

How hours of work affect occupational earnings

In most managerial, management-related, sales, production, and transportation occupations, workers with longer hours earned at a higher hourly rate; the reverse was true for some jobs, including computer specialists, engineers, schoolteachers, and construction workers

Daniel Hecker

Analysis of long-term trends in hours of work has shown that a large proportion of full-timers in some major occupational groups put in long hours, and that persons working long hours generally have higher earnings.¹ Do the high earnings associated with longer workweeks simply reflect the greater number of hours worked, or is there a more basic difference between jobs that demand (or encourage) long workweeks and those that do not? In an article in the April 1997 issue of the *Review*, BLS analysts Philip L. Rones, Jennifer Gardner, and Randy E. Ilg noted that professional and managerial workers had both higher earnings and longer hours than did workers in other occupational groups, and suggested that some of the earnings difference might be due to the considerable responsibility associated with professional and managerial jobs. This article takes a more in-depth look at the relationship between hours and earnings, with a focus on detailed occupations.

Data and methodology

This article is based on 1997 data from the Current Population Survey, the monthly household survey that provides the basic measurements of the U.S. labor force and employment.² Data reflect usual weekly earnings and usual weekly hours on a worker's primary job only. Employment and usual weekly and hourly earnings data are tabulated for full-time workers in 12 major occupational groups and 87 detailed oc-

cupations.³ For all occupations, data are provided for three "usual hours worked" categories: 35 to 99 hours (full time), 35 to 44 hours (also referred to in this article as a standard workweek), and 45 to 99 hours (also referred to as an extended workweek).⁴ Where statistically reliable, data on weekly hours also are provided separately for persons working 45 to 54 hours and 55 to 99 hours per week. Classification by hours-worked categories permits comparisons within occupations of workers with different numbers of work hours, as well as comparisons between occupations of workers with roughly the same number of work hours per week. To facilitate comparisons, this article shows both weekly and hourly earnings. Data are presented separately by sex because women generally earn less than men, even in the same occupation, and have shorter workweeks. Because the primary focus is comparisons between hours-worked groups, data are presented only for occupations in which there were enough respondents with extended hours to provide statistically reliable earnings data.⁵

Data in this article are for wage and salary workers, those who work for someone else and receive a paycheck. They exclude self-employed workers,⁶ who are more likely than wage and salary workers to have an extended workweek.⁷ The self-employed comprised only about 8 percent of employed workers in 1997, but made up a much larger proportion of some occupations, such as physicians, lawyers, and food service and lodging managers. Thus, data that include the self-employed would show a greater proportion

Daniel Hecker is an economist in the Office of Employment Projections, Bureau of Labor Statistics.

of workers with extended hours. Also, to the extent that the self-employed earn more or less than wage and salary workers, earnings would be different from those shown in this article.⁸

Unlike estimates from surveys of employers, those presented here relate to hours actually worked, not simply hours paid for. However, they do not indicate the schedule of hours. Although schedules vary, a typical 35-to-44-hour workweek consists of 5 workdays of between 7 and nearly 9 hours. An extended workweek might be at least 9 hours a day or additional hours on a sixth workday. For most jobs, work is performed between 6 a.m. and 6 p.m., Monday through Friday. However, some jobs include evening, night, or weekend work; shifts that change periodically from days to evenings or nights; an irregular schedule arranged by the employer; or a split shift—two distinct work periods each day.⁹

Number of hours worked

Table 1 shows 1997 average weekly hours and the proportion of workers in each hours-worked category, by major occupational group. According to the table, about 3 out of 10 men and 3 out of 20 women usually worked more than 44 hours a week; 1 man in 10 and 1 woman in 30 usually worked more than 54 hours a week.¹⁰

Executives, officials, and managers were most likely to have extended workweeks—more than 5 out of 10 men and 3 out of 10 of women in this major occupational category did so. Administrative support workers; service workers; machine operators, assemblers, and inspectors; and handlers, equipment cleaners, helpers, and laborers were least likely to work an extended workweek—no more than one-sixth of the men and one-tenth of the women in this category reported working such a schedule.

Table 2 presents data for detailed occupations, ranked by the percent of workers within them who have a standard workweek. Among these detailed occupations, two-thirds of male clergy, physicians, and firefighters had extended hours, as did at least half of female physicians, lawyers, and marketing managers.¹¹ In contrast, fewer than 8 percent of janitors and cleaners, secretaries, nursing aides, and bookkeepers had extended hours.

Earnings differences within occupations

Table 3 presents, for each hours-worked group, median weekly earnings, median hourly earnings, and occupational rank based on median weekly earnings. It shows that workers with an extended workweek have a wide range of earnings premiums. In half the cases, such workers earned at least 32 percent more per week than did those with a standard workweek, and about two-thirds earned more per hour. Male

salesworkers (other retail commodities) with an extended workweek earned 76 percent more per week than co-workers with a standard workweek, and 36 percent more per hour. However, male elementary schoolteachers actually earned slightly less per week, and 74 percent as much per hour.

In nearly 90 percent of managerial, management-related, and sales occupations, weekly earnings of workers with an extended workweek exceeded those of workers with a standard workweek by at least 32 percent, and hourly earnings also were higher. For example, male financial managers with an extended workweek earned 54 percent more per week (\$1,159 compared to \$752), and 17 percent more per hour (\$22.45 compared to \$19.16) than did their counterparts who worked a standard workweek. (See table 3 and chart 1.)

Among professional specialty workers and technicians, two-thirds had premiums below 32 percent, and earned less per hour. Elementary, secondary, and special education teachers, as well as engineers and persons in computer occupations, with an extended workweek earned little more per week and much less per hour. Female college teachers with an extended workweek earned a third more per week, and for their male counterparts, the premium was 40 percent. Both male and female college faculty earned roughly the same per hour in both hours-worked groups. Female prekindergarten and kindergarten teachers with extended hours earned 56 percent more per week, and 17 percent more per hour. Male physicians showed a premium of 44 percent, but female physicians had an earnings advantage of only 6 percent.¹² There were relatively small differences in weekly earnings for most administrative support occupations among both women and men. Almost all precision production, craft, and repair and machine operator occupations enjoyed a premium for an extended workweek of fairly close to 32 percent, except that assemblers had a premium of 62 percent. (Within extended workweek categories for which data are not shown separately, persons working 55 to 99 hours earned more per week than did those working 45 to 54 hours in most occupations for which data were available. However, only male managers in marketing, advertising, and public relations earned more per hour.)

There are several explanations for higher medians, per week or per hour, for workers with an extended workweek. Workers paid by the hour obviously earn more per week; if they earn time and a half for hours worked beyond 40 per week, as specified by the Fair Labor Standards Act (FLSA), then they earn more per hour, as well.¹³ Commission salesworkers who work longer hours obviously can produce more, and therefore earn more per week. (Because they are exempt from the overtime provisions of the FLSA, however, they are not likely to receive time and a half for work beyond 40 hours.)

As noted in the introduction, the authors of the April 1997 *Review* article asked if there is some basic difference between jobs with and jobs without long hours that contributes to earn-

Table 1. Usual weekly hours of persons employed full time, by sex and major occupational group, 1997

Sex and occupational group	Average weekly hours	Percent distribution of full-time workers, by hours worked		
		35 to 44 hours	45 to 54 hours	55 to 99 hours
Men				
Total employed	44	71	19	10
Executives, officials, and managers	47	47	33	20
Sales occupations	46	57	28	15
Professional speciality occupations	45	63	24	12
Management-related occupations	44	64	26	10
Transportation and material moving occupations	46	65	20	16
Farming, forestry, and fishing occupations	46	69	16	15
Precision production, craft, and repair occupations	43	79	15	6
Technicians	43	79	16	5
Machine operators, assemblers, and inspectors	42	83	13	4
Administrative support occupations, including clerical	42	83	13	4
Service workers	42	84	10	6
Handlers, equipment cleaners, helpers, and laborers ..	42	88	9	3
Women				
Total employed	41	85	11	3
Executives, officials, and managers	44	67	24	8
Professional speciality occupations	42	78	17	6
Transportation and material moving occupations	43	81	11	9
Sales occupations	42	82	14	4
Management-related occupations	42	84	13	3
Farming, forestry, and fishing occupations	42	84	13	3
Precision production, craft, and repair occupations	41	89	9	2
Technicians	41	91	7	2
Service workers	41	92	6	3
Handlers, equipment cleaners, helpers, and laborers ..	41	92	7	2
Machine operators, assemblers, and inspectors	41	92	6	1
Administrative support occupations, including clerical ..	40	94	5	1

ings differentials. To the extent that workers with extended hours are more likely to have greater responsibilities, higher skill levels, or more education; to have employers that pay high wages; or to have other characteristics associated with higher pay, the observed higher earnings for long hours may also reflect these factors.

Hourly earners include most production workers in mining, manufacturing, and construction, and most retail salesworkers and cooks, truckdrivers, guards, and nursing aides. Clerical workers, police, and technicians, even if they are on an annual salary, may also receive pay for extra hours at time and a half. In most of these occupations, workers with an extended workweek do have higher weekly and hourly earnings. (See table 3.) However, in some occupations, such as electricians and nursing aides, orderlies, and attendants, median hourly rates are lower. Lower rates could be consistent with time and a half for overtime hours if workers with extended hours have lower base hourly rates than do those with standard hours—for example, younger workers or those working in establishments that pay low wages. (Interestingly, an analysis of 1985 data showed that persons aged 25 to 34 were most likely to put in extra hours at overtime rates.¹⁴)

Workers selling insurance, real estate, automobiles, and

other “big ticket” items typically receive at least part of their pay as commissions, based on the value of the products sold. Those with extended workweeks earn substantially more per week than those working a standard week. The fact that the former workers earn more per hour suggests that they also make more sales per hour, that they get larger commissions or bonuses for being top sellers, or that they have other characteristics associated with high earnings.

Most managerial and professional workers receive an agreed-upon weekly or yearly salary in return for at least 35 to 40 hours of work a week. Their employers are not required by the FLSA to pay extra for hours beyond 40, or to pay time and a half if they do pay an overtime premium. In fact, in some cases, it is well understood that an extended workweek is simply part of the job. Thus, for such workers, overtime pay is much less common, although for superior performance, they may receive compensation that may not be included in the data presented here, such as bonuses, extra benefits, or stock options.¹⁵

There is a wide range of job titles within most managerial and some professional occupations, suggesting wide variation in the characteristics generally associated with high earnings.¹⁶ However, it is not possible to determine from CPS data

Table 2. Usual weekly hours of persons employed full time, by sex and detailed occupation, 1997

Sex and occupational group	Average weekly hours	Percent distribution of full-time workers, by hours worked		
		35 to 44 hours	45 to 54 hour	55 to 99 hours
Men				
Clergy	52	31	28	40
Physicians ¹	52	32	25	44
Firefighting occupations	51	33	26	41
Managers, food serving and lodging establishments	50	35	33	32
Lawyers	49	37	37	25
Managers, marketing, advertising, and public relations	48	38	37	24
Salesworkers, motor vehicles and boats	49	40	34	26
Financial managers	47	42	39	19
Securities and financial services sales occupations	46	47	38	15
Supervisors and proprietors, sales occupations	48	47	33	21
Farmworkers	51	50	23	28
Insurance sales occupations	46	52	36	13
Administrators, education and related fields	47	52	26	22
Real estate sales occupations	47	52	28	21
Other financial officers	45	52	35	13
Taxi cab drivers and chauffeurs	48	54	24	23
Tool and die makers	46	54	32	14
Sales representatives, mining, manufacturing, and wholesale trade	46	55	31	14
Supervisors, mechanics and repairers	46	55	26	19
Managers, service organizations, n.e.c.	46	55	29	16
Teachers, college and university	47	57	24	19
Extractive occupations	51	58	12	31
Truckdrivers	47	58	23	19
Industrial engineers	45	60	29	10
Teachers, secondary school	45	61	26	13
Sales occupations, other business services	44	64	26	10
Supervisors, production occupations	45	65	26	9
Operations and systems researchers and analysts	44	65	25	10
Accountants and auditors	44	66	26	9
Salesworkers, furniture, radio, tv, and appliances	43	66	28	6
Computer systems analysts and scientists	43	67	26	7
Teachers, elementary school	44	69	23	8
Civil engineers	43	70	21	9
Electrical and electronic engineers	44	70	23	7
Designers	43	70	23	7
Computer programmers	43	70	25	5
Machinists	43	72	23	5
Automobile mechanics	43	74	21	5
Supervisors, administrative support occupations	43	74	22	5
Production inspectors, checkers, and examiners	43	74	19	7
Officials and administrators, public administration	43	74	18	8
Supervisors, construction occupations	44	75	16	9
Industrial machinery repairers	43	76	18	6
Salesworkers, other commodities	42	78	16	5
Metalworking and plastic working machine operators	42	80	16	4
Welders and cutters	43	80	16	4
Mail carriers and postal clerks	42	81	18	2
Construction trades	42	84	10	5
Police and detectives, public service	43	81	13	6
Electrical and electronic equipment repairers	42	82	13	6
Cooks	42	82	11	7
Engineering technologists and technicians	42	83	14	3
Machine operators, assorted materials	42	83	12	4
Industrial truck and tractor equipment operators	42	84	13	3
Plumbers, pipefitters, and steamfitters	42	84	10	5
Electricians	42	85	11	4
Traffic, shipping, and receiving clerks	42	85	13	3
Assemblers	42	86	11	3
Guards and police, excluding public service	42	86	9	5
Carpenters	42	86	9	4
Construction laborers	42	87	10	3
Laborers, except construction	42	89	8	3
Janitors and cleaners	41	93	5	2

Table 2. Continued—Usual weekly hours of persons employed full time, by sex and detailed occupation, 1997

Sex and occupational group	Average weekly hours	Percent distribution of full-time workers, by hours worked		
		35 to 44 hours	45 to 54 hour	55 to 99 hours
Women				
Lawyers	46	46	36	18
Physicians ¹	49	45	24	32
Managers, marketing, advertising, and public relations	45	50	37	12
Managers, food serving and lodging establishments	45	60	28	12
Teachers, college and university	45	61	22	16
Administrators, education and related fields	44	65	25	10
Teachers, secondary school	44	66	25	8
Financial managers	44	67	26	7
Teachers, elementary school	44	68	24	8
Engineers	43	70	25	6
Supervisors and proprietors, sales occupations	43	70	22	7
Managers, service organizations, n.e.c.	43	72	21	7
Managers, medicine and health	43	73	20	7
Sales representatives, mining, manufacturing, and wholesale trade	43	74	20	6
Sales representatives, finance and business services	42	76	18	6
Operations and systems researchers and analysts	43	76	13	10
Computer systems analysts and scientists	42	78	20	3
Private household occupations	44	80	12	8
Teachers, special education	42	81	15	4
Other financial officers	42	81	13	6
Accountants and auditors	41	83	15	2
Supervisors, administrative support occupations	42	84	13	3
Teachers, prekindergarten and kindergarten	41	87	10	3
Registered nurses	41	90	8	1
Salesworkers, retail and personal services	40	92	6	2
Bookkeepers, accounting, and auditing clerks	41	93	6	1
Nursing aides, orderlies, and attendants	41	93	4	3
Secretaries	40	95	4	1

¹Data for physicians exclude persons working more than 74 hours a week because almost all such persons have very low earnings, and thus are presumed to be interns rather than licensed physicians.
n.e.c. = not elsewhere classified.

whether workers with an extended workweek are more likely to have these characteristics.

Managerial occupations include those overseeing thousands of employees and billion-dollar budgets, and others that involve only a few employees and much smaller budgets. For example, education administrators include county school superintendents; principals and vice principals of public, private, and trade and vocational schools; college academic deans and student services directors and officers; and directors of child day care services. Controllers, accounting managers, and financial directors and assistants of both large and small organizations are included within the category of financial managers, as are those with job titles such as bank branch managers and credit union managers. The level of educational attainment required for management jobs also may vary widely. For example, medicine and health managers include clinical department heads, such as medicine, nursing, physical therapy, and medical laboratory directors, who each have degrees in corresponding fields, at levels ranging from the associate through professional and doctoral degrees. The same occupational category also includes heads of administrative departments and medical administrative assis-

ants, with a range of educational backgrounds.¹⁷

Within the occupation prekindergarten and kindergarten teachers, prekindergarten teachers tend to work in private preschools, day care centers, and nursery schools, where a college degree is not always needed, and wages are lower. Kindergarten teachers are more likely to work in public elementary schools, where most teachers have a bachelor's degree (and some, a master's), and wages are higher. College teachers include persons employed at 2-year colleges and religious-affiliated private colleges, where salaries are relatively low, as well as those at research universities and professional schools, where salaries are relatively high. The category includes faculty within four academic ranks, both tenured and untenured.

If college faculty with extended hours are more likely to be in research universities and professional schools, to hold tenure, or to have a full-time appointment, then the large observed weekly premium for longer hours also reflects a wide range of factors other than hours worked. Similarly, if faculty or those in other occupations holding M.D., Ph.D., and other advanced degrees work longer hours than those with less education, or if those with more responsibility work longer hours, then

Table 3. Usual weekly and hourly earnings of persons employed full-time, by sex, hours-worked group, and occupation, 1997

Sex and occupation	35 to 99 hours			35 to 44 hours			45 to 99 hours			Earnings ratio	
	Weekly earnings		Hourly earnings	Weekly earnings		Hourly earnings	Weekly earnings		Hourly earnings	(45 to 99 hours/35 to 44 hours)	
	Amount	Rank		Amount	Rank		Amount	Rank		Weekly earnings	Hourly earnings
Men											
Total employed	\$581	—	\$13.32	\$505	—	\$12.72	\$775	—	\$15.14	1.53	1.19
Executives, officials, and managers	889	—	19.69	747	—	19.01	1,039	—	20.21	1.39	1.06
Officials and administrators, public administration	872	13	21.01	833	10	21.09	1,073	10	20.72	1.29	.98
Financial managers	991	5	21.05	752	14	19.16	1,159	4	22.45	1.54	1.17
Managers, marketing, advertising, and public relations	1,062	3	22.26	832	11	20.80	1,230	3	22.96	1.48	1.10
Administrators, education and related fields	951	8	21.15	839	9	21.18	1,146	6	21.12	1.37	1.00
Managers, food serving and lodging establishments	555	43	10.80	407	50	10.35	606	47	10.99	1.49	1.06
Managers, service organizations, n.e.c.	728	22	16.01	587	34	14.24	917	18	17.84	1.56	1.25
Management-related occupations	784	—	18.55	703	—	17.67	962	—	19.80	1.37	1.12
Accountants and auditors .	792	15	18.58	707	18	17.75	942	14	19.63	1.33	1.11
Other financial officers	932	10	20.69	751	15	19.26	1,159	5	23.41	1.54	1.22
Professional speciality occupation	886	—	20.39	824	—	20.80	982	—	19.67	1.19	.95
Civil engineers	962	6	23.23	950	4	24.25	1,006	13	19.70	1.06	.81
Electrical and electronic engineers	999	4	23.66	955	3	24.44	1,108	8	21.47	1.16	.88
Industrial engineers	901	12	20.45	873	6	22.20	934	15	19.01	1.07	.86
Computer systems analysts and scientists	954	7	22.53	919	5	23.15	1,048	12	21.44	1.14	.93
Operations and systems researchers and analysts	922	11	21.49	867	7	21.44	1,052	11	21.53	1.21	1.00
Physicians ¹	1,470	1	28.09	1,134	1	28.36	1,631	1	27.96	1.44	.99
Teachers, college and university	935	9	20.70	818	12	20.78	1,145	7	20.58	1.40	.99
Teachers, elementary school	721	24	16.77	721	17	18.44	720	36	13.56	1.00	.74
Teachers, secondary school.	772	18	17.79	758	13	19.20	794	27	15.25	1.05	.79
Clergy	591	38	11.71	432	47	11.09	624	43	12.02	1.44	1.08
Lawyers	1,262	2	26.09	1,057	2	27.05	1,400	2	25.76	1.32	.95
Designers	791	16	19.11	744	16	19.10	911	20	19.13	1.22	1.00
Technicians and related support occupations	666	—	16.15	635	—	16.06	828	—	16.44	1.30	1.02
Engineering technologists and technicians	641	33	15.44	618	30	15.44	767	33	15.45	1.24	1.00
Computer programmers	872	14	20.66	842	8	21.11	922	16	19.92	1.10	.94
Sales occupations	602	—	13.10	485	—	12.26	752	—	14.55	1.55	1.19
Supervisors and proprietors, sales occupations	616	37	13.10	502	40	12.59	732	35	13.76	1.46	1.09
Insurance sales occupations	754	20	17.67	630	27	16.39	1,076	9	19.88	1.71	1.21
Real estate sales occupations	720	25	16.15	633	26	15.99	857	21	19.05	1.35	1.19
Sales occupations, other business services	684	29	15.04	528	37	13.14	832	23	16.99	1.58	1.29
Sales representatives, mining, manufacturing, and wholesale trade	735	21	16.68	664	21	16.79	838	22	16.54	1.26	.99
Salesworkers, motor vehicles and boats	590	39	12.12	451	45	11.31	668	39	12.50	1.48	1.11
Salesworkers, furniture, radio, TV, appliances	500	45	11.74	455	44	11.65	602	48	11.78	1.32	1.01
Sales workers, other retail commodities	390	55	9.42	329	58	8.53	578	52	11.57	1.76	1.36

Table 3. Continued—Usual weekly and hourly earnings of persons employed full-time, by sex, hours-worked group, and occupation, 1997

Sex and occupation	35 to 99 hours			35 to 44 hours			45 to 99 hours			Earnings ratio (45 to 99 hours/35 to 44 hours)	
	Weekly earnings		Hourly earnings	Weekly earnings		Hourly earnings	Weekly earnings		Hourly earnings	Weekly earnings	Hourly earnings
	Amount	Rank		Amount	Rank		Amount	Rank			
Men—Continued											
Administrative support occupations, including clerical	\$513	—	\$12.48	\$487	—	\$12.29	\$674	—	\$13.46	1.38	1.10
Supervisors, administrative support occupations	688	28	15.66	651	23	16.09	752	34	15.24	1.16	.95
Mail carriers and postal clerks	689	27	16.97	679	20	17.05	775	29	16.20	1.14	.95
Traffic, shipping, and receiving clerks	410	54	10.12	396	52	10.04	514	54	10.62	1.30	1.06
Service workers	377	—	9.19	352	—	9.02	528	—	10.23	1.50	1.13
Firefighting occupations	725	23	14.46	634	25	15.94	767	32	13.82	1.21	.87
Police and detectives, public service	713	26	16.79	654	22	16.49	920	17	18.58	1.41	1.13
Guards and police, except public service	353	58	8.76	334	57	8.57	486	56	9.37	1.46	1.09
Cooks	303	60	7.37	287	60	7.21	413	60	7.92	1.44	1.10
Janitors and cleaners	334	59	8.46	325	59	8.45	430	58	8.56	1.32	1.01
Farming, forestry, and fishing occupations	306	—	6.97	290	—	7.22	341	—	6.20	1.18	.86
Farmworkers	278	61	5.87	247	61	6.15	313	61	5.60	1.27	.91
Precision production, craft, and repair occupations	573	—	13.49	534	—	13.48	693	—	13.57	1.30	1.01
Supervisors, mechanics and repairers	769	19	16.70	683	19	17.20	831	24	16.18	1.22	.94
Automobile mechanics	496	46	11.76	469	43	11.81	588	51	11.68	1.25	.99
Industrial machinery repairers	567	41	13.50	534	36	13.50	678	38	13.49	1.27	1.00
Electrical and electronic equipment repairers	632	35	15.40	612	31	15.35	787	28	16.04	1.29	1.04
Supervisors, construction occupations	672	30	15.40	624	28	15.62	772	30	15.01	1.24	.96
Carpenters	490	48	12.01	477	41	12.06	593	49	11.70	1.24	.97
Electricians	639	34	15.66	623	29	15.85	770	31	14.89	1.24	.94
Plumbers, pipefitters, and steamfitters	618	36	15.08	606	33	15.30	704	37	14.14	1.16	.92
Mining and petroleum occupations	663	32	14.01	573	35	14.25	825	25	13.43	1.44	.94
Supervisors, production occupations	667	31	15.45	610	32	15.29	800	26	15.95	1.31	1.04
Tool and die makers	786	17	17.37	648	24	16.16	913	19	18.82	1.41	1.16
Machinists	578	40	13.39	527	38	13.29	655	40	13.48	1.24	1.01
Machine operators, assemblers, and inspectors	448	—	10.81	416	—	10.46	740	—	12.21	1.78	1.17
Metalworking and plastic working machine operators	486	49	11.79	446	46	11.12	621	44	12.96	1.39	1.17
Machine operators, assorted materials	453	50	10.96	422	48	10.64	592	50	12.08	1.40	1.14
Welders and cutters	495	47	12.07	475	42	11.99	612	46	12.27	1.29	1.02
Assemblers	413	52	10.30	392	53	10.10	640	42	12.62	1.63	1.25
Production inspectors, checkers, and examiners	563	42	12.83	506	39	12.56	654	41	13.21	1.29	1.05
Transportation and material moving occupations	505	—	11.30	442	—	11.19	623	—	11.46	1.41	1.02
Truckdrivers	508	44	11.05	420	49	10.52	618	45	11.36	1.47	1.08
Taxi cab drivers and chauffeurs	413	53	8.43	372	55	9.59	445	57	8.29	1.20	.86
Industrial truck and tractor equipment operators	419	51	10.34	405	51	10.24	568	53	11.01	1.40	1.08
Handlers, equipment cleaners, helpers and laborers	350	—	8.66	333	—	8.54	457	—	9.26	1.37	1.08
Construction laborers	388	56	9.56	373	54	9.47	498	55	10.09	1.34	1.07
Laborers, except construction	362	57	8.88	352	56	8.94	425	59	8.61	1.21	.96

Table 3. Continued—Usual weekly and hourly earnings of persons employed full-time, by sex, hours-worked group, and occupation, 1997

Sex and occupation	35 to 99 hours			35 to 44 hours			45 to 99 hours			Earnings ratio (45 to 99 hours/35 to 44 hours)	
	Weekly earnings		Hourly earnings	Weekly earnings		Hourly earnings	Weekly earnings		Hourly earnings	Weekly earnings	Hourly earnings
	Amount	Rank		Amount	Rank		Amount	Rank			
Women											
Total employed	\$435	—	\$10.75	\$408	—	\$10.38	\$658	—	\$13.16	1.61	1.27
Executives, officials, and managers	622	—	14.62	571	—	14.19	789	—	15.48	1.38	1.09
Financial managers	655	12	15.30	593	11	14.43	895	8	17.25	1.51	1.20
Managers, marketing, advertising, and public relations	732	6	16.23	637	9	15.95	827	10	16.85	1.30	1.06
Administrators, education and related fields	660	10	15.41	580	12	14.68	843	9	17.08	1.45	1.16
Managers, medicine and health	624	13	15.12	562	13	14.21	904	6	17.22	1.61	1.21
Managers, food serving and lodging establishment	407	23	9.07	349	24	8.91	475	23	9.29	1.36	1.04
Managers, service organizations, n.e.c.	598	14	14.29	535	15	14.04	784	12	15.31	1.47	1.09
Management related occupations	579	—	13.89	544	—	13.59	729	—	14.99	1.34	1.10
Accountants and auditors ..	590	15	14.13	561	14	13.98	726	15	15.34	1.29	1.10
Other financial officers	577	17	13.76	535	16	13.45	728	14	15.01	1.36	1.12
Professional speciality occupations	664	—	16.07	634	—	16.19	772	—	15.45	1.22	.95
Engineers, all specialties ...	837	5	20.20	801	4	20.50	976	3	19.44	1.22	.95
Computer systems analysts and scientists	852	3	20.59	834	2	20.87	940	5	19.82	1.13	.95
Physicians'	1,106	1	34.53	1,071	1	27.92	1,135	2	21.76	1.06	.78
Registered nurses	707	7	17.85	692	6	17.79	898	7	18.54	1.30	1.04
Teachers, college and university	808	5	18.57	727	5	18.53	969	4	18.65	1.33	1.01
Teachers, prekindergarten and kindergarten	405	24	9.86	383	23	9.62	598	20	10.76	1.56	1.12
Teachers, elementary school	657	11	15.31	630	10	16.07	725	16	14.09	1.15	.88
Teachers, secondary school	695	8	16.33	685	7	17.52	707	18	13.95	1.03	.80
Teachers, special education	680	9	16.54	669	8	17.05	720	17	14.22	1.08	.83
Lawyers	957	2	21.33	807	3	20.23	1,184	1	23.34	1.47	1.15
Technicians and related support occupations.....	499	—	12.38	486	—	12.28	699	—	14.44	1.44	1.18
Sales occupations	357	—	8.84	317	—	8.27	602	—	12.18	1.90	1.47
Supervisors and proprietors, sales occupations	438	20	10.27	386	22	9.83	566	21	11.62	1.47	1.18
Sales representatives, finance and business services	513	19	12.31	457	19	11.75	741	13	15.26	1.62	1.30
Sales representatives, mining, manufacturing, and wholesale trade	580	16	13.34	516	17	12.88	787	11	16.02	1.53	1.24
Sales workers, retail and personal services ...	271	26	6.89	266	26	6.78	425	25	8.22	1.60	1.21
Administrative support occupations, including clerical	404	—	10.23	398	—	10.19	528	—	10.98	1.33	1.08
Supervisors, administrative support occupations	525	18	12.81	505	18	12.78	654	19	12.88	1.30	1.01
Secretaries	411	22	10.43	409	21	10.47	446	24	9.39	1.09	.90
Bookkeepers, accounting, and auditing clerks	421	21	10.49	416	20	10.50	480	22	10.28	1.15	.98
Service workers, including private household	286	—	7.14	282	—	7.16	342	—	6.63	1.21	.93
Private household occupations	223	27	5.53	218	27	5.58	283	27	5.1	1.30	.91

Table 3. Continued—Usual weekly and hourly earnings of persons employed full-time, by sex, hours-worked group, and occupation, 1997

Sex and occupation	35 to 99 hours			35 to 44 hours			45 to 99 hours			Earnings ratio (45 to 99 hours/35 to 44 hours)	
	Weekly earnings		Hourly earnings	Weekly earnings		Hourly earnings	Weekly earnings		Hourly earnings	Weekly earnings	Hourly earnings
	Amount	Rank		Amount	Rank		Amount	Rank			
Women—Continued											
Nursing aides, orderlies, and attendants	298	25	7.37	295	25	7.48	356	26	6.6	1.21	.88
Precision production, craft, and repair occupations	384	—	9.61	369	—	9.35	627	108	13.09	1.70	1.40
Machine operators, assemblers, and inspectors	313	—	7.85	307	—	7.74	416	195	8.48	1.36	1.10
Transportation and material moving occupations	371	—	9.10	342	—	8.98	572	52	10.03	1.67	1.12
Handlers, equipment cleaners, helpers and laborers	299	—	7.52	294	—	7.45	406	55	8.48	1.38	1.14

¹Data for physicians exclude persons working more than 74 hours a week because almost all such persons have very low earnings, and thus are presumed to be interns rather than licensed physicians.
n.e.c. = not elsewhere classified.

NOTE: There were not enough observations to provide reliable data for farming, forestry, and fishing occupations.
Dash indicates “not applicable,” or that data meeting publication criteria were not available.

premiums for long hours also reflect the influence of these factors. Of course, these differences may also exist among craft, administrative support, or other occupations likely to be paid overtime. For example, within the occupation police and detectives, detectives or FBI agents, who usually earn more than other police officers, might also work longer hours. If so, the large pay differential would also be due to this factor.

In some other—primarily salaried—occupations, workers with extended hours have more modest weekly differentials, and earn much less per hour than do their counterparts who work fewer hours. There are several possible reasons. Earnings differentials between job titles within the occupation may be more modest; or earnings differentials may be large, but there is little connection between hours worked and earnings. For example, salaries of elementary, secondary, or special education schoolteachers increase with years of tenure, are much higher in public than private schools, and vary widely by geographic area, but experienced teachers or those in high paying schools or systems may not work longer hours.

Even though managerial and professional workers are not likely to receive pay for overtime work, they may work an extended workweek for a number of other reasons. It might simply take more than 44 hours to perform their job adequately, or their employer might require more hours as one of the terms of continued employment. A worker also might be seeking a promotion or a yearend bonus, in which case extra hours could eventually yield higher income, but not necessarily during the period of the survey. In addition, some workers simply are conscientious, or prefer work to other activities—at least up to a point. Of course, workers who re-

ceive pay for overtime work may also put in long hours for these same reasons.

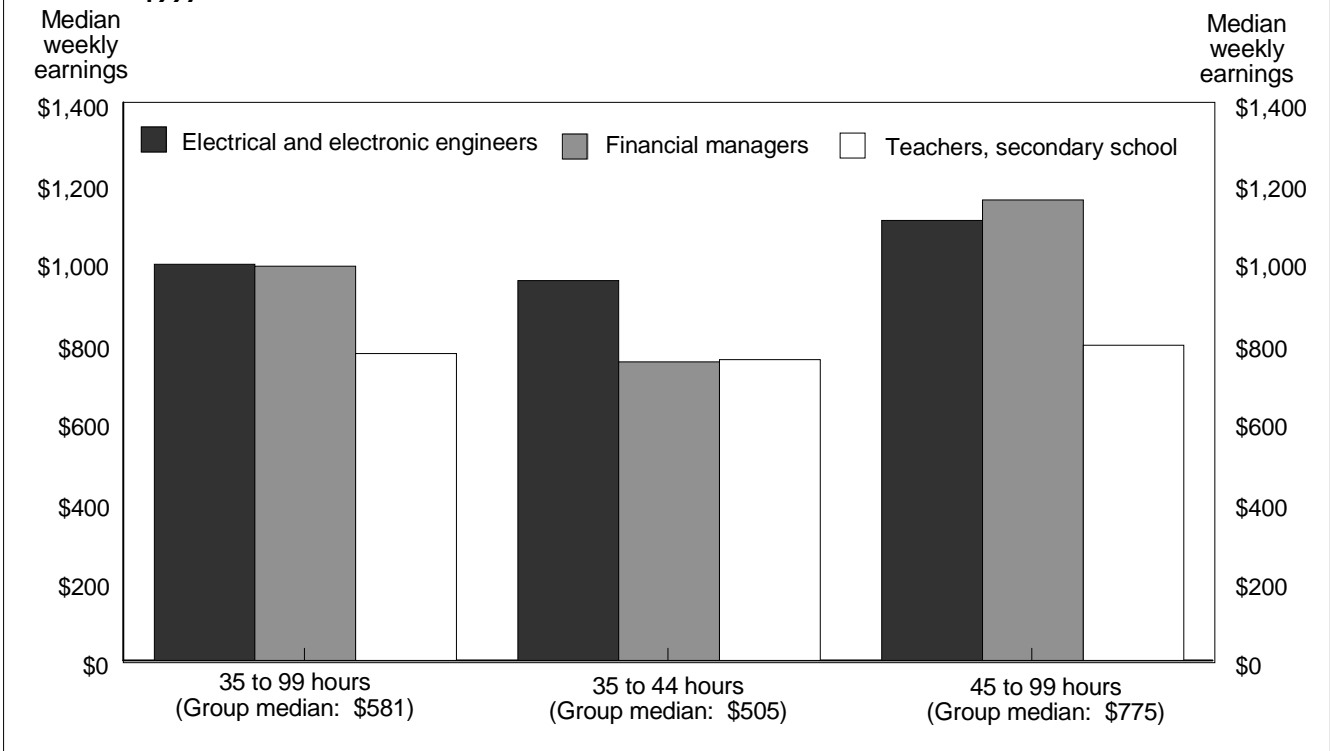
In summary, for most managerial and sales occupations, there is a large difference between weekly earnings of standard and extended-week workers. Workers with a standard workweek appear to pay a large financial “penalty” for their shorter hours, while those with an extended week appear to get a large “payoff” for their longer hours. In contrast, differences between earnings of standard and extended-week workers are small among engineers, computer scientists, and teachers. Workers in these occupations appear to suffer very little financially from having a standard workweek, but to gain little from an extended week.

Earnings differences between occupations

Two of the most common questions asked about jobs are: Which pay the most and how does one occupation compare with others in terms of earnings and hours of work? Data presented earlier suggest that rankings of jobs by earnings may vary, depending on which hours-worked group is studied. This section shows how rankings for the groups of workers who put in 35 to 44 hours and 45 to 99 hours differ from the ranking for all full-timers (35 to 99 hours).

Rankings differ most for men in managerial, management-related professional specialty, and sales occupations. Male and female physicians and male and female lawyers remain at the top of the earnings distribution. At the bottom of the distribution are found male farmworkers, laborers, janitors and cleaners, guards, and cooks, and female nursing aides and

Chart 1. Median usual weekly earnings of men in selected occupations, by hours-worked group, 1997



private household workers—no matter which hours-worked group is used.

Compared to the ranking for all full-timers, most executives, officials, and managers; management-related jobs; and salesworker occupations appeared lower on the 35-to-44-hour ranking, but were about the same or higher in the 45-to-99-hour ranking. For example, male insurance salesworkers ranked 20th in data for the 35-to-99-hours group, but 27th for those working 35 to 44 hours, and ninth for those working 45 to 99 hours. Engineers; computer specialists; and elementary, secondary, and special education teachers with a standard workweek ranked higher than all full-timers, while those with an extended workweek ranked lower. For example, male secondary schoolteachers ranked 18th in terms of earnings in the 35-to-99-hours-per-week group, but 13th in the 35-to-44-hours group, and 27th in the 45-to-99-hours group. (See table 3 and chart 1.) For most mechanic, repairer, and construction occupations, persons with a standard workweek also ranked higher than their counterparts in other work-hours groups.

Chart 1 also helps to explain how rankings vary. For all full-timers, electrical and electronics engineers, with a median of \$999, rank fourth; financial managers, at \$991, rank fifth; and secondary schoolteachers, at \$772, rank 18th. However, among persons with a standard workweek, electrical engineers, at \$955, ranked only modestly lower than all full-time

electrical engineers, and they appear in third place. Financial managers earned only \$752, much less than the median for all financial managers, and appear in 14th place. Secondary schoolteachers had only slightly lower earnings than did all secondary teachers, and are found in 13th place, ahead of financial managers. Among those with an extended week, financial managers earned \$1,159, enough to put them in fourth place. Electrical engineers earned \$1,108, only modestly more than all full-timers in their occupation, appearing in eighth place. Secondary schoolteachers earned \$794 per week, only slightly more than did all full-timers in their occupation, appearing in 27th place. Looked at another way, electrical and electronic engineers with a standard week earned 89 percent more than the median for all men with a standard workweek, but those with an extended workweek earned only 43 percent more than the median for all men with an extended week. Secondary schoolteachers with a standard week earned 50 percent more than the median for all men with a standard workweek, but those with an extended workweek earned only 2 percent more than the median for all men with an extended week. Financial managers earned about 50 percent more in both cases.

High weekly earnings without long hours. Despite the overall lower weekly earnings associated with a standard workweek, in some occupations, workers with a standard workweek had high medians. Here, “high” is defined as a median that ex-

ceeded the median for all workers with an extended workweek—more than \$775 for men and \$658 for women. This includes, for men, 12th-ranked teachers, college and university, at \$818 and the 11 occupations ranked higher: Managers, marketing, advertising, and public relations (\$832); officials and administrators, public administration (\$833); administrators, education and related fields (\$839); computer programmers (\$842); operations and systems researchers and analysts (\$867); industrial engineers (\$873); computer systems analysts and scientists (\$919); civil engineers (\$950); electrical and electronic engineers (\$955); lawyers (\$1,057); and physicians (\$1,134). For women, this includes eighth-ranked teachers, special education, at \$669 and the seven occupations ranked higher: Teachers, secondary school (\$685); registered nurses (\$692); teachers, college and university (\$727); engineers (\$801); lawyers (\$807); computer systems analysts and engineers (\$834); and physicians (\$1,071).

In a few occupations, persons working standard hours had earnings medians greater than the median for all persons working 55 hours or more (\$847 for men and \$723 for women). These included, for men, seventh-ranked operations and sys-

tems researchers and analysts, at \$867, and those ranked higher and, for women, fifth-ranked college and university teachers, at \$727, and those ranked higher.

Not surprisingly, all of the occupations noted above generally require a college degree for entry. Physicians and lawyers require a professional degree, and most college teachers, a doctoral or professional degree. Engineers, computer systems analysts, and schoolteachers generally need a bachelor's degree, and registered nurses, an associate degree.

CONSIDERATION OF HOURS-WORKED provides an extra dimension to data on earnings. Within every occupation, there are some jobs with shorter hours and others with longer hours. For people willing to work only a standard workweek, or those comfortable with an extended week, some occupations appear more or less attractive than the earnings data for all full-timers would suggest. In some occupations, extended hours are likely to yield a large benefit; in others, extra hours may yield job satisfaction, but not much more money, at least within the period of the CPS survey. □

Footnotes

¹ Philip L. Rones, Jennifer Gardner, and Randy E. Ilg, "Trends in hours of work since the mid-1970's," *Monthly Labor Review*, April 1997, pp. 3–14. See also G.H. Moore and J.N. Hedges, "Trends in labor and leisure," *Monthly Labor Review*, February 1971, pp. 3–11.

² The Current Population Survey is a monthly survey of 50,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics.

³ In this article, full-time workers are defined as persons who work at least 35 hours per week in their primary job. Most other data published by BLS define full time as 35 hours or more at all jobs combined. Data on part-timers are not presented. Part-timers are defined as those working 34 hours or less in their primary job.

⁴ A standard workweek often is defined as precisely 40 hours. See Peyton K. Elder and Heidi D. Miller, "The Fair Labor Standards Act: changes of four decades," *Monthly Labor Review*, July 1979, pp. 10–16. See also Rones and others, "Trends in hours of work," p. 3.

⁵ Some relatively large occupations that are not included are social workers and receptionists for women, and groundskeepers and gardeners for men.

⁶ Earnings data for the unincorporated self-employed are not collected in the monthly Current Population Survey. Earnings data for the incorporated self-employed (who receive a salary) are collected, but are not tabulated or incorporated with earnings of wage and salary workers.

⁷ See Rones and others, "Trends in hours of work," p. 10.

⁸ This exclusion means that data are not presented for some occupations with relatively large numbers of self-employed workers, but too few wage and salary workers to provide statistically reliable data, such as architects, cosmetologists, and dentists.

⁹ See "Workers on flexible and shift schedules in 1997," USDL 98–119 (Bureau of Labor Statistics, Mar. 26, 1998). See also Shirley J. Smith, "The growing diversity of work schedules," *Monthly Labor Review*, November 1986, pp. 7–13.

¹⁰ For a discussion of trends in the proportion of workers with long hours, see Rones and others, "Trends in hours of work."

¹¹ Data for physicians exclude persons working 75 hours a week or more. See footnote 12 for more information.

¹² Data for physicians exclude persons working 75 hours a week or more. Data from the Current Population Survey for physicians present a unique problem. The median earnings for men working 55 to 99 hours (\$1,241 per week and \$18.91 per hour) and for women working 45 to 99 hours (\$933 per week and \$17.48 per hour), were much less than earnings for those with fewer hours. Further analysis showed the cause: most respondents with the longest hours have weekly earnings well below \$800 and hourly earnings of less than \$10. It was assumed that most were interns and residents who are medical school graduates in paid on-the-job training, and are not yet licensed as physicians, but it was not possible to clearly identify them. These workers typically put in long hours for relatively low pay. However, almost all persons in the occupational category who reported working more than 75 hours per week had these very low earnings. Some with fewer hours, particularly women, also had very low earnings. The much lower hourly rates for women working 45 to 74 hours per week suggest that these data still include many residents and interns.

¹³ See Elder and Miller, "The Fair Labor Standards Act"; Rones and others, "Trends in hours of work"; and *Minimum Wage and Overtime Hours Under the Fair Labor Standards Act* (U.S. Department of Labor, Employment Standards Administration, June 1998).

¹⁴ See Darrell E. Carr, "Overtime work: an expanded view," *Monthly Labor Review*, November 1986, pp. 36–39.

¹⁵ They were less than a third as likely as those in precision production, craft, and repair or operator, fabricator, and laborer positions to receive overtime, even though they were much more likely to have long hours. See Carr, "Overtime work," p. 38.

¹⁶ See *Classified Index of Industries and Occupations, 1980 Census of Population*, PHC80-24 (Bureau of the Census, November 1982).

¹⁷ See *Report on the American Workforce* (U.S. Department of Labor, 1997), p. 39. Data shown are for women only, but men had similar patterns.