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CENSUS INCOME DATA SHOWS SHARP GENDER AND ETHNIC DIFFERENTIALS IN SILICON VALLEY'S HIGH TECH INDUSTRY

The Clinton-Gore administration has repeatedly touted high-tech industry as the key to America's economic future. Clinton and Gore themselves have both visited the Valley more than once to wrap themselves in the aura of America's most technologically "progressive" industry.

In their pronouncements, such as Clinton's February 22, 1993 high-tech policy statement, they offer new, impressive criteria for evaluating technology policy. Clinton suggests: "Encouraging a pattern of business development that will likely result in stable, rewarding jobs for large numbers of workers" and "Supporting communities of disadvantaged groups in the U.S. or abroad who have not enjoyed the benefits of technology-based economic growth."

Measured against those standards, Silicon Valley does not represent social or economic progress. In past issues of *Global Electronics* (see numbers 101 and 116) we have analyzed data from the U.S. Equal Employment Opportunity Commission illustrating the race and gender hierarchy of job types, with white men dominating managerial and professional positions at the top while non-white women dominate the semi-skilled production workforce at the bottom.

In this issue for the first time we present a similar analysis, based on the recently available Public Use Microdata Samples (PUMS) from the 1990 census.

Our analysis, whether applied to high-tech industry alone or for all industries in Silicon Valley, shows significant differences in annual income. For virtually every major ethnic group, men earn much more than women. The differentials among ethnic groups are also large. We did not, however, correlate our tabulations with information about immigration status.

Because the census allows us to divide the workforce by ethnic ancestry, not just broad racial categories, we were able to confirm what most Valley observers already knew: Japanese-Americans as well as Chinese-Americans and immigrants from Taiwan and China, earn average incomes on par with whites. Southeast Asians, including Filipinos and Indochinese, earn roughly what Mexican and other Hispanic groups earn. Statistics that lump all Asians together—unfortunately, most U.S. labor data—miss major distinctions among Asian ethnic groups.

In this study, we averaged the annual earned income of individual workers, not family or household income. Differences, therefore, could be due to three factors: 1) different pay rates (wage or salary); 2) varying lengths of workweek (hours), and 3) duration of employment during the year. Our analysis does not determine whether pay differentials are due to varying educational backgrounds, differing skill levels, discriminatory employment practices, or other factors. The census does not ask whether workers chose part-time work, or voluntarily worked only a portion of the year, so we cannot determine whether any group's low income was by choice.

Regardless of the reasons for the inequality in income, the variances are large enough to confirm that the earning power of distinct ethnic and gender groups is socially significant. Any policy designed to promote high-tech industry as a solution to America's economic woes must take those differences into account.

The census data also shows differences in participation in the high-tech workforce. Silicon Valley, as a headquarters and development center, has more than its share of professionals and a relatively small component of production workers. So the numbers do not reflect the national or international make-up of high-tech industry.

Still, it is instructive to note that there are more Chinese and more Filipinos in the Silicon Valley high-tech workforce than all Hispanic workers, while in the Valley workforce as a whole there are many more Mexicans than either of those groups. Not only are certain Asian groups better educated in high-tech specialties such as math and electrical engineering, but employers consider Asians, particularly Filipinos and Vietnamese, more docile and easier to exploit than Mexican or African-American workers.

Notes:

1. The PUMS data includes information from five percent of the total census sample. The employment counts shown here, therefore, are the actual sampling multiplied by twenty.
2. These tables and accompanying charts are based upon data from all responding Santa Clara County residents, residents of southern Alameda County and southern San Mateo County, and residents of nearby counties who work in Santa Clara County.
3. The ethnic data is based on the "nation of origin" question. We have been somewhat arbitrary in applying the suffix "American." Thus, Mexican-Americans could either be Mexican immigrants or native-born Americans of Mexican descent.
4. Income is based on the arithmetic mean of earned income of individual workers, as reported voluntarily by those individuals. It is supposed to be an actual annual figure for 1989. Note that the other employment data, such as the industry in which the respondent worked, was valid as of the date of enumeration in 1990.
5. "High-tech," as used in this study, includes the following census categories: Computers & Related Equipment; Radio, TV, and Communication Equipment; Electric Machinery, Equipment, and Supplies, not elsewhere classified; Not Specified Electrical Machinery, Equipment, and Supplies; Scientific and Controlling Instruments; Guided Missiles, Space Vehicles, and Parts; and Computer and Data Processing Services.

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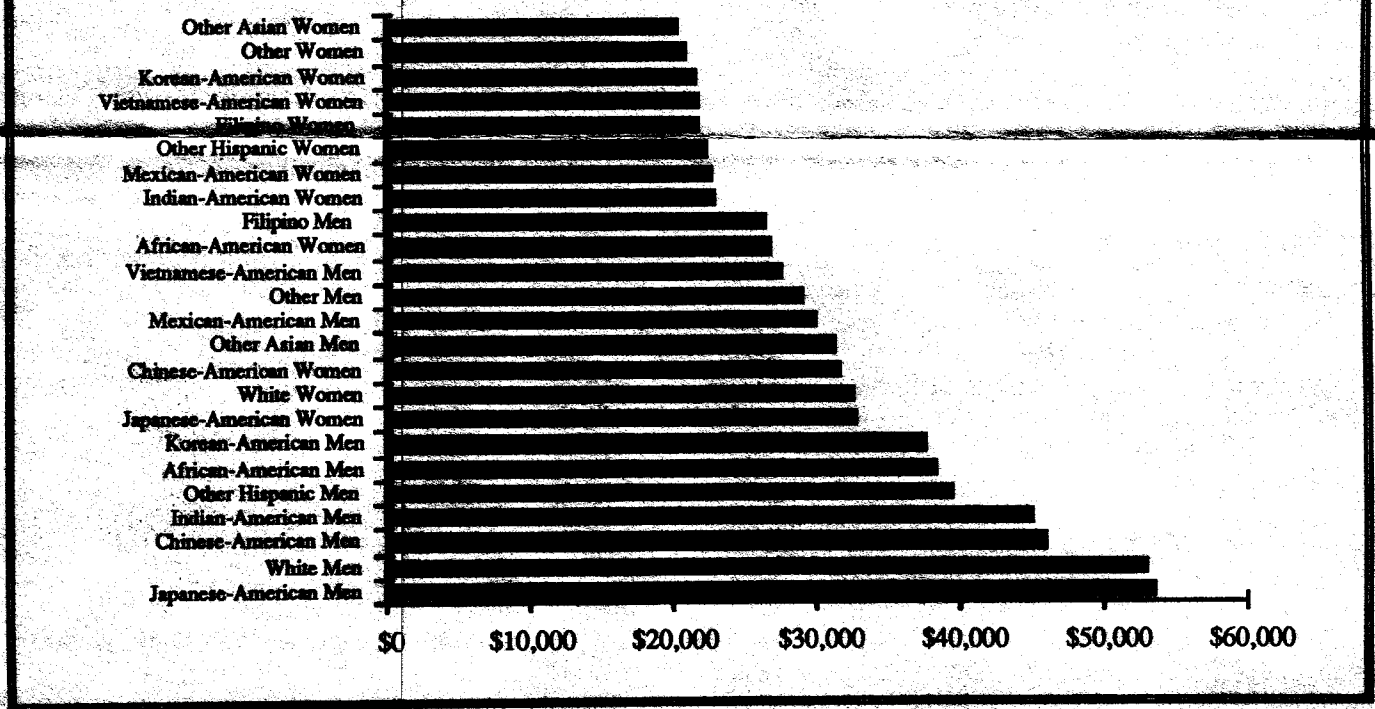
HIGH-TECH INDUSTRY IN SILICON VALLEY
MEAN ANNUAL EARNED INCOME BY GENDER AND NATIONAL ORIGIN, 1989

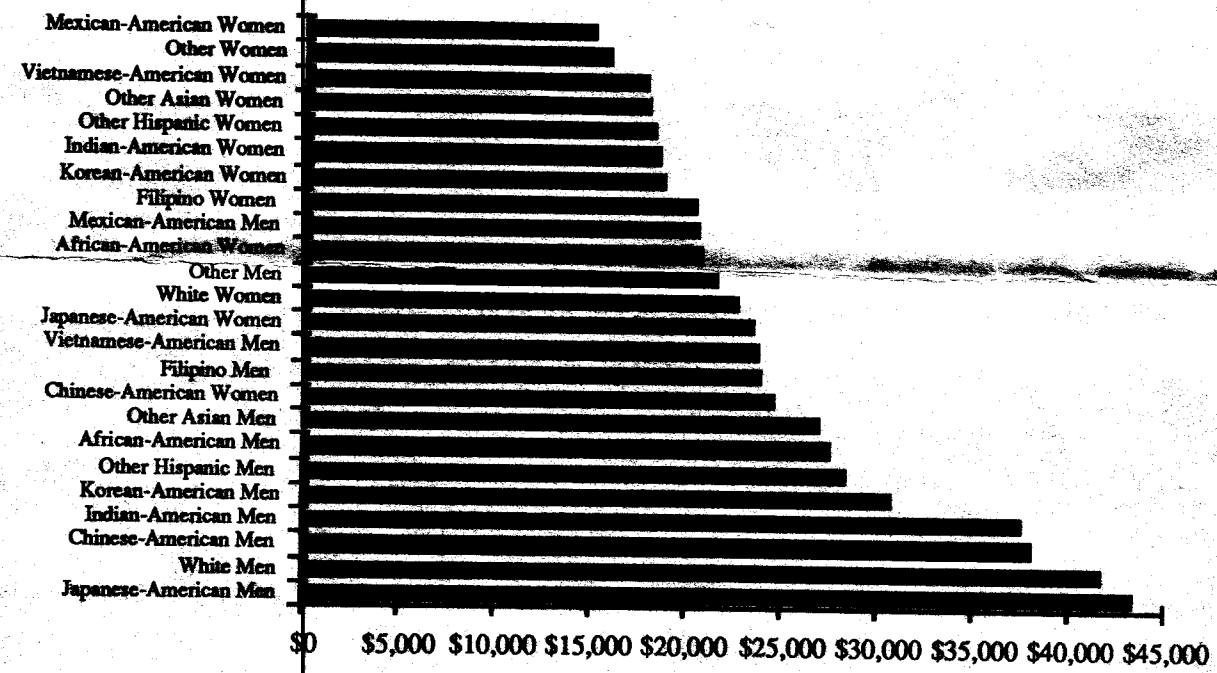


SILICON VALLEY EMPLOYMENT BY NATIONAL ORIGIN AND GENDER, 1990
SILICON VALLEY ANNUAL EARNED INCOME BY NATIONAL ORIGIN AND GENDER, 1989

	Electronics		High-Tech		High-Tech/Related Services		All Industries	
	Number	Mean Annual Income	Number	Mean Annual Income	Number	Mean Annual Income	Number	Mean Annual Income
White Men	71,420	$54,038	102,460	$52,999	109,840	$51,650	409,900	$41,663
White Women	42,740	$32,247	53,540	$32,594	63,380	$30,255	332,180	$22,724
Mexican-American Men	4,440	$28,049	5,240	$30,037	7,420	$26,135	46,980	$20,641
Mexican-American Women	4,740	$22,145	5,300	$22,821	6,840	$19,804	30,580	$15,122
Other Hispanic Men	1,720	$39,199	2,000	$39,474	2,340	$35,573	12,000	$28,385
Other Hispanic Women	1,760	$21,214	2,000	$22,430	2,340	$22,405	11,620	$18,315
African-American Men	3,940	$35,632	4,800	$38,399	5,540	$35,526	21,960	$27,569
African-American Women	3,060	$25,977	3,540	$26,983	4,180	$25,081	18,740	$20,706
Chinese-American Men	10,360	$45,607	12,360	$45,891	12,660	$45,358	28,060	$38,111
Chinese-American Women	5,460	$30,677	6,500	$31,669	6,840	$30,762	20,800	$24,676
Filipino Men	7,680	$25,408	8,760	$26,671	9,180	$26,202	26,280	$23,894
Filipino Women	8,220	$21,888	8,700	$22,028	9,200	$21,528	27,140	$20,551
Japanese-American Men	2,700	$54,720	3,280	$53,531	3,500	$51,396	10,220	$43,329
Japanese-American Women	1,440	$33,643	1,860	$32,922	2,100	$30,193	9,820	$23,494
Indian-American Men	4,500	$43,678	5,040	$45,090	5,160	$44,641	10,200	$37,515
Indian-American Women	1,640	$23,018	1,840	$23,147	1,900	$22,853	5,500	$18,507
Korean-American Men	1,380	$38,408	1,500	$37,695	1,660	$36,680	4,100	$30,761
Korean-American Women	1,360	$21,618	1,380	$21,696	1,460	$20,728	4,260	$18,792
Vietnamese-American Men	6,860	$27,217	7,220	$27,630	7,440	$27,241	15,320	$23,872
Vietnamese-American Women	4,280	$21,896	4,480	$21,890	4,640	$21,514	9,980	$17,848
Other Asian Men	1,380	$31,451	1,380	$31,451	1,420	$30,973	3,480	$27,050
Other Asian Women	1,020	$20,420	1,040	$20,431	1,040	$20,431	2,540	$17,943
Other Men	6,280	$28,084	7,240	$29,149	9,920	$25,684	56,100	$21,632
Other Women	5,360	$20,550	6,140	$21,044	7,780	$19,264	40,400	$15,947
TOTAL	**206,640**	**$39,432**	**256,500**	**$40,283**	**286,680**	**$38,170**	**1,157,060**	**$29,610**

Source: U.S. Census Public Use Microdata Samples

ALL INDUSTRIES IN SILICON VALLEY
MEAN ANNUAL EARNED INCOME BY GENDER AND NATIONAL ORIGIN, 1989



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