THE
UNIVERSITY-OAKLAND
METROPOLITAN FORUM
SERIES

Working Paper 97-02

COPC: San Francisco's Disappearing Middle: Targeting Good Job Prospects for Less Well-Educated Workers in the City

Elisa Barbour

February 1997

University of California at Berkeley

$9.00

Working Paper 97-02

(formerly COPC 12)

COPC: San Francisco's Disappearing Middle: Targeting Good Job Prospects for Less Well-Educated Workers in the City

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.

University of California at Berkeley
Institute of Urban and Regional Development

Table of Contents

Summary of Findings

This report analyzes the increasing inequality in earnings by occupation in San Francisco from 1980 to 1990, explores the implications of these trends for city workers with less than a college education, and identifies good job opportunities for these workers in terms of job growth, earnings growth, equity and advancement potential.

San Francisco's occupational structure "hollowed out" from 1980 to 1990. There was increasing bifurcation both in terms of job growth and the earnings of city workers. Jobs in the lowest-paid and highest-paid occupations grew, measured by median annual earnings, while the number of jobs in occupations in the middle range was shrinking. In addition, the gap in median earnings between low and high-paying occupations grew wider, and for the city resident portion of the workforce, the gap grew wider still.

Increasing bifurcation in the labor market structure in San Francisco during the 1980's was strongly related to education levels in the workforce. Striking consistencies are evident in trends in job growth and shifts in the earnings distribution from 1980 to 1990, when measured by the level of education of workers.

Job and earnings losses were acute from 1980 to 1990 for workers with a high school degree, the mid-range of the occupational distribution measured in terms of education levels. In contrast, jobs *increased* for workers with *less* than a high school degree. This was in spite of the fact that the share of adult city residents with less than a high school degree declined. In other words, trends in the job structure did not match trends in the city population; jobs became more bifurcated by education level, while the adult population became more educated.

The divide between a high school degree and some college education appears to be a critical one in the San Francisco workforce, since the dismal trends described above reverse for workers with some college education, whose position in terms of earnings and job growth remained stable during the decade. In turn, workers with college degrees saw very strong growth in earnings and jobs, the mirror image of the situation for workers with high school degrees.

In such an economic climate, targeting jobs with good long-term potential for workers with lower education levels becomes especially important for planners and activists. According to measures including projected job growth, earnings growth, and earnings equity by education, race/ethnicity, and gender, the occupations with the best prospects overall for workers with a high school education or less in San Francisco include clerical work, construction, sales to business, management, driving/loading, safety, and cleaning/custodial work.

Trends in clerical work are especially significant. In terms of the sheer number of jobs available with relatively high earnings for workers in San Francisco with a high school

degree or less in 1990, no other occupation comes close to clerical work. Clerical jobs make up nearly one in five of *all* jobs in the city. Clerical workers are at the median for all workers not only in terms of earnings but also education levels.

For workers with a high school degree or less, clerical work is by far the largest category of employment. Median clerical earnings were higher than the overall median for this education level. Furthermore, clerical work was one of only three occupations in which inflation-adjusted earnings increased from 1980 to 1990 for workers with a high school degree or less.

From 1980 to 1990, nearly 30,000 clerical jobs were lost from San Francisco, or nearly a quarter of clerical jobs. This loss of clerical employment is a primary cause of the trends spelled out in this report. The "disappearing middle" of San Francisco's occupational economy is in no small part the result of disappearing clerical work. Given that clerical work has the highest median annual earnings of any occupation studied in the city for women with a high school education or less, and that families increasingly rely on women's earnings as jobs in manufacturing decline, clerical trends take on even greater significance.

An analysis of job growth in the other eight counties in the Bay Area indicates that the loss of clerical jobs from San Francisco during the 1980's was due in part to downsizing by firms. This is suggested by the fact that most other Bay Area counties also lost share in clerical jobs from 1980 to 1990.

However, the rate of loss in the share of clerical jobs in San Francisco was at least twice as high as for any other county in the region. And while the share of clerical jobs in most counties decreased from 1980 to 1990, the actual numbers of clerical jobs increased in all counties except San Francisco. Over 45,000 new clerical jobs were added in the rest of the region. Clerical earnings also increased more rapidly in most other Bay Area counties from 1980 to 1990 than in San Francisco.

These findings suggest that San Francisco's hemmorhage of clerical jobs during the 1980's was not only due to downsizing but also to the movement of jobs from the city to nearby counties. Marin and San Mateo Counties, the closest to San Francisco, were the counties where clerical earnings increased the most rapidly in the region, and faster than overall median earnings, suggesting wage pressure.

Part 1.
The Disappearing Middle

This report analyzes trends from 1980 to 1990 in job and earnings growth by education and occupation for the San Francisco workforce. Findings are based on data from the US Census 5% PUMS sample (Public Use Microdata Sample). The San Francisco workforce is defined to include all city residents over age sixteen who worked in the city at the time of the census, as well as all commuters from the nine-county Bay Area who worked in San Francisco. Comparisons of earnings between the census years are adjusted for inflation. For more information on the methodology used in this study, refer to page 18.

Education Levels Among San Francisco's Workers in 1990

According to the 1990 census, there were approximately 560,000 people working in San Francisco. City residents comprised 55% of the workforce, while commuters made up the other 45%.

Twenty-seven percent of workers in San Francisco in 1990 had a high school degree or less, while 31% had some college education, and the remaining 42% had a BA or more.

The workforce was better educated on average than the adult city resident population. Among city residents over the age of sixteen in 1990, 41% had a high school education or less (22% had not obtained a high school degree, while 19% had a high school diploma). Another 26% of adult city residents had some college education, while the remaining 32% had a BA or more.

See Appendix 1, Tables 1-3 for more information on the workforce and resident population by education levels.

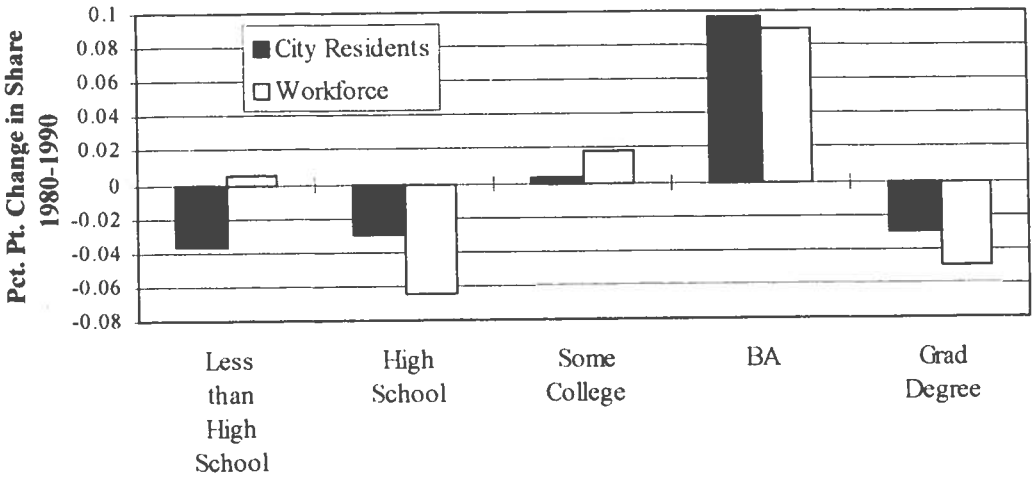
Job Growth by Education Level from 1980 to 1990

From 1980 to 1990 education levels increased overall within the adult resident population of the city. The trend in the city *workforce* was different, however. Jobs became more bifurcated by education level. As a result, there were significantly fewer jobs for city residents with a high school degree in 1990 than in 1980.

Adult city residents were more educated in 1990 than in 1980, measured in absolute and relative terms. As the graph on the following page shows, the share of the adult resident

population that had not completed high school decreased over the decade, as did the share of adult residents with a high school degree. Meanwhile the share with some college education remained the same, and the share with a BA increased significantly. The share with a graduate degree declined, the only counter to the trend just described.

Graph 1. Percent Point Change in Share from 1980 to 1990 by Education Level Compared for the San Francisco Adult Resident Population and the San Francisco Workforce



Was this trend the result of more educated people moving to the city, while the numbers of less educated residents remained the same? The answer is no; the city adult resident population was more educated in 1990 in absolute as well as relative terms compared with 1980. Specifically, the number of adult residents with a high school degree or less declined by over 20,000 from 1980 to 1990, while the number of residents with at least some college education increased by over 62,000. The most significant increase was in the number of city residents with a college education - it doubled.

As Graph 1 above demonstrates, the city workforce *did not follow the same trend* as the adult resident population, in terms of comparing education levels in 1990 with those in 1980 within the group. For example, the share of jobs held by workers with less than a high school education actually *increased* slightly in spite of the fact that the share of the adult city resident population with this level of education *declined*. The share of jobs held by workers with a high school degree declined more than twice as fast as the share of adult residents with the same education level.

In terms of absolute numbers, nearly 36,000 jobs held by workers with a high school degree in 1980 were gone by 1990, or 28% of all jobs held by workers with a high school degree. The number of adult city residents with a high school degree also declined over the period by 9,000, or not nearly as much. as much. As a result, job opportunities for

workers with a high school degree were constricted by over 20,000 jobs relative to the number of adult city residents with this education level.

Meanwhile, the share of jobs in the city for workers with some college education increased by 2 percent points, while the share of adult city residents with this education level remained steady. In contrast to this stable situation, the share of jobs held by college graduates increased significantly, by nearly as much as the share of the adult resident population with a college degree. For workers with graduate degrees, the share of jobs decreased by 5 percent points, while the share of adult city residents with graduate degrees decreased by 3 percent points. For complete data on job growth by education level, see Appendix 1, Table 1.

These findings paint a picture of bifurcation in San Francisco's occupational structure based on different levels of job growth for workers with different education levels. These trends were especially severe in services, precision skills, and sales.

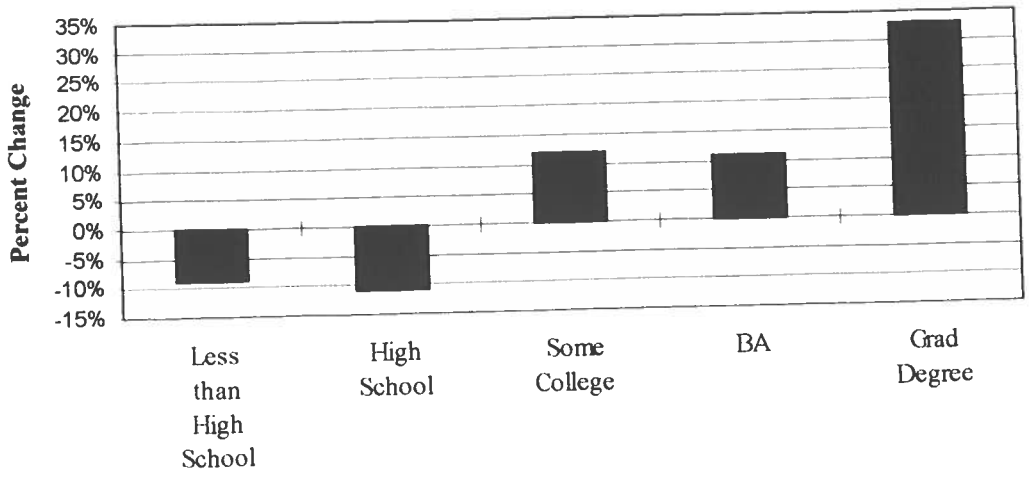
Jobs decreased for workers with a high school degree in every occupation except construction work and garment work. In contrast, jobs increased for workers with less than a high school degree in the following occupations: health assistants, sales to business, management, food preparation, cleaning/custodial, personal services, construction, garment work, mixed precision skills, and machine operation. Jobs were lost for workers with less than high school in public sales, administrative support, safety, mechanics/repair, skilled manufacturing, and driving/loading. For complete data on these trends by occupation, see Appendix 1, Tables 4-6.

Trends in Earnings by Education Level from 1980 to 1990

Education was highly correlated with earnings in the San Francisco workforce in 1990. The median annual wage or salary earnings of workers with a high school education or less in San Francisco was $15,000, while for workers with some college education, median earnings were $22,000, which was also the overall median for the entire workforce. Median earnings for workers with a BA or higher were $30,000.

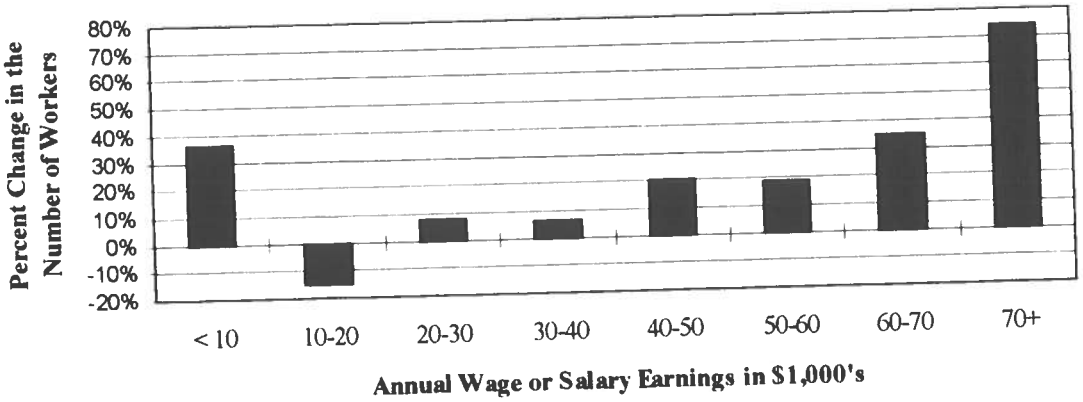
Earnings trends by education level present an especially stark picture of bifurcation from 1980 to 1990. As the graph on the following page indicates, median annual wage or salary earnings, adjusted for inflation, decreased for workers with a high school degree or less, and increased for everyone else. Growth in earnings (negative or positive) was closely related to education levels.

Graph 2. Percent Change in Adjusted Median Earnings from 1980 to 1990 for San Francisco Workers by Education Level



As the graph below demonstrates, the shift in the earnings distribution for the San Francisco workforce from 1980 to 1990 mirrors the trend in job growth: the middle hollowed out while the upper and lower ends of the distribution grew larger. This was the result of the trend in earnings described above.

Graph 3. Percent Change in the Number of Workers by Wage and Salary Earnings Level in San Francisco from 1980 to 1990

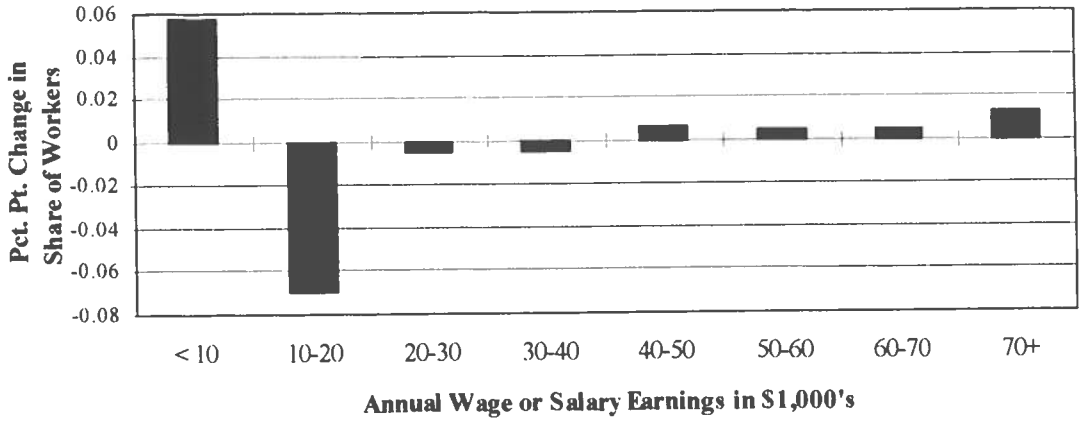


As the graph demonstrates, the number of workers in the lowest earnings category, those making less than $10,000 in wage or salary earnings annually, increased by over one-third from 1980 to 1990. The number of workers with a high school degree or less that fell into this category *more than doubled*. In contrast, the number of workers making between $10,000 and $20,000 decreased by 15% from 1980 to 1990. Above the $20,000 level, the numbers increase more and more rapidly with each level of wage and salary earnings.

Complete data on the trends in the earnings distribution by education level is presented in Appendix 1, Table 7 and Graph 1.

The following graph shows the *relative* shift in the earnings distribution from 1980 to 1990, in other words, the change in the share of the workforce by income level (as opposed to the percent change in the absolute numbers of workers). From this perspective, the bifurcation trend is even more dramatic. Since there are more workers in the lower income categories, shifts in their earnings have a greater effect on relative shares of the workforce, as revealed below.

Graph 4. Percent Point Change in the Share of Workers by Wage and Salary Earnings Levels in San Francisco from 1980 to 1990

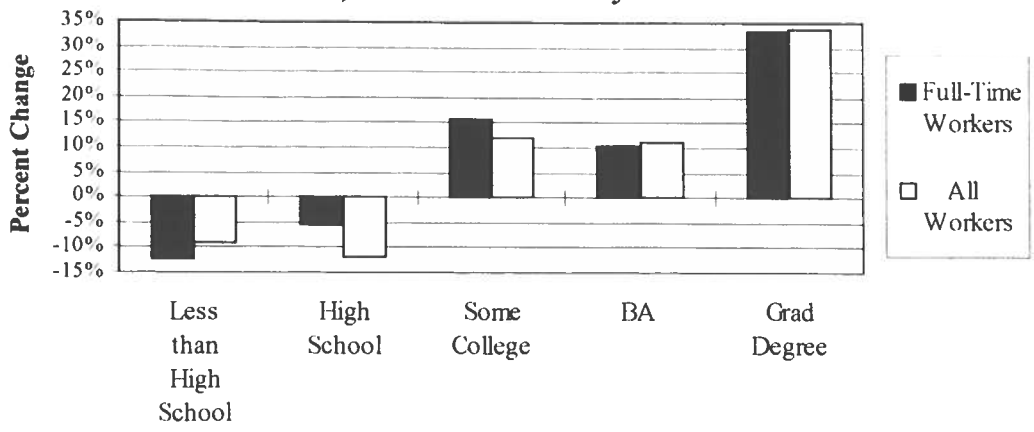


Turning to an analysis by occupation, trends in earnings parallel trends in job growth. Median wage and salary earnings increased for workers with some college education or higher, and decreased for less well-educated workers, in every broad occupational category except two: clerical jobs and sales to business. Earnings declined the most rapidly for workers with a high school degree or less in precision skills, operator/laborer occupations, and health occupations. Data on these findings is presented in Appendix 1, Table 8.

To what degree were these trends in earnings affected by shifts in the average number of hours worked? In other words, can these trends be explained at least partly as the result of an increase in part-time work among less well educated workers, which would result in lower earnings?

As the graph on the following page reveals, controlling for hours worked does make a difference, but the trend toward a bifurcation in earnings by education level is still clearly evident even among full-time workers (those who work 35 hours or more each week.)

Graph 5. Percent Change in Adjusted Median Earnings from 1980 to 1990 for All Workers and Only Full-time Workers (35 Hours or More) in San Francisco by Education Level



For the least well educated workers, the drop in real median earnings is even *more pronounced* among those who work full time. Therefore, the shift in the earnings distribution cannot be attributed to a shift in hours worked by education level in San Francisco from 1980 to 1990.

Part 2.
Targeting Good Job Prospects for Workers with a High School Degree or Less

In order to design effective job development programs, planners and activists need to know which jobs are most likely to provide long-term potential for workers in terms of job growth, good wages, and advancement potential. Job prospects for less well educated workers in San Francisco were evaluated by comparing the following characteristics of jobs by occupation for the workers in each occupation with a high school level education or less: the number of jobs in 1990, annual wage or salary earnings in 1990, growth in jobs and earnings from 1980 to 1990, projections for job growth by the year 2000, the probability that workers have earnings above the median for the occupation, the probability that workers in the occupation earn more than $23,000 (the city-wide earnings median for all workers), the representation of people of color and women in the occupation, and the median earnings of people of color and women as a percent of Anglo or male earnings.

By these measures, occupations with the best overall prospects for workers in San Francisco with a high school education or less include clerical work, construction, sales to business, management, driving/loading, safety, and cleaning/custodial work. None of these occupations ranks high on every measure, but in an overall evaluation, they are the most consistently positive. Occupations which have demonstrated growth in both earnings and in the number of jobs are especially highlighted.

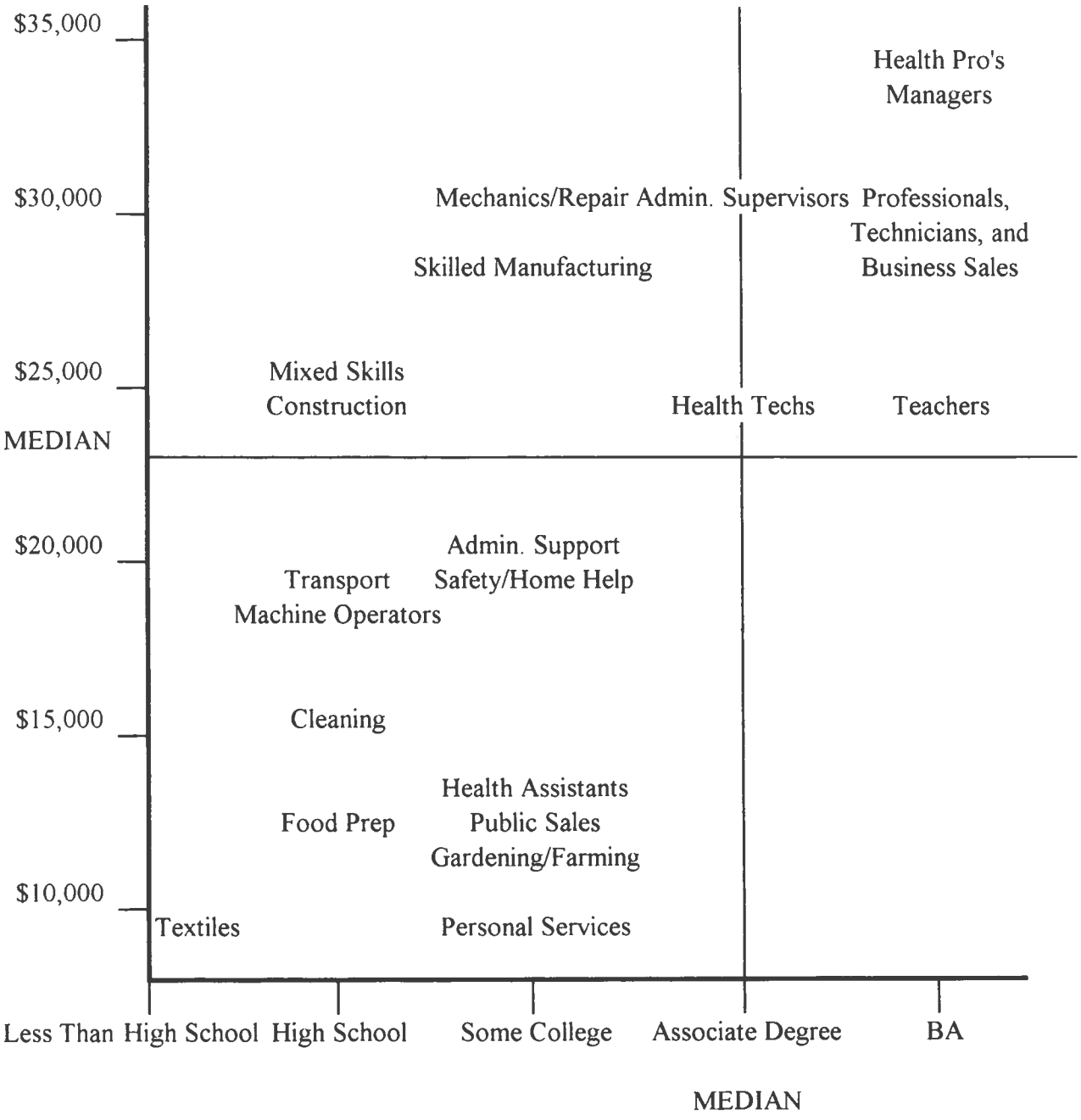
The graph on the following page provides a visual summary of median earnings by median education level for major occupations in San Francisco. On the following page, a matrix of major trends by occupation for workers with a high school degree or less is presented. All findings in this part of the report are based on data presented in Appendix 2, Major Indicators Tables 1-5.

Clerical Work: In a Category All Its Own

In terms of the sheer number of jobs available with relatively high earnings for workers in San Francisco with a high school degree or less in 1990, no other occupation comes close to clerical work. The graph on page 12 shows clerical work "heads above" other occupations according to these measures. However, a massive loss of clerical jobs from the city during the 1980's puts a damper on employment prospects in this field.

Clerical jobs make up nearly one in five of all jobs in the city, and clerical workers are at the median not only in terms of earnings but also education levels in terms of the number of jobs at a relatively high wage The loss of clerical employment from the city is a primary cause of the trends spelled out earlier in this report. The "disappearing middle" of San

Graph 6. Median Annual Earnings by Median Education Level for Major Occupations in San Francisco in 1990



Matrix of Major Trends by Occupation from 1980 to 1990 for Workers in San Francisco with a High School Education or Less

HIGH WAGE JOBS

Change in Real Earnings from 1980 to 1990

Change in the Number of Jobs from 1980 to 1990	*Job*	*Growth*	*Decline*
	Growth		Construction
	Decline in Jobs	Business Sales	Administrative Supervision Skilled Manufacturing Managers Mechanics/Repair Technicians

MID-WAGE JOBS

Change in Real Earnings from 1980 to 1990

Change in the Number of Jobs from 1980 to 1990	*Job*	*Growth*	*Decline*
	Growth		Mixed Skills Cleaning
	Decline in Jobs	Administrative Support	Driver/Loaders Machine Operators Professionals

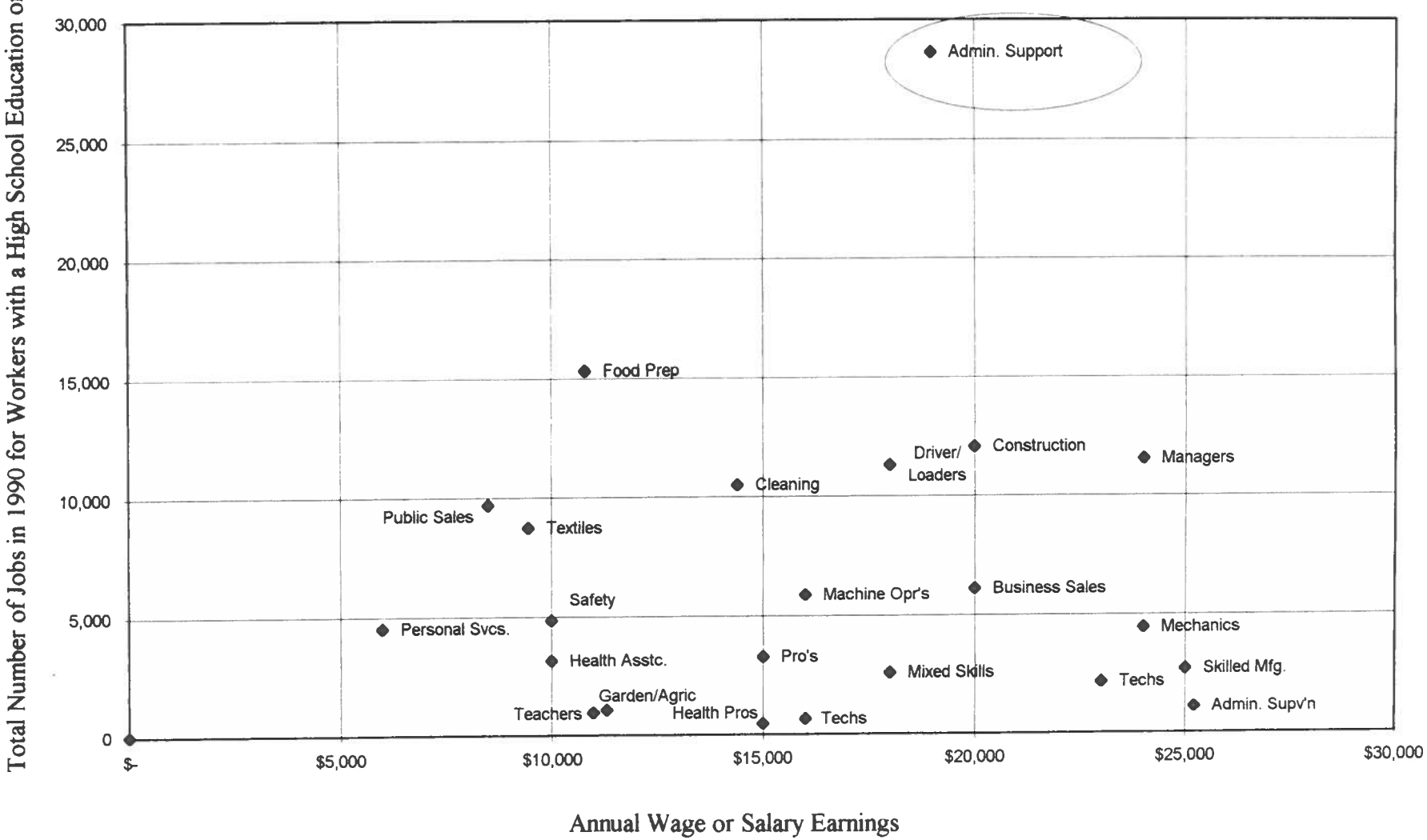
LOW WAGE JOBS

Change in Real Earnings from 1980 to 1990

Change in the Number of Jobs from 1980 to 1990	*Job*	*Growth*	*Decline*
	Growth		Food Preparation Garment Workers Health Assistants
	Decline in Jobs	Safety/Home Help Farming/Garden/Fishing	Public Sales Personal Services

Source: 1980 and 1990 PUMS Census Data

Graph 7. Median Annual Earnings and Total Number of Jobs by Occupation for Workers with a High School Education or Less in San Francisco in 1990



Francisco's occupational economy from 1980 to 1990 is in no small part the result of disappearing clerical work. Nearly 30,000 clerical jobs were lost from 1980 to 1990, or nearly a quarter of clerical jobs in the city.

Given that clerical work has the highest median annual earnings of any occupation studied in the city for women with a high school education or less, and that families increasingly rely on women's earnings as jobs in manufacturing decline, clerical trends take on even greater significance.

Clerical work is by far the largest category of employment for workers with a high school degree or less in the city. Twenty percent of all city workers with a high school degree or less, or 29,000 workers, held clerical positions in 1990. There were more than 100,000 clerical workers of all education levels in the city that year. Nearly one-third (31%) were men.

Median earnings for clerical workers with a high school degree or less in 1990 were $19,000, higher than the median for all workers with this education level ($15,000). Clerical work was one of only three occupations in which inflation-adjusted earnings increased from 1980 to 1990 for workers with a high school degree or less.

Earnings levels of clerical workers are more evenly distributed by education level than for any other occupation in the city. However, the opportunity to make significantly higher earnings is limited in the clerical field.

Clerical work offers the greatest parity between male and female earnings of all occupations except home help, as well as the greatest parity between earnings by racial and ethnic group.

Most other Bay Area counties, like San Francisco, lost share in clerical jobs from 1980 to 1990. This indicates that the loss of clerical jobs from the city during the 1980's was due at least in part to downsizing by firms. However, the rate of loss in the share of clerical jobs in San Francisco was about twice the rate in San Mateo, Santa Clara, and Alameda Counties, and three times the rate in Contra Costa, Solano, Napa, and Marin Counties. The share of clerical workers in Sonoma County actually increased over the period.[1]

While the share of clerical jobs in most counties decreased from 1980 to 1990, the actual numbers of clerical jobs increased in all counties except San Francisco. Over 45,000 new clerical jobs were added in the rest of the region from 1980 to 1990.

While clerical earnings were higher in San Francisco in 1990 than in any other county, clerical earnings increased more rapidly in most other counties from 1980 to 1990.

These findings suggest that San Francisco's hemmorhage of clerical jobs during the 1980's was due in part to the movement of jobs from the city to nearby counties. Marin and San

[1] from data included in County Data Book, by Elisa Barbour, BACOPC Document #11, February 1997.

Mateo Counties, the closest to San Francisco, were the counties where clerical earnings increased the most rapidly in the region, and faster than overall median earnings, suggesting wage pressure.

Two other notable trends in clerical job growth by county over the 1980's were the large gain of over 15,000 clerical jobs in Contra Costa County, and the increase in the share of clerical jobs in Sonoma County, the only county with a gain in share. These outlying suburban areas are prime candidates for "back-officing" clerical functions, since median clerical earnings in these counties are among the lowest in the region.

In spite of job losses, the sheer number of clerical jobs in San Francisco, the good earnings picture, and the earnings parity across education, race/ethnic, and gender lines make clerical work a prime candidate for consideration by community job developers.

Given the size of the clerical occupational category, it is important to analyze trends in the more specific clerical categories that make it up. Employing the same measures outlined above, the best clerical opportunities for workers with a high school degree or less are: secretarial, mail occupations, adjusters and investigators, and material recording and scheduling.

Of the eleven clerical sub-categories studied, only three did not lose jobs from 1980 to 1990: information clerks (which increased by a whopping 47%), mail occupations, and adjusters and investigators. Material recording and scheduling jobs increased dramatically for workers with some college education, by 79%

Median earnings for mail and adjuster/investigator positions were high in 1990 for workers with a high school degree or less, at $27,000 and $20,000 respectively. Median adjusted earnings for adjuster/investigators increased by 11% from 1980 to 1990, the largest increase for any clerical category. Mail work is notable as the most diverse clerical category by far in terms of race and ethnicity.

Secretarial positions form the single largest clerical category, with nearly 25,000 jobs in 1990. Adjusted median earnings increased by 10% from 1980 to 1990 for secretaries with a high school degree or less. Unfortunately, as many jobs were lost as remained from 1980 to 1990 for secretaries with a high school degree or less in the city.

Median earnings for material recording and scheduling jobs held by workers with a high school degree or less were $18,000 in 1990. This clerical category was among the few with a majority of male employees in 1990 (60%). The number of material recording and scheduling jobs held by workers with some college education increased dramatically from 1980 to 1990, as has already been noted.

Construction

In 1990 there were over 12,000 construction workers with a high school degree or less in San Francisco. Construction work paid well and had a good record of job growth for workers with a high school degree or less.

Median earnings of construction workers with a high school degree or less were $20,000, and earnings were fairly equitably distributed by education level. The growth rate in construction jobs over the 1980's was among the highest for any occupation, with a total of 5,000 new jobs added over the decade. Projected job growth until the end of the decade is expected to be highest for helpers, masons, painters, and carpenters.

A discouraging trend in construction was the loss in adjusted median wage and salary earnings of 22% from 1980 to 1990. In sharp contrast, earnings in construction for workers with some college education increased by 59%.

While overall, 45% of the city workforce is made up of people of color, 41% of construction workers are people of color. While overall, median earnings of workers of color are 68% of Anglo earnings, median earnings of construction workers of color are only 60% of Anglo earnings.

Construction work, like other skilled and craft work in the city, is not well-represented by city residents compared with commuters. Only 44% of construction workers that worked in San Francisco in 1990 also lived in the city. (Overall, 55% of city workers live in the city, while 45% of the workforce is made up of commuters.) From 1980 to 1990 there was a 7 percent point drop in the share of construction workers that lived in the city, a larger decrease than for any other occupation. (Overall, there was no change in the ratio of commuters to city residents from 1980 to 1990.)

Sales to Business

Sales to business includes finance, wholesale, and manufacturing sales representatives, and business services such as advertising, real estate and insurance. While it is not among the largest categories of employment for workers with a high school degree or less in the city, it is one of the largest occupational categories for all workers, with high earnings and growth potential.

It is an attractive option for workers with a high school degree or less because median earnings increased by 6% from 1980 to 1990 for business sales representatives with this education level, and this earnings increase was not matched by any other occupation studied. Earnings in business sales were relatively high to begin with. Median earnings for business sales representatives with a high school degree or less were $20,000 in 1990.

A discouraging note was the loss of 11% of business sales jobs over the 1980's for workers with a high school degree or less. However, this rate of loss is actually *less* than the overall rate for workers with this education level. In contrast, jobs for business sales representatives with some college education increased by 11%.

People of color are very poorly represented in business sales. In fact, *there is no other occupation in the city in which people of color are less well represented.* While 45% of all workers city-wide were people of color in 1990, only 25% of business sales representatives were people of color.

Management

In 1990 there were 11,536 managers in San Francisco with a high school degree or less. Their median earnings were $24,000, among the highest for any occupation. Earnings parity by education levels was quite high; while 11% of all managers had a high school degree or less, 10% of managers with earnings above the occupational median had a high school degree or less. Furthermore, 90% of managers with a high school degree or less worked full-time in 1990, among the highest rates for any occupation.

Unfortunately, over 4,000 management jobs held by workers with a high school degree or less were lost from 1980 to 1990, or more than a quarter of these jobs. Furthermore, adjusted median earnings declined by 16% over the period.

People of color were not well represented in management in 1990. While 65% of all workers with a high school degree or less were people of color, only 43% of managers with this education level were people of color. Women, however, were better-represented in management jobs. While women made up 45% of the entire workforce, they made up 46% of all managers, and 47% of those with a high school education or less.

Job growth till the end of the decade is projected to be strong especially for service, sales, and "staff" management positions.

Two-thirds of managers with a high school degree or less were concentrated in services, FIRE, and retail in 1990. Median earnings in FIRE and services were especially high, at $25,000. The other large management category - retail trade - was well represented by people of color. Unfortunately, median earnings were also the lowest among all management categories.

Driving/Loading Jobs

Half of all driving/loading jobs, or more than 11,000 jobs, were held by workers with a high school degree or less in 1990 in San Francisco. Median earnings were relatively high, at $18,000, and earnings parity by education levels was fairly high.

People of color were well-represented in driving/loading, especially among workers with higher education levels. Median earnings of drivers/loaders of color were higher in relation to Anglo earnings for workers with higher education levels, as well.

From 1980 to 1990 nearly 3,000 jobs, comprising 20% of the jobs held by driver/loaders with a high school education or less, were lost. Therefore, in spite of good job projections overall for driving/loading, the outlook for driver/loaders with high school or less may not be as good. Another discouraging trend was the loss in adjusted median earnings of 30% for these workers from 1980 to 1990.

Safety

Only about 2,000 workers with a high school degree or less held safety positions in 1990. However, this occupation is notable because of very high projected growth rates by the turn of the century.

Median earnings in 1990 for safety workers with a high school degree or less were $15,000, equal to the overall median for all workers with this education level. Median earnings decreased by 12% from 1980 to 1990.

People of color were well-represented in safety jobs in 1990, but women were poorly represented. Median earnings of safety workers of color were 82% of Anglo earnings, a high ratio relative to other occupations. Earnings parity by education level is very poor in the safety occupations, however.

Cleaning/Custodial Jobs

Over 10,000 workers with a high school education or less held cleaning/custodial positions in 1990 in San Francisco. Their median earnings were $14,400, slightly lower than the overall median earnings of workers with this education level. Median earnings decreased by 5% from 1980 to 1990.

What makes this occupation notable is a high projected job growth rate. Only a few other occupations have higher projected growth rates, including food preparation and sales to the public. However, they don't pay as well for workers with a high school degree or less.

Methodology

Findings in this report are based on data from the U.S. Census 5% PUMS Sample (Public Use Microdata Sample). Other sources for information on job projections include the State Employment Development Department's Occupational Projections, and DRI/McGraw-Hill's 1992 report, Economic and Occupational Forecasts for the Bay Area.

The San Francisco workforce was constructed from all sample respondents in the nine-county Bay Area who worked in the city at the time of the census. That includes commuters and city residents who work in the city, but excludes city residents who work outside the city.

Occupations are based on groups of Standard Occupational Codes listed on the following page. Annual wage and salary earnings, when compared between census years, were adjusted for inflation, using 1983 as the base year.

Sample numbers from 1980 were weighted by a factor of 1.22 to match the size of the workforce as reported by EDD that year. The 1980 Census sampling design had some limitations which may have resulted in less reliable sample numbers that year.

As a result of this shortcoming, comparisons of *absolute* numbers between census years (for example percent changes in the number of jobs) should be treated with some caution. *Relative* measures of comparison are unaffected by this data limitation, however, and are therefore reliable. Relative measures used in comparisons include median earnings, and percent point change in the share of workers by education level or other category.

Occupational Categories Used in this Report, by Standard Occupational Code

Occupation	*SOC Code*
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

Appendix 1.

Table 1. Comparison of the San Francisco Adult Population and the San Francisco Workforce by Education Level

	City Adult Resident Population						City Workforce			
	Number of City Residents Over 16 in 1990	Percent	Change Since 1980	Percent Change Since 1980	Pct. Point Change	SF Workforce in 1990	Percent	Change Since 1980	Percent Change Since 1980	Pct. Point Change
Less than H.S.	135,061	22%	(11,499)	-8%	-4%	63,429	11%	3,035	5%	0%
High School	116,836	19%	(8,924)	-7%	-3%	89,404	16%	(35,680)	-29%	-7%
Some College	159,398	26%	11,518	8%	0%	171,460	31%	10,541	7%	2%
BA	129,154	21%	63,514	97%	10%	151,750	27%	52,591	53%	9%
Graduate Degree	71,061	12%	(12,699)	-15%	-3%	86,386	15%	(26,492)	-23%	-5%
TOTAL	611,510	100%	41,910	7%	0%	562,429	100%	3,996	1%	0%

Table 2. San Francisco Adult Population by Employment Status and Education

	Less than High School			High School Grad			Some College		
	No. in 1990	Percent	Pct. Pt. Change 1980-90	No. in 1990	Percent	Pct. Pt. Change 1980-90	No. in 1990	Percent	Pct. Pt. Change 1980-90
Employed	52,676	39%	2%	59,997	52%	-5%	110,506	70%	2%
Unemployed	7,364	5%	1%	6,174	5%	1%	7,106	4%	0%
Not in Labor Force	74,892	56%	-3%	48,989	43%	4%	40,308	26%	-2%
Total	134,932	100%	0%	115,160	100%	0%	157,920	100%	0%

	BA			Graduate Degree			Total		
	No. in 1990	Percent	Pct. Pt. Change 1980-90	No. in 1990	Percent	Pct. Pt. Change 1980-90	No. in 1990	Percent	Pct. Pt. Change 1980-90
Employed	102,517	80%	0%	58,258	83%	3%	383,954	64%	3%
Unemployed	3,828	3%	0%	1,493	2%	-1%	25,965	4%	0%
Not in Labor Force	22,188	17%	0%	10,709	15%	-2%	197,086	32%	-3%
Total	128,533	100%	0%	70,460	100%	0%	607,005	100%	0%

Table 3. San Francisco Residents who Work by Education Level and Work Location

	Less than H.S.	High School	Some College	BA	Grad Degree	Total
Works in the city	83%	83%	82%	79%	78%	81%
Works elsewhere	17%	17%	18%	21%	22%	19%

Table 4. Percent Job Growth from 1980 to 1990 by Occupation and Education in San Francisco

	Less than High School	*High School*	*Some College*	*BA*	*Grad School*	*Total*
Management	26%	-35%	22%	52%	-17%	12%
Professionals	102%	-28%	11%	75%	-28%	10%
Law	na	[-82%]	[-82%]	45%	29%	27%
Teachers	[-35%]	32%	57%	142%	-30%	6%
Technicians	[60%]	-14%	5%	122%	-17%	28%
All Professional/Mgt.	***35%***	***-30%***	***18%***	***68%***	***-16%***	***13%***
Health Pros	[-15%]	[-58%]	17%	59%	-6%	8%
Health Techs	[-64%]	[-50%]	97%	15%	-34%	4%
Health Assistants	57%	-13%	43%	156%	-35%	24%
All Health	***13%***	***-32%***	***42%***	***52%***	***-11%***	***11%***
Sales to Business	16%	-21%	3%	64%	-19%	14%
Sales to Public	-2%	-6%	17%	69%	-42%	8%
All Sales	***3%***	***-13%***	***9%***	***65%***	***-24%***	***12%***
Admin. Supervision	[-17%]	-72%	-42%	-8%	[-78%]	-50%
Admin. Support	-24%	-42%	-15%	14%	-55%	-22%
All Clerical	***-24%***	***-44%***	***-17%***	***12%***	***-58%***	***-24%***
Home Help	0%	-1%	114%	123%	-92%	13%
Safety	-37%	-8%	-3%	70%	-43%	-1%
Food Prep	24%	-17%	5%	28%	-35%	4%
Cleaning	4%	-10%	22%	54%	[-77%]	1%
Personal Services	13%	-20%	42%	206%	[-31%]	18%
All Services	***11%***	***-14%***	***13%***	***68%***	***-47%***	***5%***
Mechanics/Repair	-23%	-31%	33%	244%	[-44%]	0%
Construction	44%	6%	52%	72%	-14%	32%
Skilled Manuf'ing	-12%	-36%	2%	-22%	[-65%]	-22%
Textiles	15%	23%	42%	[1%]	[-33%]	18%
Mixed Precision	66%	-13%	68%	52%	[-46%]	25%
All Precision	***19%***	***-11%***	***40%***	***55%***	***-39%***	***13%***
Machine Operators	15%	-31%	14%	38%	[-60%]	-2%
Drivers/Loaders	-17%	-24%	25%	86%	[-43%]	-3%
All Operators/Laborers	***-7%***	***-26%***	***21%***	***62%***	***-50%***	***-3%***
Farm/Garden	-6%	[-30%]	17%	[89%]	[-92%]	-10%
Total	***5%***	***-28%***	***7%***	***54%***	***-23%***	***1%***

Source: 1980 and 1990 PUMS 5% Sample from the US Census
Note: Boxes around data values indicate sample numbers too small to be considered reliable.

Table 5. 1990 San Francisco Workforce by Occupation and Education

	Less than High School	*High School*	*Some College*	*BA*	*Grad School*	*Total*
Admin Supervision	243	875	2,379	1,703	436	5,636
Admin Support	6,352	22,306	44,282	23,085	4,805	100,830
All Clerical	***6,595***	***23,181***	***46,661***	***24,788***	***5,241***	***106,466***
Sales to Business	1,861	4,255	11,719	17,342	5,164	40,341
Sales to Public	3,815	5,898	8,528	4,623	1,256	24,120
All Sales	***5,676***	***10,153***	***20,247***	***21,965***	***6,420***	***64,461***
Professionals	984	2,314	9,719	21,965	14,293	49,275
Law	-	26	26	921	12,571	13,544
Management	2,775	8,761	29,790	43,637	22,633	107,596
Teachers	189	774	2,074	6,150	8,127	17,314
Tech	470	1,392	5,308	7,483	2,540	17,193
All Professional/Mgt.	***4,418***	***13,267***	***46,917***	***80,156***	***60,164***	***204,922***
Cleaning	6,170	4,340	3,101	752	137	14,500
Food Preparation	9,424	5,902	6,963	2,381	698	25,368
Personal Service	2,096	2,431	3,471	1,494	335	9,827
Safety/Home Help	2,275	2,583	5,036	2,588	573	13,055
All Services	***19,965***	***15,256***	***18,571***	***7,215***	***1,743***	***62,750***
Health Assistants	1,460	1,702	2,932	874	473	7,441
Health Pros	124	350	3,532	5,343	8,947	18,296
Health Techs	178	492	2,598	1,739	908	5,915
All Health	***1,762***	***2,544***	***9,062***	***7,956***	***10,328***	***31,652***
Machine Operators	3,142	2,738	3,515	1,680	236	11,311
Drivers/Loaders	5,136	6,169	7,986	2,362	477	22,130
All Operators/Laborers	***8,278***	***8,907***	***11,501***	***4,042***	***713***	***33,441***
Mixed Precision	1,216	1,401	1,719	593	186	5,115
Skilled Manuf'ing	1,119	1,594	1,950	683	204	5,550
Textiles	6,593	2,161	1,113	296	98	10,261
Construction	5,429	6,622	7,577	2,187	668	22,483
Mechanics/Repair	1,345	3,111	4,882	1,175	330	10,843
All Skilled	***15,702***	***14,889***	***17,241***	***4,934***	***1,486***	***54,252***
Farm/Agric/Garden	***732***	***340***	***803***	***370***	***33***	***2,278***
Total	***63,128***	***88,537***	***171,003***	***151,426***	***86,128***	***560,222***

Source: 1980 and 1990 PUMS 5% Sample from the US Census

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

Table 6. Percent of 1990 San Francisco Workforce by Occupation and Education

	Less than High School	*High School*	*Some College*	*BA*	*Grad School*	*Total*
Admin Supervision	4%	16%	42%	30%	8%	100%
Admin. Support	6%	22%	44%	23%	5%	100%
All Clerical	***6%***	***22%***	***44%***	***23%***	***5%***	***100%***
Sales to Business	5%	11%	29%	43%	13%	100%
Sales to Public	16%	24%	35%	19%	5%	100%
All Sales	***9%***	***16%***	***31%***	***34%***	***10%***	***100%***
Professionals	2%	5%	20%	45%	29%	100%
Law	0%	0%	0%	7%	93%	100%
Management	3%	8%	28%	41%	21%	100%
Teachers	1%	4%	12%	36%	47%	100%
Tech	3%	8%	31%	44%	15%	100%
All Professional/Mgt.	***2%***	***6%***	***23%***	***39%***	***29%***	***100%***
Cleaning	43%	30%	21%	5%	1%	100%
Food Preparation	37%	23%	27%	9%	3%	100%
Personal Service	21%	25%	35%	15%	3%	100%
Safety/Home Help	17%	20%	39%	20%	4%	100%
All Services	***32%***	***24%***	***30%***	***11%***	***3%***	***100%***
Health Assistants	20%	23%	39%	12%	6%	100%
Health Pros	1%	2%	19%	29%	49%	100%
Health Techs	3%	8%	44%	29%	15%	100%
All Health	***6%***	***8%***	***29%***	***25%***	***33%***	***100%***
Machine Operators	28%	24%	31%	15%	2%	100%
Drivers/Loaders	23%	28%	36%	11%	2%	100%
All Operators/Laborers	***25%***	***27%***	***34%***	***12%***	***2%***	***100%***
Mixed Precision	24%	27%	34%	12%	4%	100%
Skilled Manuf'ing	20%	29%	35%	12%	4%	100%
Textiles	64%	21%	11%	3%	1%	100%
Construction	24%	29%	34%	10%	3%	100%
Mechanics/Repair	12%	29%	45%	11%	3%	100%
All Skilled	***29%***	***27%***	***32%***	***9%***	***3%***	***100%***
Farm/Agric/Garden	***32%***	***15%***	***35%***	***16%***	***1%***	***100%***
Total	***11%***	***16%***	***31%***	***27%***	***15%***	***100%***

Source: 1980 and 1990 PUMS 5% Sample from the US Census
Note: Boxes around data values indicate sample numbers too small to be considered reliable.

Table 7. Wage and Salary Earnings for San Francisco Workforce by Education Level in 1980 and 1990

	Real Wage and Salary Earnings	Number of Workers 1980	Number of Workers 1990	Percent 1980	Percent 1990	Percent Point Change	Percent Change
ALL SAN FRANCISCO WORKERS	Less than $10,000	118,053	161,554	22.9 %	28.7 %	5.8 %	36.8 %
	$10 - 20,000	164,972	140,080	32.1	24.9	-7.1	-15.1
	$20 - 30,000	115,758	123,688	22.5	22.0	-0.5	6.9
	$30 - 40,000	59,759	62,871	11.6	11.2	-0.4	5.2
	$40 - 50,000	26,901	32,101	5.2	5.7	0.5	19.3
	$50 - 60,000	11,571	13,748	2.2	2.4	0.2	18.8
	$60 - 70,000	6,200	8,411	1.2	1.5	0.3	35.7
	$70,000 or more	11,424	19,976	2.2	3.6	1.3	74.9 %
	Total	514,639	564,419	100.0 %	100.0 %	0.0 %	na

	Real Wage and Salary Earnings	Percent 1980	Percent 1990	Percent Pt. Change	Percent Change
WORKERS WITH A HIGH SCHOOL EDUCATION OR LESS	Less than $10,000	28.1 %	42.9 %	14.8 %	108.8 %
	$10 - 20,000	36.3	30.0	-6.3	-29.8
	$20 - 30,000	21.5	17.0	-4.6	-15.8
	$30 - 40,000	9.0	6.5	-2.5	-24.1
	$40 - 50,000	3.0	2.0	-1.1	-22.7
	$50 - 60,000	1.0	0.6	-0.4	-27.5
	$60 - 70,000	0.4	0.3	-0.1	-0.3
	$70,000 or more	0.6 %	0.7 %	0.1 %	114.7 %

	Real Wage and Salary Earnings	Percent 1980	Percent 1990	Percent Pt. Change	Percent Change
WORKERS WITH SOME COLLEGE EDUCATION	Less than $10,000	23.8 %	26.5 %	2.7 %	52.6 %
	$10 - 20,000	35.3	28.5	-6.7	-31.3
	$20 - 30,000	23.8	26.1	2.2	16.9
	$30 - 40,000	10.2	11.1	0.9	14.3
	$40 - 50,000	3.9	4.7	0.7	40.9
	$50 - 60,000	1.3	1.2	-0.1	9.0
	$60 - 70,000	0.6	0.6	0.0	37.7
	$70,000 or more	1.1 %	1.3 %	0.3 %	115.6 %

	Real Wage and Salary Earnings	Percent 1980	Percent 1990	Percent Pt. Change	Percent Change
WORKERS WITH A BA DEGREE OR HIGHER	Less than $10,000	17.5 %	21.2 %	3.7 %	65.9 %
	$10 - 20,000	26.3	19.0	-7.3	-38.7
	$20 - 30,000	22.6	22.3	-0.3	5.3
	$30 - 40,000	14.9	14.2	-0.6	0.7
	$40 - 50,000	8.0	8.9	0.8	31.8
	$50 - 60,000	4.0	4.5	0.6	35.5
	$60 - 70,000	2.3	2.9	0.6	70.8
	$70,000 or more	4.4 %	7.0 %	2.6 %	177.0 %

Source: US Census 5% PUMS Sample. Wages adjusted for inflation

Table 8. Percent Change in Adjusted Median Earnings by Occupation and Education Level from 1980 to 1990

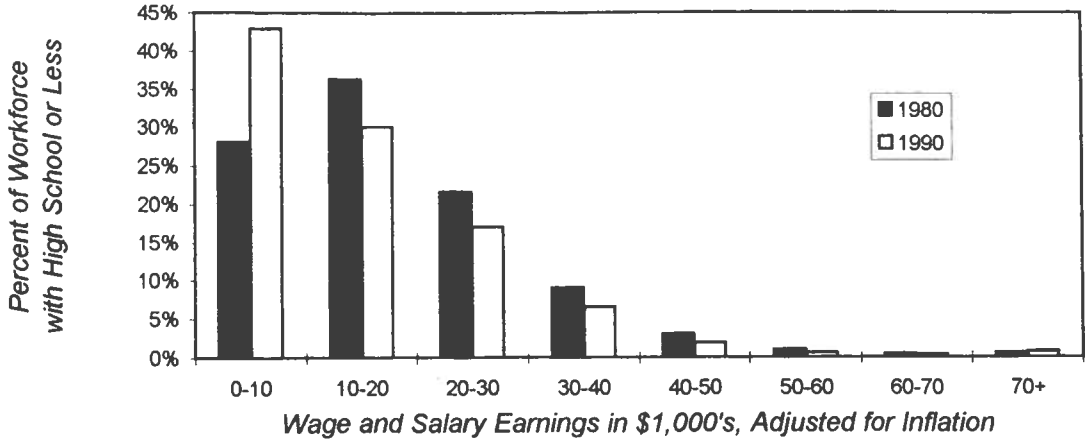
Occupation	*Less than High School*	*High School*	*Some College*	*BA*	*Grad School*	*Total*
Professionals	-31	-40	6	-2	3	0 %
Managers	-19	-14	5	-2	31	4
Law	na	-100	426	-11	57	50
Teachers	na	1	44	22	19	8
Technicians	139	-10	3	17	25	15
All Professionals/Mgt.	***-12 %***	***-16 %***	***9 %***	***1 %***	***28 %***	***1 %***
Health Pros	-59	-45	32	33	52	33
Health Techs	-15	-26	29	2	16	9
Health Assistants	-25	-17	-5	309	130	7
All Health	***-20 %***	***-26 %***	***15 %***	***17 %***	***46 %***	***27 %***
Sales to Business	141	6	13	14	35	17
Sales to Public	-24	-22	4	36	-9	-8
All Sales	***6 %***	***-13 %***	***11 %***	***17 %***	***31 %***	***12 %***
Admin. Supervision	8	-10	24	6	15	6
Admin Support	4	2	13	3	26	7
All Clerical	***4 %***	***-2 %***	***6 %***	***5 %***	***33 %***	***6 %***
Cleaning	-4	-9	17	-11	-84	1
Food Preparation	-16	-12	29	24	28	0
Personal Services	-46	-23	34	134	2	5
Safety/Home Help	24	-5	4	2	82	11
All Services	***-3 %***	***-15 %***	***17 %***	***22 %***	***63 %***	***1 %***
Textile Workers	6	-45	-14	111	370	-4
Skilled Manuf'ing	-19	-23	11	-35	-98	-7
Mechanics/Repair	-35	-7	28	49	142	12
Mixed Skills	-43	-23	34	-12	-64	-13
Construction	-17	-9	73	80	-55	2
All Precision	***-14 %***	***-24 %***	***33 %***	***40 %***	***-41 %***	***-9 %***
Drivers/Loaders	-33	-25	-15	-1	5	-21
Machine Operators	-30	-32	17	3	-6	-11
All Operators/Laborers	***-27 %***	***-22 %***	***2 %***	***3 %***	***20 %***	***-14 %***
Farming/Agric/Garden	***-18 %***	***411 %***	***-42 %***	***-70 %***	***-17 %***	***-28 %***
Total	***-9 %***	***-12 %***	***12 %***	***11 %***	***34 %***	***13 %***

Source: 1980 and 1990 5% PUMS sample from the U.S. Census

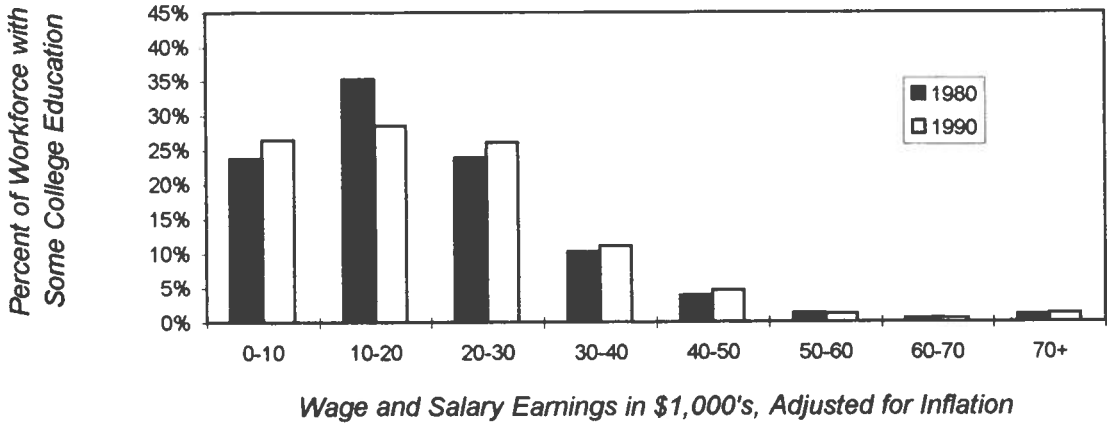
Note: Boxes around data values indicate sample numbers too small to be considered reliable.

Graph 1. Comparison of Earnings by Education Levels in 1980 and 1990

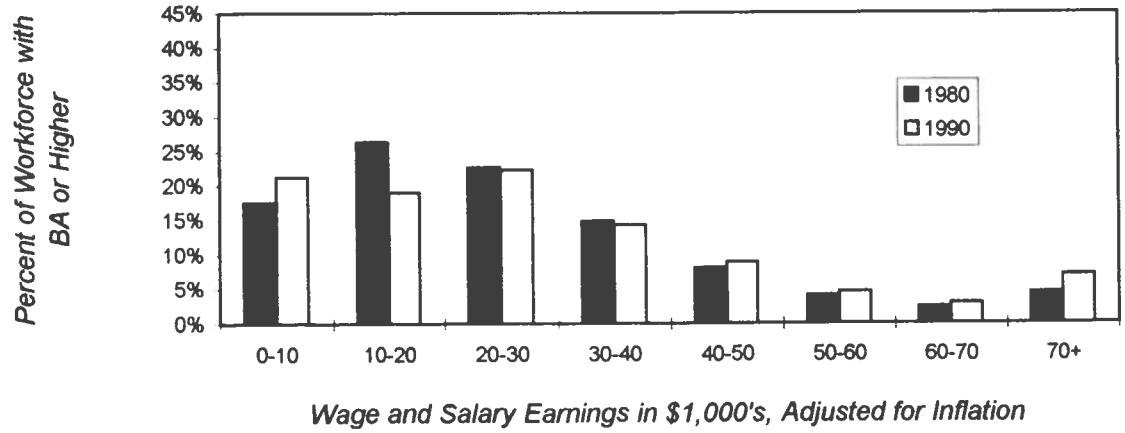
Earnings for Workers with a High School Education or Less



Earnings for Workers with Some College Education



Earnings for Workers with a College Degree or Higher



Appendix 2.

Major Indicators #1: Number of Jobs and Recent Job Growth
(for Occupations with High Numbers of Workers with High School Education or Less)

Occupations with more than 2,000 Jobs in 1990 for workers with high school degrees or less

	Number of Jobs for HS or less
Clerical	28,658
Food Preparation	15,326
Construction	12,051
Managers	11,536
Drivers/Loaders	11,305
Cleaning/Custodial	10,510
Sales to the Public	9,713
Textile Workers	8,754
Sales to Business	6,116
Machine Operators	5,880
Personal Services	4,527
Mechanics/Repair	4,456
Professionals	3,298
Health Assistants	3,162
Skilled Manuf'ing	2,713
Home Help	2,668
Mixed Precision	2,617
Safety	2,190

Job Growth from 1980 to 1990 for workers with high school degrees or less

	Job Growth 1980-90	Percent Growth
1. Job Growth from 1980 to 1990		
Textile Workers	2358	37 %
Construction	2238	23
Food Preparation	1119	8
Health Assistants	281	10
Mixed Precision	274	12
Home Help	32	1
Cleaning/Custodial	13	0
2. Job Loss 1980 to 1990		
Personal Services	-209	-4 %
Sales to Public	-247	-2
Safety	-300	-12
Professionals	-413	-11
Sales to Business	-719	-11
Machine Operators	-809	-12
Skilled Manuf'ing	-1046	-28
Mechanics/Repair	-1793	-29
Drivers/Loaders	-2902	-20
Managers	-4038	-26
Clerical	-17919	-38

The share of the adult city resident population with a high school degree or less decreased by 8% from 1980 to 1990.

Source: 1980 and 1990 US Census 5% PUMS Sample

Major Indicators #2:
Earnings, Growth in Earnings, and Earnings Equity

Median Earnings in 1990 and Change in Real Earnings from 1980 to 1990 for Workers with HS Degrees or Less

	Median Earnings in 1990	Pct Change 1980-90
1) Occupations with: a) median earnings above the median for all workers with a HS degree or less in 1990, and b) an increase in earnings from 1980 to 1990		
Sales to Business	$ 20,000	6 %
Clerical	19,000	2
2) Above the median earnings level, and a decrease in earnings from 1980 to 1990		
Skilled manufacturing	25,000	-23
Managers	24,000	-16
Mechanics/Repair	24,000	-17
Construction	20,000	-22
Drivers/Loaders	18,000	-30
Mixed Precision	18,000	-38
Machine Operators	16,000	-38
Safety	15,000	-12
3) Below the median earnings level in 1990, and an increase in earnings from 1980 to 1990		
Home Help	6,773	34
4) Below the median earnings level, and a decrease in earnings from 1980 to 1990		
Cleaning/Custodial	14,400	-5
Food Prep	10,800	-16
Health Assistants	10,000	-16
Garment Workers	9,451	-8
Sales to Public	8,500	-38
Personal Services	6,000	-30

Percent of workers with high school degree or less, and percent of all workers making above $23,000, the city-wide median

	HS or less	All workers
Skilled Manufacturing	53 %	60 %
Managers	53	72
Mechanics/Repair	51	63
Construction	45	51
Business Sales	43	61
Mixed Precision	41	52
Drivers/Loaders	38	41
Clerical	34	38
Machine Operators	31	37
Safety	28	61
Health Assitants	17	25
Cleaning/Custodial	16	18
Public Sales	15	23
Food Prep	14	16
Personal Service	12	18
Garment Work	6	6
Home Help	3	2

1) Percent of workers with HS or less by occupation, compared with 2) percent of those making above the median occupational earnings that have a HS degree or less

	(1)	(2)	Difference
Home Help	69 %	69	0
Managers	11	10	1
Garment Workers	85	83	2
Clerical	28	26	2
Drivers/Loaders	51	47	4
Cleaning/Custodial	72	68	4
Business Sales	15	10	5
Food Prep	60	55	5
Construction	54	47	7
Personal Services	46	39	7
Machine Operators	52	44	8
Skilled Manufacturing	49	41	8
Public Sales	40	31	9
Mechanics/Repair	41	31	10
Health Assistants	42	31	11
Mixed Precision	51	37	14
Safety	24	8	16

Major Indicators #3:
Workforce by Race/Ethnicity and Sex, by Occupation in 1990

(Occupations listed are those which provided 2,000 jobs or more for workers with a high school education or less in San Francisco in 1990)

	Percent non-Anglo		**Percent Anglo**		**Percent Latino**		**Percent African-Am'n**		**Percent Asian/PI**		**Percent Female**		**Median Earnings of People of Color as Pct. of Anglo**		**Female Median Earnings as Pct. of Male Earnings**	
	Total	High School or Less	Total	High School or Less	Total	High School or Less	Total	High School or Less	Total	High School or Less	Total	High School or Less	Total	High School or Less	Total	High School or Less
Textiles	92 %	95 %	8 %	[5] %	15 %	17 %	[2] %	[1] %	74 %	77 %	77 %	79 %	63 %	60 %	60 %	62 %
Cleaning/Custod'l	86	89	14	11	39	43	13	12	33	34	38.9	43	95	88	82	84
Home Help	82	86	18	[14]	49	51	[8]	[10]	25	25	92.2	96	167	175	175	854
Health Assistants	69	79	31	21	19	27	18	25	31	27	79	87	70	69	53	70
Food Preparation	66	80	34	20	24	31	4	[3]	39	45	31.3	30	81	87	58	67
Machine Operators	63	75	37	25	23	30	11	10	28	35	30.6	34	65	43	56	54
Drivers/Loaders	55	63	45	37	17	22	17	16	21	24	14.8	14	92	74	75	76
Personal Service	54	71	46	29	18	27	12	12	24	31	67	74	69	76	40	33
Clerical	54	60	46	40	12	18	12	12	29	29	69.1	72	98	90	95	100
Mixed Precision	53	62	47	38	16	22	[5]	[4]	31	35	24.3	25	52	43	60	65
Sales to Public	50	64	50	36	12	16	7	8	31	39	55.7	60	64	56	71	85
Skilled Manuf'ing	45	48	55	52	17	25	[6]	[4]	21	[18]	20.9	[17]	79	68	81	77
Safety	45	57	55	43	10	[12]	16	23	17	[23]	12.9	[15]	53	82	72	122
Mechanics/Repair	43	46	57	54	14	23	7	[8]	20	15	7	[5]	82	67	93	104
Contruction	41	53	59	47	20	30	7	8	13	14	2.23	[1]	60	59	72	66
Managers	30	43	70	57	7	16	6	9	17	18	45.9	47	78	81	73	92
Professionals	27	46	73	54	6	17	5	[14]	16	16	38.4	45	97	85	70	83
Sales to Business	25	44	75	56	5	13	4	[6]	15	25	37.8	45	61	50	76	100
Total	45 %	65 %	55 %	35 %	13 %	24 %	8 %	10 %	24 %	31 %	45 %	45 %	68 %	62 %	77 %	73 %

Source: 1990 US Census 5% PUMS Sample

Note: Cells with square boxes indicate sample numbers too small for reliability.

Major Indicators #4A: Job Projections from Three Sources, Organized by Rate of Growth

I. Potepan/Barbour (from ABAG, Census)

Job Growth from 1995 to 2000 for San Francisco

	Job Growth	Annual Rate
Law	1,787	2.6%
Cleaning/Cust.	1,778	2.5%
Construction	2,066	1.8%
Technicians	1,397	1.6%
Professionals	3,914	1.6%
Drivers/Loaders	1,702	1.5%
Health Pros	1,388	1.5%
Teachers	1,283	1.5%
Managers	7,916	1.5%
Food Preparation	1,861	1.5%
Mixed Skills	365	1.4%
Health Techs	421	1.4%
Business Sales	2,758	1.4%
Health Assistants	501	1.3%
Machine Operators	728	1.3%
Admin Support	6,154	1.2%
Public Sales	1,416	1.2%
Skilled Manuf'ing	315	1.1%
Mechanics/Repair	603	1.1%
Personal Service	526	1.1%
Garment Workers	543	1.1%
Admin. Mgt.	258	0.9%
Safety	577	0.9%
Agric/Farming	(40)	-0.4%
TOTAL	40,217	

II. DRI/McGraw-Hill

Job Growth from 1987 to 2000 for San Francisco and San Mateo Counties

	Job Growth	Annual Rate
Health Service Assistants	2609	2.0%
Doctors	962	1.9%
Printing	808	1.8%
Health Care Pros and Technicians	5,536	1.8%
Social Workers	1,248	1.5%
Cleaning and Building Services	4149	1.4%
Protective Services	2834	1.4%
Personal Services	1898	1.3%
Other Clerical Workers	1934	1.2%
Artists	1,314	1.1%
Service Managers	951	1.1%
Judges/Lawyers	891	1.0%
Secretaries and Receptionists	5151	1.0%
Natural Scientists	661	1.0%
Engineers	2,778	1.0%
Stenographers, Typists	1333	1.0%
Machine Operators	1180	0.9%
Agriculture/Forest/Fish	831	0.9%
Social Scientists	146	0.9%
Computer, Math, Research	1,154	0.9%
Data Entry Keyers	566	0.9%
Inspectors	378	0.9%
Construction	1937	0.8%
Data Processing	641	0.8%
Hand Helpers/Laborers	2977	0.8%
Precision Production	790	0.7%
Mobile Mechanics/Repair	1057	0.7%
Clerks and Bookkeepers	5848	0.7%
Personnel, Training	304	0.7%
Executives	2,586	0.7%
Staff Management	1,685	0.7%
Machinery Mechanics	821	0.7%
Food Preparation	5578	0.7%
Other Hand Workers, inc Assmbly.	827	0.6%
Legal Assistants	253	0.6%
Accountants	1,748	0.5%
Middle Management	880	0.5%
Textile Setters, Operators	557	0.5%
Teachers	2822	0.5%
Other Equipment Operators	742	0.5%
Motor Vehicle Operators	1175	0.5%
Administration Management	823	0.5%
Managers-Manuf'ing, Const, Maint.	504	0.4%

III. State of California Employment Development Department

Job Growth from 1995 to 2000 for San Francisco

	Absolute Job Growth	Sepa-rations	Annual Rate	Rate inc. Sepa-rations
MISC PROFESSIONALS, PARAPRO, TECH	2,320	1,200	5.4%	8.2%
CLERICAL, ADMIN SUPPORT, NEC	1,150	230	5.3%	6.3%
MISC SERVICE WORKERS	310	210	3.1%	5.3%
COMPUTER SCIENTISTS AND RELATED	820	690	2.5%	4.6%
MATH SCIENTISTS AND RELATED	230	180	2.5%	4.4%
THERAPISTS	150	150	2.2%	4.4%
MECHANIC AND REPAIRER HELPERS	40	100	2.0%	7.0%
HEALTH SERVICE, RELATED OCCS	410	480	1.6%	3.5%
MISC AG, FORESTRY, FISHING	200	330	1.4%	3.8%
MUNICIPAL WORKERS	20	10	1.4%	2.1%
SELECTED ROAD, RAIL AND RELATED	10	20	1.4%	4.3%
FIRST-LINE SUP/MGR--SALES	410	670	1.4%	3.7%
ENGINEERS	700	1,380	1.4%	4.0%
OTHER SOCIAL SCIENCE WORKERS	270	270	1.3%	2.6%
INSURANCE WORKERS	230	310	1.3%	3.0%
OTHER TEACHERS AND INSTRUCTORS	620	750	1.2%	2.7%
MISC PERSONAL SERVICE OCCUPATIONS	210	500	1.2%	4.1%
LIBRARIANS, ARCHIVISTS AND RELATED	220	320	1.2%	2.9%
WRITERS, ARTISTS, ENTERTAINMENT	460	940	1.2%	3.6%
ACCOUNTANTS, AUDIT, FINANCE SPECS	820	1,390	1.1%	3.1%
FOOD WORKERS, PRECISION	10	30	1.1%	4.4%
OTHER HEALTH PROFS, PARAPROFS	250	430	1.1%	3.0%
PRINTING, BINDING, RELATED WORKERS	100	280	1.1%	4.1%
CONST TRADES, EXTRACTIVE--HELPERS	30	150	1.1%	6.3%
FOOD, BEV PREP AND SERVICE OCCS	2,040	12,070	1.0%	7.2%
CONSTRUCTION TRADES, NEC	20	50	1.0%	3.5%
TEXTILE, APPAREL, FURNISHINGS,PREC	60	170	1.0%	3.8%
INVESTIGATIVE, RELATED, EX INSUR	60	90	1.0%	2.4%
MOBILE EQUIP MECHANICS, REPAIRERS	110	460	0.9%	4.9%
PERS, TRAINING, LAB-REL SPECS	130	270	0.9%	2.9%
OTHER MGT. SUPPORT WORKERS	420	920	0.9%	2.9%
ARCHITECTS AND SURVEYORS	60	150	0.9%	3.1%
MATERIAL MOVEMENT EQUIP OPERATORS	90	220	0.8%	2.8%
MASONS AND RELATED WORKERS	10	50	0.8%	4.8%
MOTOR VEHICLE OPERATORS	360	1,090	0.8%	3.2%
PAINTERS AND RELATED WORKERS	40	160	0.8%	4.0%
WOODWORKERS, PRECISION	20	90	0.8%	4.3%
PHYSICAL, LIFE SCIENCE TECHS	60	230	0.8%	3.8%
CLEANING, BLDING SERV EX PRIV HOUS	680	2,310	0.8%	3.4%
MACHINE FEEDERS AND OFFBEARERS	10	60	0.8%	5.4%
EXTRACTIVE AND RELATED WORKERS	20	30	0.8%	1.9%
ENGINEERING, RELATED TECHNICIANS	140	550	0.8%	3.8%
SALES AGENTS--SERVICE	400	1,290	0.8%	3.2%

Major Indicators #4A: Job Projections from Three Sources, Organized by Rate of Growth

II. DRI/McGraw-Hill

Job Growth from 1987 to 2000 for San Francisco and San Mateo Counties

	Job Growth	Annual Rate
Sales Managers	436	0.4%
Service Sales (including FIRE, Adv)	763	0.4%
Plant and Systems	47	0.4%
Purchasing Agents & Buyers	109	0.3%
Other Professionals, Technicians	245	0.3%
Merchandise Sales	1953	0.2%
Other Clerks	637	0.2%
Other Mechanics	260	0.1%
Extractive	-10	-0.1%
Precision Assemblers	-15	-0.1%
Insurance & Finance Clerks	-748	-0.2%
Communications	-694	-0.3%

III. State of California Employment Development Department

Job Growth from 1995 to 2000 for San Francisco

	Absolute Job Growth	Separations	Annual Rate	Rate inc. Separations
FIRST-LINE SUP/MGR, CLERL, ADM SUP	410	1,710	0.8%	3.9%
POST-SECONDARY TEACHERS	250	1,360	0.7%	4.6%
MISC INDUSTRY SPECIFIC CLERICAL	30	170	0.7%	4.8%
MACHINERY AND RELATED MECHANICS	140	460	0.7%	3.1%
OTHER HAND WORKERS	160	650	0.7%	3.5%
PROTECTIVE SERVICE OCCUPATIONS	360	2,030	0.6%	4.2%
MERCH, PRODUCTS AND OTHER SALES	1,130	8,820	0.6%	5.5%
CARPENTERS AND RELATED WORKERS	70	350	0.6%	3.7%
HEALTH CARE MAINTENANCE, TREATING	400	1,260	0.6%	2.5%
MISC MECH, INSTALLERS, REPAIRERS	50	210	0.6%	3.0%
FREIGHT, STOCK, MAT MOVERS, HAND	110	1,210	0.6%	6.8%
FIRST-LINE SUP/MGR--SERVICE	110	710	0.5%	3.9%
MISC HELPERS, LABORERS--HAND	310	1,950	0.5%	3.7%
LIFE SCIENTISTS	30	230	0.5%	4.3%
MANAGERS AND ADMINISTRATIVE	830	4,420	0.4%	2.5%
TEXTILE, RELATED SETTERS, OPS	100	1,150	0.3%	3.3%
FIRST-LINE SUP/MGR-BLUE COLLAR	50	750	0.2%	3.8%
ELECTRICIANS AND RELATED WORKERS	10	170	0.2%	2.8%
MATERIAL RECORDING, DISPATCHING	90	1,440	0.1%	2.4%
SOCIAL SCI--INCL URBAN, REG PLNERS	-	180	0.0%	2.4%
RELIGIOUS WORKERS	-	30	0.0%	2.3%
RAIL TRANSPORTATION WORKERS	-	80	0.0%	0.9%
WATER TRANSPORTATION WORKERS	-	10	0.0%	1.4%
OTHER PRECISION WORKERS	(30)	600	-0.2%	3.2%
PHYSICAL SCIENTISTS	(10)	210	-0.2%	3.4%
PHYSICAL SCIENTISTS	(10)	210	-0.2%	3.4%
MISC TRANSPORTATION WORKERS	(20)	360	-0.2%	3.3%
INSPECTORS, RELATED OCCUPATIONS	(20)	240	-0.2%	2.7%
LODGING AND TRAVEL WORKERS	(70)	650	-0.4%	3.2%
OTHER ELECTRICAL EQUIP MECHANICS	(40)	220	-0.4%	1.9%
PRINTING WORKERS, PRECISION	(10)	80	-0.4%	3.0%
LAWYERS AND RELATED WORKERS	(180)	740	-0.4%	1.4%
PLANT AND SYSTEM OCCUPATIONS	(20)	170	-0.5%	3.6%
MAIL, MESSAGE DISTRIBUTION WORKERS	(130)	870	-0.5%	2.8%
HEALTH DIAGNOSING, TREATING	(110)	360	-0.7%	1.6%
MISC SECRETARIAL, GENL OFF OCCS	(1,990)	6,960	-0.8%	1.9%
METAL WORKERS, PRECISION	(40)	140	-0.9%	2.3%
LEGAL ASSTS, TECHS, EX CLERICAL	(130)	100	-1.0%	-0.2%
PLUMBERS AND RELATED WORKERS	(50)	150	-1.0%	2.0%
SECRETARIES	(1,070)	3,080	-1.0%	1.9%
PURCHASING AGENTS AND BUYERS	(100)	280	-1.1%	2.0%
BANKING, SECURITY, FINANCE, CREDIT	(640)	1,790	-1.2%	2.2%
MACH SETTER,SET-UP,OP--EX MET,PLAS	(180)	340	-1.6%	1.5%
COMM EQUIPMENT MECHANICS	(20)	10	-3.1%	-1.5%
EDP AND OFFICE MACHINE OCCUPATIONS	(1,040)	960	-3.1%	-0.2%
COMMUNICATION EQUIP. OPERATORS	(350)	320	-3.7%	-0.3%

Major Indicators #4B: Job Projections from Three Sources, Organized by Growth in the Number of Jobs

I. Potepan/Barbour (from ABAG, Census)

Job Growth from 1995 to 2000 for San Francisco

	Job Growth	Annual Rate
Managers	7,916	1.5%
Admin Support	6,154	1.2%
Professionals	3,914	1.6%
Business Sales	2,758	1.4%
Construction	2,066	1.8%
Food Preparation	1,861	1.5%
Law	1,787	2.6%
Cleaning/Cust.	1,778	2.5%
Drivers/Loaders	1,702	1.5%
Public Sales	1,416	1.2%
Technicians	1,397	1.6%
Health Pros	1,388	1.5%
Teachers	1,283	1.5%
Machine Operators	728	1.3%
Mechanics/Repair	603	1.1%
Safety	577	0.9%
Garment Workers	543	1.1%
Personal Service	526	1.1%
Health Assistants	501	1.3%
Health Techs	421	1.4%
Mixed Skills	365	1.4%
Skilled Manuf'ing	315	1.1%
Admin. Mgt.	258	0.9%
Agric/Farming	(40)	-0.4%
TOTAL	40,217	

II. DRI/McGraw-Hill

Job Growth from 1987 to 2000 for San Francisco and San Mateo Counties

	Job Growth	Annual Rate
Clerks and Bookkeepers	5,848	0.7%
Food Preparation	5,578	0.7%
Health Care Pros and Techs	5,536	1.8%
Secretaries and Receptionists	5,151	1.0%
Cleaning and Building Services	4,149	1.4%
Hand Helpers/Laborers	2,977	0.8%
Protective Services	2,834	1.4%
Teachers	2,822	0.5%
Engineers	2,778	1.0%
Health Service Assistants	2,609	2.0%
Executives	2,586	0.7%
Merchandise Sales	1,953	0.2%
Construction	1,937	0.8%
Other Clerical Workers	1,934	1.2%
Personal Services	1,898	1.3%
Accountants	1,748	0.5%
Staff Management	1,685	0.7%
Stenographers, Typists	1,333	1.0%
Artists	1,314	1.1%
Social Workers	1,248	1.5%
Machine Operators	1,180	0.9%
Motor Vehicle Operators	1,175	0.5%
Computer, Math, Research	1,154	0.9%
Mobile Mechanics/Repair	1,057	0.7%
Doctors	962	1.9%
Service Managers	951	1.1%
Judges/Lawyers	891	1.0%
Middle Management	880	0.5%
Agriculture/Forest/Fish	831	0.9%
Other Hand Workers, inc Assmbly.	827	0.6%
Administration Management	823	0.5%
Machinery Mechanics	821	0.7%
Printing	808	1.8%
Precision Production	790	0.7%
Service Sales (inc. FIRE, Adv)	763	0.4%
Other Equipment Operators	742	0.5%
Natural Scientists	661	1.0%
Data Processing	641	0.8%
Other Clerks	637	0.2%
Data Entry Keyers	566	0.9%
Textile Setters, Operators	557	0.5%
Managers-Manuf'ing, Const, Maint.	504	0.4%

III. State of California Employment Development Department

Job Growth from 1995 to 2000 for San Francisco

	Absolute Job Growth	Separations	Both	Annual Rate	Rate w. Separations
FOOD, BEV PREP AND SERVICE OCCS	2,040	12,070	14,110	1.0%	7.2%
MERCH, PRODUCTS AND OTHER SALES	1,130	8,820	9,950	0.6%	5.5%
MANAGERS AND ADMINISTRATIVE	830	4,420	5,250	0.4%	2.5%
MISC SECRETARIAL, GENL OFF OCCS	(1,990)	6,960	4,970	-0.8%	1.9%
MISC PROFESSIONALS, PARAPRO, TECH	2,320	1,200	3,520	5.4%	8.2%
CLEANING, BLDING SERV EX PRIV HOUS	680	2,310	2,990	0.8%	3.4%
PROTECTIVE SERVICE OCCUPATIONS	360	2,030	2,390	0.6%	4.2%
MISC HELPERS, LABORERS--HAND	310	1,950	2,260	0.5%	3.7%
ACCOUNTANTS, AUDIT, FINANCE SPECS	820	1,390	2,210	1.1%	3.1%
FIRST-LINE SUP/MGR, CLERL, ADM SUP	410	1,710	2,120	0.8%	3.9%
ENGINEERS	700	1,380	2,080	1.4%	4.0%
SECRETARIES	(1,070)	3,080	2,010	-1.0%	1.9%
SALES AGENTS--SERVICE	400	1,290	1,690	0.8%	3.2%
HEALTH CARE MAINTENANCE, TREATING	400	1,260	1,660	0.6%	2.5%
POST-SECONDARY TEACHERS	250	1,360	1,610	0.7%	4.6%
MATERIAL RECORDING, DISPATCHING	90	1,440	1,530	0.1%	2.4%
COMPUTER SCIENTISTS AND RELATED	820	690	1,510	2.5%	4.6%
MOTOR VEHICLE OPERATORS	360	1,090	1,450	0.8%	3.2%
WRITERS, ARTISTS, ENTERTAINMENT	460	940	1,400	1.2%	3.6%
CLERICAL, ADMIN SUPPORT, NEC	1,150	230	1,380	5.3%	6.3%
OTHER TEACHERS AND INSTRUCTORS	620	750	1,370	1.2%	2.7%
OTHER MGT. SUPPORT WORKERS	420	920	1,340	0.9%	2.9%
FREIGHT, STOCK, MAT MOVERS, HAND	110	1,210	1,320	0.6%	6.8%
TEXTILE, RELATED SETTERS, OPS	100	1,150	1,250	0.3%	3.3%
BANKING, SECURITY, FINANCE, CREDIT	(640)	1,790	1,150	-1.2%	2.2%
FIRST-LINE SUP/MGR--SALES	410	670	1,080	1.4%	3.7%
HEALTH SERVICE, RELATED OCCS	410	480	890	1.6%	3.5%
FIRST-LINE SUP/MGR--SERVICE	110	710	820	0.5%	3.9%
OTHER HAND WORKERS	160	650	810	0.7%	3.5%
FIRST-LINE SUP/MGR-BLUE COLLAR	50	750	800	0.2%	3.8%
MAIL, MESSAGE DISTRIBUTION WORKERS	(130)	870	740	-0.5%	2.8%
MISC PERSONAL SERVICE OCCUPATIONS	210	500	710	1.2%	4.1%
ENGINEERING, RELATED TECHNICIANS	140	550	690	0.8%	3.8%
OTHER HEALTH PROFS, PARAPROFS	250	430	680	1.1%	3.0%
MACHINERY AND RELATED MECHANICS	140	460	600	0.7%	3.1%
LODGING AND TRAVEL WORKERS	(70)	650	580	-0.4%	3.2%
OTHER PRECISION WORKERS	(30)	600	570	-0.2%	3.2%
MOBILE EQUIP MECHANICS, REPAIRERS	110	460	570	0.9%	4.9%
LAWYERS AND RELATED WORKERS	(180)	740	560	-0.4%	1.4%
LIBRARIANS, ARCHIVISTS AND RELATED	220	320	540	1.2%	2.9%
OTHER SOCIAL SCIENCE WORKERS	270	270	540	1.3%	2.6%
INSURANCE WORKERS	230	310	540	1.3%	3.0%

Major Indicators #4B: Job Projections from Three Sources, Organized by Growth in the Number of Jobs

II. DRI/McGraw-Hill

Job Growth from 1987 to 2000 for San Francisco and San Mateo Counties

	Job Growth	Annual Rate
Sales Managers	436	0.4%
Inspectors	378	0.9%
Personnel, Training	304	0.7%
Other Mechanics	260	0.1%
Legal Assistants	253	0.6%
Other Professionals, Technicians	245	0.3%
Social Scientists	146	0.9%
Purchasing Agents & Buyers	109	0.3%
Plant and Systems	47	0.4%
Extractive	(10)	-0.1%
Precision Assemblers	(15)	-0.1%
Communications	(694)	-0.3%
Insurance & Finance Clerks	(748)	-0.2%

III. State of California Employment Development Department

Job Growth from 1995 to 2000 for San Francisco

	Absolute Job Growth	Sepa-rations	Both	Annual Rate	Rate w. Separ-ations
AG, FORESTRY, FISHING	200	330	530	1.4%	3.8%
MISC SERVICE WORKERS	310	210	520	3.1%	5.3%
CARPENTERS AND RELATED WORKERS	70	350	420	0.6%	3.7%
MATH SCIENTISTS AND RELATED	230	180	410	2.5%	4.4%
PERS, TRAINING, LAB-REL SPECS	130	270	400	0.9%	2.9%
PRINTING, BINDING, RELATED WORKERS	100	280	380	1.1%	4.1%
MISC TRANSPORTATION WORKERS	(20)	360	340	-0.2%	3.3%
MATERIAL MOVEMENT EQUIP OPERATORS	90	220	310	0.8%	2.8%
THERAPISTS	150	150	300	2.2%	4.4%
PHYSICAL, LIFE SCIENCE TECHS	60	230	290	0.8%	3.8%
LIFE SCIENTISTS	30	230	260	0.5%	4.3%
MISC MECH, INSTALLERS, REPAIRERS	50	210	260	0.6%	3.0%
HEALTH DIAGNOSING, TREATING	(110)	360	250	-0.7%	1.6%
TEXTILE, APPAREL, FURNISHINGS,PREC	60	170	230	1.0%	3.8%
INSPECTORS, RELATED OCCUPATIONS	(20)	240	220	-0.2%	2.7%
ARCHITECTS AND SURVEYORS	60	150	210	0.9%	3.1%
PAINTERS AND RELATED WORKERS	40	160	200	0.8%	4.0%
PHYSICAL SCIENTISTS	(10)	210	200	-0.2%	3.4%
PHYSICAL SCIENTISTS	(10)	210	200	-0.2%	3.4%
MISC INDUSTRY SPECIFIC CLERICAL	30	170	200	0.7%	4.8%
CONST TRADES, EXTRACTIVE--HELPERS	30	150	180	1.1%	6.3%
ELECTRICIANS AND RELATED WORKERS	10	170	180	0.2%	2.8%
PURCHASING AGENTS AND BUYERS	(100)	280	180	-1.1%	2.0%
SOCIAL SCI--INCL URBAN, REG PLNERS	-	180	180	0.0%	2.4%
OTHER ELECTRICAL EQUIP MECHANICS	(40)	220	180	-0.4%	1.9%
MACH SETTER,SET-UP,OP--EX MET,PLAS	(180)	340	160	-1.6%	1.5%
PLANT AND SYSTEM OCCUPATIONS	(20)	170	150	-0.5%	3.6%
INVESTIGATIVE, RELATED, EX INSUR	60	90	150	1.0%	2.4%
MECHANIC AND REPAIRER HELPERS	40	100	140	2.0%	7.0%
WOODWORKERS, PRECISION	20	90	110	0.8%	4.3%
PLUMBERS AND RELATED WORKERS	(50)	150	100	-1.0%	2.0%
METAL WORKERS, PRECISION	(40)	140	100	-0.9%	2.3%
RAIL TRANSPORTATION WORKERS	-	80	80	0.0%	0.9%
CONSTRUCTION TRADES, NEC	20	50	70	1.0%	3.5%
MACHINE FEEDERS AND OFFBEARERS	10	60	70	0.8%	5.4%
PRINTING WORKERS, PRECISION	(10)	80	70	-0.4%	3.0%
MASONS AND RELATED WORKERS	10	50	60	0.8%	4.8%
EXTRACTIVE AND RELATED WORKERS	20	30	50	0.8%	1.9%
FOOD WORKERS, PRECISION	10	30	40	1.1%	4.4%
SELECTED ROAD, RAIL AND RELATED	10	20	30	1.4%	4.3%
RELIGIOUS WORKERS	-	30	30	0.0%	2.3%
MUNICIPAL WORKERS	20	10	30	1.4%	2.1%
WATER TRANSPORTATION WORKERS	-	10	10	0.0%	1.4%
COMM EQUIPMENT MECHANICS	(20)	10	(10)	-3.1%	-1.5%
LEGAL ASSTS, TECHS, EX CLERICAL	(130)	100	(30)	-1.0%	-0.2%
COMMUNICATION EQUIP. OPERATORS	(350)	320	(30)	-3.7%	-0.3%
EDP AND OFFICE MACHINE OCCUPATIONS	(1,040)	960	(80)	-3.1%	-0.2%

Major Indicators #5: Indicators for Clerical Occupations

Clerical Occupation	*Total Employees in 1990*	*Percent of Total*	*Workers with HS or less*	*Percent*	*Workers with Some College*	*Percent*	*Change in Total 1980 to 1990*	*Change in Percent of Total 80 to 90*	*Percent Change in Jobs 1980 to 1990*	*Percent Change for HS or Less*	*Percent Change for Some College*
Secretaries	24,743	24.5 %	6,761	27 %	11,672	47 %	(10,800)	-2.8%	-30 %	-46.5 %	-18 %
Miscellaneous	22,790	22.6	6,425	28	9,682	42	(11,239)	-3.6	-33	-47.1	-22
Financial Records Processing	11,207	11.1	3,135	28	4,891	44	(5,246)	-1.6	-32	-49.4	-20
Information Clerks	9,856	9.8	2,535	26	4,509	46	3,167	4.6	47	53	71
Mail Occupations	7,197	7.1	2,820	39	3,122	43	20	1.6	0	-13.8	8
Material Recording/Scheduling	6,972	6.9	2,570	37	3,055	44	(303)	1.3	-4	-35	79
Adjusters, Investigators	6,560	6.5	1,245	19	2,377	36	(31)	1.4	0	-9	-5
Records Processing	5,706	5.7	1,862	33	2,196	38	(2,057)	-0.3	-26	-35.4	-17
Computer Operators	3,968	3.9	827	21	1,870	47	(1,207)	-0.1	-23	-41.6	-23
Communication Equip. Op'rs	1,040	1.0	414	40	436	42	(1,108)	-0.6	-52	-43.5	-59
Office Machine Operators	791	0.8	64	8	472	60	(185)	0.0	-19	-78.2	7
TOTAL	100,830	100.0 %	28,658	28 %	44,282	44 %	(28,989)	0.0%	-22 %	-38.5 %	-10 %

Clerical Occupation	*Median Earnings in 1990*	*Percent Change 1980-90*	*Median Earnings for HS or Less*	*Percent Change 1980-90*	*Median Earnings for Some College*	*Percent Change 1980-90*	*Median Earnings in Private Sector*	*Median Earnings in Gov't*	*Percent Female*	*Percent Employed in Private Sector*	*Percent People of Color*
Secretaries	$ 22,000	17 %	$ 21,000	10 %	$ 24,000	17 %	$ 22,000	$ 20,400	90 %	90 %	44
Miscellaneous	17,000	-1	16,211	-5	20,000	12	16,673	20382	71	89	59
Financial Records Processing	20,000	6	19,500	4	22,000	17	20,000	21541	74	96	55
Information Clerks	15,000	-3	14,048	0	18,000	5	15,000	24434	76	96	47
Mail Occupations	28,000	-8	27,000	-10	30,000	-2	16,000	30000	32	28	78
Material Recording/Scheduling	20,103	-7	18,200	-18	24,380	-5	20,000	26500	40	91	55
Adjusters, Investigators	22,000	7	20,000	11	24,380	7	22,000	29000	63	95	49
Records Processing	18,000	6	12,500	-27	22,100	11	18,000	17804	62	94	51
Computer Operators	23,000	12	21,600	5	24,000	8	22,493	27000	48	89	60
Communication Equip. Op'rs	19,000	20	19,493	27	21,993	10	18,750	22000	65	93	56
Office Machine Operators	14,500	3	18,536	7	23,000	40	14,500	11786	31	94	79
TOTAL	$ 20,000	7 %	$ 19,000	2 %	$ 22,641	11 %	$ 19,697	$ 26,000	69 %	87 %	54 %

Note: Squares around values indicate sample numbers too small to be considered reliable.
Source: 1980 and 1990 US Census PUMS 5% Sample Data