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# Analyzing 1981 Earnings Data from the Current Population Survey



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# Usual weekly earnings: another look at intergroup differences and basic trends

*Recent years of inflation and recession held real earnings of wage and salary workers below 1973 levels; the pay gap between black and white full-time employees narrowed after 1967, but the wide earnings disparity by sex remains*

EARL F. MELLOR AND GEORGE D. STAMAS

Interest in earnings differences among various population groups—men and women, blacks and whites, young and old—has grown over the years since data on usual weekly earnings were first published in the *Review* a decade ago. Because of this, the Bureau of Labor Statistics has expanded the collection and publication of the demographically oriented data on weekly and hourly earnings from the Current Population Survey (CPS). Previously collected only in May of each year, these data are now obtained monthly from one-fourth of the CPS sample and are published on a quarterly basis.<sup>1</sup>

Aggregation of the new data into annual averages yields the most reliable measures of the earnings differences among the various population groups. At the same time, the quarterly data, although subject to lower statistical reliability,<sup>2</sup> give at least a broad indication of how the earnings of the various demographic groups are affected by cyclical (or short-term) changes in economic conditions. This article focuses first on the annual average data for 1981 to re-examine the intergroup differences in earnings among both full- and part-time workers and then looks at some of the quarterly data to see how the earnings of the various groups have been

changing over time. Other articles in this issue, by Nancy F. Rytina and Sylvia Lazos Terry, deal more specifically with the relationship of pay to race, sex, occupational tenure, and work experience.

## Major differences among full-time workers

Of all persons employed as wage and salary workers in 1981, about 72 million usually worked full time—that is, 35 or more hours a week—and 16 million usually worked part time. On an annual average basis, the median weekly earnings for full-time workers were \$289, but this average masked very wide differences among the various population groups.

Disparities in earnings among groups are largely a reflection of differences in the amount, type, and location of work performed. If the number of hours worked by each group were the same, and if each group were equally distributed among the various occupations, industries, and geographic areas, the inter-group differences in earnings would probably not be very large. But, in reality, there are differences among the various population groups in terms of hours worked—even within the full-time universe—and in terms of the specific occupations and industries in which the work is performed. And, in the case of the principal racial and ethnic groups, there are also wide differences in terms of geographic concentration, which are known to have a

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further effect on earnings. Other factors, such as differences in age, education, job tenure, and the subtle and not so subtle effects of discrimination may also have some impact on a group's earnings, but it is not the purpose of this article to identify all such factors, and even less to attempt to quantify their effects. Nevertheless, the most obvious are cited when comparing widely different levels of earnings.

*Men and women.* For men working full time, median weekly earnings in 1981 were \$347. For women, the median was \$224, or 65 percent of that for men. Without searching for all the factors which produce this ratio—a most difficult task even when carried out through a complex econometric model—it can be pointed out that men worked more hours than women even within the full-time universe<sup>3</sup> and, more importantly, were generally more concentrated within high-pay occupations in such fields as management and administration, professional and technical work, and the various crafts. Women, on the other hand, tend to be more concentrated in such lower-paying fields as clerical and service jobs.

Male-female gaps in earnings prevail even within each

occupation, but they are generally smaller than at aggregate levels. To take an extreme example, the median weekly earnings for women in sales were only 52 percent of those for men in the same field (table 1). However, a further look at this broad occupational group shows women to be largely concentrated in retail sales, where median weekly earnings for all full-time workers were only \$197. By contrast, men were more heavily grouped in "other sales," where the overall weekly median was \$382. Within each of these two fields, sex earnings ratios were significantly higher than the 52 percent average for all salesworkers. Specifically, the ratio was 61 percent in retail sales and 66 percent for "other" sales work. Needless to say, this was still far below parity, and one would have to dig much deeper for the causes of the remaining gap. Unfortunately, it has not been possible to explain all of the male-female disparity in earnings even when more detailed data on the work roles of men and women are available.<sup>4</sup>

Among some of the personal characteristics which are difficult to quantify but which may have a significant effect on the male-female earnings ratio is the discontinuous work experience of many women. Although this practice has changed considerably in recent years, it

**Table 1. Median weekly earnings of full-time wage and salary workers, by selected demographic characteristics, annual averages, 1981**

Age, major occupational group, and years of school completed	All races			White			Black			Hispanic		
	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women
<b>Age</b>												
Total, 16 years and over	\$289	\$347	\$224	\$296	\$356	\$226	\$238	\$271	\$210	\$229	\$252	\$192
16 to 24 years	204	225	184	206	227	185	185	196	174	187	197	172
16 to 19 years	163	173	150	164	174	151	148	150	145	-	-	-
20 to 24 years	219	241	193	222	244	195	192	207	179	-	-	-
25 years and over	316	378	237	325	389	239	251	290	220	246	282	201
25 to 34 years	302	346	242	310	354	245	248	280	223	-	-	-
35 to 44 years	335	406	241	345	416	243	267	311	227	-	-	-
45 to 54 years	329	408	231	340	417	234	248	295	213	-	-	-
55 to 64 years	317	386	227	326	396	231	243	281	198	-	-	-
65 years and over	227	270	190	228	275	189	216	233	( <sup>1</sup> )	-	-	-
<b>Occupation</b>												
Total, 16 years and over	289	347	224	296	356	226	238	271	210	229	252	192
Professional and technical workers	377	439	316	381	443	315	324	352	308	336	386	285
Managers and administrators, except farm	407	466	283	410	471	282	347	391	303	347	381	271
Salesworkers	306	366	190	311	372	191	221	249	182	240	286	( <sup>1</sup> )
Clerical workers	233	328	220	233	335	219	230	286	220	226	280	214
Craft and kindred workers	352	360	239	356	364	239	309	314	239	296	304	( <sup>1</sup> )
Operatives, except transport	242	298	187	246	304	189	222	267	179	199	231	169
Transport equipment operatives	303	307	237	314	319	237	257	258	( <sup>1</sup> )	261	261	( <sup>1</sup> )
Nonfarm laborers	238	244	193	241	247	193	217	220	( <sup>1</sup> )	222	225	( <sup>1</sup> )
Service workers	192	238	165	195	245	165	182	214	166	173	190	147
Farmworkers	179	183	148	181	185	148	147	154	( <sup>1</sup> )	185	191	( <sup>1</sup> )
<b>Years of school completed</b>												
Total, 25 years and over	316	378	237	325	389	239	251	290	220	246	282	201
Less than 4 years of high school	242	290	180	249	301	182	211	241	172	210	232	167
8 years of school or less	227	259	169	232	268	171	203	225	160	199	221	158
1 to 3 years of high school	256	314	187	268	326	190	217	257	177	235	266	185
4 years of high school or more	333	402	249	341	409	251	273	317	237	293	349	234
4 years of high school	291	363	222	298	372	224	243	294	209	264	319	211
1 to 3 years of college	334	398	259	342	405	261	283	325	246	316	370	258
4 years of college or more	417	482	325	422	490	326	350	396	326	371	414	308
4 years of college	393	459	299	402	471	301	321	354	296	340	384	285
5 years of college or more	443	507	362	445	510	359	416	449	384	421	446	( <sup>1</sup> )

<sup>1</sup> Median not shown where base is less than 50,000.

NOTE: Dashes indicate data not available.



used to be customary for women to leave the job market for many years in order to bear and rear their children. This affected not only their accumulation of seniority, but also the advancement of their skills.<sup>5</sup>

An age-earnings profile of CPS data clearly shows that, for one or a number of reasons, the average weekly earnings of women reach a peak at a younger age than do the earnings of men. As shown in chart 1, median weekly earnings of women show no further rise after reaching a peak of about \$240 at ages 25 to 34. For men, however, the peak value of about \$410 reported for the 35-to-44 and the 45-to-54 age groups was considerably higher than the median for the 25-to-34 age group.

One question raised by the chart is whether the relatively narrow earnings gap which now exists between younger men and women will widen as these workers age, or whether the disparity exhibited by older workers merely reflects wage and employment patterns by sex that are gradually being eroded. Only time can answer this question, but it should be noted that, over the past 14 years, the overall sex-earnings ratio has not changed much. It was 62 percent in May 1967 and had risen only to 64 percent by the second quarter of 1981.

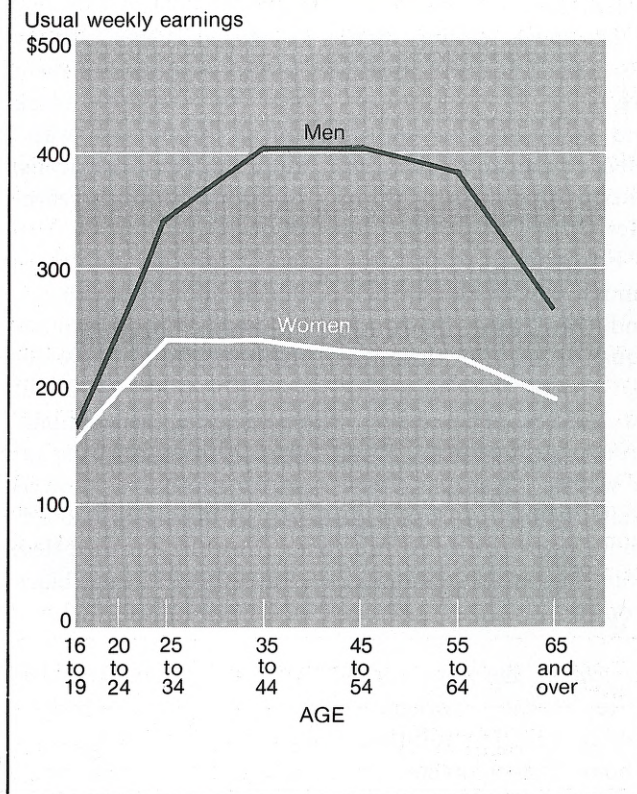
**Blacks and Hispanics.** The earnings differences among whites, blacks, and Hispanics are shown in table 1 in terms of age, sex, occupation, and education. The tabulation below summarizes the usual weekly earnings of full-time workers by racial and ethnic origin and major age-sex groups based on annual averages for 1981.

	<i>White</i>		<i>Black</i>		<i>Hispanic</i>	
	<i>Level</i>	<i>Level</i>	<i>Percent</i>	<i>Level</i>	<i>Percent</i>	<i>Level</i>
			<i>of white</i>		<i>of white</i>	
			<i>earnings</i>		<i>earnings</i>	
Total . . . . .	\$296	\$238	80	\$229	77	
<b>Men:</b>						
16 to 24 years old . . . . .	227	196	86	197	87	
25 years and over . . . . .	389	290	75	282	72	
<b>Women:</b>						
16 to 24 years old . . . . .	185	174	94	172	93	
25 years and over . . . . .	239	220	92	201	84	

As shown above, the overall median weekly earnings of blacks were 80 percent of the overall median for whites, and the median for Hispanics was 77 percent of that for whites. The greatest racial and ethnic differences in earnings, both in absolute and relative terms, were among men 25 years and over. Within this group, the medians for blacks and Hispanics were about 75 percent of that for whites. Among women, the racial-ethnic differences were much smaller.

But even among men, the racial-ethnic differences in earnings were significantly smaller when examined by occupation. Whereas the overall black-to-white ratio for

**Chart 1. Earnings profile of full-time wage and salary workers, by sex and age, 1981**



men was 76 percent, the ratios for most of the occupational groups exceeded 80 percent for men and were much higher for women. (See table 1.) The reason the overall ratios are so much lower, particularly for men, is because of the relatively high concentration of blacks in low-skill, low-pay occupations, which could, in turn, reflect differences in education or training, or the lingering effects of discrimination. That the racial-ethnic earnings gaps are very small among young workers, both male and female, probably reflects the fact that there is, as yet, little difference among these groups in terms of educational attainment, skills, and general experience on the job.

Regional differences in earnings, coupled with the unequal geographical distribution of the various racial-ethnic groups, also contribute to the earnings variation among these groups. In the South, which employs more than half of all black men with jobs, but less than a third of all white men, workers of each race earned less than their counterparts in the other regions.<sup>6</sup> And, at \$237 per week, the earnings of black men in the South were 71 percent of those for white men (\$332), a ratio lower than in any other region.

Hispanic men as a group earned \$252 per week, about 93 percent as much as black men and 71 percent



as much as white men. A comparison of the earnings of Hispanic men with the earnings of all white men shows a pattern similar to that for blacks—that is, more favorable earnings ratios within individual occupational groups than overall.

The lower earnings figure for Hispanic men also reflects the fact that a relatively large proportion of them are under 25 years of age. Within age categories, black and Hispanic men earned about the same per week. Men in the major Hispanic ethnic groups—Mexicans, Puerto Ricans, and Cubans—had roughly similar earnings.

For women, there were generally smaller differences among the median weekly earnings of whites, blacks, and Hispanics. Black teenage women had earnings equal to those of their white counterparts. In the older age groups the black-white earnings ratios were about 90 percent. Differences within specific occupational groups were generally small between white and Hispanic women. Hispanic women earned about the same as white women in clerical jobs and as managers and administrators working full time. But they earned less than their white counterparts—and still less than black women—in factory operative and service jobs.<sup>7</sup>

**Education.** Earnings are closely related to education, as better educated workers generally have access to higher-paying jobs. For full-time workers over age 24 (most of whom had completed their education), median usual earnings in 1981 ranged from \$242 for those with less than 4 years of high school to \$443 for those with 5 years of college or more. (See table 1.)

Among the highly educated workers, earnings of women and minority men compared more favorably

with those of white men than among the less educated. On the average, women with 4 years of college earned 65 percent as much as men with the same attainment, and those with 5 or more years of college earned 71 percent as much as men at the same level of education. On the other hand, among workers with only a high school education, the median weekly earnings of women were only 61 percent of those of men. Working women with any college education are, on the average, younger than men with the same educational attainment, and so have less work experience in their chosen vocation. This may explain, in part, apparent earnings disparities by educational attainment.

Earnings of black men generally hovered around 80 percent those of white men with the same level of education, but blacks with 5 or more years of college earned about 90 percent as much. Relatively fewer black men fit this category, however; 5 percent had 5 or more years of college compared to 12 percent of white men. Several researchers have found that, after standardizing for work experience, returns to education for black men equal or exceed those of white men.<sup>8</sup> At higher levels of educational attainment, black men are, on the average, younger than white men with similar education.

As can be seen in table 1, younger black men had a more favorable earnings ratio relative to white men their age than did older black men. This is at least partly because, relative to the white counterparts of each group, younger blacks have received more and better quality schooling than did older blacks. It remains to be seen whether young blacks can carry with them this improvement in relative earning power throughout their lives.<sup>9</sup>

**Table 2. Percent distribution of full-time wage and salary workers, by usual weekly earnings for major industry groups, annual averages, 1981**

Industry group	Number of workers (in thousands)	Percent distribution by weekly earnings									Median
		Total	Under \$150	\$150 to \$199	\$200 to \$249	\$250 to \$299	\$300 to \$349	\$350 to \$399	\$400 to \$499	\$500 or more	
Total	72,491	100.0	9.8	14.5	15.9	12.3	11.2	8.3	13.3	14.7	\$289
Private sector	59,112	100.0	10.6	15.4	16.2	11.8	10.7	7.9	12.8	14.6	282
Goods-producing industries	25,813	100.0	7.1	12.9	15.6	11.9	11.4	9.1	15.6	16.4	310
Agriculture	1,050	100.0	29.1	26.3	19.9	9.5	5.2	3.8	3.2	3.0	189
Mining	1,055	100.0	1.3	3.7	7.5	8.8	10.9	10.6	24.5	32.7	423
Construction	3,658	100.0	4.0	9.4	15.9	10.8	11.6	8.7	17.4	22.3	342
Manufacturing	20,050	100.0	6.8	13.4	15.7	12.4	11.8	9.3	15.4	15.2	306
Durable goods	12,300	100.0	4.3	10.6	15.2	12.8	12.2	10.2	17.7	17.1	329
Nondurable goods	7,750	100.0	10.9	17.8	16.6	11.8	11.0	7.9	11.7	12.3	269
Service-producing industries	33,299	100.0	13.3	17.4	16.6	11.8	10.2	7.0	10.7	13.1	261
Transportation and public utilities	5,033	100.0	2.5	6.8	11.3	10.2	12.3	10.8	22.9	23.1	381
Trade	11,593	100.0	17.7	20.0	16.7	11.2	9.6	6.2	8.6	10.0	236
Finance, insurance, and real estate	4,645	100.0	7.8	19.8	19.4	13.3	9.6	6.2	8.0	16.0	261
Private households	369	100.0	70.7	14.6	10.0	2.4	1.1	0.2	0.8	0.5	114
Miscellaneous services	11,660	100.0	13.9	18.4	17.8	12.8	10.5	6.5	8.9	11.2	249
Public sector	13,379	100.0	6.1	10.6	15.0	14.6	12.9	10.1	15.2	15.3	313
Federal	2,929	100.0	2.7	6.2	10.9	12.1	11.4	12.2	22.2	22.4	377
State	3,162	100.0	6.5	12.1	16.3	15.4	12.9	9.0	12.6	15.3	298
Local	7,162	100.0	7.3	11.8	16.2	15.3	13.6	9.7	13.6	12.5	297

NOTE: Small values in the percent distributions are subject to relatively large sampling errors and should be interpreted with caution. Specifically, values of less than 1 percent are subject to relative errors of 25 percent or more.



*Occupation and industry.* Workers in managerial or administrative jobs had the highest median weekly earnings (\$407) among the major occupational groups. Professional and technical workers were the second highest-paid group. These two groups included all but one of the eight specific occupations with median weekly earnings of \$500 or more in 1981: lawyers, sales managers other than retail trade, engineers, economists, stock and bond sales agents, airplane pilots, computer systems analysts, and physicians.<sup>10</sup> The same two groups included most of the specific occupations with medians between \$450 and \$499: school administrators, operations and systems researchers and analysts, chemists, and pharmacists. (There also was one blue-collar occupation—structural metal workers.)

Lowest median earnings among the major occupational groups were reported for farmworkers, \$179, and service workers, \$192. The services field included all of the specific occupations with median weekly earnings below \$150.

It is generally recognized that the most precise data on earnings patterns by industry are those collected not through a household survey such as the CPS, but through a survey of establishments such as the "790" survey conducted monthly by the BLS.<sup>11</sup> Nevertheless, data from the CPS are still a valuable complement to the establishment-based earnings data, as the latter cannot generally be crosstabulated with any of the characteristics of the earners, such as sex and full- or part-time status. The CPS data can be disaggregated by these characteristics and, at least until 1980, could also be crosstabulated with union membership.<sup>12</sup>

In 1981, full-time workers in the private sector had median weekly earnings of \$282, with respective medians of \$310 in goods-producing industries and \$261 in the service sector. (See table 2.) In the public sector, full-time workers had median weekly earnings of \$313, with Federal employees reporting higher average earnings than employees of State or local governments.

From an all-inclusive list of 46 industry groups in the private sector, the six with the highest reported earnings for full-time workers—medians of \$400 or more—included four in manufacturing (petroleum and coal products, motor vehicle and equipment manufacture, aircraft and parts manufacture, and ordnance), mining, and one in the service-producing sector (railroad transportation). These industries typically have higher than average proportions of professional and technical workers, managers and administrators, and craftworkers. They also have above-average proportions of workers who are covered by union agreements and below-average proportions of women employees. This is clearly illustrated in the following tabulation which, in addition to the median weekly earnings for full-time workers in the six highest- and lowest-paying industries, also shows the

percentage of wage and salary workers who were represented by a union as of May 1980 and the percentage who are women.

	Median weekly earnings	Percent represented by a union	Percent who are women
All full-time workers.	\$289	29	39
<b>Highest-paying industries:</b>			
Petroleum and coal products . . . . .	433	36	20
Mining . . . . .	423	36	15
Railroad transportation . . . .	422	82	7
Aircraft and parts manufacture . . . . .	414	50	23
Ordnance . . . . .	410	37	22
Motor vehicle and equipment manufacture . . .	407	63	15
<b>Lowest-paying industries:</b>			
Private households . . . . .	114	1	90
Apparel manufacture . . . . .	170	27	79
Eating and drinking places . . . . .	174	8	55
Leather and leather products . . . . .	185	24	61
Personal services . . . . .	188	18	59
Agriculture . . . . .	189	4	16

*Low earners and high earners.* Medians are probably the most useful measure of earnings one can use for inter-group comparison. However, information on the distribution of earnings within groups—that is, the proportion of workers at given levels of earnings—show more fully the extent of differences in earnings. For example, while the median earnings of two groups of workers might be about the same, one group could have a larger proportion of very low earners than the other.

From the distribution of earnings in table 3, we see that about 7 million full-time wage and salary workers, or 10 percent of the total, were reported as earning under \$150 a week in 1981. About 600,000 of them were earning under \$100 a week, or considerably less than they could earn if they received the minimum wage (\$3.35 per hour at the time) and worked a 40-hour week.

Earnings below \$150 a week were most common among youth, women, and minority employees. The extent to which these groups were overrepresented among low earners in 1981 can be seen by comparing their share of the full-time work force with their share of the low-earning universe:

	Percent of full-time workers	Percent earning under \$150
Workers 16 to 24 years . . . .	19	41
Women . . . . .	39	66
Blacks . . . . .	10	17
Hispanics . . . . .	5	10



Some occupations and industries have a substantially higher share of low earners than others. About 40 percent of service workers and 34 percent of farmworkers, compared to about 3 percent of professional and technical workers, managers and administrators, and craftworkers were reported as earning under \$150 for full-time work in 1981.

Among the major industry groups, private households, agriculture, and trade had the highest proportion of workers reporting less than \$150 for full-time work. Mining, transportation and public utilities, and the Federal Government had the lowest proportions in this low-earning bracket.

At the upper end of the earnings spectrum, 11 million full-time employees reported weekly earnings of \$500 or more per week. They constituted about 15 percent of all full-time workers. An overwhelming majority of the high earners (86 percent) were white males age 25 and over, most of them married. Men with 4 or more years of college—13 percent of all full-time employees—made up 41 percent of the workers with \$500

or more in weekly earnings, while women with the same level of education were underrepresented among these high earners. Three occupational groups—professional and technical, managerial and administrative, and craft—accounted for 76 percent of the high earners, but only 43 percent of all full-time workers.

**Part-time workers**

For the 16 million persons who were reported as usually working part time, median weekly earnings were \$82 in 1981. This was equivalent to 28 percent of the median for full-time workers, for workweeks that were almost half as long.<sup>13</sup>

In addition to the shorter workweek, the occupational distribution and demographic composition of part-time workers figured in their lower earnings. For example, part-time workers include a higher proportion of women and of persons outside the prime earning ages (25 to 54 years). The following tabulation shows the percentages of the part-time and full-time work forces accounted for by various demographic groups in 1981.

**Table 3. Percent distribution of full-time wage and salary workers, by usual weekly earnings and selected demographic characteristics, annual averages, 1981**

Characteristic	Number of workers (in thousands)	Percent distribution by weekly earnings									Median
		Total	Under \$150	\$150 to \$199	\$200 to \$249	\$250 to \$299	\$300 to \$349	\$350 to \$399	\$400 to \$499	\$500 or more	
<b>Sex and age</b>											
Total, 16 years and over	72,491	100.0	9.8	14.5	15.9	12.3	11.2	8.3	13.3	14.7	\$289
16 to 24 years	13,702	100.0	21.2	26.6	21.2	11.9	7.6	4.4	4.7	2.4	204
25 years and over	58,789	100.0	7.1	11.7	14.7	12.5	12.0	9.2	15.2	17.6	316
Men, 16 years and over	43,888	100.0	5.4	9.0	12.7	11.3	12.1	10.0	17.8	21.7	347
16 to 24 years	7,672	100.0	10.4	22.3	21.7	13.1	9.6	6.0	7.1	3.7	225
25 years and over	36,216	100.0	3.1	6.2	10.7	10.9	12.6	10.9	20.0	25.5	378
Women, 16 years and over	28,603	100.0	16.4	23.0	21.0	14.0	9.7	5.6	6.3	4.1	224
16 to 24 years	6,030	100.0	27.4	32.0	20.5	10.2	5.1	2.3	1.7	0.8	184
25 years and over	22,573	100.0	13.4	20.5	21.1	15.0	10.9	6.5	7.6	4.9	237
<b>Race, Hispanic origin, and sex</b>											
White	63,241	100.0	9.0	14.0	15.6	12.2	11.3	8.5	13.7	15.8	296
Men	38,874	100.0	4.8	8.4	12.1	11.0	12.1	10.2	18.2	23.1	356
Women	24,367	100.0	15.6	22.8	21.1	14.2	10.0	5.8	6.4	4.1	226
Black	7,499	100.0	16.0	19.3	18.9	13.0	10.2	6.8	9.7	6.1	238
Men	4,023	100.0	11.2	15.1	17.9	13.4	12.1	8.5	13.5	8.4	271
Women	3,477	100.0	21.6	24.1	20.2	12.6	8.0	4.8	5.3	3.4	210
Hispanic	4,284	100.0	16.9	21.2	19.7	12.0	8.7	6.3	8.8	6.4	229
Men	2,759	100.0	11.8	17.7	19.7	12.5	10.1	7.6	11.5	9.0	252
Women	1,525	100.0	26.1	27.5	19.7	11.3	6.0	3.9	4.0	1.5	192
<b>Occupation</b>											
Professional and technical workers	12,870	100.0	2.5	4.7	9.6	13.0	14.1	10.9	18.4	26.8	377
Managers and administrators, except farm	7,864	100.0	2.8	5.9	9.2	10.5	11.0	9.1	15.2	36.4	407
Salesworkers	3,601	100.0	13.1	13.4	12.1	9.9	11.3	6.8	11.3	22.2	306
Clerical workers	14,066	100.0	10.2	23.6	24.2	14.8	9.8	6.2	7.4	3.7	233
Craft and kindred workers	10,558	100.0	2.9	7.3	13.4	12.1	13.5	11.4	22.0	17.3	352
Operatives, except transport	9,440	100.0	13.6	20.5	18.6	12.5	10.3	7.8	11.8	4.8	242
Transport equipment operatives	2,792	100.0	5.5	12.3	17.6	13.7	12.6	9.5	15.8	13.0	303
Nonfarm laborers	3,227	100.0	15.2	19.7	19.3	12.1	10.3	8.2	10.7	4.6	238
Service workers	7,305	100.0	29.3	24.1	18.2	9.8	6.8	3.9	4.8	3.2	192
Farmworkers	766	100.0	33.6	27.7	19.6	8.1	4.2	3.2	1.6	2.1	179

NOTE: Small values in the percent distributions are subject to relatively large sampling errors and should be interpreted with caution. Specifically, values of less than 1 percent are subject to relative errors of 25 percent or more.



	Part time	Full time
Women . . . . .	69	39
Persons under 25 years . . . . .	43	19
Persons 55 years and older . . . . .	15	12
White . . . . .	89	87
Black . . . . .	9	10
Hispanic . . . . .	4	5

The unique industry composition of the part-time work force also contributed to its lower earnings. Almost nine-tenths of all part-time employment, compared with about two-thirds of full-time employment, is in the service-producing sector, where pay scales are relatively low.

Women as a group earned slightly more per week than men for part-time work in 1981 (\$84 versus \$78). However, this is largely because one-half the women but only one-sixth the men in part-time work are age 25 to 54. Within each age group, women earned less than men for part-time work. (See table 4.) The gap was least for workers under 25 years and widest for those age 35 to 44.

Median weekly earnings of part-time workers by occupation ranged from \$32 for private household work and \$59 for farmwork to \$123 for professional and technical jobs. In each occupation, the ratio of median weekly earnings, part time to full time, was lower than the ratio of mean hours between the two groups. (See table 5.)

### Trends in weekly earnings

An examination of the broad earnings trends for the period beginning with May 1967 and ending with the second quarter of 1981 reveals significant gains in constant dollars (current dollars deflated by the CPI-W) up to 1973 and some erosion thereafter.<sup>14</sup> The erosion reflects both the effects of the recession of 1974-75 and of the slowdown that began in 1980, as well as the acceleration in prices over this period. For 1981 no group shown in table 6 had constant-dollar earnings exceeding their 1973 level.

Overall, the median earnings for all full-time workers

Age	Median weekly earnings			Women's earnings as a percent of men's
	Both sexes	Men	Women	
Total, 16 years and over . . . . .	\$82	\$78	\$84	108
16 to 19 years . . . . .	61	62	59	95
20 to 24 years . . . . .	84	86	83	97
25 to 34 years . . . . .	103	119	100	84
35 to 44 years . . . . .	104	150	101	67
45 to 54 years . . . . .	99	119	97	82
55 to 64 years . . . . .	91	105	88	84
65 years and over . . . . .	71	78	65	83

Table 5. Weekly earnings and hours of part-time workers and as a percent of those of full-time workers, by occupation, annual averages, 1981

Occupation group	Median weekly earnings		Mean hours <sup>1</sup>	
	Part-time workers	As a percent of full-time earnings	Part-time workers	As a percent of full-time hours
Total . . . . .	\$ 82	28	19.0	46
Professional and technical workers . . . . .	123	33	19.1	45
Managers and administrators, except farm . . . . .	108	27	20.7	46
Salesworkers . . . . .	73	24	19.1	44
Clerical workers . . . . .	88	38	19.7	50
Craft and kindred workers . . . . .	105	30	20.1	48
Operatives, except transport . . . . .	91	38	20.4	50
Transport equipment operatives . . . . .	93	31	19.1	43
Nonfarm laborers . . . . .	70	29	17.8	44
Service workers . . . . .	69	36	18.2	44
Private household workers . . . . .	32	30	13.5	31
Other service workers . . . . .	73	37	18.9	46
Farmworkers . . . . .	59	33	16.5	33

<sup>1</sup>Hours are for wage and salary workers who usually work part time for non-economic reasons and for wage and salary workers on full-time schedules.

were about 4 percent lower in real terms in 1981 than in 1967. This overall decline, however, was partly a function of changes in the demographic composition of the work force. Most of the gains in employment over the 1967-81 period were made by women and very young workers, whose earnings are generally much lower than those of adult men. Thus, the increase in the youth and female proportions of the work force had a depressing effect on the earnings average for all full-time workers.

As shown in table 6, the inflation-adjusted earnings of men 25 and over were still 5 percent higher in mid-1981 than in 1967, while those of women 25 and over were 9 percent higher. It was only the earnings of young workers 16 to 24 that were lower in real terms in mid-1981 than in 1967, a phenomenon that has been widely attributed to the very rapid increase in the number of youth entering the labor force over this period.<sup>15</sup>

A more encouraging development was the relatively sizable gain in the earnings of blacks. During 1967-73, black men and women experienced gains in earnings adjusted for inflation about twice as large, in percentage terms, as those of their white counterparts. Moreover, subsequent periods of recession and spiraling prices eroded the gains of black workers much less. After allowance for inflation, median weekly earnings were 12 percent greater for black men and 24 percent greater for black women in 1981 than in 1967. In contrast, white men had real earnings equal to their 1967 level, while white women had earnings only 4 percent higher than their 1967 level. Thus, there was significant narrowing in the racial earnings gap over this period.

The disparity between the earnings of men and women also narrowed slightly, but continued to be large. The tabulation below shows the earnings of women



working full time as a percentage of the earnings of men of comparable age for 1967 and 1981.

	1967 (May)	1981 (Second quarter)
16 years and over . . . . .	61.9	64.2
16 to 24 years . . . . .	76.8	80.4
25 years and over . . . . .	60.5	62.6

More recently, over the 2-year period ended with the fourth quarter of 1981, median weekly earnings of full-time workers rose by 19.1 percent, while consumer prices rose by 23.1 percent. This resulted in a 3.3-percent decline in constant-dollar earnings, most of which occurred during 1980. For most of the major groups, the changes between the fourth quarters of 1980 and 1981 were not statistically significant. The fact that there was no further erosion of real earnings over this period reflects a slowdown in the increase in the CPI-W (from 12.6 to 9.4 percent annually) rather than an acceleration in current-dollar earnings.

Although the recession which began in the latter part of 1981 had a negative impact on the number of full-time workers, it did not have a noticeable effect on the average weekly earnings of this group. This reflects contractual and other factors working against reducing wage increases (for example, cost-of-living adjustments). Also, during a production cutback, workers with the least seniority on the job are generally laid off first, and this may result in a smaller but higher-tenured and higher-paid workforce.

**A look at hourly earnings**

Of all wage and salary workers, about three-fifths, or a little under 52 million, were paid by the hour in 1981. The data on the hourly earnings of these workers, when crossed with their demographic characteristics, provide some additional insight on the earnings distribution, particularly in terms of those who are at the lower end.

Workers paid by the hour are highly concentrated in lower skilled occupations. Those most likely to be paid hourly rates in 1981 were factory operatives and non-farm laborers; the least likely were professional and technical workers and managers and administrators. In terms of industries, hourly wage workers accounted for more than two-thirds of construction, manufacturing, and trade employees, but for only one-fourth of those in finance, insurance, and real estate.

Within the hourly earnings universe—which, to a certain extent, tends to group workers according to skills and education—the inter-group differences in earnings are not as large relatively as they are for all wage and salary workers. For example, as shown in table 7, the median hourly earnings for black men were \$5.93 in 1981. This was 87 percent of the median for white men paid by the hour, compared with a 76 per-

cent ratio of the weekly medians for the two groups. The median hourly earnings of black women (\$4.27) were only slightly lower than those of white women (\$4.36).

Men had much higher hourly earnings than women at every age. And, as in the case of weekly earnings, women reached a peak in hourly earnings at an earlier age than did men. According to the cross-sectional data for 1981, women reached a peak in median hourly earnings at ages 25 to 34, whereas the median for men continued to rise through the 35-to-44 age group and remained about the same for men age 45 to 54.

In terms of distribution, about 6.8 million workers paid by the hour, or 13 percent, made \$10 or more in 1981. An overwhelming majority of them, 80 percent,

**Table 6. Median weekly earnings of wage and salary workers who usually work full time, by selected characteristics, 1967, 1973, and 1981**

Characteristic	Median weekly earnings			Index of constant dollars (May 1967 = 100.0)	
	1967 (May)	1973 (May)	1981 (Second quarter)	1973 (May)	1981 (Second quarter)
<b>Sex and age</b>					
Both sexes, 16 years and over . . . . .	\$109	\$159	\$285	110.1	96.3
16 to 24 years . . . . .	84	119	202	107.1	89.3
25 years and over . . . . .	115	170	312	111.3	100.0
Men, 16 years and over . . . . .	125	188	344	113.6	101.6
16 to 24 years . . . . .	97	136	225	106.2	85.6
25 years and over . . . . .	131	203	374	116.8	105.3
Women, 16 years and over . . . . .	78	116	221	112.8	105.1
16 to 24 years . . . . .	74	103	181	105.4	90.5
25 years and over . . . . .	79	121	234	115.2	108.9
<b>Race</b>					
White . . . . .	113	162	293	108.0	95.6
Men . . . . .	130	193	353	112.3	100.0
Women . . . . .	79	117	223	111.4	103.8
Black and other races <sup>1</sup> . . . . .	79	129	238	124.1	111.4
Men . . . . .	90	149	274	125.6	112.2
Women . . . . .	63	107	210	128.6	123.8
<b>Marital status</b>					
Men, 16 years and over:					
Never married . . . . .	95	134	238	106.3	92.6
Married, spouse present . . . . .	131	200	377	115.3	106.1
Other marital status . . . . .	113	171	344	114.2	112.4
Women, 16 years and over:					
Never married . . . . .	79	114	206	108.9	96.2
Married, spouse present . . . . .	79	117	226	111.4	105.1
Other marital status . . . . .	75	115	225	116.0	110.7
<b>Occupation</b>					
Professional and technical workers . . . . .	145	212	368	110.3	93.8
Managers and administrators, except farm . . . . .	164	238	409	109.8	92.1
Salesworkers . . . . .	113	163	301	108.8	98.2
Clerical workers . . . . .	91	130	230	107.7	93.4
Craft and kindred workers . . . . .	131	195	347	112.2	97.7
Operatives, except transport <sup>2</sup> . . . . .	—	132	243	—	—
Transport equipment operatives <sup>2</sup> . . . . .	—	169	299	—	—
Nonfarm laborers . . . . .	93	138	236	111.8	93.5
Service workers . . . . .	70	107	189	115.7	100.0
Farmworkers . . . . .	58	96	179	125.9	113.8

<sup>1</sup> Data for blacks (exclusive of other races) are not available prior to 1978.  
<sup>2</sup> Data not available prior to 1972.



**Table 7. Median hourly earnings of wage and salary workers paid hourly rates, by selected demographic characteristics, annual averages, 1981**

Age and years of school completed	Total			White			Black			Hispanic		
	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women
<b>Age</b>												
Total, 16 years and over	\$5.27	\$6.72	\$4.35	\$5.30	\$6.84	\$4.36	\$5.01	\$5.93	\$4.27	\$4.90	\$5.45	\$4.15
16 to 24 years	4.04	4.41	3.75	4.06	4.44	3.76	3.88	4.11	3.70	4.08	4.34	3.80
16 to 19 years	3.47	3.61	3.39	3.48	3.64	3.39	3.39	3.40	3.38	—	—	—
20 to 24 years	4.68	5.25	4.17	4.75	5.31	4.19	4.24	4.58	3.93	—	—	—
25 years and over	6.13	7.92	4.74	6.25	8.14	4.77	5.43	6.64	4.51	5.35	6.38	4.37
25 to 34 years	6.24	7.53	4.98	6.36	7.69	4.99	5.56	6.50	4.81	—	—	—
35 to 44 years	6.38	8.49	4.84	6.51	8.77	4.85	5.64	6.98	4.63	—	—	—
45 to 54 years	6.18	8.65	4.63	6.35	8.96	4.68	5.32	6.77	4.35	—	—	—
55 to 64 years	5.88	8.05	4.45	5.99	8.26	4.49	5.26	6.67	4.09	—	—	—
65 years and over	3.98	4.35	3.76	4.03	4.41	3.79	3.53	3.75	3.41	—	—	—
<b>Years of school completed</b>												
Total, 25 years and over	6.13	7.92	4.74	6.25	8.14	4.77	5.43	6.64	4.51	5.35	6.38	4.15
Less than 4 years of high school	5.30	6.77	4.05	5.43	7.00	4.10	4.71	5.65	3.86	4.82	5.45	3.80
8 years of school or less	5.06	6.09	3.88	5.17	6.29	3.92	4.44	5.19	3.63	4.53	5.19	3.73
1 to 3 years of high school	5.50	7.40	4.18	5.79	7.65	4.24	4.90	6.16	3.98	5.44	6.59	3.92
4 years of high school or more	6.47	8.45	5.03	6.53	8.62	5.02	6.03	7.27	5.03	6.32	7.77	4.60
4 years of high school	6.19	8.43	4.71	6.28	8.61	4.71	5.65	7.05	4.71	6.07	7.54	4.46
1 to 3 years of college	6.91	8.60	5.49	6.96	8.78	5.47	6.69	7.74	5.70	7.09	8.48	4.73
4 years of college or more	7.21	8.22	6.36	7.22	8.31	6.29	7.03	7.56	6.46	6.55	7.05	( <sup>1</sup> )
4 years of college	6.93	8.09	5.97	6.95	8.21	5.92	6.86	7.58	6.22	6.36	( <sup>1</sup> )	( <sup>1</sup> )
5 years of college or more	7.92	8.53	7.40	7.88	8.51	7.28	7.95	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Median not shown where base is less than 50,000.

NOTE: Dashes indicate data not available.

were white men. Only 12 percent of the high wage earners were women, 8 percent were black, and 5 percent were Hispanic.

At the low end of the earnings scale, about 1.4 million of the workers paid an hourly wage earned less than \$3 an hour in 1981, when the prevailing minimum wage under the Fair Labor Standards Act was \$3.35. Of course, the Act exempts certain types of workers from the minimum wage provisions and permits a lower minimum for others.<sup>16</sup> About half of the workers who

earned less than the prevailing minimum were employed in retail trade—two-thirds of them in eating and drinking places, where exemptions from the minimum are very prevalent. One-tenth worked in private households.

Workers who reported that they earned less than the minimum wage were predominantly young (57 percent were under 25 years of age), and female. Among both whites and blacks, about 7 percent of the hourly employees reported earnings below the prevailing minimum. □

— FOOTNOTES —

<sup>1</sup> Quarterly data on weekly earnings from the CPS have been available since early 1979 and are published in a press release entitled "Weekly Earnings of Workers and Their Families." The release is available free of charge from the Bureau of Labor Statistics.

Before 1979, roughly comparable data on weekly earnings by demographic group were collected each May from 1967 to 1978, except for 1968. The data were published in press releases and occasional articles in the *Monthly Labor Review*. The first such article was Paul O. Flaim and Nicholas I. Peters, "Usual weekly earnings of American workers," *Monthly Labor Review*, March 1972, pp. 28–38. The most recent was Janice N. Hedges and Earl F. Mellor, "Weekly and hourly earnings of U.S. workers, 1967–78," *Monthly Labor Review*, August 1979, pp. 31–41.

The switch from annual to more frequent collection of earnings data in the CPS was made after two methodological tests indicated it was feasible to collect these data more often and that they would meet BLS standards of statistical reliability. The most important test was conducted in January 1977, when information on the earnings of about 4,000 workers was obtained directly from them or from members of their households and was then compared with information from their respective employers. Median hourly earnings for workers paid at hourly rates were \$3.53 on the basis of the household reports and \$3.64 on the basis of the employer reports—a difference of 11 cents or 3 percent. Median weekly earnings (excluding tips or commissions) were \$170.24 on the basis of the household reports and

\$179.50 on the basis of the employer reports, for a difference of \$9.26 or 5 percent. See Larry Carstensen and Henry Woltman, "Comparing Earnings Data From the CPS and Employer Records," *Proceedings of the Social Statistics Section, 1979* (Washington, American Statistical Association, 1979), pp. 168–74.

<sup>2</sup> For detailed information with regard to the reliability and other technical aspects of the quarterly earnings data from the CPS, see Earl F. Mellor, *Technical Description of the Quarterly Data on Weekly Earnings From the Current Population Survey*, Bulletin 2113 (Bureau of Labor Statistics, 1982).

<sup>3</sup> During 1981, women on full-time schedules worked an average of 39.5 hours per week, compared to 43.1 hours for men.

<sup>4</sup> The usual method for measuring intragroup wage differences is to estimate wage equations for each group through regression techniques which adjust for productivity-related personal characteristics. For example, see Burton G. Malkiel and Judith A. Malkiel, "Male-female pay differentials in professional employment," *American Economic Review*, September 1973, pp. 693–705.

This analysis rests in part on the foundation of human capital theory, which views schooling and training as investments increasing worker productivity and so future earnings. This theory is presented by Gary Becker in *Human Capital* (New York, Columbia University Press, 1964) and by Jacob Mincer in *Schooling, Experience, and Earnings* (New York, Columbia University Press, 1974), probably the two names most associated with the theory. In addition to variables mea-



asuring human capital accumulation, wage equations typically include other variables thought to have a role in the wage determining process. Estimates of coefficients in wage equations, including any residual difference in earnings levels that remain after controlling for levels of the determining variables, are sensitive to the variables included in the equation as well as relevant variables that have been left out. The difference in earnings that remains may be due to discrimination but could also be due to variables not considered.

There are economists who view the science's understanding of wage determination as seriously incomplete, and who question the relevance of human capital theory and wage regressions. For examples, see Lester C. Thurow, *Generating Inequality* (New York, Basic Books, Inc., 1975); and Michael J. Piore, "The importance of human capital theory to labor economics: a dissenting view," *Industrial Relations Research Association's 26th Annual Winter Proceedings*.

<sup>3</sup> The discontinuous work experience of many women may depress their earnings, in at least two ways. First, for periods when a woman does not have a job she is not accumulating work experience. Second, her skills accumulated in previous periods may depreciate. Women's fewer years of employment overall and at their current job lead to less on-the-job training. In addition, as suggested by Steven H. Sandell and David Shapiro, receipt of on-the-job training may increase with preferences for future labor force attachment and women may underestimate their future attachment and so underinvest in training. See "Work expectations, human capital accumulation, and the wages of young women," *Journal of Human Resources*, Summer 1980, pp. 335-53.

Mary Corcoran and Greg J. Duncan observed more likely and frequent interruption of work experience among women with the Panel Study on Income Dynamics. They found years of training completed on the current job explained 11 percent of the difference in earnings of white men and women while other work history explained 28 percent. After controlling for the levels of a long list of personal characteristics their technique left more than half of the wage differential unexplained. Results of their analysis suggest continuity of work experience had limited impact on earnings, implying that the impact of human capital depreciation during labor force withdrawal on earnings is minimal if it exists at all. See "Work history, labor force attachment and earnings differences between the races and the sexes," *The Journal of Human Resources*, Winter 1979, pp. 3-20. This evidence conflicts with that of Jacob Mincer and Solomon Polachek. See "Family investments in human capital: Earnings of women," *Journal of Political Economy*, Vol. 82, no. 2, part 2, March/April 1974, pp. S76-S108.

Bureau of Labor Statistics data from the CPS show that in January 1978, the average length of time at the current job (job tenure) was 4.5 years for men and 2.6 years for women. See Edward S. Sekscenski, "Job tenure declines as work force changes," *Monthly Labor Review*, December 1979, pp. 48-50, reprinted with additional data as *Special Labor Force Report* No. 235.

<sup>6</sup> The South includes the South Atlantic (Delaware, the District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia), the East South Central (Alabama, Kentucky, Mississippi, and Tennessee), and the West South Central (Arkansas, Louisiana, Oklahoma, and Texas) divisions. Using CPS data from May 1978, George D. Stamas estimated hourly earnings in the South 10 percent lower for blacks, and 4 percent lower for whites, compared to workers with similar characteristics in the rest of the country. See "The puzzling lag in southern earnings," *Monthly Labor Review*, June 1981, pp. 27-36.

<sup>7</sup> Some comparisons of earnings by occupation could not be made because there were not enough minority women in some occupations to provide reliable estimates of their median earnings. This was the case for black women employed as transport equipment operatives and farmworkers, and for Hispanic women employed as salesworkers,

craftworkers, transport equipment operatives, nonfarm laborers, and farmworkers.

<sup>8</sup> For an analysis of recent differences in the earnings of black men and white men, see Daniel E. Taylor, "Education, on-the-job training, and the black-white pay gap," *Monthly Labor Review*, April 1981, pp. 28-34. Corcoran and Duncan used a more precise measure of on-the-job training and work experience and found returns for blacks and whites to be similar. See Corcoran and Duncan, "Work history."

<sup>9</sup> James P. Smith and Finis Welch espouse this view in their "vintage" cohort improvement hypothesis. See "Race differences in earnings: a survey and new evidence," in Peter Mieszkowski and Mahlon Straszheim, eds., *Current Issues in Urban Economics* (Baltimore, Johns Hopkins University Press, 1979), pp. 40-73. An alternative hypothesis is that this pattern of race-earnings ratios by age represents the life cycle and that as cohorts age, earnings of black men will fall relative to those of white men.

<sup>10</sup> There are additional occupations in this Bureau of the Census list of 428 for which the data indicate that earnings may be at least as high as those listed. However, the estimated number of full-time wage and salary workers in these jobs was less than the 50,000 required to provide reasonably reliable estimates of median earnings. Examples are physicists and astronomers, geologists, judges, and air traffic controllers.

<sup>11</sup> The Current Employment Statistics Survey, also known as the "establishment" survey or the "790" survey (collected via BLS Form 790) is conducted monthly by the Bureau of Labor Statistics to gather information on employment and earnings for detailed industries. Data from this survey are published in *Employment and Earnings*.

<sup>12</sup> Employment and earnings data on workers by union status are published in *Earnings and Other Characteristics of Organized Workers, May 1980*, Bulletin 2105 (Bureau of Labor Statistics, 1981).

<sup>13</sup> Comparisons of weekly hours in 1981 represent mean hours reported by workers at work in the reference weeks: 41.7 hours for those at work full time and 19.0 hours for those at work part time who usually work part time.

<sup>14</sup> Data from the quarterly series are not strictly comparable to those collected in May of prior years. See Earl F. Mellor, *Technical Description*. The earnings data are not seasonally adjusted, and only second quarter data from the quarterly series may be used in any comparisons with earlier figures. The extent of seasonal fluctuations cannot be accurately determined, and adjustments cannot be made until the data have been collected for at least 5 years. Hence, the quarterly series should not be used at this time to track quarter-to-quarter changes.

<sup>15</sup> For several summaries of research on the subject of generational crowding see *Proceedings of the Social Statistics Section, 1979* (Washington, American Statistical Association, 1979), pp. 37-56.

In a separate paper, James P. Smith and Finis Welch reported that the difference in lifetime earnings between the smallest and the largest cohort entering the labor market since 1940 may be 4 percent for high school graduates and 10 percent for college graduates, with most of the impact on employment and earnings occurring during the early stages of work careers. See "No Time to be Young: The Economic Prospects for Large Cohorts in the United States," *Population and Development Review*, March 1981, pp. 71-83.

<sup>16</sup> Examples of such workers are those in small retail and service establishments, persons employed as outside salesworkers, many agricultural workers, part-time workers attending school full time, and employees who earn tips. Tips also can be credited up to 40 percent of the minimum wage. The Fair Labor Standards Act and its coverage is outlined in *Minimum Wage and Maximum Hours Under the Fair Labor Standards Act, An Economic Effects Study Submitted to Congress, 1981* (U.S. Department of Labor, Employment Standards Administration, 1981).



# Earnings of men and women: a look at specific occupations

*Occupations in which women workers dominate  
tend to rank lower in terms of earnings;  
men dominate higher paid occupations*

NANCY F. RYTINA

As a result of growing concern over the persistence of earnings differences between men and women, policy-makers, researchers, and others have become increasingly interested in obtaining earnings data by sex at the finest level of occupational detail possible. Wide-ranging information of this nature can generally be collected only through a household survey such as the Current Population Survey (CPS). Until 1978, reliable estimates of earnings from the CPS could generally be presented only for aggregated groupings of occupations because of the limited number of sample observations in many occupations. However, changes in the collection of the CPS earnings data since 1979 have made it possible to construct annual average estimates to examine the earnings for a much larger number of detailed occupations.<sup>1</sup>

This report presents 1981 annual average data on the number of men and women working full time in each occupation and on their usual weekly earnings. Earnings data are shown only where wage and salary employment is at least 50,000, because estimates of earnings derived from a smaller base are considered too unreliable to publish. For the most part, this allows earnings comparisons at the Census Bureau's "three-digit" level of classification of occupations.<sup>2</sup> However,

for occupational groupings which did not contain any three-digit occupation with a sufficiently large employment base, the data are shown for the two-digit occupations, the next higher level of aggregation. The use of two- as well as three-digit occupations increases the number of occupations among which earnings can be compared and also makes possible some comparisons between men and women that would otherwise have had to be ignored because there were either too few men or too few women employed in the occupation. For example, there are almost no male registered nurses (a three-digit occupational category), but the earnings of the sexes can be compared in the two-digit category—nurses, dieticians, and therapists—because the number of male workers exceeded 50,000 in the larger grouping.

The data in table 1 show the employment and median earnings for 250 two- and three-digit occupations. These accounted for about 95 percent of the total full-time wage and salary work force in 1981. There are more occupations where men's earnings are shown than is the case for women (192 for men versus 129 for women). This occurs because the number of women working full time is lower than that of men and they are more concentrated in fewer occupations.

The 91 occupations for which both men's and women's earnings are shown are predominantly white collar, the field which employed the majority of full-time working men and women in 1981. Forty of these occupations are professional or managerial, and 24 are sales or clerical. In contrast, just 2 of the 91 occupations are

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**Table 1. Median weekly earnings of wage and salary workers employed full time in occupations with total employment of 50,000 or more, by sex,<sup>1</sup> 1981 annual averages**

[Numbers in thousands]

Occupation	Total, both sexes		Men		Women		Ratio female / male earnings times 100	Percent female workers
	Total employed	Weekly earnings	Total employed	Weekly earnings	Total employed	Weekly earnings		
Total <sup>2</sup>	72,491	\$289	43,888	\$347	28,603	\$224	64.7	39.5
Professional, technical, and kindred workers	12,870	377	7,358	439	5,512	316	71.8	42.8
Accountants	960	379	579	433	381	308	71.2	39.7
Architects	60	428	57	432	3	—	—	5.0
Computer specialists	583	454	429	488	154	355	72.8	26.4
Computer programmers	345	422	247	447	98	329	73.6	28.4
Computer systems analysts	199	519	149	546	50	420	76.9	25.1
Engineers	1,459	540	1,392	547	68	371	67.8	4.7
Aeronautical and astronautical engineers	83	614	81	619	1	—	—	1.2
Chemical engineers	64	575	59	583	5	—	—	7.8
Civil engineers	186	505	182	507	4	—	—	2.1
Electrical and electronic engineers	368	549	355	555	13	—	—	3.5
Industrial engineers	222	530	194	549	28	—	—	12.6
Mechanical engineers	239	540	233	547	6	—	—	2.5
Engineers, n.e.c.	226	527	219	530	7	—	—	3.1
Foresters and conservationists	60	331	53	341	7	—	—	11.7
Lawyers and judges	299	550	237	579	62	410	70.7	20.7
Lawyers	279	546	219	574	60	407	71.0	21.5
Librarians, archivists, and curators	146	323	25	—	121	319	—	82.9
Librarians	136	320	20	—	115	318	—	84.6
Life and physical scientists	277	474	219	512	58	363	70.9	20.9
Biological scientists	53	423	33	—	19	—	—	35.8
Chemists	132	467	104	492	28	—	—	21.2
Operations and systems researchers and analysts	212	485	160	515	52	422	82.0	24.5
Personnel and labor relations workers	419	402	215	514	204	330	64.3	48.7
Physicians, dentists, and related practitioners	314	468	242	495	73	401	80.9	23.2
Pharmacists	98	463	74	471	25	—	—	25.5
Physicians, medical and osteopathic	189	501	148	561	41	—	—	21.7
Nurses, dietitians, and therapists	1,168	327	106	344	1,062	326	94.7	90.9
Registered nurses	924	332	39	—	885	331	—	95.8
Therapists	199	305	65	335	134	293	87.5	67.3
Health technologists and technicians	511	287	161	324	350	273	84.2	68.5
Clinical laboratory technologists and technicians	232	295	55	324	177	286	88.1	76.3
Radiologic technologists and technicians	82	290	31	—	52	268	—	63.4
Health technologists, n.e.c.	155	268	72	317	83	240	75.7	53.5
Religious workers	268	284	244	286	25	—	—	9.3
Clergy	231	284	220	285	10	—	—	4.3
Social scientists	238	461	158	522	81	391	74.9	34.0
Economists	133	536	98	580	36	—	—	27.1
Psychologists	77	394	38	—	40	—	—	51.9
Social and recreation workers	454	295	185	339	269	273	80.4	59.3
Social workers	357	309	141	358	216	286	79.9	60.5
Recreation workers	97	226	44	—	52	186	—	53.6
Teachers, college and university	438	444	310	485	128	389	80.3	29.2
Teachers, except college and university	2,624	333	864	384	1,760	311	80.9	67.1
Adult education teachers	54	394	38	—	15	—	—	27.8
Elementary schoolteachers	1,244	322	221	379	1,022	311	82.2	82.2
Prekindergarten and kindergarten teachers	143	262	4	—	138	264	—	96.5
Secondary schoolteachers	1,115	351	571	387	545	321	82.9	48.9
Teachers, except college and university, n.e.c.	69	312	29	—	40	—	—	58.0
Engineering and science technicians	1,056	348	868	371	188	279	75.3	17.8
Chemical technicians	106	352	76	384	29	—	—	27.4
Drafters	319	343	259	364	60	277	76.2	18.8
Electrical and electronic engineering technicians	259	387	235	397	25	—	—	9.7
Surveyors	80	310	80	311	0	—	—	.0
Engineering and science technicians, n.e.c.	224	344	174	383	50	277	72.2	22.3
Technicians, except health, engineering, science	172	375	128	437	43	—	—	25.0
Airplane pilots	53	530	53	530	0	—	—	.0
Radio operators	56	233	23	—	33	—	—	58.9
Vocational and educational counselors	156	388	77	451	79	336	74.5	50.6
Writers, artists, and entertainers	791	350	525	387	266	302	78.2	33.6
Athletes and kindred workers	59	254	44	—	15	—	—	25.4
Designers	176	421	134	448	42	—	—	23.9
Editors and reporters	158	351	86	382	72	324	85.0	45.6
Painters and sculptors	100	297	55	329	45	—	—	45.0
Photographers	52	309	47	—	6	—	—	11.5
Public relations men and publicity writers	100	402	56	465	44	—	—	44.0
Writers, artists, and entertainers, n.e.c.	66	363	42	—	23	—	—	34.8
Research workers, not specified	157	362	96	437	61	307	70.3	38.9
Managers and administrators, except farm	7,864	407	5,630	466	2,235	283	60.8	28.4
Bank officers and financial managers	658	411	417	514	240	310	60.2	36.5
Buyers, wholesale and retail trade	139	316	73	400	66	250	62.3	47.5

See footnotes at end of table.



**Table 1. Continued—Median weekly earnings of wage and salary workers employed full time in occupations with total employment of 50,000 or more, by sex,<sup>1</sup> 1981 annual averages**

[Numbers in thousands]

Occupation	Total, both sexes		Men		Women		Ratio female / male earnings times 100	Percent female workers
	Total employed	Weekly earnings	Total employed	Weekly earnings	Total employed	Weekly earnings		
Credit and collection managers	60	351	36	—	24	—	—	40.0
Health administrators	200	431	102	545	98	357	65.5	49.0
Inspectors, except construction, public administration	104	380	93	388	10	—	—	9.6
Managers and superintendents, building	96	278	46	—	50	226	—	52.1
Office managers, n.e.c.	444	313	140	423	304	277	65.5	68.5
Officials and administrators; public administration, n.e.c.	443	441	324	484	120	337	69.6	27.1
Officials of lodges, societies, and unions	106	429	79	501	27	—	—	25.5
Purchasing agents and buyers, n.e.c.	260	390	182	453	78	285	62.9	30.0
Restaurant, cafeteria, and bar managers	393	275	227	312	166	223	71.6	42.2
Sales managers and department heads, retail trade	330	300	204	380	126	216	57.0	38.2
Sales managers, except retail trade	353	540	307	566	46	—	—	13.0
School administrators, college	129	491	88	552	41	—	—	31.8
School administrators, elementary and secondary	262	475	176	520	85	363	69.9	32.4
Managers and administrators, n.e.c.	3,713	431	2,984	481	729	281	58.5	19.6
<b>Salesworkers</b>	<b>3,601</b>	<b>306</b>	<b>2,412</b>	<b>366</b>	<b>1,189</b>	<b>190</b>	<b>52.0</b>	<b>33.0</b>
Advertising agents and salesworkers	100	334	50	418	50	258	61.7	50.0
Insurance agents, brokers, and underwriters	399	341	285	402	115	270	67.1	28.8
Real estate agents and brokers	218	326	100	390	118	277	70.9	54.1
Stock and bond sales agents	123	535	101	589	21	—	—	17.1
Sales representatives, manufacturing industries	369	434	310	473	59	306	64.7	16.0
Sales representatives, wholesale trade	768	396	686	407	82	303	74.3	10.7
Salesclerks, retail trade	1,032	178	410	229	622	154	67.4	60.3
Salesworkers except clerks, retail trade	379	288	334	305	44	—	—	11.6
Salesworkers, services and construction	169	332	112	397	56	235	59.1	33.1
<b>Clerical and kindred workers</b>	<b>14,066</b>	<b>233</b>	<b>3,032</b>	<b>328</b>	<b>11,034</b>	<b>220</b>	<b>67.0</b>	<b>78.4</b>
Bank tellers	464	189	28	—	436	188	—	94.0
Billing clerks	123	216	19	—	105	209	—	85.4
Bookkeepers	1,290	227	121	320	1,169	222	69.4	90.6
Cashiers	712	168	106	180	606	166	92.0	85.1
Clerical supervisors, n.e.c.	227	331	71	460	156	291	63.4	68.7
Collectors, billing and accounting	76	233	26	—	50	215	—	65.8
Counter clerks, except food	252	201	59	240	192	195	81.3	76.2
Dispatchers and starters, vehicle	106	327	65	385	41	—	—	38.7
Estimators and investigators, n.e.c.	477	319	219	394	258	256	65.0	54.1
Expeditors and production controllers	248	328	148	366	100	275	75.2	40.3
File clerks	230	192	37	—	192	189	—	83.5
Insurance adjusters, examiners, and investigators	183	270	75	356	107	230	64.7	58.5
Library attendants and assistants	61	203	9	—	52	197	—	85.2
Mail carriers, post office	222	406	196	408	26	—	—	11.7
Mail handlers, except post office	138	222	70	245	67	202	82.3	48.5
Messengers and office helpers	60	198	47	—	13	—	—	21.7
Office machine operators	844	238	227	324	616	223	68.8	73.0
Computer and peripheral equipment operators	506	260	185	342	320	232	67.8	63.2
Keypunch operators	212	223	11	—	201	222	—	94.8
<b>Payroll and timekeeping clerks</b>	<b>203</b>	<b>247</b>	<b>40</b>	<b>—</b>	<b>163</b>	<b>237</b>	<b>—</b>	<b>80.3</b>
Postal clerks	256	400	172	407	84	382	93.9	32.8
Receptionists	458	200	9	—	449	199	—	98.0
Secretaries	3,199	230	21	—	3,178	229	—	99.3
Secretaries, legal	159	260	1	—	158	260	—	99.4
Secretaries, medical	71	218	0	—	71	218	—	100.0
Secretaries, n.e.c.	2,969	229	20	—	2,949	228	—	99.3
Shipping and receiving clerks	480	247	376	263	104	205	78.2	21.7
Statistical clerks	333	242	71	326	261	227	69.7	78.4
Stenographers	55	275	7	—	48	—	—	87.3
<b>Stock clerks and storekeepers</b>	<b>461</b>	<b>264</b>	<b>305</b>	<b>304</b>	<b>156</b>	<b>217</b>	<b>71.6</b>	<b>33.8</b>
Teacher aides, except school monitors	168	167	6	—	163	166	—	97.0
Telephone operators	261	240	20	—	241	239	—	92.3
Ticket, station, and express agents	132	407	78	419	54	370	88.3	40.9
Typists	801	213	29	—	772	211	—	96.4
Miscellaneous clerical workers	997	233	184	325	813	222	68.3	81.5
Not specified clerical workers	336	227	70	292	267	217	74.6	79.5
<b>Craft and kindred workers</b>	<b>10,558</b>	<b>352</b>	<b>9,963</b>	<b>360</b>	<b>595</b>	<b>239</b>	<b>66.5</b>	<b>5.6</b>
Bakers	76	234	56	264	20	—	—	26.3
Brickmasons and stonemasons	87	401	87	401	0	—	—	.0
Bulldozer operators	90	327	90	329	1	—	—	1.1
Carpenters	699	325	689	326	10	—	—	1.4
Compositors and typesetters	142	274	98	311	44	—	—	31.0
Crane, derrick, and hoist operators	136	402	136	402	0	—	—	.0
Decorators and window dressers	66	210	22	—	43	—	—	65.2
Electricians	591	419	581	420	10	—	—	1.7
Electric power line and cable installers and repairers	122	409	121	410	1	—	—	.8
Excavating, grading, road machine operators; except bulldozer	269	337	268	337	2	—	—	.7
Blue-collar work supervisors, n.e.c.	1,772	394	1,587	409	186	262	64.2	10.5
Inspectors, n.e.c.	131	370	119	383	12	—	—	9.2

See footnotes at end of table.



**Table 1. Continued—Median weekly earnings of wage and salary workers employed full time in occupations with total employment of 50,000 or more, by sex,<sup>1</sup> 1981 annual averages**

[Numbers in thousands]

Occupation	Total, both sexes		Men		Women		Ratio female / male earnings times 100	Percent female workers
	Total employed	Weekly earnings	Total employed	Weekly earnings	Total employed	Weekly earnings		
Job and die setters, metal	95	358	92	360	4	—	—	4.2
Machinists	532	356	512	360	19	—	—	3.6
Mechanics and repairers	2,888	326	2,827	328	60	275	83.9	2.1
Air conditioning, heating and refrigeration mechanics	166	335	166	335	1	—	—	.6
Aircraft mechanics	121	427	116	429	5	—	—	4.1
Automobile body repairers	137	295	136	294	1	—	—	.7
Automobile mechanics	813	285	808	286	6	—	—	.7
Data processing machine repairers	95	395	88	401	7	—	—	7.4
Heavy equipment mechanics, including diesel	958	346	942	348	16	—	—	1.7
Household appliance, accessory installers and mechanics	96	309	90	315	5	—	—	5.2
Office machine repairers	71	327	66	331	4	—	—	5.6
Radio and television repairers	83	336	80	344	4	—	—	4.8
Railroad and car shop mechanics	57	405	56	405	1	—	—	1.8
Miscellaneous mechanics and repairers	193	323	187	325	6	—	—	3.1
Millwrights	105	443	105	443	0	—	—	.0
Molders, metal	52	253	42	—	10	—	—	19.2
Painters, construction and maintenance	258	271	248	275	10	—	—	3.9
Plumbers and pipe fitters	377	404	376	404	0	—	—	.0
Printing press operators	156	320	139	329	17	—	—	10.9
Roofers and slaters	78	267	77	266	1	—	—	1.3
Sheetmetal workers and tinsmiths	140	381	135	385	5	—	—	3.6
Stationary engineers	180	375	178	375	3	—	—	1.7
Structural metal craftworkers	77	455	77	455	0	—	—	.0
Telephone installers and repairers	316	412	284	417	32	—	—	10.1
Telephone line installers and repairers	75	387	71	384	4	—	—	5.3
Tool and die makers	164	433	159	436	5	—	—	3.0
Operatives, except transport	9,440	242	5,775	298	3,664	\$187	62.9	38.8
Assemblers	1,088	236	515	297	573	205	69.0	52.7
Bottling and canning operatives	51	279	31	—	20	—	—	39.2
Checkers, examiners, and inspectors; manufacturing	782	265	358	348	423	219	63.1	54.1
Clothing ironers and pressers	87	164	20	—	67	153	—	77.0
Cutting operatives, n.e.c.	259	226	180	252	79	185	73.3	30.5
Drillers, earth	51	393	50	393	0	—	—	.0
Filers, polishers, sanders, and buffers	111	223	73	246	38	—	—	34.2
Furnace tenders, smelters, and pourers	62	374	60	376	2	—	—	3.2
Garage workers and gas station attendants	217	179	204	181	12	—	—	5.5
Laundry and dry cleaning operatives, n.e.c.	126	166	38	—	88	151	—	69.8
Meat cutters and butchers, except manufacturing	150	316	141	325	10	—	—	6.7
Meat cutters and butchers, manufacturing	88	251	62	287	26	—	—	29.5
Mine operatives, n.e.c.	265	413	260	413	5	—	—	1.9
Mixing operatives	79	283	77	287	3	—	—	3.8
Packers and wrappers, except meat and produce	493	204	190	226	303	193	85.4	61.5
Painters, manufactured articles	146	269	124	282	22	—	—	15.1
Photographic process workers	69	230	33	—	36	—	—	52.2
Precision machine operatives	339	301	296	317	42	—	—	12.4
Drill press operatives	56	267	44	—	12	—	—	21.4
Grinding machine operatives	129	312	115	325	14	—	—	10.9
Lathe and milling machine operatives	100	322	95	327	5	—	—	5.0
Precision machine operatives, n.e.c.	54	258	43	—	11	—	—	20.4
Punch and stamping press operatives	105	292	72	316	33	—	—	31.4
Sawyers	118	204	107	208	10	—	—	8.5
Sewers and stitchers	734	157	24	—	710	156	—	96.7
Shoemaking machine operatives	71	154	20	—	52	147	—	73.2
Furnace tenders and stokers, except metal	82	342	81	342	1	—	—	1.2
Textile operatives	261	200	101	229	161	186	81.3	61.7
Spinners, twistors, and winders	83	207	26	—	57	189	—	68.7
Textile operatives, n.e.c.	123	194	54	219	69	180	82.1	56.1
Welders and flame cutters	678	334	643	338	35	—	—	5.2
Winding operatives, n.e.c.	56	237	31	—	25	—	—	44.6
Machine operatives, miscellaneous specified	1,261	273	908	309	353	206	66.8	28.0
Machine operatives, not specified	328	251	241	281	87	202	71.9	26.5
Miscellaneous operatives	724	232	480	262	244	185	70.5	33.7
Not specified operatives	150	271	101	311	48	—	—	32.0
Transport equipment operatives	2,792	303	2,656	307	136	237	77.2	4.9
Bus drivers	173	298	124	331	48	—	—	27.7
Delivery and route workers	446	274	421	280	25	—	—	5.6
Fork lift and tow motor operatives	373	284	352	284	21	—	—	5.6
Taxicab drivers and chauffeurs	112	240	104	246	8	—	—	7.1
Truckdrivers	1,560	314	1,528	315	32	—	—	2.1
Nonfarm laborers	3,227	238	2,893	244	335	193	79.3	10.4
Carpenters' helpers	50	223	50	223	0	—	—	.0
Construction laborers, except carpenters' helpers	654	250	642	252	11	—	—	1.7

See footnotes at end of table.



**Table 1. Continued—Median weekly earnings of wage and salary workers employed full time in occupations with total employment of 50,000 or more, by sex,<sup>1</sup> 1981 annual averages**

[Numbers in thousands]

Occupation	Total, both sexes		Men		Women		Ratio female / male earnings times 100	Percent female workers
	Total employed	Weekly earnings	Total employed	Weekly earnings	Total employed	Weekly earnings		
Freight and material handlers	641	259	579	266	62	207	78.0	9.7
Garbage collectors	62	189	60	189	2	—	—	3.2
Gardeners and groundskeepers, except farm	349	200	332	202	16	—	—	4.6
Timber cutting and logging workers	55	246	55	246	0	—	—	.0
Stock handlers	522	212	372	228	149	185	81.2	28.5
Vehicle washers and equipment cleaners	124	220	103	220	21	—	—	16.9
Warehouse laborers, n.e.c.	267	267	253	270	15	—	—	5.6
Miscellaneous laborers	168	297	155	308	12	—	—	7.1
Not specified laborers	241	245	215	246	26	—	—	10.8
Farmworkers	729	176	641	180	88	146	81.1	12.1
Farm laborers, wage workers	701	174	614	178	86	146	82.3	12.3
Service workers, except private household	6,990	196	3,475	238	3,515	170	71.3	50.3
Cleaning service workers	1,651	200	1,106	222	544	168	75.6	32.9
Lodging quarters cleaners, except private	99	142	5	—	94	141	—	94.9
Building interior cleaners, n.e.c.	559	184	253	213	306	168	79.2	54.7
Janitors and sextons	993	219	848	225	145	188	83.6	14.6
Food service workers	1,987	162	770	186	1,216	148	79.7	61.2
Bartenders	170	195	94	212	76	179	84.4	44.7
Waiters' assistants	70	143	57	144	13	—	—	18.6
Cooks, except private household	764	171	375	202	389	148	73.4	50.9
Dishwashers	105	135	73	136	32	—	—	30.5
Food counter and fountain workers	107	141	15	—	91	140	—	85.0
Waiters	532	150	79	200	453	144	72.0	85.1
Food service workers, n.e.c., except private household	239	165	76	178	163	160	90.0	68.2
Health service workers	1,415	188	178	216	1,237	185	85.4	87.4
Dental assistants	97	183	3	—	95	182	—	97.9
Health aides, except nursing	220	209	38	—	182	201	—	82.7
Nursing aides, orderlies and attendants	832	172	130	203	701	167	82.2	84.3
Practical nurses	263	227	6	—	256	227	—	97.3
Personal service workers	624	191	207	224	417	179	80.0	66.8
Attendants, recreation and amusement	88	182	49	—	39	—	—	44.3
Child-care workers, except private household	83	151	11	—	72	145	—	86.7
Hairdressers and cosmetologists	191	179	29	—	163	172	—	85.3
Housekeepers, except private household	96	219	32	—	64	205	—	66.7
Protective service workers	1,313	315	1,214	322	100	226	70.3	7.6
Firefighters	218	362	216	364	3	—	—	1.4
Guards	500	232	436	236	64	214	90.7	12.8
Police and detectives	508	363	481	368	27	—	—	5.3
Sheriffs and bailiffs	70	324	66	325	4	—	—	5.7
Private household workers	315	107	17	—	298	104	—	94.6
Child-care workers, private household	148	80	4	—	144	79	—	97.3
Maids and servants, private household	110	126	9	—	101	124	—	91.8

<sup>1</sup>Excludes any earnings from self-employment.

<sup>2</sup>Data for "total" refer to all full-time workers, including those in occupations not shown.

NOTE: Not elsewhere classified is abbreviated n.e.c. Dashes indicate earnings not shown where base is less than 50,000.

in the crafts category, largely because men made up the overwhelming majority (95 percent) of all full-time craftworkers.

### Ranking occupations

To illustrate the occupational earnings differences between men and women, the occupations in table 1 were ranked from high to low on the basis of male earnings, female earnings, the ratio of women's to men's earnings, and the percentage of female workers in each occupation. (See tables 2 to 5.) For each criterion the top 20 occupations are ranked. The rankings by male and female earnings are approximate because the earnings in very closely ranked occupations are often not statistically different.<sup>3</sup> In addition, the occupations appearing in the female earnings ranking contain more two-digit occupations than the male earnings ranking because wom-

en are concentrated in fewer occupations, and in many occupations their number is less than 50,000. Of course, the ranking by the sex-earnings ratio includes just those occupations in which both men's and women's earnings are reported in table 1. Lastly, the occupations ranked by the percent of females employed are based on all occupations in table 1.

*Male earnings ranks.* Not surprisingly, the most highly paid occupations for men are from the professional and managerial groups. (See table 2.) Nineteen of the 20 are in one of these groupings. The only exception is "stock and bonds, sales agents," which is classified in the sales category.

Within the professional group, engineering specialties clearly stand out in the ranking, accounting for 7 of the top 20 occupations. The median usual weekly earnings



**Table 2. Occupations with highest median weekly earnings for men employed full time in wage and salary work,<sup>1</sup> 1981 annual averages**

Occupational title <sup>2</sup>	Male earnings
Aerospace and astronautical engineers	\$619
Stock and bond sales agents	589
Chemical engineers	583
Economists	580
Lawyers	574
Sales managers, except retail trade	566
Physicians, medical and osteopathic	561
Electrical and electronics engineers	555
School administrators, college and university	552
Industrial engineers	549
Mechanical engineers	547
Computer systems analysts	546
Health administrators	545
Engineers, not elsewhere classified	530
Airplane pilots	530
School administrators, elementary and secondary	520
Operations and systems researchers and analysts	515
Bank officers and financial managers	514
Personnel and labor relations workers	514
Civil engineers	507

<sup>1</sup>Excludes any earnings from self-employment.  
<sup>2</sup>Occupations listed are those in which male employment was 50,000 or more in 1981.

of men in those specialties ranged from \$619 for aerospace and astronautical engineers to \$507 for civil engineers. The high ranking of engineers occurs partly because the data are restricted to wage and salary workers and exclude some of the most highly paid workers in occupations where self-employment is quite common, for example, lawyers and physicians. Nonetheless, although restricted only to the wage and salary portion, the median usual weekly earnings of lawyers (\$574) and physicians (\$561) were in the upper half of the ranking.

The top 20 also included a number of technical and administrative occupations. Among the former are economists, airplane pilots, and two very high growth occupations, computer systems analysts, and operations and systems researchers and analysts. Among the latter occupations are school administrators at the college, secondary, and elementary levels; health administrators; and bank officers and financial managers.

*Female earnings ranks.* Much like the situation for men, the most highly paid occupations for women are in the professional and managerial categories. (See table 3.) The median usual weekly earnings in the top 20 occupations for women ranged from a high of \$422 for operations and systems researchers and analysts to \$318 for librarians. Many of the occupations appearing in the female ranking are the same or similar to those which appear in the male ranking. Among these (in addition to operations and systems researchers and analysts) are lawyers, engineers, physicians, dentists and related practitioners, social scientists, health administrators, elementary and secondary school administrators, computer systems analysts, and personnel and labor relations

**Table 3. Occupations with highest median weekly earnings for women employed full time in wage and salary work,<sup>1</sup> 1981 annual averages**

Occupational title <sup>2</sup>	Female earnings
Operations and systems researchers and analysts	\$422
Computer systems analysts	420
Lawyers	407
Physicians, dentists, and related practitioners	401
Social scientists	391
Teachers, college and university	389
Postal clerks	382
Engineers	371
Ticket, station, and express agents	370
School administrators, elementary and secondary	363
Life and physical scientists	357
Health administrators	357
Public administration officials and administrators, not elsewhere classified	337
Vocational and educational counselors	336
Registered nurses	331
Personnel and labor relations workers	330
Computer programmers	329
Editors and reporters	324
Secondary schoolteachers	321
Librarians	318

<sup>1</sup>Excludes any earnings from self-employment.  
<sup>2</sup>Occupations listed are those in which female employment was 50,000 or more in 1981.

workers. This suggests that the most highly paid occupations for women are about the same as those for men.

However, the earnings of women in these occupations do not approach the earnings of men. The \$422 median usual weekly earnings of female operations and systems researchers and analysts, for example, would place just above the pay of electricians for men, an occupation which is well below the top 20 on the male ranking. The pay for women librarians is just above that of men working as precision machine operatives, a classification which is in the bottom third of the male earnings ranking.

**Table 4. Occupations of full-time wage and salary workers with highest ratios of women's to men's median weekly earnings,<sup>1</sup> 1981 annual averages**

Occupational title <sup>2</sup>	Ratio female/male earnings times 100
Postal clerks	93.9
Cashiers	92.0
Guards and watchmen	90.7
Food service workers, not elsewhere classified, excluding private household	90.0
Ticket, station, and express agents	88.3
Clinical laboratory technologists and technicians	88.1
Therapists	87.5
Packers and wrappers, except meat and produce	85.4
Editors and reporters	85.0
Bartenders	84.4
Mechanics and repairers	83.9
Janitors and sextons	83.6
Secondary schoolteachers	82.9
Mail handlers, except post office	82.3
Farm laborers, wage workers	82.3
Elementary schoolteachers	82.2
Nursing aides, orderlies, and attendants	82.2
Textile operatives, not elsewhere classified	82.1
Operations and systems researchers and analysts	82.0
Counter clerks, except food	81.3

<sup>1</sup>Excludes any earnings from self-employment.  
<sup>2</sup>Occupations listed are those in which both male and female employment was 50,000 or more in 1981.



**Table 5. Occupations with highest percentage of female workers in full-time wage and salary work,<sup>1</sup> 1981 annual averages**

Occupational title <sup>2</sup>	Percent female
Secretaries, medical	100.0
Secretaries, legal	99.4
Secretaries, not elsewhere classified	99.3
Receptionists	98.0
Dental assistants	97.9
Practical nurses	97.3
Child-care workers, private household	97.3
Teachers aides, except school monitors	97.0
Sewers and stitchers	96.7
Prekindergarten and kindergarten teachers	96.5
Typists	96.4
Registered nurses	95.8
Lodging quarters cleaners, except private household	94.9
Keypunch operators	94.8
Bank tellers	94.0
Telephone operators	92.3
Maids and servants, private household	91.8
Bookkeepers	90.6
Stenographers	87.3
Child-care workers, except private household	86.7

<sup>1</sup>Excludes self-employed workers.

<sup>2</sup>Occupations listed are those in which female employment was 50,000 or more in 1981.

Occupations which do not appear in the top male earnings rankings but appear in the top female rankings highlight other aspects of variation between men's and women's occupational earnings. Public sector employment is typical of several of the occupations which rank high in terms of female earnings. These include postal clerks, public administration officials and administrators

(not elsewhere classified), vocational and educational counselors, and secondary schoolteachers. Elementary and secondary school administrators is the only public sector occupation which also appears in the top 20 occupations in terms of men's earnings. Postal clerks ranked well below the top 20 for men. And as indicated in table 4, some of the highly paid public sector occupations for women are characterized by relatively high ratios of women's to men's earnings. Among postal clerks, women's earnings averaged almost 94 percent of men's. And a sex-earnings ratio of more than 80 percent is reported for secondary schoolteachers. This suggests that while the public sector may not offer the most highly paid employment, it may well afford women more equal opportunities than are found elsewhere.

Another characteristic of occupations ranking high in terms of female earnings is that they typically do not rank among those with the largest percentages of female workers. (See table 5.) The occupation of registered nurse, for example, is the only one which had both a high percentage of female workers (96 percent) and also ranked among the most highly paid occupations for women. (Compare table 3 with table 5.) Most of the occupations in which 90 percent of the workers or more are women are in the clerical category. By contrast, the very highly paid occupations, professional and managerial, are male-dominated. Women's earnings, much like men's, are highest in these occupations. □

— FOOTNOTES —

<sup>1</sup> See Earl F. Mellor, *Technical Description of the Quarterly Data on Weekly Earnings from the Current Population Survey*, Bulletin 2113, Bureau of Labor Statistics, January 1982.

<sup>2</sup> The Census Bureau classifies occupations on the basis of one-, two-, and three-digit groupings. The one-digit classification is the least detailed and consists of the major occupation groups, for example, professional, technical, and kindred workers; managers and administrators, except farm; and salesworkers. The three-digit classification is the most detailed. It includes specific occupations such as account-

ants, architects, aerospace and astronautical engineers, and civil engineers, all of whom come under the one-digit professional grouping. The two-digit classification is more detailed than the one-digit scheme and contains a number of broad occupations such as engineers and secretaries, under which are found such three-digit occupations as aerospace and astronautical engineers, or civil engineers, and legal secretaries, medical secretaries, and so forth.

<sup>3</sup> The magnitude of the standard errors on occupational earnings ranged from roughly \$10 to \$30 at the .10 significance level.



## Appendix

This report contains, in addition to the two articles from the April 1982 issue of the Monthly Labor Review, the following material:

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# Explanatory Note

Collection of the data. The Current Population Survey is conducted for the Bureau of Labor Statistics by the Bureau of the Census for a scientifically selected sample covering every State and the District of Columbia. In 1981, the monthly sample consisted of about 60,000 households eligible for interview.

Data on usual weekly earnings are provided from responses to the question "How much does ... USUALLY earn per week at this job before deductions? Include any overtime pay commissions, or tips usually received." Data on hourly earnings are derived from two questions: "Is ... paid by the hour on this job?" If yes, "How much does ... earn per hour?" Questions refer to the sole or principal job of the respondent.

The term "usual" is as perceived by the respondent. If the respondent asks for a definition of "usual," interviewers are instructed to define the term as more than half the weeks worked during the past 4 or 5 months.

Reliability of the data. Estimates from the CPS are subject to two types of error--sampling and nonsampling. Sampling errors are variations in the data which occur by chance because a sample, rather than the whole of the population, is surveyed. The standard error is an estimate of such potential variation. The chances are about 68 out of 100 that an estimate from the survey differs from a figure that would be obtained from a complete census by less than 1 standard error. The chances are about 90 out of 100 that it would be less than 1.64 times the standard error. All statements of comparison in the two articles in this Special Labor Force Report are significant at the 90-percent level. An example of the standard error is as follows: Median weekly earnings of black full-time workers were estimated at \$238 in 1981. The standard error associated with this estimate was \$1.42. Hence, the 90 percent confidence interval ranges from \$238 minus \$2.33 to \$238 plus \$2.33, or from about \$236 to \$240. Tables 1 and 2 show approximations of the standard errors of estimated numbers and



percentages. The values should be interpreted as an indication of the order of magnitude of the standard error rather than a precise standard error for any specific item.

Nonsampling errors occur in complete censuses as well as sample surveys. Examples of nonsampling errors include inability to obtain information about all cases, definitional difficulties, inability or unwillingness on the part of respondents to provide correct information, and errors in processing. The full extent of nonsampling error cannot be detected.

#### Differences between the CPS earnings series for May and the quarterly series.

Although data from the new series (primarily those for the second quarter-- April, May, and June) and the May data from the previous series can be used to track broad trends in the earnings of workers over time, certain differences in collection procedures, processing methods, and in the definition of wage and salary workers should be noted. For example, the quarterly series is based on a monthly collection of information from one-fourth the CPS sample, cumulated to provide quarterly and annual averages, whereas the May series was based on a collection from the full sample. The reliability of the quarterly series is almost as high, and that of the annual average series is much higher, than the reliability of the May series.

Another difference is that the new series imputes the earnings of nonrespondents in order to minimize any nonsampling bias resulting from differences in response rates among groups with vastly different earnings. The allocation procedure used to impute missing earnings information is similar to that used in processing other CPS data and the decennial census. (See "Computer Method to Process Missing Income and Work Experience Information in the Current Population Survey," by Emmett F. Spiers and Joseph J. Knott, the American Statistical Association, Proceedings of the Social Statistics Section, 1969.) The May series was not adjusted for nonresponses. This change represents a substantial improvement since earnings questions tend to have higher nonresponse



rates than other questions in the CPS, running about 20 percent for weekly earnings and 15 percent for hourly earnings in the May series, and about 17 percent for weekly earnings and 14 percent for hourly earnings in the first two years of the quarterly series.

Still another change is that the new earnings series, in contrast to the May series, excludes from the universe those self-employed workers who are classified as wage and salary employees because their business is incorporated.

Seasonal factors also affect the comparability of the two series. May is not an ideal proxy for the second quarter, largely because many students enter low-paying, summer jobs in June. Special tabulations showed that second quarter earnings in 1979 were slightly lower than those for May alone because of a drop in June earnings.

For these reasons, caution should be exercised in comparing relative changes in the earnings of demographic groups. For additional technical information relating to comparability of the two series and on sampling and nonsampling errors, see Earl F. Mellor, Technical Description of the Quarterly Data on Weekly Earnings From the Current Population Survey, BLS Bulletin 2113, 1982.

#### Comparison between CPS and establishment data from the Current

Employment Statistics Survey (CES). The Bureau of Labor Statistics has collected information on weekly earnings from establishments through the CES for many years. The results, which are published for major industry groups and for individual industries, differ from those based on the household data because of differences in definition, coverage, and computation. The household data represent the usual weekly earnings of all wage and salary workers who usually work full time, and are expressed as medians. The establishment, or payroll, data represent the earnings in a given week of all (full- and part-time) production workers in mining and manufacturing, construction workers in the construction industry, and nonsupervisory workers in other industries of the



private nonagricultural economy. Earnings are expressed as means. Another difference is in the handling of workers with two or more jobs. Each job is counted separately in the establishment data, but only the primary job is counted in the household data.

Because of these differences, data from the two surveys differ. The extent of differences varies by industry. For some of the major industry groups and some of the more detailed groups for which comparisons can be made, the differences are small. They are under 5 percent in mining, manufacturing, and in the transportation and public utilities group -- groups in which definitions and coverage of the two surveys are more similar than for other groups. The differences are greatest in trade, services, and construction (15 percent or more). For example, the establishment data, which cover 18.1 million workers in trade (1981 annual averages) show mean earnings of \$190, while the CPS data, with a universe of 11.6 million workers, show an earnings median of \$236.

The Bureau of Labor Statistics publishes other establishment-based data. The Employment Cost Index (ECI) measures quarterly changes in the rate of total employee compensation. Information on both wages and salaries and on employer costs for employee benefits are collected for a full range of occupations in the private nonfarm sector. The index is composed of 2 components: a "straight-time" average hourly earnings component, and a benefit cost component. The former includes some items not picked up in the usual weekly earnings series (such as production bonuses), and excludes other pay that may be included in the household data (such as overtime pay and shift premiums received regularly). Some of these items, however, are included in the benefits component.

While the ECI covers a wide range of industries and occupations, there are other BLS establishment surveys more narrow in scope. The Industry Wage Surveys provide data for occupations selected to represent the full range of activities performed by workers in specific industries. Area Wage Surveys provide detailed data for occupations common to a wide variety of industries in individual metropolitan areas. The National Survey of Professional, Administrative,



Technical, and Clerical Pay (PATC) covers selected occupations, by levels of duties and responsibilities. The PATC survey is used to compare the compensation of employees in specific jobs in private industry with those in the Federal Government.

#### Definitions of terms

Employed persons. The universe of employed persons comprises (a) all those who during the survey reference week did any work at all as paid employees, worked in their own business, profession, or farm, or worked 15 hours or more as unpaid workers in an enterprise operated by a member of the family; and (b) all those who were not working but who had jobs or businesses from which they were temporarily absent because of illness, bad weather, vacation, labor-management dispute, or personal reasons, whether or not they were paid by their employers for the time off, or whether or not they were seeking other jobs.

Each employed person is counted only once. Those who held more than one job are counted in the job at which they worked the greatest number of hours during the survey reference week.

Wage and salary workers. Wage and salary workers are employed persons who receive wages, salaries, commissions, tips, payment in kind, or piece rates. The group includes employees in both the private and public sectors but excludes self-employed persons.

Full-time workers. Full-time workers usually work 35 hours or more per week at their principal job.

Part-time workers. Part-time workers are those who usually work fewer than 35 hours per week at their principal job.



Usual weekly earnings. Data on usual weekly earnings are provided from responses to the question "How much does ... USUALLY earn per week at this job before deductions? Include any overtime pay, commissions, or tips usually received." The response is for the worker's sole or principal job. The term "usually" is as perceived by the respondent. If the respondent asks for a definition of "usually," interviewers are instructed to define the term as more than half the weeks worked during the past 4 or 5 months. The usual weekly earnings of families is determined by aggregating the usual weekly earnings of all family members 16 years and older who were employed as wage and salary workers during the survey reference week.

Hourly earnings. Data on hourly earnings, as obtained in the CPS, relate only to employed wage and salary workers who are reported as being paid by the hour at their principal job. (Those for whom yes is entered in item 25B of the questionnaire.) The amount of earnings is determined by the response to item 25C, "How much does ... earn per hour?"

Change in constant dollars. The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is used to convert current dollars to constant dollars.

Survey reference week. The survey reference week is the calendar week, Sunday through Saturday, which includes the 12th of the month.

Hispanic origin. This term refers to persons who are of Mexican, Puerto Rican, Cuban, Central or South American, or other Hispanic origin or descent. Persons of Hispanic origin may be of any race; hence, they are included among the numbers for both whites and blacks.



**Table 1. Standard errors of estimates of annual average levels, by selected characteristics**

(Numbers in thousands)

Estimated level	Both sexes			Men			Women		
	Part-time workers	Total or full-time workers		Part-time workers	Total or full-time workers			Total, full- or part-time workers	
		All races or white	Black		All races	White	Black	All races or white	Black
10	3	3	3	3	3	3	3	3	3
50	6	7	7	6	7	7	6	7	6
75	7	8	8	7	8	8	7	8	7
100	8	9	9	8	9	9	8	9	8
150	10	11	11	10	11	11	10	11	10
200	12	13	13	12	13	13	12	13	12
250	13	15	15	13	15	15	13	15	13
300	14	16	16	14	16	16	14	16	14
500	18	21	20	18	21	21	18	21	18
750	22	25	25	22	25	25	22	25	22
1,000	26	29	28	26	29	29	26	29	25
1,500	32	36	34	32	35	35	32	35	30
2,000	37	41	39	36	41	41	36	41	34
2,500	41	46	42	41	45	45	41	45	37
3,000	45	50	46	44	50	49	44	49	40
5,000	57	64	54	57	63	62	57	62	46
7,500	70	78	58	68	75	75	69	75	—
10,000	80	89	55	78	85	84	78	84	—
15,000	97	107	—	92	98	96	93	96	—
20,000	110	121	—	103	107	104	105	104	—
25,000	122	132	—	112	112	107	114	107	—
30,000	131	141	—	118	114	106	121	106	—
40,000	147	154	—	126	108	93	130	93	—
50,000	160	162	—	—	—	—	—	—	—
75,000	179	164	—	—	—	—	—	—	—
100,000	186	138	—	—	—	—	—	—	—

NOTE: Dashes indicate the standard error is not applicable because the number of workers having the indicated characteristic is less than that listed in the estimated level column.

**Table 2. Standard errors of estimated percentages—annual averages**

Base of estimated percentage (thousands)	Estimated percentages										
	0.5 or 99.5	1 or 99	2 or 98	3 or 97	5 or 95	10 or 90	15 or 85	20 or 80	25 or 75	30 or 70	50
50	0.93	1.31	1.84	2.24	2.86	3.94	4.69	5.25	5.68	6.01	6.56
75	.76	1.07	1.50	1.83	2.34	3.21	3.83	4.29	4.64	4.91	5.36
100	.65	.92	1.30	1.58	2.02	2.78	3.31	3.71	4.02	4.25	4.64
150	.53	.75	1.06	1.29	1.65	2.27	2.71	3.03	3.28	3.47	3.79
200	.46	.65	.92	1.12	1.43	1.97	2.34	2.62	2.84	3.01	3.28
250	.41	.58	.82	1.00	1.28	1.76	2.10	2.35	2.54	2.69	2.93
300	.38	.53	.75	.91	1.17	1.61	1.91	2.14	2.32	2.45	2.68
500	.29	.41	.58	.71	.90	1.24	1.48	1.66	1.80	1.90	2.07
750	.24	.34	.47	.58	.74	1.02	1.21	1.36	1.47	1.55	1.69
1,000	.21	.29	.41	.50	.64	.88	1.05	1.17	1.27	1.34	1.47
1,500	.17	.24	.34	.41	.52	.72	.86	.96	1.04	1.10	1.20
2,000	.15	.21	.29	.35	.45	.62	.74	.83	.90	.95	1.04
2,500	.13	.18	.26	.32	.40	.56	.66	.74	.80	.85	.93
3,000	.12	.17	.24	.29	.37	.51	.60	.68	.73	.78	.85
5,000	.09	.13	.18	.22	.29	.39	.47	.52	.57	.60	.66
7,500	.08	.11	.15	.18	.23	.32	.38	.43	.46	.49	.54
10,000	.07	.09	.13	.16	.20	.28	.33	.37	.40	.43	.46
15,000	.05	.08	.11	.13	.17	.23	.27	.30	.33	.35	.38
20,000	.05	.07	.09	.11	.14	.20	.23	.26	.28	.30	.33
25,000	.04	.06	.08	.10	.13	.18	.21	.23	.25	.27	.29
30,000	.04	.05	.08	.09	.12	.16	.19	.21	.23	.25	.27
50,000	.03	.04	.06	.07	.09	.12	.15	.17	.18	.19	.21
75,000	.02	.03	.05	.06	.07	.10	.12	.14	.15	.16	.17
100,000	.02	.03	.04	.05	.06	.09	.10	.12	.13	.13	.15

NOTE: For part-time workers, women, and families maintained by women, multiply the above values by 0.89. For Hispanics: Multiply by 1.43 for both sexes; by 1.21 for men, all families, husband-wife families, and families maintained by men; and by 1.04 for women and families maintained by women.



**Table A-1. Percent distribution of usual weekly earnings of full-time wage and salary workers, by age and sex, 1981 annual averages**

Age and sex	Number of workers (in thousands)	Percent distribution by weekly earnings									Median	
		Total	Under \$100	\$100 to \$149	\$150 to \$199	\$200 to \$249	\$250 to \$299	\$300 to \$349	\$350 to \$399	\$400 to \$499		\$500 or more
<b>BOTH SEXES</b>												
Total, 16 years and over.....	72,491	100.0	0.9	8.9	14.5	15.9	12.3	11.2	8.3	13.3	14.7	\$289
16 to 24 years.....	13,702	100.0	1.6	19.7	26.6	21.2	11.9	7.6	4.4	4.7	2.4	204
16 to 19 years.....	2,825	100.0	3.5	37.4	33.0	15.4	4.5	2.8	1.5	1.3	.7	163
20 to 24 years.....	10,877	100.0	1.1	15.1	25.0	22.7	13.8	8.8	5.1	5.6	2.8	219
25 years and over.....	58,789	100.0	.7	6.3	11.7	14.7	12.5	12.0	9.2	15.2	17.6	316
25 to 34 years.....	22,602	100.0	.6	5.9	12.3	16.1	14.5	13.5	9.8	14.5	13.0	302
35 to 44 years.....	15,147	100.0	.5	5.8	10.9	13.2	11.6	11.2	9.4	16.4	21.0	335
45 to 54 years.....	12,063	100.0	.7	6.5	11.2	14.1	10.8	10.9	8.6	15.9	21.2	329
55 to 64 years.....	8,106	100.0	1.0	7.2	12.0	14.5	11.3	11.4	8.6	15.0	19.1	317
65 years and over.....	871	100.0	7.1	17.8	16.2	15.9	9.1	7.6	6.5	7.9	11.9	227
<b>MEN</b>												
Total, 16 years and over.....	43,888	100.0	.5	5.0	9.0	12.7	11.3	12.1	10.0	17.8	21.7	347
16 to 24 years.....	7,672	100.0	1.0	15.5	22.3	21.7	13.1	9.6	6.0	7.1	3.7	225
16 to 19 years.....	1,644	100.0	2.3	32.6	32.2	18.1	5.8	3.6	2.2	2.1	1.1	173
20 to 24 years.....	6,028	100.0	.6	10.8	19.7	22.7	15.1	11.2	7.0	8.4	4.4	241
25 years and over.....	36,216	100.0	.4	2.7	6.2	10.7	10.9	12.6	10.9	20.0	25.5	378
25 to 34 years.....	13,819	100.0	.3	2.9	7.6	12.5	13.2	14.5	11.6	18.9	18.5	346
35 to 44 years.....	9,337	100.0	.2	2.0	5.1	8.9	9.6	11.2	10.9	21.5	30.6	406
45 to 54 years.....	7,429	100.0	.3	2.3	4.7	9.7	9.2	11.5	10.1	21.1	31.1	408
55 to 64 years.....	5,101	100.0	.4	3.3	6.1	10.5	10.0	12.3	10.2	19.8	27.4	386
65 years and over.....	530	100.0	6.4	13.8	12.5	13.8	8.4	9.1	7.7	10.6	17.7	270
<b>WOMEN</b>												
Total, 16 years and over.....	28,603	100.0	1.5	14.8	23.0	21.0	14.0	9.7	5.6	6.3	4.1	224
16 to 24 years.....	6,030	100.0	2.3	25.0	32.0	20.5	10.2	5.1	2.3	1.7	.8	184
16 to 19 years.....	1,180	100.0	5.3	44.2	34.0	11.6	2.5	1.6	.5	.1	.3	150
20 to 24 years.....	4,850	100.0	1.6	20.4	31.6	22.7	12.1	5.9	2.7	2.1	.9	193
25 years and over.....	22,573	100.0	1.3	12.1	20.5	21.1	15.0	10.9	6.5	7.6	4.9	237
25 to 34 years.....	8,783	100.0	1.0	10.5	19.6	21.8	16.5	11.9	6.9	7.5	4.4	242
35 to 44 years.....	5,810	100.0	.8	12.0	20.2	20.1	14.8	11.1	6.9	8.3	5.6	241
45 to 54 years.....	4,634	100.0	1.4	13.4	21.7	21.1	13.5	10.1	6.1	7.5	5.3	231
55 to 64 years.....	3,005	100.0	2.1	13.9	22.0	21.2	13.5	9.8	5.7	6.9	4.9	227
65 years and over.....	341	100.0	8.1	24.0	21.9	19.0	10.0	5.4	4.6	4.1	3.2	190

NOTE: Detail may not add to totals because of rounding. Small values in percent distributions are subject to relatively large sampling errors and should be used with caution. Specifically, values of less than 1.0 percent are subject to relative errors of 25 percent or more. In addition, all percentages derived from bases of less than 500,000 are subject to relatively large errors.

**Table A-2. Median usual weekly earnings of full-time wage and salary workers, by region of residence, sex, race, and Hispanic origin, 1981 annual averages**

Region of residence	Median weekly earnings											
	All races			White			Black			Hispanic		
	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women
Total.....	\$289	\$347	\$224	\$296	\$356	\$226	\$238	\$271	\$210	\$229	\$252	\$192
Northeast.....	290	342	226	295	347	226	249	283	223	225	245	195
New England.....	279	329	222	281	331	222	244	271	216	226	(1)	(1)
Middle Atlantic.....	294	346	228	301	355	229	249	285	224	224	\$245	\$195
North Central.....	304	367	228	306	369	227	283	334	235	247	301	199
East North Central.....	312	373	232	314	376	231	288	341	240	245	295	198
West North Central.....	286	348	219	288	351	220	252	299	206	264	(1)	(1)
South.....	259	316	207	272	332	212	213	237	187	215	\$238	\$176
South Atlantic.....	253	307	207	267	327	212	213	234	188	211	242	173
East South Central.....	248	308	194	263	326	199	193	218	173	(1)	(1)	(1)
West South Central.....	276	334	215	284	343	219	231	267	197	\$216	\$237	\$178
West.....	319	385	248	324	392	249	290	331	250	238	263	205
Mountain.....	305	367	230	309	372	231	255	(1)	(1)	254	298	197
Pacific.....	325	392	256	331	400	258	295	\$335	\$254	235	254	207

<sup>1</sup> Median not shown where the base is less than 50,000.

**Table A-3. Median usual weekly earnings of full-time wage and salary workers, by years of school completed, sex, race, and Hispanic origin, 1981 annual averages**

Years of school completed	Median weekly earnings											
	All races			White			Black			Hispanic		
	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women
Total, 16 years and over.....	\$289	\$347	\$224	\$296	\$356	\$226	\$238	\$271	\$210	\$229	\$252	\$192
Less than 4 years of high school.....	228	266	175	233	274	177	203	231	169	198	218	163
8 years of elementary school or less.....	220	247	167	224	253	168	200	222	159	191	210	155
1 to 3 years of high school.....	233	279	180	240	288	181	206	238	173	216	233	179
4 years of high school or more.....	304	372	235	311	380	236	252	294	224	264	315	217
4 years of high school.....	263	330	210	269	337	212	227	265	193	239	284	198
1 to 3 years of college.....	304	367	240	311	375	241	266	309	233	284	342	235
4 years of college or more.....	403	466	314	407	473	314	342	390	315	358	408	298
4 years of college.....	370	440	289	378	447	289	313	349	287	329	377	277
5 years of college or more.....	440	503	358	441	507	354	412	443	379	419	445	(1)

<sup>1</sup> Median not shown where the base is less than 50,000.



**Table A-4. Percent distribution of usual weekly earnings of full-time wage and salary workers, by major occupation group and sex, 1981 annual averages**

Major occupation group and sex	Number of workers (in thousands)	Percent distribution by weekly earnings										Median
		Total	Under \$100	\$100 to \$149	\$150 to \$199	\$200 to \$249	\$250 to \$299	\$300 to \$349	\$350 to \$399	\$400 to \$499	\$500 or more	
<b>BOTH SEXES</b>												
Total.....	72,491	100.0	0.9	8.9	14.5	15.9	12.3	11.2	8.3	13.3	14.7	\$289
Professional and technical workers.....	12,870	100.0	.5	2.0	4.7	9.6	13.0	14.1	10.9	18.4	26.8	377
Managers and administrators, except farm	7,864	100.0	.4	2.4	5.9	9.2	10.5	11.0	9.1	15.2	36.4	407
Sales workers.....	3,601	100.0	.7	12.3	13.4	12.1	9.9	11.3	6.8	11.3	22.2	306
Clerical workers.....	14,066	100.0	.4	9.8	23.6	24.2	14.8	9.8	6.2	7.4	3.7	233
Craft and kindred workers.....	10,558	100.0	.2	2.7	7.3	13.4	12.1	13.5	11.4	22.0	17.3	352
Operatives, except transport.....	9,440	100.0	.4	13.2	20.5	18.6	12.5	10.3	7.8	11.8	4.8	242
Transport equipment operatives.....	2,792	100.0	.4	5.1	12.3	17.6	13.7	12.6	9.5	15.8	13.0	303
Nonfarm laborers.....	3,227	100.0	1.0	14.3	19.7	19.3	12.1	10.3	8.2	10.7	4.6	238
Service workers.....	7,305	100.0	4.2	25.1	24.1	18.2	9.8	6.8	3.9	4.8	3.2	192
Farm workers.....	766	100.0	6.6	26.9	27.7	19.6	8.1	4.2	3.2	1.6	2.1	179
<b>MEN</b>												
Total.....	43,888	100.0	.5	5.0	9.0	12.7	11.3	12.1	10.0	17.8	21.7	347
Professional and technical workers.....	7,358	100.0	.4	1.1	2.9	6.0	8.8	11.2	9.9	20.8	39.0	439
Managers and administrators, except farm	5,630	100.0	.3	1.1	2.6	5.7	8.0	10.4	9.4	16.8	45.8	466
Sales workers.....	2,412	100.0	.3	4.0	8.5	11.4	9.8	13.4	8.2	14.3	30.2	366
Clerical workers.....	3,032	100.0	.4	4.8	10.2	14.2	13.2	12.7	12.3	20.2	12.0	328
Craft and kindred workers.....	9,963	100.0	.2	2.2	6.5	12.9	12.0	13.7	11.6	22.8	18.1	360
Operatives, except transport.....	5,775	100.0	.3	6.1	13.0	17.2	13.8	13.5	11.2	17.6	7.4	298
Transport equipment operatives.....	2,656	100.0	.2	4.8	12.0	17.3	13.6	12.6	9.7	16.2	13.4	307
Nonfarm laborers.....	2,893	100.0	.9	13.0	19.0	19.2	12.4	10.5	8.7	11.4	5.0	244
Service workers.....	3,492	100.0	1.2	15.7	18.6	18.8	13.2	11.0	6.8	8.7	6.2	238
Farm workers.....	677	100.0	5.7	25.5	27.4	20.8	8.5	4.6	3.5	1.6	2.4	183
<b>WOMEN</b>												
Total.....	28,603	100.0	1.5	14.8	23.0	21.0	14.0	9.7	5.6	6.3	4.1	224
Professional and technical workers.....	5,512	100.0	.6	3.1	7.2	14.4	18.6	18.0	12.2	15.3	10.5	316
Managers and administrators, except farm	2,235	100.0	.9	5.5	14.2	17.9	16.7	12.5	8.5	11.1	12.6	283
Sales workers.....	1,189	100.0	1.7	29.1	23.4	13.7	10.0	7.1	4.0	5.2	5.8	190
Clerical workers.....	11,034	100.0	.4	11.1	27.3	27.0	15.3	9.0	4.5	3.9	1.4	220
Craft and kindred workers.....	595	100.0	.4	10.9	21.7	21.0	14.9	10.6	8.0	9.2	3.2	239
Operatives, except transport.....	3,664	100.0	.7	24.4	32.5	20.7	10.6	5.4	2.5	2.6	.7	187
Transport equipment operatives.....	136	100.0	4.1	10.5	17.9	23.1	15.2	11.1	4.2	8.4	5.6	237
Nonfarm laborers.....	335	100.0	1.2	25.9	26.0	19.9	9.1	8.7	4.3	4.2	.9	193
Service workers.....	3,813	100.0	6.9	33.6	29.1	17.6	6.7	3.0	1.3	1.2	.5	165
Farm workers.....	90	100.0	13.4	37.5	29.5	10.4	5.2	1.0	1.4	1.4	.2	148

NOTE: Detail may not add to totals because of rounding. Small values in percent distributions are subject to relatively large sampling errors and should be used with caution. Specifically, values of less than 1.0 percent

are subject to relative errors of 25 percent or more. In addition, all percentages derived from bases of less than 500,000 are subject to relatively large errors.

**Table A-5. Median usual weekly earnings of wage and salary workers, by number of hours usually worked per week and sex, 1981 annual averages**

Hours usually worked	Median weekly earnings		
	Both sexes	Men	Women
Total.....	\$248	\$325	\$188
Part-time workers.....	82	78	84
Less than 15 hours.....	53	54	53
15 to 24 hours.....	69	65	70
25 to 29 hours.....	98	95	100
30 to 34 hours.....	135	137	134
Full-time workers.....	289	347	224
35 to 39 hours.....	219	301	199
40 hours or more.....	296	349	229
40 hours.....	279	334	224
41 hours or more.....	374	403	285
41 to 48 hours.....	348	382	271
49 to 59 hours.....	398	421	313
60 hours or more.....	398	421	280



**Table A-6. Percent distribution of usual weekly earnings of part-time wage and salary workers, by age and sex, 1981 annual averages**

Major occupation group and sex	Number of workers (in thousands)	Percent distribution by weekly earnings										Median
		Total	Under \$50	\$50 to \$59	\$60 to \$74	\$75 to \$99	\$100 to \$124	\$125 to \$149	\$150 to \$199	\$200 to \$249	\$250 or more	
<b>BOTH SEXES</b>												
Total, 16 years and over.....	16,025	100.0	21.7	8.2	14.4	17.7	15.8	6.3	7.5	3.7	4.7	\$82
16 to 24 years.....	6,861	100.0	28.9	10.6	18.4	17.7	13.6	3.8	4.1	1.5	1.4	68
16 to 19 years.....	4,165	100.0	35.4	12.3	20.2	17.0	10.8	2.0	1.5	.5	.3	61
20 to 24 years.....	2,696	100.0	18.9	7.9	15.6	18.8	18.0	6.6	8.1	3.1	3.1	84
25 years and over.....	9,164	100.0	16.3	6.5	11.4	17.7	17.3	8.2	10.1	5.3	7.1	96
25 to 34 years.....	2,997	100.0	14.9	5.3	10.5	16.3	17.8	8.4	11.4	6.7	8.5	103
35 to 44 years.....	2,099	100.0	13.5	6.3	9.4	17.4	17.7	9.3	11.6	6.1	8.5	104
45 to 54 years.....	1,603	100.0	13.3	6.8	11.5	18.1	18.4	9.3	10.6	5.1	6.8	99
55 to 64 years.....	1,369	100.0	17.0	6.7	13.5	18.8	16.5	8.3	9.1	4.0	6.1	91
65 years and over.....	1,095	100.0	29.1	9.0	15.3	20.1	14.7	3.5	4.1	2.0	2.4	71
<b>MEN</b>												
Total, 16 years and over.....	4,956	100.0	23.7	8.5	15.0	17.7	13.9	4.9	6.0	3.6	6.7	78
16 to 24 years.....	3,079	100.0	28.9	10.1	18.1	18.7	13.4	3.4	3.9	1.7	1.7	63
16 to 19 years.....	1,995	100.0	34.3	11.2	20.3	18.7	11.1	2.0	1.7	.5	.2	62
20 to 24 years.....	1,084	100.0	19.0	8.0	14.1	18.8	17.7	6.1	8.0	3.8	4.5	86
25 years and over.....	1,877	100.0	15.5	6.0	9.8	16.0	14.6	7.3	9.3	6.7	14.9	104
25 to 34 years.....	631	100.0	12.7	4.3	8.2	12.8	14.6	9.9	12.0	8.9	16.3	119
35 to 44 years.....	225	100.0	11.6	4.8	5.4	9.5	9.9	8.5	11.9	11.5	26.9	150
45 to 54 years.....	189	100.0	12.0	4.4	7.7	15.0	13.5	6.4	8.8	5.8	26.5	119
55 to 64 years.....	284	100.0	12.5	5.6	9.3	18.6	14.7	6.7	9.1	6.5	16.8	105
65 years and over.....	548	100.0	22.8	9.2	14.6	21.4	16.7	4.4	5.3	2.4	3.3	78
<b>WOMEN</b>												
Total, 16 years and over.....	11,069	100.0	20.8	8.1	14.2	17.7	16.6	7.0	8.2	3.7	3.8	84
16 to 24 years.....	3,732	100.0	29.0	10.9	18.6	16.8	13.8	4.2	4.2	1.3	1.1	67
16 to 19 years.....	2,170	100.0	36.6	13.2	20.2	15.4	10.6	2.1	1.2	.4	.4	59
20 to 24 years.....	1,612	100.0	18.8	7.9	16.5	18.8	18.2	7.0	8.1	2.6	2.2	83
25 years and over.....	7,287	100.0	16.5	6.6	11.9	18.1	18.0	8.4	10.3	5.0	5.1	95
25 to 34 years.....	2,366	100.0	15.6	5.5	11.1	17.3	18.7	8.0	11.2	6.1	6.5	100
35 to 44 years.....	1,874	100.0	13.8	6.5	9.9	18.4	18.6	9.4	11.6	5.4	6.4	101
45 to 54 years.....	1,414	100.0	13.6	7.2	12.0	18.5	19.1	9.7	10.8	5.0	4.1	97
55 to 64 years.....	1,085	100.0	18.1	7.0	14.6	18.9	17.0	8.8	9.1	3.3	3.2	88
65 years and over.....	548	100.0	35.4	8.8	16.1	18.8	12.6	2.5	2.8	1.6	1.5	65

NOTE: Detail may not add to totals because of rounding. Small values in percent distributions are subject to relatively large sampling errors and should be used with caution. Specifically, values of less than 1.0 percent

are subject to relative errors of 25 percent or more. In addition, all percentages derived from bases of less than 500,000 are subject to relatively large errors.

**Table A-7. Percent distribution of usual weekly earnings of part-time wage and salary workers, by major occupation group and sex, 1981 annual averages**

Major occupation group and sex	Number of workers (in thousands)	Percent distribution by weekly earnings										Median
		Total	Under \$50	\$50 to \$59	\$60 to \$74	\$75 to \$99	\$100 to \$124	\$125 to \$149	\$150 to \$199	\$200 to \$249	\$250 or more	
<b>BOTH SEXES</b>												
Total.....	16,025	100.0	21.7	8.2	14.4	17.7	15.8	6.3	7.5	3.7	4.7	\$82
Professional and technical workers.....	1,948	100.0	13.2	4.6	7.9	10.7	14.1	8.0	14.1	9.8	17.4	123
Managers and administrators, except farm	370	100.0	14.1	5.8	8.0	16.5	15.8	8.7	15.2	8.1	7.8	108
Sales workers.....	1,655	100.0	21.6	11.1	18.0	19.9	16.4	4.0	4.3	1.8	3.0	73
Clerical workers.....	3,883	100.0	16.2	7.3	14.9	20.3	18.2	8.0	8.6	3.6	2.9	88
Craft and kindred workers.....	525	100.0	12.4	6.8	11.0	15.8	17.8	6.1	11.8	6.1	12.2	105
Operatives, except transport.....	778	100.0	17.0	6.8	12.9	19.9	19.9	8.8	8.1	3.4	3.1	91
Transport equipment operatives.....	402	100.0	15.7	6.0	12.3	20.6	14.0	8.6	11.0	5.8	5.7	93
Nonfarm laborers.....	1,039	100.0	29.4	9.7	14.5	18.3	13.0	4.4	5.1	2.9	2.9	70
Service workers.....	5,208	100.0	29.4	9.7	16.5	17.3	14.4	5.1	4.6	1.6	1.5	69
Farm workers.....	217	100.0	41.9	8.2	16.0	16.5	12.7	1.5	1.4	.9	.6	59
<b>MEN</b>												
Total.....	4,956	100.0	23.7	8.5	15.0	17.7	13.9	4.9	6.0	3.6	6.7	78
Professional and technical workers.....	516	100.0	15.9	5.0	6.5	13.0	15.1	5.2	8.9	6.5	23.8	115
Managers and administrators, except farm	125	100.0	12.7	7.2	7.8	14.8	16.7	8.2	12.6	8.0	12.1	110
Sales workers.....	383	100.0	24.8	7.2	15.3	16.3	17.8	3.9	3.7	4.0	7.0	78
Clerical workers.....	489	100.0	19.2	6.9	18.3	20.4	15.1	5.9	5.6	3.6	5.1	81
Craft and kindred workers.....	418	100.0	12.4	6.7	10.0	15.5	16.0	6.0	11.9	6.6	14.8	107
Operatives, except transport.....	357	100.0	21.6	8.6	14.0	20.1	14.4	5.1	6.9	3.9	5.3	81
Transport equipment operatives.....	251	100.0	17.6	6.6	14.3	20.9	11.3	5.2	9.0	6.3	8.9	88
Nonfarm laborers.....	884	100.0	30.5	9.5	14.0	18.2	12.6	3.9	5.3	2.8	3.1	70
Service workers.....	1,376	100.0	27.4	11.5	20.0	18.4	12.4	5.0	3.3	1.2	.9	67
Farm workers.....	157	100.0	43.9	6.9	15.7	16.1	11.7	1.5	1.7	1.3	1.3	58
<b>WOMEN</b>												
Total.....	11,069	100.0	20.8	8.1	14.2	17.7	16.6	7.0	8.2	3.7	3.8	84
Professional and technical workers.....	1,432	100.0	12.2	4.5	8.5	9.9	13.7	9.0	16.0	11.0	15.1	127
Managers and administrators, except farm	245	100.0	14.7	5.1	8.1	17.4	15.4	8.9	16.6	8.1	5.8	107
Sales workers.....	1,272	100.0	20.7	12.3	18.8	21.0	16.0	6.0	4.5	1.2	1.7	73
Clerical workers.....	3,394	100.0	15.8	7.3	14.4	20.3	18.6	8.3	9.0	3.7	2.7	89
Craft and kindred workers.....	108	100.0	12.0	7.3	14.9	17.0	25.0	6.2	11.4	4.2	1.9	97
Operatives, except transport.....	421	100.0	13.1	5.3	12.0	19.6	24.6	11.9	9.2	3.1	1.2	99
Transport equipment operatives.....	151	100.0	13.0	5.0	8.9	20.2	18.4	14.4	14.5	4.9	.9	103
Nonfarm laborers.....	155	100.0	21.9	10.9	17.1	18.7	15.3	6.9	4.2	3.5	1.3	74
Service workers.....	3,832	100.0	30.1	9.1	15.2	16.9	15.1	5.1	5.1	1.7	1.7	70
Farm workers.....	59	100.0	36.4	11.6	16.9	17.5	15.3	1.6	.7	.2	-.	61

NOTE: Detail may not add to totals because of rounding. Small values in percent distributions are subject to relatively large sampling errors and should be used with caution. Specifically, values of less than 1.0 percent

are subject to relative errors of 25 percent or more. In addition, all percentages derived from bases of less than 500,000 are subject to relatively large errors.



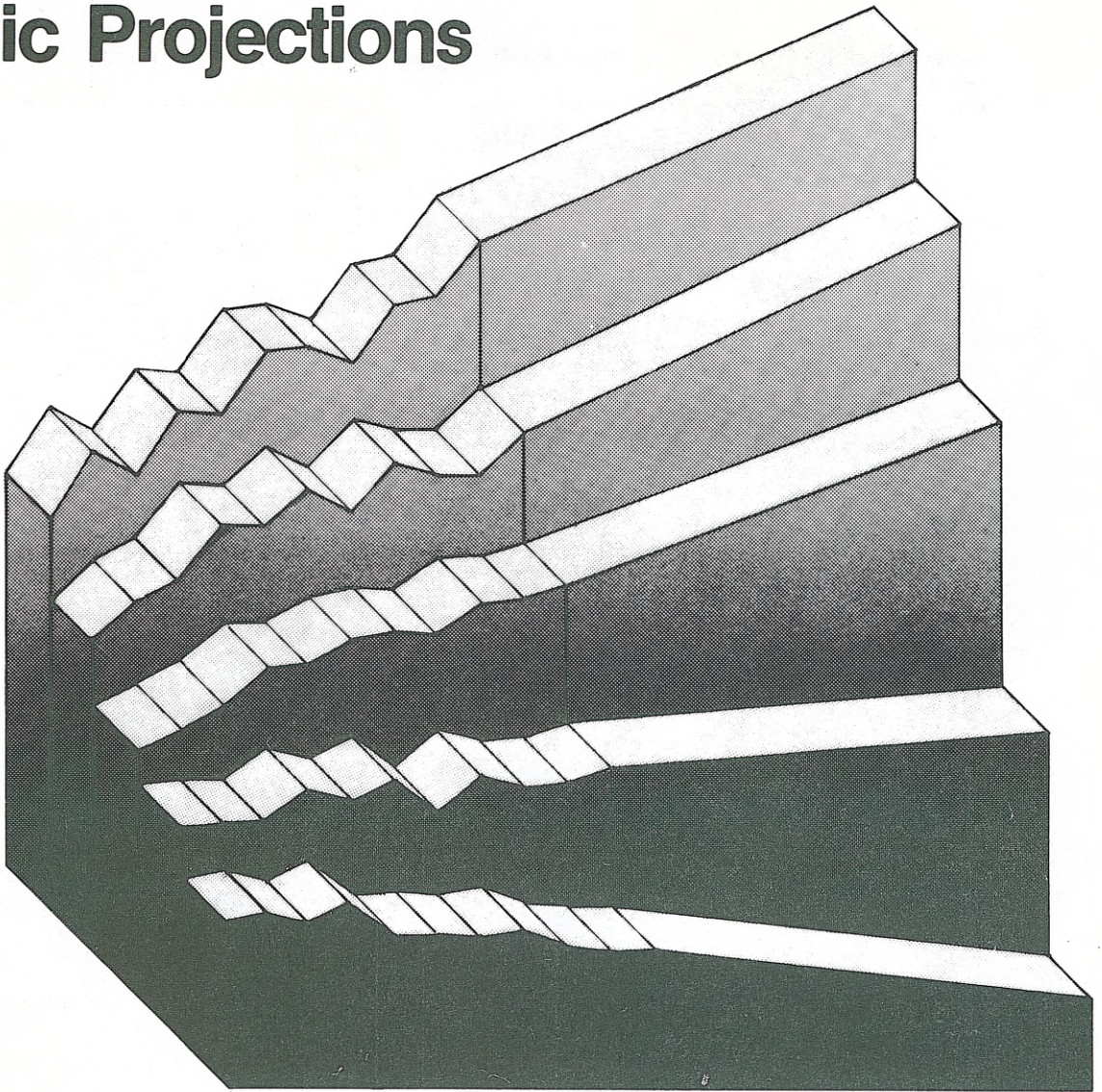
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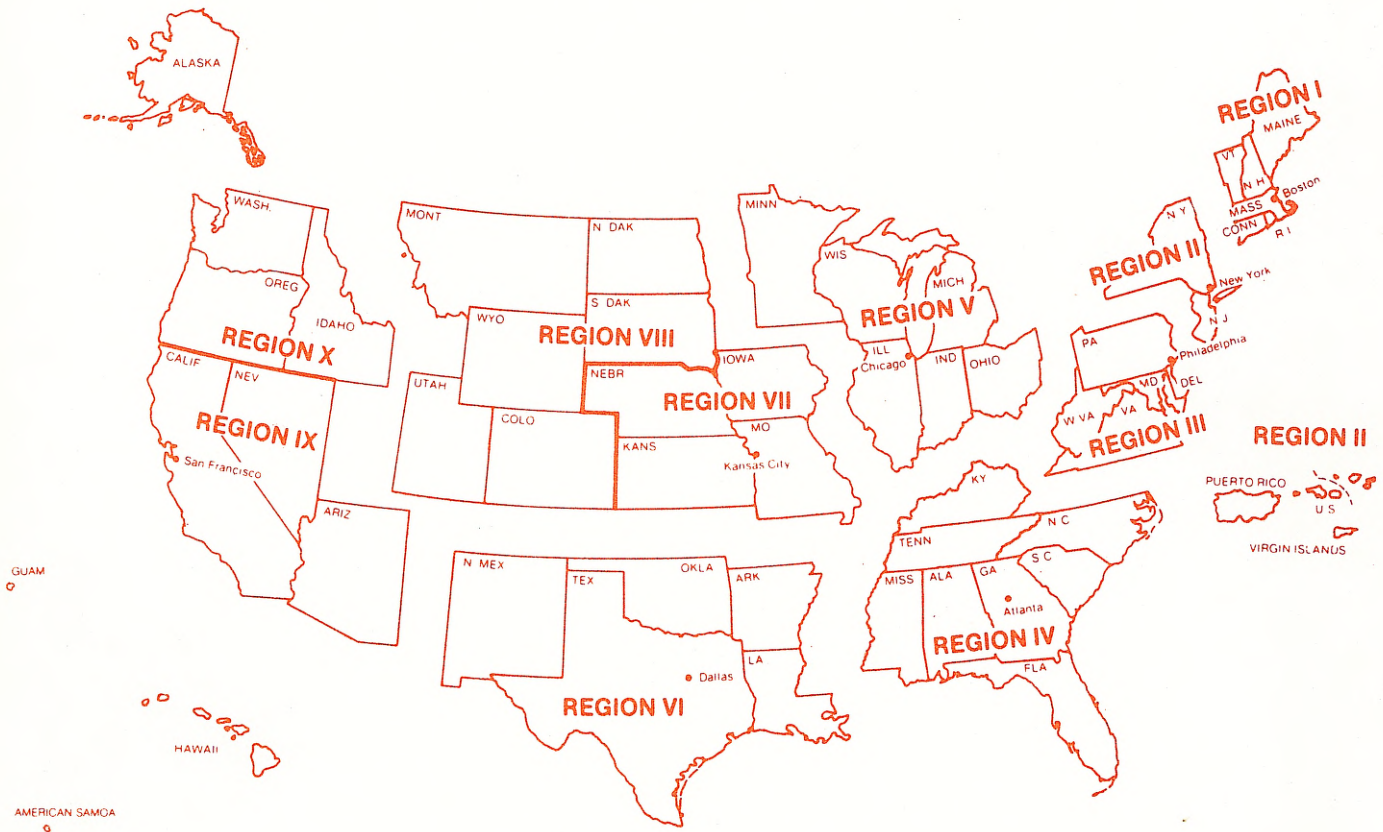
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