

They don't just fish for a living

Many people hold more than one job during the year. Given the often seasonal nature of the work and recent fluctuations in resource prices, it's not surprising that Alaska's fishermen are no different than other workers.

Based on an analysis of active fishing permit holders and their adult crew members,¹ more than half of all resident Alaska fishermen² relied on a wage and salary job³ in addition to their fish harvesting work to earn a living in 2006. (See Exhibit 1.) That's a higher rate of multiple job holding than for Alaska wage and salary workers in general, where only about 32 percent held multiple jobs in 2006.

Although social security number information used to match fishermen to administrative records, including unemployment insurance wage records, wasn't available for all fishermen, 90.8 percent of the permit holders and 65.9 percent of the crew members could be identified. Since worker identification information is incomplete, total employment and wage counts will understate the actual number of wage and salary jobs fishermen had in 2006. However, given the large percentage of matches, average earnings

and rates of wage and salary employment for fishermen should accurately reflect reality.

The wage and salary employment and earnings of fishermen were determined by matching crew license and fish ticket data (landing records taken whenever seafood is landed in or near Alaska) with Alaska Department of Labor and Workforce Development unemployment insurance wage records. Using this information, total earnings from fishing employment, and wage and salary employment, were calculated, along with the share of earnings derived from wage and salary employment by fishery, region and the demographic characteristics of the fishermen.

Permit holders and crew in 2006 earned \$126.5 million from their wage and salary employment. Since some fishing seasons are so short, many fishermen who fish those permits tend to work regular wage and salary jobs most of the year and supplement their income with a fishing operation. Other fishermen may work multiple seasons, or work in longer-running fisheries and are less likely to supplement their fishing income with a wage and salary job on the side.

Permit holders

There were about 7,000 active fishing permit holders in Alaska in 2006 and at least 2,876 of those had Alaska wage and salary employment in 2006 in addition to their fish harvesting jobs. (See Exhibit 1.) For those permit holders with social security number information, gross fisheries earnings exceeded \$285 million in that same period, while wage and salary earnings were \$71.5 million. (See Exhibit 2.)

Forty-five percent of those permit holders who could be tracked had some wage and salary

¹ Going forward, "crew" and "crew members" are synonymous with "adult crew members," since only crew ages 18 and older were considered in this article's analysis.

² "Fishermen," unless stated otherwise, is used throughout this article to refer to active fishing permit holders and their crew. Also throughout this article, all references to permit holders, crew members and jobs – wage and salary jobs and fish harvesting jobs – are only to Alaska residents and Alaska jobs.

³ Data for wage and salary jobs in this article come from reports employers are required to file under state unemployment insurance laws. Some wage and salary workers are not covered by unemployment insurance, including work-study students, full-commissioned sales workers, private railroad workers and elected and appointed officials. Because they don't receive a wage or salary, fishermen and self-employed workers are also not included. Federal workers are covered by federal unemployment insurance and aren't included in Alaska's wage records; therefore, they aren't part of this article's analysis.

employment in 2006. (See Exhibit 3.) For permit holders who had no reported wage and salary employment, average gross earnings from fishing were nearly \$65,000. Permit holders with wage and salary jobs had average gross earnings of \$20,997 from fishing, while their wage and salary earnings contributed on average an additional \$24,872.

So, for permit holders with some non-fishing employment, their wage and salary pay exceeded their gross earnings from fishing; that pay represented more than 54 percent of their combined income. And more than 60 percent of permit holders with wage and salary employment earned more in their wage and salary job than they grossed with their fishing operations.

The comparison is telling, even though gross fishing revenue isn't directly comparable to wage and salary income, and it's calculated before accounting for crew shares, fuel costs, permit fees, insurance, and all the other costs that go into a commercial fishing operation.

Permit holders with some non-fishing employment were likely to work year-round. In 2006, 54.5 percent of those with some wage and salary earnings were employed in all four quarters. More than 60 percent of the permit holders with second jobs made more than \$10,000 in wage and salary earnings in 2006. (See Exhibit 4.)

Older permit holders were less likely to have a second job. The average age of those with wage and salary employment was 44.0, while those who fished exclusively had an average age of 48.3. (See Exhibit 5.)

When pursuing a second job, permit holders were most often found in jobs in the educational⁴ and health services, government, and trade, transportation and utilities industry sectors. (See Exhibit 6.)

⁴ Private education only

A Breakdown of Permit Holders and Crew Alaska, 2006

1

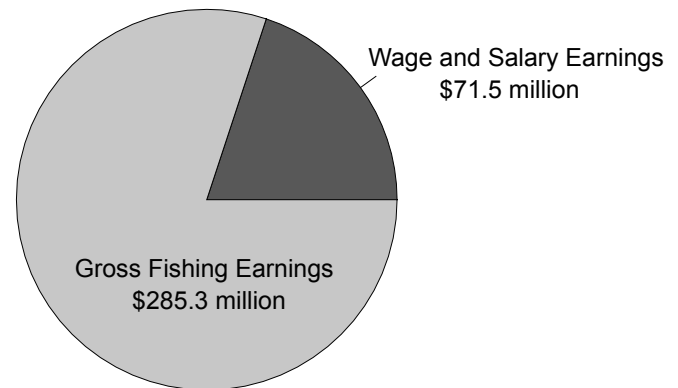
	Permit Holders	Adult Crew	Total
Total	6,981	8,385	15,366
Total with social security numbers	6,337	5,525	11,862
Percentage of total with social security numbers	90.8%	65.9%	77.2%
Total employed in wage and salary jobs	2,876	3,354	6,230
Percentage employed in wage and salary jobs ¹	45.4%	60.7%	52.5%
Total earnings from wage and salary jobs ¹	\$71,532,960	\$54,968,838	\$126,501,798
Average wage and salary earnings	\$24,872	\$16,389	\$20,305
Total gross earnings from fishing	\$285,269,363	–	–
Total gross earnings from fishing for those with wage and salary employment	\$60,328,657	–	–

Notes: All references to permit holders and crew members in this article are to Alaska residents, according to Alaska Permanent Fund Dividend records for the years 1993 to 2006. A hyphen (–) means not applicable.

¹ For fishermen with SSN identifiers

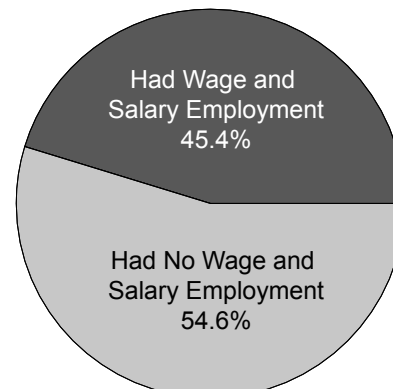
Fishing and Wage and Salary Jobs Total earnings, Alaska, 2006

2



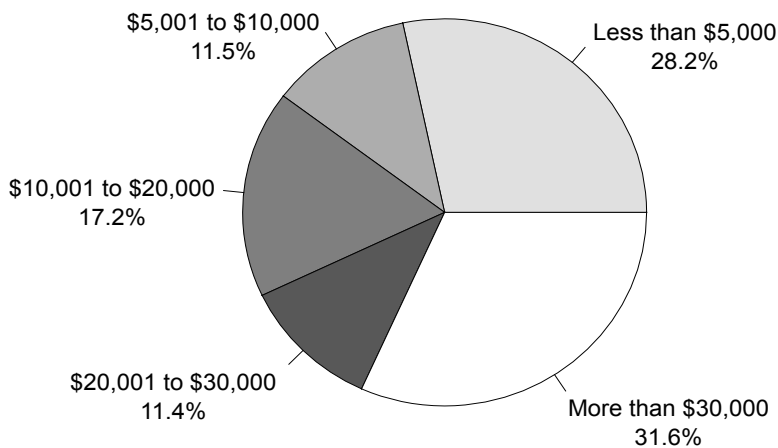
Wage and Salary Jobs Permit holders, Alaska, 2006

3



Sources for exhibits 1, 2 and 3: Alaska Department of Labor and Workforce Development, Research and Analysis Section; Alaska Department of Revenue, Permanent Fund Dividend Division; and the Alaska Department of Fish and Game, Commercial Fisheries Entry Commission

4 Wage and Salary Earnings Permit holders, Alaska, 2006



5 Ages of Permit Holders and Crew With and without wage and salary jobs, Alaska, 2006

	Ages					
	With Wage and Salary Jobs		Without Wage and Salary Jobs		Overall	
	Average	Median	Average	Median	Average	Median
Permit Holders	44.0	45.0	48.3	50.0	46.4	47.0
Adult Crew	33.6	31.0	36.5	34.0	34.7	32.0

6 Wage and Salary Jobs, by Industry Commercial fishermen, Alaska, 2006

Industry	Permit Holders with Wage and Salary Jobs		Adult Crew Members with Wage and Salary Jobs	
	Count	Percentage of Total	Count	Percentage of Total
Natural Resources and Mining	110	3.8%	129	3.8%
Construction	338	11.8%	397	11.8%
Manufacturing	94	3.3%	252	7.5%
Trade, Transportation and Utilities	533	18.5%	761	22.7%
Information	37	1.3%	25	0.7%
Financial Activities	194	6.7%	155	4.6%
Professional and Business Services	107	3.7%	199	5.9%
Educational ¹ and Health Services	641	22.3%	519	15.5%
Leisure and Hospitality	85	3.0%	289	8.6%
Other Services	112	3.9%	114	3.4%
Government ²	623	21.7%	512	15.3%
Unknown Industry	2	0.1%	2	0.1%
Total	2,876	100.0%	3,354	100.0%
Not Employed in a Wage and Salary Job	3,461	n/a	2,171	n/a

¹ Private education only

² Includes public school systems and the University of Alaska, but excludes the uniformed military

Sources for Exhibits 4, 5 and 6: Alaska Department of Labor and Workforce Development, Research and Analysis Section; Alaska Department of Revenue, Permanent Fund Dividend; and the Alaska Department of Fish and Game, Commercial Fisheries Entry Commission

Crew

Alaska had close to 8,400 crew members who fished in 2006. In general, it was more difficult to track the wage and salary earnings of the crew members than the permit holders since more than a third of the crew had missing social security numbers. Even so, matches were made for 5,525 crew members and their wage and salary employment was tracked. (See Exhibit 1.)

The crew members tended to be younger and more likely to have had wage and salary employment than permit holders. More than 3,300 crew members earned roughly \$55 million in wage and salary employment in 2006, an average of \$16,389. Forty-one percent of those workers were employed in wage and salary jobs in all four quarters. Crew members were more likely than permit holders to have a job outside fishing, as 60.7 percent had wage and salary jobs that year. (See Exhibit 7.)

A look at fishermen-combined data for permit holders and crew

In total, for fishermen with wage and salary jobs, nearly half – 47.3 percent – worked in non-fishing jobs during each quarter in 2006. (See Exhibit 8.) For those workers, their wage and salary job was often their primary job; fishing just added extra income.

In recent years, slightly fewer permit holders have had jobs outside fishing and instead have relied on fishing as their sole source of income. The percentage of crew members working in outside jobs since 2000 has varied from 59.9 percent to 62.9 percent, while the percentage of permit holders employed in outside jobs has been between 45.4 percent (the level in 2005 and 2006) and 50.0 percent. (See Exhibit 9.)

Permit holders with multiple jobs: their gear type

Gear type and capitalization affect whether fishermen hold other jobs. Permit holders who operated boats requiring less capital were more likely to have other jobs than those permit holders who operated larger boats, but not always. (See Exhibit 10.)

The gear types with permit holders that had the highest percentages of non-fishing jobs in 2006 were set gillnet (63.7 percent), hand troll (55.0 percent), drift gillnet (41.8 percent) and longline (36.0 percent). The set gillnet and hand troll gear, for instance, are for fisheries that have short seasons and require less capital.

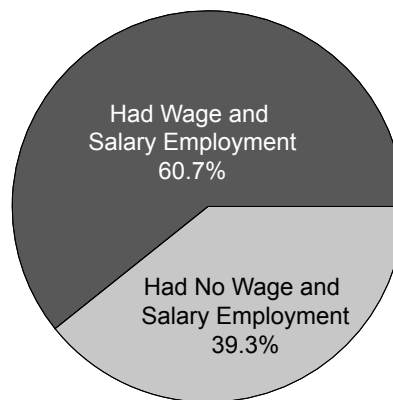
On the other hand, otter trawl (12.2 percent), power troll (18.3 percent), purse seine (20.6 percent) and pot gear (26.4 percent) permit holders possessed the lowest percentages of wage and salary participation. Pot gear, for instance, is used mostly for the crab fisheries that have short seasons and require a lot of capital.

Regional differences

The permit holders who fished in the Yukon Delta and Northern regions were the least likely to depend solely on fishing income in 2006. (See Exhibit 11.) About three-fourths of the permit holders who fished in the Yukon Delta and two-thirds of their counterparts in the Northern region worked in wage and salary jobs. Interestingly, those who didn't work another job and those who did had strikingly similar average gross earnings from fishing.

However, the wages earned in wage and salary employment for the permit holders who fished in the Yukon Delta and Northern regions in 2006 created quite an income disparity in both regions between those with second jobs and those without them. Generally, commercial fishing plays a supplementary role in the Yukon Delta and Northern regions, and seafood resources, while sometimes harvested for sale, are primarily for subsistence.

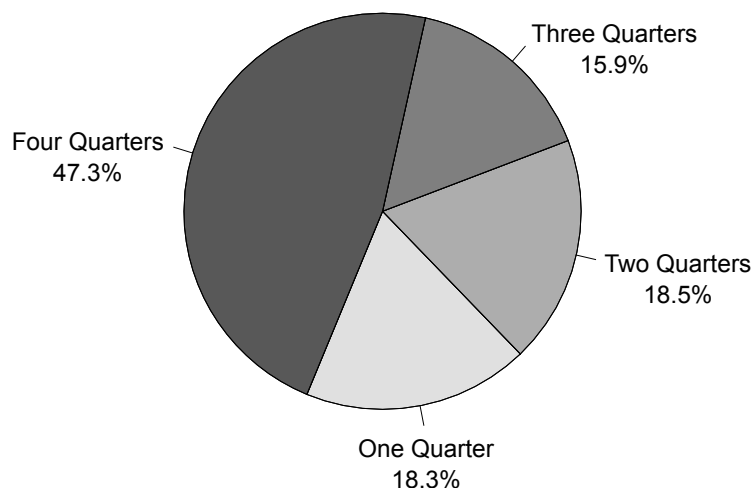
Wage and Salary Jobs Crew Employed, Alaska, 2006



Time Fishermen Spend in Other Jobs Alaska, 2006



The number of quarters that permit holders and crew worked in wage and salary employment in 2006



Sources for Exhibits 7 and 8: Alaska Department of Labor and Workforce Development, Research and Analysis Section; Alaska Department of Revenue, Permanent Fund Dividend; and the Alaska Department of Fish and Game, Commercial Fisheries Entry Commission

Similarly, permit holders who fished in the Southcentral and Bristol Bay regions and worked in wage and salary employment in 2006 earned more money with their combined fishing and non-fishing employment compared to those who only fished. The difference between permit holders in these two regions compared to those who fished in the Yukon Delta and Northern regions, however, is that those who relied only on fishing in Southcentral and Bristol Bay made two-thirds more in gross

fishing earnings on average than those who had other employment.

Gross fisheries earnings for permit holders without wage and salary jobs who fished in the remaining three regions in 2006 – Southeast, the Aleutians and Pribilof Islands, and Kodiak – were significantly higher than earnings for those with wage and salary employment. Not even the wages from non-fishing employment made up for the overall earnings difference between the two groups. It's not surprising then, that when looking at the three regions as a group, less than 30 percent of the permit holders had wage and salary jobs in 2006.

Species fished

Marked differences in average earnings and the percentage of permit holders who had wage and salary employment in 2006 are evident not only between regions, but also between the species fished. Including wage and salary earnings, herring and miscellaneous shellfish permit holders with non-fishing employment had higher total earnings than those permit holders who just fished. The wage and salary earnings for the permit holders in both fisheries more than compensated for the higher gross fishing earnings of those without wage and salary jobs. (See Exhibit 12.)

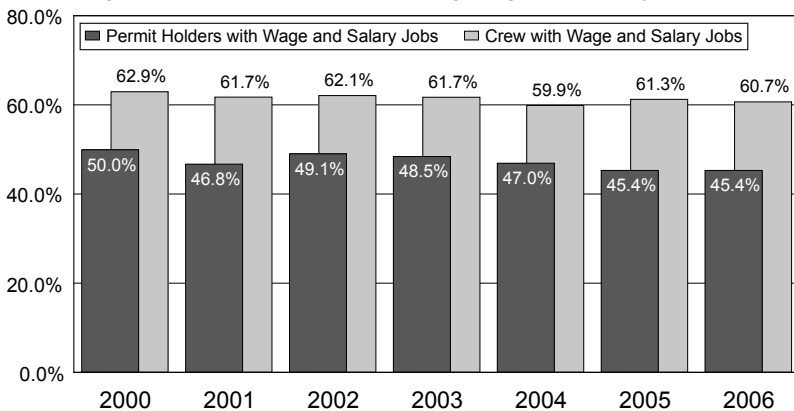
Permit holders in the remaining four species⁵ – crab, groundfish, sablefish and salmon – who didn't work in a wage and salary job in 2006 earned more overall than those who did, even when taking into account the additional wages from non-fishing employment. Wage and salary crab fishermen, in particular, made just over half of the average total earnings of those fishermen who only fished crab. It's important to keep in mind though that this article uses gross fishing earnings as a proxy for wages, so a permit holder's costs (crew shares, fuel, permit fees, etc.) are not considered.

Nearly three-fourths of all identifiable resident permit holders fished salmon. Of all the permit

⁵ Halibut permit holders weren't included in this analysis due to incomplete 2006 earnings data.

9 Fishermen in Wage and Salary Jobs Alaska, 2000 to 2006

Percentage of Fishermen with Non-Fishing Wage and Salary Jobs



10 Permit Holders in Wage and Salary Jobs, By Gear Type Alaska, 2006

Selected gear type	Permit Holders						
	Number with a SSN match	Number with wage and salary jobs	Percentage with wage and salary jobs	Average gross fishing earnings for those without wage and salary jobs	Average gross fishing earnings for those with wage and salary jobs	Average wage and salary earnings for those with wage and salary jobs	Average total earnings for those with wage and salary jobs
Drift gillnet	1,450	606	41.8%	\$51,237	\$40,603	\$29,284	\$69,887
Hand troll	311	171	55.0%	\$7,350	\$4,151	\$27,568	\$31,719
Longline vessels	917	330	36.0%	\$65,573	\$6,856	\$30,887	\$37,743
Otter trawl	41	5	12.2%	\$572,372	n/d	n/d	n/d
Pot gear	292	77	26.4%	\$198,881	\$66,101	\$24,834	\$90,935
Power troll	502	92	18.3%	\$50,696	\$35,173	\$20,777	\$55,950
Purse seine	354	73	20.6%	\$139,162	\$68,391	\$18,502	\$86,893
Set gillnet	2,193	1,397	63.7%	\$17,228	\$10,107	\$22,197	\$32,304

Note: The abbreviation n/d means not disclosable.

Sources for Exhibits 9 and 10: Alaska Department of Labor and Workforce Development, Research and Analysis Section; Alaska Department of Revenue, Permanent Fund Dividend Division; and the Alaska Department of Fish and Game, Commercial Fisheries Entry Commission

Permit Holders in Wage and Salary Jobs, By Region Alaska, 2006

11

Region fished	Permit Holders						
	Number with a SSN match	Number with wage and salary jobs	Percentage with wage and salary jobs	Average gross fishing earnings for those without wage and salary jobs	Average gross fishing earnings for those with wage and salary jobs	Average wage and salary earnings for those with wage and salary jobs	Average total earnings for those with wage and salary jobs
Aleutians and Pribilof Islands	348	113	32.5%	\$160,626	\$60,268	\$23,832	\$84,100
Bristol Bay	1,175	654	55.7%	\$52,613	\$31,476	\$26,786	\$58,262
Kodiak	401	84	20.9%	\$154,313	\$42,223	\$24,642	\$66,865
Northern	170	115	67.6%	\$9,677	\$10,330	\$24,786	\$35,116
Southcentral	1,256	485	38.6%	\$42,367	\$24,815	\$34,852	\$59,667
Southeast	1,896	571	30.1%	\$57,914	\$22,375	\$25,659	\$48,035
Yukon Delta	968	752	77.7%	\$4,310	\$4,504	\$17,697	\$22,201
Unknown in Alaska	123	102	82.9%	n/d	n/d	\$15,084	n/d

Note: The abbreviation n/d means not disclosable.

Permit Holders in Wage and Salary Jobs, By Species Alaska, 2006

12

Species fished	Permit Holders						
	Number with a SSN match	Number with wage and salary jobs	Percentage with wage and salary jobs	Average gross fishing earnings for those without wage and salary jobs	Average gross fishing earnings for those with wage and salary jobs	Average wage and salary earnings for those with wage and salary jobs	Average total earnings for those with wage and salary jobs
Crab	192	57	29.7%	\$176,880	\$69,117	\$23,150	\$92,266
Groundfish	211	29	13.7%	\$266,723	\$177,459	\$24,610	\$202,069
Halibut ¹	681	340	49.9%	n/a	n/a	\$29,760	n/a
Herring	120	49	40.8%	\$17,876	\$5,238	\$18,981	\$24,219
Miscellaneous shellfish	138	55	39.9%	\$31,993	\$22,188	\$25,444	\$47,632
Sablefish	272	43	15.8%	\$138,749	\$51,646	\$24,556	\$76,202
Salmon	4,721	2,301	48.7%	\$48,236	\$20,649	\$24,327	\$44,976
Other	2	2	100.0%	n/a	n/d	n/d	n/d

Note: The abbreviation n/a means not available and n/d means not disclosable.

¹ Halibut fishing earnings data for 2006 are not yet available.

Sources for Exhibits 11 and 12: Alaska Department of Labor and Workforce Development, Research and Analysis Section; Alaska Department of Revenue, Permanent Fund Dividend Division; and the Alaska Department of Fish and Game, Commercial Fisheries Entry Commission

holders, average total earnings for salmon fishermen were the most balanced when comparing those with wage and salary employment to those without. The average gross fishing earnings in 2006 for salmon fishermen without other jobs were \$48,236, a figure 134 percent higher than the average of \$20,649 earned by those with non-fishing employment. However, the gap narrows to 7 percent when the wage and salary earnings of those with second jobs, \$24,327, are taken into consideration.

Industries and occupations beyond commercial fishing

What industries and occupations tend to be a good match for commercial fishermen seeking

wage and salary employment? Educational and health services, government, and trade, transportation and utilities employed the highest percentages of fishermen. (See Exhibit 6.) Government workers who own fishing permits are often able to save up leave time, allowing them to participate in fisheries with shorter openings. Many teachers own permits they fish during their time off in the summer.

Commercial fishing is a notoriously physical job. Not surprisingly, the most common off-season occupations for fishermen required outdoor, hands-on work. Jobs as construction trade workers, movers and repairmen were the most common non-fishing occupations,

13 Fishermen in Wage and Salary Jobs, By Occupational Group Alaska, 2006

Occupational Group	Permit holders with a SSN match in a wage and salary job	Adult crew with a SSN match in a wage and salary job	Total fishermen with a SSN match in a wage and salary job
Construction trades workers	451	466	917
Material moving workers	254	311	565
Other installation, maintenance and repair occupations	155	134	289
Retail sales workers	63	147	210
Primary, secondary and special education school teachers	125	78	203
Water transportation workers	76	124	200
Building cleaning and pest control workers	95	97	192
Food processing workers	36	154	190
Other education, training and library occupations	101	86	187
Other office and administrative support workers	63	94	157
Food and beverage serving workers	19	122	141

14 Fishermen in Wage and Salary Jobs, By Age Alaska, 2006

Age Group	Permit Holders			Adult Crew Members ¹		
	Total with a SSN ²	Total employed in wage and salary jobs	Percentage employed in wage and salary jobs	Total with a SSN	Total employed in wage and salary jobs	Percentage employed in wage and salary jobs
Under 20	249	68	27.3%	630	363	57.6%
Ages 20 to 29	633	349	55.1%	1,830	1,211	66.2%
Ages 30 to 39	928	503	54.2%	1,054	657	62.3%
Ages 40 to 49	1,796	962	53.6%	1,115	701	62.9%
Ages 50 to 59	1,687	760	45.1%	653	356	54.5%
Ages 60 and over	1,044	234	22.4%	243	66	27.2%
Total	6,337	2,876	45.4%	5,525	3,354	60.7%

¹ Excludes resident crew members under the age of 18

² Includes only those fishermen who made landings or bought a crew license in 2006 and who birth dates were available for

Sources for Exhibits 13 and 14: Alaska Department of Labor and Workforce Development, Research and Analysis Section; Alaska Department of Revenue, Permanent Fund Dividend Division; and the Alaska Department of Fish and Game, Commercial Fisheries Entry Commission

although teachers also showed up high on the list. (See Exhibit 13.)

Almost half of those permit holders who worked as primary, secondary or special education teachers fished in a setnet salmon fishery. About 30 percent of permit holders who worked in the construction trades fished salmon in setnets on the Yukon and Kuskokwim rivers.

Demographic differences for fishermen with multiple jobs

Commercial fishermen in their 20s in 2006 were the most likely to hold wage and salary jobs while fishing. That's not surprising, as inexperienced fishermen typically earn less than their experienced counterparts, and that might be

why they look for another job. The oldest and youngest fishermen were the least likely to hold other jobs. (See Exhibit 14.)

Generally, permit holders were older than their crew members, while those with wage and salary employment in 2006 were slightly younger than those whose sole source of income came from fishing. The median age of a permit holder in 2006 was 47, a full 15 years older than the median crew member's age of 32. The gap is striking considering that only those crew members 18 and older were included in this analysis. Including crew under the age of 18 would have only enlarged the age disparity.

Although smaller than the variance between the two types of fishermen, an age difference

Fishermen in Wage and Salary Jobs, By Gender 15 Alaska, 2006

Gender ¹	Permit Holders			Crew Members ²		
	Total with SSN ³	Total employed in wage and salary jobs	Percentage employed in wage and salary jobs	Total with SSN ³	Total employed in wage and salary jobs	Percentage employed in wage and salary jobs
Male	5,535	2,439	44.1%	4,322	2,581	59.7%
Female	801	437	54.6%	1,201	773	64.4%

¹ Gender couldn't be identified for one permit holder and two crew members.

² Excludes resident crew members under the age of 18

³ Includes only those fishermen who made landings or bought a crew license in 2006 and who birth dates were available for

Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section; Alaska Department of Revenue, Permanent Fund Dividend Division; and the Alaska Department of Fish and Game, Commercial Fisheries Entry Commission

is still evident when comparing those with wage and salary employment in 2006 to those who relied solely on fishing. Permit holders with non-fishing employment had a median age of 45, compared to a median of 50 for those without. Similarly, crew members with wage and salary jobs had a median age of 31, three years less than the median of 34 for crew members who didn't.

Industry leaders and various communities have raised concerns over the rapidly increasing average age of permit holders, sometimes referred to as the "graying of the fleet." Despite those concerns, there appears to be a large pool of young crew members gaining valuable fishing experience. However, start-up costs are high, including the costs for a permit, quota, vessel, fuel and insurance, and those costs represent significant hurdles for anyone entering the fishing industry.

Although commercial fishing is an industry dominated by men, the percentage of women has increased in recent years. In 2006, nearly 13 percent of the permit holders and more than 21 percent of the crew members were women. About 64 percent of female crew members and 54.6 percent of female permit holders had wage and salary employment in 2006, higher figures than their male counterparts. (See Exhibit 15.)

Overview

A slight majority of permit holders (54.6 percent) and a minority of crew members (39.3 percent) relied on Alaska's seafood as their sole source of income in 2006. In all, about 5,600 permit holders and crew members that year didn't have a second job, yet 6,230 did. Presumably, the gear type, amount of required capitalization and length of the season dictated whether it was possible, or prudent, to hold down a shoreside job as well.

More seafood industry information is online

In past *Trends* issues, we've released monthly employment estimates for fish harvesting. Those figures estimate the number of jobs available in commercial fishing on a month-to-month basis. Recent data assembled from landing tickets estimate the number of yearly workers in a given region, fishery or gear type. Our seafood page also features easy access to past seafood-related articles, as well as in-depth explanations of our methodologies.

To access the data, go to Research and Analysis' Web site at almis.labor.state.ak.us. Click on "Industry Information" on the blue vertical bar on the left, and below that, click on "Seafood Industry." Finally, select "Statewide" or a particular region for a list of the various data sets available.