North Pacific

Alaska

North Pacific Summary

Management Context

The North Pacific region includes the State of Alaska only. Federal fisheries in this region are managed by the North Pacific Fishery Management Council (NPFMC) and the National Marine Fisheries Service under one of five fishery management plans (FMPs). In addition, the NPFMC implements the catch limits for Pacific halibut, which are established by the International Pacific Halibut Commission.

North Pacific Fishery Management Plans

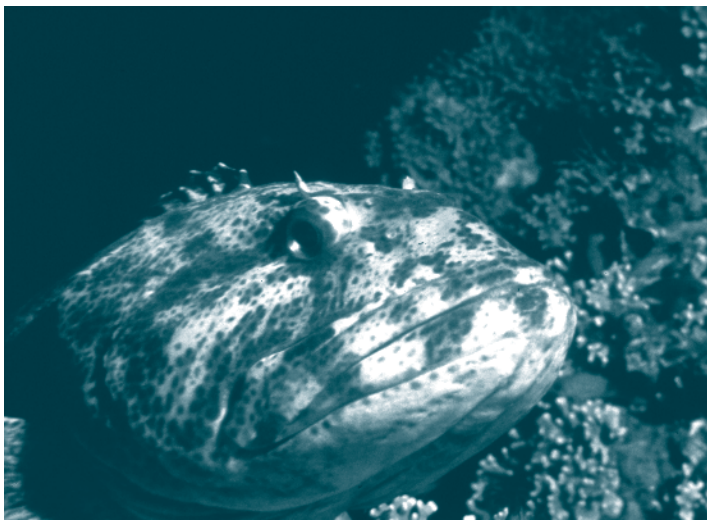
1. Bering Sea/Aleutian Islands (BSAI) Groundfish
2. Gulf of Alaska (GOA) Groundfish
3. Bering Sea/Aleutian Islands King and Tanner Crabs
4. Salmon Fisheries
5. Scallop Fishery

Limited access privilege programs or LAPPs are a form of market-based management. The North Pacific Region has seven LAPPs – more than in any other region. These are the: 1) Western Alaska Community Development Quota (CDQ) program (first year: 1992); 2) Alaska halibut / sablefish individual fishing quota (IFQ) program (1995); 3) Pacific whiting cooperative (1997); 4) Bering Sea pollock cooperative (1998); 5) Alaska scallop cooperative (2001); 6) Alaska crab rationalization program which includes both an IFQ and a fishing cooperative (2005); and 7) Central Gulf of Alaska rockfish pilot sector (2007). The ex-vessel values for these programs in 2007 were $68.0 million, $237.0 million, $21.8 million, $266.0 million, $1.0 million, $65.0 million, and $8.5 million, respectively.

Ecolabels are another form of market-based management, encouraging fishermen to adopt "green" harvest practices through higher market prices for sustainable seafood. The BSAI pollock, GOA pollock, Alaska salmon, and Pacific halibut fisheries, and components of the BSAI Pacific cod fishery have received ecolabel certification from the Marine Stewardship Council. Currently, only one stock managed by the NPFMC is listed as overfished: blue king crab (Pribilof Islands). No stocks in this region are currently subject to overfishing.

Commercial Fisheries

Alaska fishermen earned over $1.4 billion from their commercial harvest (5.4 billion pounds) in 2006. Landings revenue were dominated by walleye pollock ($429 million), salmon ($277 million), Pacific halibut ($193 million), and Pacific cod ($185 million). Walleye pollock also accounted for more than 60% of total landings (3.4 billion pounds) and had an average price of $0.13 per pound. Overall, the commercial fishing industry generated over $3 billion in sales, $1.1 billion in income and 40,000 jobs.



A lingcod in temperate Alaskan waters

Key North Pacific Commercial Species

Commercially-important species and species groups in the North Pacific include: Pacific cod, crab, flatfish, Pacific halibut, Pacific herring, Atka mackerel, walleye pollock, rockfish, sablefish, and salmon.

Economic Impacts

In 2006, commercial fisheries generated $3.0 billion in sales, $1.1 billion of income, and 40,000 jobs. Seafood processing and dealer operations resulted in instate sales of $1.7 billion for Alaskan businesses, about 58% of the total for the region, and over 14,000 jobs. The harvest sector alone generated approximately $936 million in additional sales and supported 18,992 jobs.

Landings Revenue

Overall, ex-vessel revenue increased 21% from 1997-2006; after adjusting for inflation, however, real ex-vessel revenues were relatively flat, increasing only 2%. Landings of finfish and other fishery products increased 13% during this period, with ex-vessel revenue increasing 30% (9.9% after adjusting for inflation). In contrast, ex-vessel revenue of shellfish fell 30% (41% in real terms) in part due to the 49% decrease in shellfish landings. Walleye pollock, Pacific halibut, and rockfish landings revenues increased 66%, 75%, and 80% respectively, while crab landings revenue fell 34% during this period.

Landings

Over the 10 year period, total landings averaged 5.1 billion pounds, ranging from a low of 4.5 billion pounds (2000) to a high of 5.7 billion pounds (2005). Also during this period,

Alaska's regionally important species or species groups averaged 5.0 billion pounds or 99% of total landings.

Walleye pollock contributes more to the Alaska's total landings than any other species or group, averaging 3.0 billion pounds or 60% of average total landings. Walleye pollock landings have steadily increased over the time period, as has their price per pound.

Commercial Fish Facts

Landings revenue
- On average, the key species or species groups accounted for 98.8 % of the total revenue.
- Five of the species had average annual ex-vessel revenue in excess of $130 million.
- Salmon and walleye pollock accounted for ~ 48% of the average annual total landings revenue.
- The largest annual decrease during the 10 year period was 51% for Atka mackerel (1997-1998); from 2000-2001, prices jumped 122% for Atka mackerel, the largest annual increase during this period.

Landings
- On average, the key species or species groups accounted for 99.4% of the total landings.
- Six of the top ten had average annual landings of >100 million pounds.
- The average annual landings for salmon and walleye pollock were 660 million pounds and 3.0 billion pounds, respectively. Together they accounted for 73% of the average annual landings of all key species combined.
- Crab landings increased 86% from 1997-1998, the largest annual increase in the 10 year period, only to fall 75% from 1999-2000, the largest annual decrease.

Prices
- Crab at $2.05, sablefish at $2.03, and Pacific halibut at $1.86 had the highest average annual prices per pound.
- Walleye pollock at $0.10, Atka mackerel at $0.11, and flatfish and Pacific herring at $0.14 per pound had the lowest average annual prices.
- The largest annual increase in the 10 year period was 97% for crab (1999-2000). The largest annual decrease was -43% for Atka mackerel (1997-1998).

Prices

From 1997-2006, ex-vessel prices increased 93% for cod, 72% for Pacific halibut, and 58% for rockfish. Adjusting for inflation, cod, Pacific halibut, and rockfish increased 64%, 45%, and 33%, respectively. In contrast, ex-vessel prices for Pacific herring decreased 35% (45% in real terms, corrected for inflation) and 16% for salmon (29% in real terms).

Overall, 2006 ex-vessel price for most of the key species or species groups was above their corresponding average price for the time period. The only exceptions were for crab and Pacific herring: 2006 ex-vessel prices were 22% and 34%, respectively, less than their average price.

Recreational Fishing

In 2006, a total of approximately 317,000 resident and non-resident recreational anglers fished 941,000 days in Alaska. Expenditures throughout the region were $258 million on recreational fishing trips and $242 million on durable fishing-related equipment. These expenditures contributed $563 million in total sales to the Alaskan economy, added 6,418 jobs, and generated $333 million in value-added impacts.

Key North Pacific Recreational Fishing Species

The North Pacific's recreationally-important species are: razor clams, greenlings (lingcod), halibut, rockfish, Chinook salmon, chum salmon, coho salmon, pink salmon, and sockeye salmon.

Participation Rates

Resident Alaskan recreational anglers numbered 120,000 in 2006 compared to 197,000 non-resident anglers (62% of total anglers). The total number of anglers in 1997 was 294,000; however this number dropped by 4% in 1998. The number of anglers between 1999 and 2002 remained below 1997 levels before starting an upward trend from 2003 through 2005.

There were 334,000 resident and non-resident anglers in 2005, the highest number of total anglers during the time period. The highest number of non-resident anglers was also report in 2005 (207,000), while the highest number of resident anglers was reported in 1997 (137,000).

Recreational Days Fished

The number of days fished per year by Alaskan anglers varied between 704,000 and 1.1 million from 1997 to 2006. The largest annual decline occurred between 1997 and 1998: days fished fell 14%. Between 1998 and 1999, there was a 31% increase in the number of days fished, the largest annual increase during the ten year period.

Expenditures and Economic Impacts

In 2006, recreational anglers in Alaska spent a total of $499 million on fishing trip expenditures and purchases of durable equipment. Residents spent $48 million on total trip-related expenses while non-residents spent considerably more: $210 million in 2006. Boat expenses ($80 million) accounted for 33% of all durable equipment expenditures in 2006.

Recreational angling contributed $380 million in sales from trip-related expenses. Party/charter boat trips accounted for $246 million in total sales (65% of trip impacts) to the region's economy, while private boat trips accounted for $113 million (30% of trip impacts). Shore trips added $21 million (5% of trip impacts) to the North Pacific's economy.

In 2006, the majority of recreational fishing-related jobs were attributed to the party/charter boat industry: approximately 3,075 jobs. Durable equipment expenditures generated 1,925 jobs, $183 million in total sales, and $124 million in value-added impacts across the region.

Recreational Fishing Facts

Angler participation
- Non-resident anglers outnumbered resident anglers for all years by an average of 38% over the ten year period.
- In 2002, resident anglers numbers declined to 113,000, the lowest number recorded between 1997 and 2006.

Recreational days fished
- Anglers fished a total of 941,000 days in 2006, an 11% decline from the previous year.
- Overall, the number of days fished increased 15% from 1997 to 2006.

Economic impacts
- Economic impacts from party/charter trips contributed more to the Alaskan economy than either private boat trips or shore trips.
- When considering trip-related impacts, the party/charter trip category accounted for 65% of total sales and 65% of value-added impacts.

Catch data for key species
- In 2006, recreational anglers caught over 1 million salmon.
- Razor clam is the only shellfish species listed among Alaska's ten key recreational species. Recreational harvest of razor clams peaked in 2000 with 883,000 clams harvested.

Recreational Catch and Release

Halibut was the number one species caught in the North Pacific region with 816,000 caught in 2006. Of this total, 463,000 were harvested and 353,000 were released. Between 1997 and 2005, the highest number of halibut was harvested in 2005 with 500,000 fish harvested and the lowest harvest (333,000) was in 1999.

Coho salmon was the species with the second highest catch levels among the key species. In 2006, a total of 503,000 fish were caught by anglers, with the majority of them harvested (395,000) rather than released (107,000).

Sockeye salmon was the key species with the lowest catch rates for all years between 1997 and 2006. In 2006, there were 28,000 sockeye salmon caught: 21,000 fish were harvested and 7,000 were released.

Marine Coastal Economy

Overall, Alaska's 2005 establishment numbers, employee numbers, annual payroll, employee compensation, and gross domestic product by state all increased relative to 1998 levels. The gross state product (70%) and annual payroll (42%) increased the most. The smallest percentage change was seen for the number of establishments (9%) and employees (18%) in the state. The Commercial Fishing Location Quotient was not available for 1998 or 2005.

Seafood Sales and Processing

The number of non-employer firms engaged in seafood product preparation and packaging fluctuated over the time period, ranging from 34 firms in 2003 to 17 firms in 1998 and 2005. Receipts for this industry declined 7% (18% in real terms) during this time period. The number of employer establishments engaged in seafood product preparation and packaging also fluctuated, increasing from 105 establishments in 2001 to 124 firms in 2005. From 1999 to 2005, annual payroll for this industry increased from $201 million to $235 million, a 17% increase (in real terms, a 10% increase).

The number of employer establishments engaged in seafood retail remained relatively stable. From 1998 to 2005, annual payroll increased 24% nominally, 10% after adjusting for inflation. The number of employees, however, fell almost 60% during this time period.

Employer establishments primarily engaged in seafood wholesale ranged from 99 establishments in 2002 to 71 in 2001. Employee numbers also fluctuated but overall showed a downward trend, decreasing 26% from 1998 to 2005. Nominally, annual payroll increased 14% during this time period; in real terms, annual payroll was flat.

Transport, Support, and Marine Operations

The marine cargo handling industry had the most complete information in this sector, showing relatively steady establishment numbers, varying employee numbers, and decreasing annual payroll over the time period. From 1998 to 2005, the number of people employed by this sector increased 34%; payroll, however, declined 22% (31% in real terms).

Overall, establishment numbers for most industries fluctuated or decreased over the period. However, industries engaged in coastal freight transportation and port and harbor operations were exceptions to this, increasing 65% and 100%, respectively. In addition, the number of workers employed by the navigational services to shipping industry

increased 81% from 1999 to 2005; annual payroll for this industry increased 149% (135% in real terms) during this time period.

2006 Economic Impacts of Commercial Fishing Industry *(thousands of dollars)*

	Sales Impacts	Income Impacts	Employment Impacts
Total Impacts	3,023,778	1,051,057	39,844
Commercial Harvesters	936,180	334,567	18,992
Seafood Processors and Dealers	1,744,954	542,569	14,052
Seafood Wholesalers and Distributors	142,899	73,897	1,387
Retail Sectors	199,745	100,025	5,413

Total Landings Revenue and Landings Revenue of Key Species/Species Groups *(thousands of dollars)*

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Revenue	1,165,607	948,645	1,211,402	1,133,284	1,016,762	1,038,320	1,128,400	1,226,934	1,367,792	1,407,148
Finfish & Other	986,915	734,410	939,632	991,530	894,132	890,425	952,942	1,061,175	1,208,303	1,282,752
Shellfish	178,692	214,235	271,770	141,754	122,630	147,895	175,458	165,759	159,489	124,396
Cod, Pacific	136,813	97,853	142,581	160,962	126,863	135,775	149,662	132,910	141,281	185,131
Crab	166,682	202,716	261,107	130,427	115,670	139,828	165,833	153,742	146,131	110,572
Flatfish	66,722	37,927	30,757	42,750	31,376	37,481	37,637	41,983	62,393	70,831
Halibut, Pacific	110,410	68,432	116,913	134,825	109,053	128,922	165,906	168,658	170,075	192,905
Herring, Pacific	16,700	12,824	12,835	9,647	10,385	9,139	8,930	14,029	13,429	7,455
Mackerel, Atka	16,121	7,891	9,825	9,483	21,060	11,159	10,479	12,479	15,490	16,350
Pollock, Walleye	259,028	181,708	211,899	298,124	334,938	359,159	312,344	347,405	414,255	429,445
Rockfish	11,085	8,271	10,188	10,996	8,344	10,802	11,721	12,485	16,295	19,908
Sablefish	87,245	53,009	57,227	76,222	62,269	64,595	81,058	73,294	79,853	81,849
Salmon	276,702	262,674	345,686	246,641	188,497	129,902	168,093	255,000	293,562	276,512

Total Landings and Landings of Key Species / Species Groups *(thousands of pounds)*

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Landings	4,876,385	4,935,227	4,492,648	4,465,988	5,036,340	5,066,264	5,305,959	5,354,645	5,651,307	5,421,264
Finfish & Other	4,721,653	4,657,089	4,279,599	4,408,826	4,983,621	5,001,781	5,242,033	5,294,442	5,583,797	5,342,241
Shellfish	154,732	278,138	213,049	57,162	52,719	64,483	63,926	60,203	67,510	79,023
Cod, Pacific	696,453	588,272	523,281	529,664	470,768	510,759	564,562	587,337	546,748	517,799
Crab	145,237	270,127	206,231	52,372	47,192	57,878	56,955	52,642	57,310	69,002
Flatfish	497,428	299,374	242,001	316,616	257,080	284,718	277,327	270,348	341,204	383,111
Halibut, Pacific	68,066	71,044	75,851	71,727	74,380	77,939	76,616	76,558	73,922	69,154
Herring, Pacific	115,616	86,790	85,276	68,005	84,754	69,858	68,984	70,893	85,701	79,845
Mackerel, Atka	130,436	112,871	113,396	98,308	125,874	83,244	99,542	108,423	129,482	130,814
Pollock, Walleye	2,556,582	2,752,656	2,325,888	2,606,800	3,178,821	3,333,647	3,361,261	3,353,236	3,410,065	3,400,810
Rockfish	65,181	61,561	74,431	64,484	61,718	68,054	73,495	68,399	65,513	74,316
Sablefish	38,155	36,480	33,316	35,563	31,296	32,217	35,705	39,942	37,352	33,509
Salmon	530,223	626,065	801,671	606,717	686,388	523,057	630,527	697,897	872,318	634,227

Average Annual Price for Key Species / Species Groups

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Cod, Pacific	0.20	0.17	0.27	0.30	0.27	0.27	0.27	0.23	0.26	0.36
Crab	1.15	0.75	1.27	2.49	2.45	2.42	2.91	2.92	2.55	1.60
Flatfish	0.13	0.13	0.13	0.14	0.12	0.13	0.14	0.16	0.18	0.18
Halibut, Pacific	1.62	0.96	1.54	1.88	1.47	1.65	2.17	2.20	2.30	2.79
Herring, Pacific	0.14	0.15	0.15	0.14	0.12	0.13	0.13	0.20	0.16	0.09
Mackerel, Atka	0.12	0.07	0.09	0.10	0.17	0.13	0.11	0.12	0.12	0.12
Pollock, Walleye	0.10	0.07	0.09	0.11	0.11	0.11	0.09	0.10	0.12	0.13
Rockfish	0.17	0.13	0.14	0.17	0.14	0.16	0.16	0.18	0.25	0.27
Sablefish	2.29	1.45	1.72	2.14	1.99	2.00	2.27	1.84	2.14	2.44
Salmon	0.52	0.42	0.43	0.41	0.27	0.25	0.27	0.37	0.34	0.44

Recreational Fishing Effort *(thousands of trips)*

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Trips	816	704	924	978	889	855	868	1,007	1,054	941

Recreational Anglers by Residential Area *(thousands of anglers)*

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Residents	137	126	118	123	120	113	129	130	127	120
Non-Residents	157	155	153	158	163	162	170	193	207	197
Total Anglers	294	281	270	281	283	275	299	323	334	317

2006 Angler Trip & Durable Equipment Expenditures *(thousands of dollars)*

Fishing Mode	Trip Expenditures		Durable Equipment Expenditure Category	Expenditures
	Non-Residents	*Residents*	Fishing Tackle	32,481
Private Boat	51,457	28,802	Other Equipment	33,249
Shore	10,035	5,217	Boat Expenses	79,879
For-Hire	148,050	14,012	Vehicle Expenses	59,663
Total Trip Expenditures	209,542	48,031	Second Home Expenses	36,274
			Total Durable Equipment Expenditures	241,544
Total State Trip and Durable Equipment Expenditures				**499,117**

2006 Economic Impacts of Recreational Fishing Expenditures *(thousands of dollars)*

Impact Category	Jobs	Total Sales	Value Added
Trip Impacts by Fishing Mode:			
Private Boat Mode Trip Impacts	1,187	113,246	61,031
Shore Mode Trip Impacts	231	20,671	11,262
Party/Charter Mode Trip Impacts	3,075	245,765	136,185
Total Durable Equipment Impacts	1,925	182,823	124,445
Total State Trip and Durable Equipment Economic Impacts	6,418	562,505	332,923

Harvest (H) and Release (R) of Key Species / Species Groups *(number of fish in thousands)*[1,2]

Species		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Clam, Razor	H	852	661	774	883	678	791	591	554	451	483
	R	137	48	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Greenlings (Lingcod)	H	28	25	31	35	27	20	22	31	38	35
	R	29	21	32	33	30	43	44	52	67	53
Halibut	H	380	350	333	403	366	351	403	483	500	463
	R	352	290	229	303	254	233	290	369	380	353
Rockfish	H	88	87	120	132	117	120	118	180	184	173
	R	123	118	171	168	136	135	132	227	199	165
Salmon, Chinook	H	97	74	90	83	89	89	96	110	116	117
	R	105	67	114	91	105	104	105	124	127	104
Salmon, Chum	H	21	24	13	28	24	14	23	24	17	14
	R	45	36	43	52	51	31	51	61	42	34
Salmon, Coho	H	303	299	433	364	537	497	537	560	695	395
	R	115	104	124	108	154	136	156	193	191	107
Salmon, Pink	H	85	98	143	105	111	114	111	132	149	65
	R	176	157	312	213	224	194	291	297	343	167
Salmon, Sockeye	H	17	22	28	25	25	24	29	24	27	21
	R	15	13	10	14	13	14	14	10	11	7

Note: Data reported in these tables includes saltwater fishing activities only.

[1]Data in this table are from the Sport Fish Division of the Alaska Department of Fish and Game.
[2]In this table, "(1)" = less than 1000 fish were harvested or released.

State Economy (% of national total)						
	Establishments	**Employees**	**Annual Payroll** *($ millions)*	**Employee Compensation** *($ millions)*	**Gross State Product** *($ millions)*	**Commercial Fishing Location Quotient**
1998	18,212 (0.26%)	196,135 (0.18%)	6,884 (0.21%)	14,151 (0.24%) (2001)[1]	23,165 (0.27%)	ND[2]
2005	19,808 (0.26%)	231,088 (0.20%)	9,774 (0.22%)	17,780 (0.25%)	39,394 (0.32%)	ND
% change	8.8	17.8	42.0	25.6	70.1	--

Seafood Sales and Processing – Non-employer Firms and Annual Receipts (*thousands of dollars*)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Firms	F	F	7	10	F	16	F	11
	Receipts	F	F	327	392	F	625	F	752
Seafood product preparation & packaging	Firms	17	20	19	27	25	34	26	17
	Receipts	1,420	2,076	1,780	1,815	2,140	1,864	1,731	1,315

Seafood Sales and Processing – Employer Establishments, Employees, and Annual Payroll (*thousands of dollars*)

		1998	1999	2000	2001	2002	2003	2004	2005
Seafood sales, retail	Establishments	10	9	8	9	12	8	6	11
	Employees	52	F	F	F	37	21	F	22
	Payroll	945	F	F	F	1,669	1,340	F	1,175
Seafood sales, wholesale	Establishments	97	85	79	71	99	90	93	88
	Employees	240	180	271	235	179	228	187	177
	Payroll	6,955	8,256	11,144	11,321	10,232	7,103	7,561	7,928
Seafood product preparation & packaging	Establishments	117	121	113	105	105	109	113	124
	Employees	F	8,563	F	F	F	6,493	6,749	6,621
	Payroll	F	200,794	F	F	F	205,702	216,599	235,457

Transport, Support, and Marine Operations – Employer Establishments, Employees, and Annual Payroll (*thousands of dollars*)

		1998	1999	2000	2001	2002	2003	2004	2005
Deep sea freight transportation	Establishments	7	6	7	6	10	5	4	5
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Coastal & Great Lakes freight transportation	Establishments	26	26	25	27	23	30	30	43
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F
Marine cargo handling	Establishments	14	15	15	16	16	15	13	13
	Employees	524	653	738	1,087	F	621	488	703
	Payroll	26,759	22,217	21,238	28,358	F	20,443	21,078	20,827
Navigational services to shipping	Establishments	34	33	35	27	25	28	29	32
	Employees	F	176	F	F	271	273	280	318
	Payroll	F	8,150	F	F	19,251	20,758	20,676	20,334
Ship & boat building	Establishments	13	9	10	12	12	10	14	14
	Employees	F	F	F	F	F	F	286	F
	Payroll	F	F	F	F	F	F	8,815	F
Marinas	Establishments	24	26	23	24	22	22	22	22
	Employees	F	F	F	F	101	F	62	71
	Payroll	F	F	F	F	3,625	F	2,367	2,612
Port and harbor operations	Establishments	1	1	1	2	4	2	3	2
	Employees	F	F	F	F	F	F	F	F
	Payroll	F	F	F	F	F	F	F	F

F = Data is suppressed due to confidentiality restrictions.

[1]Employee Compensation data is currently available from 2001-2005.
[2]ND = Data is not disclosable.