



The Center for National Policy

The Impact of Labor Market Trends on Health Care Coverage

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Introduction:

Assessing Trends in Health Benefits as Compensation

Because employment is the primary source of health care coverage in the United States, it is critical to understand how changing patterns of employment affect coverage. Despite much general discussion about an emerging “New Economy,” there are only a few studies on the impact of shifts in industries and occupations on employment-based health insurance. If, as appears likely, the political consensus continues to support targeted and incremental solutions to the problem of growing numbers of uninsured people, then knowing how labor market trends affect work-based coverage – and anticipating future trends – will be necessary for developing meaningful policy options.

This study examines labor market trends related to the receipt of health benefit coverage by U.S. private sector workers over the 19-year period from 1979 to 1998. It focuses on coverage received from workers’ own employers. The study examines trends in the provision of health benefits as a component of overall compensation.

It is important to note that the trends in coverage documented in this study are trends in the *proportion of workers* who receive coverage from their own employer, not the *proportion of jobs* which offer coverage. The study does not evaluate the extent to which these trends in health coverage as compensation are related to whether jobs offer health benefits, or to acceptance of coverage (take-up rates) by workers.¹

The study is organized into two parts. Part I looks at changes in own-employer coverage in relation to trends in employment. Part II examines the relationship of the trends to income distribution trends.

¹ An important earlier study (Cooper and Schone, 1997) found trends dominated by lower acceptance of coverage by workers.

Summary of Key Findings

Overall Conclusion: Private employers across the economy decreased health coverage for their own employees over the decade of the 1990's and payment shifted significantly from employer to employee. The impact of the shrinkage in coverage was variable, with the largest effects on low-income workers so that, over the decade, growing inequality in employer-provided health coverage exacerbated the effects of growing inequality in income.

Part I. Changes in Private Sector Employers' Health Coverage of Their Own Employees

Employer-paid Health Benefits Declined Substantially and the Impact Has Been Uneven

- From 1979 to 1998, the percentage of private sector workers receiving coverage from their own employers declined sharply across almost all industries and occupations. Most of the decline, which was from 66% of non-elderly workers to 54%, or 12 percentage points, occurred after 1988. (Page 3)
- Among male employees, the percentage receiving health benefits from their own employer fell 14 percentage points. (Page 3)
- Coverage of African Americans fell by 15 percentage points. (Page 3)

Coverage Has Declined Across Industries and Occupations

- The shift in employment from manufacturing to nonmanufacturing industries accounts for about a third of the economy-wide decline. The remainder is due to factors that affect industries in general. (Page 3)
- Blue collar and service workers saw the largest health coverage declines, but this effect was offset by their declining share of employment overall. (Page 3)

Labor Market Trends Had Differing Impacts

- Large firms had larger declines, in general, but coverage is still correlated positively with firm size. A shift in nonmanufacturing employment into larger firms appears to have eased what otherwise would have been an even bigger decline in coverage overall. (Pages 4 – 5)
- Although women increased their labor force participation during the period studied, the primary change occurred early in the period. The result is that little of the overall decline in coverage was directly related to changing rates of women's labor force participation, per se. (Page 5)

Full Coverage Has Declined Significantly

- To a large extent, payment for coverage has shifted from employers to employees. In 1983, 45.5 percent of policyholders had coverage paid in full by their employer; by 1998, the proportion had fallen to 26.6 percent. (Page 7)

Part II. Tracking the Distribution of Private Sector Health Benefit Compensation in Relation to Income

Inequality in Benefits Grew

- The gap in coverage rates between the highest and lowest paid workers, particularly among men, has grown significantly. For the lowest-paid 20% of men, the two-decade decline was nearly 27 percentage points, while for the highest paid it was closer to 8 percentage points after a slight rebound at the end of the period. (Page 10)

The Gender Gap in Coverage Declined Because Men's Coverage Shrank

- Coverage for men fell from 74% to 60%. In comparison, coverage fell less than 7 percentage points for women, but from a much lower base. In the context of declining coverage for everyone, the gender gap ironically has narrowed from 20 percentage points to 13 percentage points. (Page 12)

Declines Among Younger Workers Do Not Explain Growing Benefit Inequality

- The decline in coverage of younger workers (under 30) has been at least twice as great as the decline for older workers. Nonetheless, the increases in inequality among males was broad-based, and not driven by declines among younger workers. (Pages 12 – 13)

Employment Shifts Only Partly Responsible

- As was the case in regard to benefit declines in general, shifts among industries appear to explain only about 30 percent of the overall increase in benefit inequality among male workers; the rest is associated with change occurring across the economy. (Page 13)

Value of Benefits Declined

- Employers saw a decline in the real cost of providing coverage from an average of \$1.53 per hour in 1986 to \$1.28 in 1999 (in constant dollars). Workers experienced this as a decline in the value of their benefits compensation. (Page 14)

Inequality in Wages Exacerbated

- Not only did coverage decline most for low-income workers, but also the value of their health benefits started from a much lower level and fell more steeply than for higher-income workers. (Page 14) Thus, contrary to a common assumption that benefits tend to mitigate the effects of inequality in wages, the growing inequality in health coverage has magnified inequality in wages. (Page 15)

Part I.

Changes in Private Sector Employers' Health Coverage of Their Own Employees²

The first part of this study, using household survey data from the Current Population Survey, identifies and investigates the causes of a substantial decline since 1979 in the fraction of *private sector workers who receive health care coverage from their own employer*. It shows how much of this decline in health coverage over the past two decades is the result of structural shifts in the distribution of jobs *across* industries, and how much is the result of changes in coverage rates *within* industries. Labor market trends that appear to explain these changes are examined. In addition, the study looks at changes in coverage rates within detailed industries and occupational categories, highlighting which particular industries are succeeding or failing in delivering health benefits to their employees.

The second part of this study examines the impact of labor market restructuring on the distribution of health care coverage in relation to income. This part of the study identifies a growing trend toward health coverage inequality among men and between younger and older workers. It compares these trends to income inequality, and examines labor market factors associated with the trend. If a side effect of the trend toward worsening income inequality is less and lower quality health care coverage for those workers who can least afford to purchase it on their own, then this additional problem needs to be better understood and factored into public policy.

A. Previous Research

It is well documented that the proportion of nonelderly Americans with health coverage from an employer (their own or a family member's) declined throughout the 1980's and early 1990's before leveling out and increasing slightly but steadily after 1993 (Long and Marquis, 1999; Currie and Yelowitz, 1999; Fronstin, 2000; Gabel, et al., 2000). Research has generally focused on two explanations for the long-term trends: (1) changes in the labor market, ranging from the rise of part time, contingent, and other "nontraditional" work arrangements to changes in the industrial mix of employment, as jobs shift from sectors with high rates of coverage (manufacturing) to low rates of coverage (retail and services); and (2) rising health care costs that compel employers to drop coverage and employees to refuse coverage when it is offered.³

Much of the initial literature on declining coverage rates sought to evaluate the hypothesis that decreases in coverage were prompted by structural shifts in employment. Studying overall coverage, not employer-sponsored coverage, for 1980-1987, Long and Rogers (1995) find that less than 15% of the coverage decline was due to employment shifts from higher coverage to lower coverage industries. For 1979-1989, Kronick (1991) notes that coverage patterns of wage-and-salary workers are similar to those of the self-employed, who should not be affected by structural changes; he interprets this as an indication that rising costs, and not labor market shifts, were

² The summary of findings in Parts I and II was prepared by Michael Calabrese and Howard Shapiro, based on technical analysis and tables designed and prepared by Professor James Medoff and colleagues.

³ Some researchers also have considered the role of crowd-out from Medicaid in the decline of employer-sponsored coverage. While changes in eligibility boosted Medicaid enrollments during this period, research suggests that only a small portion of new enrollees were previously insured (Currie and Yelowitz, 1999; O'Brien and Feder, 1999).

driving coverage declines in the 1980's. Acs (1995), studying the recession period of 1989-1991, finds that industrial shifts by themselves would have led to a small increase in coverage rates by controlling for falling incomes and other factors.

While these earlier studies illustrate the inability of the structural shift hypothesis to account for much of the decline in coverage, they generally do not scrutinize the alternate explanation for coverage declines, rising costs. More recently, Kronick and Gilmer (1999) attempted such an analysis by measuring per capita health spending in relation to personal income for the longer period of 1979-1995. As in this study, their analysis is limited to workers covered in their own name. Kronick and Gilmer find that an increase of 62% in the ratio of health care expenditures to income accounts for the decline in the percentage of workers covered by their own employer. When considered alongside the shift-share analyses of Acs and Long and Rogers, which confirm that coverage fell across all industries, firm sizes, and employment statuses during the 1980's and early 1990's, Kronick and Gilmer's findings show support for the central function that rising costs played in coverage declines during the period.

A few researchers have documented the context in which cost factors exert their influence by exploring their interaction with structural shifts in employment. Particularly relevant to this study is Chollet's (1994) research comparing coverage changes across industry sectors from 1985 to 1991. She finds that for industries that experienced a net increase in jobs over this period, the increase in employer-insured jobs has been slower than overall job growth; for example, for every hundred jobs gained in professional services, only 40 included health coverage. For industries that experienced a net decrease in jobs, in turn, employer-insured jobs have declined even faster.

Chollet adds an important perspective to job growth over this period by considering coverage as a transfer between industries. As she illustrates, industries such as manufacturing act as net "exporters" of coverage to dependent workers in other industries; as manufacturing declines, coverage is affected in other industries. Chollet finds that for every hundred manufacturing jobs lost over the period, a net fifteen workers in *other* industry groups also lost employer-sponsored coverage. Whereas sectors that "export" coverage almost uniformly lost jobs over this period, industry groups that are net "importers" of coverage experienced significant job growth. Chollet concludes that the surge in health care costs throughout the 1980's exacerbated the burden placed on industry groups that not only provide coverage for their workers but for workers' dependents in other industries. Her findings point to the importance of understanding how shifts in employment share across industries interact with costs to affect coverage rates.

B. Major Findings

Isolating the trend in health benefits received by private sector workers as compensation from their own employer creates a different perspective on the evolution of America's work-based system than using broader definitions of coverage. CPS data (as presented by Fronstin, 2000), for example, show that the percentage of American workers under 65 with health coverage from their own or another employer declined by 3.3 percentage points since 1987 (from 76.1% in 1987, to 72.8% in 1998). Similarly, the percentage of all non-elderly adults with work-based coverage declined by 3.4 percentage points, from 70.3% in 1987 to 66.9% in 1998. When the focus is solely on own-employer coverage in the private sector, however, the decline in the payment of health benefits as compensation appears far more pronounced.

Trends in Own-Employer Coverage, 1979 to 1998

As **Table 1** shows, the percentage of private sector employees receiving health benefits from their own employer fell by 11.9 percentage points over the study period – from 66% to 54.1%. Most of the decline – 10.5 percentage points – occurred between 1988 and 1998, following a drop of 1.4 percentage points in the previous ten years. In every subcategory of employment and firm size, the 1979-1998 change is negative (column 4).

While 72.8% of all workers aged 18-to-64 had some employment-based coverage in 1998 (Fronstin, 2000), when the view is narrowed to health coverage received as compensation from private sector employers, an erosion is evident. The economy-wide drop in private firm workers who secure health benefits from their jobs has been even greater for males and for minorities. Among male employees, the percentage receiving health benefits from their own employer fell from 74.4% in 1979 to 60.3% in 1998 (see **Table 7**). Coverage for African Americans fell even more dramatically, declining from 64.8% in 1979 to 49.5% in 1998 – a drop of 15 percentage points. Coverage among females fell from 54% to 47.3%.

Coverage Decline by Employment Sector

The primary analytical question addressed by this study is how much of this gross decline in private work-based health coverage from 1979 to 1998 is due to *structural* shifts in employment (i.e., shifts in the U.S. job mix by industry or occupation) and how much is due to changes in the rate of coverage *within* detailed industries. Recent changes in employer-provided coverage often are attributed to the shift in U.S. employment by sector, particularly from manufacturing industries – where strong unions negotiated generous health benefits – to a service economy characterized by smaller firms, lower levels of unionization, a more mobile and contingent workforce, and hence less generous benefit coverage on average. **Table 2** shows that the share of the private sector workforce employed in manufacturing declined by 11.1 percentage points between 1979 and 1998. Employment in blue collar and service occupations declined from 52.1% to 44.2%.

As indicated in **Table 1**, own-employer health coverage declined by 13 percentage points in the manufacturing sector, where coverage traditionally has been strongest. In contrast, coverage in the nonmanufacturing sector fell by 7.4 percentage points. Even with the decline, manufacturing firms still had a significantly higher coverage rate in 1998 (73.6%) than did non-manufacturing firms (49.5%). Turning to occupation, **Table 1** also shows that white collar and blue collar/service workers both suffered significant coverage declines, but that the decrease was almost twice as great among blue collar and service workers, falling from 62.9% to 46.3%, compared to a drop among white collar workers from 69.3% to 60.3%.

Because both manufacturing and blue collar occupations have declined as a percentage of employment, the impact of structural change on the overall coverage decline is not as great as one might have expected. Regression analysis presented in **Table 3** shows that the changing composition of U.S. employment by broad industry accounts for just 30% of the overall decline in work-based health coverage – a significant but not overwhelming factor.⁴ This is generally consistent with previous studies noted above (Long and Rogers, 1995; Kronick, 1991; Acs, 1995;

⁴ Table 3 shows our basic findings on the impact of structural shifts, based on regressions (using the linear probability model) of health coverage on a time trend, with additional variables added subsequently to examine their effects.

and Kronick and Gilmer, 1999) that measured the effect of changing employment shares over shorter time periods during the 1980s and early 1990s. The shift of employment share from manufacturing to services accounts for only 20% of the overall decline in coverage – roughly two-thirds of the industry-shift effect. Shifts in relative employment share among the other 21 broad industries account for the remaining 10%. Neither shifts among more detailed (2-digit SIC) industries within these industry groups, nor shifts among broad occupational categories, account for any additional portion of the overall decline since 1979. The remaining 70% of the overall coverage decline is associated with a very broad-based drop in own-employer coverage rates within nearly all industries.

Table 4 shows that substantial declines in coverage rates have occurred in virtually all occupation categories. The very broad-based nature of the decline in private firm coverage also is evident in **Table 5**, which shows the 2-digit industries with the greatest rates of employment growth and decline since 1979. Among the 11 fastest growing industries, all of which are service-producing, eight showed declines in coverage; four of these declined by 12 percentage points or more. The only significant increase in the provision of health benefits among leading growth industries was in Medical Except Hospital services, in which employment increased from 3.0% of the workforce in 1979 to 5.5% in 1998; health coverage grew by 13.5 percentage points. It is probably no coincidence that health care services has been perhaps the most successful arena for union organizing within the service sector in recent years. Another plus was that Business Services, the nation's fastest growing industry (it expanded its share of the workforce by 3.5 percentage points over 1979-98), maintained a constant coverage rate of about 50%.

Among the 10 industries that declined the most as a share of overall U.S. employment, the seven largest were in manufacturing and all showed declines in coverage that ranged between 8 percentage points (Transportation Equipment) and 27 percentage points (Apparel and Finished Textiles). Among the shrinking industries, only Private Household Services expanded coverage, from a nominal 2% to 7.7%.

Impact of Labor Market Trends

Two additional issues related to labor market change that might be associated with the overall decline of 12 percentage points in own-employer coverage between 1979 and 1998 were investigated: firm size and women's increase in labor force participation.

Firm Size: The first factor considered in this study is the effect of changes in firm size. Coverage rates declined among firms of all sizes, with the largest firms, on average, exhibiting the largest absolute rates of decline. For example (see **Table 1**), among firms employing more than 500 employees, rates of coverage dropped 21.7 percentage points over the 1979 to 1998 period. In contrast, among firms under 500 employees, average rates of coverage declined only 4.9 percentage points. Of course, the larger firms started from a much higher level of coverage, declining from 86.3% to 64.6%. Coverage at firms under 500 fell from 50.8% to 45.9%; at firms under 100, coverage fell from 43.9% to 39.5%.

In general, the proportion of employment in large firms has fallen in declining industries (e.g., manufacturing) and risen considerably in growth industries (e.g., services, retail trade). In 1979, 65% of all employees in manufacturing were in large firms (over 500 workers); by 1998, the proportion had fallen to 54% (**Table 6**). And contrary to a common perception that the

nonmanufacturing sector is comprised of small firms, some 42% of nonmanufacturing employment is in firms over 500 employees, up from 33% in 1979. As service and retail industries, which have always had much lower coverage rates than manufacturing industries, have grown to more than 500 or more than 1000 employees, this has undoubtedly contributed to the large coverage declines in those size categories. For firms over 500 and over 1000 employees, coverage fell about 22 percentage points, compared to 5 percentage points for firms under 500.

The cross-cutting factor is that larger firm sizes tend to be associated with higher coverage rates. Regression analysis indicates that the trend toward larger firm sizes in service and retail industries appears to have mitigated what would otherwise have been an even bigger decline in coverage.⁵

Women in the Labor Force: A second labor market change potentially responsible for a share of the overall decline in private sector coverage is the increasing rate of labor force participation by women. The reason is that female workers are nearly twice as likely to be covered under another worker's policy (typically their spouse's) than are males. In 1998, approximately 30% of female workers were covered under some other employer's insurance, compared to 17.5% of men (**Table 7**). As women have increased their share of total employment since 1979, this differential is apparently responsible for some share of the overall decline in workers receiving health benefits as compensation from their own employer.⁶ However, while women increased their total share of employment after 1979, the amount of change that occurred after 1983 was slight (**Table 8**) and could not account for the large decline in own-employer coverage after 1988. Regression analysis confirms that the effect of women in the labor force on declining coverage is small and, in most cases, not statistically significant.

Thus, the direct effect of female employment as an explanation of the trend is small, but the indirect effect of female labor force participation may be much larger. The greater the fraction of the workforce receiving benefits from someone else's policy, the less advantageous it is for employers to offer compensation in the form of health benefits. Employees who are already covered by someone else's policy cannot benefit significantly from health benefits offered by their own employer, and might thus prefer to receive compensation in the form of wages.

A Look at Coverage Trends by Detailed Industry and "Collar"

Finally, this study looks at trends in coverage among detailed (2-digit SIC) industries and, within those industries, by the three broad occupational categories or "collars" (managerial/professional, sales/clerical, and blue collar/service). The purpose is to reveal the degree to which particular industries and occupational categories are expanding or cutting back on the provision of affordable health coverage to employees. The following sections present this data from several perspectives.

Highest and lowest rates of coverage: One view, presented in **Table 10**, shows the ten occupational-categories-by-industry with the highest and lowest rates of coverage in 1998. Not surprisingly, eight of the top ten are in manufacturing industries – and six of those eight show the highest rates of coverage (between 87% and 92%) among managerial, professional and technical

⁵ Tables presenting the results of regression analysis for this and other factors are available on request from the Center for National Policy.

⁶ It is difficult to be more precise on this point since in 1979 (and apparently prior to 1987) the CPS did not ask whether a worker was covered under the policy of another worker.

workers. The two non-manufacturing categories are Railroads and Utilities; and the only blue collar/service worker group in the top ten is in Railroads, a highly regulated and unionized industry. Notably, only one of the top ten showed more than a nominal increase in coverage since 1979 (managerial, professional workers in Food Products manufacturing), gaining 1.8 percentage points. Eight of the occupational/industry groupings experienced significant drops in coverage.

Among the occupational-categories-by-industry that are contributing the least to the health care coverage of U.S. workers are 10 services and retail industries. The very lowest coverage rate (7.8% in 1998) is, not surprisingly, among blue collar/service workers in Private Household Services (which employs just under 1% of the workforce). The two next lowest are sales/clerical and blue collar/service workers at Eating and Drinking Places (11.5% and 13.4%, respectively), which have a substantial negative impact on overall coverage considering that these two groups represented 5.3% of the nation's workforce in 1998.

Fastest and slowest rates of change in coverage: A second view of which particular industries are contributing to the improvement or erosion of work-based health coverage is displayed in **Table 11**, which shows the greatest increases and decreases in coverage for occupational-categories-by-industry over the 1979 to 1998 period. Among the highest increases, most notable perhaps is that the occupation-by-industry groups represented are relatively small and diverse. The greatest gains were among managerial/professional workers in Real Estate (up 28 percentage points), Retail Apparel and Shoes (up 17 percentage points), and Medical Except Hospital (up 16 percentage points). Among the 10 biggest decliners, the worst were all three “collars” within Apparel and Finished Textiles (down 27 percentage points overall). Blue collar and service workers in manufacturing represented six of the 10 biggest decliners; overall, nine of the 10 are in manufacturing industries, the tenth being sales and clerical workers at Eating and Drinking Places (down 22 percentage points).

Change in employment and coverage by industry: A third perspective on which industries are contributing the most or least to the nation's health gap is presented in **Table 12**, which shows levels and changes in both employment and health coverage for each of the 55 detailed industries (2-digit SIC). Highlights include:

- Eating and Drinking Places employed 7.3% of the private workforce in 1998 and provided just 18% of their employees with health benefit compensation (down from 22% in 1979).
- The second-largest industry, Construction, employs 6.5% of the nation's private sector workforce and covers 45.3% (down 14.2 percentage points since 1979).
- Retail stores employed 6% of the workforce in 1998 and provided health benefits to 38% of their own employees (down 12 percentage points from 1979).
- Business Services, which includes computer services and has nearly tripled its share of the U.S. workforce since 1979, employed 5.8% in 1998 and provided health benefits to 50% (virtually the same rate of coverage as in 1979).
- The nation's fifth-largest industry, Medical Except Hospital services, is by far the brightest spot in terms of expanding health coverage compared to 1979. That industry, employing 5.5% of private sector workers, increased coverage by 13.5 percentage points since 1979, to 49.5%.
- The Hospital industry, with a 4% employment share, continues to have a higher rate of coverage (72.3%), 1.6 percentage points less than in 1979.

Despite the drop of 13 percentage points in coverage by Manufacturing industries since 1979, both durable and non-durable manufacturers continue to maintain coverage rates ranging from 65% (in Furniture and Miscellaneous Manufacturing) to 85% (in Transportation Equipment and Paper Products). The exception is Apparel, where coverage plunged 27 percentage points to 39% in 1998. The other sector maintaining above-average rates of coverage is Transportation, Communications and Public Utilities, in which industries range from a low of 53% (Taxis and Public Transport) to a high of 89% (Railroads). The other service-producing industries providing health benefits to about 70% of their workers employ disproportionate numbers of highly-educated workers: Banking and Credit Agencies (70%), Securities and Investments (75%), Insurance (72%), and Engineering, Architecture and Management Services (68%).

* * * *

The first part of this study has explored the question of whether structural changes in the American economy – specifically, the shift in employment from manufacturing to service industries – could explain changes in health care coverage. The objective was to describe long-term trends and identify coverage problems in specific occupations and industries. The analysis has shown a very broad-based decline in coverage from workers’ own employers that can be explained only partly by structural shifts in the economy. Coverage fell for virtually all occupations and industries, although it is important to note wide variability in terms of different starting points and rates of change. Coverage fell more for declining manufacturing industries which traditionally have covered large percentages of their workers, but it also fell for growing service and retail industries. The few exceptions that showed increases in coverage generally started from a very low base. Further, if it were not for increasing firm size in the non-manufacturing sectors, the decline would have been even greater. Despite indicators that the overall number of workers covered by job-based health benefits has been relatively stable, these results raise significant questions about private sector own-employer provided coverage, which is a mainstay of health care financing in the U.S.

The Decreasing Prevalence of Full Coverage

A further sign of shrinking coverage is the decreasing proportion of the workforce in which employers are paying fully for coverage. As **Table 9** demonstrates, the percentage of workers receiving full employer payment for their work-based health coverage fell by approximately 19 percentage points from 1979 to 1998, from 45.5 percent of policyholders, to 26.6 percent. The net effect of declines in own-employer coverage and cost-shifting might be characterized as a “silent shrinkage” in the overall blanket of employment-based health care coverage. What, then, is the impact on workers when this shrinkage is analyzed in the context of trends in income? This is the major question addressed in Part II.

Part II.

Tracking the Distribution of Private Sector Health Benefit Compensation in Relation to Income

The evolution of the US economy from manufacturing to service, retail, and high technology industries has been marked by a well-documented trend towards greater inequality in wages and income.⁷ Many of the factors commonly cited to explain that trend – declining unionization, corporate restructuring, reduced demand for low-skill workers – also put downward pressure on fringe benefit compensation, including health benefits.

This second part of the analysis first describes trends in the self-reported rate of employer health care coverage by income quintile using household survey data from the Current Population Survey (CPS) for the period, 1979-1998.⁸ The trends are then decomposed by major occupation and industry group in order to identify significant differences. Because the value of coverage varies greatly across firms and over time, a second component of Part II uses hourly compensation data from the Department of Labor to measure changes in actual employer expenditures for health insurance relative to changes in expenditures for wages and, again, looks at differences by occupation and industry. Finally, a number of labor market factors that may explain trends in health benefits inequality are examined.

As in the first part of the study, because the primary interest is in trends in private sector compensation, the measure of health coverage used in Part II is again the proportion of *private sector workers who receive coverage from their own employer*.

A. Previous Research

Numerous studies have documented inequality in the distribution of health insurance, with income as the most important determinant. Fewer studies have tracked that distribution over time, as this research does, to determine if inequality in health benefits is getting worse or better and to compare that trend to changes in wage inequality.

In 1991 Kronick observed that employment increasingly did not guarantee health insurance for low-income and poor workers, a trend that intensified throughout the 1990's. In 1999, one out of three working adults with incomes below \$35,000 lacked health insurance from any source, while only 7 percent of working adults with incomes above that level were uninsured (Budetti *et al.*, 1999). Looking at the poorest families, Guyer and Mann (1999) found that almost half of adults who work 13 or more weeks per year and whose incomes are below the poverty level were uninsured in 1997; in contrast, about a quarter of nonworking adults at the poverty level lacked insurance (largely as the result of Medicaid coverage).

⁷ For example, Mishel (1999) reports real hourly wage gains of 2% for men in the highest earnings decile over the period 1979 to 1997, compared to a loss of 16% for men in the lowest earnings decile. For women, over the same period, top decile earners gained 24%, while the bottom decile lost 16%. Freeman (1997) and others show that this growing inequality of earnings is strongly associated with differences in education and skill levels.

⁸ Because the 1979 CPS survey covers benefits for 1979, while the 1998 survey covers benefits for 1997, the period studied is 19 years.

When the view is narrowed to health insurance as a component of job compensation, similar disparities exist. In 1997, 53.3 percent of all workers received health insurance through their own employers; 80 percent of workers in the highest income quintile were covered by their employers, while just 13.3 percent of workers in the lowest income quintile received employer-sponsored coverage (Acs and Steuerle, 1999). Their study indicates that inequality in health care benefit provision is a worsening trend for full-time/full-year workers: While coverage rates fell for all of these workers (from 78% in 1979 to 68% in 1997), they fell only 7.6 percentage points for the 80th income percentile compared to 14.2 percentage points for the 20th percentile. (This was not true for all workers, largely due to the increased hours of work of low earners, especially women.) Other studies confirm substantial gaps in health insurance coverage between the highest and lowest income groups (O'Brien and Feder, 1999; Kronick and Gilmer, 1999).

Growing inequality in health benefits is also associated with demographic and job status factors. For example, much of the widening gap in employer-sponsored coverage over the last twenty years may be attributed to an increase in inequality among male workers. Acs and Steuerle (1999) find that the employer-sponsored coverage rate for male workers fell 8.6 percentage points between 1979 and 1997, while female workers experienced a 0.2 percentage point decline over the same period. However, there was virtually no change in employer sponsored coverage rates for men and women in the highest income quintile for 1979-1994, indicating that women with low and moderate incomes maintained their rates of coverage while low and moderate income men lost ground (Acs and Steuerle 1997).

Age is also a variable in the growth of inequality in health benefit provision. In 1999, 30 percent of adults ages 19-29 lacked coverage, which represents an increase of 22 percent since 1989; comparatively, 16 percent of adults aged 30-64 lacked coverage in 1999. Low-income young adults are disproportionately represented in this coverage decline, as they are less likely to receive coverage as students and are more likely to hold non-standard jobs in which they are ineligible for employer-sponsored coverage (Quinn, Schoen, and Buatti, 2000).

Several studies have examined whether inequality in health insurance coverage is linked to job status. Throughout the 1980's and 1990's, low-income workers were increasingly unlikely to have employer-sponsored coverage because employers have required employees to pay a larger share of premiums and restricted eligibility for part-time and temporary workers. According to Acs and Steuerle (1999), restrictions on health coverage may affect up to three-quarters of low-income workers who were part-time or temporary employees in 1997 (i.e., they did not work full-time/full-year.) In 1998, 39 percent of individuals whose family heads were part-time workers had employment-based coverage, compared to 74 percent of individuals whose family heads were full-time workers (Custer and Ketsche 1999). As Cutler and Madrian (1996) indicate, the trend of decreasing eligibility for non-full time workers began in the 1980's, when rising health insurance costs increased the hours worked of those with health insurance by up to 3 percent. For the period 1988-1997, new full-time workers in addition to old and new part-time workers were increasingly ineligible for health insurance (Farber and Levy 2000).

Increasing inequality in health insurance coverage appears to have a major role in overall compensation inequality. For 1982-1996, Pierce (1999) finds that wage inequality understates compensation inequality largely because of declining rates of employer sponsored health coverage in the lower half of the compensation distribution. While Acs and Steuerle (1997) find that overall employee benefits have little impact on inequality, they note that health benefits have a substantial

effect on compensation inequality between 1979 and 1989. In their 1999 study, Acs and Steuerle detailed the changes in wage v. health inequality for the 1979-1997 period and found increasing disparity for full-time/full-year workers. For these workers, earnings increased by 5% at the top income quintile while health coverage fell by 7.6%; at the bottom income quintile, earnings fell by 7.4% and health coverage fell by 14.2%. The pattern did not hold when part-time workers are added to the analysis, again due to increased hours and earnings of women.

B. Major Findings

In this part of the study, two different data series are used to examine trends in the inequality of health benefit compensation by private sector employers. The first set of findings focuses on changes in rates of coverage by income, using CPS data (for survey years 1979, 1983, 1988 and 1999) to investigate the relationship between income inequality and the actual receipt of health benefits as compensation by private sector workers. The second set of findings focuses on changes in actual employer expenditures per hour for health benefits, using unpublished compensation data from the Department of Labor's Employer Costs for Employee Compensation (ECEC) surveys from 1986 through 1999, to investigate the extent to which income inequality is mitigated or exacerbated by tax-deductible health care compensation. These two measures – whether workers receive any health benefits and the relative value of those benefits – offer complementary perspectives providing a fuller view of trends in health benefit inequality.

Distribution of Coverage by Income

CPS data since 1979 paint a portrait of changes in the distribution of health benefit compensation that is sharply divergent by gender. The most robust finding that emerges from the data on own-employer coverage is a dramatic increase in inequality by income among male workers in the private sector. Among working males ages 21 to 64, **Table 13** shows that the health benefit gap between the lowest and highest wage quintiles widened by more than 18 percentage points, from 34.2 percentage points in 1979 to 52.6 percentage points in 1998.⁹

As **Table 13** shows, this widening gap among male workers results primarily from a steep (roughly 50%) drop in the share of low-income male workers receiving any health benefits as compensation. For example, while coverage fell steadily for men in every wage bracket between 1979 and 1996, it dropped by 8 percentage points among the highest-paid 20% of men (falling from 93% to 85%), but fell by nearly 27 percentage points among the lowest-paid quintile (dropping from approximately 59% to 32%). Among the middle three quintiles, the decline in coverage rates increases consistently and substantially going down the wage ladder: from 10.6 percentage points for the fourth quintile, to 13.7 percentage points for the middle quintile, to nearly 19 percentage points for the second.

Even the rebound in overall coverage rates that began in the mid-1990s (lifting overall coverage from 63.5% in 1996 to 66.3% in 1998) left low-wage workers behind. From 1996 to 1998, the

⁹ The quintiles are created separately for Tables 13, 15, and 17. For instance, as shown in Table 14, in 1998 the top quintile includes those earning over \$21.15 per hour for all workers ages 21-64, \$24.04 for men, and \$17.31 for women. Those workers in the bottom quintile earn less than \$7.21 for all workers ages 21-64, \$8.33 for men, and \$6.39 for women. Note that all data are limited to private sector payroll employees; this includes part-time workers but excludes the self-employed.

coverage rate increased for men in the four highest-earning quintiles, although it continued to erode at an even faster pace among the lowest-paid 20% of males.

This increase in health benefit inequality exacerbates a similar, though less dramatic, increase in wage inequality among male workers. **Table 14** shows the range of wage and salary income that corresponds to each quintile in 1979, 1988 and 1998 (per hour in constant 1998 dollars). Just as the bottom 60% of males by income suffered disproportionate drops in health coverage, they also absorbed reductions in real hourly wages over the entire 1979 to 1998 period.¹⁰ Interestingly, for lower-wage workers the decline in real wages appears to precede most of the decline in own-employer health coverage. For workers in the bottom three quintiles, the greatest reductions in health benefit compensation occurred after 1988, while the largest reductions in real wages occurred prior to 1988. For example, over the more recent 1988 to 1998 period, real hourly wages declined only among men in the bottom earnings quintile, but health benefit coverage eroded for all men at an even faster rate than prior to 1988.

Among female workers aged 21 to 64, the drop in own-employer health coverage has been neither as severe nor as disparate (**Table 15**). While the declines in male worker coverage increased inversely with wage income since 1979 -- ranging from 8 to 27 percentage points between the top and bottom wage quintiles -- among females there is virtually no correlation between wages and declines in health benefit compensation since 1979. As **Table 15** shows, the overall coverage gap between women in the bottom and top wage quintiles remained about the same: 45.4 percentage points in 1979 and 45.1 percentage points in 1998. Coverage fell 7.8 percentage points among the lowest-paid 20% of women -- to 24% -- but fell a comparable 8.1 percentage points among the highest-paid quintile (to 69%). Among women, the decline ranged from a low of 7.2 percentage points (for the second-lowest paid quintile) to a high of 9 percentage points (for the second-highest paid quintile).

The most likely reason that inequality in coverage among women has not worsened over the past two decades is that it already was so much lower than for males at the beginning of the period. While the coverage gap between women in the bottom and top wage quintiles remained stable at about 45 percentage points, the same gap among male workers was only 34 percentage points in 1979 before it widened steadily to 52.6 percentage points in 1998. In sum, the share of women with health benefits at work began at a very low and more unequal level, compared to men, but subsequently declined by a more modest and similar amount across all income categories.

The one striking similarity to the trend among men is that own-employer coverage among the lowest-earning quintile of women declined sharply between 1996 and 1998 (from 28.2% to 23.7%), after having been level between 1983 and 1996. This may reflect, in part, the labor force entry of welfare recipients and other unemployed women into jobs with low rates of employer-paid coverage.

¹⁰ For example, Table 14 shows that the wage representing the upper boundary of the second wage quintile for men in 1979 (\$14.27 per hour) fell to \$12.02 in 1998. Indeed, the wage brackets (in constant 1998 dollars) moved down for each quintile except the top quintile; male workers in the top quintile in 1998 earned over \$24 per hour versus over \$22.83 in 1979. The real hourly wage distribution for women aged 21 to 64 is quite different; the wage brackets defining the bottom four quintiles moved up, while only the bottom quintile moved down in real terms.

Results: A Shrinking Gender Gap

As a result of the trends described above, ironically the health benefits gap between the sexes actually declined significantly during this time period. **Table 16** shows that the overall gender gap declined from 20 percentage points in 1979 (74% male v. 54% female) to 13 percentage points in 1998 (60% male v. 47% female). The gender gap narrowed because men, particularly lower-wage men, lost health benefits at a far faster rate (a drop of 14 percentage points) than women (a drop of less than 7 percentage points) – and because women started from a much lower level.

The fact that rising inequality among men is responsible for this narrowing gender gap is particularly evident among lower-wage workers. **Tables 13** and **15** show own-employer coverage by quintile for each gender since 1979. In 1979, about 70% of all men in the two low-wage quintiles received health benefit compensation, compared to about 40% of women in the two bottom quintiles. By 1998, in contrast, only about 47% of men in the two lowest-paid quintiles received benefits – a decline of 23 percentage points – compared to 34% of women in the bottom two quintiles – a decline of only 6 percentage points. Only among workers in the top earnings quintile has the gender gap remained the same since 1979.

In sum, while male and female workers in every income category lost coverage over the 19-year period, the health compensation gap between them narrowed because middle- and low-income males – who previously had relatively high rates of health coverage – have been on a much steeper downward path. High-wage women have always been far closer to their male counterparts with respect to receiving health benefit compensation.

One anomaly caused by the manner in which the gender-based benefits gap narrowed is that the *overall* distribution of health coverage among all workers ages 21 to 64 showed no significant pattern of increased inequality. **Table 17** shows the pattern of health benefit receipt for all workers ages 21 to 64 by wage quintile. The very different earnings and coverage distributions of men and women combine in a way that leaves the overall inequality of private sector health benefit provision little changed since 1979. Although there is a modest (5 percentage points) increase in the coverage gap between the top and bottom quintiles over the entire 1979 to 1998 period (from 48.5% to 53.5%), the trend is not consistent; after the gap widened during the 1980s, it narrowed by nearly 8 percentage points by 1996, only to completely reverse that improvement by 1998.

Comparing Trends in Age and Income

Table 18 shows the percent of private sector workers who received own-employer coverage by detailed age brackets and gender. Among all workers, as well as among men and women separately, the decline in employer-provided health benefits has been at least twice as great among workers ages 21-29 as it was for workers 30 and over. Overall, the coverage rate among workers ages 21-29 fell by nearly 22 percentage points – from 69% in 1979 to 47% in 1998. Among males ages 21-29, the decrease in the number receiving health benefits as compensation dropped by 25 percentage points – from just under 74% to just under 49%. Although less dramatic, the decline among young women was similarly out of proportion to declines among women in general, falling off 17 percentage points (from 62% to 45%). In contrast, coverage among males ages 45 to 64 declined by only about 8 percentage points on average, while females ages 45 to 64 declined by only about 1 percentage point.

Notably, the lion's share of the loss in coverage for young men – and virtually the entire loss among young women – occurred between 1988 and 1996, which was a period of high health cost inflation. Over that eight-year stretch, the share of male and female employees ages 21-29 receiving any health benefits as compensation fell by 15-17 percentage points (see **Table 18**). Coverage rates remained about the same between 1996 and 1998.

Despite, however, the significant association between age and loss of employer-paid health benefits since 1979, this is not a significant factor explaining the large increase in health benefit inequality for men overall. Regression analysis shows that the increase in inequality in health benefit compensation for men ages 30-64 is nearly the same as for the entire group of men ages 21-64. The analysis suggests that the increase in inequality among males is broad-based and not driven by losses among younger middle- and low-income workers. In other words, men under 30 lost coverage at higher rates regardless of their earnings.

Structural Explanations for Rising Inequality Among Males

Regression analysis was used to examine a number of factors that could explain the broad-based increase in health benefit inequality among male workers aged 21 to 64. The primary finding is that the structural shift in relative employment share among both broadly-grouped and detailed U.S. industries is only a partial contributor to the increased inequality in health benefit compensation among male workers. Shifts in the U.S. job mix – especially the relative decline in manufacturing as a share of total employment – appear to account for at most 30-40% of the increase in inequality since 1979. This is consistent with findings in the first part of the study, which showed that only about 30% of the overall decline in own-employer health coverage over the same time period could be explained by structural shifts in employment share by industry or occupation.

Between 1979 and 1998, manufacturing industries declined by 11% as a share of total U.S. employment. Since health benefit coverage rates averaged 87% in manufacturing in 1979 (compared to a 57% average for all other private industries) – and since manufacturing workers were disproportionately male – the large shift of male workers from high-coverage manufacturing to low-coverage service industries has undoubtedly played a significant (but not primary) role in widening U.S. health benefit inequality.

While the structural shift away from manufacturing has played a role, the more significant finding is that widening health benefit inequality has occurred due to disproportionate losses in coverage among middle- and low-wage males across virtually all industries. Just as the first part of this study found that substantial declines in own-employer coverage rates occurred across virtually all industries, the conclusion of this part is that within those industries low-wage men lost health benefit compensation at higher rates than high-wage men. This magnifies an increase in inequality already inherent in the overall employment shift from goods-producing to service-producing industries.

* * * *

Because not all coverage is of equal value, this last section provides a complementary picture to the analysis of coverage rates by looking at the dollar value of own-employer coverage over time. The U.S. Bureau of Labor Statistics has surveyed business establishments since 1986 with respect to what employers pay per hour for all types of employee compensation. These data are used to

calculate the government's quarterly Employment Cost Index, a sort of CPI for labor costs, and for the annual release of a more detailed report on Employer Costs for Employee Compensation (ECEC). This analysis uses unpublished ECEC data to examine how much health benefit compensation employers are providing, on average per hour, to the workers who receive coverage in each detailed industry and broad occupational category.

Decline in the Value of Health Benefits

Table 19 reports actual employer expenditures for health benefits, per hour worked, deflated using the health care CPI.¹¹ These actual hourly expenditure levels are shown for the private sector overall and, separately, for occupational-collars-by-industry grouped into thirds by wages. Two findings are noteworthy.

First, the value of health benefits provided to all employees fell from an average of \$1.53 in 1986, to \$1.41 in 1995, and to \$1.28 by March of 1999. This overall decline in the real value of health benefits reflects, in part, the substantial drop in the share of the private sector workforce receiving any benefits (see **Table 1**), as well as reductions in the share of coverage paid by employers (see **Table 9**).

Second, the value of health benefit compensation, on average, is less than half as great for jobs in the bottom third (based on wages) compared to jobs in the top third. Moreover, the value of benefits paid to workers in the bottom third has declined at a faster rate since 1986. **Table 19** shows the trend in health benefit expenditures for occupations-by-industry grouped into thirds according to average wage and salary compensation per hour.¹² Over the 1986 to 1999 period, real health benefit expenditures for workers in the bottom third fell by about 25% (from \$0.97 per hour to \$0.73 per hour). Employer-paid health costs for workers in the top third fell half as fast (falling 12%, from \$2.03 in 1986 to \$1.77 in 1999). Workers in the middle third fell 15%, from \$1.58 to \$1.34.

Although the real value of health benefit compensation declined proportionately more among lower-wage workers, the dollar differential between the lowest- and highest-paying third of jobs remained about the same. At both the beginning and end of this period, the health compensation gap was about \$1 per hour (\$1.06 in 1986 and \$1.04 in 1998). This \$1 per hour differential between high- and low-paying jobs takes on added significance considering that the federal tax deduction for employer-paid health benefits – a \$76 billion tax expenditure in 1999, according to the Congressional Joint Committee on Taxation – is designed to provide a public subsidy in proportion to the cost of the benefit and the marginal tax bracket of the employee. Therefore, workers in the bottom third of earnings receive, on average, both \$1 less per hour in health compensation *and* a correspondingly smaller subsidy from the federal government.

¹¹ Deflating health benefit expenditures with the CPI-health, rather than with the CPI-U, highlights changes in the real value of health coverage provided over time.

¹² The ECEC data were organized into a matrix (for each of the 14 years from 1986 through 1999) showing average compensation costs paid by firms in each of 63 detailed industries and, within those industries, for workers in each of three broad occupational “collars” – managerial/professional, sales/clerical, and blue collar/service.

Inequality in Health Benefits Exacerbates Inequality in Wages

A final question is the extent to which wage inequality tends to track, or even to be exacerbated by, benefits inequality. Contrary to a traditional assumption that benefits tend to mitigate wage inequality, regression analysis shows that U.S. wage inequality is *magnified* by benefits inequality, at least within the private sector. The difference in health benefit expenditures by private employers associated with a given difference in wages is at least as great, if not greater, than the difference in wages itself. In particular, the data suggest that declines in private sector health benefit expenditures are related directly to declines in real hourly earnings. That is, about a third of the increase in health benefit inequality, based on expenditures per hour of work, can be traced to an increase in the prevalence of jobs with lower real earnings.

This effect is exacerbated among workers in lower-paying blue collar and service occupations across all industries. On average, every \$1 difference in wage and salary compensation for blue collar/service workers is associated with \$1.25 less in real health benefit compensation. Thus, while wage inequality tends to be compounded by health benefits inequality for the workforce as a whole, this effect is much more severe for typically lower-paid blue collar and service workers.

C. Implications

The second part of this study confirms and extends the overall finding of the first part. A declining percentage of workers at all wage levels and across virtually all industries and occupations receive health benefits from their own employers. Further, there is substantial inequality of coverage between low- and high-wage workers that has worsened over time, especially for men. The trends are not explained by age (i.e., younger workers without coverage) and are only partially explained by the shift from a manufacturing to service economy. Contrary to broad pictures of health benefits that consider all sources of coverage, these findings suggest a fundamental, broad-based weakening of the core of health care financing in the US – own-employer coverage in the private sector.

In her 1994 study, Chollet classified employers as net “exporters” and “importers” of coverage. The weakening of own-employer coverage shown in this analysis (those same employers are “exporters”) raises questions about the stability of this cross-subsidization and the point at which decreasing own-employer coverage will lead to a decline in the overall numbers of workers covered by the private sector. As global markets become more competitive, and as individual firms become ever more concerned with reducing costs, it seems likely that firms exporting coverage will find ways to reduce those subsidies by leveling or capping their health benefit payments per employee – especially if recent health cost increases continue.

Employers appear to be most successful at cutting their health care expenditures for low-wage earners. These workers have low skill levels and generally weaker bargaining power. Also, because they are paying no or low taxes, there is little or no gain to these workers from the tax exclusion of health benefits. Containing business expenditures for health care costs may be good for the economy, but workers suffer a loss of compensation as health benefits decline.

Public programs for low-income families have not served as a substitute for declining own-employer coverage; Medicaid enrollment decreased substantially in the late 1990’s, except for coverage of children. Further, this study suggests that it may be increasingly difficult to achieve a key goal of recent welfare reform efforts: moving beneficiaries into jobs that provide health benefits

for their employees. These people are particularly dependent on own-employer coverage, since most are single mothers without another source of coverage, but they are likely to take low-wage jobs that our analysis shows have seen the largest drops in coverage. While beneficiaries moving from welfare to work remain eligible for Medicaid, recent experience shows that many people have lost that coverage in the transition. Without Medicaid continuation or employer-sponsored insurance, they may be forced back into welfare.

The study raises a number of questions that must be addressed as part of a policy process to develop options for increased coverage. One set of questions might center on the types of solutions developed, as well as the timing. Given the substantial variability in coverage by industry, occupation, firm size, income, gender, race, and age, to what extent are different solutions necessary to address the different sectors and groups? Also, should the sectors and groups with the worst coverage problems be targeted first? Should policy options be developed to address the substantial inequality in coverage between low- and high-wage workers and, if so, what options?

While the drop in the proportion of employers fully paying for health care premiums, as well as the decrease in expenditures for benefits, may be understandable as a response to economic pressures, these trends raise questions about affordability, take-up rates and, more broadly, the shared roles of employers, employees, and the public sector to finance health coverage in this country. Employer incentives suggest a potential “race to the bottom” that would have its greatest impact on low- and moderate-wage workers, although those incentives may be partially offset under very tight labor market conditions, as experienced in the last couple of years.

Another set of questions is derived from the study’s implication that employers appear to have incentives to provide weaker benefits in light of the availability of spouse options for coverage, especially as more women have entered the labor force. As employers realize that they can hire workers who do not need health benefits from their own job, are they likely to cut back on coverage? Does it make sense for an employer to provide coverage for two employees who are similar except that one is single while the other has a spouse and children? Who should bear the burden of family coverage?

Beneath a relatively benign picture of health coverage for American workers, this study has found substantial weaknesses and some disturbing trends. Given the human and economic stakes involved in health care, the country needs to understand the forces which are driving these trends and project the likely outcomes if nothing is changed. Understanding those trends and confronting the difficult public policy questions that they raise are essential to building consensus around public and private solutions that will maintain and extend health care coverage.

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Appendix A: Data Tables

In tables 1-18, authors' calculations are based on Current Population Survey (CPS) data from May 1979, May 1983, May 1988, March 1996, and March 1999. The data covers a nineteen-year period: the 1979 CPS refers to coverage in 1979, while the 1999 CPS refers to coverage during 1998. In table 19, authors' calculations are based on unpublished data from the Department of Labor's Employer Costs for Employee Compensation (ECEC) Survey from 1986-1999.

Data used in this study refer to private sector nonagricultural wage and salary workers.

TABLE 1
Change in Percent of Employees Receiving
Own-Employer Health Coverage, 1979-1998
(By Employment Category and Firm Size)

	1979	1988	1998	1979 - 1998 Change
All Employees	66.0	64.6	54.1	-11.9
Manufacturing	86.6	85.1	73.6	-13.0
Nonmanufacturing	56.9	57.4	49.5	-7.4
White Collar	69.3	69.3	60.3	-9.0
Blue Collar & Service	62.9	59.1	46.3	-16.6
Manufacturing, White Collar	89.2	87.1	80.6	-8.6
Manufacturing, Blue Collar & Svc.	85.4	83.9	69.5	-15.9
Nonmanufac., White Collar	64.2	65.4	57.2	-7.0
Nonmanufac., Blue Collar & Svc.	48.0	45.6	37.9	-10.1
Firm Size Under 100	43.9	45.8	39.5	-4.4
Firm Size 100-499	76.6	73.3	62.0	-14.6
Firm Size 500-999	80.8	78.5	66.5	-14.3
Firm Size 1000+	87.0	80.9	64.3	-22.7
Firm Size Under 500	50.8	50.4	45.9	-4.9
Firm Size 500+	86.3	80.7	64.6	-21.7
Manufacturing, Firm Size <500	72.5	70.4	64.6	-7.9
Manufacturing, Firm Size 500+	95.3	94.1	81.4	-13.9
Nonmanufac., Firm Size <500	46.1	46.6	42.3	-2.8
Nonmanufac., Firm Size 500+	79.0	72.3	59.5	-19.5

TABLE 2
Change in Employment, 1979-1998
By Employment Category and Firm Size
(Percent)

	1979	1988	1998	1979 - 1998 Change
Manufacturing	30.3	25.5	19.2	-11.1
Nonmanufacturing	69.7	74.5	80.8	11.1
White Collar	47.9	53.2	55.8	7.9
Blue Collar & Service	52.1	46.8	44.2	-7.9
Manufacturing, White Collar	9.8	9.4	7.4	-2.4
Manufacturing, Blue Collar & Svc.	20.5	16.1	11.8	-8.7
Nonmanufacturing, White Collar	38.1	43.8	48.4	10.3
Nonmanufacturing, Blue Collar & Svc.	31.6	30.7	32.4	0.8
Firm Size Under 100	45.6	43.6	40.2	-5.4
Firm Size 100-499	12.2	8.5	15.8	3.6
Firm Size 500-999	4.7	4.1	6.1	1.4
Firm Size 1000+	37.4	43.8	37.9	0.5
Firm Size Under 500	57.8	52.1	56.0	-1.8
Firm Size 500+	42.2	47.9	44.0	1.8
Manufacturing, Firm Size <500	10.3	8.2	8.8	-1.5
Manufacturing, Firm Size 500+	18.9	16.9	10.3	-8.6
Nonmanufacturing, Firm Size <500	47.5	44.0	47.1	-0.4
Nonmanufacturing, Firm Size 500+	23.3	31.0	33.7	10.4

TABLE 3*

**Predicting Changes in Own-Employer Health Coverage:
The Effect of Industry and Occupation**

Variable	N	Mean(SD)
Health Insurance	108,131	0.59(0.49)
Time		11.5(7.57)

Model	Covariates	Coefficient(SE)
1	Time	-0.0071(0.00020)
2	Time 21 industries	-0.0050(0.00018)
3	Time 21 ind, 3 occ	-0.0053(0.00018)
4	Time 21 ind, 13 occ	-0.0052(0.00018)
5	Time 55 ind	-0.0047(0.00018)
6	Time 55 ind, 3 occ	-0.0050(0.00018)
7	Time 55 ind, 13 occ	-0.0050(0.00018)

* This regression of health coverage on a time trend employs the linear probability model.

TABLE 4**Change in Employment and Own-Employer Health Coverage
by Occupation, 1979-1998**

Occupation	EMPLOYMENT			HEALTH COVERAGE		
	Percent Employed 1979	Percent Employed 1998	Change in Percent Employed	Percent Covered 1979	Percent Covered 1998	Change in Percent Covered
Professional	8.9	11.2	2.4	74.8	68.2	-6.5
Technical	2.3	3.5	1.1	78.1	67.7	-10.4
Management, Mgmt. Related	11.4	12.9	1.5	78.0	73.5	-4.5
Sales	7.0	14.0	7.0	52.8	45.5	-7.3
Secretary, Steno, Typist	5.1	2.1	-3.0	64.5	50.9	-13.6
Admin. Support, Clerical	13.6	12.1	-1.5	66.7	55.5	-11.2
Craftsmen	14.8	11.7	-3.1	76.8	62.8	-14.0
Operatives x Transport	14.8	7.4	-7.4	77.4	61.0	-16.4
Transport Operatives	4.0	4.3	0.3	71.5	58.5	-13.0
Laborers	5.4	5.8	0.4	55.8	37.0	-18.8
Private Household Services	1.3	0.9	-0.4	1.1	7.4	6.3
Food Service	5.5	7.3	1.8	23.2	19.5	-3.8
Other Service	5.8	6.7	0.9	43.1	36.1	-7.0

TABLE 5

**Own-Employer Health Coverage in Industries
Ranked by Employment Growth, 1979-1998**

	EMPLOYMENT			HEALTH COVERAGE		
	Percent Employed 1979	Percent Employed 1998	Change in Percent Employed	Percent Covered 1979	Percent Covered 1998	Change in Percent Covered
<u>Top 11 Industries in Employment Growth</u>						
Business Services	2.3	5.8	3.5	50.5	50.3	-0.2
Medical Except Hospital	3.0	5.5	2.4	36.0	49.5	13.5
Social Services	0.4	2.4	2.0	51.5	39.1	-12.4
Eating & Drinking Places	5.5	7.3	1.8	21.9	18.1	-3.9
Personal Services	1.3	2.8	1.5	30.4	35.9	5.4
Entertainment, Recreation	1.1	2.3	1.2	36.1	36.6	0.5
General, Misc. Retail	5.4	6.0	0.6	50.0	38.1	-11.9
Eng, Arch, Acctng, R&D Services	1.6	2.4	0.9	70.6	68.0	-2.6
Securities, Investment	0.3	0.8	0.5	90.7	74.6	-16.1
Trucking, Warehousing	1.9	2.2	0.4	72.7	58.4	-14.4
Repair Services	1.3	1.6	0.4	47.9	41.8	-6.1
<u>Bottom 10 Industries in Employment Growth</u>						
Electrical Machinery	3.4	2.0	-1.4	91.6	77.2	-14.4
Machinery x Electrical	3.7	2.4	-1.3	91.3	80.2	-11.2
Transport Equipment	3.4	2.2	-1.2	92.7	84.9	-7.8
Apparel, Finished Textile	1.9	0.8	-1.1	66.1	39.3	-26.8
Primary Metal	1.8	0.7	-1.1	94.7	82.6	-12.1
Fabricated Metal	2.3	1.2	-1.0	86.2	72.9	-13.3
Chemicals & Allied Mnf.	1.9	1.1	-0.8	94.2	81.4	-12.8
Vehicle Related Stores	2.8	2.0	-0.8	57.9	55.7	-2.2
Wholesale Trade	5.3	4.6	-0.7	75.5	63.9	-11.6
Private Household Services	1.7	1.0	-0.7	2.1	7.7	5.7

TABLE 6**Employment by Industry Category and Firm Size, 1979-1998**

	Percent of Employment	
	1979	1998
Total	100.0	100.0
Manufacturing	30.3	19.2
Nonmanufacturing	69.7	80.8
Mining	1.1	0.5
Construction	6.5	6.5
Manufacturing	30.3	19.2
Transport, Communication, Utilities	7.2	7.1
Wholesale Trade	5.2	4.5
Retail Trade	20.0	21.8
Finance, Insurance, Real Estate	7.1	7.4
Services	22.6	32.9

	Percent of Group In Firms With Over 500 Employees	
Total	42.2	44.0
Manufacturing	64.7	53.4
Nonmanufacturing	32.9	41.7
Mining	73.0	54.4
Construction	11.5	12.1
Manufacturing	64.7	53.9
Transport, Communication, Utilities	65.9	60.8
Wholesale Trade	27.7	33.6
Retail Trade	32.1	51.4
Finance, Insurance, Real Estate	45.3	55.3
Services	24.8	34.8

TABLE 7

Change in Own-Employer Health Coverage, by Gender and Race, 1979-1998

	Percent Who Are The Policy Holder		
	1979	1983	1998
All Employees	66.0	65.8	54.1
Female Employees	54.1	56.4	47.3
Male Employees	74.4	73.5	60.3
White Employees	66.1	65.9	54.8
Black Employees	64.8	63.1	49.5
Other Employees	66.1	67.0	53.0

Percent Who Have Employer Provided Health Insurance But
Are Not The Policyholder

All Employees	--	--	23.5
Male Employees	--	--	17.5
Female Employees	--	--	30.1

TABLE 8

Demographic Changes in Employment, 1979-1998

	1979	1983	1998
Female	41.4	44.1	47.6
White	89.1	88.5	83.6
Black	9.1	8.9	11.6
Other Race	1.9	2.5	4.8

TABLE 9**Employees with Own-Employer Health Coverage
Share Paid by Employer, 1983-1998****(Percent)**

	1982	1987	1995	1998
Employer Paid All	45.5	39.7	27.7	26.6
Employer Paid Some	50.2	55.5	66.1	69.0
Employer Paid None	4.2	4.7	6.1	4.4

TABLE 10**Highest and Lowest Own-Employer Health Coverage in 1998****(By Detailed Industry and Broad Occupation)**

Detailed Industry	Broad Occupation	Percent Covered 1979	Percent Covered 1998	Change in Percentage Covered
<u>Top 10 in 1998 Health Coverage</u>				
Transport Equipment	Mgmt, Prof, Tech	91.6	91.8	0.2
Food & Kindred Products	Mgmt, Prof, Tech	89.2	91.0	1.8
Mining	Mgmt, Prof, Tech	94.0	89.9	-4.0
Mining	Sales, Clerical	94.5	89.0	-5.5
Railroads	Blue Collar, Service	98.6	89.0	-9.6
Utilities	Mgmt, Prof, Tech	93.8	89.0	-4.9
Fabricated Metal	Mgmt, Prof, Tech	94.4	88.0	-6.4
Rubber, Plastic Products	Mgmt, Prof, Tech	100.0	87.3	-12.7
Primary Metal	Sales, Clerical	95.7	87.2	-8.5
Machinery x Electrical	Mgmt, Prof, Tech	95.0	87.1	-7.9
<u>Bottom 10 in 1998 Health Coverage</u>				
Private Household Services	Blue Collar, Service	2.2	7.8	5.7
Eating & Drinking Places	Sales, Clerical	33.0	11.5	-21.5
Eating & Drinking Places	Blue Collar, Service	18.1	13.4	-4.7
Social Services	Blue Collar, Service	44.4	24.0	-20.5
Entertainment, Recreation	Sales, Clerical	33.7	29.1	-4.6
Membership Orgs, Religion	Blue Collar, Service	33.1	29.2	-3.9
Retail Apparel, Shoes	Sales, Clerical	28.0	30.0	2.0
Entertainment, Recreation	Blue Collar, Service	36.8	30.0	-6.8
Business Services	Blue Collar, Service	38.1	31.7	-6.4
Personal Services	Sales, Clerical	30.3	31.9	1.6

TABLE 11

**Greatest Increases and Decreases in Own-Employer Health Coverage, 1979-1998
(By Detailed Industry and Broad Occupation)**

Detailed Industry	Broad Occupation	Percent Covered 1979	Percent Covered 1998	Change in Percentage Covered
<u>Top 10 Increases in Health Care Coverage, 1979 - 1998</u>				
Real Estate	Mgmt, Prof, Tech	33.2	60.9	27.8
Retail Apparel, Shoes	Mgmt, Prof, Tech	69.0	86.0	17.0
Medical Except Hospital	Mgmt, Prof, Tech	45.3	61.3	16.0
Medical Except Hospital	Sales, Clerical	32.4	47.2	14.8
Education	Blue Collar, Service	26.9	39.8	12.9
Real Estate	Sales, Clerical	25.9	38.7	12.8
Entertainment, Recreation	Mgmt, Prof, Tech	36.3	48.8	12.5
Furniture, Appliances	Mgmt, Prof, Tech	67.1	77.2	10.2
Paper & Allied Products	Sales, Clerical	68.0	77.3	9.3
Medical Except Hospital	Blue Collar, Service	30.0	36.9	6.9
<u>Top 10 Decreases in Health Care Coverage, 1979 - 1998</u>				
Apparel, Finished Textile	Sales, Clerical	81.8	50.2	-31.7
Apparel, Finished Textile	Mgmt, Prof, Tech	95.0	66.9	-28.1
Apparel, Finished Textile	Blue Collar, Service	62.2	34.7	-27.4
Textile Mill Products	Blue Collar, Service	90.7	64.4	-26.2
Misc. Manufacturing	Sales, Clerical	86.8	60.9	-25.8
Petroleum, Coal Products	Blue Collar, Service	96.0	74.4	-21.6
Furniture Manufacturing	Blue Collar, Service	83.4	61.9	-21.5
Eating & Drinking Places	Sales, Clerical	33.0	11.5	-21.5
Instruments, Photography	Blue Collar, Service	92.0	70.7	-21.3
Stone, Clay, Glass	Blue Collar, Service	90.7	69.9	-20.8

TABLE 12

**Change in Employment and Own-Employer Health Coverage
by Detailed Industry, 1979-1998**

	EMPLOYMENT			HEALTH COVERAGE		
	Percent Employed 1979	Percent Employed 1998	Change in Percent Employed	Percent Covered 1979	Percent Covered 1998	Change in Percent Covered
Mining	1.1	0.5	-0.5	86.7	80.1	-6.6
Construction	6.3	6.5	0.2	59.5	45.3	-14.2
Food & Kindred Products	2.2	1.7	-0.6	83.1	68.0	-15.1
Textile Mill Products	1.1	0.6	-0.5	90.3	66.7	-23.6
Apparel, Finished Textile	1.9	0.8	-1.1	66.1	39.3	-26.8
Paper & Allied Products	1.0	0.6	-0.4	90.1	85.5	-4.5
Printing, Publishing	1.9	1.6	-0.3	71.2	64.9	-6.3
Chemicals & Allied Mnf.	1.9	1.1	-0.8	94.2	81.4	-12.8
Petroleum, Coal Products	0.3	0.2	-0.2	98.4	79.2	-19.1
Rubber, Plastic Products	1.0	0.8	-0.2	88.9	74.0	-14.9
Leather, Leather Products	0.4	0.1	-0.3	80.1	67.8	-12.3
Lumber, Wood Products	0.8	0.7	-0.2	61.4	63.5	2.0
Furniture Manufacturing	0.8	0.6	-0.2	85.6	65.8	-19.8
Stone, Clay, Glass	0.9	0.6	-0.4	92.1	72.5	-19.6
Primary Metal	1.8	0.7	-1.1	94.7	82.6	-12.1
Fabricated Metal	2.3	1.2	-1.0	86.2	72.9	-13.3
Machinery x Electrical	3.7	2.4	-1.3	91.3	80.2	-11.2
Electrical Machinery	3.4	2.0	-1.4	91.6	77.2	-14.4
Transport Equipment	3.4	2.2	-1.2	92.7	84.9	-7.8
Instruments, Photography	0.9	0.8	-0.1	90.0	77.2	-12.8
Misc. Manufacturing	0.7	0.5	-0.2	77.9	64.9	-13.1
Railroads	0.9	0.3	-0.6	98.1	88.6	-9.5
Taxi, Public Transport	0.4	0.5	0.1	58.9	52.8	-6.1
Trucking, Warehousing	1.9	2.2	0.4	72.7	58.4	-14.4
Other Transportation	1.1	1.4	0.3	82.6	72.7	-9.9
Communications	1.8	1.7	-0.1	90.4	79.3	-11.2
Utilities	1.2	1.0	-0.2	95.2	83.8	-11.5
Wholesale Trade	5.3	4.6	-0.7	75.5	63.9	-11.6
Lumber, Hardware, Garden	1.1	0.9	-0.2	61.9	50.4	-11.6
Food Stores	3.1	3.4	0.3	52.4	40.4	-12.0
Vehicle Related Stores	2.8	2.0	-0.8	57.9	55.7	-2.2
Retail Apparel, Shoes	1.1	0.9	-0.1	37.3	32.4	-4.9
Furniture, Appliances	0.9	1.2	0.3	47.7	43.9	-3.8
Eating & Drinking Places	5.5	7.3	1.8	21.9	18.1	-3.9
General, Misc. Retail	5.4	6.0	0.6	50.0	38.1	-11.9
Banking	2.1	2.1	0.1	83.5	70.8	-12.8
Credit Agencies	0.6	0.7	0.1	74.8	69.4	-5.4
Securities, Investment	0.3	0.8	0.5	90.7	74.6	-16.1
Insurance	2.5	2.2	-0.3	81.5	72.4	-9.1

TABLE 12 (Continued)

**Change in Employment and Own-Employer Health Coverage
by Detailed Industry, 1979-1998**

	EMPLOYMENT			HEALTH COVERAGE		
	Percent Employed 1979	Percent Employed 1998	Change in Percent Employed	Percent Covered 1979	Percent Covered 1998	Change in Percent Covered
Real Estate	1.6	1.6	0.0	35.3	47.4	12.1
Personal Services	1.3	2.8	1.5	30.4	35.9	5.4
Business Services	2.3	5.8	3.5	50.5	50.3	-0.2
Repair Services	1.3	1.6	0.4	47.9	41.8	-6.1
Entertainment, Recreation	1.1	2.3	1.2	36.1	36.6	0.5
Medical Except Hospital	3.0	5.5	2.4	36.0	49.5	13.5
Hospitals	3.8	4.0	0.2	73.9	72.3	-1.6
Legal	0.6	0.9	0.3	58.3	62.8	4.5
Education	2.4	2.7	0.3	48.6	51.8	3.2
Social Services	0.4	2.4	2.0	51.5	39.1	-12.4
Membership Orgs, Religion	1.6	1.3	-0.2	49.0	45.6	-3.4
Eng, Arch, Acctng, R&D Svcs	1.6	2.4	0.9	70.6	68.0	-2.6
Private Household Services	1.7	1.0	-0.7	2.1	7.7	5.7
Other Professional Services	0.3	0.2	-0.1	66.9	58.3	-8.5

TABLE 13

**Percent of Male Employees Age 21-64 Receiving
Own-Employer Health Coverage, 1979-1998
(By Quintile of Hourly Wages)**

	1979	1983	1988	1996	1998
All Employees	80.7	79.3	76.9	63.5	66.3
Employees With Known Wages	82.2	80.4	77.8	64.9	66.6
Wage Quintile *					
1	58.8	49.8	49.7	37.1	32.2
2	80.2	77.6	74.5	59.6	61.4
3	87.1	88.2	84.0	70.3	73.4
4	91.6	92.7	90.3	75.6	81.0
5	93.0	93.3	90.8	82.1	84.8
Quintile 5 – Quintile 1	34.2	43.5	41.1	45.0	52.6

* 1 = lowest quintile, 5 = highest quintile. See Table 14 for the wage distributions for each quintile.

TABLE 14**Wage Distribution for Employees Age 21-64 Receiving
Own-Employer Health Benefits****(constant 1998 dollars)**

All Employees	1979	1988	1998
Wage Quintile			
1	\$2.28 - \$8.22	\$1.39 - \$7.51	\$1.20 - \$7.21
2	\$8.22 - \$11.41	\$7.51 - \$10.40	\$7.21 - \$10.49
3	\$11.41 - \$14.84	\$10.40 - \$13.86	\$10.49 - \$14.42
4	\$14.84 - \$19.98	\$13.86 - \$19.58	\$14.42 - \$21.15
5	\$19.98 - \$136.97	\$19.58 - \$97.02	\$21.15 - \$375.00
Male Employees			
Wage Quintile			
1	\$2.65 - \$10.68	\$1.39 - \$9.01	\$1.20 - \$8.33
2	\$10.68 - \$14.27	\$9.01 - \$12.47	\$8.33 - \$12.02
3	\$14.27 - \$18.15	\$12.47 - \$16.63	\$12.02 - \$16.83
4	\$18.15 - \$22.83	\$16.63 - \$22.18	\$16.83 - \$24.04
5	\$22.83 - \$114.15	\$22.18 - \$97.02	\$24.04 - \$375.00
Female Employees			
Wage Quintile			
1	\$2.28 - \$7.08	\$1.39 - \$6.56	\$1.20 - \$6.39
2	\$7.08 - \$8.56	\$6.56 - \$8.66	\$6.39 - \$9.13
3	\$8.56 - \$10.64	\$8.66 - \$11.09	\$9.13 - \$12.02
4	\$10.64 - \$13.70	\$11.09 - \$15.25	\$12.02 - \$17.31
5	\$13.70 - \$136.97	\$15.25 - \$55.44	\$17.31 - \$342.12

Note: The wage range for each quintile has been rounded to the nearest penny. The numbers presented are the maximum, minimum and percentile values. Due to the lumpiness of the wage distributions, employees earning the exact amount at the edge of a decile or quintile were all allocated to the decile or quintile above or below depending on which direction produced a cumulative proportion closest to the intended value.

TABLE 15

**Percent of Female Employees Age 21-64 Receiving
Own-Employer Health Coverage, 1979-1998
(By Quintile of Hourly Wages)**

	1979	1983	1988	1996	1998
All Employees	59.0	61.5	60.5	51.3	52.5
Employees With Known Wages	60.1	62.3	61.3	52.5	52.7
Wage Quintile *					
1	31.5	28.5	26.3	28.2	23.7
2	51.7	51.7	54.0	42.5	44.5
3	65.1	71.8	66.9	55.6	59.4
4	76.3	77.1	76.2	66.0	67.3
5	76.9	82.6	82.0	68.6	68.8
Quintile 5 – Quintile 1	45.4	54.1	55.7	40.4	45.1

* 1 = lowest quintile, 5 = highest quintile. See Table 14 for the wage distributions for each quintile.

TABLE 16**Percent of Employees Receiving Own-Employer
Health Coverage, 1979-1998****(By Age and Sex)**

	1979	1983	1988	1996	1998
All Employees	66.0	65.8	64.6	53.6	54.1
Male	74.4	73.5	71.8	59.3	60.3
Female	54.1	56.4	55.9	47.2	47.3
Age 15-20	31.3	20.9	20.8	11.8	8.7
Age 21-64	71.9	71.4	69.5	57.8	59.8
Age 65+	35.8	41.3	41.5	40.2	42.1
Males 15-20	31.8	22.2	23.1	13.2	9.7
Males 21-64	80.7	79.3	76.9	63.5	66.3
Males 65+	41.1	46.1	46.3	46.5	47.4
Females 15-20	30.7	19.6	18.5	10.4	7.7
Females 21-64	59.0	61.5	60.5	51.3	52.5
Females 65+	29.6	36.2	35.9	33.2	36.3

TABLE 17

**Percent of All Employees Age 21-64 Receiving
Own-Employer Health Coverage, 1979-1998
(By Quintile of Hourly Wages)**

	1979	1983	1988	1996	1998
All Employees	71.9	71.4	69.5	57.8	59.8
Employees With Known Wages	73.2	72.3	70.4	59.1	60.0
Wage Quintile *					
1	41.9	38.0	35.8	31.7	26.1
2	66.6	65.4	64.7	51.0	52.0
3	79.4	79.1	76.5	63.5	66.6
4	86.7	87.2	85.6	71.2	75.5
5	90.4	91.8	89.2	77.4	79.6
Quintile 5 – Quintile 1	48.5	53.8	53.4	45.7	53.5

* 1 = lowest quintile, 5 = highest quintile. See Table 14 for the wage distributions for each quintile.

TABLE 18**Percent of Employees Receiving Own-Employer
Health Coverage, 1979-1998****(By Age and Sex)**

	1979	1983	1988	1996	1998
Age 15-20	31.3	20.9	20.8	11.8	8.7
Age 21-29	68.9	65.5	63.8	47.8	47.1
Age 30-44	72.8	74.5	72.9	59.2	61.9
Age 45-54	74.5	73.9	72.1	63.6	67.3
Age 55-64	73.1	74.5	68.6	66.4	66.3
Age 65+	35.8	41.3	41.5	40.2	42.1
Males 15-20	31.8	22.2	23.1	13.2	9.7
Males 21-29	73.7	69.2	66.8	49.7	48.8
Males 30-44	84.5	84.4	81.5	65.8	69.7
Males 45-54	84.6	83.4	83.4	72.1	76.3
Males 55-64	81.6	83.9	77.9	73.0	73.7
Males 65+	41.1	46.1	46.3	46.5	47.4
Females 15-20	30.7	19.6	18.5	10.4	7.7
Females 21-29	62.3	61.2	60.3	45.5	45.3
Females 30-44	55.9	61.7	62.1	51.6	53.0
Females 45-54	58.5	61.3	58.7	54.6	57.3
Females 55-64	59.9	61.9	56.8	58.7	58.0
Females 65+	29.6	36.2	35.9	33.2	36.3

TABLE 19**Private Sector Expenditures* for Health Benefits
by Earnings, 1986-1999****Distributions Across Broad Occupation (3) by Industry (63) Records**

	1986	1991	1995	1999
Uninflated Dollars	\$0.74	\$1.10	\$1.24	\$1.28
By Earnings **				
Bottom Third	\$0.47	\$0.62	\$0.69	\$0.73
Middle Third	\$0.76	\$1.15	\$1.30	\$1.34
Top Third	\$0.98	\$1.52	\$1.74	\$1.77
Gap: Top/Bottom	\$0.51	\$0.90	\$1.05	\$1.04
Ratio: Top/Bottom	2.09	2.45	2.52	2.42
<hr/>				
Private Sector Average (constant 1999 Dollars)	\$1.53	\$1.57	\$1.41	\$1.28
By Earnings **				
Bottom Third	\$0.97	\$0.88	\$0.78	\$0.73
Middle Third	\$1.58	\$1.65	\$1.48	\$1.34
Top Third	\$2.03	\$2.17	\$1.98	\$1.77
Gap: Top/Bottom	\$1.06	\$1.29	\$1.20	\$1.04
Ratio: Top/Bottom	2.09	2.47	2.54	2.42

* The health insurance cost is the average per hour worked. The 1999 constant dollars were deflated with the health care CPI.

** Earnings refer to mean wage and salary compensation within each occupational collar-by-industry cell.