### PENNSYLVANIA COMPENSATION RATING BUREAU

## Claim Frequencies

The attached exhibits examine historical Workers Compensation claim frequencies in Pennsylvania.

Page 1 shows counts of claims and wages through June 30, 2001 as compiled by the Pennsylvania Department of Labor and Industry along with resulting claim frequencies per \$1 million of payroll. The Department of Labor and Industry has not yet released any experience subsequent to June 30, 2001, therefore, this is the same data as was included in the PCRB's April 1, 2002 loss cost filing.

Indicated average annual changes in claim frequency are also shown (column (8)) based on an exponential regression for frequencies during the calendar periods shown in column (7). The figures in column (6) indicate that there have been three distinct periods during the last ten years with regard to observed average annual changes in claim frequency. The period 1991-1994 showed an average change of -8.1% followed by three years (1995-1997) at -16.6%. Annual changes since 1997 have slowed somewhat with an estimate average change for 1998 - 2000 of -8.3%. Labor & Industry claim counts showed an increase during the first six months of 2001, which will be further discussed at the November 2002 meeting.

The second portion of page 1 presents claim frequencies on a fiscal year basis.

The second page shows a graph of the frequencies appearing in column (5) of page 1.

Claim frequencies per \$1 million of expected losses are shown on page 3 based on statistics gathered by the PCRB. For informational purposes, claim frequencies are also shown at constant (1987) wage levels. The data excludes the experience of deductible business. The pattern of changes in claim frequency on page 3 are similar to, although generally lower than, the Pennsylvania Department of Labor and Industry data shown on page 1. Staff is proposing an annual change in claim frequency of –6.3%.

The fourth page shows a graph of the frequencies appearing in column (5) of page 3.

The fifth and sixth pages are comparable to pages 3 and 4 but include the experience of deductible policies.

The seventh page shows a graph comparing claim frequencies presented on pages 2, 4 and 6, all indexed to a common value of 1.0 at January 1, 1988.

Page 8 presents the Unit Statistical Plan claim frequencies of page 3 by industry group and page 9 shows a graph of those industry group claim frequencies.

Pennsylvania W.C. - Injury Frequencies per Department of Labor & Industry Statistics

Calendar Year	Fatal & Non-Fatal Claim Counts (1)	% Change Counts (2)	Wages (Excl. Fed. Govt.)		% Change Wages (4)	Claim Frequency (# per \$1million) (5)	% Change Frequency (6)
1985	135,258		82,424,929,323			1.6410	
1986	138,168	2.2%	87,088,766,188		5.7%	1.5865	-3.3%
1987	139,706	1.1%	94,082,048,196		8.0%	1.4849	-6.4%
1988	146,461	4.8%	101,779,435,543		8.2%	1.4390	-3.1%
1989	148,445	1.4%	108,000,446,952		6.1%	1.3745	-4.5%
1990	158,030	6.5%	114,126,673,936		5.7%	1.3847	0.7%
1991	145,667	-7.8%	116,536,044,622		2.1%	1.2500	-9.7%
1992	143,268	-1.6%	123,163,218,565		5.7%	1.1632	-6.9%
1993	136,769	-4.5%	126,453,677,063		2.7%	1.0816	-7.0%
1994	130,093	-4.9%	131,499,113,452		4.0%	0.9893	-8.5%
1995	118,313	-9.1%	137,992,970,047		4.9%	0.8574	-13.3%
1996	102,132	-13.7%	144,910,231,319		5.0%	0.7048	-17.8%
1997	88,451	-13.4%	154,383,264,744		6.5%	0.5729	-18.7%
1998	85,783	-3.0%	164,800,517,598		6.7%	0.5205	-9.1%
1999	82,676	-3.6%	173,807,881,592		5.5%	0.4757	-8.6%
2000	80,133	-3.1%	181,587,857,121	@	4.5%	0.4413	-7.2%
2000.5	* 82,813	3.3% **	188,197,864,473		3.6%	0.4400	-0.3%

Period (7)	Annual % Change in Claim Frequency (8) #
CY85 - FY end 6/01 CY86 - FY end 6/01 CY87 - FY end 6/01 CY88 - FY end 6/01 CY89 - FY end 6/01 CY90 - FY end 6/01 CY91 - FY end 6/01 CY92 - FY end 6/01 CY93 - FY end 6/01 CY94 - FY end 6/01 CY96 - FY end 6/01 CY97 - FY end 6/01 CY98 - FY end 6/01	-8.94% -9.34% -9.76% -10.28% -10.80% -11.35% -11.63% -11.98% -12.20% -12.07% -11.24% -9.58% -7.53% -6.77%

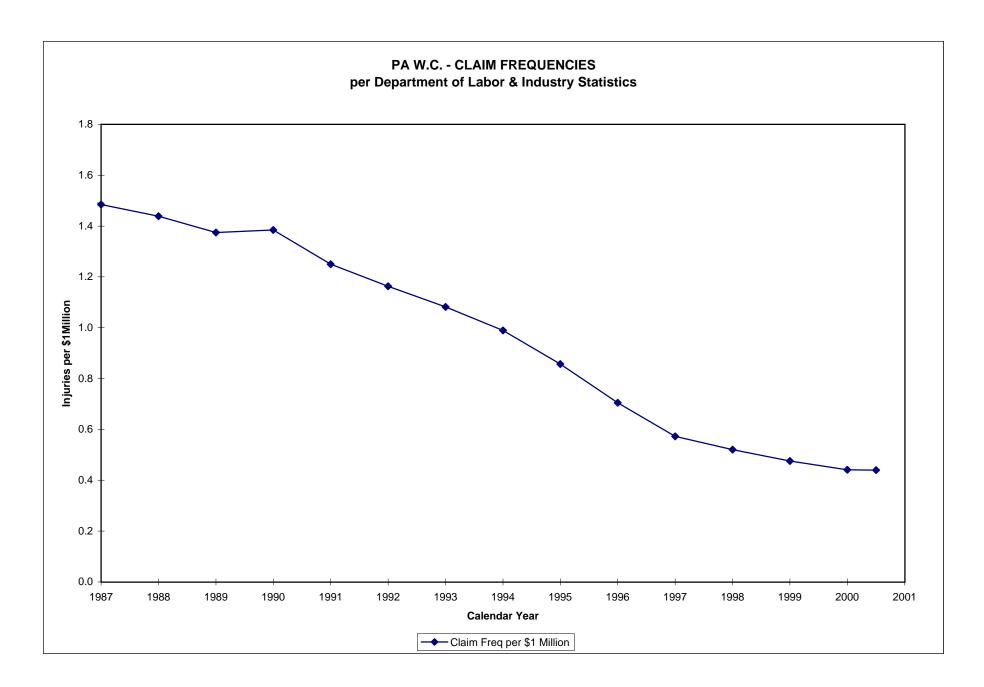
Fiscal Year Ending June 30	Fatal & Non-Fatal Claim Counts (1)	% Change Counts (2)	Wages (Excl. Fed. Govt.)		% Change Wages (4)	Claim Frequency (# per \$1million) (5)	% Change Frequency (6)
1996	111.412		141,080,588,470			0.7897	
1997	94.081	-15.6%	148,855,166,710		5.5%	0.6320	-20.0%
1998	87,339	-7.2%	159,326,932,528		7.0%	0.5482	-13.3%
1999	83,769	-4.1%	168,545,476,679		5.8%	0.4970	-9.3%
2000	81,338	-2.9%	178,133,454,425	@	5.7%	0.4566	-8.1%
2001	82,813	1.8%	188,197,864,473		5.6%	0.4400	-3.6%

Period Ending 6/30 (7)	Annual % Change in Claim Frequency (8) #
96-01	-10.79%
97-01	-8.67%
98-01	-7.17%
99-01	-5.91%

<sup>\*</sup> July 1, 2000 thru June 30, 2001 .

\*\* Six month change 1/01-12/01 to 7/01-6/02. Annualized changes are +6.8% (Counts), +7.4% (Wages) and -0.6% (Frequency)

<sup>#</sup> Exponential Trend
@1ST Quarter 2000 wages have been adjusted (from 45,317,695,400 to 42,864,043,865) for unusually high wage levels during the period.



## Pennsylvania W.C - Claim Frequencies PCRB Unit Statistical Plan

(Excluding Deductible Business)

Policy	# of Claim Indemnity	% Change Counts	Expected Losses	% Change Exp Loss	Claim Frequency (#Claims per \$1 million)	% Change Claim Freq
Year	(1)	(2)	(3)	(4)	(5)	(6)
1987	78,735		1,652,460,262		47.65	
1988	81,465	3.5%	1,745,344,770	5.6%	46.68	-2.0%
1989	82,956	1.8%	1,791,189,988	2.6%	46.31	-0.8%
1990	78,365	-5.5%	1,788,323,960	-0.2%	43.82	-5.4%
1991	69,559	-11.2%	1,718,589,589	-3.9%	40.47	-7.6%
1992	57,299	-17.6%	1,530,925,097	-10.9%	37.43	-7.5%
1993	48,928	-14.6%	1,404,947,854	-8.2%	34.83	-6.9%
1994	43,098	-11.9%	1,380,432,503	-1.7%	31.22	-10.4%
1995	37,627	-12.7%	1,353,648,533	-1.9%	27.80	-11.0%
1996	36,871	-2.0%	1,462,298,229	8.0%	25.21	-9.3%
1997	38,241	3.7%	1,598,049,722	9.3%	23.93	-5.1%
1998	37,722	-1.4%	1,695,529,448	6.1%	22.25	-7.0%
1999	38,499	2.1%	1,831,075,028	8.0%	21.03	-5.5%
2000	35,831	-6.9%	1,842,382,272	0.6%	19.45	-7.5%

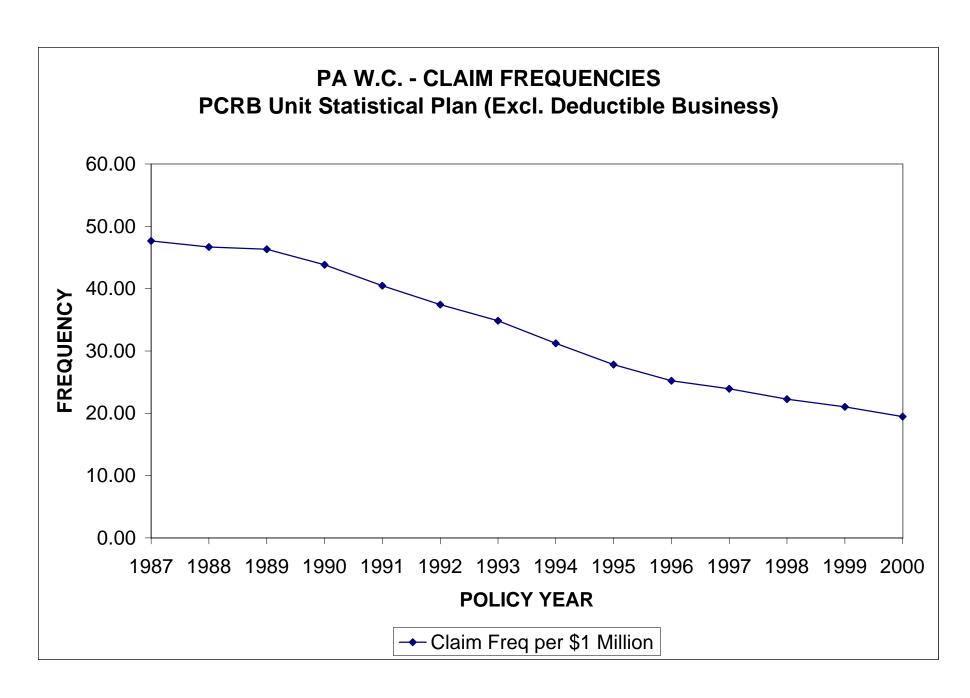
Period	Annual % Change In Claim Frequency
PY87-PY00	-7.3%
PY88-PY00	-7.7%
PY89-PY00	-7.9%
PY90-PY00	-8.0%
PY91-PY00	-8.0%
PY92-PY00	-7.9%
PY93-PY00	-7.7%
PY94-PY00	-7.2%
PY95-PY00	-6.6%
PY96-PY00	-6.3%
PY97-PY00	-6.6%
PY98-PY00	-6.5%
PY99-PY00	-7.5%

	SAWW	% Change	SAWW	Adj Claim Freq. (1)	% Change
Policy		SAWW	Index	(#Claims per \$1 million)	Adj Claim
Year					Frequency
1987	398.11		1.0000	47.65	
1988	417.15	4.8%	1.0478	48.91	2.6%
1989	434.39	4.1%	1.0911	50.53	3.3%
1990	454.40	4.6%	1.1414	50.02	-1.0%
1991	474.41	4.4%	1.1917	48.23	-3.6%
1992	493.60	4.0%	1.2399	46.41	-3.8%
1993	508.14	2.9%	1.2764	44.45	-4.2%
1994	523.52	3.0%	1.3150	41.06	-7.6%
1995	540.45	3.2%	1.3575	37.73	-8.1%
1996	560.52	3.7%	1.4080	35.50	-5.9%
1997	586.21	4.6%	1.4725	35.24	-0.7%
1998	611.38	4.3%	1.5357	34.17	-3.0%
1999	639.91	4.7%	1.6074	33.80	-1.1%
2000	659.70	3.1%	1.6571	32.23	-4.6%

Period		Annual % Change n Adjusted Claim Frequency
PY87-PY	'00	-3.7%
PY88-PY	'00	-4.1%
PY89-PY	'00	-4.5%
PY90-PY	'00	-4.6%
PY91-PY	'00	-4.5%
PY92-PY	'00	-4.4%
PY93-PY	'00	-4.1%
PY94-PY	'00	-3.5%
PY95-PY	'00	-2.7%
PY96-PY	'00	-2.3%
PY97-PY	'00	-2.7%
PY98-PY	'00	-2.9%
PY99-PY	′00	-4.6%

Projected Annual Change in Claim Frequency: -6.3% (See PY96-PY00)

<sup>(1)</sup> Adjusted claim frequency is claim frequency per \$1 million expected losses at constant (1987) wages



Pennsylvania W.C - Claim Frequencies
PCRB Unit Statistical Plan
All Business Including Deductible Business

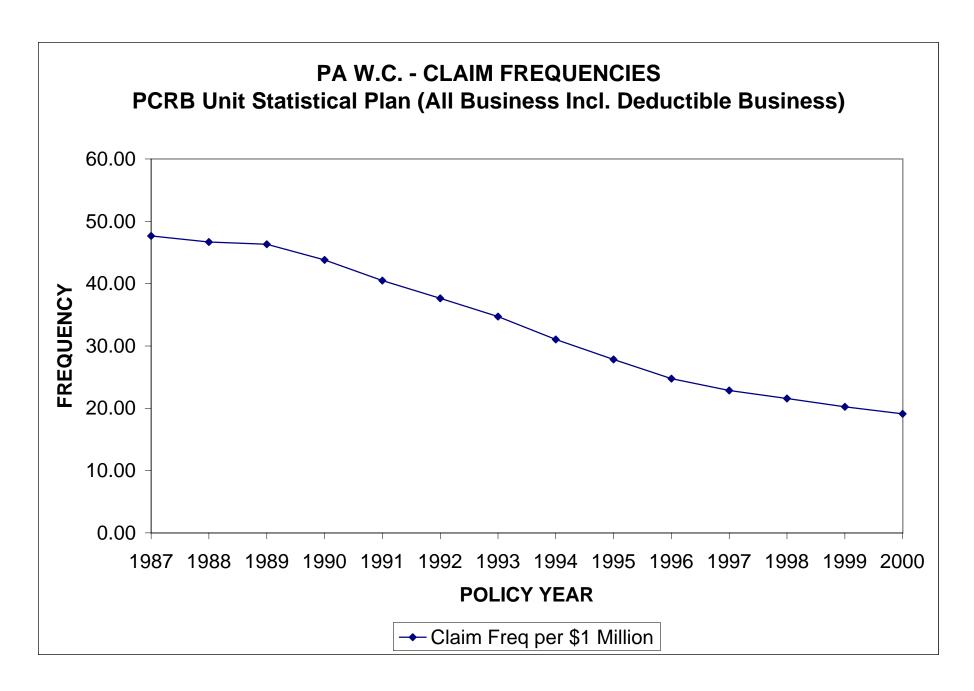
Policy	# of Claim Indemnity	% Change Counts	Expected Losses	% Change Exp Loss	Claim Frequency (#Claims per \$1 million)	% Change Frequency
Year	(1)	(2)	(3)	(4)	(5)	(6)
1987	78,735		1,652,460,262		47.65	
1988	81,465	3.5%	1,745,344,770	5.6%	46.68	-2.0%
1989	82,956	1.8%	1,791,189,988	2.6%	46.31	-0.8%
1990	78,647	-5.2%	1,796,023,097	0.3%	43.79	-5.4%
1991	71,875	-8.6%	1,774,958,240	-1.2%	40.49	-7.5%
1992	67,316	-6.3%	1,788,691,238	0.8%	37.63	-7.1%
1993	62,282	-7.5%	1,795,121,207	0.4%	34.70	-7.8%
1994	58,217	-6.5%	1,875,063,082	4.5%	31.05	-10.5%
1995	53,249	-8.5%	1,912,757,409	2.0%	27.84	-10.3%
1996	50,218	-5.7%	2,028,666,078	6.1%	24.75	-11.1%
1997	50,179	-0.1%	2,194,825,610	8.2%	22.86	-7.6%
1998	50,892	1.4%	2,361,027,884	7.6%	21.56	-5.7%
1999	51,714	1.6%	2,557,435,584	8.3%	20.22	-6.2%
2000	47,902	-7.4%	2,507,605,941	-1.9%	19.10	-5.5%

Period	Annual % Change In Claim Frequency
PY87-PY00	-7.6%
PY88-PY00	-8.0%
PY89-PY00	-8.3%
PY90-PY00	-8.4%
PY91-PY00	-8.4%
PY92-PY00	-8.4%
PY93-PY00	-8.2%
PY94-PY00	-7.7%
PY95-PY00	-7.0%
PY96-PY00	-6.2%
PY97-PY00	-5.9%
PY98-PY00	-5.9%
PY99-PY00	-5.5%

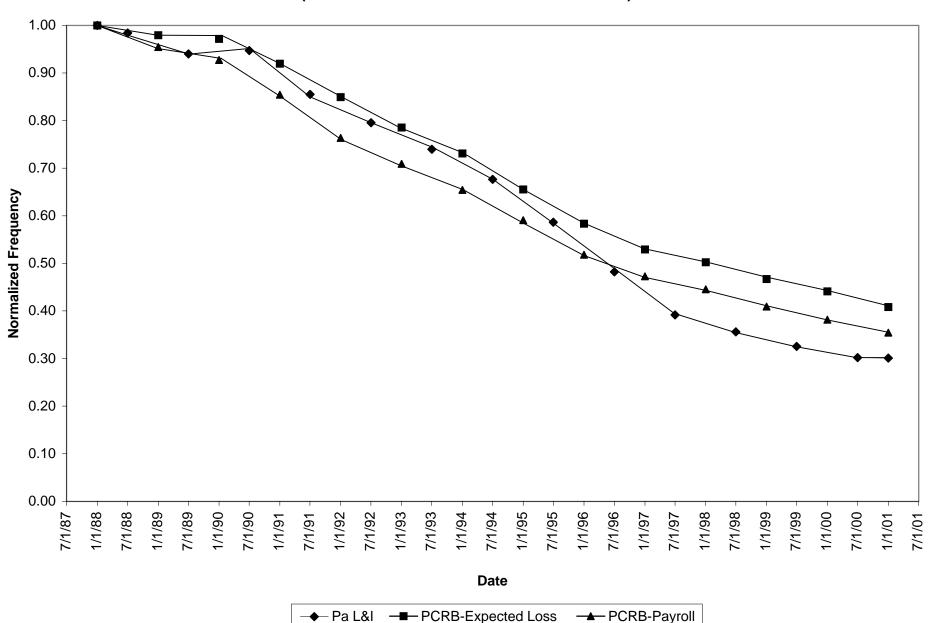
	SAWW	% Change	SAWW	Adj Claim Freq. (1)	% Change
Policy		SAWW	Index	(#Claims per \$1 million)	Adj Claim
Year					Frequency
1987	398.11		1.0000	47.65	
1988	417.15	4.8%	1.0478	48.91	2.6%
1989	434.39	4.1%	1.0911	50.53	3.3%
1990	454.40	4.6%	1.1414	49.98	-1.1%
1991	474.41	4.4%	1.1917	48.26	-3.4%
1992	493.60	4.0%	1.2399	46.66	-3.3%
1993	508.14	2.9%	1.2764	44.28	-5.1%
1994	523.52	3.0%	1.3150	40.83	-7.8%
1995	540.45	3.2%	1.3575	37.79	-7.4%
1996	560.52	3.7%	1.4080	34.85	-7.8%
1997	586.21	4.6%	1.4725	33.66	-3.4%
1998	611.38	4.3%	1.5357	33.10	-1.7%
1999	639.91	4.7%	1.6074	32.50	-1.8%
2000	659.70	3.1%	1.6571	31.66	-2.6%

Period	Annual % Change In Adjusted Claim Frequency
PY87-PY00	-4.0%
PY88-PY00	-4.5%
PY89-PY00	-4.8%
PY90-PY00	-5.0%
PY91-PY00	-5.0%
PY92-PY00	-4.9%
PY93-PY00	-4.6%
PY94-PY00	-3.9%
PY95-PY00	-3.1%
PY96-PY00	-2.2%
PY97-PY00	-2.0%
PY98-PY00	-2.2%
PY99-PY00	-2.6%

<sup>(1)</sup> Adjusted claim frequency is claim frequency per \$1 million payroll at constant (1987) wages



PA W.C. - COMPARISON OF CLAIM FREQUENCIES (PCRB Data Excludes Deductible Business)



# Pennsylvania W.C. - Claim Frequencies PCRB Unit Statistical Plan

(Excluding Deductible Business)

	1	# of Claim	% Change	Expected	% Change	Claim Frequency	% Change	Period	Annual % Change
Policy	Industry	Indemnity	Counts	Losses	Exp Loss	(#Claims per \$1 million)	Frequency		In Claim Frequency
Year	Group	(1)	(2)	(3)	(4)	(5)	(6)		• •
1987	1 (MFG)	26,793		517,024,231		51.82		PY87-PY00	-7.3%
1988	1	28,449	6.2%	539,566,809	4.4%	52.73	1.8%	PY88-PY00	-7.7%
1989	1	27,804	-2.3%	538,025,258	-0.3%	51.68	-2.0%	PY89-PY00	-7.8%
1990	1	25,041	-9.9%	519,621,784	-3.4%	48.19	-6.8%	PY90-PY00	-7.7%
1991	1	20,569	-17.9%	481,596,041	-7.3%	42.71	-11.4%	PY91-PY00	-7.5%
1992	1	16,195	-21.3%	401,574,742	-16.6%	40.33	-5.6%	PY92-PY00	-7.5%
1993	1	13,498	-16.7%	356,328,719	-11.3%	37.88	-6.1%	PY93-PY00	-7.3%
1994	1	11,806	-12.5%	350,357,713	-1.7%	33.70	-11.0%	PY94-PY00	-6.6%
1995	1	10,028	-15.1%	328,958,766	-6.1%	30.48	-9.6%	PY95-PY00	-5.9%
1996	1	9,444	-5.8%	350,450,405	6.5%	26.95	-11.6%	PY96-PY00	-5.0%
1997	1	10,218	8.2%	391,145,739	11.6%	26.12	-3.1%	PY97-PY00	-5.2%
1998	1	9,874	-3.4%	407,885,260	4.3%	24.21	-7.3%	PY98-PY00	-4.1%
1999	1	9,359	-5.2%	408,119,865	0.1%	22.93	-5.3%	PY99-PY00	-3.0%
2000	1	8,533	-8.8%	383,585,223	-6.0%	22.25	-3.0%		
1987	2 (Contracting)	11,064		330,124,421		33.51		PY87-PY00	-5.6%
1988	2	11,548	4.4%	345,990,910	4.8%	33.38	-0.4%	PY88-PY00	-5.8%
1989	2	11,608	0.5%	347,318,931	0.4%	33.42	0.1%	PY89-PY00	-6.1%
1990	2	10,457	-9.9%	336,850,910	-3.0%	31.04	-7.1%	PY90-PY00	-6.1%
1991	2	9,033	-13.6%	309,384,759	-8.2%	29.20	-5.9%	PY91-PY00	-6.2%
1992	2	8,164	-9.6%	287,898,985	-6.9%	28.36	-2.9%	PY92-PY00	-6.4%
1993	2	7,239	-11.3%	275,515,791	-4.3%	26.27	-7.4%	PY93-PY00	-6.4%
1994	2	7,232	-0.1%	283,154,775	2.8%	25.54	-2.8%	PY94-PY00	-6.6%
1995	2	6,379	-11.8%	276,882,899	-2.2%	23.04	-9.8%	PY95-PY00	-6.2%
1996	2	6,598	3.4%	299,768,423	8.3%	22.01	-4.5%	PY96-PY00	-6.3%
1997	2	6,596	0.0%	326,025,463	8.8%	20.23	-8.1%	PY97-PY00	-5.7%
1998	2	6,773	2.7%	359,231,478	10.2%	18.85	-6.8%	PY98-PY00	-5.1%
1999	2	6,862	1.3%	386,164,600	7.5%	17.77	-5.7%	PY99-PY00	-4.5%
2000	2	6,730	-1.9%	396,616,435	2.7%	16.97	-4.5%		
1007	3 (Other)	40,878		805,311,610		50.76	<del></del> 1	PY87-PY00	-7.7%
1987 1988	` ,	40,878 41,468	1.4%	805,311,610 859,787,051	6.8%	50.76 48.23	-5.0%	PY87-PY00 PY88-PY00	
1988 1989	3 3	41,468 43,544	1.4% 5.0%	905,845,799	5.4%	48.23 48.07	-5.0% -0.3%	PY88-PY00 PY89-PY00	-8.0% -8.3%
1989	3	43,544 42,867	5.0% -1.6%	931,851,266	5.4% 2.9%	46.00	-0.3% -4.3%	PY90-PY00	-8.5%
1990	3	42,867 39,957	-1.6% -6.8%	931,851,266	-0.5%	43.08	-4.3% -6.3%	PY90-PY00 PY91-PY00	-8.5% -8.5%
1991	3	39,957 32,940	-6.8% -17.6%	841,451,370	-0.5% -9.3%	43.08 39.15	-6.3% -9.1%	PY91-PY00 PY92-PY00	-8.5% -8.4%
1992	3	28,191	-17.6% -14.4%	773,103,344	-9.3% -8.1%	36.46	-6.9%	PY93-PY00	-8.2%
1993	3	24,060	-14.4% -14.7%	773,103,344	-8.1% -3.4%	30.46 32.21	-0.9% -11.7%	PY93-PY00 PY94-PY00	-8.2% -7.6%
1994	3	21,220	-14.7% -11.8%	746,920,015	-3.4% 0.1%	28.38	-11.7%	PY95-PY00	-7.6% -6.9%
1995	3	20,829	-11.8%	812,079,401	8.6%	26.36 25.65	-9.6%	PY96-PY00	-6.6%
1996	3	20,829 21,427	2.9%	880,878,520	8.5%	24.32	-9.6% -5.2%	PY97-PY00	-0.0% -7.1%
1997	3	21,42 <i>1</i> 21,075	-1.6%	928,412,710	5.4%	24.32 22.70	-5.2% -6.7%	PY98-PY00	-7.1% -7.6%
1999	3	22,278	-1.6% 5.7%	1,036,790,563	11.7%	21.49	-5.3%	PY99-PY00	-7.6% -9.9%
2000	3	20,568	-7.7%	1,062,180,614	2.4%	19.36	-9.9%	F199*F100	-3.3 /0
2000	ა	20,000	-1.170	1,002,100,014	2.4%	19.30	-9.970		

