands, such as Montague and Hinchinbrook, which are the focus of hunting for black bear and deer.

Tourism Activities, Resources and Trends in Individual Communities

Whittier has become a more important visitor stop in South Central Alaska since a road was completed to connect the port with Anchorage in 2000. Because of that road connection, Whittier’s close proximity to Anchorage and its deep water port, cruise lines and the Alaska Marine Highway System have moved many of their ports of call from Seward to Whittier in recent years. Though cruise ship traffic to this community has slowed, the tourism-related industries appear strong in Whittier.

Valdez worked with Fairbanks to create “Alaska’s Adventure Corridor - Let the Adventure Begin!” campaign marketing tourism along the Valdez to Fairbanks Richardson Highway and Wrangell St. Elias National Park. This group approached Alaska’s major cruise ship companies and was successful, as a major cruise line returned to the Port of Valdez in 2008. While the intent to return to Valdez is evident, economic realities may slow actual growth in cruise ship stops at Valdez. Just one cruise ship visited Valdez in 2010, and one is scheduled in 2011. Winter tourism continues to expand in Valdez. Ski Magazine visited the community as did Olympic snow boarder Sean White. The City will install a small rope tow in the area and hopes to eventually develop more extensive lifts. There are currently nine heli-ski operations in the area. The Valdez May Fly-In brings in over 3,000 visitors each year and is growing. Additionally, Valdez hosts a military “Rest and Recreation” site and continues to act as a “cold /extreme” training ground for various military branches. Additionally, Valdez is home to the “Last Frontier

Theatre Conference”, an annual event sponsored by Prince William Sound Community College and local businesses. 2012 will be the 20th anniversary for this well attended event.

Cordova is located off the road system and receives fewer visitors than either Valdez or Whittier. The town has aimed to find a balance between attracting visitors to help support its economy while at the same time guiding tourism growth to avoid the changes that can come with large numbers of visitors. Visitor attractions include the Copper River Delta and Childs Glacier, hiking, skiing and sport fishing. The small, walkable town itself is an important attraction, as is the community’s long, rich history. Current tourism-related initiatives include development of a major community/visitor center and continued expansion of salmon and shore birding events. Cordova has been successful in developing an Alaskan Tourism Market in Cordova. The fast ferry Chenega and the vehicle tunnel at Whittier has opened access to Cordova, and has resulted in a marked increase in visitor revenues, largely from the Anchorage and Fairbanks markets, with contributions from Southeast and western Alaska visitors. The Cordova Center will provide a venue for 250 person small meeting and convention events in an Alaskan venue that boasts good air and ferry access, longer winter daylight hours, ice free ports, and winter recreational opportunities. The "staycation" promotions in Alaska have been successful, in attracting the Alaskan visitor to Cordova.



Cordova

The village of **Chenega Bay** is studying ways to introduce eco-cultural tourism to the village in a controlled environment. Infrastructure to accommodate visitors at this time is quite limited. The untouched, natural environment of the southwest Sound is highly sought by the adventure-eco traveler. Chenega properties in this area can be visited with permission from the village council.

The community of **Tatitlek** is currently not interested in pursuing tourism activities in the village. However, this does not mean community members are not engaged in cultural activities. Every year, the community brings in young people and teachers from around the Sound and beyond for Culture Week. During that week, youth learn new skills that are traditional among the region’s Alaska Native peoples. Activities include beading, basket weaving, carving, drum making and many activities focused on the traditional harvesting of fish and sea mammals.

Cultural tourism is currently limited in Prince William Sound, but an attraction with real potential for growth. Alaska Native groups share traditional dances, art and hand crafts with visitors and are opening museums and cultural centers in the region. A system of marine trails for kayaking is under consideration for the region.

Commercial Fish Harvest and Processing

Commercial fish harvest and processing contributes to the economies of all communities in Prince William Sound. For instance, Cordova is world famous for its Copper River Red and King Salmon. Cordova's first Copper River King brought \$23.99 a pound whole or \$32.99 per pound for a fillet in Seattle, as reported on Northwest.com, May 17, 2011. While a high price, this is down from \$60 per pound last year.

Employment for commercial fish processing is reported under the Manufacturing industry category. In 2010, 13 land-based fish processors and three shucker/packers (shellfish processors) were registered in the Prince William Sound district. In addition, two or three floating processors work in the Sound during fishery openings. In 2009, about 267 Prince William Sound residents worked in the manufacturing sector and many of those jobs were in fish processing. Many non residents work in the fish processing sector also. Prince William Sound Regional Aquaculture Corporation operates five salmon hatcheries in the region.

Commercial fish harvest employment is considered self-employment and is not reported by the Alaska Department of Labor and Workforce Development. In 2009, 364 Prince William Sound residents held commercial fishing permits and 333 residents held commercial fishing crew licenses, down 13 permits and 32 crew licenses respectively from 2008. The following table shows commercial fishing participation and earnings by Prince William Sound district residents in 2009.

Table 2.9 Commercial Fishing Participation and Catch
Valdez-Cordova Census District – 2009-2010

Community	Commercial Fishing Permits		Fishing Crew Licenses		Pounds of Fish Caught*	Value of Fish Caught*
	2009	2010	2009	2010	2009	2009
Chenega Bay	0	0	1	0	0	\$0
Cordova	318	337	257	279	28,531,234	\$23,227,861
Tatitlek**	2	1	10	5	NA	NA
Valdez	41	52	52	73	2,085,508	\$1,086,852
Whittier	3	12	13	22	136,783	\$204,686
Total**	364	402	333	379	30,753,525+	\$24,519,399+

Source: Alaska Commercial Fisheries Entry Commission, 2009-2010. Discrepancy between this and the following table regarding number of permits is presumably due that fact that some residents hold permits for areas outside PWS.

*Pounds caught and value data is preliminary. Final data will likely result in higher values. Also, pounds caught and value is attributed to the commercial fishery permit holder, and not to crew members.

**Although there was commercial fish harvest by Tatitlek residents in 2008, the small number of permits renders the data confidential. Totals do not include commercial fish harvest by Tatitlek residents.

Commercial Fishing Trends

Prince William Sound has three very different fisheries - the pink salmon seine fishery that largely harvests hatchery fish, the media darling drift net fishery on the challenging waters of the Copper River Delta and the set net salmon fishery. Halibut is also important in the region. The region also had a very lucrative herring fishery. Trends and potential for commercial fishing, which vary by species, are summarized in the table on the following page and outlined below:

Drift and Gill Net Salmon

Both these fisheries had extraordinary years in 2010, with record setting volumes and prices for fish. And while fishing (like farming and tourism) is always a volatile industry with potential for sudden dramatic swings of fortune, the trends in the value of the product, harvest levels and the permit values are stunningly positive. Average drift net permit prices have grown from \$40,400 to \$128,100⁵. A visit to Cordova, which just a few years ago was a town facing serious doubts about its economic future, now reveals a community where many people are flush with cash and many are understandably skeptical about anything - tourism, sportfishing, logging, oil and gas - that might pose even the possibility of a threat to the commercial fishing industry.

Seine Fished Salmon

While the Copper River fishery is large and well known, the Prince William Sound hatchery-based fishery for pink, chum and red salmon is much larger. The Prince William Sound Aquaculture Corporation (PWSAC) along with the Valdez Fisheries Development Association operate a set of fish hatcheries in the Sound, producing huge numbers of fish. Highlights of the productivity and economic significance of this fishery are presented below, based on a recent study by PWSAC⁶.

- During the past four seasons, salmon reared and released by the Prince William Sound Aquaculture Corporation (PWSAC) accounted for 18 percent of Alaska's commercial salmon harvest, by volume. Based on Alaska Department of Fish & Game in-season estimates, PWSAC salmon could account for 30 percent of the salmon harvest in 2010.
- According to in-season estimates and McDowell Group estimates, PWSAC pink salmon could account for 25 percent of the statewide salmon harvest, and 54 percent of the statewide pink salmon harvest in 2010.
- During the past four seasons, salmon reared and released by PWSAC have fetched a total ex-vessel value of more than \$196 million. From 2007 to 2009 PWSAC salmon were worth \$435 million in first wholesale value to processors operating in Prince William Sound.
- Prince William Sound, supported by PWSAC, is a major salmon producing region in Alaska. From 2007 to 2010, the PWS region accounted for an estimated 27 percent of all salmon caught in Alaska's commercial salmon fisheries (by volume). Based on in-season estimates, PWS salmon could account for 38 percent of the salmon harvest in 2010.
- Drawing on preliminary estimates for 2009 and in-season estimates for 2010, PWSAC salmon accounted for 90 percent of the chum salmon, 84 percent of the pink salmon, and 52 percent of the sockeye harvested in Prince William Sound common property fisheries for these years.

Herring

The average price for a herring seine permit had climbed to \$245,000 by 1989, the year of the Exxon Valdez oil spill. Harvest of herring steadily declined in the years following the spill.

⁵ Permit prices from Alaska Commercial Fisheries Entry Commission

⁶ Prince William Sound Aquaculture Corporation, Economic Impact Update for 2010, McDowell Group

While the causes of this decline are not fully understood and there are many factors affecting the health of a complex ecosystem, evidence suggests the oil spill was a factor in the dramatic decline of the population⁷. The commercial fishery has been entirely closed since 1999. Permits fell to \$9,800 in 2008, but permit prices are slowly climbing as the stock of herring in the Sound begins to grow and prospects for reopening the fishery improve.



Commercial Fishing Boat

⁷ EVOS Restoration Notebook, Pacific Herring September 1998

Table 2.10 Salmon Permit and Earnings Activity, Year Totals, 2004-2010

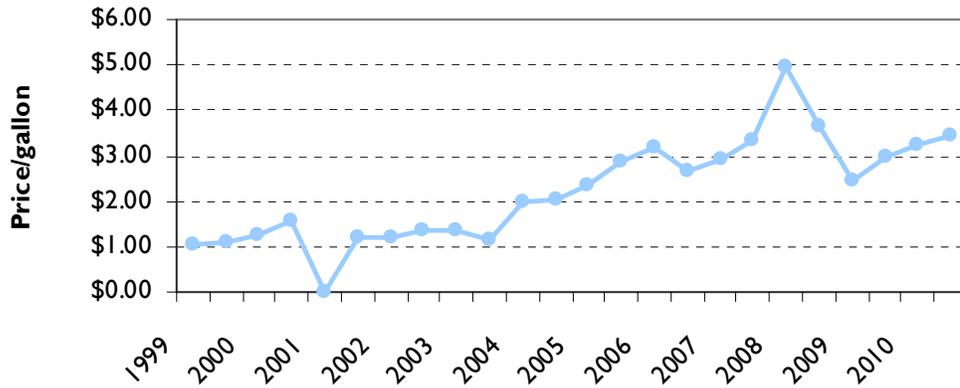
Year	Total Permits Issued/Renewed	Total Permits Fished	Average Pounds	Average Gross Earnings (magnitude of change since 2004)	Average Permit Price (magnitude of change in value since 2004)
Purse Seine (mostly pinks)					
2010*	268	174	1,292,112	\$472,488 (8X)	\$100,500 (6X)
2009	267	154	230,390	\$67,825	\$75,300
2008	267	141	931,113	\$369,135	\$70,200
2007	266	120	1535639	\$299,626	\$30,900
2006	266	111	482,061	\$102,820	\$26,100
2005	266	101	1677913	\$191,981	\$19,200
2004	266	104	481,916	\$56,718	\$14,000
Drift Gillnet (mostly reds and kings)					
2010*	537	519	94,889	\$92,023 (2X)	\$128,100 (3X)
2009	537	511	61,619	\$63,405	\$110,900
2008	267	141	931,113	\$369,135	\$70,200
2007	266	120	1535639	\$299,626	\$30,900
2006	266	111	482,061	\$102,820	\$26,100
2005	266	101	1677913	\$191,981	\$19,200
2004	540	513	37,989	\$43,681	\$40,400
Set Gillnet					
2010*	29	28	88,053	\$145,926 (8X)	\$59,800 (flat)
2009	29	27	51,787	\$63,147	\$59,500
2008	537	507	65,589	\$65,165	\$90,300
2007	537	502	55,636	\$69,529	\$52,000
2006	538	492	39,656	\$55,890	\$51,600
2005	538	502	41,648	\$47,942	\$47,700
2004	30	27	29,701	\$18,507	\$62,800

Source: Alaska Commercial Fisheries Entry Commission 5.17.2011; *2010 data are preliminary. Halibut, another important element of the PWS commercial fishing industry is not covered here as the State does not maintain for that species.

Expansion of the spot and coonstripe shrimp resource in the Sound has expanded both commercial and sport shrimp fisheries in recent years. The first commercial shrimp fishery in Prince William Sound in 19 years occurred in the spring of 2010; 155 commercial fishing vessels took part.

The cost of fuel is an emerging concern in the factors affecting the success of commercial fishing in the Sound. As the chart below shows, prices have nearly tripled in the last eight years, adding another cost to an already costly enterprise.

Figure 2.5 Price Per Gallon of #2 Marine Diesel Fuel, 1999-2010



Source: Pacific States Marine Fisheries Commission

Activities in Individual Communities

In Cordova, 337 residents hold commercial fishing permits; 279 residents held commercial fishing licenses in 2009, up about 5-6% over 2009. Pink salmon, herring, halibut, bottom fish and other seafood are harvested and processed at four processing plants in Cordova. Two shucker/packers also operate in Cordova processing shellfish. Plant expansions over the past 3 years have been significant for the three largest processors in Cordova, Ocean Beauty Seafoods, Trident Seafoods, and Copper River Seafoods. Trident Seafoods assembled a fish oil and hydrolysate plant that is producing pharmaceutical grade salmon oil, and organic fish fertilizer.

In Valdez, 52 residents hold commercial fishing permits; 73 residents held commercial fishing crew licenses in 2009. This represents an almost 20% increase in the number of fishing permits and crew licenses from 2010. Three fish processors operate plants in Valdez including Peter Pan, Seahawk Seafoods and Valdez Fisheries Development Association (VFDA). VFDA operates the Solomon Hatchery, the largest fish hatchery in the Sound. Sea Hawk Seafoods is adding \$2 to \$3 million in improvements at their plant. The VFDA facility is open for the region's fishermen to process seafood 12 months a year and recently completed Phase I of construction of a cold storage facility to serve local commercial fisherman. A much larger second phase is proposed which would expand the project using Petro Star waste heat as the energy source for operation.

In Whittier, 12 residents held commercial fishing permits in 2010, up 9 permits from 2009. Also, twenty two residents held commercial fishing crew licenses in 2010, (up 9 licenses from 2009). Three land-based fish processors are licensed in Whittier. Sport fishing and guiding is also important to the local economy and may fuel some of the demand for fish processing. One shucker/packer shellfish processor also operates in Whittier.

In the village of Tatitlek, one resident held a commercial fishing permit and five residents held commercial fishing crew licenses in 2010, a big drop from 2009. Subsistence harvesting activities, especially subsistence fishing, provide much of the food for Tatitlek residents as well as providing a strong cultural bond within the community and the region.

In Chenega Bay, no residents held commercial fishing permits or crew licenses in 2010. Chenega Bay's commercial salmon fishery is located in the southwestern district of Prince William Sound. Community residents engage in subsistence harvesting activities. Subsistence hunting, fishing and gathering are important parts of the community's economy and culture. Subsistence resources for Chenega Bay include salmon and other fish, land and marine mammals, birds and eggs, plants and marine invertebrates.

Both Tatitlek and Chenega are eligible for the state Community Quota Entity program which allows a nonprofit entity in the community to purchase halibut and sablefish fishing quotas to lease to local residents. More work is needed to see if the combination of funding and interested residents exists to take advantage of this program.

Transportation

Adequate transportation infrastructure, maintenance of that infrastructure and reliable and coordinated operations are critical to the economic health and long-term sustainability of Prince William Sound communities. This section of the CEDS report lays the groundwork for Chapter X, Transportation Cluster, by inventorying the current transportation connections, infrastructure and frequency of use in Prince William Sound.

Table 2.11 shows transportation connections to the communities in Prince William Sound, followed by Table 2.12 which provides ridership numbers for all modes to all communities in 2009. Whittier, Valdez and Cordova also accommodate cruise ships. Whittier has a large dock to accommodate large ships and welcomed 212,598 cruise ship passengers in 2009. Valdez and Cordova receive visits from smaller cruise ships; however, current passenger estimates are not available for these communities. In addition to receiving the traffic presented in Table 2.13, traffic arrives at Whittier and Valdez by road. The majority of people arriving via cruise ship and train are visitors. The traffic arriving by plane, ferry and road is made up of both visitors and residents.

Table 2.11 Transportation Connections in Prince William Sound

Community	2010 Population Estimate	Airport	Seaplane Base	Ferry Service	Barge Service	Road	Rail
Chenega Bay	76	Yes	Yes	Yes	Fuel & Charter	No	No
Cordova	2,239	Yes	Yes	Yes	Scheduled	No	No
Tatitlek	88	Yes	Yes	Yes	Fuel & Charter	No	No
Valdez	3,976	Yes	Yes	Yes	Scheduled	Yes	No
Whittier	220	Yes	Yes	Yes	Scheduled	Yes	Yes

Sources: 2010 Census and Southeast Strategies, 2009

Table 2.12 Traffic to Prince William Sound Communities via Air, Ferry, Cruise Ship and Train – 2009 (Air traffic is for 2008)

	Chenega Bay	Cordova	Tatitlek	Valdez	Whittier
Passengers Arriving by Air - 2008*	910	16,640	981	14,981	NA
Passengers Arriving by Ferry - 2009	186	13,787	81	9,266	22,139
Vehicles Arriving by Ferry - 2009	53	5,972	25	3,364	8,901
Passengers Arriving by Cruise Ship – 2009**	NA	NA	NA	NA	212,598
Passengers Arriving by Train - 2009***	0	0	0	0	40,421

Sources: Alaska Marine Highway System, Federal Aviation Administration, Cruise Line Agencies of Alaska, and Alaska Railroad Corporation, 2010

*Arriving Air Passengers counts scheduled service by commercial air carriers at the main community airport only and does not count passengers arriving by chartered air taxi or arriving at auxiliary air fields or seaplane bases.

**Some small cruise ships may have limited stops at these communities but they are not generally reported.

***The Alaska Railroad Corporation reported train traffic is for passengers riding the Glacier Discovery to and from Whittier and special trains chartered by Princess Cruise Lines to and from Whittier to be 80,842 in 2009. For this table we assume half of that number (40,421) was arriving, and half departing Whittier. It was reported that most of these passengers moved directly between their cruise ship and the train and very few spent time in Whittier.

As detailed in the Transportation Cluster chapter the transportation shipping and warehousing is an important component of the transportation picture for the Prince William Sound region. A summary of existing facilities and infrastructure is outlined in the table below. Current and future transportation investments are detailed in the Transportation Cluster chapter.

Table 2.13 Prince William Sound Transportation Facilities and Infrastructure

Community	Air	Water	Road	Rail
Chenega	State-owned 3,000 foot long airstrip with lighting and a floatplane landing area in the harbor with air taxi service	Small dock and boat harbor	In community road system	None
		Ferry service monthly in the winter and three times a month in the summer		
		Freight brought in by air or barge		
Cordova	State-owned and operated airport with 7499' x 150' asphalt runway with new EMAS safety system	State ferry service with fast ferry in the summer	Copper River Highway provides access to Childs Glacier and Copper River Delta, but no access to outside communities	None
	State-owned and City-operated Cordova Municipal Airport with 1,800' x 60' gravel runway	Barge service all year		
	Jet, small plane and air taxi service	Harbor facilities at Cordova include a breakwater, dock, small boat harbor with 850 berths, boat launch, boat haul out, ferry terminal and marine repair services		
	Eyak Lake seaplane base	A heavy vessel lift for boats weighing up to 150 tons was completed in Cordova in March, 2010, and will benefit the entire region and add many jobs		
Tatitlek	State-owned 3,700 foot long lighted gravel airstrip and a seaplane landing area with air taxi service	Small dock	In community road system	None
		Ferry service from one to four times a month, depending on the season		
Valdez	Pioneer Field Airport; 6500' x 150' runway; instrument landing system and control tower with small plane and air taxi service	\$48 million cargo container facility	Truck services with Richardson Highway connecting the community to Interior Alaska communities and Anchorage	None
		Cruise ship dock (new in 2009)		
		The port is ranked 18 th nationally for tonnage moved		
	State-owned seaplane base at Robe Lake	Fast ferry service May – November		
	Largest float container dock in the world; 1200' front and water depth exceeding 80'			
	Small boat harbor for 546 commercial and residential vessels			
Ocean-going barges				

Community	Air	Water	Road	Rail
Whittier	A gravel airstrip, 1,480 foot long and 58 foot wide, is State owned and accommodates charter and private aircraft	Natural deep water, ice-free port and is the most direct and shortest route between Seattle and an Alaskan port serving Anchorage and most of Alaska	Seward Highway and Whittier Tunnel connecting the community to other road system communities south of Portage and north to Anchorage	Rail connecting community to northern and southern communities
	City-owned seaplane dock is available in the harbor	Two city docks, a 70 foot cargo dock and 60 foot floating passenger dock serve marine traffic	Anton Anderson Memorial Tunnel; accommodates rail traffic between Portage on the Seward Highway, and Whittier	
		Abundant space is available on the waterfront along Passage Canal to build ocean docks for major shipping/transport expansion		
		A small boat harbor has slips for 360 fishing, recreation and charter vessels. In 2005, Whittier opened a new \$6M private marina, operated by an owners' association, offering 40', 50' and 60' slips, for 102 vessels		

Petroleum Oil + Gas

Oil and gas, along with mining, fishing and tourism, will be the major engines of growth for Alaska for the foreseeable future. The oil and gas industry in Alaska is enormous. Alaska is the second largest oil producer in the nation and has been for the past 30 years, producing 15% of the domestic supply and employing 3% of the nation's oil and gas workforce.⁸

The southern terminus and off-loading point for the Trans Alaska Pipeline is located at Valdez, the most populated city in the region. As this facility provides transportation for North Slope oil, petroleum industry employment in Valdez is part of the Trade, Transportation and Utilities economic sector. Because this industry is located in Valdez, the city has the highest average annual wage in the Prince William Sound district and one of the highest municipal tax bases in Alaska. Four of the top ten employers in Valdez are directly connected to the oil industry. Residents from other Prince William Sound communities find employment at the terminal, as well. All communities share in oil spill prevention and emergency response drills.

In Valdez, the Alyeska Pipeline Service Company has just over 260 persons assigned to work in Valdez. Some of these employees live elsewhere and commute to Valdez for field schedule jobs. They also employ a significant number of contractors to support operations of the Valdez Marine Terminal and the Ship Escort Response Vessel System (SERVS). In 2007, as an efficiency measure, the main pipeline control center moved from the Valdez terminal to Anchorage corporate headquarters. This \$2 million technological upgrade was completed in 2007 and controls everything from flow rates and valves along the main pipeline to tanker loading at the port in Valdez. The control center relocation is part of a broad modernization campaign on the pipeline which started transporting oil from the North Slope to Valdez in 1977.

The mission of SERVS is to prevent oil spills by assisting tankers in safe navigation through Prince William Sound and provide effective response services to the Valdez Oil Terminal and crude oil shippers. SERVS has response centers in each of the five Prince William Sound communities, including 350 fishing vessels on contract. Additionally, Alyeska Pipeline Service Company, the Alaska Department of Environmental Conservation and Prince William Sound Regional Citizens' Advisory Council provide employment in preparing oil spill contingency plans.

It is true that oil production plays an extremely important role in the state's economy. The key component of income for the state is the price of oil, which has been increasing steadily since 1990 (see Figure 2.6). The royalties and taxes collected from oil and gas combine to approximately 85% of the state revenue. Unfortunately, oil production in the State has been in decline. This decline is summarized in Figure 2.7 below. While exploration will continue and new oil recovered and discovered, the volumes brought on-stream in the future will likely be less than those brought on-stream in the recent past. Oil prices might go up, and that would be good. But they might, as they have in years past, go down. By their nature, commodity prices will vary according to demand conditions far removed from Alaska's control. So, as Prince William Sound residents plan for their future, some planning should happen around how to keep oil and gas workers in the region. In other words, is there a way to use the skills of these trained workers in other economic development sectors? If so, what are they and how soon should those transitions happen?

⁸ Alaska Forward: Phase I Situational Analysis, 2010.

Figure 2.6 Oil Prices, 1990-2020

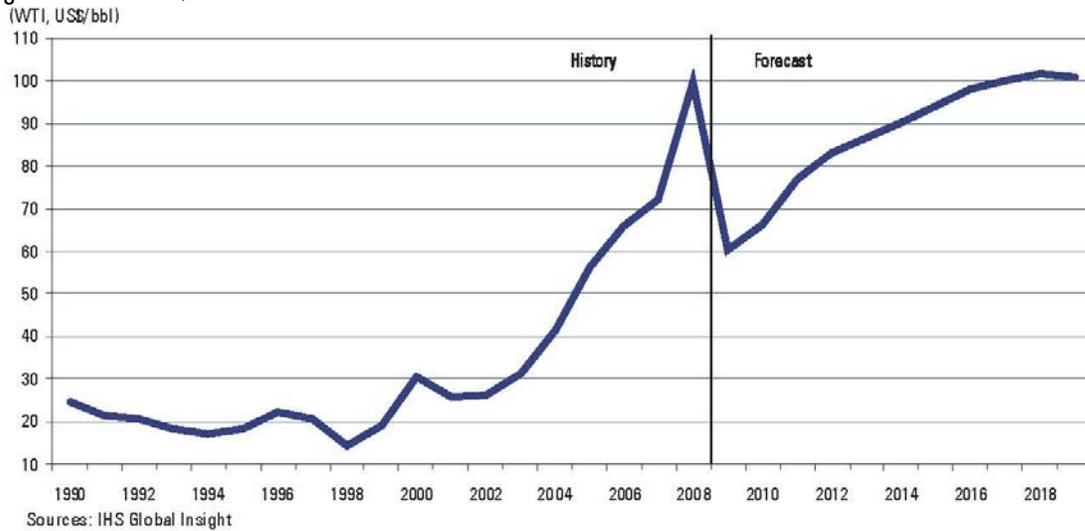
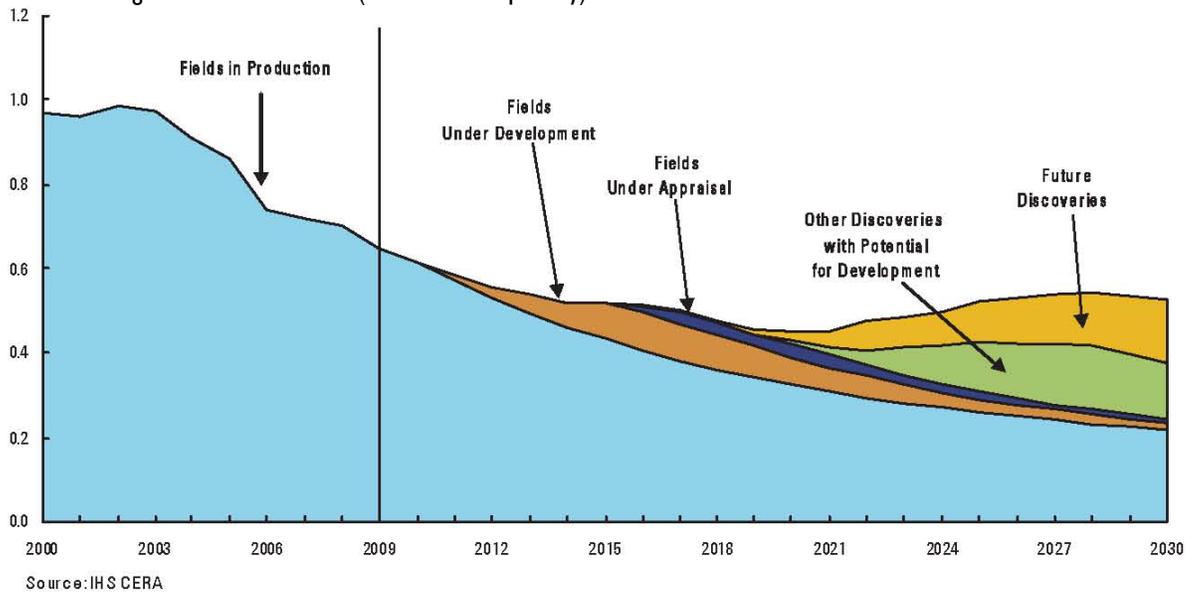


Figure 2.7 Declining Oil Production Trend (million barrels per day)



Other Economic Factors

Valdez and Cordova are Home Rule Cities. Whittier is a Second Class City. All offer various public services. As noted in 2009 employment figures, city, state and federal agencies, schools and health systems provide significant employment. Chugach School District serves Chenega Bay, Tatitlek and Whittier. The Cities of Cordova and Valdez provide their own school systems. The Native Village of Chenega, the Native Village of Tatitlek and the Native Village of Eyak are federally recognized tribes. Valdez Native Tribe is seeking federal recognition. The region’s Alaska Native Corporations and Chugachmiut, a regional non-profit corporation providing services to Native residents, are active participants in the region, and are Native owned and controlled.

Employment within municipal governments, school districts and tribal governments is counted within the Local Government industry (21% of the total workforce in 2009). Between 2008 and 2009, employment within the Local Government sector slightly increased (from 651 to 659 workers) within the Prince William Sound district while the private sector generally lost jobs (down 109 workers). Possible reasons for the strength in local government employment are the influences of strong State Government revenues and Federal Government stimulus funds flowing into the region.

All residents of Prince William Sound are eligible to participate in the Alaska Permanent Fund Corporation dividend program. Alaskans created the fund by a public vote on November 2, 1976. This fund has grown as a major portion of the state's oil revenues have been saved in the fund. Inflation proofing, legislative appropriation and long range investment planning have made the fund one of the world's largest investment funds. In 2010, the fund paid \$1,281 per person, bringing over \$9 Million to Prince William Sound residents. Additionally, the area's Alaska Native regional and village corporations provide annual dividends to their shareholders. As a whole, 2007 Bureau of Labor Statistics data for the Valdez-Cordova Census Area showed that of the \$40,472 per capita personal income, 15% was comprised of dividends, interest and rent and 13% was comprised of transfer payments.

The U. S. Coast Guard and military also play a large role in the Prince William Sound economy. As of 2009, the U. S. Coast Guard has approximately 140 active duty personnel in Valdez, plus dependents. The USCG *Long Island* is stationed in Valdez. In Cordova, there are 52 active duty personnel with the USCG *Sycamore*, plus dependents.

Chugach Alaska Corporation⁹

Chugach Alaska Corporation (CAC) is an Alaska Native Claims Settlement Act (ANCSA) Corporation that was established in 1972 to manage the assets for Alaska Natives in the region that includes the four communities of Cordova, Seward, Valdez and Whittier and the five Native villages of Chenega Bay, Eyak, Nanwalek, Port Graham and Tatitlek. CAC has more than 2,200 shareholders of Aleut, Eskimo and Indian heritage elect the members of CAC's Board of Directors (all of whom are Alaska Natives).

CAC currently provides business services in the areas of base operations and facilities maintenance, general construction and construction management, oil and gas, civil engineering, information technology, telecommunications, environmental/oil spill response, metal fabrication, education, and employment services. Current CAC economic development investments in Prince William Sound are outlined below:

- Tourism – Working to develop a primitive camp area with a small facility outside of Whittier. CAC is working in partnership with the City of Whittier on this project and a related project to develop Shotgun Cove Road that will provide access to the recreation sites and facilities. There may also be an opportunity to expand the current dock facilities to accommodate increased visitor traffic. CAC also hopes to partner with State Parks to move this project and a potential Growler Island recreation project forward.

⁹ <http://www.chugach-ak.com/Pages/splash.aspx>

- Fisheries – CAC recognizes that the survival of the region’s people depends on resources that come from the water and they are exploring different ways to support fisheries businesses in the region including smaller operations like expansion and revitalization of Tatitlek mariculture business (e.g. oysters, cockles, smoked salmon). CAC also supports regional marketing of fisheries projects by connecting small operations to larger marketing efforts that will help small business owners comply with Department of Environmental Conservation food preparation regulations and more widely market their products (e.g. Copper River Seafoods).
- Government Contracting – CAC supports creative ways to connect the people of the region to high paying, quality jobs that do not take them out of their communities. One such opportunity lays in researching and securing government contracts that allow for work to be conducted remotely from villages like Chengea Bay and Tatitlek.
- Resource Development – CAC is exploring aggregate extraction options in the region as well as other land development and/or trade opportunities including harvesting timber and conducting land trades with the Forest Service. A newer idea is to work with large corporations to do “carbon sequestration” projects. Corporations pay to keep trees standing, thereby helping to manage carbon emissions, reduce greenhouse gases. Companies benefit by receiving carbon credits toward their allowable emissions (as regulated by EPA).

In an effort to move these and other economic development projects forward, CAC conducts an annual gathering of the region’s community and economic development leaders. This meeting, usually convened in January, brings together regional leaders and their public, private and non-profit partners to discuss current and future strategies and projects to improve the quality of life for the people of the CAC region.

Economic Development Clusters

This section of the CEDS transitions the focus from and overview of the region’s current economy to an analysis of future challenges, opportunities (“economic development clusters”), and threats to economic development in Prince William Sound. It summarizes the methodology used to define economic development clusters for the Prince William Sound region. Included are definitions of key terms and concepts as well as a discussion of the limitations of the approach and how those challenges were addressed.

Cluster Defined

What is a cluster and why is it a useful tool? As described in the introductory chapter of the CEDS, two basic definitions of economic development clusters were used to guide the way PWS clusters were defined. They are as follows:

- Geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries and associated institutions (e.g. technical schools, universities, standards agencies, trade associations) that compete but also cooperate.¹⁰
- System of businesses and institutions engaged with one another at various levels¹¹

¹⁰ *The Competitive Advantage of Nations*, Michael Porter, 1990.

This is a helpful approach for defining and understanding the economic potential of Prince William Sound for several reasons including¹²:

- Highlights and builds on local resources, knowledge and relationships
- Encourages networking among firms
- Strengthens local economies; can result in cost savings to firms in the cluster
- Captures important linkages, complimenting and spillovers of technology, skills, information, marketing and customer needs that cut across firms and industries
- Encourages transition from large firms to smaller firms that can specialize
- Lowers entry barriers, creating room for spin-offs and innovation

Tools

Several tools were used to help define existing and emerging clusters for Prince William Sound. One specific analytical tool, location quotients or employment concentration ratios, was used to understand the established setting for each cluster by better understanding the region's employment concentration compared to the nationwide trend in a specific industry. Location quotients show the degree of specialization and dependency that a local economy has in a particular sector. For example, a location quotient of "1" indicates that a community has the same proportion of its economic activity in a particular sector as the nation, existing largely to meet local needs. A location quotient greater than "1" indicates a degree of specialization in a sector, meaning the region is producing an excess of that particular good or service for export. Finally, a location quotient of less than one indicates that the community is not producing enough to meet local needs. To illustrate the idea, in defining the tourism cluster for Prince William Sound, the value for job types that have been identified as "Support Activities for Transportation" is "2". This would indicate that around half of this activity is devoted to export production, with the other half ("1") going to meet local requirements. Additionally, the "2" indicates twice the percentage of workers do "support activities for transportation" in Prince William Sound region than nationally.

Location quotients are excellent tools for defining one aspect of an economic development cluster. However, the tool does have some limitations, especially when applied to the small population that represents the PWS region; the information is simply determined "non-disclosed" due to low reporting numbers. First, the tool can tell you what's happened in the past and present; however, it cannot give insight to what conditions and actions caused that change or created that strength. As is the case with many descriptive data, including the resident industry worker and business trends used for cluster definition, the information should not be used to predict the future. Additionally, due to the region's low population numbers, the location quotient numbers used in the cluster chapters represents employment concentration ratios for the whole Valdez-Cordova Census Area. In addition to the PWS region communities, the Valdez-Cordova Census Area includes 20 other Alaskan communities, for a population total of 9,636 in 2010, versus the PWS regional population of 6,599.

To help ameliorate some of the limitations described above, the data was shared with community and industry leaders in the region. Community feedback helped to clarify and add to this data to provide the most accurate picture possible for each cluster, including discussion

¹¹ *Industry Cluster Analysis of the Northern EDGE Region*, University of Wisconsin-Extension, Center for Economic Development, <http://www.uwex.edu/ces/cced/economies/northernedge/industryclusterindex.cfm>.

¹²Ibid.

around the shared understanding of the reasons behind some of the changes observed within specific cluster and, with an understanding of expected trends from industry experts, begin to develop a strategy for increasing regional growth and competitiveness.

In the chapters that follow, the CEDS report provides an overview of each economic development cluster for Prince William Sound including:

- Definition – What businesses or job types make up this cluster?
- Compelling trends, challenges and opportunities – What data and community feedback support this industry/sector as an economic development cluster?
- Regional project ideas – What projects will support and grow this cluster? What projects will have a regional impact in this cluster?

Travel + Tourism Cluster

Definition of the Cluster

Prince William Sound has a long list of natural and built-in attractions that draw tourists to the region, providing a basis for a major component of the Sound's economy. The background chapter to this report provides a full discussion of regional tourism characteristics and trends; below is a summary of the region's primary tourism draws:

- a beautiful combination of alpine and ocean environments including tidewater glaciers and an intricate, inviting coast line
- an intact ecosystem with abundant ocean and terrestrial wildlife including species popular with hunters and anglers, such as bear, deer, salmon and halibut, and also species that attract sightseers and adventurers, such as whales, orcas, otters and other sea mammals and oystercatchers, puffins, loons and other bird species
- extensive sheltered waterways, allowing for water-based use – from 2500 person cruise boats to single kayaks – by visitors of a wide range of ages, interests and abilities
- a largely public land base, allowing open use of much of the region
- a set of attractive small towns, each with a distinctive, interesting character
- proximity to the state's center of population and, at the same time, relatively few visitors so users can still enjoy a wilderness experience.

Tourism business sectors and related supporting activities in the region include diverse activities, from the most obvious tourism-based activities such as lodging and sport fishing charters to less visible activities such as fuel sales or local production of arts and crafts. As explained earlier in this report, the Alaska Partnership for Economic Development's Alaska Forward project analyzed the state of Alaska's economy and found there to be 11 established economic clusters in the state.¹³ Businesses identified as part of one of those eleven - the tourism and travel cluster - are listed below.

- Scenic and sightseeing enterprises
- Recreation businesses¹⁴

¹³ An important note is that the travel and tourism industry spans several industries and is difficult to fully measure. The approach used in this report, the same as that used for the Alaska Forward project, counts only those sectors directly providing services to visitors.

¹⁴ The recreation business category is defined as industries that provide recreation, gambling or amusement park employment.

- Support activities for transportation
- Amusements and recreation
- Accommodations, food services and drinking places.¹⁵

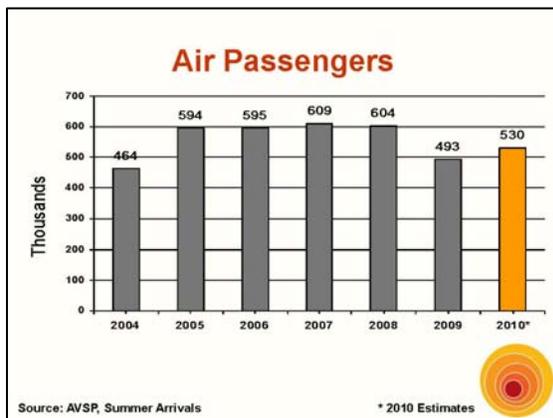
¹⁵ These sectors refer to industry groups within the NAICS (North American Industry Classification System). This industry coding system is used widely to classify industries and employment information and is used by the Bureau of Labor Statistics, the source for this information. The sectors used here are part of the aggregation of specific industries. For example, Amusements, gambling and recreation includes the specific industries of skiing facilities, marina and zoos and botanical gardens.

Compelling Tourism Trends, Opportunities + Challenges

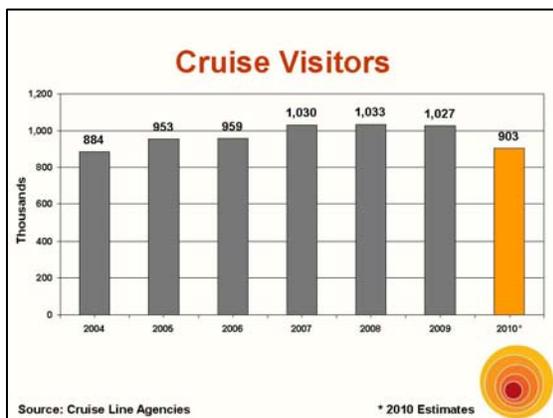
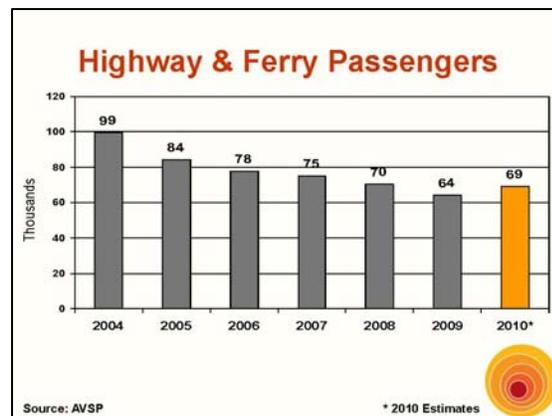
Statewide Tourism: Growth (with a recent slowdown, evidence of a rebound)

The tourism cluster has been a growing part of the economies of the state as a whole and Prince William Sound. In a state heavily dependent on public sector spending, tourism is Alaska's third largest private sector employer and an important contributor of tax revenues at the state and local level. Statewide, the cluster is expected to grow at 4.6% annually through 2019, faster than the total estimated state economic growth of 3.7%.¹⁶ While not linked in lock step, trends in visitation statewide have generally been reflected in PWS.

Tourism statewide and in the Prince William Sound region slowed in 2008-2010. However, over longer timeframes, tourism has grown dramatically in Alaska, from less than 500,000 annual out-of-state visitors in the mid 1980's to over 1,500,000 in 2010. The recent declines in visitation to Alaska have been concentrated in the cruise sector, the largest portion of state visitors and other sectors, air highway and ferry, have begun to rebound.



Summary of Statewide Out of State Visitation to Alaska¹⁷



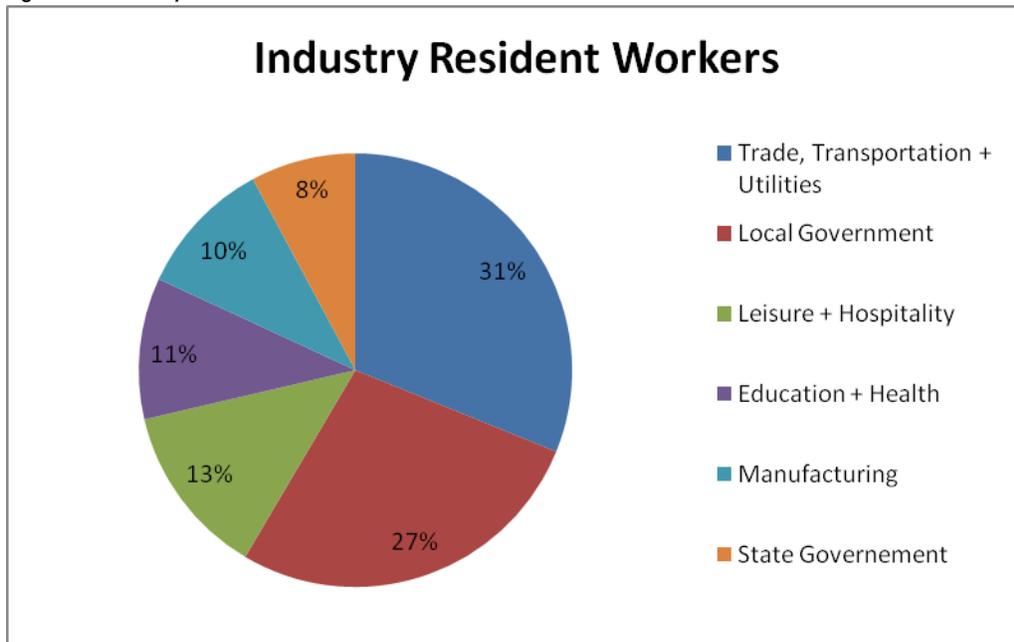
¹⁶ Alaska Forward: Phase I Situational Analysis.

¹⁷ Tables based on Alaska Visitor Statistics Program data; tables taken from annual presentation to Alaska Travel Industry Association, 2010

Tourism: A Large and Growing Element of the Region's Economy

The tourism cluster represents an important segment of employment for Prince William Sound's resident workers. 2009 Bureau of Labor Statistics resident worker data by industry indicates that leisure and hospitality - the best single proxy for tourism employment - makes up the third largest percentage of resident workers in Prince William Sound, 13 percent or 460 workers (Figure 3.1). According to the Bureau of Labor Statistics, the total employment in the Travel and Tourism cluster for the Valdez-Cordova Census Area was 438 in 2008 and 464 in 2009, an increase of 26 jobs. This estimate misses many people who work directly or indirectly in tourism including people involved in activities labeled as transportation (e.g. ferry or air employees); also excluded are individual business owners, such as a guide service or charter boat captain, that are not counted in this employee data.

Figure 3.1 Industry Resident Workers, Prince William Sound



Source: Bureau of Labor Statistics

A subset of the same data, the location quotient shown in Table 3.1, indicates the Valdez-Cordova Census Area employs over five times the percentage of accommodation workers as are typically employed in other regions around the US and 65 times the number of scenic and sightseeing transportation workers. In contrast to areas where tourism employment makes up a dominant segment of the economy, this table shows that food service and drinking place employees make up a lower percentage of regional employment than what is typical in other regions around the nation. Anyone who has looked in vain for an open restaurant in the off season in the region's smaller towns will not be surprised by this fact.

Table 3.1 Location Quotients for the Valdez-Cordova Census Area, Segments of the Travel + Tourism Sector, 2009

Sector	Location Quotient	
	Valdez-Cordova	Anchorage
Scenic and Sightseeing Transportation	65	13
Support activities for Transportation	2	3
Amusements, gambling and recreation	ND	1
Accommodations	5	2
Food Services and Drinking Places	0.5	1

Source: Bureau of Labor Statistics Note: A value of 1 indicates the industry has the same share of its area employment as it does for the US as a whole. A value greater than 1 indicates an industry with a greater share of the local area employment, a degree of specialization.

Other indications of the strength and importance of tourism in the region were presented in the background section of this report. Highlights include:

- 2006 Out of State summer visitors: 232,000 in Whittier (mostly pass through cruise passengers); 67,000 in Valdez
- Substantial increases in local government tax revenues without a change in tax rates (82% increase in bed tax revenue and 36% increase in sales tax in Cordova, 52% increase in bed tax in Valdez and a 290% (adjusted) increase in sales tax in Whittier)
- Increasing sportfishing activity: 27% more anglers, and 133% more angler days.

Specific Tourism Opportunities, Challenges and Regional Actions

Politics and Cooperation in a Diverse Region

“These days, no place in the world stays special by accident.”

Ed McMabon, Author of Balancing Nature and Commerce in Gateway Communities

Different people and towns hold varying views regarding the impacts and desirability of tourism growth in Prince William Sound. Likewise, policies regarding tourism growth are quite different between the region’s major landowners: the Forest Service, State of Alaska and Chugach Alaska Corporation, a regional Native corporation.

These mixed views are understandable. Tourism can provide real economic opportunities; on the other hand, much of what makes the region an attractive place to live and visit is its low level of tourism and recreation activity. In addition, tourism expansion in an area can often mean rewards to companies outside the area. Prince William Sound is a fragile place. Activities like widespread, unmanaged use of ATV’s or jet skis could greatly alter the area’s attraction to visitors and the region’s future economic potential. This is not to say that tourism growth is not desirable but does emphasize the need to guide tourism growth. Experience in other locations in Alaska and worldwide show the potentially ironic consequences of promoting a destination as “unspoiled.”

Setting goals and strategies for tourism growth on a regional level offers a number of advantages. These include improving marketing, access and attractions, and strategies to project what makes places special. Currently there is no coordinated regional planning on these topics.

Decisions, where they are made consciously, are split among different communities and landowners. And while some communities (e.g., Valdez, Whittier) are generally strong supporters of tourism growth, some (Cordova) are more cautious while others may be averse to tourism growth (Tatitlek). PWSEDD received an EDA grant in 2004 to create a regional tourism plan that identified important projects, including the Prince William Sound Museum in Whittier. This museum continues to grow and is one of the only cultural attractions in Whittier.

These realities have two important implications for future regional tourism development. One is that any actions taken on a regional level need to reflect and build from these diverse views. Secondly, despite differences in perspectives, efforts should nonetheless be made to address issues in a regional framework wherever possible. The following sections present five specific areas where this should occur.



Kayaks for rent in Prince William Sound

Regional Tourism Infrastructure

Currently the vast majority of Prince William Sound is publicly owned and undeveloped. As noted above, a big part of what draws visitors to come all the way to Alaska depends on maintaining the region's natural beauty, wild character and the health of its fish and wildlife populations. At the same time, there are important opportunities to create new or improved visitor experiences in the area, which can in turn create new economic opportunities. In addition, invited or not, tourism is likely to continue to grow, and actions are needed "to get out in front" of that growth so future growth happens in a way that maintains the region's core attractions.

Specific recommendations for improvements in tourism infrastructure, based on discussions with individual communities and land owners, are outlined below. PWSEDD's role in these types of actions will be limited, but the Economic Development District can provide political support and help make the case for public support where this is needed:

Individual Towns

Support expansion of visitor services and attractions in individual communities, consistent with the particular goals of these distinct locations. A partial list of such actions is below. While these actions directly benefit visitors and residents in individual communities, the net effect is to benefit the entire region.

- Whittier: expand reasons for pass-through visitors to spend time and money in town, for example through improving walking trails, cleaning up of the town's industrial character and expanding facilities for small boat moorage and launching. Develop new overnight camping areas as planned at the western edge of the city; work to expand access to Shotgun Cove.
- Valdez: carry out recommendations of the approved 2004 City tourism plan including improving the appearance and attractions of downtown, improving access to the waterfront and expanding near and out-of-town recreation opportunities, such as the Valdez Glacier/All-American Gold Rush Trail. Enhance local fishing through expanded hatchery activities; build up winter recreation through development of local downhill ski lifts and/or rope tows.
- Cordova: continue work to develop the community center; improve walkability in town (e.g., better connections between the harbor and Main Street); improve out of town trails and trail heads. Develop a new campground for visitors; explore options for a roadside bike path to the airport and create new areas for mountain biking.
- Chenega: support this community's desire for a marine service center (see commercial fishing section) as well as a system of huts on land in the surrounding area of the Southwest Sound
- Tatitlek: support this community's interests in developing (or not developing) tourism infrastructure as these are identified.

Better Camping

Improve opportunities for comfortable, low impact camping in outlying areas around PWS. Camping is difficult in much of the region due to terrain that is often steep or uneven, wet and easily disturbed. Beach areas that seem useable at low tides have surprised many a camper as the tide comes up in the middle of the night. Both State Parks and the USFS should continue their programs to harden select campsites, adding tent platforms and, where appropriate, outhouses. In addition, improve in-town camping, as is currently being planned in Whittier and Cordova.

Public Use Cabins

Expand public use cabins in the area, in particular aiming to create opportunities for hut-to-hut boating or kayaking. Demand for well located existing public use cabins in the area greatly exceeds supply. Small cabins offer a comfortable way to enjoy a region where the weather is often wet, cool and buggy or windy.

Recreation Information

Improve information on routes for boating and kayaking between communities. The State of Alaska and the National Wildlife Federation are working with interested local communities to develop a “marine trails” program which aims to produce a combination of mapped information on suggested routes between locations and improved stopping points along those routes such as the campsites mentioned above. (An additional element of this project - stewardship and safety information - is outlined separately below.)

Marine Safety/Stewardship

Many different organizations have concerns about the potential impact of recreation and tourism activities in the Sound. The result is an improbably large number of brochures and websites directed at visitor behavior. Topics covered include: leave no trace camping, boating safety, trespass, protection of archeological resources, wildlife viewing policies, policies for dealing with human waste, water quality protection and general information about regional resources and history. In a number of cases, more than one group has addressed the same subject. The quantity and variety of this information have arguably reduced its impact. Work is needed to consolidate, clarify and better disseminate this type of information with the important goal of expanding use of the Sound without expanding impacts.

Cultural -Based Tourism

Work with the Native tribes, corporations and other Native organizations to expand cultural based offerings in the region. Bring out more active forms of cultural experience such as guided trips that allow visitors to experience the Sound as it might have existed in the first 5-10,000 years of settlement in the region.

Regional Tourism Marketing

PWS lacks regional marketing tools common in other parts of the US and Alaska. Competing destinations – for example, Kodiak, Mat-Su, Kenai, Fairbanks, Southeast – all have regional “Destination Marketing Organizations” (DMOs) who receive bed tax funding at a regional level and then use these funds to market themselves as a region. These DMO’s provide a number of benefits, the main one being the ability to pool resources to have a much stronger presence in the higher competitive global tourism marketplace. Regional marketing activities include tools like websites, promotional material, participation in travel shows and membership in statewide tourism organizations like ATIA and AWRTA.

The Prince William Sound region has seen a number of short lived, well-intentioned regional marketing efforts in the past. These have not taken root, largely due to lack of sustained funding and/or agreement about marketing goals. Despite these past problems, some version of regional marketing would bring many benefits to the area. These include:

- Give individual businesses and communities more market presence than they can afford on their own;
- Help the region to better influence the type of travelers who visit the Sound¹⁸;
- Give the region a stronger voice in regional tourism issues such as the size and direction of the State’s tourism funding, continuation of current subsidies to ferry or air travel or agency plans and regulations affecting tourism;
- Provide the chance to expand the brand recognition of other regional products, for example, products like salmon that also build on a message about the healthy natural environment.

A recent initiative offering the chance to achieve some of the benefits of regional marketing and get around some of the historic hurdles should be supported. This project – called “Sound Stories” – is an initiative of the Chugach National Forest in partnership with Alaska Geographic, PWSEDD and local communities. The Sound Stories project is nearing completion of both an extensive website and a related regional map.¹⁹ The project shares the experience of Prince William Sound using the voices of the people who live, work and play in the region. The site is structured around a map; moving the cursor around the map opens up short video clips, words and images tied to specific locations or general themes²⁰. Through the Sound Stories project, the Forest Service and partners aim to achieve several goals:

- Share information with current and prospective visitors about the attractions and character of the Sound – a “virtual visitor center”. This portion of the site links directly to the Chamber of Commerce/Convention and Visitor Bureaus of each of PWS’s larger communities, relying on these sites to provide specific information about private services
- Collect and share stories that can increase understanding and enjoyment of the current life and cultural and natural history of the Sound
- Foster conservation of the Sound’s rich resources, guide people to enjoy the Sound in a sustainable way and work toward continued recovery of the Sound since the Exxon Valdez oil spill.

Convenient, Affordable Access - Lifeblood of the Tourism Industry

While roads reach Valdez and road and rail extend to Whittier, the vast majority of the land and water in the Sound is far removed from the closest highway. As a result, nearly all tourists and residents traveling to and within Prince William Sound rely on means other than autos. Several recent transportation projects show the profound impact of changes in transportation. These include the opening of the Whittier Tunnel (2000), the change in cruise ship dockings to include Whittier (2004) and the addition of a fast ferry in the Sound (2006). The Transportation section of this report reviews improvements needed to strengthen the regional tourism economy including ferry, air, private boats, trails and connections between these modes.

¹⁸ Two well documented stories help illustrate this point. In the community of Sausalito, California and the State of Colorado some residents were frustrated with what they saw as too much tourism and succeeded in putting an end to their respective areas’ cooperative marketing programs. In both cases, thereafter, the quantity of visitors was unchanged but the spending per visitor declined by a significant amount. Both locations later reinstated their cooperative marketing programs.

¹⁹ <http://www.exploretthesound.org/>

²⁰ This project is inspired by “Geotourism” Mapping projects carried out in other parts of the country by the National Geographic organization. For more information, visit: www.exploretthesound.org

Winter, Spring, Fall Tourism

Tourism in Alaska is highly seasonal and this greatly limits its economic benefits. Over 90% of out-of-state visitors to Alaska come during the short summer season which means many tourism jobs stop well short of paying a living wage. Likewise, the lack of year round tourist spending means services enjoyed by residents go into hibernation for much of the year, such as many restaurants and shops.

While off-season tourism in Alaska will always be a challenge, the Prince William Sound region starts off with a huge advantage: the mountains around Valdez and Cordova offer the best known heli-skiing and boarding of any place in the world. Virtually any ski movie and most ski/boarding magazines will feature an article and photos of the radical terrain and bottomless powder found in the Chugach Mountains that ring the Sound, often within sight of saltwater. During this last winter, an alliance was formed between a major Valdez ski operator and Costco to dramatically reduce the cost of heli-skiing. This is illustrative of the kind of potential this one winter recreation activity can offer.

With this as a starting point, the following actions should be pursued:

- Improve cooperative marketing to better promote winter (and fall and spring) attractions.
- Take advantage of convention/conference facilities in Valdez (and coming soon in Cordova) to attract off-season visitors with emphasis on events that are linked to the unique cultural and natural history of these communities and the region
- Investigate options for expanding snowmobile riding. Not all areas are appropriate for this use but this category, like skiing, has potential to take advantage of a long season and terrain suitable for both beginners and extreme riders.
- Improve the secondary attractions that could entertain visitors who come to ski but want to do more (or who are stuck in town on bad weather days).
- Support shoulder season events that bring visitors into the area (e.g., the Cordova Shorebird and Iceworm Festivals, Valdez Fly-In). Work with airlines and the ferry to improve marketing, ease of access and reduce access costs for such events.
- Maintain and improve the small scale ski operations that exist today in Cordova and planned in Valdez

Cluster Thinking – Broadening and Strengthening the Network of Tourism-related businesses

The essential element of the cluster approach is to seek out synergies and connections between related businesses and between the setting of a region or community and the interests and skills of residents and potential employees. This potential is particularly strong in tourism. As tourism continues and expands in a region, many of the most important economic benefits will come from the secondary activities that support or expand the tourism experience. A parallel can be drawn to the California gold rush – making Levi jeans turned out to be a much more lucrative activity than panning for gold. Some of these opportunities involve providing new services; others offer the chance for local individuals or businesses to carry out activities currently provided from outside the region.

A handful of examples of these secondary and supportive business opportunities are listed below. In general, these types of activities cannot be directly supported by PWSEDD or other public groups – most are best carried out by existing businesses or new entrepreneurs.

PWSEDD and others can, however, urge local governments to encourage such activities through land use and taxation policies as well as helping support training programs, loan programs and providing information about where small/start-up businesses can get help with business plans, insurance, etc.

- Manufacture of specialized outdoor recreation equipment (the fat tire winter bikes now common in Alaska were first developed in Alaska)
- Creation/manufacture of arts and crafts
- Value added seafood products (see more in that chapter)
- Marketing strategies, products, website design, collateral materials
- Interpretive materials – signs, maps, videos
- Boat equipment, boat repair and manufacture
- Fuel sales

Commercial Fisheries Cluster

Definition of the Cluster

Fishing has been a mainstay of the cash economies in Prince William Sound for over a century and the lifeblood of the subsistence economy for many centuries prior to the opening of the first canneries.

Over the last 100 years, the commercial fishing industry has seen significant ups and downs. In the last 25 years, the lucrative herring fishery completely collapsed, coinciding with and in part likely tied to the disaster of the Exxon Valdez oil spill. Over the same period, natural salmon stocks have been stable, or, in the case of hatchery salmon, grown rapidly. At the same time, the market demand for Alaska's fish products has continued to rise, driven by an interest in healthy eating and the depletion of natural fish populations in other locations. The combined impact of these trends has pushed up the value of the salmon fishery for both seiners and drift net fishermen. A related trend is the gradual development of new value-added fish products. The commercial fishing cluster takes in a network of business activities directly and not so directly tied to the actual act of catching fish. These include

- Fishing - drift and set nets, and purse seines fisheries
- Processing + Production
- Aquaculture (hatcheries) and mariculture (such as oyster farms)
- Support Services + Manufacturing
- Transportation by air, water and overland
- Retail sales to consumers at restaurants and for shipping

Compelling Commercial Trends, Opportunities + Challenges

In 2006, processors, commercial fishermen and sport fishing service businesses earned an estimated \$82 million from PSWAC salmon in the Valdez-Cordova area²¹. The estimated economic impacts from these earnings, plus the activities of the PWSAC organization itself,

²¹ This takes in the largest component of regional fishery, but does not include other commercial activities, including the Solomon Hatchery, Copper River salmon fishery, halibut or shell fish.

were \$135 million in total economic output, including \$42 million in labor income and 750 jobs.²²

Commercial fishing revenues have continued to grow. The 2010 update of the PWSAC 2006 study estimates that PWSAC salmon produced an ex-vessel²³ value of more than \$196 million, and estimates using preliminary 2009 data that PWSAC salmon accounted for 64 percent of the ex-vessel value of the Sound's common property salmon fisheries. Using this figure, the total ex-vessel value of PWS salmon is approximately \$300 million.

The figure below presents information that makes clear just how phenomenal has been the increase in revenue in the Sound's major fisheries (the background chapter has more details). As the table points out, the amount of fish caught, average earnings and value of permits have all risen sharply. Most striking is the rise in value in the mostly pink salmon/seine fishery, where average gross earnings were up eight times from those of 2004. It is important to add in the cautionary note, however, that fishing is a volatile industry where earnings can fall as quickly as they rise. However, if the fishery is well managed and demand continues to grow, prices and earnings could stay very high indefinitely.

Table 4.1 Salmon Permit and Earnings Activity, Year Totals, 2004-2010

Year	Total Permits Issued/Renewed	Total Permits Fished	Average Pounds	Average Gross Earnings (magnitude of change since 2004)	Average Permit Price (magnitude of change in value since 2004)
Purse Seine (mostly pinks)					
2010*	268	174	1,292,112	\$472,488 (8X)	\$100,500 (6X)
2009	267	154	230,390	\$67,825	\$75,300
2004	266	104	481,916	\$56,718	\$14,000
Drift Gillnet (mostly reds and kings)					
2010*	537	519	94,889	\$92,023 (2X)	\$128,100 (3X)
2009	537	511	61,619	\$63,405	\$110,900
2004	540	513	37,989	\$43,681	\$40,400
Set Gillnet					
2010*	29	28	88,053	\$145,926 (8X)	\$59,800 (flat)
2009	29	27	51,787	\$63,147	\$59,500
2004	30	27	29,701	\$18,507	\$62,800

Source: Alaska Commercial Fisheries Entry Commission 5.17.2011; *2010 data are preliminary. Halibut and sablefish, other important elements of the PWS commercial fishing industry, are not covered here as the State does not maintain for those species.

²² PWSAC Economic Impact Study, 2006.

²³ As defined by ADF&G, "ex-vessel means "The post-season adjusted price per pound for the first purchase of commercial harvest. The ex-vessel value is usually established by determining the average price for an individual species, harvested by a specific gear, in a specific area. The delivery condition of the product is usually taken into consideration when the average price is established."

As was done in previous chapters, Table 4.2 below uses state labor statistics to provide a sense of the comparative importance of commercial fishing in the Valdez-Cordova Census Area relative to other US economic regions. Not surprisingly, this table shows that commercial fishing employs over 35 times the percentage of fishing workers as are employed nationally and 13 times the number of seafood product preparation and packaging workers.

Table 4.2 Location Quotients for the Valdez-Cordova Census Area, Segments of the Fishing Sector, 2009

Sector	Location Quotient	
	Valdez-Cordova	Anchorage
Fishing	35	.75
Seafood product preparation and packaging	12.94	0.49

Source: Bureau of Labor Statistics

The long term prospect for the salmon fishery is continued growth in both the domestic market and European Union.²⁴

Specific Commercial Fishing Opportunities, Challenges and Regional Actions

The remainder of this section outlines important challenges and opportunities facing the commercial fishing industry and presents related regional economic development strategies.

Stabilize Fuel Prices + Improve Transportation Infrastructure

The increasing cost of fuel reduces the profits of those involved in the fishing industry as well as impacting the cost of business and the cost of living in all PWS communities. This is a particular challenge in communities off the road system where extra costs are required to bring fuel. Where a community is only served by a single provider this has the potential to reduce competition and increase prices.

Solutions to the high cost of fuel are not simple or they would have already been implemented. Much of what drives up fuel prices is a product of international supply and demand that can't be altered at the regional level. There are, however, some options that could be undertaken at the regional level:

- Expand purchasing power through a regional fuel-buying cooperative among fishermen and/or communities
- Work at a state level to develop more in-state production and refining of fuel and/or reduce use of fuel for activities where other options are available (e.g. home heating, electricity)
- Explore options for new alternatives to traditional fuels

Beyond the fuel price issue, success in the commercial fishing industry requires a network of transportation links including air, water and road and the related port and airport storage and transfer facilities. Details of these issues are covered in the transportation section. It is worth emphasizing, however, that the ferry plays a critical role in sending fish to market, particularly for smaller producers.

²⁴ PWSAC Economic Impact Study, 2006.

Expand Regional Marketing of Fish Products and Tie to Regional Tourism Marketing

Like tourism, the foundation of commercial fishing is the region's healthy natural ecosystem. Efforts should be made to create new regional, integrated marketing programs that simultaneously sell the products and the place. A well planned marketing strategy could be developed with the following goals:

- encourage people to buy Copper River and Prince William Sound fish products
- tell the story of the fascinating place that is the home to the fish and the many ways visitors could enjoy a visit
- tell the stewardship story - explain how fishery stocks and the overall Sound are managed to ensure the long term sustainability of the resources

Expand Commercial Fish Products to Extend the Fishing Season

Like tourism, the commercial fishing season provides a good living and keeps communities bustling for the warmer months of the year. The halibut season, running from March through November, brackets the outer edge of the commercial season. The salmon season, which makes up the far larger portion of commercial fishing activity, is concentrated in a much shorter period, roughly late May through August. When the seasons end the economic pulse of places like Cordova, Valdez and Whittier noticeably slows. Many different organizations and individuals have invested time and effort trying to develop new fisheries including some that would continue outside of the current season. This effort can be supported by PWSEDD through lobbying for resources needed to further pursue these possibilities including research, marketing and changes in regulations. Examples of ideas that might extend the season include off-season value added products like fish oil in capsules or, perhaps, harvests of new species like sea cucumbers. The VFDA storage facility will address this issue by allowing for processing and value-added products.

Add Value to Commercial Fish Products

This strategy, like the goal of expanding fishery products and seasons, is also being investigated by a number of different parties. EDD's role can be similar: encouraging research and investments that can add value to the raw resource through improved handling and processing, expedited transport to market and development of new products. Examples include:

- value-added fish products such as increasing the percentage of pink salmon sold in forms other than cans
- new products like fish meal or fish waste as fertilizer for vegetable producers
- improved facilities for processing fish such as the recently developed cold storage facility in Valdez.
- micro-fish processing to provide greater support for individual fishing operations

Increase In-Region Capacity to Serve Commercial Fishing Industry

As previous statistics make clear, the commercial fishing industry generates significant business activity based on local resources. Much of the support for this industry, however, comes from outside the region. This primarily includes the repair and manufacturing of boats and equipment but also extends to work on hatcheries, the science of fishery management and marketing. In all

these areas, the economic impact of commercial fishing could expand if more of these products and services were provided locally. Specific projects that could support this goal include:

- Expand the capacity in Cordova, Valdez and/or Whittier to service boats - develop greater capacity for boat repair and services. Valdez and Cordova now have travel lifts; Cordova needs more space and a covered area for working on boats in the off season and, perhaps, a new ramp in a location that is outside the busy heart of town; Chenega is interested in providing limited boat repairs as part of their marine services facility.
- Support training programs for future fishermen and fishing related services (e.g. boat repairs, engine repairs, diesel mechanics) as VFDA and UAA provided for coastal communities.
- Marine Service Center in Chenega - offering gasoline, grocery, basic boat repair services to commercial fishermen and recreationists (e.g. sport fishers, kayakers)

One additional option to add capacity to the local commercial fishing industry would be to process locally some of the halibut associated with the CDQ program (community development quotas). Western Alaska-based CDQs own some halibut quotas in PWS and CDQ quotas are fished in the area. PWSEDD, working with groups like Cordova District Fisherman United and the Valdez Fisheries Development Association, could work jointly to court CDQs to bring processing business to PWS ports rather than sending it south to Seattle. This could create new processing capacity and new business opportunities to the region.

Related to this proposal are several options now being pursued in Valdez. One is the proposal to build a \$32 million dollar cold storage facility, aimed at storing and processing commercial fish from around the full Southcentral region of Alaska. Related is the option to bring more of the benefits of the state Community Development Quota (CDQ) program back to Alaska, and specifically to Prince William Sound. An assessment is now underway evaluating the feasibility of this option.



Cordova Boat Harbor

Expand Capacity of Local Residents to participate in the Commercial Fishing Industry

Compared to many parts of Alaska, Alaska residents hold a very large percentage of the fishing permits available in the Sound. For example, 74% of the seine permits, and 78% of the drift net permits are held by Alaska residents²⁵. While not all these Alaska residents reside in the PWS region many of them do and this helps sustain the economy of the region.

By contrast there is only one permit holder in the communities of Chenega and Tatitlek. This is another “chicken or the egg” issue as many potential permit holders would not choose to live in very small communities like Chenega and Tatitlek, where services are very limited.

²⁵ Alaska Commercial Fisheries Entry Commission, website, 5.17.11

One solution for this issue is the CQE (Community Quota Entry) program²⁶. This federal - sponsored program creates a tool that can allow local residents in small communities to get into, or back into, the commercial fishing business. Specific steps to take advantage of this program include:

- Investigate and develop options for funding the purchase of halibut and sable fish quota under the CQE program.
- Identify funds and trainers and confirm that Chenega residents are willing to make the commitment to go through the training program and take other steps needed to work in the industry.
- Carry out the training process. This might be done in partnership with the State Marine Advisory Program or village or regional Native corporations.

Transportation Cluster

Definition of the Cluster

The transportation cluster is defined as any business or job type in Prince William Sound that provides air, water, truck, or rail transportation of goods, services and people within and in and out of the region. This cluster includes couriers and messengers, pipeline transportation businesses and jobs, tourism scenic and sightseeing transportation as well as transportation support activities including warehousing and storage. As mentioned in previous chapters, the transportation cluster provides critical infrastructure and support to the more prominent fisheries and tourism clusters in Prince William Sound. As this chapter will explore, there are currently many challenges to the structure and delivery of transportation services in Prince William Sound. At the same time, there are a number of opportunities for improving existing infrastructure and coordinating current transportation modes. The benefits of these improvements are increased transportation opportunities for businesses, the development of a transportation system that is easily accessed and understood by visitors to the region and quality of life for the region's residents.

During the CEDS community outreach process, residents shared over and over their frustrations with the region's current transportation system, especially the State ferry system, and the many challenges of sustaining and/or growing other regional clusters without better

²⁶ Because of overcapitalization of the halibut and sablefish fisheries in the 1980s and early 1990s, the National Marine Fisheries Service (NMFS) and North Pacific Fishery Management Council (NPFMC) recommended sweeping changes to halibut and sablefish management methods. The result of the new management methods was the implementation of the Individual Fishing Quota (IFQ) program in 1995. Since that time, IFQs were limited to fishermen on an own it/fish it basis. IFQs have been a marketable item, being transferred between eligible quota holders (quota holders include both original holders and IFQ crewmembers that have received Transfer Eligibility Certificates from the NMFS.) In many communities this has meant a net-out migration of quota as fishermen have sold their rights to other eligible fishermen or have moved out of the region. With commercial fishing a prime economic factor in the region, it is important that this trend be reversed. Current high market quota prices have made outright purchase of blocks of quotas financially difficult for fishermen. Recognizing these issues, the NPFMC has implemented a program whereby eligible communities can participate in the quota system by forming a non-profit organization to purchase, hold and lease quotas. This has the advantage of offering additional quotas to local fishermen on an annual lease basis without them having to provide large amounts of capital up front and, perhaps more importantly, will ensure that a number of fishing quotas stay within the community. The only communities in PWS eligible for the CQE program are Chenega and Tatitlek. Chenega has formed a CQE entity and is seeking funding to purchase quota. To date, Tatitlek has chosen not to participate in the program. Based on "Community Quota Entity (CQE) Program Economic Analysis and Business Plan for the City of Craig, Alaska, July 2004.

transportation infrastructure system improvements. Despite a number of planning efforts,²⁷ many of which are highlighted below, there has not been a clear leader that will take charge of implementing identified strategies. To better understand the current state of transportation in Prince William Sound, this chapter of the CEDS begins with a brief overview of current transportation employment trends in Prince William Sound and follows with specific examples of transportation challenges and opportunities, many of which have been identified in other planning documents and are reviewed in the Regional Overview of this report (Chapter X). Finally, the chapter ends with an overview of prioritized transportation strategies and specific projects.

Compelling Trends, Opportunities + Challenges

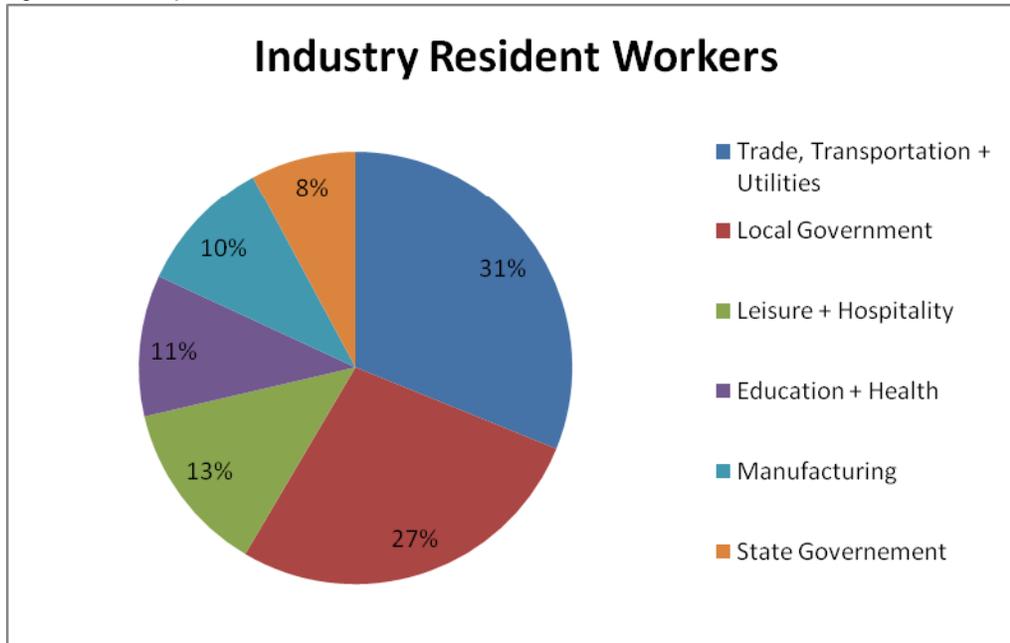
Employment + Businesses

The transportation cluster represents a large segment of employment for Prince William Sound's resident workers. 2009 Bureau of Labor Statistics resident worker data by industry indicates the largest percentage of resident workers in Prince William Sound, over 30 percent or 750 workers, are employed in the trade, transportation and utilities industry trade (Figure 5.1.) A subset of the same data, the location quotient shown in Table 5.1, indicates the Valdez-Cordova Census Area employs over five times the percentage of transportation and warehousing workers (NAICS 48-49) as are employed nationally and approximately twice the percentage as are employed in Anchorage. Related data from the Alaska Department of Commerce, Community and Economic Development business license database indicates a jump from 65 to 91 transportation and warehousing-related businesses in Prince William Sound from 1989 to 2006, respectively. Combined, this data, as well as tourism and fisheries-related transportation data presented in previous chapters, point to the current strength and potential growth of this cluster. As outlined in the next section, the region's transportation challenges provide additional opportunities for growth.

²⁷ Previous planning efforts include:

- *Prince William Sound Area Transportation Plan: An Element of the Statewide Transportation Plan*, Prepared by Parsons Brinckerhoff, July 2001.
- *Sustainable Economic Development for the Prince William Sound Region*, by Ginny Fay, September 2005.
- *Prince William Sound, Copper River Watershed, Gulf of Alaska: Integrated Motorized and Non-Motorized Transportation Plan*, Native Village of Eyak, December 2009.

Figure 5.1 Industry Resident Workers, Prince William Sound



Source: Bureau of Labor Statistics

Table 5.1 Location Quotients for the Valdez-Cordova Census Area, Transportation and Warehousing Sector, 2009

Sector	Location Quotient	
	Valdez-Cordova	Anchorage
Transportation and Warehousing	5.1	2.4

Source: Bureau of Labor Statistics

Note: A value of “1” indicates the industry has the same share of its area employment as it does for the US as a whole. A value greater than “1” indicates an industry with a greater share of the local area employment, a degree of specialization.

State of the Current Ferry System

The current transportation system in Prince William Sound faces many challenges. The first and probably the longest standing and most frustrating challenge for the region’s residents is the ferry system. Alaska Marine Highway service to Prince William Sound communities has been inadequate for years; it has been and remains inconsistent and unreliable. The three communities of Cordova, Chenega Bay and Tatitlek are impacted most heavily by poor ferry service as the ferry is one of only two transportation modes for traveling in and out of these communities. This is not to say there have not been efforts by regional leadership and the State of Alaska to improve AMHS service in Prince William Sound. From 1997 to 2001, the region’s communities worked with the Alaska Department of Transportation to identify ways to improve the overall transportation system. The final plan identified high speed day boat ferries as the best improvement option.²⁸ The proposed fast ferries would provide regular and reliable service to

²⁸ *Sustainable Economic Development for the Prince William Sound Region*, by Ginny Fay, September 2005.

local residents and visitors while also decreasing the cost of AMHS services in Prince William Sound.

In 2005, there were great hopes that the fast ferry *M/V Chenega* would be up and running and providing service to all Prince William Sound communities. After many delays in its launch, the *M/V Chenega* finally started service in September of 2005, only to be redirected a few short months later to southeast communities for the winter.²⁹ Today, the *Chenega* is back in Prince William Sound serving the communities of Cordova, Valdez and Whittier. However, service is still irregular and the communities of Chenega Bay and Tatitlek, without proper docks for receiving the *Chenega*, must rely on the less frequent service provided by the *M/V Aurora* (for the month of May 2011, the *Aurora* has only two scheduled stops in Chenega and four in Tatitlek). Additionally, in the winter months, the *Chenega* is abandoned leaving Prince William Sound residents with even fewer transportation options with the *Chenega* as the only ferry operating in the Sound. And, unfortunately, the cost savings once predicted by the introduction of the fast ferry system may have not been realized with larger fuel consumption than anticipated coupled with the rising cost of fuel.

The high cost of operating the ferry system has been one of the barriers to private operators investing in and ultimately operating and maintaining a private sector Prince William Sound ferry system. The investment and continued operation/maintenance costs are not likely to be covered, even with combined resident and visitor riders. In any case, regular, reliable ferry service, fast or traditional, to Prince William Sound communities would vastly improve the movement of people, goods and services within the region and has the potential to create transportation and tourism related growth. And now seems like the right time for AMHS to reinvest in Prince William Sound. According to an August 2010 interview with Deputy Commissioner of the Alaska Marine Highway System, there was an overall increase in ferry ridership in the 2010 summer season. The highest rise in ridership was seen on the western end of the AMHS system with full car decks in Prince William Sound and a 25 percent increase in Kodiak-Homer ridership.

The challenges of the current system described above do not mean there have been no successes in improving and resulting from the current system. PWSEDD in developing a regional marketing plan for tourism based upon the advent of the *Chenega* resulted in wild successes in summer transportation, and significant blocks of business moved from Cordova to Seattle to Cordova to Anchorage, an estimated \$10,000,000 annually in freight, goods, and services to Anchorage through the Whittier tunnel. The one successful link has been ferry to road. In 2010/2011, the first winter of FVF *Chenega* operation in PWS, the missed schedule days and delays were significantly less in PWS than is Southeast winter routes with the *Chenega*, despite the learning curve of the captains in winter traffic and weather forecast policies that dramatically improved after a couple of months of winter operation. The winter operation of the *Chenega* has been warmly received by a large section of the Cordova residents, businesses, and fish processors. PWSEDD needs to work with regional partners to continue this momentum.

Coordination between Multiple Modes

Were the ferry system to eventually provide regular and reliable services to all communities in Prince William Sound, the region would still need to address the lack of coordination between different transportation modes. For residents, visitors and businesses alike, the task of coordinating between air, water, rail, road and non-motorized transportation options in Prince William Sound can be nearly impossible. There are no obvious linkages between transportation modes to make for accessible and reliable transitions from one mode to another. For example, if

²⁹ <http://aprn.org/2010/08/04/marine-highway-ridership-on-the-rise/>

interested, one could not easily take a plane from Anchorage to Cordova, board a ferry to Tatitlek, and then on to Whittier where you could take the train or drive back to Anchorage. Without coordinated schedules between these different communities and transportation modes, a trip like this that could be accomplished within a few days, would take several weeks. There is great potential and interest among residents, visitors, and businesses for this type of coordination between all modes of transportation and even beyond that. Ideally, there would be a one-stop transportation booking center or system for developing trips within and in and out of Prince William Sound.

Port Facilities

The ports and harbors of Prince William Sound support the region's commercial fisheries and tourism clusters. They also provide important delivery points for bulk goods that can't or are too expensive to be delivered by air. Additionally, the Ports of Whittier and Valdez provide statewide service by handling a number of commodities. As indicated by Table 5.2, the Port of Whittier has continued to play a larger role in the handling of specific commodities like chemicals and related products (i.e. hazardous materials) and primary manufactured goods. Whittier's close proximity to Anchorage and road and rail connections to Anchorage and Seward make it an ideal port location. Likewise, the Port of Valdez, with its road connection to interior communities, is well positioned for increased and expanded activity. Both ports also benefit from being the northern-most year-round ice-free and deep water ports in the U.S. not subject to tidal activity. The Port of Valdez, in fact, is the 18th largest port in the nation and does a large volume of business with the U.S. military. Recently, a military ammunition and supply ship was in the port for five days and the military is currently looking at doing more business in Valdez. This makes both ports ideal locations for increased fisheries business from Alaska's Community Development Quota groups that recently announced their intentions to move their fisheries operations from the Lower 48 ports to Alaska.

Expanding the port capacity in Whittier and Valdez would also have the added benefit of creating opportunities for small transportation support and related businesses in Prince William Sound and beyond (e.g. along the Parks and Richardson Highways). Investment in port expansions in Valdez and Whittier would have a statewide economic benefit as the state's leading port, the Port of Anchorage, and the Port of Mackenzie face heavy costs of dilapidating infrastructure, environmental concerns, and expensive upgrades.³⁰ Does it make more sense to investigate what level of investment it would take to expand the more reliable ports in Prince William Sound? In the end, perhaps the investment is less and the payoffs are bigger, especially given the potential nationwide support these ports could provide as home to an increased number of U.S. Coast Guard personnel.

³⁰ Port of Anchorage

Table 5.2 Cargo Data, Domestic and Foreign from all traffic directions, 2005-2009

Commodity	Anchorage					Whittier				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
All Commodities	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total Coal,Lignite and Coal Coke	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Total Petroleum and Petroleum Products	35%	29%	23%	17%	18%	2%	3%	3%	3%	17%
Total Chemicals and Related Products	0%	1%	0%	1%	0%	19%	18%	11%	13%	14%
Total Crude Materials, Inedible Except Fuels	10%	7%	7%	9%	4%	10%	10%	9%	7%	6%
Total Primary Manufactured Goods	8%	8%	9%	9%	8%	26%	26%	28%	27%	24%
Total Food and Farm Products	11%	16%	16%	15%	15%	15%	13%	20%	22%	13%
Total All Manufactured Equipment, Machinery	35%	39%	44%	50%	54%	27%	30%	28%	28%	24%
Total Waste Material; Garbage, Landfill, Sewage Sludge, Waste Water	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Source: US Army Corps of Engineers, Navigation Data Center

Status of Regional Transportation Leadership

The Prince William Sound region lacks a regional leader and champion that can provide a singular voice for the region's transportation needs. An organization that can both advocate for and secure transportation dollars for regional projects would be ideal. The region does not lack entities representing the needs of residents but not one of these entities has the political power and authority necessary to apply for transportation funds on behalf of the region as a whole. One potential solution is the development of a regional transportation authority. However, before that can happen, there must be legislative support in the form of specific legislation granting local governments the power to develop such authorities. Some progress has been made toward this effort. In 2009, Representative Charlie Huggins, R-Wasilla, introduced SB 152. This bill would give municipal governments the ability to create regional transit authorities and would allow these regional authorities to accept state, federal, municipal and private funding to take out bonds for transportation system projects.³¹ Additional potential benefits are outlined in the Native Village of Eyak 2009 Transportation Plan.³² They include:

- Authority could be set up to represent the major stakeholders in transportation issues, including tribes, Native Corporations, communities, agencies, businesses and residents

³¹ <http://akvoice.org/home-slot-one/establishing-a-public-transit-authority-for-alaska>

³² A preliminary understanding of some of the benefits of a regional transportation authority is outlined in *Prince William Sound, Copper River Watershed, Gulf of Alaska: Integrated Motorized and Non-Motorized Transportation Plan*, Native Village of Eyak, December 2009, page 57.

- Creates, for the first time, an organization that can look broadly at regional transportation needs and identify and plan for priority regional projects
- Creates an organization with the political clout to advocate for priority projects with the State of Alaska and other potential funders
- Sets the stage for creative approaches to funding, for example, cooperation between Native organizations and communities
- Has the potential to generate local funds through mechanisms such as bond measures. Small amounts of matching local funding are essential to leveraging larger amounts of funds that come through the Statewide Transportation Improvement Program (STIP)
- Creates some of the benefits of a borough but is limited to transportation issues and consequently does not require the taxes and bureaucratic structures that many residents and businesses do not want

There are a number of successful models in the Lower 48 for successful development and implementation of a regional transportation authority. The potential benefits outlined by the Eyak Plan, as well as some of the unanswered questions about how a bill like SB 152 provides more power to local governments than Alaska Statute Title 29³³, should be further explored and understood in the context of Prince William Sound communities, cultures and physical environmental challenges. If Title 29 already grants municipalities the authority to form regional transportation authorities, the three municipalities in the region must decide if they are willing to work together toward that end and provide some level of support for the authority.

Cost of Fuel

An additional challenge to reliable transportation in Prince William Sound is the rising cost of fuel, first explored in the fisheries cluster chapter where we see the rising cost of marine fuel. None of the regional infrastructure and systems improvements implemented by the region will be cost effective without affordable means to operate and maintain them. Prince William Sound residents, like the rest of the state and nation, are paying hefty prices at the fuel pump. High fuel costs pose a threat to the region's main economic development drivers as Prince William Sound commercial fishermen and tourism operators pay more to fuel their boats. They are forced to either absorb or pass along these costs to their customers. Potential solutions for lowering the cost of fuel, and energy in general, for Prince William Sound residents are explored in the chapter on emerging clusters. As detailed there, the region is currently operating and/or pursuing a number of renewable energy projects and there is the potential to lower fuel costs through bulk fuel purchases.

Fuel cost is very important. The advent of electric vehicles is chance to greatly improve what is already the strongest transportation link (when passengers, freight, and goods are all included, air is reliable, but not good for freight or goods) – ferries to roads. Electric passenger and commercial vehicles could be fueled electrically through renewable energy projects, and cut costs dramatically, while using electricity for heat is not a cost effective offset - wood heat is. If improvements in hydrogen fuel or liquid ammonia as fuel could become economically feasible, transportation fuels could be produced locally and liberate the fishing fleets and commercial freight from high transportation costs.

³³ <http://www.commerce.state.ak.us/dca/logon/admin/admin-title29.htm>

Current and Future Investments

The tables below provide an overview of current and potential future transportation investments for Prince William Sound. The information presented here comes from two major sources, the Alaska Department of Commerce, Community and Economic Development Community Grant Database and the State FY 2012 capital project budget.³⁴ According to these sources, there is approximately \$10.2 million of grant resources going toward transportation projects currently and an anticipated \$4.5 million dollars of future transportation project investment.

Table 5.3

DCED Community Grants Database - As of May 19, 2011					
Fiscal Year	Grant Type	Recipient	Project Description	Project Status	Award Amount
Cordova					
2011	Legislative	City of Valdez	Carport Improvements	Active	\$90,000
2011	Legislative	City of Valdez	Flood Mitigation and Dike Upgrades for Subdivision at 10 Mile Richardson Hwy	Active	\$800,000
2010	Legislative	City of Valdez	Dock Improvements	Active	\$3,325,000
2010	Legislative	City of Valdez	City Dock Information and Interpretive Center	Active	\$800,000
2009	Legislative	City of Valdez	New Harbor and Uplands Development	Active	\$2,000,000
2009	Legislative	City of Valdez	Flood Mitigation Project	Active	\$1,000,000
2009	Legislative	City of Valdez	Small Boat Harbor Expansion	Active	\$500,000
Whittier					
2011	Legislative	City of Whittier	Shotgun Cove Road Phase II	Active	\$400,000
2010	Legislative	City of Whittier	Railroad Station Improvements	Active	\$325,000
2007	Legislative	City of Whittier	Boat Harbor and Waterfront Development	Active	\$1,000,000
Current Grant Resources Investment					\$10,240,000

Table 5.4 State FY2012 Capital Budget Projects

Community	Project	Funding
Cordova	Breakwater Extension and Boat Ramp	\$1,400,000
	Maintenance Shop Roof Extension	\$7,500
	North Fill Boat Ramp Improvements	\$350,000
	Dock and Uplands Improvements	\$650,000
Valdez	Flooding Control Project	\$75,000
	Hazlet Drive Upgrades	\$750,000
Whittier	Shotgun Cove Road Phase III	\$400,000
	Snow Blower	\$700,000
	Whittier Tunnel Jet Fan Repairs and Communication System Upgrade	\$350,000
	Airport Master Plan	\$125,000
	DOT Roads Maintenance and Operations	\$125,000
Total Potential State Capital Investment		\$4,582,500

³⁴ http://www.commerce.state.ak.us/dcra/comddb/CF_Grants.htm and as of 5/23/2011, the state capital budget was under review and yet to be approved by Governor Sean Parnell.

Community and Regional Services Cluster

Definition of the Cluster

The community and regional services cluster is defined by businesses or job types that provide a wide range of community and social services in Prince William Sound. This cluster includes education, health and government-related jobs or businesses. The region's public and private schools, colleges and universities; hospital and clinics; city and tribal governments; Alaska Native for profit and not for profit entities; and, other social advocacy organizations comprise this cluster. As this chapter will explore, there are numerous opportunities for growth in community and regional services in Prince William Sound. Similar to the transportation cluster, many of the jobs and businesses in this cluster were developed to support the main economic development drivers in the region, the tourism and commercial fisheries clusters, and can continue to do so as those industries are strengthened. At the same time, there are opportunities to grow specific sectors of the community and regional services cluster that lay outside of the tourism and fisheries fields.

Through the community outreach process, Prince William Sound residents have expressed the need for expanded community and regional services. For example, as in other parts of the state, there is a continued need in the region for a variety of healthcare services. There are opportunities to fill these gaps through the creation of more jobs and businesses in the health care arena. This chapter provides an overview of key community and regional service employment and business data today and provides a more detailed discussion of the challenges and opportunities of growing jobs and business opportunities in these industries. Finally, the chapter ends with an overview of projects that will support and expand specific components of the community and regional services cluster that build on the region's needs and strengths.

Compelling Trends, Opportunities + Challenges

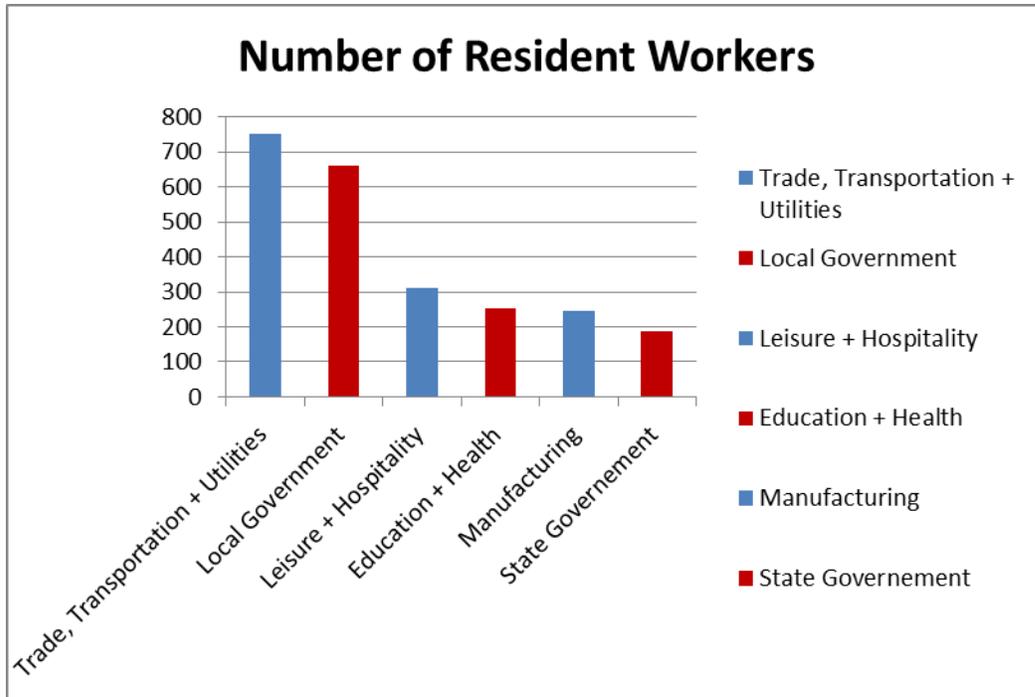
Employment, Facilities and Businesses

The 2009 Bureau of Labor Statistics resident worker data by industry shows over 45 percent (1,102 workers) of Prince William Sound resident workers are in the combined industries of local government, education, health and state government (Figure 6.1). Of that percentage, 2.5 percent, or 254 workers, are in the education or health industries. A subset of the same data, the location quotient shown in Table 6.1, indicates the Valdez-Cordova Census Area employs over twice the percentage of social advocacy organization workers and over 11 times the percentage of civic and social organizations as are employed nationally. Related data from the State of Alaska and reports from local entities indicate there are currently a minimum of nine educational facilities in the Prince William Sound Region including local elementary, junior high and high schools and one postsecondary facility, Prince William Sound Community College (PWSCC).³⁵ There are approximately 2,636 students enrolled in these institutions; this figure includes the 1,500 students enrolled at PWSCC. In the health field, there are approximately nine health facilities in the region and ten healthcare providers operating those facilities. Figures for these industries are featured specifically because of community feedback regarding a need to diversify the community and regional services cluster beyond the dominating local and state government

³⁵ This data was pulled from a report compiled for the PWSEDD by SE Strategies in 2010. Key sources include the Alaska Department of Education and Early Development, 2009, Alaska Department of Commerce, Community and Economic Development, 2010, SE Strategies, Cordova Chamber of Commerce, City of Cordova, and Valdez Chamber of Commerce.

industries. Following the tables below are some of the current challenges and opportunities facing the health and education industries.

Figure 6.1 Industry Resident Workers, Prince William Sound



Source: Bureau of Labor Statistics

Table 6.1 Location Quotients for the Valdez-Cordova Census Area, Civic and Social Organizations, 2009

Sector	Location Quotient	
	Valdez-Cordova	Anchorage
Social Advocacy Organizations	2.3	2.21
Civic and Social Organizations	11.47	1.51

Source: Bureau of Labor Statistics

Note: A value of “1” indicates the industry has the same share of its area employment as it does for the US as a whole. A value greater than “1” indicates an industry with a greater share of the local area employment, a degree of specialization.

Growing Demand for Accessible, Affordable Healthcare

One of the current challenges and a potential opportunity for growth in the community and regional service cluster is the need for adequate, accessible and comprehensive healthcare for Prince William Sound residents. Many local residents must leave their communities to receive care. This is costly for individuals and the system as a whole. During the CEDS community outreach process, at least two communities in the region expressed interest in expanding their healthcare facilities and services to provide more robust local healthcare options for local and regional residents.

The region's clinics and hospitals have the potential to work more closely with educational and social service entities housed within and outside of the region to train and build a skilled, dependable and engaged healthcare workforce. For example, Chugachmiut³⁶, the regional Alaska Native non-profit provides workforce development programs in the form of higher education scholarships and employment training. This training, as well as training opportunities offered through the Prince William Sound Community College could be tailored to meet the growing healthcare needs and opportunities of Prince William Sound residents. As mentioned in a 2003 statewide assessment of Alaska's growing healthcare industry, healthcare jobs vary widely from maintenance/janitorial support services to trained health care clinicians, nurses and doctors³⁷. Likewise, there are creative ways beyond expanding current healthcare facilities to add more jobs. For example, there are opportunities to work through the larger healthcare providers and regional Native non-profit as home healthcare and assisted living service providers. This model would allow villages and larger communities in the region with more flexibility to accommodate important seasonal activities like subsistence hunting and fishing, commercial fishing and tourism. However, as detailed below, the right skills and training are required for this model to be successful.

If the region decides to pursue expansion of both tribal and non-tribal health care services, it is clear there must be local capacity to handle the complexities of medical billing. To develop a full spectrum of healthcare services across the region, and to receive reimbursements from funding sources, like the State Medicaid system, local healthcare providers must develop the capacity to bill for those services and manage funding sources. Building this capacity depends upon workforce development, training and developing the policies and procedures to manage these systems. This is also an opportunity for small business development to provide services in the region.

Lastly, it's important that any restructuring or expansion of healthcare services in Prince William Sound align with and build upon statewide planning efforts. Success in this arena will depend on strong relationships with other healthcare providers and health organizations around the state. Likewise, there are opportunities to learn from providers in the Lower 48 and outside the U.S. that have successfully expanded upon existing healthcare infrastructure and services to create a more robust healthcare cluster.³⁸

³⁶ <http://www.chugachmiut.org/>. Currently, Chugachmiut is a major employer for the communities of Chenega and Tatilek.

³⁷ *Alaska Economic Trends*, April 2003

³⁸ Examples

Small Population and Need for Skilled Workers

Developing a well-educated workforce to compete in the world's marketplace is essential for the success of all Prince William Sound residents. As described above and in previous chapters, there are specific opportunities for Prince William Sound residents in the tourism, fisheries, transportation and, potentially, healthcare fields. The region's educational institutions, including the local K-12 schools, can provide the initial and continued education and training it takes to be successful in Prince William Sound's growing economy. Additionally, local healthcare employers have the opportunity to train and keep current employees and perhaps even expand their workforce by offering training opportunities to all healthcare workers. In what ways can all of these institutions support one another and be supported to train generations of new workers that will live and work in Prince William Sound?

Outlined below are several current examples of relevant education and training programs offered by local educational institutions today and potential opportunities based on recent regional developments and ideas from other communities in the state and Lower 48. Also included are a few examples of successful programs that have been offered to regional residents by entities outside of the region like the Alaska Department of Commerce, Community and Economic Development, Division of Economic Development, AlaskaHost Program.³⁹ As these industries continue to grow and thrive in Prince William Sound region, it is logical to think that additional training dollars, public and private, will become available to ensure future generations of skilled, trained workers in these fields. These training dollars will provide job opportunities, educators, trainers and the people they train.

Travel + Tourism

- Alaska Department of Commerce, Community and Economic Development, Division of Economic Development, AlaskaHost Program
- In Bristol Bay, local educators (e.g. University of Alaska Bristol Bay Campus), federal land management entities (e.g. Parks Service, Bureau of Land Management), regional health organizations and fishing and hunting guiding business owners from the region are working together to do one-week training academies in the summer for youth that are interested in tourism-related jobs like guiding or working for a lodge. These jobs allow youth to stay in their region and share with visitors their knowledge of the region's culture and history.

Fisheries

- PWSCC is offering refrigeration and other fisheries related courses. There is potential to build from these courses and work closely with fishermen in the region to create entire certification programs for upcoming commercial fishermen as was a pilot program formerly offered by VFDA and UAA.
- Cordova's new vessel lift will open up new opportunities in mechanics, hydraulics and other maintenance skills necessary for major marine repairs.
- In Cordova, 7th grade students monitor Odiak Pond with science teacher Cara Heitz, in partnership with Kate Alexander of the Copper River Watershed Project. This data is to be included in the State of Alaska Catalog of Waters and is vital to understand fish spawning, rearing and migration patterns.

³⁹ <http://www.dced.state.ak.us/ded/dev/alaskahost/home.htm>

Health Care

- PWSCC (with branches in both Valdez and Cordova), in collaboration with the University of Alaska, has developed a two-year Associate's degree in its Nursing program. This program is made possible through a federally funded Title III grant which provides access to educational opportunities for Alaska Native and Native Hawaiian people. A review of the College's Fall 2010/Spring 2011, Summer 2011 and Fall 2011 calendars showed the college also has health science, human services and medical assisting programs. Is there potential to expand this program to a 4-year Bachelor's program?
- There is an opportunity for PWSCC to work with healthcare providers to train their non-medical staff for medical field positions. For example, can someone that currently does custodial or maintenance work at a clinic or hospital in the region learn to be a medical technician? Could someone that is employed as a technician become a nurse? These opportunities would increase the quality of life for those individuals by teaching them a new skill for jobs with higher pay. An additional benefit would be keeping these residents in Prince William Sound and building on an existing and invested workforce that has goals and aspirations that can be fulfilled by staying in their community and using regional resources to attain their professional goals.
- Another opportunity may be to train a group of the region's residents through the Alaska Native Tribal Health Consortium Dental Health Aide Program. This is a 2-year program that would provide an educational opportunity and fill a gap in services for village residents.

Transportation

- PWSCC offers hazardous waste management and oil spill related courses. There is an opportunity for PWSCC to strengthen its partnership with the Alaska Vocational Education Center in Seward to train PWS residents for more transportation jobs

Current and Future Investments

The tables below provide an overview of current and potential future education and health-related investments for Prince William Sound. The information presented here comes from two major sources, the Alaska Department of Commerce, Community and Economic Development Community Grant Database and the State FY 2012 capital project budget.⁴⁰ According to these sources, there is approximately \$6.2 million of grant resources going toward transportation projects currently and an anticipated \$3.2 million of future education and/or health project investment.

Table 6.2

DCED Community Grants Database - As of May 19, 2011					
Fiscal Year	Grant Type	Recipient	Project Description	Project Status	Award Amount
Chenega Bay					
2009	Legislative	Chenega Bay IRA Council	Sewer Line to Subsistence Building	Active	\$75,000
Cordova					
2011	Legislative	City of Cordova	Cordova Center Completion	Active	\$2,500,000
2011	Legislative	City of Cordova	Cordova Center and Library	Active	\$2,000,000
2010	Legislative	City of Cordova	Cordova Center Construction and Equipment	Active	\$1,000,000
2008	Legislative	City of Cordova	School District Preschool Supplies and Building Maintenance	Active	\$5,000
2008	Legislative	City of Cordova	Mt. Eccles Elementary School Playground Equipment and Upgrades	Active	\$146,415
Tatitlek					
2011	Legislative	Tatitlek IRA Council	Power Generators Repairs and Replacement	Active	\$26,600
Valdez					
2008	CDBG	City of Valdez	Senior Center Improvements	Active	\$451,750
Whittier					
Current Grant Resources Investment					\$6,204,765

Table 6.3 State FY2012 Capital Budget Projects

Community	Project	Funding
Chenega	Construction of Teacher Housing	\$500,000
Cordova	Hospital Maintenance and Equipment	\$2,000,000
	Family Resource Center Repair, Technology Upgrade, Office Equipment	\$13,382
Valdez	High School Fire Alarm and Sprinkler Replacement	\$694,943
Total Potential State Capital Investment		\$3,208,325

⁴⁰ http://www.commerce.state.ak.us/dcra/comddb/CF_Grants.htm and as of 5/23/2011, the state capital budget was under review and yet to be approved by Governor Sean Parnell.

Emerging Clusters

Definition of the Clusters

In addition to the star clusters of travel and tourism, commercial fisheries, transportation and community and regional services, there are industries in the region that show promise as current and future economic development drivers for Prince William Sound. This promise is exhibited through the support these industries give to the main clusters as well as the number and diversity of jobs they independently bring to the region. These “emerging clusters” include energy, communications and product manufacturing. They are defined by jobs and businesses such as clothing, gift and equipment manufacturers.

This chapter provides an overview of relevant data, opportunities and challenges for each of the emerging clusters ending with an overview of projects that will support and expand these potential growth industries.

Compelling Trends, Opportunities + Challenges

Energy

As a component of the trade, transportation and utilities industry, 2009 Alaska Department of Labor and Workforce Development data shows that approximately 8.5% of that industry’s workers are categorized as “utilities workers”. This includes jobs in the electric power generation, transmission and distribution, natural gas distribution, water, sewage and other systems. A subset of the same data from the Bureau of Labor Statistics, the location quotient shown in Table 7.1, indicates the Valdez-Cordova Census Area employs over three times the percentage of utilities workers (NAICS 21) as are employed nationally and approximately twice the percentage as are employed statewide. As outlined below, the region’s energy challenges provide additional opportunities for growth in the “utilities” sector.

Table 7.1 Location Quotients for the Valdez-Cordova Census Area, Utilities Sector, 2009

Sector	Location Quotient	
	Valdez-Cordova	Alaska
Utilities	3.6	2.24

Source: Bureau of Labor Statistics

Note: A value of “1” indicates the industry has the same share of its area employment as it does for the US as a whole. A value greater than “1” indicates an industry with a greater share of the local area employment, a degree of specialization.

The cost of energy has been and continues to be a major barrier for economic development for the residents of Prince William Sound. Table 7.2 shows energy costs for communities in the region as of January 2011. The increasing costs of operating and maintaining the region’s current infrastructure and the costs that are passed to the region’s residents are both a challenge and opportunity. In the fisheries cluster chapter, Figure 2.5 showed the increase of the price of marine fuel/gallon at the Cordova port over an 11-year period from \$1.05 in June of 1999 to \$3.44 in December of 2010. Table 7.2 shows a wider breadth of fuel costs including home

heating fuel and gasoline for select communities in the region as of January 2011. As data from this report, prepared by the Alaska Department of Commerce, Community and Economic Development Research and Analysis Section, notes, the general trend is a 3% and 4% increase for heating fuel and gasoline prices, respectively. Although the general trend shows that average heating fuel and gasoline prices are down from 2008, they're still significantly higher than 2005 prices recorded for a similar report. For the Prince William Sound communities featured in this report, Chenega Bay and Cordova experienced the statewide increase for both heating fuel and gasoline. Valdez did not, with an actual 11% drop in heating fuel (25% lower than the statewide average) and the same 11% drop in gasoline costs (36% lower than the statewide average).

Table 7.2 - Fuel Costs for Select Prince William Sound Communities

Community	Community Retailer	Heating Fuel #1 1/2011 Retail: (selling price per gallon)	Percent (%) +/- Statewide Heating Fuel Average (\$4.98*):	Percent +/- 6/2010 Retail: (selling price per gallon)	Gasoline 1/2011 Retail Price: (selling price per gallon)	Percent (%) +/- Statewide Gasoline Average (\$5.29):	Percent +/- 06/2010 Retail: (selling price per gallon)
Chenega Bay	Chenega Bay Utility	\$6.16	24%	6%	\$6.56	24%	14%
Cordova	Hovers Mover	\$3.68	-26%	7%	\$4.20	-21%	17%
Valdez	North Pacific	\$3.73	-25%	-11%	\$3.37	-36%	-11%

Source: Report to the Director, Current Community Conditions: Fuel Prices Across Alaska, January 2011 Update

* Heating fuel average does not include Northern communities, whose residential fuel is subsidized by the North Slope Borough.

The high cost of energy for Prince William Sound presents at least two growth opportunities for the energy sector. They include the following:

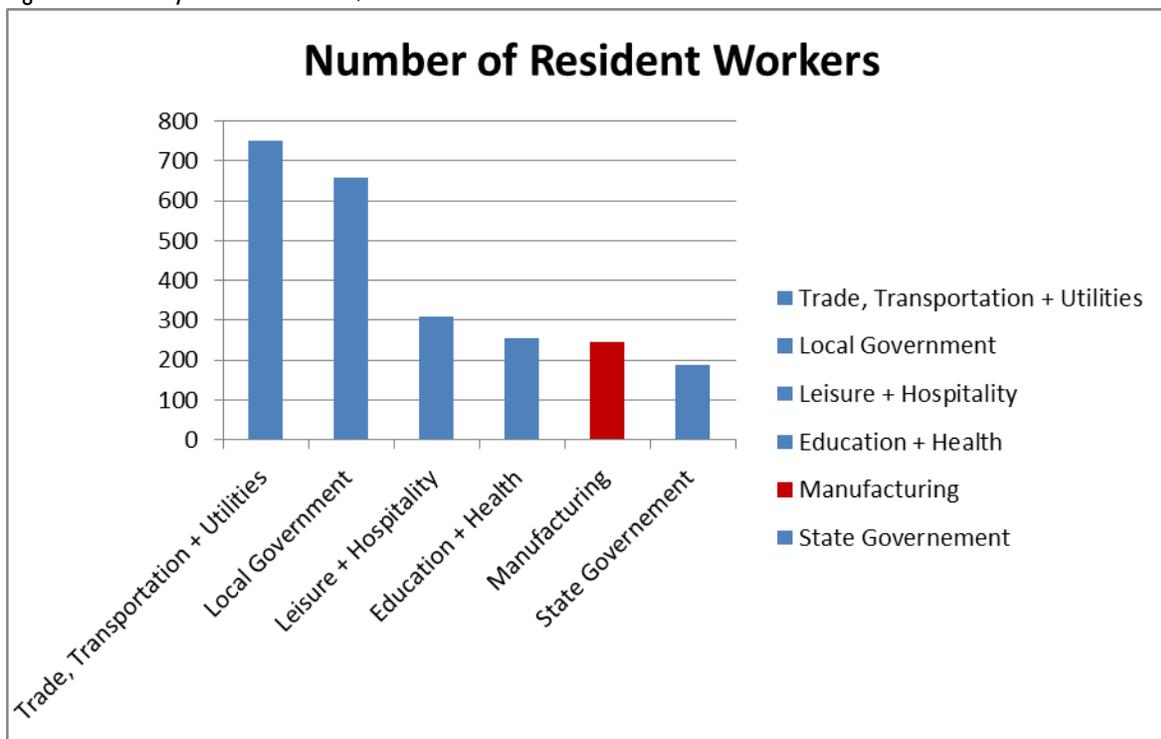
- **Renewable Energy** – Investment in renewable energy projects would provide good, quality jobs for the region’s residents while also decreasing the region’s dependency on fossil fuels. In particular, the region’s current and future hydro resources have shown great potential. Additional renewable energy resources include biomass like wood waste and paper and cardboard. Additionally, the development of waste heat projects that use excess heat from one building to heat one or more additional buildings is an excellent economic development opportunity for Prince William Sound (as being planned for Phase II of the Cold Storage Plant). Developing the infrastructure to make this possible will require a set of skilled, trained workers who can build, operate and maintain these elaborate systems. Locally produced energy can reduce costs, and increase employment opportunities, while reducing the export of dollars from the region to import energy. Locally produced electricity will offer excellent opportunities to reduce road transportation costs as early as 2012 with the introduction of a wide range of plug in hybrid and electric vehicles.
- **Bulk Fuel Cooperatives** – By partnering and buying larger amounts of fuel at one time, the region’s residents would be less susceptible to fluctuating fuel costs. Additionally, the region could position itself to bring in a larger number of fuel sellers, thereby providing more competitive prices. Currently, the region has few suppliers, especially in the small village communities like Chenega Bay and Tatitlek; suppliers have no

competitors and can charge higher prices for home heating fuel and gasoline. There could be potential jobs associated with new fuel suppliers and skilled workers to run, operate and negotiate bulk fuel purchases and distribution to the region’s businesses. The completion of the ultra low sulfur fuel module at the Petro Star refinery located in Valdez offers the opportunity for competition in Prince William Sound, and offers a local source for heating and road fuels.

Manufacturing

The 2009 Bureau of Labor Statistics resident worker data by industry shows approximately 10% (247 workers) of Prince William Sound resident workers are in the manufacturing industry (Figure 7.1). The majority (80-90 % consistently over an eight-year period⁴¹) are in food manufacturing. This figure correlates with the region’s healthy commercial fishing and processing industry. The remaining 10 – 20 % of workers in the manufacturing industry include manufacturing transportation equipment (2-3 people), fabricated metal products (6-7 people) or petroleum and coal products (45-56 people). These numbers do not speak to the strength or weakness of this industry. Rather, they illustrate past and current industry trends.

Figure 7.1 Industry Resident Workers, Prince William Sound



Source: Bureau of Labor Statistics

The potential growth in this arena is closely tied to the region’s star clusters of travel, tourism and fisheries and energy. Currently, there is interest in the region to develop a tannery business in Cordova that would fill a growing market for tanned hides and finished products. These raw materials for the tannery would be provided by regional residents, tanned in Cordova and then sold in PWS to residents and visitors to the region or sold to markets outside. This business type

⁴¹ Alaska Department of Labor and Workforce Development, Quarterly Census of Employment and Wages, Current Data, 2002-2010

fits well with the region's existing resources and provides a niche for seasonal commercial fisheries and other workers that do not work year round. Supporting small, upcoming manufacturing businesses like the tannery in Cordova is the true definition of developing a regional cluster. Investments in this cluster will strengthen linkages between small, medium and large businesses. Working with regional partners and potential funders, such as the Chugach Regional Resources Commission (CRRC) and Alaska Manufacturing Extension Partnership (AMEP), would provide other opportunities for small manufacturing business start-ups. As discussed in the tourism and fisheries cluster chapters, there are other opportunities in this arena like the development of more local arts and crafts for visitor consumption and value-added fish products for export to larger national and international markets. The additional opportunity here is in the training opportunity that could be provided through the region's educational institutions in partnership with the CCRC, AMEP, PWSCC and the University of Alaska Anchorage Small Business Development Center. In Cordova, the availability of excess electricity during the summer season offers the opportunity to provide interruptible electric power rates that are competitive on a national level to spur manufacturing or business opportunities.

Communications

Like the energy sector described above, 2009 Bureau of Labor Statistics figures show a compelling location quotient for the "telecommunications" sector. That figure, 2.65 for the Valdez-Cordova Census Area, indicates employment in the telecommunications field is over twice that of the nation. This includes jobs and business types such as wired telecommunications carriers, satellite communications and others. As the region's communications needs are inventoried (e.g. the community of Chenega is currently without broadband or cellular service), appropriate technology to meet those needs will call for workers that are skilled at maintaining and operating newly installed or upgraded technology. As with the other sectors presented in this chapter, local education institutions also have an opportunity to expand their services by adding courses and training programs in these emerging fields. Competing vendors are building microwave and fiber optic links between PWS communities. This improves communications to fishing fleets, between communities, and allows high speed data for a variety of opportunities including telemedicine, "bedroom community" jobs in the professional services, data management, information technology, and other portable job sectors. The small town settings will now be able to provide the communications infrastructure to grow technical or professional services industries.

Current and Future Investments

Known current and future investments in the Prince William Sound region's energy, manufacturing and communications industries are highlighted below.

Energy

- Cordova Hydroelectric Projects (Humpback and Power Creek) – On June 11th, 2011, there was a ribbon cutting ceremony for the \$21 million Cordova Humpback Creek rebuild project. The original facility was wiped out during two floods in 2006. The project is made possible in part by an \$8 million Alaska Renewable Energy Grant, a fund that was established by Representative Bill Thomas, R-Haines, and former Representative John Harris, R-Valdez.⁴² The project was led by PWSEDD board member Clay Koplin, Executive Director for the Cordova Electric Cooperative. The

⁴² http://www.thecordovatimes.com/article/112521_million_invested_at_humpback_creek

project will help bring down the cost of energy for Cordova residents and businesses. Two of the Cooperative's largest customers, Trident Seafoods and Ocean Beauty participated in the ribbon cutting.

- Valdez Hydroelectric Project (Allison Creek)

Manufacturing

- Cordova Tannery Project – This project will provide tannery services for subsistence and trophy/sport hunters. The project is also intended to provide training and possible seasonal employment for local fisherman during their off season.

Communications

- A 100' cellular tower was installed at Naked Island. This was an eight-year project completed on June 10th. It provides the strongest signal across Prince William Sound, from Cordova to Whittier, into Valdez Arm and 30 miles into the Gulf of Alaska. The project was completed by Cordova Wireless Communications. The project will improve safety for fishing fleets, recreational users and mariners in the region.

4::PWSEDD CEDS IMPLEMENTATION PLAN, 2011-2016

The following table outlines the Prince William Sound Economic Development District's community and economic development strategy and includes the following key components:

- Regional economic development clusters – travel and tourism, commercial fisheries, transportation, community and regional services, emerging clusters in the energy, communication and manufacturing.
- Regional goals – desired long-term improvements or changes in a cluster.
- Regional objectives – desired measureable change over the next 5 years.
- Regional and community priority strategies – strategies that will help the region and specific communities reach desired objectives.
- Programs, Projects, Activities – specific community and/or regional level programs, projects and activities that will help achieve priority strategies.
- Action Plans – 1-year action items for specific projects, programs and activities.

Goals *indicates priority focus for 2011-2016	Objectives	Regional + Community Priority Strategies	Programs, Projects, Activities	Project Partners	Action Plan (1 year)	Performance Measures	
Tourism + Travel Cluster							
1*	Improve regional tourism infrastructure	Increased visitor spending in the region, while protecting the quality of communities and the natural environment	<ul style="list-style-type: none"> Support recreation and tourism improvements in individual towns (which expands the attraction of the region as a whole) Improve outlying camping and cabins Improve information about recreational routes and activities and encourage marine safety and stewardship 	<ul style="list-style-type: none"> Fueling station/general store project in Chenega Bay Visitor Center/Rail Station in Whittier Ecotourism lodge in Chenega 	PWSEDD, Individual communities, USFS, State, private sector, regional entities (agencies and non-profits), Native Corporations	<ul style="list-style-type: none"> For each specific infrastructure project – complete more detailed business plan; solidify project management, secure funding for project development (private and public sector) 	<ul style="list-style-type: none"> New and retained direct jobs; indirect jobs; local tax revenues – approximately 10 new jobs in the region Specific targets to be determined through further analysis of individual projects
2	Improve access	<i>Covered under transportation chapter</i>					
3	Provide year-round tourism opportunities		<ul style="list-style-type: none"> Improve regional cooperative marketing Expanding convention and conferences Develop small scale ski lifts Make available more secondary service attractions during the off season 		PWSEDD, USFS, CVB's, Chambers, USFS, State of Alaska, individual communities and individual businesses		
4	Develop manufacturing and support Services		<ul style="list-style-type: none"> Support expansion of the range of services that support the tourism industry from shops and restaurants to manufacture of gear and gifts to marketing and website services 		Individual communities, individual businesses		
Commercial Fisheries Cluster							
1*	Expand regional marketing of fish processing, products and tie to regional tourism marketing	A stronger market brand for Prince William Sound fish, to add value to the region's large commercial fishery	<ul style="list-style-type: none"> Develop business relationship with CDQ fisheries groups Market both PWS/Copper River as a source of fish and a place to visit; both commercial fishing and tourism benefit from telling a similar story about a clean, vital ecosystem 	<ul style="list-style-type: none"> Phase II of VFDA Cold Storage Plan 	PWSEDD, CDFU, VFDA, USFS, CVB's, Chambers, fishing organizations, individual commercial fishermen	<ul style="list-style-type: none"> Coordinate key stakeholders and meet to develop approach for addressing CDQ leadership including: <ul style="list-style-type: none"> Benefits of using PWS ports Inventory of current and planned facilities 	<ul style="list-style-type: none"> Employment and total salaries for the commercial fishing sector increased by approximately 10% over the coming 5 years
2	Stabilize fuel prices and improve transportation infrastructure		<ul style="list-style-type: none"> Work at regional level to stabilize fuel prices, for example, through regional buying cooperatives and lobbying at the state level 		Individual communities, local fishing organizations, individual commercial fishermen		
3	Expand commercial fish products to extend the fishing season		<ul style="list-style-type: none"> Work to increase the economic benefits of commercial fishing by developing products that extend the season beyond April – October 		Local fishing organizations, individual commercial fishermen, ADF&G		
4	Add value to commercial fish products		<ul style="list-style-type: none"> Work to increase the economic benefits of commercial fishing by supporting development of new and value-added fishery products 		Fishing organizations, individual commercial fishermen, AK DF&G		

Goals *indicates priority focus for 2011-2016	Objectives	Regional + Community Priority Strategies	Programs, Projects, Activities	Project Partners	Action Plan (1 year)	Performance Measures	
5	Expand capacity of local residents to participate in the commercial fishing industry	<ul style="list-style-type: none"> Support programs like the CQE (Community Quota Entry) program that would allow Chenega and Tatitlek residents to enter the commercial fishing industry 		Communities of Chenega and Tatitlek; Native Corporations and organizations			
Transportation Cluster							
1*	Work as a region to advocate for and provide safe, reliable and consistent transportation to PWS residents and visitors	<ul style="list-style-type: none"> Increased ferry ridership by at minimum, sustaining the current hours and service levels of the State Marine Highway, and working overtime to improve service by extending the season, providing more advance notice of ferry schedules Increased air enplanements in each of the region's major airports Reduced time required for multimodal travel in the region; for example, from Anchorage by rail to destinations Valdez or Cordova by ferry and then surface transportation 	<ul style="list-style-type: none"> Advocate for improved predictability, frequency and timing of ferries and infrastructure in every community to accept all AMHS ferries Develop a coordinated transportation system for residents and visitors 	<ul style="list-style-type: none"> Shipyard Building/Shipyard Fill in Cordova Regional port facilities in Valdez and Whittier 	PWSEDD, Community leadership, AMHS, DOT, ARRC, private sector transportation leaders including air carriers, Chenega Corporation, regional political leaders	<ul style="list-style-type: none"> Establish a PWS transportation board Recruit an AmeriCorps VISTA volunteer to: <ul style="list-style-type: none"> Research and review different options for improving transportation in the Sound, including the possibility of forming a regional transportation authority Research and review in-state systems including the Southeast Inter-Island Ferry System – What lessons can be learned from these experiences? Develop feasibility studies for retrofitting Chenega Bay and Tatitlek docks for fast ferry Support development of the Alaska Class Ferry 	<ul style="list-style-type: none"> New and retained direct jobs; indirect jobs – approximately 10 new jobs in the region Specific targets to be determined through further analysis of individual projects

Goals *indicates priority focus for 2011-2016	Objectives	Regional + Community Priority Strategies	Programs, Projects, Activities	Project Partners	Action Plan (1 year)	Performance Measures	
Community + Regional Services Cluster							
1	Support efforts to provide better health care facilities and services in each community	<ul style="list-style-type: none"> Provide locals with opportunities to receive healthcare services in their communities through expanded facilities and services including home-based healthcare and basic dental services 	<ul style="list-style-type: none"> High school Innovative Learning Program Building in Cordova 	Chugachmiut			
2	Support coordination between industry leaders and educational entities to provide quality, relevant training opportunities and career tracks for regional residents	<ul style="list-style-type: none"> Advocate for increased funding to public and private schools and for the expansion of education programs that support training programs in tourism, fisheries, transportation, education and healthcare. 		Regional educational institutions including K-12 schools and Prince William Sound Community College			
Emerging Clusters							
1*	Support small business manufacturing	Locally-based companies are better positioned to compete with outside suppliers of manufacturing products and services	<ul style="list-style-type: none"> Work with small business owners interested in manufacturing products for local consumption and/or export to other areas of the state/nation. 	<ul style="list-style-type: none"> Allison Lake/Solomon Lake Hydro Power Intertie Cordova tannery Project Tatitlek marine service building upgrades Tatitlek cockles project 	PWSEDD, CRRC, Eyak Tribe, Native Village of Tatitlek	<ul style="list-style-type: none"> Survey existing and prospective business operators to better understand the hurdles limiting creation or expansion of locally-based manufacturing activities In light of survey findings, take action to assist development in this sector, for example, assistance with skill development, access to capital, regulations or marketing 	<ul style="list-style-type: none"> Up to 5 new private sector businesses or expansion of existing businesses in this sector – approximately 5-8 new jobs
2	Improve communications between and within PWS communities		<ul style="list-style-type: none"> Work with communities and communications providers to develop projects and locate funding for improved communications in each of the communities. 	<ul style="list-style-type: none"> Technology upgrades in Chenega Bay Wood pellet plant/shipping area in Valdez 	Copper Valley Telcom		
3	Lower the cost of energy for PWS communities		<ul style="list-style-type: none"> Work with communities and energy providers to develop projects and locate funding to reduce the cost of energy in each of the communities. 		Cordova Electric, Copper Valley Electric Cooperative, Alaska Energy Authority		