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Can the Rapid Growth in the Cost of Employer-Provided Health Benefits Explain the Observed Increase in Earnings Inequality?

By Mark J. Warshawsky

Newly available data on earnings from the Social Security Administration indicates that earnings growth for lower-earning workers lagged that of higher-earning workers from 1999 through 2006. Most of this lag can be attributed, however, to the rapid increase in the cost of health insurance benefits provided to workers by employers, according to calculations using unpublished data provided by the Bureau of Labor Statistics. This finding is broadly supported by other studies in this area covering longer periods. The consistent growth of compensation across earnings percentiles up to the highest fractiles, in contrast to earnings growth, may be a particularly important empirical result for recent policy debates and legislation on health, entitlement, and tax reform.

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The rapid growth in the cost of health care in the United States is widely noted. It is correctly said to cause burgeoning government spending and deficits, slower overall growth in worker earnings (wages), and later retirements. Less noted and understood is a possible tie of growth in health care costs to an increase in earnings inequality. The logic is based on simple arithmetic. Let's say that compensation (which is made up of earnings and benefits) grows at a certain common rate across workers over time at all compensation levels owing to, say, overall labor productivity improvements and that the market for labor services is competitive.

Let's also posit that health care benefit costs are the same dollar amount per worker at any point in time regardless of the worker's level of compensation and are evenly and widely provided to workers, or at least the distribution of prevalence and cost by compensation level has not changed much. But let's also say that health benefit costs are growing at a faster rate than compensation. Then earnings (which equal compensation less the cost of health and other benefits) must grow slower for those at the lowest levels of compensation than for those at the highest levels of compensation.

It is rare to observe the total compensation of individual workers directly in surveys or in administrative records, but it is common to observe and measure individual and household earnings (and income, which includes capital returns). The logic just expressed would say that measured earnings inequality would increase with health care costs even while the overall distribution of compensation and actual compensation inequality remain essentially unchanged.

This short article examines this hypothesis with some unique data sources and a review of a few underappreciated studies from the professional literature. First, new and detailed unpublished data from the Social Security Administration (SSA) on changes in the distribution of earnings in recent years is presented. Data from national surveys of employers on overall trends in average compensation and the cost of health benefits is also reviewed. Four recent papers in the professional literature that have addressed directly the question of the tie of earnings inequality to the growing cost of health care

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are summarized. Unpublished data from the Bureau of Labor Statistics on the distribution of earnings and the cost of health benefits by earnings levels are then examined to explore any connection to the increase in earnings inequality. The paper concludes with a brief discussion of the implications of this analysis for public and corporate policies and proposals on compensation, health care benefits, taxes, and entitlement spending.

I. The Distribution of Earnings

The increase in earnings and income inequality in the United States over the last three or four decades is fairly well documented. For example, Piketty and Saez (2003, web updated in 2010) find that the share of total wages going to the top decile of income taxpayers increased from 25.67 percent in 1970 to 29.09 percent in 1983 to 35.18 percent in 1999, remaining at 35.06 percent in 2006. As shown in Table 1, this increase in share is largely concentrated at the top of the decile—the 90th to the 95th percentiles had almost no increase, the 95th to 99th percentiles only a relatively small increase, but there were large increases at the top percentile and upper fractiles from 1970. Notable is the recent stability in wage shares across the board from 1999 through 2006 in this data set.

Using Social Security records for workers ages 25 to 60 in commerce and industry earning at least a quarter of the annual minimum wage, Kopczuk, Saez, and Song (2010) also find that wage inequality has increased over time. In particular, they calculate that the wage share of the top percentile (earnings above $236,000 in 2004) increased from 6.45 percent in 1978 to 7.53 percent in 1983, 12.42 percent in 1999, and 12.99 percent in 2000, before falling back to 12.38 percent in 2004, the last year in their analysis.

For some time, the SSA has published annual statistics on the distribution of wages based on its records of payroll taxes paid. More recently, it has created data tables for tax years 1999 through 2009 for earnings, including wages and self-employment income, for all workers, with fine granularity at the upper fractiles of the earnings distribution.[1] This data includes workers of all ages, from those earning less than $100 annually to those earning more than $50 million annually. Three sets of tables are provided: the number of workers with ''HI-taxable'' earnings by level of annual earnings, the total amounts of HI-taxable earnings by level of annual earnings, and the average amount of HI-taxable earnings by level of earnings. The levels of annual earnings, fixed in nominal terms, are generally given in $5,000 nominal increments, except for finer increments below $5,000, and somewhat grosser increments for those earning above $500,000 ($10,000 increments through $1 million, $100,000 through $5 million, $250,000 through $10 million, $1 million through $20 million, and $10 million increments thereafter).

''HI-taxable'' earnings refer to taxable payrolls for the Health Insurance program segment of Medicare. Since 1994, there has been no cap on the taxable amount of earnings for HI, unlike Social Security, and moreover, a larger proportion of federal, state, and local government employees and all railroad workers are covered by Medicare, again different than Social Security. Therefore, these data are likely to be good estimates of the extent and distribution of earnings across the entire working population.[2]

The data for each year reflect all earnings on SSA's Master Earnings File (MEF) as of specific dates. The 1999-2008 data include all earnings that were posted to the MEF through April 2010; the 2009 data include all earnings that were posted to the MEF through January 2011. SSA estimates that the 2008-2009 data are about 98 percent complete relative to the expected ultimate amount, but inspection of the data indicates that even in 2007, there was a significant level of incomplete records, especially for self-employment income at higher earnings levels.

Hence, this analysis focuses on a comparison of 1999 and 2006, for which the data sets seem to be complete and represent similar points in the economic cycle. The latter consideration is particularly important for the purposes of this article because it is well known that the earnings of those at the upper tails of the distribution expand by disproportionately larger amounts when the economy is expanding, and decline disproportionately when the economy is in recession.

Table 2 shows the results of the summary and analysis of the SSA earnings statistics, focusing on the examination of recent trends in inequality. The top panel shows some relevant aggregate statistics. Total wages and self-employment income grew from about $4.6 to $6.2 trillion, nominally, or 34.6 percent, from 1999 through 2006. Price inflation over this period was 21 percent, as measured by the CPI-U. The number of workers with reported earnings increased from about 153.6 to 162.4 million, 5.7 percent growth over the period. Mean earnings grew from $29,775 to $37,905, or 27.3 percent. The average wage index, based just on wages, and used in the Social Security benefit formula, grew at a similar pace, while the maximum level of earnings subject to Social Security taxes and included in the benefits formula grew at a bit faster pace, that is, almost 30 percent, as it is based on wage data lagged two years.

The lower bottom panel of Table 2 shows estimates of the actual earnings at various percentiles in the distribution of earnings. I start at the 30th percentile because workers earning less than the dollar amount indicated presumably include many young workers still attached to their parents' homes or in college; older workers already largely, but not completely, retired; part-time workers whose spouses work full time; workers largely dependent on government welfare and other benefit programs; and so on. Starting from the 30th percentile, the 65th percentile represents the ''median,'' and, as shown, fine detail is provided about the upper parts of the distribution.

Also shown are the share of aggregate earnings attributed to those workers in the indicated percentile or fractile and below, and the ratio of the indicated level of earnings to the ''median,'' and growth from 1999 through 2006. These measures are all used as indicators of changes in the distribution, that is, increasing or decreasing earnings inequality.

[1] Memo from Drew Sawyer to Stephen Goss, Feb. 4, 2011, ''Distribution of Workers by Level of Annual HI-Taxable Earnings.''

[2] There may be some tax evasion, however, and hence underreporting of earnings; this is likely to be more prominent in self-employed income than in wages, but the impact on measures of inequality is unlikely to be biased.

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The rate of earnings growth over the period increases as one climbs the earnings percentiles from the 30th to the 99.95th percentile. For example, earnings grew 23.2 percent at the 30th percentile, 23.8 percent at the 50th percentile, 24.4 percent at the 65th, 26.0 percent at the 80th, 29.9 percent at the 95th, 32.5 percent at the 99.5th, and 35.3 percent at the 99.95th. At still higher percentiles, the growth rate falls, to 23.9 percent at the 99.9975th percentile, before it increases again, to a pace of 38.9 percent at the 99.9995th percentile, the very top of the distribution. These statistics, overall, are a confirmation of the inequality in earnings increasing in a consistent manner from 1999 to 2006.

Another measure, the ratio to the ''median,'' also shows increasing inequality over this period. For example, in 1999, the 40th percentile had earnings at a ratio of .509 to the median. In 2006, however, the ratio at that percentile had fallen, slightly, to .506. By contrast, at the upper percentiles and fractiles, the ratio to ''median'' rose significantly. For example, at the 99.5th percentile, in 1999, the ratio was 8.895, whereas in 2006, it was 9.478. The increased inequality according to this measure is particularly apparent at the top of the distribution.[3]

Similarly, according to the earnings share measure, inequality increased across the distribution. For example, in 1999, 0.22165 of aggregate earnings went to workers in the 60th percentile and below, while in 2006, the earnings share was a percentage point less, 0.21165. The differential remains as we move up the earnings percentiles; for example, in 1999, the earning share below the 99.8th percentile was 0.92904, while in 2006, it was 0.92602—a decline of about 0.3 percentage points.

Earnings Inequality, 1999 and 2006. Another way of looking at the share data is to make it comparable to that reported in Table 1, drawn from Picketty and Saez (2003, updated). That is done in Table 3, where, unlike the finding by Picketty and Saez, it is shown that earnings inequality continues to increase in recent years. For the top decile, the earnings share increased by 1 percentage point, but most of that is represented by the top percentile, at about 0.6 percent; even that increase occurs mostly in the top half percentile. (For 2006, the top earnings percentile started at $230,579, and the top half percentile started at $340,514.)

In summary, the earnings measures derived from SSA data show that inequality continued to increase in recent years, across the business cycle. But what about total compensation paid to workers, including the value of employee benefits—has inequality increased there, too? The more comprehensive *compensation* measure of the return to labor and of well-being should be the relevant one for analysts and policymakers as they consider trends in the levels and in the inequality of well-being derived from work effort.

II. Trends in Average Compensation, Earnings, and Health Insurance Costs to Employers

Before questions about compensation inequality are answered more directly, the trend data that is available about broad, economywide trends in labor compensation and, in particular, the employer cost of health care benefits, should first be reviewed. This article reports on data published by the Bureau of Labor Statistics (BLS) from its employer survey on jobs' financial characteristics, the Employer Cost of Employee Compensation (ECEC), and by the Kaiser Foundation from its employer survey on Employer Health Benefits.

As seen in Table 4, hourly earnings reported by the BLS, composed of wages, paid leave and supplemental pay, increased, on average, across the entire economy, from $16.57 in 1999 to $21.37 in 2006, a 29 percent increase, similar to the increase reported by Social Security (see Table 2). But hourly compensation, which also includes the cost of benefits, increased more quickly, from $20.29 in 1999 to $26.86 in 2006, a 32 percent increase. This growth differential is explained mainly by the fact that the cost of benefits increased at a faster pace than compensation—health insurance in particular increased from $1.18 an hour to $2.05 an hour, or almost 74 percent. Seen as a share of compensation, health insurance rose from 5.8 to 7.6 percent, a noticeable increase. Retirement costs also increased more rapidly than wages, but this increase was temporary as it was caused by defined benefit plans in the private sector responding to funding losses and required and discretionary employer contributions therefore increasing.

Data from the Kaiser Foundation for this same time period show an even faster rate of growth in employer costs for health insurance. As seen in Table 5, the average employer (both private and public) annual cost of health insurance for workers increased from $1,878 in 1999 to $3,615 in 2006 for single coverage, a 92.5 percent rate of growth. The cost of family coverage grew even faster, over 100 percent.

From 1999 through 2006, access to (and provision of) health insurance to workers did not change much. According to the Kaiser Foundation in 1999, 79 percent of private industry workers had access to health insurance (and 62 percent chose to be covered). In 2006, 78 percent of private-sector workers had access (and 59 percent chose to be covered). Pierce (2008), using BLS ECEC data, found no change between 1997 and 2007 in the fraction of jobs (.789) with positive health insurance costs to the employer, that is, jobs for which the employer made some contribution toward employees' health insurance coverage.

That there was little change in access despite the large increase in employer cost makes sense because nondiscrimination rules in the tax code prevent an employer from favoring the higher-paid group in its workforce with tax-advantaged benefits. Also employers desire to avoid adverse selection in their health plans and, therefore, want to encourage younger, healthier workers (who generally are lower paid) to enroll.

To anticipate some of the later results in the paper, consider the worker at the 50th percentile in Table 2, earning $19,846 in 1999 and $24,570 in 2006—for her, earnings growth was only 24 percent. If the average cost of health insurance coverage for single workers were added to earnings for these workers, total compensation would be $21,724 in 1999 and $28,185 in 2006, an increase of almost 30 percent. This rate of increase clearly is much closer to the rate of earnings growth of much higher-percentile workers (e.g. at the 95th, 97th, and 98th percentiles) and would go a long

[3] Yet another related measure is the ratio of the average to the median; it increased from 1.50 in 1999 to 1.53 in 2006, another indication of some increasing inequality in earnings.

way to explaining the increase in observed earnings inequality from 1999 to 2006.

Consider another, more direct, illustration from the BLS data of how the cost of health insurance may impact middle-income workers to a greater extent than upper-income workers. In 2006, workers in public elementary and secondary schools were paid $29.80 per hour and their health insurance cost $4.37 per hour, or 11.3 percent of compensation, while management workers in private industry were paid $41.43 per hour and their health insurance cost $3.05 per hour, or 6.1 percent of compensation. Even if the rate of growth in compensation was equal across these different job types and earnings levels, a higher rate of health care cost growth would mean that the higher-paid worker, the manager in private industry, would have more rapid growth in earnings than the middle-income worker, the schoolteacher.[4]

III. Literature Review

In 2008, I presented in a research paper a simple model of the distribution of compensation, earnings, and the cost of health insurance across workers. I fit the model parameters to actual experience and data on growth and inequality in wages and on the growth in health insurance costs from 1998 to 2007. My research found that the increase in health insurance costs could explain the entire increase in earnings inequality over the period.

Nyce and Schieber (2011) examine this hypothesis more carefully, using data from the Current Population Survey (CPS) from 1980 through 2009 on full-time worker's pay and benefit plan coverage. They find that for the 1980s and 1990s, wages grew considerably faster at the top earnings deciles than at lower earnings levels. For 2000-2009, the lowest deciles had faster wage growth than the middle deciles, but had increases that were comparable to the top deciles, a result not entirely consistent with the Social Security data reported earlier. When Nyce and Schieber add the cost of benefit plans (both retirement and health), they find that compensation growth was higher overall and smoother across earning deciles and across time periods, except for in the 1980s, when the upper deciles still had much bigger increases, and in the 1990s, when the top decile had a big increase.

Decomposing the benefits segments, Nyce and Schieber discovered that social insurance costs increased disproportionately for the upper deciles in the 1980s and 1990s, as payroll tax rates and bases were then raised. Increases in retirement costs hit all deciles in 2000-2009, but funding holidays and restrictions subtracted more from the lower-paid in earlier decades. Increases in health care costs added considerably to compensation growth for lower-paid workers in the 1990s, but less so for upper-income workers; it added most to the middle of the earnings distribution in the 1980s and to the middle and upper end of the distribution in 2000-2009. So the evidence produced by Nyce and Schieber is mixed but somewhat supportive of the hypothesis of this paper, namely that the rapid growth in health care costs is the underlying cause of the increase in earnings inequality.[5]

Pierce (2008) uses BLS data from the ECEC to look at trends in compensation inequality more directly, at the job, but not worker, level. (The ECEC is a survey of employers about civilian, nonfederal job positions, both part time and full time, rather than a survey of actual workers.) In particular, Pierce compares the wage distribution to the distribution of employer costs, including the costs of health and retirement plans and paid leave, from 1987 to 2007. He found that wage compression occurred in the bottom half of the wage distribution, especially over the 1987-1997 decade, while wage growth was highest in the upper percentiles during this entire period. Health insurance costs rose substantially, especially over the 1997-2007 period, and especially in jobs with wages near the median. Pierce ascribes the lack of growth of health insurance costs in the lower percentiles to a decline in worker enrollment, perhaps as public sources of insurance coverage expanded, rather than to a decline in employer offer rates. By contrast, rising pension costs in the last decade, which, as we noted above, are temporary, added to compensation in above-median wage jobs.

So the evidence in Pierce, both on wages and health insurance costs, is broadly consistent with this paper's data and hypothesis (As further supportive evidence from the structure of compensation, Pierce finds that in any year, the health share in compensation increases through the 35th percentile of the compensation distribution, presumably reflecting movement from part-time to full-time jobs; stays flat from the 35th to the 60th percentiles; and then declines—rapidly after the 90th percentile).

Burkhauser and Simon (2010) use CPS data for 1995 through 2008 to investigate the impact of the value of health insurance received by households on the level and distribution of economic well-being. They include both employer- and government-provided health insurance values in their calculations for individuals in households of various ages and income levels.[6] Using traditional measures of income, Burkhauser and Simon find that inflation-adjusted growth was fairly even across deciles from 1995 to 2008, except for the lowest decile, in which growth lagged behind the others. When the value of health insurance is added, however, the bottom three income deciles actually show higher growth than the other deciles.

Focusing on working-age individuals (25 to 61), the same result is found, but even more starkly. Whereas inflation-adjusted income grew 1.9 percent for the first decile and 10.5 percent for the top decile, when the value of health insurance is added, it grew 12.3 percent for the first decile and 11.7 percent for the top decile.

[4] According to a study by the Kaiser Foundation (2008) using BLS data, the percentage increases in the health insurance cost share from 1999 to 2005 were larger for low-compensation occupations than for high-compensation jobs; see Figure 8 there.

[5] Nyce and Schieber had to make many assumptions and imputations of benefit costs across the earnings distribution and removed the top 1 percent of workers, so the evidence produced is suggestive but still not direct.

[6] Like Nyce and Schieber, Burkhauser and Simon make imputations of the value of employer-provided health insurance from a source other than the CPS itself; Burkhauser and Simon's data source, the Medical Expenditure Panel Survey Insurance Component, however, is quite disaggregated, including state and employer size that is then matched with the CPS.

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Table 1. Wage Shares of Tax-Paying Units, 1970-2006
In Percent

Percentiles	90-100	90-95	95-99	99-100	99.5-100	99.9-100
1970	25.67	10.03	10.51	5.13	3.21	1.06
1983	29.09	10.59	11.54	6.96	4.66	1.08
1999	35.18	10.63	12.89	11.67	8.73	4.68
2006	35.06	10.50	12.84	11.73	8.77	4.66

Source: Table B2, Top Wage Income Shares, 1927-2008, web update of Thomas Piketty and Emmanual Saez, "Income Inequality in the United States, 1913-1998," *The Quarterly Journal of Economics*, Vol. 118(1), February 2003, pp. 1-39. A BNA Graphic/pen205g1

Burkhauser and Simon also calculate the Gini coefficients, a measure of inequality in a distribution, where 0 means complete equality and 1 means complete inequality. From 1999 to 2006, the Gini coefficient increased from 0.4267 to 0.4380 for the simple income measure, but increased at half that rate, from 0.4147 to 0.4205, for the total income measure, which includes the value of health insurance coverage. In regression analysis, Burkhauser and Simon find a positive trend in income inequality when the value of health insurance is not considered, but a reversal of that trend when the value of health insurance is included.[7]

The Congressional Budget Office (CBO) (2011) has recently completed recently an analysis of income inequality at the household level over the period 1979 to 2007. Its main sources of data on household income (after taxes and after transfers, on an inflation-adjusted basis) were a sample of individual income tax returns, matched to the CPS. The CBO finds that income grew by 275 percent for the top percentile, by 65 percent for the 81st through 99th percentiles, by 40 percent for 21st through 80th percentiles, and by 18 percent for the bottom quintile. In terms of income shares, the top percentile increased from 8 percent in 1979 to 17 percent in 2007, the top quintile increased from 43 to 53 percent, and the other quintiles lost 2 to 3 percentage points.

The CBO attributes this increased concentration to all sources of income, including labor and business income—income sources comparable to those tallied by SSA. The CBO also examines the impact of rising health care costs on rising inequality and finds that the direction of influence is the same as is seen in this paper. The CBO uses data from the Census Bureau, which matched the CPS to some old (1977) survey data on health care spending and coverage, and indeed finds that including health insurance in income reduces measured income inequality and the measured increase in inequality between 1979 and 2007. It noted that employer-sponsored health insurance especially lifted proportionately the income of the middle of the income distribution. CBO did not report, however, the impact of the cost of health insurance on measured income growth, as this paper will do below.

[7] Gokhale (2010, pp. 175-6) gives an alternative explanation of the historical increase in earnings inequality—the impact of the aging of the baby boom generation, that is, the transition of the baby boom generation into the ages of highest life cycle earnings during the 1970s, 1980s, and 1990s.

IV. Changes in Earnings, Compensation, Health Insurance by Earnings Percentiles

BLS provided this author with unpublished data on benefit costs by earnings percentiles from the March 1999 and March 2006 ECEC. The data included hourly earnings, paid leave, and employer costs of insurance and retirement and savings by selected earnings percentiles. The statistics are summarized in Table 6, highlighting the cost of health insurance as a share of compensation. The distribution begins at the 30th percentile, as in the reporting of the SSA statistics, to exclude part-time, young or semi-retired workers.

In 1999, looking across the earnings distribution, the health share was highest at the 40th earnings percentiles, at 8 percent, and remained in the range of 7 percent before it fell at the 90th percentile and beyond. In 2006, the health share increased notably, with a doubling of the cost of health insurance, for all earnings percentiles except the highest (99th). The share was highest at the 30th earnings percentile, at 12.2 percent, and was also high at the 60th percentile, at 11.1 percent, but then fell steadily to 7 percent at the 95th percentile.

As explained above, this characteristic—high rates of growth in a significant component of compensation that is also fairly evenly distributed—will lead naturally to differential rates of growth in earnings (which excludes the cost of health insurance) but much closer and more consistent rates of growth in compensation (which includes the cost of health insurance) across the distribution of earnings. That is indeed exactly found in the BLS data—earnings growth over 1999-2006 increases from around 27 percent in the 30th to 60th percentiles to as high as 35 percent in the 99th percentile (a quite similar pattern is found in the SSA data), but compensation growth is much more evenly distributed, with some bumps across earnings percentiles, at around 35 percent.

This is strong evidence, particularly when combined with the statistics and studies cited in the prior sections of this paper, for the hypothesis that much of the observed recent increase in earnings inequality can be explained by the rapid increase in the cost of health insurance employee benefits, and that there, therefore, has not been a significant increase, if any, in compensation inequality. Moreover, because the rapid increase in the cost of health insurance is a prominent long-run feature of the economic environment for the past 50 years, it

likely has played an important role in the longer-term trends in earnings inequality as well.

V. Discussion and Implications

Inequality in the distribution of income and earnings currently plays an important role in political discussions, policy formulation, and public attitudes. In the United States, although generally the focus has been on equality of economic opportunities rather than on equality of outcomes, the latter becomes more salient in troubled, slow-growth times. In the academic literature, for example, in Piketty and Saez (2003), there is a narrative focus on the rising pay of corporate executives, rather than on the rising incomes of stars such as athletes and actors, and of professionals, such as surgeons and litigators. This focus may relate to the thought that pay within large economic organizations should have some internal equity; it also may be caused simply by the availability of publicly disclosed information about corporate compensation packages.

In any case, there are several recent examples in which rising earnings and income inequality have influenced policy proposals and legislative outcomes. In the 2010 budget document presented in February 2009 by the then-incoming Obama administration, the increasing income share of the top percentile of earners from 1980 through 2008 was shown prominently as a graph, attributed to Picketty and Saez. The budget document ascribes the cause of increasing inequality to ''technological advances and growing global competition,'' and then says, ''Yet, instead of using the tax code to lessen these increasing wage disparities, changes in the tax code over the past eight years exacerbated them.'' (2010 Budget of the Obama Administration, p.9.)

Therefore, acting on this view, the administration has consistently proposed letting the 2003 tax cuts for upper-income earners (defined as $200,000 for single taxpayers and $250,000 for joint filers) expire, and to limit the deductions and credits that may be taken by these earners. These proposals have not been enacted. In the health care reform legislation of 2010, however, an extra 0.9 percent payroll tax was placed on earnings in excess of $200,000/$250,000 of the taxpaying unit, and unearned income became subject to an extra 3.8 percent tax. These earnings triggers are not indexed for inflation and are being used to finance the expansion of health care subsidies mainly to lower-income workers. The overall mechanism is clearly intended to lessen income inequality.

Indeed, as I predicted in my 2008 paper, the essence of health care reform legislation itself may be considered a reaction to the observed increases in earnings inequality. Among the major features of the new law are new health insurance premium subsidies to low- and middle-income workers not covered by employer plans, and expanded eligibility for Medicaid. Burkhauser and Simon (2010) estimate that including the expansionary health insurance policies in their measures will increase full income in 2008 dollars by 8.3 percent in the lowest decile, 4.3 percent in the second decile, 3.08 percent in the third decile, 1.51 percent in the fourth decile, and 0.75 percent in the fifth decile, but by negligible amounts above that. The Gini coefficient value would be reduced from .3982 to .3918, at 2008 levels. This reduction is about half of the increase in inequality in observed income from 1995 to 2008.

Another area of public policy in which the issue of income inequality enters is Social Security reform. In 2010, two bipartisan deficit reduction commissions recommended, along with other provisions reducing scheduled benefits, that the maximum level of earnings taxable at the Social Security payroll tax rate (12.4 percent) be raised from $106,800 currently (in 2011) to about $200,000 (in today's dollars) ultimately.

The motivation for the proposal is to have Social Security be financed by 90 percent of total wages; this has been deemed a policy goal, presumably on fairness grounds. As my testimony in 2011 to the House Ways and Means Subcommittee on Social Security showed, this increase would mean that about 99 percent of workers would have all of their wages taxed by Social Security, as opposed to the historical norm of 94 percent of workers. Moreover, according to SSA statistics, the workers in the earnings range of $106,800 to $200,000 in 2009 actually saw their share of total wages decline slightly from 1990, while workers in the top fractiles got big increases in earnings over that time period. Even over the shorter period 1999 to 2006 shown in tables 2 and 3, workers with earnings above the 95th percentile but below the 99th percentile threshold got relatively small increases in earnings shares compared with the top percentile and fractiles.

In any case, this and the other proposals and legislated policies apparently do not consider a more relevant measure of well-being and economic capacity—total compensation and the trends pertaining thereto. As discussed earlier, this measure of inequality has not worsened. Even assuming that earnings, and not compensation, inequality is the most relevant policy measure, the empirical results in this paper indicate that the most effective policy tool to use in response would be to slow the rate of growth of health care costs in the economy. Slowing the growth in health care costs is admittedly a challenging structural problem, but that just argues for still more analysis, experiments, and effort there, as opposed to just treating the symptoms of the problem. This is particularly so if some of the symptom treatments, such as tax increases and entitlement boosts, have negative consequences, such as discouraging work effort and lowering economic growth.

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Table 2. Earnings Inequality 1999 and 2006

	1999			2006			1999-2006 Growth
Total Wages & SEI	$4.573T			$6.156T			34.60%
CPI-U	166.6			201.6			21.00%
N	153.583M			162.404M			5.70%
Mean Earnings	$29,775			$37,905			27.30%
AWI	$30,470			$38,651			26.80%
Tax Max	$72,600			$94,200			29.80%
Earning Percentiles	**Estimated Annual Earnings Thresholds**	**Earnings Share**	**Ratio to "Median"**	**Estimated Annual Earnings Thresholds**	**Earnings Share**	**Ratio to "Median"**	**1999-2006 Earnings Growth**
30%	$9,936	0.04175	0.344	$12,244	0.04167	0.341	23.20%
40%	14,713	0.08306	0.509	18,173	0.08054	0.506	23.50%
50%	19,846	0.14089	0.687	24,570	0.13607	0.684	23.80%
60%	25,611	0.22165	0.887	31,837	0.21165	0.886	24.30%
65%	28,882	0.26278	1.000	35,926	0.25691	1.000	24.40%
70%	32,574	0.31500	1.128	40,564	0.30724	1.129	24.50%
75%	36,807	0.37347	1.274	46,062	0.36337	1.282	25.10%
80%	41,959	0.43873	1.453	52,883	0.42713	1.472	26.00%
85%	48,738	0.51328	1.687	62,015	0.49797	1.726	27.20%
90%	58,972	0.60270	2.042	75,668	0.59261	2.106	28.30%
95%	79,778	0.71622	2.762	103,619	0.70730	2.884	29.90%
97%	100,666	0.77603	3.485	130,915	0.76824	3.644	30.10%
97.50%	109,700	0.79345	3.798	142,912	0.78617	3.978	30.30%
98%	122,734	0.81292	4.249	159,611	0.80602	4.443	30.10%
98.50%	142,459	0.83501	4.932	185,362	0.82868	5.160	30.10%
99%	176,362	0.86147	6.106	230,579	0.85579	6.418	30.70%
99.50%	256,902	0.89662	8.895	340,514	0.89211	9.478	32.50%
99.60%	290,822	0.90577	10.069	386,470	0.90166	10.757	32.90%
99.70%	340,841	0.91631	11.801	454,234	0.91267	12.644	33.30%
99.80%	426,402	0.92904	14.764	569,288	0.92602	15.846	33.50%
99.85%	500,524	0.93678	17.330	670,423	0.93414	18.661	33.90%
99.90%	628,860	0.94613	21.773	847,154	0.94402	23.581	34.70%
99.95%	948,601	0.95886	32.844	1,283,174	0.95751	35.717	35.30%
99.975%	1,470,990	0.96858	50.931	1,972,183	0.96780	54.896	34.10%
99.980%	1,703,933	0.97125	58.996	2,260,243	0.97058	62.914	32.60%
99.990%	2,706,921	0.97831	93.723	3,493,709	0.97782	97.247	29.10%
99.9950%	4,336,335	0.98396	150.140	5,427,563	0.98345	151.076	25.20%
99.9975%	6,661,059	0.98841	230.630	8,252,253	0.98780	229.701	23.90%
99.9990%	10,671,910	0.99268	369.500	14,483,685	0.99202	403.153	35.70%
99.9995%	15,788,635	0.99479	546.660	21,933,011	0.99448	610.505	38.90%

Source: Mark J. Warshawsky - calculations based on unpublished Social Security Administration data.

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Table 3. Earnings Share of Workers and the Self-Employed, 1999 and 2006

In Percent

Percentiles	90-100	90-95	95-99	99-100	99.5-100	99.9-100
1999	39.730	11.352	14.525	13.853	10.338	5.387
2006	40.739	11.469	14.849	14.421	10.789	5.598

Source: Mark J. Warshawsky - calculations based on unpublished Social Security Administration data.

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Picketty, Thomas, and Emmanuel Saez, ''Income Inequality in the United States, 1913-1998,'' *Quarterly Journal of Economics*, February 2003, pp. 1-39.

Schieber, Sylvester, and Steven Nyce, ''Treating Our Ills and Killing Our Prospects,'' Towers Watson Technical Paper, Aug. 3, 2011.

Table 4. Average Compensation per Hour for all Civilian Workers, 1999 and 2006

Dollar Value and Share of Compensation in Percent

	March 1999		March 2006	
		Share of Compensation		*Share of Compensation*
Earnings	$16.57	81.6%	$21.37	79.6%
Wages	14.72	72.5%	18.82	70.1%
Paid Leave	1.34	6.6%	1.88	7.0%
Supplemental Pay	0.51	2.5%	0.67	2.5%
Benefits	$3.73	18.4%	$5.50	20.4%
Health Insurance	1.18	5.8%	2.05	7.6%
Retirement	0.76	3.7%	1.15	4.3%
Legally Required*	1.65	8.1%	2.16	8.0%
Other**	0.14	0.7%	0.14	0.5%
Total Compensation	$20.29	100%	$26.86	100%

*Employer payments to Social Security, Medicare, unemployment insurance and worker's compensation insurance.
**Life and disability insurance

Source: Bureau of Labor Statistics, Survey of Employer Cost of Employee Compensation. A BNA Graphic/pen205g4

Table 5. Average Employer Cost of Health Insurance Coverage for Workers

	Single	Family
1999	**$1,878**	**$4,247**
2006	**$3,615**	**$8,508**
Growth Rate	**92.5%**	**100.3%**

Source: Kaiser Foundation Employer Health Benefits Annual Surveys. A BNA Graphic/pen205g5

Warshawsky, Mark, ''The Effects of Rising Health Cost on Salaries and Income Inequality,'' *Watson Wyatt Insider*, May 2008.

Warshawsky, Mark, ''An Evaluation of the Proposal to Raise the Social Security Taxable Maximum,'' Testimony presented to the House Committee on Ways and Means, Subcommittee on Social Security, June 23, 2011.

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Table 6. Employer Costs per Hour Worked for Employee Compensation, Selected Components: Civilian Workers by Selected Earnings Percentiles, March 1999 and March 2006

	1999				2006				1999-2006	
Earnings[1] Percentile	Total Earnings[2]	Total Compensation[3]	Health Insurance	Health Share of Compensation	Total Earnings	Total Compensation	Health Insurance	Health Share of Compensation	Earnings Growth	Compensation Growth
30	$9.14	$10.07	$0.62	6.16%	$11.67	$14.21	$1.73	12.17%	27.70%	41.10%
40	$10.87	$12.33	$0.99	8.03%	$13.64	$15.78	$1.56	9.89%	25.50%	28.00%
50	$12.82	$14.34	$1.03	7.18%	$16.31	$19.15	$2.00	10.44%	27.20%	33.50%
60	$15.32	$17.13	$1.16	6.77%	$19.49	$23.21	$2.57	11.07%	27.20%	35.50%
70	$18.67	$21.32	$1.56	7.32%	$23.92	$28.50	$2.74	9.61%	28.10%	33.70%
80	$23.09	$26.27	$1.78	6.78%	$30.12	$35.61	$3.01	8.45%	30.40%	35.60%
90	$30.14	$34.58	$2.25	6.51%	$39.35	$46.07	$3.36	7.29%	30.60%	33.20%
95	$37.54	$42.47	$2.34	5.51%	$50.15	$58.40	$4.15	7.11%	33.60%	37.50%
99	$54.26	$59.51	$2.39	4.02%	$73.03	$80.82	$3.44	4.26%	34.60%	35.80%

[1] Percentiles based on wages and salaries plus supplemental pay (overtime and premium pay, shift differentials and nonproduction bonuses).

[2] Includes wages and salaries plus supplemental pay with paid leave added.

[3] Includes all insurance (health, life, disability) and retirement and savings; legally required benefits excluded.

Source: Mark J. Warshawsky - calculations based on unpublished Bureau of Labor Statistics data, National Compensation Survey.

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