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**COPC: Data Book on
Trends by Occupation for
San Francisco Bay Area
Counties**

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COPC: Data Book on Trends by Occupation for San Francisco Bay Area Counties

Elisa Barbour



The University-Oakland Metropolitan Forum is a partnership of the University of California at Berkeley; California State University, Hayward; Mills College; Holy Names College; the Peralta Community College District; and the Oakland community.

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Methodology

This report is based on data from the US Census 5% PUMS Sample (Public Use Microdata Sample) from 1980 and 1990. The tables in the report compare various factors for the workforce in each of nine separate counties in the San Francisco Bay Area. The workforce of each county was constructed to comprise of all people above sixteen years old who worked in the county at the time of the census, including commuters from any of the other eight counties in the region, and excluding any county residents who worked outside of the county.

Comparison of earnings between the census years was adjusted for inflation. Therefore, changes in earnings reflect constant dollars. Twenty-four occupational categories were employed in the report. A list of the Standard Occupational Codes included in each of the occupational categories is presented on page 15. When data cells in the tables included fewer than 30 respondents, the cell was flagged in the table to indicate that, due to the small size of the sample in that cell, the results should be treated with caution. In some tables, entire counties are not included due to this problem.

One table in the report, namely the one titled "Absolute and Percent Change in the Number of Workers by Occupation from 1980 to 1990," is based on a comparison of absolute values between 1980 and 1990. Data in this table should be treated with some caution, due to a manipulation of the data undertaken to bring Census values into closer correspondence with values for the size of the region's workforce obtained from other sources.

In the table mentioned above, the 1980 values are weighted by a factor based on the difference in the total number of workers in the nine county Bay Area as reported by the Association of Bay Area Governments with the total as reported by the US Census. In 1990, the Census total was 96% of ABAG's total, while in 1980, the Census total was 84% of the ABAG total. Values from 1980 were weighted by the ratio of .96 to .84, or 1.14.

The other tables in the report are based on comparisons of relative, not absolute, values between 1980 and 1990. Such relative comparisons include medians and percent point changes (shifts in shares). These values are unaffected by the weights used for the table mentioned above. In addition, tables based only on 1990 Census data are unaffected.

Workers by Occupation for San Francisco Bay Area Counties in 1990

	<i>San Francisco</i>	<i>San Mateo</i>	<i>Santa Clara</i>	<i>Alameda</i>	<i>Contra Costa</i>	<i>Solano</i>	<i>Napa</i>	<i>Sonoma</i>	<i>Marin</i>
Managers	106,185	47,796	137,193	90,015	51,895	11,074	5,476	20,948	17,876
Professionals	48,354	20,830	101,401	42,128	24,561	5,101	2,281	8,917	8,776
Law	13,421	2,190	4,834	4,476	2,122	390	198	1,025	1,128
Health Professionals	18,198	8,386	20,751	17,893	9,716	3,260	2,161	5,887	3,952
Teachers	17,142	11,002	32,528	31,853	16,989	6,068	2,202	8,372	5,538
<i>All Professional</i>	203,300	90,204	296,707	186,365	105,283	25,893	12,318	45,149	37,270
Health Technicians	5,844	2,621	6,879	6,715	3,361	1,328	830	1,922	839
Technicians	16,586	9,927	45,097	22,062	10,670	3,312	591	3,867	2,771
<i>All Technical</i>	22,430	12,548	51,976	28,777	14,031	4,640	1,421	5,789	3,610
Sales to Business	39,674	23,426	48,490	40,534	23,494	6,230	2,618	11,675	9,013
Sales to Public	23,893	15,847	36,986	31,956	19,022	7,130	2,499	10,362	5,759
<i>All Sales</i>	63,567	39,273	85,476	72,490	42,516	13,360	5,117	22,037	14,772
Admin. Supervision	5,603	2,960	5,200	5,305	2,675	935	240	1,077	787
Admin. Support	100,183	52,995	121,606	99,508	54,247	15,579	6,472	25,011	15,526
<i>All Clerical</i>	105,786	55,955	126,806	104,813	56,922	16,514	6,712	26,088	16,313
Home Help	3,808	2,099	2,912	2,552	1,740	383	251	1,045	795
Safety	9,103	4,649	11,125	9,660	4,881	2,760	504	1,953	1,826
Food Preparation	25,164	13,577	25,802	22,429	11,610	6,011	2,775	8,376	4,412
Health Assistants	7,343	2,904	8,298	7,656	4,625	1,766	1,445	2,729	1,528
Cleaning	14,418	8,302	17,032	11,533	6,784	3,026	1,413	4,129	1,940
Personal Services	9,625	8,121	13,205	11,694	6,881	2,263	1,470	4,024	2,599
<i>All Services</i>	69,461	39,652	78,374	65,524	36,521	16,209	7,858	22,256	13,100
<i>Farm/Forestry/Fish</i>	2,214	5,175	9,506	5,746	4,890	2,396	3,081	6,539	2,235
Mechanics/Repair	10,391	12,957	22,828	22,366	9,943	7,618	1,003	4,791	2,445
Construction	21,575	13,551	30,599	24,295	19,340	7,777	3,285	9,065	6,551
Skilled Mfg.	5,322	4,865	18,495	10,772	4,486	3,126	399	2,515	814
Textiles	10,227	1,631	3,269	4,233	1,463	517	586	793	555
Mixed Skills	5,029	4,096	17,954	8,057	4,403	1,250	404	2,663	551
<i>All Skilled Trades</i>	52,544	37,100	93,145	69,723	39,635	20,288	5,677	19,827	10,916
Machine Operators	11,187	8,910	39,755	25,964	8,760	4,176	2,152	6,587	2,087
Drivers/Loaders	21,661	16,180	34,623	39,583	16,436	8,174	2,236	9,510	4,901
<i>All Operators/Laborers</i>	32,848	25,090	74,378	65,547	25,196	12,350	4,388	16,097	6,988
<i>TOTAL</i>	551,199	299,822	806,862	593,239	320,104	109,254	43,491	157,243	102,969

Source: 1990 PUMS Census Data

Note: Squares around values indicate sample numbers too small to be considered reliable.

Percent of Workforce by Occupation for Bay Area Counties in 1990

	San Francisco	San Mateo	Santa Clara	Alameda	Contra Costa	Solano	Napa	Sonoma	Marin
Managers	19.3%	15.9%	17.0%	15.2%	16.2%	10.1%	12.6%	13.3%	17.4%
Professionals	8.8	6.9	12.6	7.1	7.7	4.7	5.2	5.7	8.5
Law	2.4	0.7	0.6	0.8	0.7	0.4	0.5	0.7	1.1
Health Professionals	3.3	2.8	2.6	3.0	3.0	3.0	5.0	3.7	3.8
Teachers	3.1	3.7	4.0	5.4	5.3	5.6	5.1	5.3	5.4
All Professional	36.9	30.1	36.8	31.4	32.9	23.7	28.3	28.7	36.2
Health Technicians	1.1	0.9	0.9	1.1	1.0	1.2	1.9	1.2	0.8
Technicians	3.0	3.3	5.6	3.7	3.3	3.0	1.4	2.5	2.7
All Technical	4.1	4.2	6.4	4.9	4.4	4.2	3.3	3.7	3.5
Sales to Business	7.2	7.8	6.0	6.8	7.3	5.7	6.0	7.4	8.8
Sales to Public	4.3	5.3	4.6	5.4	5.9	6.5	5.7	6.6	5.6
All Sales	11.5	13.1	10.6	12.2	13.3	12.2	11.8	14.0	14.3
Admin. Supervision	1.0	1.0	0.6	0.9	0.8	0.9	0.6	0.7	0.8
Admin. Support	18.2	17.7	15.1	16.8	16.9	14.3	14.9	15.9	15.1
All Clerical	19.2	18.7	15.7	17.7	17.8	15.1	15.4	16.6	15.8
Home Help	0.7	0.7	0.4	0.4	0.5	0.4	0.6	0.7	0.8
Safety	1.7	1.6	1.4	1.6	1.5	2.5	1.2	1.2	1.8
Food Preparation	4.6	4.5	3.2	3.8	3.6	5.5	6.4	5.3	4.3
Health Assistants	1.3	1.0	1.0	1.3	1.4	1.6	3.3	1.7	1.5
Cleaning	2.6	2.8	2.1	1.9	2.1	2.8	3.2	2.6	1.9
Personal Services	1.7	2.7	1.6	2.0	2.1	2.1	3.4	2.6	2.5
All Services	12.6	13.2	9.7	11.0	11.4	14.8	18.1	14.2	12.7
Farm/Forestry/Fish	0.4	1.7	1.2	1.0	1.5	2.2	7.1	4.2	2.2
Mechanics/Repair	1.9	4.3	2.8	3.8	3.1	7.0	2.3	3.0	2.4
Construction	3.9	4.5	3.8	4.1	6.0	7.1	7.6	5.8	6.4
Skilled Mfg.	1.0	1.6	2.3	1.8	1.4	2.9	0.9	1.6	0.8
Textiles	1.9	0.5	0.4	0.7	0.5	0.5	1.3	0.5	0.5
Mixed Skills	0.9	1.4	2.2	1.4	1.4	1.1	0.9	1.7	0.5
All Skilled Trades	9.5	12.4	11.5	11.8	12.4	18.6	13.7	12.6	10.6
Machine Operators	2.0	3.0	4.9	4.4	2.7	3.8	4.9	4.2	2.0
Drivers/Loaders	3.9	5.4	4.3	6.7	5.1	7.5	5.1	6.0	4.8
All Operators/Laborers	6.0	8.4	9.2	11.0	7.9	11.3	10.1	10.2	6.8
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: 1990 PUMA/S Census Data

Note: Squares around values indicate sample numbers too small to be considered reliable.

Location Quotients in 1990 by Occupation for Bay Area Counties Measured Against the Nine-County Area

A location quotient is calculated as the percent of employment by occupation in the county, divided by the percent of employment by occupation in the nine-county region. If it is above one, the location quotient indicates that the county has a disproportionately high share of employment in that occupation compared to the region.

	San Francisco	San Mateo	Santa Clara	Alameda	Contra Costa	Solano	Napa	Sonoma	Marin
Managers	1.18	0.97	1.04	0.93	0.99	0.62	0.77	0.81	1.06
Professionals	1.00	0.79	1.43	0.81	0.87	0.53	0.60	0.65	0.97
Law	2.44	0.73	0.60	0.76	0.66	0.36	0.46	0.65	1.10
Health Professionals	1.09	0.93	0.85	1.00	1.00	0.99	1.64	1.24	1.27
Teachers	0.70	0.83	0.91	1.22	1.20	1.26	1.15	1.21	1.22
All Professional	1.10	0.90	1.09	0.94	0.98	0.71	0.84	0.85	1.08
Health Technicians	1.04	0.86	0.84	1.11	1.03	1.20	1.88	1.20	0.80
Technicians	0.78	0.86	1.45	0.97	0.87	0.79	0.35	0.64	0.70
All Technical	0.84	0.86	1.32	1.00	0.90	0.87	0.67	0.76	0.72
Sales to Business	1.05	1.14	0.87	0.99	1.07	0.83	0.88	1.08	1.27
Sales to Public	0.84	1.03	0.89	1.05	1.16	1.27	1.12	1.28	1.09
All Sales	0.96	1.09	0.88	1.02	1.11	1.02	0.98	1.17	1.19
Admin. Supervision	1.22	1.19	0.78	1.08	1.01	1.03	0.66	0.82	0.92
Admin. Support	1.10	1.07	0.92	1.02	1.03	0.87	0.90	0.97	0.92
All Clerical	1.11	1.08	0.91	1.02	1.03	0.87	0.89	0.96	0.92
Home Help	1.32	1.34	0.69	0.82	1.04	0.67	1.11	1.27	1.48
Safety	1.06	1.00	0.89	1.05	0.98	1.62	0.74	0.80	1.14
Food Preparation	1.13	1.12	0.79	0.94	0.90	1.37	1.58	1.32	1.06
Health Assistants	1.04	0.75	0.80	1.01	1.13	1.26	2.59	1.35	1.16
Cleaning	1.14	1.20	0.92	0.85	0.92	1.21	1.41	1.14	0.82
Personal Services	0.87	1.35	0.82	0.98	1.07	1.03	1.68	1.28	1.26
All Services	1.08	1.13	0.83	0.94	0.98	1.27	1.55	1.21	1.09
Farm/Forestry/Fish	0.29	1.23	0.84	0.69	1.09	1.57	5.06	2.97	1.55
Mechanics/Repair	0.60	1.37	0.89	1.19	0.98	2.21	0.73	0.96	0.75
Construction	0.86	0.99	0.83	0.90	1.33	1.56	1.66	1.26	1.40
Skilled Mfg.	0.57	0.95	1.35	1.07	0.82	1.68	0.54	0.94	0.46
Textiles	2.38	0.70	0.52	0.91	0.59	0.61	1.73	0.65	0.69
Mixed Skills	0.61	0.92	1.50	0.91	0.92	0.77	0.62	1.14	0.36
All Skilled Trades	0.82	1.06	0.99	1.01	1.06	1.59	1.12	1.08	0.91
Machine Operators	0.55	0.81	1.34	1.19	0.75	1.04	1.35	1.14	0.55
Drivers/Loaders	0.76	1.05	0.84	1.30	1.00	1.46	1.00	1.18	0.93
All Operators/Laborers	0.68	0.95	1.05	1.25	0.89	1.28	1.15	1.16	0.77
TOTAL	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Source: 1990 PUMS Census Data

Note: Squares around values indicate sample numbers too small to be considered reliable.

Absolute and Percent Change in the Number of Workers by Occupation from 1980 to 1990, by Bay Area County

	San Francisco		San Mateo		Santa Clara		Alameda		Contra Costa		Napa/Solano		Sonoma		Marin	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Managers	17,316	19%	12,825	37%	45,764	50%	30,312	51%	26,249	102%	6,401	63%	9,702	86%	6,630	59%
Professionals	(9,795)	-17%	6,476	45%	36,807	57%	14,014	50%	15,098	160%	3,131	74%	4,208	89%	3,153	56%
Law	8,575	177%	1,093	100%	2,228	86%	1,459	48%	979	86%	314	114%	751	274%	488	76%
Health Pros	8,278	83%	3,220	62%	5,802	39%	4,499	34%	3,865	66%	1,261	30%	2,413	69%	981	33%
Teachers	7,542	79%	2,316	27%	4,917	18%	4,973	19%	5,240	45%	2,236	37%	2,201	36%	1,241	29%
All Professional	31,917	19%	25,930	40%	95,518	47%	55,256	42%	51,432	96%	13,342	54%	19,275	74%	12,493	50%
Health Techs	541	10%	1,250	91%	2,536	58%	1,869	39%	801	31%	1,061	97%	733	62%	245	41%
Technicians	4,380	36%	1,561	19%	8,663	24%	7,616	53%	6,510	156%	1,892	94%	2,084	117%	1,262	84%
All Technical	4,921	28%	2,811	29%	11,199	27%	9,486	49%	7,311	109%	2,952	95%	2,818	95%	1,507	72%
Business Sales	7,125	22%	8,157	53%	16,764	53%	17,631	77%	10,923	87%	3,957	81%	3,675	46%	2,476	38%
Sales to Public	3,184	15%	(199)	-1%	2,563	7%	5,533	21%	4,256	29%	2,269	31%	2,773	37%	365	7%
All Sales	10,310	19%	7,959	25%	19,327	29%	23,164	47%	15,179	56%	6,226	51%	6,448	41%	2,841	24%
Ad. Superv'n	(5,003)	-47%	(834)	-22%	(2,251)	-30%	(1,735)	-25%	206	8%	(562)	-32%	(112)	-9%	10	1%
Admin. Supp.	(21,234)	-17%	4,538	9%	6,177	5%	7,348	8%	15,161	39%	5,594	34%	9,102	57%	2,497	19%
All Clerical	(26,237)	-20%	3,704	7%	3,926	3%	5,613	6%	15,368	37%	5,032	28%	8,991	53%	2,507	18%
Home Help	654	21%	773	58%	626	27%	(145)	-5%	460	36%	40	7%	268	34%	(348)	-30%
Safety	554	6%	626	16%	2,759	33%	1,889	24%	2,230	84%	1,161	55%	582	42%	(3)	0%
Food Prep	2,490	11%	3,154	30%	2,213	9%	3,686	20%	2,330	25%	2,249	34%	2,570	44%	572	15%
Health Assist.	1,766	32%	(616)	-17%	(936)	-10%	67	1%	556	14%	468	17%	398	17%	111	8%
Cleaning	841	6%	4,553	121%	5,283	45%	(398)	-3%	1,481	28%	553	14%	1,478	56%	(26)	-1%
Personal Svcs.	1,991	26%	1,218	18%	2,462	23%	2,185	23%	755	12%	396	12%	275	7%	816	46%
All Services	8,295	14%	9,709	32%	12,408	19%	7,284	13%	7,812	27%	4,867	25%	5,570	33%	1,123	9%
Farm/Fo/Fish	(72)	-3%	1,152	29%	2,466	35%	580	11%	2,239	84%	1,591	41%	1,556	31%	1,184	113%
Mech/Repair	242	2%	1,666	15%	2,348	11%	1,612	8%	3,040	44%	3,135	57%	1,180	33%	22	1%
Construction	5,986	38%	2,945	28%	6,188	25%	3,266	16%	4,666	32%	4,616	72%	2,756	44%	517	9%
Skilled Mfg.	(1,307)	-20%	(2,129)	-30%	(8,202)	-31%	(4,359)	-29%	(497)	-10%	(224)	-6%	92	4%	(329)	-29%
Textiles	1,998	24%	(106)	-6%	709	28%	(110)	-3%	183	14%	(86)	-7%	107	16%	(131)	-19%
Mixed Skills	1,189	31%	(155)	-4%	445	3%	1,840	30%	1,432	48%	465	39%	1,840	224%	(546)	-50%
All Skilled Trades	8,110	18%	2,220	6%	1,488	2%	2,249	3%	8,824	29%	7,908	44%	5,976	43%	(467)	-4%
Machine Operat	536	5%	(1,056)	-11%	(10,714)	-21%	(3,659)	-12%	851	11%	1,528	32%	1,376	26%	350	20%
Drivers/Loaders	541	3%	1,140	8%	1,343	4%	4,154	12%	1,670	11%	2,090	25%	2,013	27%	1,152	31%
All Laborers	1,077	3%	84	0%	(9,371)	-11%	496	1%	2,522	11%	3,618	28%	3,388	27%	1,502	27%
TOTAL	39,656	8%	52,416	21%	134,496	20%	103,548	21%	108,447	51%	43,945	40%	52,466	50%	21,506	26%

Source: 1990 PUMS Census Data. 1980 values are weighted by a factor of 1.1428571, based on totals for the regional workforce according to the Association of Bay Area Governments for 1980 and 1990, to compensate for sampling problems in the 1980 Census.

Note: Squares around values indicate sample numbers too small to be considered reliable.

**Percent Point Change (Calculated as Percent in 1990 - Percent in 1980)
by Occupation for Bay Area Counties from 1980 to 1990**

	<i>San Francisco</i>	<i>San Mateo</i>	<i>Santa Clara</i>	<i>Alameda</i>	<i>Contra Costa</i>	<i>Napa/Solano</i>	<i>Sonoma</i>	<i>Marin</i>	<i>Total</i>
Managers	1.9	1.8	3.4	3.0	4.1	0.8	2.6	3.6	2.6
Professionals	-2.6	1.1	3.0	1.4	3.2	0.8	1.2	1.6	1.0
Law	1.5	0.3	0.2	0.1	0.1	0.1	0.4	0.3	0.4
Health Pro's	1.4	0.7	0.3	0.3	0.3	-0.8	0.4	0.2	0.6
Teachers	1.2	0.2	-0.1	-0.1	-0.2	0.0	-0.6	0.1	0.3
<i>All Professional</i>	3.4	4.1	6.9	4.6	7.4	0.8	4.0	5.8	4.9
Health Tchcs.	0.0	0.3	0.2	0.1	-0.2	0.2	0.1	0.1	0.1
Technicians	0.6	-0.1	0.2	0.8	1.4	1.2	0.8	0.8	0.5
<i>All Technical</i>	0.6	0.2	0.4	0.9	1.2	1.4	0.8	0.9	0.7
Sales to Business	0.8	1.6	1.3	2.2	1.4	1.2	-0.2	0.7	1.3
Sales to Public	0.3	-1.2	-0.5	0.0	-1.0	-0.2	-0.7	-1.0	-0.3
<i>All Sales</i>	1.1	0.4	0.8	2.1	0.4	1.0	-0.9	-0.3	1.0
Admin. Supv'n	-1.1	-0.5	-0.5	-0.5	-0.3	-0.7	-0.4	-0.2	-0.6
Admin. Support	-5.6	-1.9	-2.1	-2.0	-1.5	-0.9	0.7	-0.9	-2.6
<i>All Clerical</i>	-6.6	-2.5	-2.6	-2.6	-1.9	-1.6	0.3	-1.1	-3.2
Home Help	0.1	0.2	0.0	-0.1	-0.1	-0.2	-0.1	-0.6	0.0
Safety	0.0	-0.1	0.1	0.0	0.3	0.6	-0.1	-0.5	0.0
Food Preparation	0.1	0.3	-0.3	0.0	-0.8	-0.5	-0.2	-0.4	-0.1
Health Assistants	0.2	-0.5	-0.3	-0.3	-0.5	-0.9	-0.5	-0.3	-0.2
Cleaning	0.0	1.3	0.4	-0.5	-0.4	-0.8	0.1	-0.5	0.0
Personal Services	0.3	-0.1	0.0	0.0	-0.7	-1.0	-1.0	0.3	0.0
<i>All Services</i>	0.6	1.1	-0.1	-0.8	-2.2	-2.8	-1.8	-2.0	-0.3
<i>Farm/Forestry/Fish</i>	0.0	0.1	0.1	-0.1	0.3	-1.4	-0.6	0.9	0.1
Mech's/Repair	-0.1	-0.2	-0.2	-0.5	-0.2	1.9	-0.4	-0.6	-0.2
Construction	0.9	0.2	0.2	-0.2	-0.9	1.2	-0.3	-1.0	0.2
Skilled Mfg.	-0.3	-1.2	-1.7	-1.3	-1.0	-0.6	-0.7	-0.6	-1.1
Textiles	0.2	-0.2	0.0	-0.2	-0.1	-0.6	-0.2	-0.3	-0.1
Mixed Skills	0.2	-0.4	-0.4	0.1	0.0	0.1	0.9	-0.8	-0.1
<i>All Skilled Trades</i>	0.8	-1.7	-2.1	-2.0	-2.2	2.0	-0.6	-3.4	-1.2
Machine Oper's	-0.1	-1.1	-2.6	-1.7	-1.0	-0.6	-0.8	-0.1	-1.3
Drivers/Loaders	-0.2	-0.7	-0.7	-0.6	-1.8	-0.2	-1.1	0.2	-0.6
<i>All Operators/Labor</i>	-0.3	-1.7	-3.2	-2.2	-2.8	-0.8	-1.9	0.1	-1.9

Source: 1990 PUMS Census Data

Note: Squares around values indicate sample numbers too small to be considered reliable.

**Median Earnings by Occupation in 1990, and Percent Change in Real
Median Earnings from 1980 to 1990, by Bay Area County**

	San Francisco	San Mateo	Santa Clara	Alameda	Contra Costa	Napa/Solano	Sonoma	Marin									
Professionals	Managers	\$ 32,748	4%	\$ 32,000	10%	\$ 37,246	9%	\$ 30,000	2%	\$ 30,000	10%	\$ 28,000	1%	\$ 25,000	1%	\$ 26,743	30
	Professionals	30,000	-1	34,000	9	42,000	12	30,000	10	35,000	29	17,348	-14	18,500	-10	13,000	-22
	Law	52,000	143	32,500	98	44,000	157	35,000	29	35,500	419	59,000	115	30,000		15,954	
	Health Pros	34,111	34	31,230	37	34,000	36	33,000	42	30,000	25	29,667	26	25,000	29	27,000	37
	Teachers	24,275	22	20,000	-17	23,115	-19	22,600	0	20,000	-25	25,000	2	20,000	-23	19,545	1
Technicians	Health Techs	24,000	9	20,000	14	22,825	11	22,500	20	24,500	10	24,000	-1	22,500	17	19,355	-21
	Technicians	30,000	16	32,120	-3	32,719	20	27,000	-10	32,000	10	25,119	-30	24,250	14	28,000	49
Sales	Business Sales	30,000	17	29,000	21	29,000	39	27,500	7	27,874	48	19,000	36	20,000	17	22,000	7
Clerical	Sales to Public	12,000	-9	10,000	25	8,500	24	8,000	-6	8,000	-6	8,300	9	7,400	8	10,000	17
	Admn. Superv'n	30,000	6	29,033	13	29,000	2	29,385	8	28,000	-3	27,960	-23	24,000	24	22,000	-8
Services	Admn. Support	20,000	7	19,200	12	19,000	11	18,000	5	17,000	11	13,091	-2	14,400	9	15,989	17
	Home Help	6,800	32	7,040	3	4,800	105	4,800	25	6,000	75	4,150	57	5,300	5	5,500	34
Farming/Forestry	Safety	31,000	6	30,000	-12	25,000	-9	30,000	0	27,000	-21	35,000	4	30,000	29	35,500	14
	Food Prep	12,000	0	9,600	5	8,000	46	8,000	16	6,901	34	8,000	2	8,000	42	9,480	85
	Health Assits.	13,000	6	14,000	2	13,000	3	13,000	17	14,000	36	15,000	0	12,000	-17	12,200	-11
	Cleaning	15,360	2	12,615	-30	12,000	-17	12,000	-11	11,333	-5	6,000	-21	7,000	-3	9,900	6
	Personal Svcs.	8,237	-4	11,000	-32	3,139	-42	2,065	-60	1,005	-76	4,625	-58	1,810	-37	2,000	-47
Skilled Trades	Farming/Forestry	11,300	-29	10,000	26	8,000	18	6,350	-26	8,000	19	12,000	40	7,800	72	11,200	31
	Mech/Repair	31,392	15	34,000	-4	27,600	1	28,000	-9	30,000	17	23,627	-42	23,000	12	25,000	13
Operators, Laborers	Construction	24,000	-2	20,600	-20	22,875	-25	24,000	-12	21,000	-23	20,000	22	18,000	45	18,000	0
	Skilled Mfg.	28,000	-9	32,000	-1	33,000	2	30,000	-11	33,000	-8	30,500	-4	29,000	-3	15,000	-32
	Textiles	9,960	-3	10,402	-6	12,000	23	10,350	1	10,000	12	10,000	-12	9,000	216	10,000	87
	Mixed Skills	25,000	-11	26,589	4	18,000	11	21,000	-23	25,797	-16	24,565	-21	17,500	-7	20,000	-2
	Machine Oper's	18,500	-10	21,231	6	19,547	14	20,000	-19	23,000	-13	16,856	-11	16,750	23	15,000	5
	Drivers/Loaders	19,000	-21	17,000	-23	16,000	-6	18,732	-27	17,000	-20	17,000	-18	14,900	-13	15,000	-11
TOTAL	\$23,009	12%	\$22,000	7%	\$24,000	17%	\$20,677	1%	\$21,000	20%	\$15,456	-5%	\$15,000	10%	\$17,379	15%	

Source: 1990 PUMS Census Data

Note: Squares around values indicate sample numbers too small to be considered reliable.

**Percent of Workforce With High School Education or Less by Occupation in 1990, and Percent Change
in the Share of the Workforce with High School or Less from 1980 to 1990, by Bay Area County**

	San Francisco			San Mateo			Santa Clara			Alameda			Contra Costa			Napa/Solano		
	Pct. HS	Pct. Chng.	Pct. HS	Pct. HS	Pct. Chng.	Pct. HS	Pct. HS	Pct. Chng.	Pct. HS	Pct. Chng.	Pct. HS	Pct. Chng.	Pct. HS	Pct. Chng.	Pct. HS	Pct. HS	Pct. Chng.	Pct. Chng.
Professionals	11%	-35%	15%	13%	-41%	15%	13%	-39%	15%	-40%	18%	-39%	24%	-21%	24%	15	-3	56
Managers	7	-3	7	4	-39	7	4	-49	7	-45	6	-58	15	-3	15	15	-3	56
Professionals	6	-26	4	7	-46	6	7	42	6	11	5	-4	8	8	8	8	8	56
Teachers	10	-29	13	14	-42	16	14	-40	16	-16	14	-56	18	-35	18	18	-35	-35
Technicians																		
Sales																		
Sales to Business	15	-22	19	19	-33	23	19	-29	23	-22	22	-30	27	-35	27	27	-35	-35
Sales to Public	40	-12	46	48	-12	49	48	-9	49	-9	48	-16	57	-18	57	57	-18	-18
Clerical																		
Admin. Supervision	20	-34	27	25	-23	27	25	-35	27	-34	31	-21	31	-46	31	31	-46	-46
Admin. Support	28	-21	35	34	-30	36	34	-23	36	-21	36	-29	39	-22	39	39	-22	-22
Services																		
Home Help	69	-12	71	67	-7	63	67	-16	63	-17	70	4	83	-10	83	83	-10	-10
Safety	24	-17	25	26	9	27	26	10	27	-19	30	9	28	-8	28	28	-8	-8
Food Preparation	60	-1	67	66	-3	64	66	-2	64	-5	65	-16	69	2	69	69	2	2
Health Assistants	42	-12	40	43	-11	43	43	-2	43	-21	48	-4	47	-16	47	47	-16	-16
Cleaning	72	-4	74	79	1	67	79	-3	67	-6	67	-11	67	-5	67	67	-5	-5
Personal Services	46	-22	37	49	-16	52	49	0	52	-11	50	-14	46	-21	46	46	-21	-21
Farming/Forestry/Fish	46	-4	81	75	30	61	75	5	61	0	62	-7	68	9	68	68	9	9
Skilled Trades																		
Mechanics/Repair	41	-29	40	45	-35	47	45	-21	47	-23	45	-28	47	-32	47	47	-32	-32
Construction	54	-8	59	60	-10	55	60	-10	55	-12	57	-14	58	-3	58	58	-3	-3
Skilled Mfg.	49	-6	45	42	-26	46	42	-19	46	-27	42	-29	42	-19	42	42	-19	-19
Textiles	85	-1	88	74	16	78	74	-2	78	-11	67	-22	69	28	69	69	28	28
Mixed Skills	52	-11	52	58	-25	56	58	-10	56	-9	44	-25	47	-32	47	47	-32	-32
Operators, Laborers																		
Machine Operators	52	-10	62	59	-7	63	59	-17	63	-16	58	-14	56	-10	56	56	-10	-10
Drivers/Loaders	51	-19	64	64	-1	62	64	-9	62	-11	62	-14	63	-19	63	63	-19	-19
TOTAL	27%	-18%	34%	31%	-22%	34%	31%	-25%	34%	-24%	33%	-29%	42%	-18%	42%	42%	-18%	-18%

Source: 1990 PUMS Census Data

Note: Squares around values indicate sample numbers too small to be considered reliable.

Median Earnings by Occupation for Workers with a High School Education or Less by Bay Area County in 1990

	<i>San Francisco</i>	<i>San Mateo</i>	<i>Santa Clara</i>	<i>Alameda</i>	<i>Contra Costa</i>	<i>Solano</i>	<i>Napa</i>	<i>Sonoma</i>	<i>Marin</i>
Managers	\$24,000	\$24,000	\$23,596	\$24,000	\$22,750	\$20,000	\$18,000	\$19,000	\$24,000
Professionals	15,000	17,543	24,000	18,250	17,000	8,600	9,000	10,000	5,578
Teachers	10,987	5,000	8,000	8,424	6,000	14,000	7,795	6,400	8,218
Technicians	24,000	25,000	25,000	23,000	24,000	17,000	21,300	20,500	29,000
Sales to Business	20,000	21,000	22,000	22,000	21,192	19,625	17,000	18,000	19,277
Sales to Public	8,500	8,000	5,931	5,000	5,949	5,000	7,500	6,000	6,796
Admin. Supervision	25,208	26,004	25,500	30,000	25,000	24,000	33,000	21,000	26,250
Admin. Support	19,000	18,000	17,000	16,041	16,000	12,490	12,250	13,500	15,000
Home Help	6,773	6,000	4,250	4,800	5,000	3,750	2,900	5,280	5,160
Safety	15,000	13,500	13,891	15,000	15,000	17,000	37,449	9,000	32,000
Food Preparation	10,800	8,100	7,107	7,252	6,000	5,000	6,364	6,000	7,000
Health Assistants	10,000	14,825	10,150	12,000	10,000	11,000	14,000	8,500	12,000
Cleaning	14,400	12,000	11,040	12,000	9,000	12,000	5,600	6,700	9,120
Personal Services	6,000	4,127	2,000	1,518	400	-	1,400	1,411	2,000
Mechanics/Repair	24,000	30,000	23,000	24,000	25,000	14,000	24,000	21,015	17,800
Construction	20,000	20,000	19,000	20,244	20,000	19,760	19,000	19,500	20,000
Skilled Mfg.	25,000	28,000	28,000	26,000	29,000	31,000	30,500	26,500	16,894
Textiles	9,451	11,750	12,000	10,000	10,000	8,200	10,000	10,760	13,000
Mixed Skills	18,000	22,000	16,000	16,250	24,000	18,150	18,000	14,200	18,000
Machine Operators	16,000	19,000	17,826	20,000	23,000	14,900	16,000	16,000	14,000
Drivers/Loaders	18,000	15,000	15,000	17,452	15,000	15,000	18,541	14,000	12,500
Total	\$15,000	\$15,000	\$15,000	\$15,000	\$14,669	\$12,000	\$12,000	\$12,000	\$13,559

Source: 1990 PUMS Census Data

Note: Squares around values indicate sample numbers too small to be considered reliable.

Percent Commuters by Occupation for Five Bay Area Counties in 1990

	<i>San Francisco</i>	<i>San Mateo</i>	<i>Santa Clara</i>	<i>Alameda</i>	<i>Contra Costa</i>
Professionals					
Managers	53 %	38 %	17 %	35 %	29 %
Professionals	46	50	18	32	36
Law	46	30	19	31	23
Health Professionals	44	30	18	28	24
Teachers	34	25	11	19	21
Technicians					
Health Technicians	40	33	11	23	35
Technicians	56	58	17	32	38
Sales					
Sales to Business	50	32	17	34	22
Sales to Public	33	25	8	17	16
Clerical					
Admin. Supervision	61	39	17	28	23
Admin. Support	44	30	10	22	25
Services					
Home Help	13	13	14	9	22
Safety	53	38	13	32	27
Food Preparation	20	25	7	13	13
Health Assistants	27	29	11	11	16
Cleaning	31	27	11	17	21
Personal Services	28	32	5	12	8
Farming/Forestry/Fish Skilled Trades					
Mechanics/Repair	43	15	6	21	15
Construction	63	44	14	27	28
Skilled Mfg.	54	37	14	32	32
Textiles	55	46	15	29	34
Mixed Skills	15	34	7	17	23
	47	45	11	31	39
Operators, Laborers					
Machine Operators	45	39	10	24	28
Drivers/Loaders	46 %	32 %	11 %	22 %	24 %
TOTAL	44 %	35 %	14 %	26 %	26 %

Source: 1990 PUMS Census Data

Note: Squares around values indicate sample numbers too small to be considered reliable.

Median Education by Occupation for Bay Area Counties in 1990

	<i>San Francisco</i>	<i>San Mateo</i>	<i>Santa Clara</i>	<i>Alameda</i>	<i>Contra Costa</i>	<i>Solano</i>	<i>Napa</i>	<i>Sonoma</i>	<i>Martin</i>
Professionals									
Managers	BA	BA	BA	BA	Assoc. Dg.	Some Coll.	Assoc. Dg.	Assoc. Dg.	BA
Professionals	BA	BA	BA	BA	BA	BA	BA	BA	BA
Law	Prof. Dg.	Prof. Dg.	Prof. Dg.	Prof. Dg.	Prof. Dg.	Prof. Dg.	Prof. Dg.	Prof. Dg.	Prof. Dg.
Health Professionals	BA	BA	BA	BA	BA	BA	BA	BA	MA
Teachers	BA	BA	BA	BA	BA	BA	BA	BA	BA
Technicians									
Health Technicians	Assoc. Dg.	Assoc. Dg.	Assoc. Dg.	Assoc. Dg.	Assoc. Dg.	Some Coll.	Assoc. Dg.	Assoc. Dg.	Assoc. Dg.
Technicians	BA	BA	Assoc. Dg.	Assoc. Dg.	Assoc. Dg.	Some Coll.	Some Coll.	Some Coll.	BA
Sales									
Sales to Business	BA	Assoc. Dg.	Assoc. Dg.	Some Coll.	Assoc. Dg.	Some Coll.	Some Coll.	Some Coll.	BA
Sales to Public	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	High Sch.	High Sch.	Some Coll.	Some Coll.
Clerical									
Admin. Supervision	Assoc. Dg.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.
Admin. Support	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.
Services									
Home Help	High Sch.	11th Grade	High Sch.	High Sch.	High Sch.	High Sch.	10th Grade	High Sch.	High Sch.
Safety	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.
Food Preparation	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.
Health Assistants	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.
Cleaning	High Sch.	High Sch.	11th Grade	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.
Personal Services	Some Coll.	Some Coll.	Some Coll.	High Sch.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.
Farming/Forestry/Fish	Some Coll.	11th Grade	11th Grade	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.
Skilled Trades									
Mechanics/Repair	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	High Sch.	High Sch.	Some Coll.
Construction	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.
Skilled Mfg.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.
Textiles	10th Grade	High Sch.	High Sch.	11th Grade	High Sch.	High Sch.	11th Grade	High Sch.	Some Coll.
Mixed Skills	High Sch.	High Sch.	High Sch.	High Sch.	Some Coll.	High School	Some Coll.	High Sch.	Some Coll.
Operators, Laborers									
Machine Operators	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	Some Coll.
Drivers/Loaders	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.	High Sch.
TOTAL	Assoc. Dg.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.	Some Coll.

Source: 1990 PUMS Census Data

Part-Time Workers (35 Hours or Less per Week) as Percent of Workforce by Occupation for Bay Area Counties in 1990

	<i>San Francisco</i>	<i>San Mateo</i>	<i>Santa Clara</i>	<i>Alameda</i>	<i>Contra Costa</i>
Managers	8%	11%	9%	12%	12%
Professionals	17%	13%	9%	17%	12%
Law	7%	12%	10%	9%	8%
Health Professionals	25%	31%	31%	31%	34%
Teachers	33%	37%	34%	38%	38%
Health Technicians	22%	26%	31%	27%	34%
Technicians	9%	9%	8%	14%	8%
Sales to Business	9%	13%	10%	11%	12%
Sales to Public	37%	42%	48%	48%	50%
Admin. Supervision	7%	6%	6%	6%	2%
Admin. Support	21%	25%	24%	25%	27%
Home Help	47%	50%	49%	63%	59%
Safety	9%	10%	15%	15%	18%
Food Preparation	30%	37%	46%	48%	55%
Health Assistants	31%	32%	30%	30%	35%
Cleaning	18%	20%	24%	28%	34%
Personal Services	36%	42%	45%	46%	42%
Agriculture	23%	14%	23%	27%	29%
Mechanics/Repair	6%	5%	8%	7%	8%
Construction	16%	17%	17%	17%	15%
Skilled Mfg.	7%	5%	4%	5%	7%
Textiles	19%	17%	23%	21%	26%
Mixed Skills	11%	8%	7%	10%	10%
Machine Operators	16%	10%	9%	11%	13%
Drivers/Loaders	22%	21%	24%	20%	26%
TOTAL	17%	19%	17%	21%	22%

Source: 1980 and 1990 PUMS Census Data

Workforce by Percent Female, and Female Median Earnings as Percent of Male Median Earnings, by Occupation in 1990 for Bay Area Counties

Occupation	Contra Costa Cty.			San Francisco			Alameda Cty.			San Mateo Cty.			Santa Clara Cty.			9-County Bay Area		
	Female Wage as			Female Wage as			Female Wage as			Female Wage as			Female Wage as			Female Wage as		
	Percent	Female	of Male	Percent	Female	of Male	Percent	Female	of Male	Percent	Female	of Male	Percent	Female	of Male	Percent	Female	of Male
Managers	46%	60%	46%	73%	46%	63%	42%	66%	44%	56%	45%	62%						
Professionals	39	66	39	70	34	57	34	63	26	65	32	63						
Law	29	81	34	75	30	89	28	91	33	84	31	84						
Health Professionals	69	61	66	82	67	76	67	70	68	57	66	70						
Teachers	77	45	62	73	63	70	75	48	65	55	67	58						
Health Technicians	83	81	62	100	71	86	83	77	76	85	74	88						
Technicians	36	80	39	95	28	77	26	85	28	86	30	84						
Sales to Business	40	57	38	76	34	64	37	70	37	64	37	66						
Sales to Public	62	50	56	69	59	58	58	60	57	70	59	60						
Administrative Supervision	60	75	55	85	56	73	59	73	57	82	57	78						
Administrative Support	80	76	69	95	74	85	72	79	74	90	74	85						
Home Help	98	593	92	175	91	75	94	55	95	127	94	110						
Safety	16	46	13	71	21	64	12	65	19	68	16	65						
Food Preparation	53	75	31	57	48	90	40	83	46	80	45	75						
Health Assistants	86	96	79	53	83	86	86	74	84	108	83	79						
Cleaning	35	60	39	82	37	56	37	56	31	61	36	60						
Personal Services	91	7	67	36	81	30	79	77	79	53	80	38						
Agriculture/Gardening	19	99	24	117	15	16	12	43	18	55	17	50						
Mechanics/Repair	8	57	8	91	7	107	4	80	8	102	7	93						
Construction	3	55	2	75	3	83	2	57	3	87	3	75						
Skilled Manufacturing	13	59	21	82	13	66	10	84	23	85	17	76						
Textiles	61	43	77	60	67	68	60	90	50	84	68	65						
Mixed Skills	26	47	24	58	37	49	27	49	50	89	38	62						
Machine Operators	23	59	31	56	30	68	33	71	39	90	33	76						
Drivers/Loaders	17	60	15	75	14	61	17	73	17	78	16	63						
TOTAL	48%	60%	46%	77%	45%	67%	44%	65%	43%	66%	45%	66%						

Source: 1990 PUMS Census Data

Note: Boxes around data cells indicate sample size too small to be considered reliable.

Median Earnings by Education Level for Three Bay Area Counties in 1990

	<i>San Francisco</i>	<i>Alameda County</i>	<i>Santa Clara County</i>
Less than High School	\$11,560	\$11,000	\$11,233
High School Graduate	\$18,000	\$17,842	\$18,000
Some College	\$23,000	\$21,000	\$23,000
BA	\$28,000	\$27,000	\$34,000
Post-Graduate	\$36,500	\$35,000	\$46,300

Workforce by Education Level, for Three Bay Area Counties in 1990

	<i>San Francisco</i>		<i>Alameda County</i>		<i>Santa Clara County</i>	
	<i>Percent of Workforce in 1990</i>	<i>Percent Pt. Change Since 1980</i>	<i>Percent of Workforce in 1990</i>	<i>Percent Pt. Change Since 1980</i>	<i>Percent of Workforce in 1990</i>	<i>Percent Pt. Change Since 1980</i>
Less than High School	11%	0.00	12%	-0.03	13%	-0.02
High School Graduate	16%	-0.06	22%	-0.07	17%	-0.08
Some College	30%	0.00	35%	0.04	34%	0.01
BA	27%	0.10	19%	0.10	23%	0.12
Post-Graduate	15%	-0.05	12%	-0.04	13%	-0.03

Source: 1980 and 1990 PUMS Census Data

*Appendix. Occupational Categories Used in
this Report, by Standard Occupational Code*

<u>Occupation</u>	<u>SOC Code</u>
Management	3-37
Professionals	43-83, 166-199
Law	178, 179
Health Professionals	84-106
Teachers	113-165
Health Technicians	203-208
Technicians	213-235
Business Sales	243-259
Public Sales	263-285
Administrative Supervisors	303-307
Administrative Support	308-389
Home Help	403-407
Safety	413-427
Food Preparation	433-443
Health Assistants	445-447
Cleaning/Custodial	448-455
Personal Services	456-469
Agriculture/Fishing/Gardening	473-499
Mechanics/Repair	503-549
Construction	553-599, 866, 869
Skilled Manufacturing	613-659
Garment Workers/Textiles	666-674, 738-749
Mixed Precision Skills	675-699
Machine Operators/Laborers	703-799
Drivers/Loaders	803-889