

How Rising Health Costs Slow Wage Growth

BY STEVEN A. NYCE AND SYLVESTER J. SCHIEBER

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Most Americans are painfully aware that their health care premiums are rising faster than other necessities of life. Many also know that their earnings are growing slowly or not at all, despite apparent increases in worker productivity. These problems have been widely reported, but are seldom linked.

Yet they are directly connected. The costs of health benefits has gotten so large in recent years, and has been growing so fast, that they are now contributing to the slowdown in workers' pay and income growth. In economic terms, more of the productivity generated by each worker is being used to pay their health insurance premiums, so less gets paid out in wages.

This shift in compensation helps to explain a mystery that has puzzled economists for nearly a decade: Why have workers' wages stagnated as their productivity has been increasing? In theory, the two are supposed to rise in tandem. But as Table 1 illustrates, more and more of what U.S.

workers earn is being diverted into non-cash forms of compensation. Our research finds that soaring medical bills explain much of the increasing costs of employer-sponsored benefits and have absorbed a significant chunk of the gains in worker productivity.

TABLE 1: SHARES OF COMPENSATION PAID IN DESIGNATED FORMS FOR SELECTED YEARS

	1950	1970	1990	2010
Cash pay	94.8%	89.4%	82.4%	80.1%
Employer contributions for:				
Payroll taxes	2.2	3.9	6.2	6.0
Other benefits	3.0	6.8	11.4	13.9

Source: Developed by the authors from the U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts.

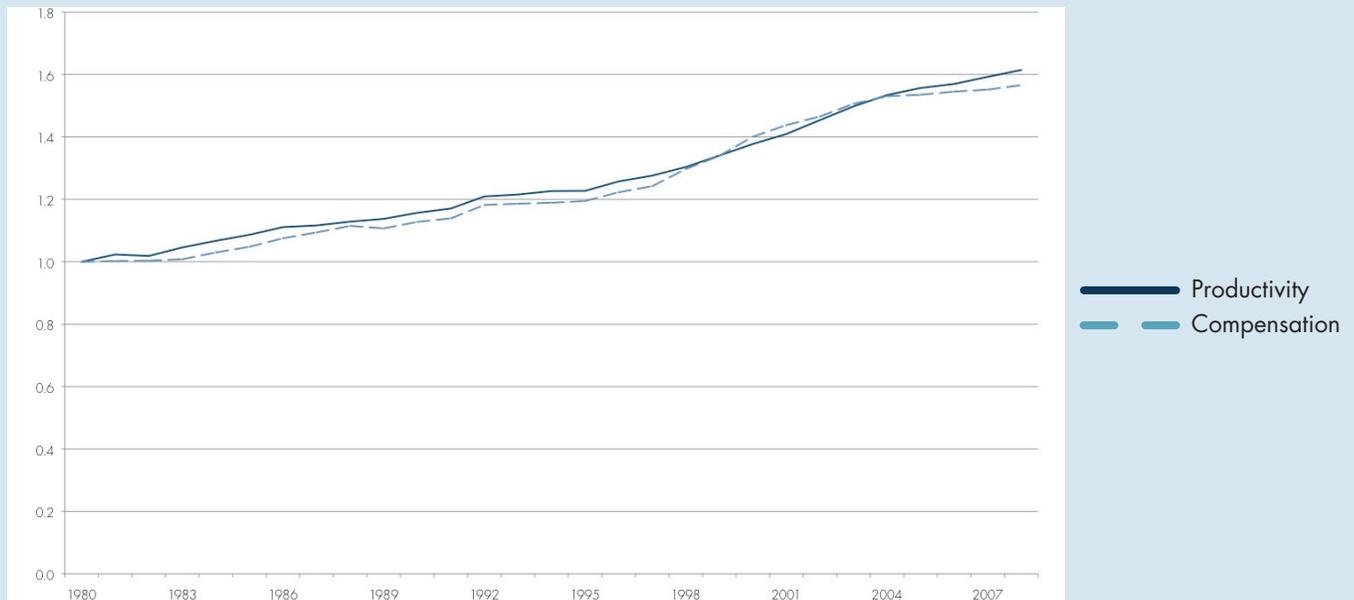
Turn now to Figure 1, which shows the relationship between the growth in worker productivity,

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FIGURE 1: GROWTH OF PRODUCTIVITY AS MEASURED BY OUTPUT PER HOUR OF LABOR INPUT AND GROWTH OF TOTAL COMPENSATION PAID TO WORKERS AS A MULTIPLE OF BASE VALUES IN 1980



Source: Derived from unpublished data from the Office of the Actuary, U.S. Social Security Administration, which was derived using Department of Labor information on employment and hours of work by U.S. workers and information from the Bureau of Economic Analysis, National Income and Product Accounts. Wages and benefit costs were converted into constant dollars using the GDP deflator.

measured by output produced per hour, and total compensation paid to workers.

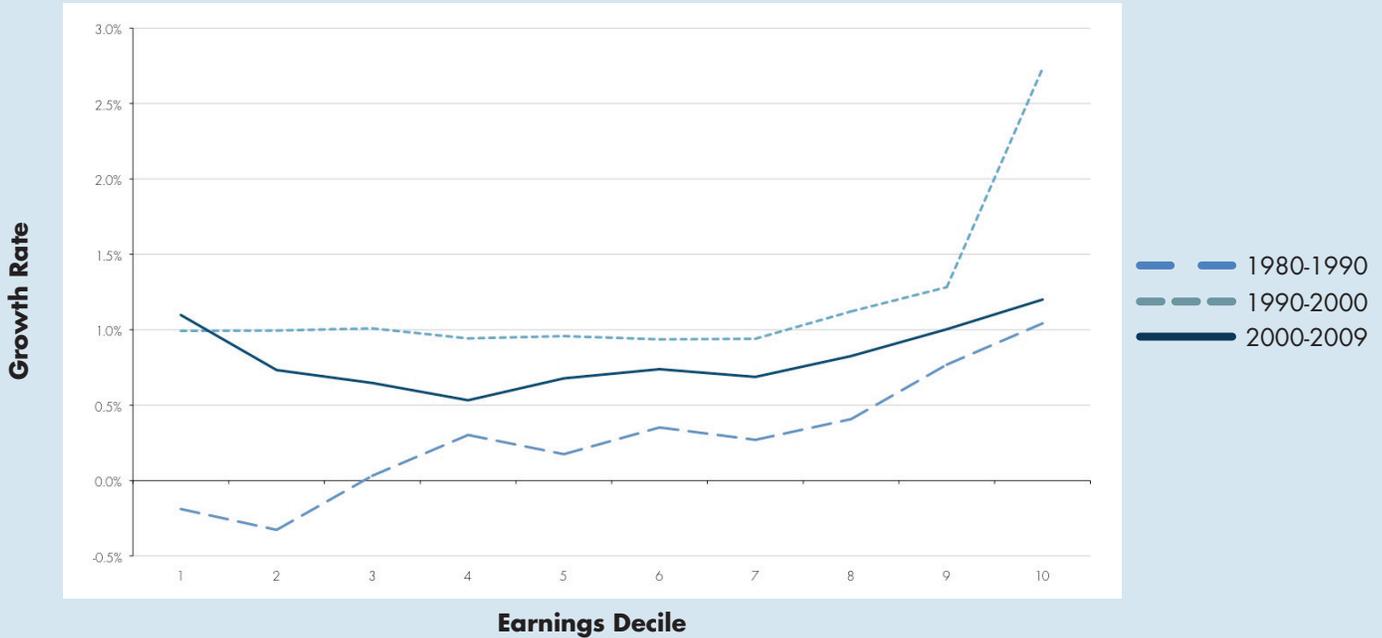
The two have evolved in relative lock-step over most of the past 40 years. But if an ever-larger share of compensation is taking a form other than wages, as Table 1 indicates, then the growth rate of cash pay will lag behind increasing productivity gains. One reason pay is down is that employers have faced a series of payroll tax hikes over this period. But most of the shift away from cash in the compensation bundle is related to other employer-sponsored benefits—almost totally accounted for by retirement and health benefit plan contributions.

Many Americans probably have an intuitive sense that rising health care costs have dampened their wage growth. Less obvious is the impact of those costs on economic inequality. Our analysis demonstrates that there are important differences across the earnings spectrum on how productivity rewards are being distributed. Specifically, the

growth in non-cash rewards for work has been a more significant drag on wage growth for low- and middle-income workers than for high earners. For three decades, U.S. health care costs have been rising at rates that well exceed GDP growth. Medical cost inflation has been a triple whammy for Americans: It has depressed wage growth, increased unemployment among low-wage workers, and aggravated economic inequality. Looking ahead, our analysis predicts these problems will get worse unless U.S. policymakers act decisively to restrain health cost growth:

- Wages will continue to decline for all but the highest earners, as health costs “crowd out” cash wages in workers’ overall compensation package.
- High health costs will make it prohibitively expensive for companies to hire low-skilled workers. Extrapolating from other research, we calculate that growing health benefit costs

FIGURE 2: COMPOUND ANNUAL GROWTH RATES OF INFLATION-ADJUSTED HOURLY PAY FOR FULL-TIME, FULL-YEAR WORKERS BY EARNINGS DECILE AND FOR SELECTED PERIODS



Source: Derived from tabulations of the Current Population Survey, various years.

have added as much as three percent to the unemployment rate over the past 30 years.

- Unchecked cost growth could torpedo health care reform. While we support the Accountable Care Act’s aim to make health insurance coverage nearly universal, the new law could powerfully reinforce medical inflation absent more effective efforts to bend down the curve of long-term cost growth.

Let’s examine these three points in detail.

DECLINING WAGE GROWTH

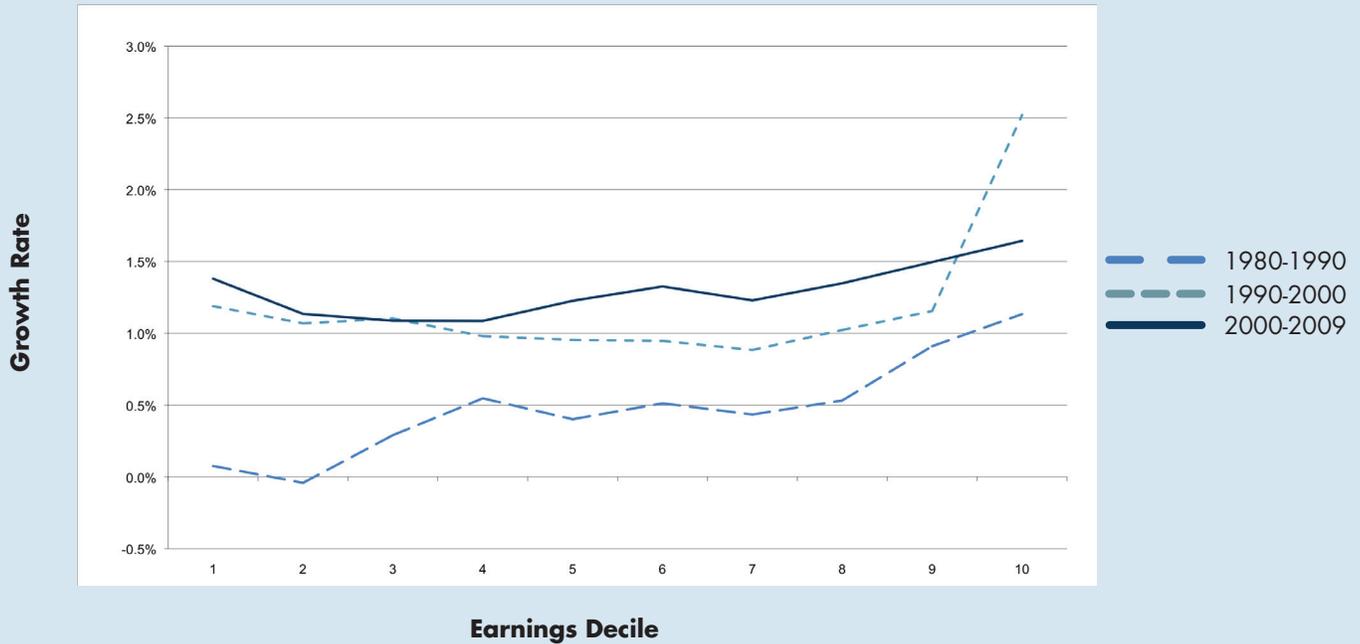
During the 1990s, hourly pay grew at around one percent per year across most of the earnings spectrum. Pay growth in the period from 2000 through 2009 has been closer to 0.5 percent per year across the middle parts of the earnings distribution but has lagged behind the 1990s at all earnings levels (see Figure 2). The early 1980s were marred by a significant recession followed by an eroding manufacturing sector and increased

global competition – all of which depressed wage growth for workers at all but the highest pay levels.

It is easy to see why many people found the first decade of the new millennium to be disappointing, especially when compared to the 1990s. But the results in Table 1 suggest that focusing on just cash earnings is leaving out a considerable part of the story. Adding the noncash elements of compensation back into the picture, as we do in Figure 3, shows that from the 40th to the 90th percentiles of the distribution, compensation growth from 2000-2009 actually exceeded what had been achieved during the 1990s.

What does this mean? If workers are being rewarded with compensation growth that closely parallels productivity growth, as Figure 1 indicates, but an ever-larger share of their compensation is being paid in noncash benefits, the increasing costs of those benefits must be acting as a drag on cash wages and salaries paid to workers. Table 2 shows the share of compensation growth

FIGURE 3: COMPOUND ANNUAL GROWTH RATES OF INFLATION-ADJUSTED HOURLY COMPENSATION FOR FULL-TIME, FULL-YEAR WORKERS BY EARNINGS DECILE AND FOR SELECTED PERIODS



Source: Derived from tabulations of the Current Population Survey augmented by data from the National Income and Product Accounts for various years.

that has been siphoned off to cover growing benefits costs at each decile of the earnings distribution for each of the last three decades.

Because benefit costs vary, the drag that growing benefits exerts on pay rates has varied across the earnings spectrum. For example, the employers' share of payroll taxes is fairly constant on all covered earnings—up to \$110,000 this year—so the effects of this cost are relatively proportional for all workers except those at upper earnings levels. But employer costs for retirement benefits are skewed toward the upper half of the earnings distribution because of the coverage and participation patterns in their pension plans.

The item that most heavily skews the distribution of employer costs for benefits disproportionately toward lower earners is health coverage. Employers' contributions for health benefits tend to be relatively constant per capita across the earnings distribution because it costs essentially the same to provide health insurance for the

\$20,000 per year worker covered under a plan as it does for one earning \$200,000 per year. If an employer provides health insurance costing \$10,000 per worker on average, of which only \$2,500 is covered by direct employee contributions, then the remaining \$7,500 is a compensation cost that applies to each worker regardless of pay level. For the worker earning \$20,000 per year, this benefit equals 37.5 percent of cash wages but for the \$200,000 worker, it is only 3.75 percent of wages. If employers' health insurance costs are growing faster than workers' productivity and this is eroding wages, it will naturally have a much larger effect on low earners than high ones because health benefits make up so much more of lower earners' total compensation.

The sluggish growth in workers' disposable income in recent years has been attributed to a variety of causes, including changing reward structures in the corporate world and tax policy. The Occupy Wall Street movement fixates on lavish executive perks and pay. The national tax debate centers

increasingly on tax cuts for the extremely well-off. These factors may have played a role, but growing benefit costs were likely a much larger reason for the disappointments many workers have suffered at the pay window in recent years. Unfortunately, this trend seems likely to continue.

TABLE 2: SHARE OF COMPENSATION GAINS PROVIDED IN THE FORM OF MORE EXPENSIVE BENEFITS PAID BY EMPLOYERS FOR FULL-YEAR WORKERS BY EARNINGS DECILE AND FOR SELECTED PERIODS*

EARNINGS DECILE	1980-1990*	1990-2000	2000-2009
1	100.0%	30.4%	35.2%
2	100.0%	23.1%	47.7%
3	90.8%	25.0%	52.3%
4	54.1%	21.3%	60.8%
5	63.9%	17.8%	55.7%
6	43.0%	18.8%	55.3%
7	48.6%	12.4%	54.8%
8	36.8%	9.6%	50.3%
9	29.7%	7.8%	45.0%
10	21.4%	6.8%	37.7%

*Total benefit cost increases in the 1980s for the first and second earnings decile exceeded 100 percent of compensation growth. In both cases, benefit costs increased significantly, but total compensation growth was negligible in the first decile and negative in the second.

Source: Steven A. Nyce and Sylvester J. Schieber, "Treating Our Ills and Killing Our Prospects," Towers Watson working paper (August 2011), found at: <http://www.towerswatson.com/research/5216>.

The results in Table 2 include the whole benefit bundle that employers finance out of compensation, but the component elements have grown along different paths in recent decades. During the 1980s, increases in the payroll tax acted as a drag on workers' cash rewards. And over the last decade, employer contributions to retirement plans have grown dramatically. Mostly those contributions have gone into defined benefit pension plans. While virtually no employer these days is starting new defined benefit plans, old ones still carry big liabilities.

These stem mainly from regulatory changes that reduced the level of employer contributions in

TABLE 3: SHARE OF COMPENSATION GAINS PROVIDED IN THE FORM OF MORE EXPENSIVE HEALTH BENEFITS PAID BY EMPLOYERS FOR FULL-YEAR WORKERS BY EARNINGS DECILE AND FOR SELECTED PERIODS*

EARNINGS DECILE	1980-1990*	1990-2000	2000-2009
1	100.0%	26.8%	23.6%
2	100.0%	20.8%	30.4%
3	100.0%	23.6%	30.1%
4	57.2%	21.0%	36.5%
5	74.4%	19.8%	28.9%
6	45.2%	22.5%	26.7%
7	55.5%	15.5%	25.8%
8	38.7%	12.1%	20.1%
9	21.4%	9.1%	15.0%
10	12.1%	2.9%	9.1%

*Health benefit cost increases in the 1980s for the bottom three earnings deciles exceeded 100 percent of compensation growth.

Source: Steven A. Nyce and Sylvester J. Schieber, "Treating Our Ills and Killing Our Prospects," Towers Watson working paper (August 2011), found at: <http://www.towerswatson.com/research/5216>.

the 1980s and from outsized returns during the booming financial markets of the 1990s. Since 2000, things have only gotten worse: The aging of the baby boomers inexorably has moved future liabilities into the present; falling interest rates have made those liabilities bigger; and, turmoil in financial markets has reduced the value of many asset trusts.

But growing health care benefits have been a more consistent drag on potential wage growth. Table 3 shows the share of increasing compensation that has been diverted to increased employer contributions for health benefit programs over each of the past three decades. Note that the share of compensation that was diverted to health benefits includes all full-time, full-year workers at each earnings level, including those who did not receive health benefits from their own employers.

For the workers actually covered by their own employers' health benefit plans, the implications were even more severe than the table suggests.

Declining coverage, which has tended to be concentrated among lower-wage workers, actually mitigated some of the “crowding out” effect shown in Table 3 in recent years. But workers who lost employer-provided health insurance had to spend more out of pocket for their own health care consumption. It is a classic case of “damned if you do and damned if you don’t.”

The main purpose of this analysis is to explain how medical cost inflation undercuts the general rewards for broad groups of the workforce. It’s also true, however, that rising health costs affect employers’ hiring decisions. In considering whether to keep or add a worker, employers ask themselves what that person will cost compared to the value he or she will bring to the organization. In economic terms, the marginal costs of workers in the various earnings deciles who actually take health insurance are quite different from the average costs of all workers in the deciles.

Not only are rising health costs depressing workers’ pay and income, they also are distorting labor markets.

Table 4 shows how health benefit costs have risen relative to wages between 1980 and 2009 for workers who actually enrolled in the health benefit plans offered by their employers. In 1980, employers’ costs for such workers were in single digits relative to wages for all decile groups except the lowest, with the median employee costing about six percent of pay. Over the next three decades, those costs have grown more than threefold relative to wages, consuming more than a third of individuals’ wages among the lowest decile groups. In fact, for the lowest decile group, health costs have nearly eclipsed half of employees’ take-home pay in 2009.

TABLE 4: HEALTH BENEFIT COSTS AS A SHARE OF WAGES FOR FULL-TIME, FULL-YEAR WORKERS RECEIVING HEALTH CARE BENEFITS THROUGH THEIR EMPLOYER

	1980	1990	2000	2009
1	15.4%	30.9%	38.1%	49.5%
2	9.5%	18.7%	22.9%	30.9%
3	8.0%	15.3%	18.6%	25.5%
4	7.2%	13.3%	16.0%	22.3%
5	6.3%	11.6%	14.0%	19.4%
6	5.8%	9.9%	12.1%	16.8%
7	5.4%	9.2%	10.8%	14.8%
8	4.9%	8.2%	9.2%	12.5%
9	4.3%	6.9%	7.8%	10.2%
10	3.2%	4.9%	4.7%	6.3%

Source: Developed by the authors.

What’s more, these costs have been growing at a much faster pace for the lowest-paid workers, highlighting the greater impact of compounding on the lower-pay groups. For example, health benefit costs relative to wages for the second decile were twice those for workers in the ninth decile in 1980 and three times more by 2009. In short, the escalating cost of health care benefits may price very low-wage workers out of labor markets. Not only are rising health costs depressing workers’ pay and income, they also are distorting labor markets. Most U.S. workers get their health insurance through their employer.

The quest for affordable health benefits has become totally ingrained in the decisions workers make about all aspects of their career choices—what job to take, when or if to leave a position, and whether or not to work at all. Single mothers, for example, are more likely to take full-time jobs to qualify for health benefits than married mothers who can qualify under their husbands’ insurance.

People receiving disability benefits including Medicare are reluctant to go back to work because they will lose valuable health insurance coverage once they show they can provide for themselves.

Workers unhappy in their current jobs and older workers looking for a bridge job to ease into retirement are often trapped in existing jobs with insurance coverage. In other words, by distorting labor supply decisions, escalating health care costs impair the overall efficiency of our economy.

From the employers' point of view, rising health costs can be offset by cutting other parts of the total compensation package. But workers' cash pay tends to be sticky downward—meaning that it is difficult to reduce pay without causing a variety of disruptions among workers. *If employers are forced to absorb health cost increases that exceed the added productivity that workers bring to the table, they will stop hiring.*

Katherine Baicker and Amitabh Chandra also have developed an empirical analysis of the effects of rising health benefit costs on labor demand. They estimate that a 10 percent increase in health insurance premiums reduces the aggregate probability of employment by 1.6 percent and total hours worked by 1 percent. We calculate that employers' health benefit costs have exceeded general inflation over the last decade by more than 20 percent. *Extrapolating Baicker and Chandra's results, we calculate that growing health benefit costs have added as much as 3 percent to the unemployment rate over the period.*

THE IMPACT OF HEALTH CARE REFORM

No one knows for certain what the implications of the 2010 health reform law (the Accountable Care Act, or ACA) will be for U.S. workers in terms of their future health costs—or even how they will acquire health insurance in the coming years. Our analysis makes clear, however, that, if we cannot bring excessive health care costs under control, wages will continue to stagnate, and low-wage workers will find it harder to find work.

A full-time worker in the second earnings decile in 2009 earned around \$25,000 in total compensation on average. If his or her productivity goes up by the rate of growth Social Security actuaries estimate, by 2019 this worker will be earning around \$36,600 in total

compensation. But here's the rub: nearly 75 percent of the gain will have been consumed by rising health benefit costs. If the worker has family coverage, the cost of health benefits will grow to consume all of his or her added productivity.

If we cannot bring excessive health care costs under control, wages will continue to stagnate, and low-wage workers will find it harder to find work.

Will the Accountable Care Act restrain health cost inflation? Peter Orszag, former director of the Office of Management and Budget and a major architect of the health reform package, and Ezekiel Emanuel, special advisor to the White House and OMB during its development, predict that under the new law, total health expenditures in the United States in 2030 will be only 0.50 percent less as a share of GDP than under prior law. Against a pre-reform estimate by the Congressional Budget Office that health care spending would rise from around 17.5 percent of GDP in 2009 to 29 percent of GDP in 2030, an anticipated saving of 0.5 percent of GDP will not offer substantial relief from excessive medical cost inflation.

The implications are sobering. Let's assume that future health costs grow at the rate they have been growing since 2000. In keeping with assumptions by the Congressional Budget Office and the Obama Administration that employers will not cut back their coverage under health reform, let's further assume that current health insurance coverage and take-up rates persist. Table 5 projects the results: Health benefits will cut even more deeply into compensation than over the past couple of decades. If employer-provided health insurance coverage expands because of the mandates under health reform, or if inflation rises

because of added demand for services or any other reason, the outcome could be even worse than Table 5 suggests.

TABLE 5: SHARE OF COMPENSATION GAINS PROVIDED IN THE FORM OF MORE EXPENSIVE HEALTH BENEFITS PAID BY EMPLOYERS FOR FULL-YEAR WORKERS BY EARNINGS DECILE AND FOR SELECTED PERIODS WHERE HEALTH COST INFLATION PERSISTS AT CURRENT RATES AND COVERAGE AND TAKE-UP RATES REMAIN AT CURRENT LEVELS

EARNINGS DECILE	PROJECTION PERIODS		
	2009-2015	2015-2030	2009-2030
All	24.9%	35.0%	32.4%
1	39.1%	54.9%	50.9%
2	38.4%	54.0%	50.1%
3	38.5%	54.2%	50.2%
4	38.3%	53.9%	49.9%
5	35.1%	49.3%	45.7%
6	33.1%	46.6%	43.2%
7	29.9%	42.0%	38.9%
8	26.2%	36.9%	34.2%
9	21.8%	30.7%	28.5%
10	13.9%	19.5%	18.0%

Steven A. Nyce and Sylvester J. Schieber, "Treating Our Ills and Killing Our Prospects," Towers Watson working paper (August 2011), found at: <http://www.towerswatson.com/research/5216>.

Why? Because we are now starting from a much larger base of health costs under these benefit plans than we had 20 or 30 years ago. In 1980, employer contributions for health benefit plans were only 3.8 percent of total compensation paid to workers. By 2010, they had risen to 9 percent. Excessive health inflation now applies to a much larger share of compensation than it has in the past.

Consider the case of a worker whose productivity warrants compensation of \$30,000 per year. Ignoring inflation, assume that this worker is receiving \$10,000 in the form of health benefits because he or she has family coverage under the employer's plan. If this worker's productivity increases 1.5 percent next year, it would warrant an increase of \$450 in compensation.

If health benefit costs go up by 4.5 percent next year, then all of this worker's productivity reward would be scalped off to cover the higher health benefit costs. Among workers with health insurance coverage, the cost of these benefits has been increasing about 3 percentage points faster per year in recent years than productivity improvement rates. What these numbers tell is that employers cannot offer many workers both health benefits and growing wages, and hope to remain competitive in a global economy. Furthermore, the federal subsidies for workers who acquire insurance in exchanges under ACA rather than from their employers could dramatically change the economics of health care.

Many employers, particularly in low-wage industries, will likely eliminate their plans and let workers fend for themselves in the new exchanges. At the margin, this sort of outcome may work and might even be desirable, but we cannot avoid the reality of a national health care marketplace. The mere shifting of health insurance costs -- from employers' compensation packages to a mix of public subsidy and workers' contributions out of their disposable wages -- will not reduce national health care spending unless we bring medical inflation under control. If health reform does not bend down cost curve, we must ask: Who is going to pay the bill?

CONCLUSION

There is little doubt that many families today, like the rabbit in Alice in Wonderland, find themselves running harder and harder, only to fall farther and farther behind. Although they come from different directions, both the Tea Party and the Occupy Wall Street movement channel Americans' mounting frustration with an economy that lavishly rewards the few, while incomes stagnant for the many.

This frustration will be front and center in this year's national election debates, as it should be. And while politicians find it easy to blame our problems on large abstractions -- "big government" or "predatory capitalism," depending on one's ideological tastes -- the reality is considerably

more down-to-earth. Escalating health care costs are eating into the paychecks of average working families. Getting medical inflation under control therefore may be the most important thing U.S. policymakers can do to help them get ahead.

ENDNOTES

1. Katherine Baicker and Amitabh Chandra, “The Labor Market Effects of Rising Health Insurance Premiums,” NBER Working Paper No. 11160 (Cambridge, Mass.: National Bureau of Economic Research, 2005).
2. Peter R. Orszag and Ezekiel J. Emanuel, “Health Care Reform and Cost Control,” *New England Journal of Medicine* (June 16, 2010), found at: <http://healthpolicyandreform.nejm.org/?p=3564>.
3. Congressional Budget Office, *The Long-Term Outlook for Health Care Spending* (2007), p. 13, found at: <http://www.cbo.gov/ftpdocs/87xx/doc8758/11-13-LT-Health.pdf>.



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