RESEARCH SUMMARY

Effects of Employer-Sponsored Health Insurance Costs on Social Security Taxable Wages

by Gary Burtless and Sveta Milusheva*

The increasing cost of employer contributions for employee health insurance reduces the share of compensation subject to the Social Security payroll tax. Rising insurance contributions can also have a more subtle effect on the Social Security tax base because they influence the distribution of money wages above and below the taxable maximum amount. This article uses the Medical Expenditure Panel Survey to analyze trends in employer health insurance contributions and the distribution of those costs up and down the wage distribution. Our analysis shows that employer health insurance contributions increased faster than overall compensation during 1996–2008, but such contributions grew only slightly faster among workers earning less than the taxable maximum than they did among those earning more. Because employer health insurance contributions represent a much higher percentage of compensation below the taxable maximum, health insurance cost trends exerted a disproportionate downward pressure on money wages below the taxable maximum.

Introduction

The increasing cost of employer contributions for employee health insurance reduces the percentage of labor compensation that is subject to the Social Security payroll tax. Rising health insurance contributions also have a more subtle effect on Social Security because they influence the distribution of money wages and the percentage of wages below the "taxable maximum," the earnings level at which the payroll tax is capped. Workers bear most of the burden of employer health insurance contributions through lower money wages, which implies that the distribution of money wages is directly affected by the distribution of employer health insurance contributions across wage levels. Any change in the average cost and in the wage-level distribution of the costs of employer-sponsored health insurance (ESHI) can affect both the distribution of wages and the percentage of wages subject to the payroll tax.

The tax base for the Social Security program consists of money wages and net self-employment income; in particular, earned incomes below an annual maximum taxable amount. Other components of compensation, including employer contributions for social insurance, private pensions, and employee health and other insurance benefits, are excluded from the tax base. Relative to total compensation, employer contributions for both private pensions and social insurance have declined since reaching peaks in 1980 and 1994, respectively. Contributions for

Selected Abbreviations

ACA	Affordable Care Act
CBO	Congressional Budget Office
CHIP	Children's Health Insurance Program
ESHI	employer-sponsored health insurance
MEPS	Medical Expenditure Panel Survey
NIPA	national income and product accounts
OASDI	Old-Age, Survivors, and Disability Insurance

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health insurance, however, have continued to rise, climbing from 3.7 percent of compensation in 1980 to more than 7.0 percent of compensation in 2010 (BEA 2012). As a result, the ratio of money earnings to total compensation reached an all-time low in 2009 and 2010.

The fraction of money earnings subject to Social Security taxes is also affected by the distribution of wages. With growing income inequality, the percentage of money wages above the taxable maximum increases, reducing the effective tax rate on aggregate wages. Earnings below the taxable maximum accounted for about 90 percent of total earnings in 1983; growing inequality reduced that share to 83 percent in 2006 (SSA 2007, 81). If employer contributions for health insurance were fully reflected as lower money wages, the rising cost of health insurance could, in principle, contribute to rising inequality. Most employer health plans cost as much for highly paid employees as they do for those earning a much lower wage, as long as the expected health reimbursement costs for both groups are approximately the same. When employer health insurance contributions per employee increase faster than average money wages, as has occurred for the past four decades, the effect in proportional terms can be greater for low-wage than for high-wage workers. The cost of the health plan represents a much larger share of the compensation for insured low-wage workers than for high-wage workers.

Of course, many workers are not covered by ESHI, and lack of coverage is particularly common among low-wage workers. Nonetheless, the rising cost of health insurance has an undeniable effect on the share of compensation subject to Social Security taxes and, because of the possible influence of earnings inequality, it may also reduce the fraction of aggregate money wages that falls below the taxable maximum amount. By changing employers' incentives to offer health plans and workers' incentives to participate in them, health insurance reform under the Patient Protection and Affordable Care Act (or simply the Affordable Care Act, ACA) of 2010, Public Law 111-148, may cause either the cost of employer-sponsored plans or the distribution of those costs across wage levels to shift. Either of those shifts can affect the percentage of compensation subject to Social Security taxes. This article estimates the effect of rising ESHI contributions on wage inequality and on the ratio of money wages to total compensation, and assesses how health insurance reform will affect those trends by changing health insurance costs and coverage rates.

We find that the combination of rising employer costs of providing health insurance and rising wage inequality significantly reduced the percentage of compensation subject to the Social Security tax during the period we analyzed. In a stylized model that tracks observed trends in employer health insurance contributions per worker and wage growth above and below the taxable earnings ceiling, we find that from 1996 to 2008, the proportion of compensation that consists of money wages fell 1.2 percent. In the same span, the proportion of compensation that consists of money wages subject to Social Security taxes fell 3.1 percent. Those declines were caused by the complicated interaction between rising health care costs, which in absolute terms are similar for workers above and below the taxable wage ceiling, and growing inequality in wages and compensation, which causes ESHI cost increases to have a much bigger proportional impact on wages below the taxable maximum. Our simulation suggests that from 1996 to 2008, rising employer health insurance costs for workers *below* the taxable wage ceiling caused the ratio of money wages to compensation to fall 1.8 percent. As a result, the share of total compensation paid to those workers that was taxed for Social Security also fell 1.8 percent. Among workers with wages *above* the wage ceiling, however, the growth in employer health insurance costs caused the proportion of compensation paid as wages to decline only 0.2 percent. The combined effect of increased wage inequality and rising employer costs of providing health insurance caused the share of compensation subject to Social Security taxes to fall 5.7 percent among high-wage workers. The ratio of taxable money wages to total compensation for all workers declined by 3.1 percent. Thus, the interaction between rising health insurance costs and growing wage inequality has produced notable erosion in the Social Security taxable wage base.

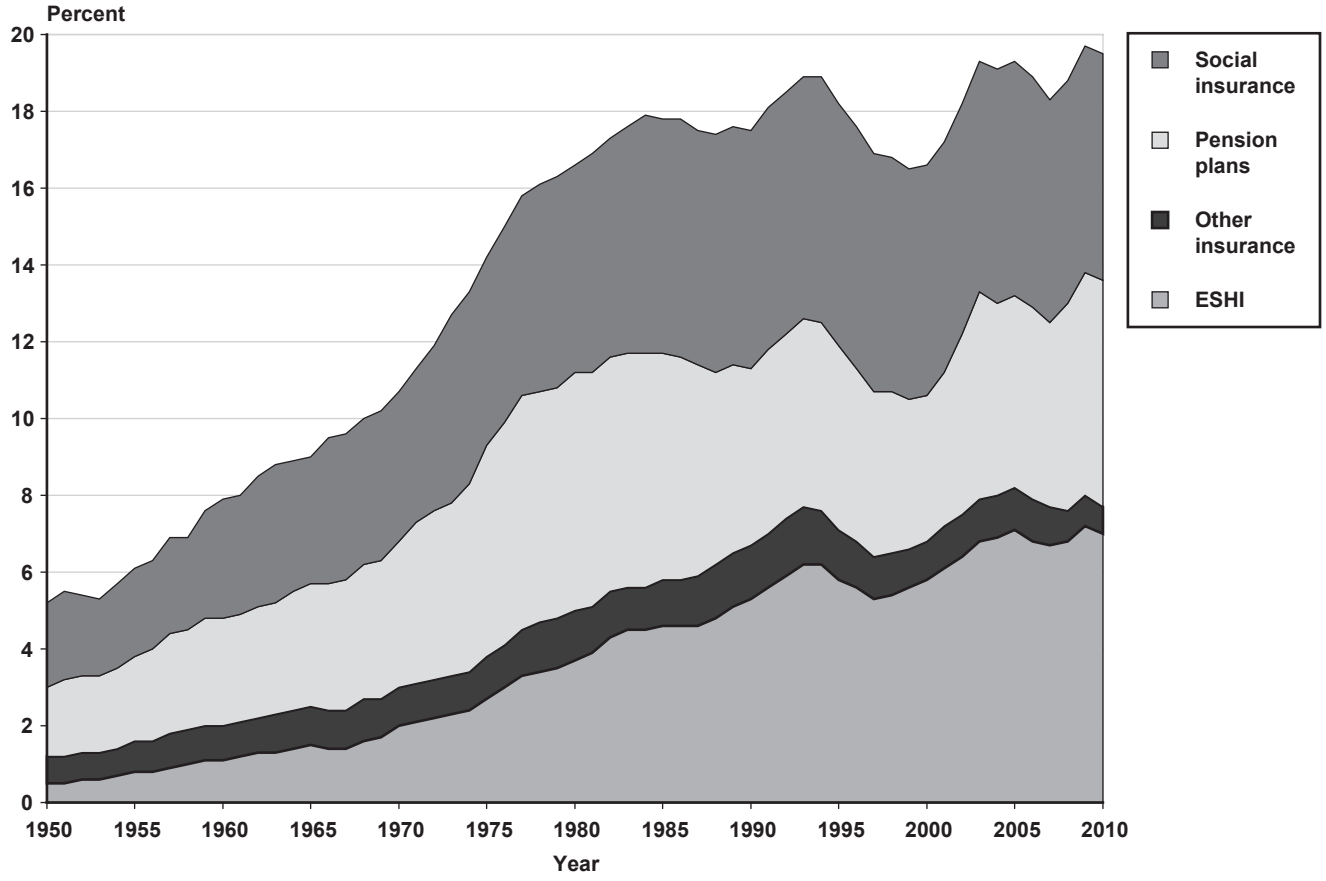
Our analysis of the ACA's impact on taxable earnings focuses on estimated changes in employer costs of providing health insurance that will occur as many workers change their source of coverage. Some previously uncovered workers will receive coverage from employers who are now induced to offer a health plan. Some workers previously insured by their employers' plans will switch to publicly subsidized plans that may be cheaper or provide more

comprehensive benefits. The first kind of change in coverage boosts employer costs of providing health insurance and is likely to lead to lower money wages. The second reduces employer costs and will likely result in higher money wages. Although many workers will change their coverage status or source, we find that the net effect of health insurance reform on the ratio of Social Security–taxed wages to total employee compensation is likely to be modest. Coverage changes that boost employer costs will probably be somewhat less costly to employers than changes that shift the burden of subsidizing insurance coverage from employers to the government. The main impact of health insurance reform on the share of worker compensation that is subject to Social Security taxes is likely to occur through a different channel, one that we do not analyze here. If reform affects the trend in health insurance costs—in particular, if it reduces the gap between the rates of growth in health insurance spending per person and in wages—the erosion of the Social Security tax base will slow down noticeably.

Background

The Social Security payroll tax is imposed on wage and salary income in jobs covered by the program and on net self-employment income. Wage and salary workers and their employers do not pay the Social Security tax on most supplements to money wages, which include employer contributions for purposes such as health and other group insurance plan premiums, social insurance, and worker retirement plans. If paid under a qualified cafeteria plan, the employee's share of the health insurance premium is also excluded from the Social Security tax base (Mulvey 2012). Over the past six decades, those forms of wage supplementation became increasingly important (Chart 1). Whereas nonwage components represented 5 percent of total compensation in 1950, they accounted for almost 20 percent of compensation by 2010. Most

Chart 1.
Employer nonwage contributions as percentages of employee compensation, by type, 1950–2010

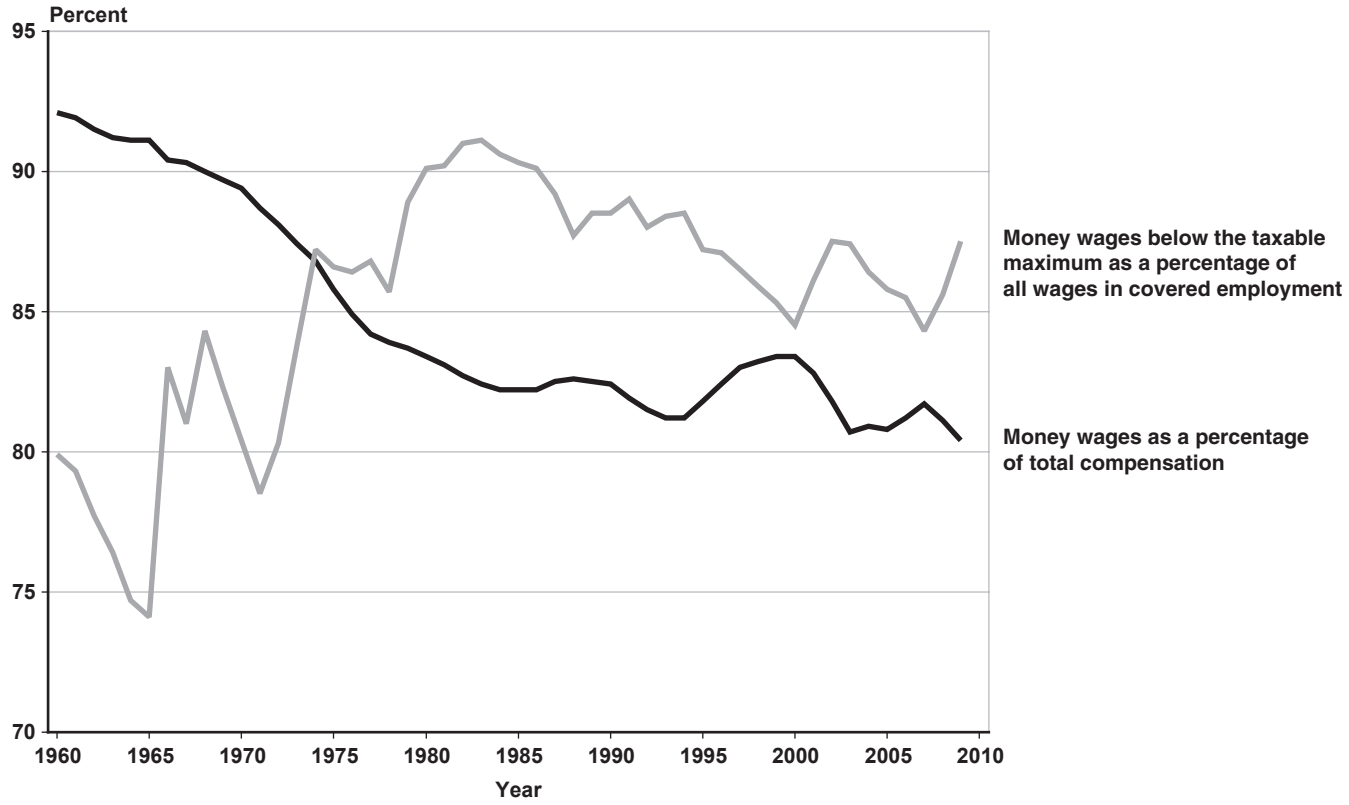


SOURCE: BEA (2012).

forms of nonwage compensation stabilized or even declined after reaching a peak sometime between 1975 and 1995. Employer contributions for employee health plans depart from that pattern; they have continued to increase, as a proportion of both wages and total compensation. From 1980 to 2010, the share of compensation paid as money wages fell 3.0 percentage points, while the share paid as employer contributions to employee health plans increased 3.3 percentage points. Thus, the entire decline in the money-wage share of compensation occurred because of the rapid growth in employer health insurance outlays. In fact, the growth in the health-insurance share was bigger than the decline in the money-wage share, causing slight declines in other component shares as well.

The increase in nonwage compensation is not the only development affecting the share of employee earnings subject to Social Security taxes. Two other important factors are the fraction of wage and salary employment covered by the Social Security program and the distribution of covered wages and self-employment income above and below the Social Security taxable maximum. In most of the postwar period, expansions in Social Security coverage typically increased the share of US wages that were subject to Social Security taxes, but in the past decade the percentage of wages covered by the program has edged down slightly. The percentage of covered earnings that are actually taxed has been more variable, however. In 2005, the maximum annual earnings subject to the Social Security payroll tax were $90,000. Data from W-2 wage reporting forms show that 94.1 percent of wage earners had annual earnings up to that amount. However, the 5.9 percent of workers earning more than the taxable maximum earned 30.0 percent of all reported wages, and nearly one-half of the wages they earned were above the taxable cap. As wages have grown more unequal, a rising percentage of covered earnings has exceeded the taxable maximum. The untaxed proportion of earnings is somewhat cyclical, because the wages of very high earners tend to be sensitive to the state of the economy (Chart 2).

Chart 2.
Underlying indicators of the proportion of total compensation subject to Social Security taxes, 1960–2009



SOURCE: BEA (2012); SSA (2009).

Most labor economists believe that in the long run, much or all of the burden of employer costs for fringe benefits falls on workers (Blumberg 1999; Gruber 2000; Jensen and Morrisey 2001). If employers are largely indifferent about the composition of pay they offer workers, the elements of the compensation package will be determined by legal requirements and workers' preferences. American employers are obliged to make social insurance contributions for Social Security, Medicare, and unemployment compensation, but they are not currently required to provide health insurance or retirement benefits to their employees. Because workers are free to work for employers that do not provide those benefits, it is widely assumed that the nonmandatory benefits provided to employees must be worth approximately as much to the workers who receive them as the net pay they give up in order to obtain them. Employer-sponsored health and retirement benefits provide a substantial income tax advantage. Many workers may prefer to receive compensation in the form of untaxed health benefits or lightly taxed retirement benefits, rather than as fully taxed money wage payments. The tax preference has more value to workers with higher pay, which helps account for the strong positive correlation between average workplace earnings and an employer's offer of tax-preferred fringe benefits. A second consideration also makes ESHI attractive to workers: Insurance is substantially less costly when purchased for a group than for an individual. Adverse selection is less a problem for large predefined groups than for individual workers seeking insurance on their own. Moreover, insurers realize sizable administrative and marketing savings, enabling them to charge lower premiums in the group market than for individual health insurance.

Assuming that workers ultimately pay for employer-provided health benefits, how has the distribution of these benefits across earnings levels affected the level and distribution of Social Security taxable wages? To answer this question precisely would require a model of the determinants of the distribution of compensation and detailed evidence on the statistical relationship between wages and health benefits, both at the firm level and for workers across the compensation distribution. We do not develop such a model in this article. Instead, we analyze evidence on the distribution of employer costs of providing health insurance across wage levels over a 13-year span ending in 2008. Employer costs of providing health insurance grew much faster than money wages over that period. Provisions of employer health plans did not appear to grow more generous, but charges by health care providers increased much faster than either consumer prices or labor compensation. Assuming that increasing employer costs of providing health insurance replaced wage increases they would otherwise have given to their workers, we can use detailed information about employer costs and employee coverage to determine the distribution of those foregone wage increases. Those same distributional analyses can also shed light on whether the missing wage increases had a larger impact on actual wage gains below or above the Social Security taxable maximum.

Data

Our data are from the Medical Expenditure Panel Survey (MEPS), conducted by the Department of Health and Human Services' Agency for Healthcare Research and Quality. The MEPS comprises surveys of representative households; of the medical providers who supply services to those households; and of public and private employers, covering the types and cost of employee health insurance offered.[1] We base our detailed analysis of the distribution of employer health insurance costs on microdata contained in household survey files and on averaged results from the employer survey.

The MEPS household and provider surveys offer unusually comprehensive health care and health insurance information. In addition, the household survey provides information on household cash income and its components (including wages) for a nationally representative sample of the noninstitutionalized population. For purposes of estimating the distribution of health care consumption and payments in the employed population, the depth and quality of the information from the household and medical provider surveys are unparalleled. In combination, the surveys give detailed information on workers' insurance coverage for themselves and their dependents, their premium costs, their utilization of health care providers, the cost of medical goods and services that providers supply, and the costs and the payment sources for the care they and their dependents receive. Because the reports of household respondents are cross-checked against the responses of providers, the MEPS files provide much more accurate information about the cost and sources of payment for medical services than would be possible in a survey aimed solely at households.

The household survey collects information from a given sample (or panel) of families in five separate interviews that cover 2 calendar years. The analysis reported here is based on MEPS panels covering calendar years 1996 to 2008. The household survey gives us information on wage earnings, health spending, and insurance coverage and reimbursement for a total of about 161,000 worker observation years, or approximately 12,500 worker observations per year. The survey files also provide information on the health spending, insurance coverage, and reimbursement for the workers' dependents.[2]

Although the household and provider surveys give extensive information on the types of providers who supply medical care to sample members, we focus on the employer cost of providing their insurance. Provider survey data do not address employer costs and are not used in our analysis. Likewise, household survey data, vital for other aspects of our analysis, have important limitations for assessing the employer cost and value of plans covering the respondents. For example, although the employer survey obtains extensive cost data directly from employers, those data are not linked to individual workers or to households in the household survey. As a result, we do not know the cost to employers of paying health insurance premiums on behalf of individual household sample respondents. Additionally, the household data file includes information on payments from ESHI plans to reimburse providers and households for the cost of medical care. It does not, however, contain any information about employers' costs of managing their plans or paying third parties to manage them. Thus, an important component of respondents' health consumption—the cost of health insurance administrative services for workers in employer-sponsored plans—is missing from the household survey files.

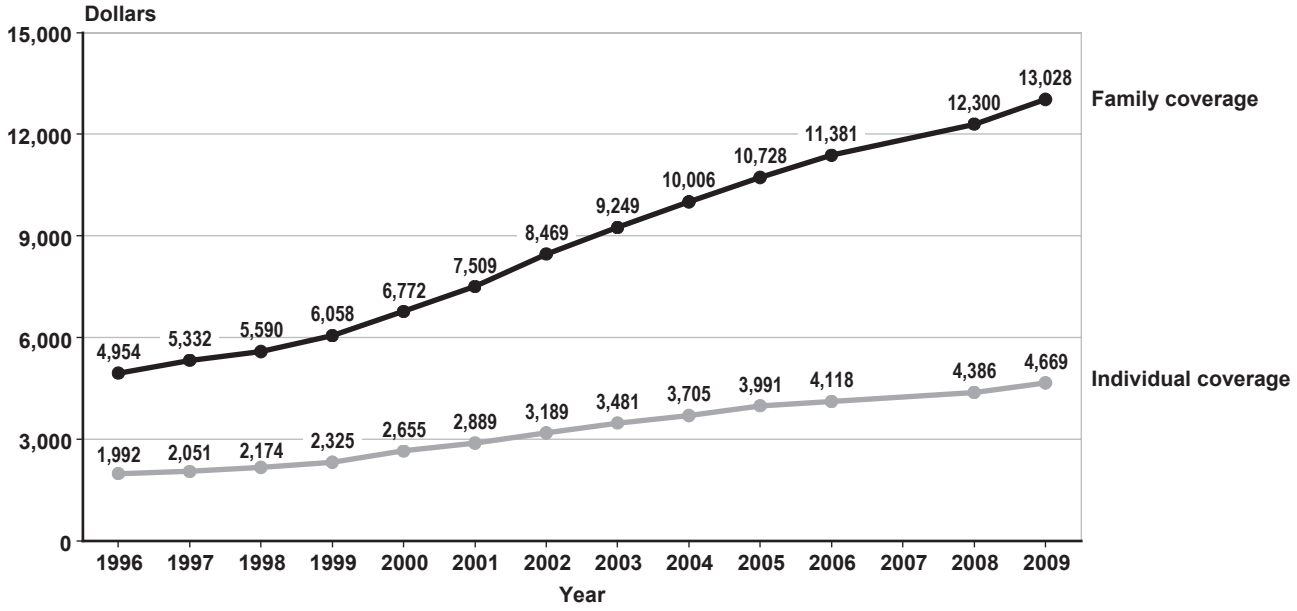
The employer survey provides much better information on employer insurance costs. Even though the information is not linked to the specific workers in the household survey, we can impute employer and employee premiums for workers in the household sample based on the averaged responses in the employer survey. We performed this imputation by dividing employer-insured workers in the household sample into 10 groups based on their industry of employment (9 standard private industry groups and government). Employees of private firms were subdivided into those working in establishments with fewer than 50 employees and those with 50 or more. The national average ESHI premium amounts within those categories, as determined in the employer survey, were then imputed for household survey respondents.[3] From 1996 through 2000, the employer survey provided data on premiums for individual employee coverage and for coverage under a family plan. For 2001–2006 and 2008, the employer survey provided additional detail on family premiums, enabling us to impute the premium payments for individual plans, plans covering the employee plus one dependent, and plans covering the employee plus two or more dependents. No MEPS employer survey was conducted in 2007, so we imputed employer and employee premiums based on the average of values within each category as reported in the 2006 and 2008 surveys.

Employer Costs of Providing Health Insurance and Employee Wages

Chart 3 shows estimated average premium costs for coverage of families and individual employees in private-sector ESHI plans, based on MEPS employer survey data (Crimmel 2009a, 2009b). From 1996 through 2009, the estimated average cost of a family plan increased at an annual compound rate of 7.7 percent, while the cost of individual plans increased 6.8 percent a year. By comparison, average earnings increased 3.5 percent a year and consumer prices increased 2.4 percent a year during that period.[4] Total premium costs are split between employers and employees. The employer survey shows little change in the percentage of the total premium cost of a family plan that is borne by employers. From 1996 through 2009, employers on average paid close to three-quarters of the total cost of health insurance premiums for a family plan (not shown). By contrast, the percentage of premiums paid by employers for individual plans shows a modest decline. In 1996–1997, employers covered 84 percent of the total cost of an individual plan premium; in 2008–2009, they paid 80 percent of the cost.

The cost of providing health insurance to employees depends not only on premiums but also on the proportions of workers who take the insurance offer and who enroll in individual versus family coverage. To determine the impact of health insurance costs on the distribution of compensation, we examine the important link between workers' wage levels and ESHI offer and take-up rates. Chart 4 shows evidence of this link.[5] The left-hand panel shows the percentage of wage and salary workers in each wage decile whose employers offer health insurance. Note that some

Chart 3.
Average private-sector ESHI premiums for individual and family coverage, 1996–2009 (in current dollars)



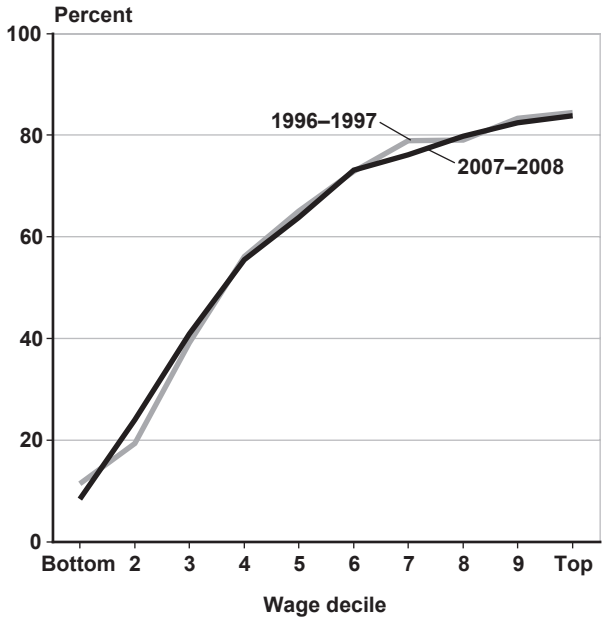
SOURCE: MEPS employer survey files.

NOTE: MEPS data not available for 2007.

Chart 4.
ESHI offer and participation rates by wage decile, 1996–1997 and 2007–2008

Percent of workers offered ESHI coverage

Percent of workers enrolled in an ESHI plan[a]



SOURCE: Authors' calculations based on MEPS household survey files.

a. Enrolled in either an individual or family plan as the principal insured person.

workers who are not offered health insurance by their own employers may obtain employer-sponsored insurance as a dependent under a spouse's or other family member's plan; nonetheless, we classify those workers as "not offered" an employer-sponsored plan.

The data cover offer rates at the start of the analysis period, in 1996–1997, and at the end, in 2007–2008. Perhaps surprisingly, the overall offer rate increased slightly over the period. In 1996–1997, 69 percent of all wage and salary workers in the MEPS household survey were offered a health plan. By 2007–2008, the share edged up to 70 percent. The offer rate increased most sharply in the 2nd and 3rd wage deciles. Offer rates declined slightly in the top half of the wage distribution. In both year ranges, the positive correlation between workers' wages and the likelihood that their employers offer health insurance is strong. In the bottom fifth of the wage distribution, far fewer than one-half of workers are offered health insurance, while in the top fifth about 90 percent are offered a plan.

Along with offer rates, Table 1 shows health insurance take-up rates, or the percentages of workers offered plans who actually enroll. Take-up rates generally decline over the analysis period, with the biggest declines occurring at the bottom of the wage distribution. In the bottom wage decile, only 37 percent of workers whose employers offered a plan accepted the offer in 2007–2008. In the earlier period, 58 percent of workers in the bottom decile took the offer. Take-up rates fell in the bottom half of the wage distribution while increasing slightly in the top half of the distribution. The drop in take-up rates toward the bottom of the wage distribution has been noted in earlier studies (Cunningham, Artiga, and Schwartz 2008; Fronstin 2012). That drop may be explained partly by liberalized eligibility rules for Medicaid and state Child Health Insurance Programs (CHIPs), which make ESHI relatively less attractive for some low-wage employees. The offsetting effects of higher offer rates and lower take-up rates produced small net effects on insurance enrollment rates over the analysis period (right-hand panel in Chart 4 and right-hand columns in Table 1). The most noticeable changes occurred in the bottom wage deciles. ESHI participation fell in the bottom tenth but increased in the next decile.

The cost to an employer if a worker enrolls in a family plan is more than twice the cost of the worker's enrollment in an individual plan (Chart 3). Furthermore, the cost ratio has been rising over time. Thus, the insurance cost burden on employers depends crucially on the proportions of participating workers who enroll in family and individual plans. The MEPS household survey shows that enrollment in more costly family plans has declined over time, and that pattern appears for both high- and low-wage workers (Chart 5). For employers, that trend has offset a small part of the rapid growth in health insurance premiums overall.

Table 1.
ESHI offer rates, take-up rates, and final participation rates, by wage decile, 1996–1997 and 2007–2008

	Offer rate		Take-up rate		Final participation rate	
Wage decile	1996–1997	2007–2008	1996–1997	2007–2008	1996–1997	2007–2008
Bottom	20	22	58	37	12	8
2	30	43	64	56	19	24
3	52	58	75	71	39	41
4	67	69	84	80	56	55
5	77	76	85	84	65	64
6	84	83	87	88	73	73
7	88	85	89	90	79	76
8	89	87	89	92	79	80
9	89	90	93	92	83	83
Top	92	90	92	93	85	84
All	69	70	86	84	59	59

SOURCE: Authors' tabulations based on MEPS household survey data.

NOTE: Offer rate is the percentage of workers who are offered enrollment in a health plan by their employers; take-up rate is the percent of workers offered enrollment who enroll in the plan; final participation rate is the percent of all workers in a decile that actually participates in their employer's plan.

Chart 5.
Percentage of workers enrolled in an ESHI family plan, by wage decile, 1996–1997 and 2007–2008

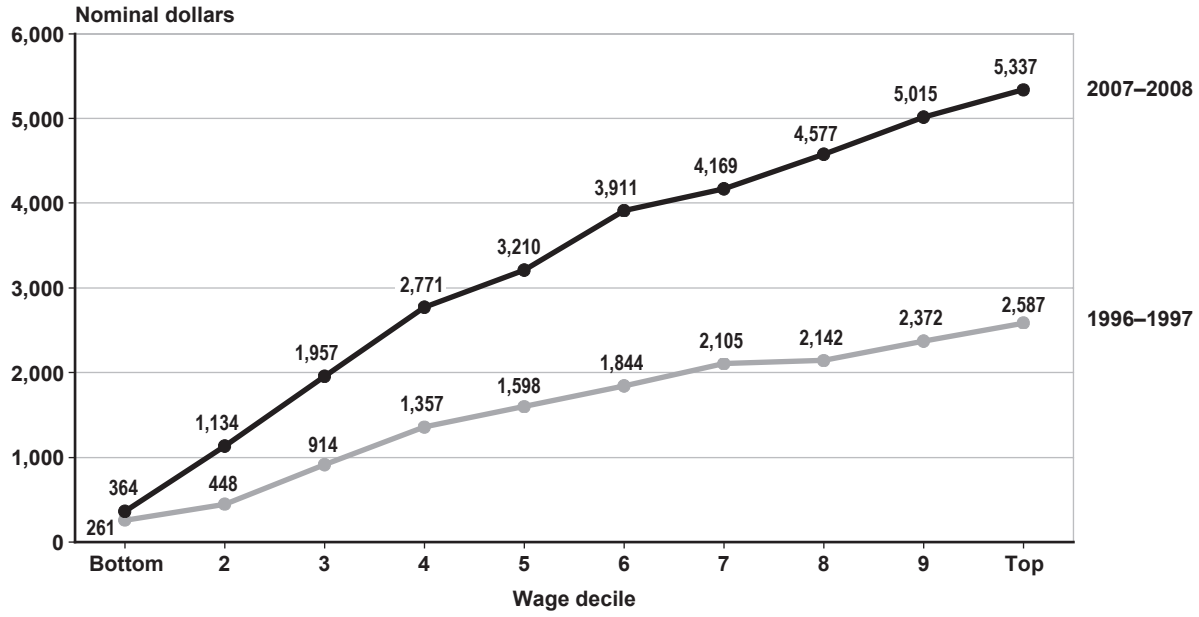
SOURCE: Authors' calculations based on MEPS household survey files.

NOTE: Includes coverage in family or employee-plus-one plans with employee as the principal insured person.

Combining the effects of the factors illustrated in Charts 3–5, Chart 6 shows the average employer cost of providing health insurance to all workers in a given wage decile (including workers not covered). For example, the average employer cost of health insurance for workers in the 6th wage decile was $1,844 in 1996–1997 and $3,911 in 2007–2008. Employees in the 6th decile who were not offered ESHI or who declined to enroll in their employer's plan imposed no health insurance costs on their employers. Slightly less than three-quarters of the wage and salary workers in the 6th decile participated in an employer-sponsored plan (Table 1); therefore, on average, the *participating* workers cost their employers about $2,500 in 1996–1997 and about $5,400 in 2007–2008.

With wage reports from a large sample of workers and plausible estimates of employer health insurance contributions for the same sample of workers, estimating the relationship between employer health insurance costs and worker wages (and the trend in that relationship over time) is straightforward. Chart 7 shows the relationship for the two pairs of years at the beginning and the end of our analysis period. Overall, average ESHI premium costs represented 6.1 percent of annual wages in 1996–1997 and increased to

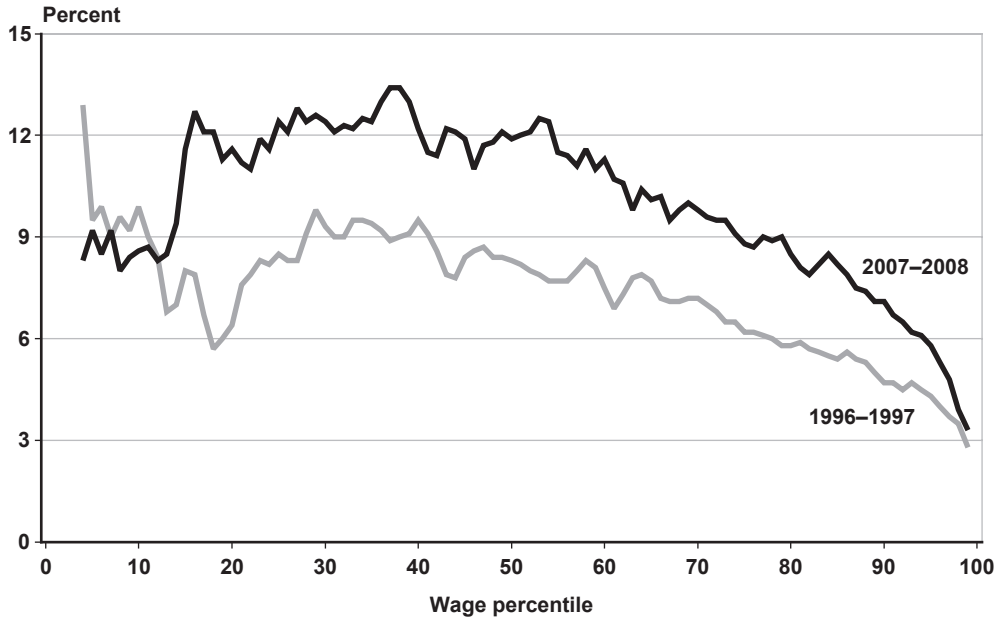
Chart 6.
Estimated annual employer cost of providing health insurance, by wage decile, 1996–1997 and 2007–2008 (in nominal dollars)



SOURCE: Authors' calculations based on MEPS employer and household survey files.

NOTE: Estimates represent average employer-paid premiums for all workers in each decile, including workers who decline or are not offered ESHI.

Chart 7.
Employer cost of providing health insurance as a percentage of average annual wage, by wage percentile, 1996–1997 and 2007–2008



SOURCE: Authors' calculations based on MEPS household and employer survey files.

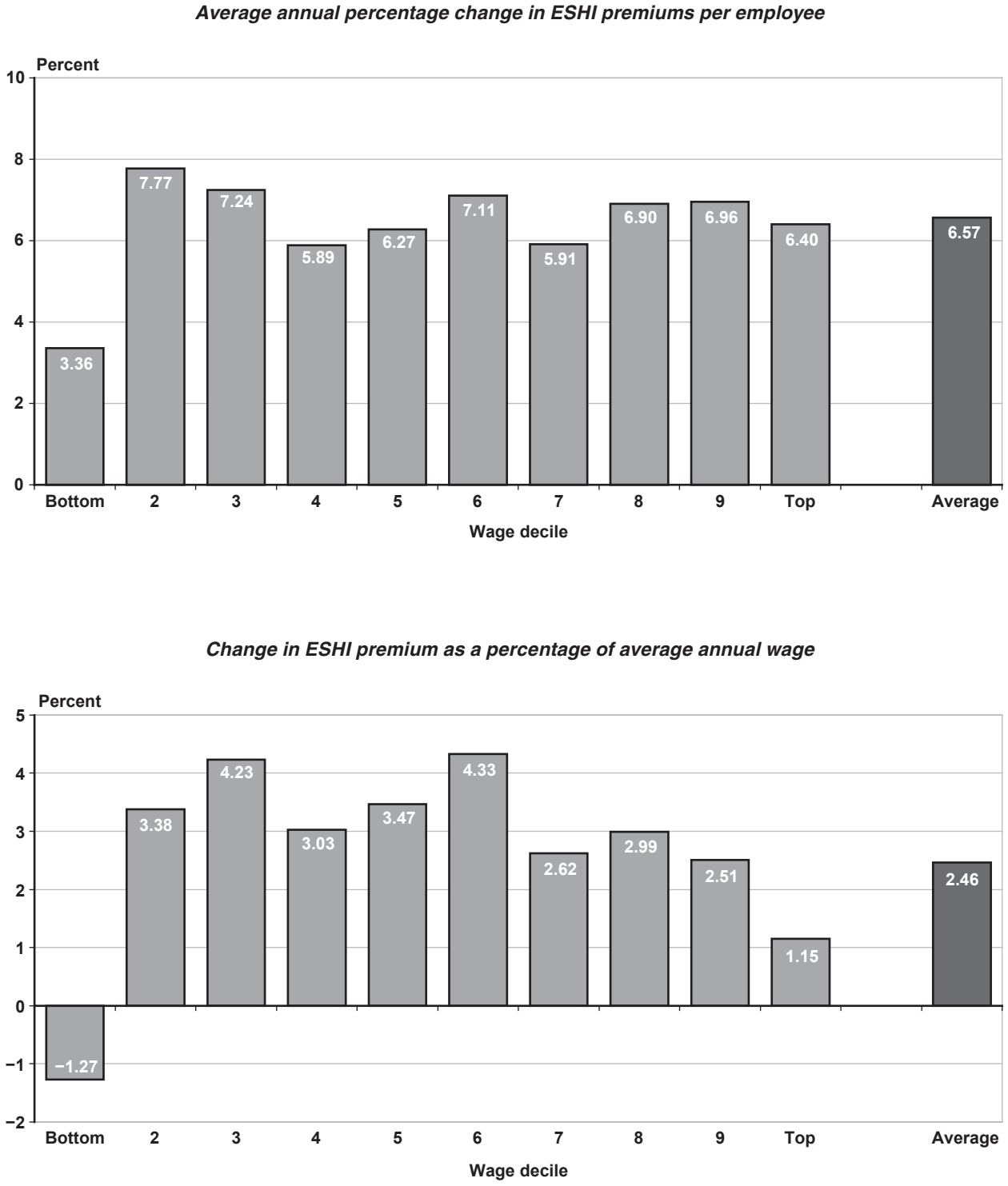
NOTE: Estimates represent average employer-paid premiums for all workers in each percentile, including workers who decline or are not offered ESHI.

8.5 percent of annual wages in 2007–2008 (not shown). In both periods, the ESHI-premium share of wages varied widely across the wage distribution. Not surprisingly, premiums are a small fraction of wages at the top wage percentiles. They tend to constitute the highest fraction of wages for workers between the 25th and 40th wage percentiles.

Chart 8 shows the change in average employer costs of providing health insurance from 1996 through 2008 by wage decile. The top panel shows the annual rate of change in employer outlays on employee health insurance, and the bottom panel shows the percentage-point change in employer costs as a percentage of employee wages. The slowest rate of growth in employer costs occurred in the bottom wage decile; the fastest was in the 2nd decile. As we have seen, the main factors behind the different rates of employer-cost growth between wage deciles were changes in employee participation rates across the wage distribution and changing patterns of enrollment in individual versus more costly family plans. On the whole, however, wage earners in the top 80 percent of the wage distribution saw similar rates of growth in employer contributions to their health plans. Only in the bottom two wage deciles did the rate of increase in employer costs differ noticeably from the mean.

Even if the ESHI premiums rose at similar rates across most of the wage distribution, those increases represented very unequal proportions of workers' annual wages. The bottom panel of Chart 8 shows that from 1996 through 2008, ESHI premiums as a percentage of wages climbed by an average of 3.69 percentage points in the 2nd through the 6th wage deciles. They increased more slowly in the upper part of the wage distribution, rising just 1.15 percentage point in the top decile. For the bottom decile, employer premium costs actually declined as a percentage of wages, primarily because of a drop in low-wage employee participation in ESHI, especially in the most costly plans. Thus, if compensation increased uniformly in all wage deciles, the rising cost of health insurance would have depressed that rate of money wage growth by the greatest proportions in the 2nd through the 6th wage deciles, and the smallest proportional effects would be in the top and bottom wage deciles.

Chart 8.
Employer cost of providing health insurance by employee wage decile, 1996–2008



SOURCE: Authors' calculations based on MEPS household and employer survey files.

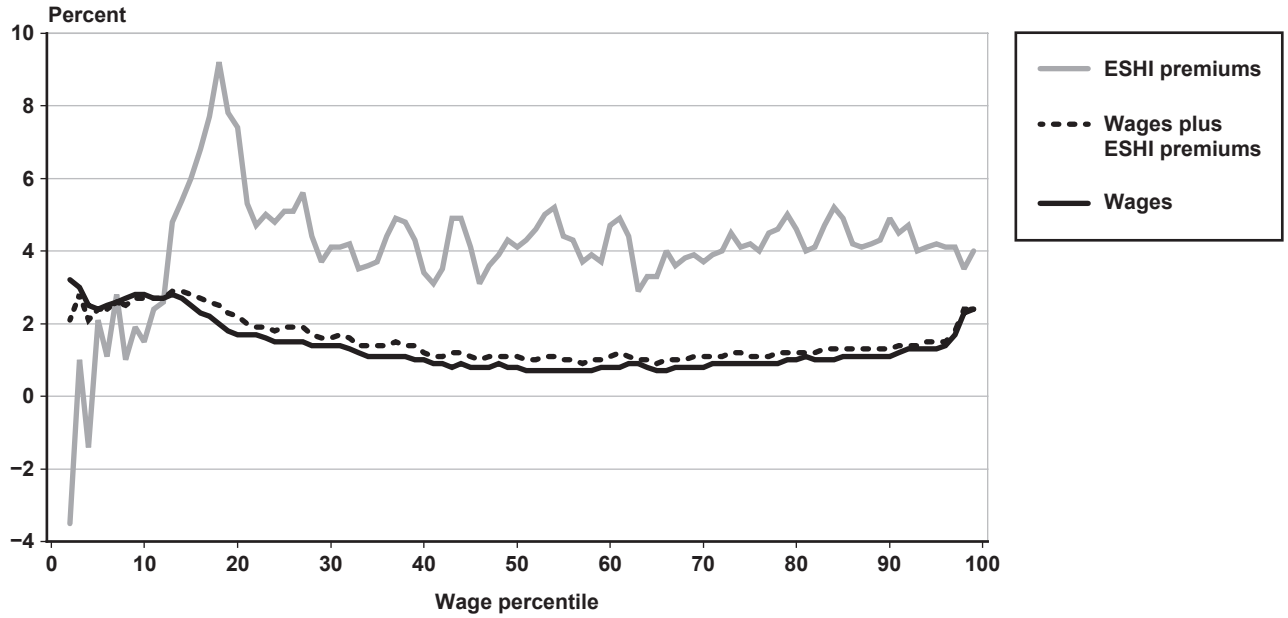
Chart 9 shows detailed estimates of the annual rates of growth in real wages, real ESHI premium costs, and the sum of wages plus ESHI premiums across the earnings distribution. We calculated annual rates of change from 1996–1997 through 2007–2008 after adjusting both wages and insurance premiums using the Consumer Price Index Research Series Using Current Research Methods deflator. Our wage gain tabulations show the familiar U-shaped pattern other analysts have uncovered when analyzing earnings gains since the early 1990s (for example, Autor 2010, 3). Money earnings have grown faster at the top and bottom of the wage distribution than in the middle. The varying growth in employer costs of providing health insurance for high-, middle-, and low-wage workers explains a small part of that pattern. At the very bottom of the wage distribution, workers are less likely to receive ESHI. That reduces the employer's cost of providing those benefits, which enhances the possibility that changes in real compensation will take the form of increases in money wages. At the top of the distribution, employer costs of providing health benefits increase as fast as they do for workers in the middle of the distribution. However, the employer cost of premiums for highly paid workers is only a very small part of their compensation. Consequently, the rapid growth in ESHI costs has little impact on employers' ability to give those workers large increases in money wages.

Implications for the Social Security Tax Base

The growth in employer health insurance premiums estimated from MEPS data follows a pattern similar to estimates based on data from the national income and product accounts (NIPA) (Chart 10). Both series show ESHI premiums were stable or declining in relation to money wages in the mid-1990s, rose steadily from the late 1990s through 2005, and then declined or stabilized relative to wages after 2005. The estimated growth in the ratio of ESHI premiums to wages is somewhat faster in the MEPS than in the NIPA, but from 2001 through 2008, the two series are very similar.

One reason for the close correspondence is the striking similarity between average wages as reported in the MEPS household survey and those reported on W-2 forms and reflected in the NIPA. Over the 13 years we analyze, the average annual MEPS wage was 100.0 percent of the NIPA average wage, with a standard deviation of 1.9 percentage points. The

Chart 9.
Average annual rates of change in real wages and employer cost of providing health insurance, by worker wage percentile, 1996–1997 to 2007–2008



SOURCE: Authors' calculations based on MEPS household and employer survey files.

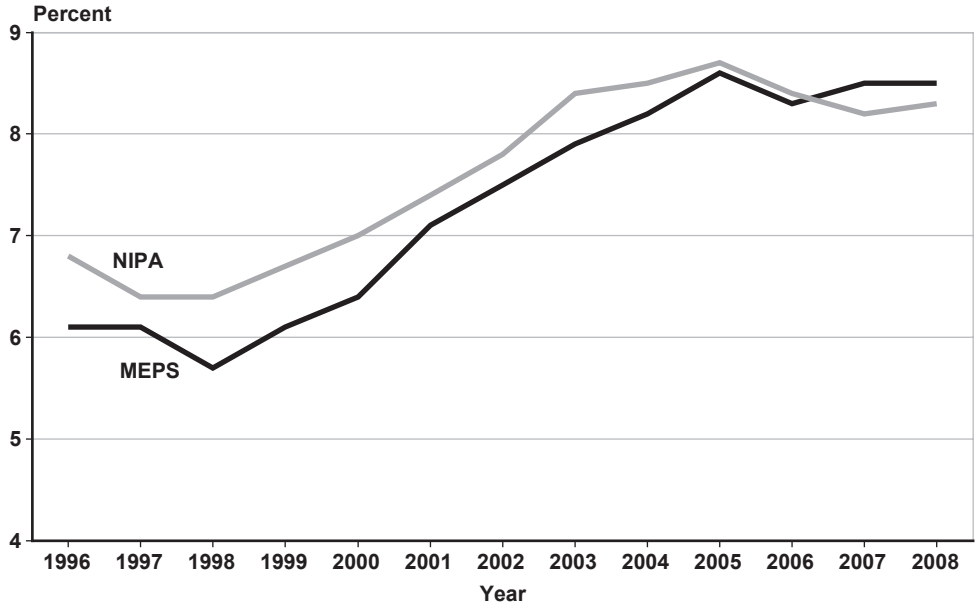
NOTE: Both wages and ESHI premiums are deflated using the CPI-U-RS to calculate annual percentage changes.

similarity of the average wage amounts is somewhat misleading. Like other public-use files released by government agencies, the MEPS household income data are top-coded. Thus, the file does not accurately report the wages of very high earners. If the wages of top earners are underreported, yet average wage estimates based on MEPS data are close to NIPA-based national average wages, it follows that many low or moderate wage earners must be overestimating their wage earnings or missing from the MEPS sample. Indeed, when comparing the earnings distribution in the household survey with the wage distribution implied by the W-2 forms for identical calendar years, it appears there are too few earners with low annual wage amounts. (This problem also afflicts the March Current Population Survey, the source of the Census Bureau's estimates of annual wages.) The MEPS wage reports and the W-2 wage distribution correspond reasonably closely from the middle of the wage distribution through the 90th percentile, but MEPS-reported wages above the 90th percentile fall increasingly below the wages reported in the W-2 records.

Chart 11 shows alternative estimates of ESHI premiums as percentages of wages for workers with wages above and below the Social Security taxable maximum. The solid lines show our basic estimates from the MEPS household survey, with imputed premium amounts based on averaged responses from the employer survey. The broken lines show our estimates after using W-2 data to adjust the household survey wage data to accurately reflect average earnings above and below the maximum taxable amount. Our adjustment is straightforward. We assume that household survey respondents have given wage reports that permit us to accurately determine their rank in the annual earnings distribution, even though reported earnings amounts tend to overstate actual earnings in lower ranks of the wage distribution and understate earnings at the top of the distribution. We then use workers' earnings ranks (rather than their exact reported earnings) to determine which respondents have earnings above and below the taxable maximum. That procedure permits us to use W-2 national wage data published by the Social Security Administration to determine average wage amounts above and below the taxable maximum, but to use MEPS estimates of employer contributions to determine the average health insurance premiums for workers with earnings above and below the taxable maximum.

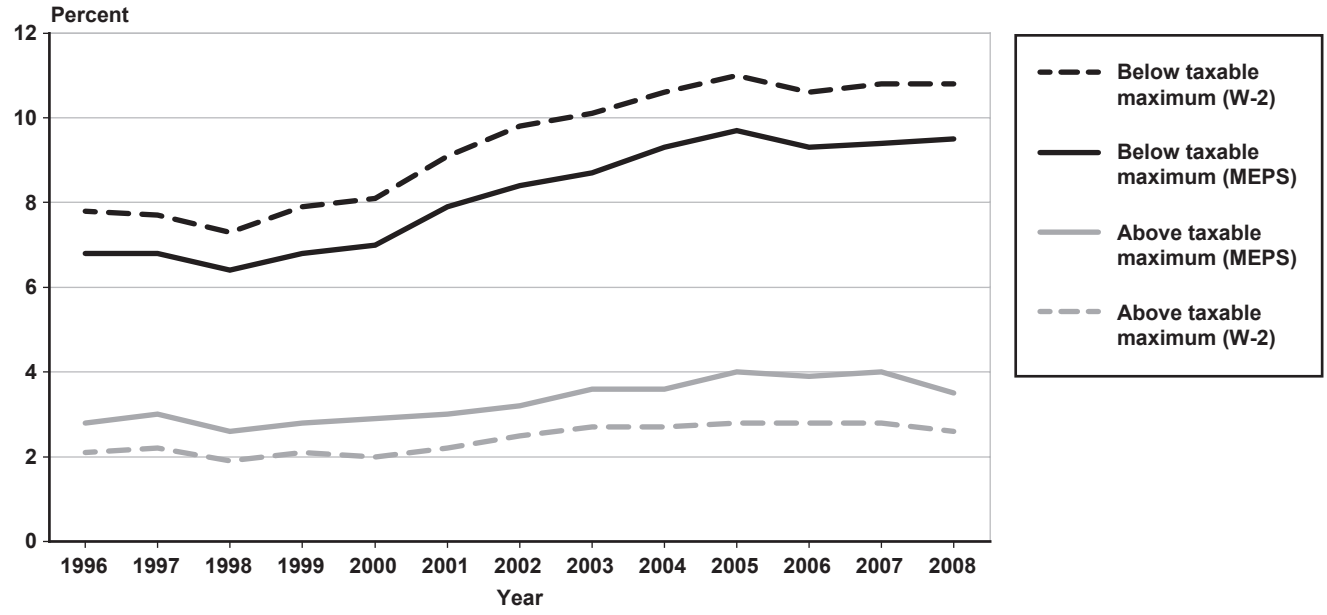
Although those adjustments have little effect on the overall average ratio of employer premium contributions to wages, they have a sizable effect on the estimated premium payments for workers who are above and below the maximum taxable wage level.

Chart 10.
Employer cost of providing health insurance as a percentage of average annual wages for US wage and salary workers: Estimates based on MEPS and NIPA wage data, 1996–2008



SOURCE: Authors' calculations based on MEPS household and employer survey files; BEA (2012).

Chart 11.
Estimated employer cost of providing health insurance as a percentage of average wages for workers with annual wages above and below the taxable maximum (MEPS and W-2 data), 1996–2008



SOURCE: Authors' calculations based on MEPS household and employer survey files; SSA (2009) and earlier editions.

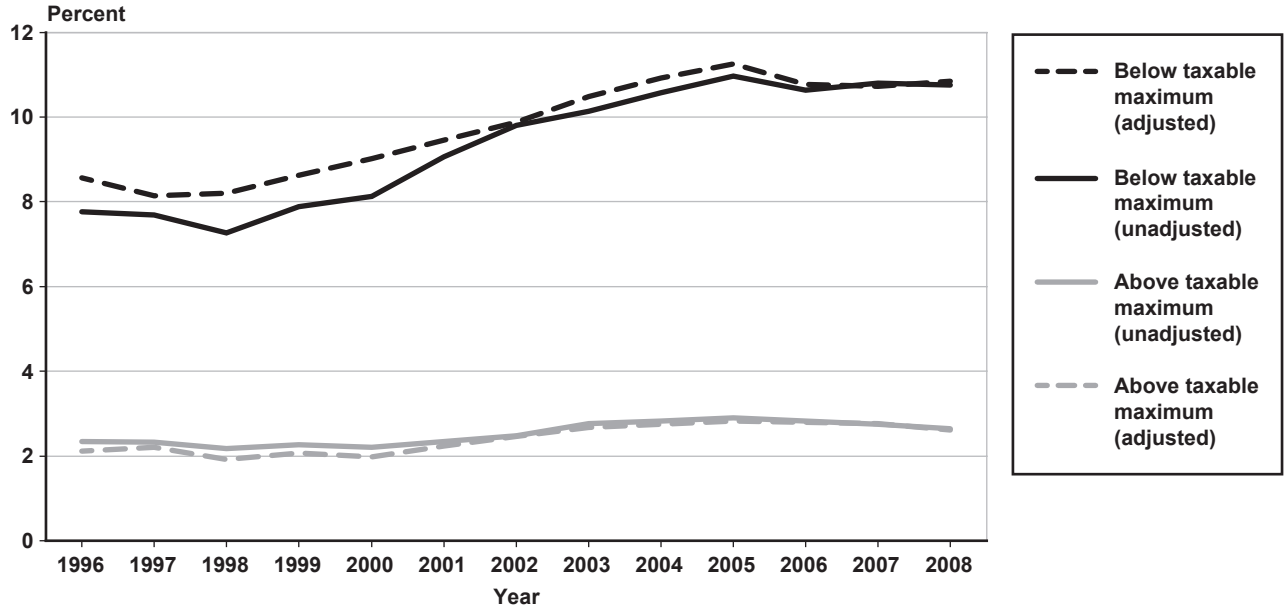
Because low-pay workers tend to overstate their wages, the adjustment increases our estimated average premium-to-wage ratio among the workers with wages below the taxable maximum. In the MEPS sample, that ratio averaged 8.2 percent from 1996 through 2008. The W-2 earnings adjustment increases the ratio to 9.3 percent. The adjustment has the opposite effect on the average premium-to-wage ratio among workers with earnings above the taxable maximum, lowering their average ratio for 1996–2008 from 3.3 percent in the MEPS data to 2.4 percent.

Chart 12 shows the MEPS tabulations adjusted for the apparent understatement of average ESHI premiums in the first few years of our analysis period. As displayed in Chart 10, our imputations of ESHI premiums appear somewhat lower than comparable estimates in the NIPA from 1996 to 2000. That may be because the MEPS data lead us to underestimate the proportion of workers who are enrolled in costly employer health plans, or because the imputed premium amounts are lower than those reflected in the NIPA. Whatever the reason for the discrepancy, Chart 12 shows the effect of adjusting the MEPS premium imputations to reflect NIPA wage data. The adjustments are very small in 2001 and later; their effect is somewhat larger for the first 5 years of the analysis period.

Our results can be used to assess the potential impact of increased employer health insurance costs on the share of compensation subject to the Social Security payroll tax. We first assume that the increase in health insurance costs does not affect the trend in employee compensation and its distribution across wage levels. Instead, we assume that the changing health insurance costs have affected only the components of taxed and untaxed compensation received by workers at different wage levels. Although employer-sponsored insurance, like all health insurance, certainly involves a cross-subsidy from the more healthy to the less healthy, we assume no systematic cross-subsidization from high- to low-wage workers or vice versa. Thus, the employer surveys accurately measure their cost of providing insurance to high- and low-wage workers. In turn, those costs are ultimately borne by insured workers in the form of lower money wage payments than they would receive if no health plans were provided. These assumptions seem plausible because net insurance reimbursements paid to workers in different parts of the earnings distribution are more or less proportional to the estimated employer cost of health insurance premiums.[6]

If there were no upper limit on wages subject to the Social Security payroll tax, as is true of the

Chart 12.
Employer cost of providing health insurance as a percentage of average annual wage for earners with wages above and below the taxable maximum (adjusted and unadjusted), 1996–2008



SOURCE: Authors' calculations based on MEPS household and employer survey files; SSA (2009) and earlier editions; BEA (2012).
NOTE: Adjusted data have been aligned to match NIPA trends.

Medicare tax, the analysis would be trivial. Excess growth in untaxed health benefits would simply slow the growth of other taxed and untaxed components of compensation. The question of interest is, to what extent have money wage payments declined, as opposed to other nonhealth insurance components of compensation? The presence of a cap on taxed earnings complicates efforts to assess the impact of higher health insurance premiums on Social Security taxable earnings. The impact clearly depends on the relative increase in premiums among workers with earnings above and below the taxable maximum and on the pattern of total compensation increases in different parts of the wage distribution. Our analysis focuses on ESHI premium costs. We also calculate employer costs for Social Security and Medicare contributions. Because we have not analyzed the distribution of other untaxed fringe benefits such as employee pensions, we cannot perform a detailed analysis of their impact and will assume that they will continue to rise proportionally with money wages. That assumption seems justified because the most important untaxed fringe benefit besides health insurance is a pension, and employer contributions to both defined benefit and defined contribution pensions are usually determined by employees' wages rather than total compensation.

To simplify the analysis, we categorize workers as either always having earnings below the taxable maximum or always having earnings above the maximum. That oversimplification is small, because the proportion of workers with wages above the taxable maximum has remained quite stable for a decade and a half. As noted above, we assume there is no cross-subsidization of health benefits between high- and low-wage workers. Over the period we analyzed, ESHI premiums increased 5.77 percent a year, while money wages increased by 3.93 percent a year among earners with wages below the taxable maximum and by 4.50 percent a year among earners with wages above the maximum.[7] Clearly, the different rates of increase in wages above and below the taxable maximum reduced the percentage of wages subject to the payroll tax, because a disproportionate percentage of wage increases were received by earners who did not pay taxes on their marginal wage gains. Regardless of where in the wage distribution earnings gains occur, however, they will be reflected in the average amount of wages earned in the economy. To perform our simulation, we compare the effects of two different

assumptions about the trend in ESHI premium costs. As a baseline, we assume that ESHI costs per worker increase 5.77 percent a year, the actual historical average from 1996 to 2008. The other components of wage and nonwage compensation grow proportionately more slowly in order to accommodate a growth in health care costs that substantially exceeds the growth in overall compensation. As an alternative scenario, we assume that employer health insurance contributions grow exactly as fast as overall compensation. That could occur because of slower growth in provider charges, faster growth in required premium contributions from employees, or faster growth in cost sharing required of employees.

Table 2 shows the percentage distribution of compensation by component under our baseline and alternative assumptions about the growth rate of employer costs of providing health insurance. We show results separately for workers with earnings below and above the taxable maximum, as well as for both groups combined. Along with simulations for 1996 and 2008 (the start and end dates of our historical data), we include projections for 2020.

In the top panel, the employer cost of providing health insurance increases from 6.97 percent of compensation in 1996 to 8.60 percent in 2008 and 10.62 percent in 2020 under our baseline assumption (employer health insurance costs per worker rise 5.77 percent a year versus total compensation growth of 3.93 percent a year). To accommodate the outsize gain in health insurance costs, wages must grow more slowly than total compensation; therefore, wages decline from 81.38 percent of compensation in 1996 to 79.95 percent in 2008 and 78.18 percent in 2020. Because the top panel examines earners with wages below the taxable maximum, those earners are subject to the full payroll tax rate of 6.2 percent for Old-Age, Survivors and Disability Insurance (OASDI) plus 1.45 percent for Medicare Hospital Insurance (HI), or 7.65 percent of money wages. (Note that the table shows the employer's estimated payroll tax contribution as a fraction of total compensation, and that values are shown both for total payroll taxes and for the OASDI subcategory.) The drop in the money-wage share of employee compensation in turn reduces the payroll tax contribution's share. Our alternative scenario assumes that all components of employee compensation keep pace with the employer cost of providing health insurance, so the shares do not change over time. Note the difference: Under the alternative scenario, the total payroll tax share increases 0.11 percent in 2008 and 0.24 percent in 2020 relative to the baseline assumptions.

The second panel, which covers workers with wages above the earnings cap, shows a more complicated picture. Under the baseline assumption, employer health insurance contributions increase 5.77 percent a year, and total compensation costs increase 4.50 percent a year. Health plan premiums represent 2.06 percent of total compensation costs for those high-wage workers in 1996, and rise to 2.38 percent in 2006 and to 2.76 percent in 2020. Both the OASDI and the total payroll tax shares of compensation shrink, in part because money wages are a declining percentage of compensation and also because rising wage inequality increases the fraction of money wages that exceed the taxable maximum. Under the alternative scenario, however, money wages grow slightly faster than total compensation. The reason is that payroll taxes increase *more slowly* than compensation, because a smaller percentage of high-wage earners' wage income is below the taxable maximum. Thus, even under the alternative assumption regarding health insurance costs, the percentage of compensation taxed by Social Security is expected to decline. In this case, however, the reason for the decline is the different rates of compensation growth for workers with earnings above and below the taxable maximum. Rising wage inequality causes a growing fraction of wage income to go untaxed because more of it exceeds the taxable maximum.

The bottom panel of Table 2 shows the results for all workers combined. Those figures reflect the weighted average results for the two groups of earners. Not surprisingly, both the OASDI and the total payroll taxes represent shrinking shares of employee compensation over time, even under the alternative assumption that ESHI costs rise in proportion with overall compensation costs. Rising wage inequality will reduce the payroll tax shares of compensation, even if ESHI costs do not increase any faster than compensation. If health insurance costs climb faster than overall compensation, the payroll tax shares of compensation will fall even faster. As more compensation will be attributable to untaxed employee compensation, less will be received as money wages below the taxable maximum. Compared with a labor market in which ESHI costs increase proportionately with total compensation, OASDI payroll tax revenues in a world with excess health insurance cost increases will be 1.64 percent lower in 2008 and 3.70 percent lower in 2020, assuming equal total compensation.

Table 2.
Effects of employer costs of providing health insurance on other components of compensation under two different assumptions about ESHI premium cost growth: 1996, 2008, and projected 2020 (in percent)

Year	Total compensation [a]	Wages	Health insurance	Employer portion of—		Other
				OASDI payroll tax	Total payroll tax	
			Workers earning less than the taxable maximum			
Baseline						
1996	100.00	81.38	6.97	5.05	6.23	5.42
2008	100.00	79.95	8.60	4.96	6.12	5.33
2020	100.00	78.18	10.62	4.85	5.98	5.22
Alternative						
1996	100.00	81.38	6.97	5.05	6.23	5.42
2008	100.00	81.38	6.97	5.05	6.23	5.42
2020	100.00	81.38	6.97	5.05	6.23	5.42
Difference [b]						
1996	…	0.00	0.00	0.00	0.00	0.00
2008	…	1.43	-1.63	0.09	0.11	0.09
2020	…	3.19	-3.65	0.20	0.24	0.20
			Workers earning more than the taxable maximum			
Baseline						
1996	100.00	87.89	2.06	2.91	4.18	5.87
2008	100.00	87.75	2.38	2.74	4.01	5.86
2020	100.00	87.55	2.76	2.58	3.85	5.84
Alternative						
1996	100.00	87.89	2.06	2.91	4.18	5.87
2008	100.00	88.02	2.06	2.77	4.05	5.87
2020	100.00	88.13	2.06	2.65	3.93	5.88
Difference [b]						
1996	…	0.00	0.00	0.00	0.00	0.00
2008	…	0.27	-0.32	0.03	0.03	0.01
2020	…	0.58	-0.70	0.07	0.08	0.04
			All earners			
Baseline						
1996	100.00	83.08	5.69	4.49	5.69	5.54
2008	100.00	82.09	6.90	4.35	5.54	5.47
2020	100.00	80.87	8.36	4.20	5.37	5.40
Alternative						
1996	100.00	83.08	5.69	4.49	5.69	5.54
2008	100.00	83.20	5.62	4.42	5.63	5.55
2020	100.00	83.32	5.56	4.36	5.57	5.55
Difference [b]						
1996	…	0.00	0.00	0.00	0.00	0.00
2008	…	1.11	-1.28	0.07	0.09	0.08
2020	…	2.44	-2.80	0.16	0.20	0.15

SOURCE: Authors' calculations based on MEPS household and employer survey data.

NOTES: The baseline assumption is that employer cost of providing health insurance continues the historical pattern of increasing more rapidly than other components of compensation. The alternative assumption is that employer cost of providing health insurance increases at the same rate as total compensation.

… = not applicable.

a. The sum of wages, health insurance, employer portion of total payroll tax, and other.

b. Calculated as "alternative" minus "baseline."

Effect of Health Insurance Reform on the Social Security Tax Base

We now assess how the ACA will affect average employer health insurance contributions and the distribution of those contributions across wage levels. The analysis focuses on shifts in the distribution of compensation by component that may result from reform, and in turn on the shifts in the amounts of wages covered by Social Security. The simulation results reflect the effects of the Supreme Court's June 28, 2012, ruling on the constitutionality of the ACA. As we discuss below, that decision affected the federal government's ability to compel states to expand their Medicaid programs in order to provide coverage to a larger fraction of low-income Americans.

Postreform Health Insurance Arrangements

The ACA, signed into law in March 2010, established a mandate for most legal US residents to obtain health insurance or pay a penalty if they fail to do so. Among other things, the law called for each state to create an insurance exchange in which individuals and small businesses can compare competing plans' premiums and purchase coverage. Eligible families and individuals can obtain publicly subsidized policies through the exchange. In addition, the law established financial penalties for large firms that do not offer affordable health insurance to their employees. Finally, the ACA significantly expanded eligibility for Medicaid, although the Supreme Court's June 2012 decision allowed states to choose not to liberalize their Medicaid eligibility rules to the extent originally intended by Congress.

The financial incentives for employers to offer health plans and for workers to enroll in them are expected to boost the percentage of the nonaged population covered by health insurance. The Congressional Budget Office (CBO) predicts that uninsured adults and children will decline from about 20 percent of the nonelderly population to about 11 percent after the major provisions of the ACA have been implemented (CBO 2012, Table 3). Many workers will change their source of coverage as some who are currently insured under an employer plan obtain coverage under Medicaid or through the exchanges while others, who are not currently insured under an employer plan, obtain ESHI made more attractive by the incentives in the new law. When those shifts occur, we assume affected employers will alter their compensation packages to reflect the increases or reductions in the cost of providing insurance to their workers. To estimate the impact of the changes on the wages of individual workers, we assume that the total compensation received by each worker will be unaffected by the reform. An increase in the cost of providing insurance to a worker, for either providing new coverage or paying a penalty for failing to offer affordable coverage, will result in an equivalent reduction in the amount of money wages paid to the worker. A reduction in the cost of providing insurance because a previously insured worker obtains subsidized insurance through the exchanges or Medicaid will increase the amount of compensation paid as money wages. Our assumption supposes, on average and in the long run, that those effects will approximately offset each other. The simulation does not attempt to model the impact of health insurance reform on underlying health care costs. Instead, it models changes in the source of employee insurance coverage and the impact of those changes on employee compensation packages, especially on wage compensation that is subject to Social Security taxes.

We estimate the effects of the ACA as of 2016, when most of the law's provisions will be implemented in their final form. We use data from the 2006 and 2008 MEPS household surveys. The survey sample weights are adjusted to reflect Census Bureau and Bureau of Labor Statistics projections of the gender and age group distributions in the civilian noninstitutionalized population in 2016.[8] We adjust wage and income values reported in the MEPS files to reflect predicted increases through 2016. We make similar adjustments for health insurance premiums.

Workers in the MEPS samples fall into one of four initial health insurance coverage categories. In the year of their interview, workers and their dependents can be covered by employer-provided insurance, by Medicaid or CHIP, or by nongroup and other insurance plans (including Medicare and Tricare); or they can be uninsured. CBO uses those four categories to estimate the cost and effects of the ACA.[9] As we intended, our simulation results closely match the CBO estimates of sources of insurance coverage both before and after ACA implementation (Table 3).

The first goal of the simulation is to determine the source of each worker's insurance after ACA implementation. We specify five postreform coverage categories. Workers and their dependents can be covered by ESHI, by Medicaid or CHIP, or by nongroup and other insurance plans (including Medicare and Tricare); they can obtain potentially subsidized insurance

Table 3.
Workers by health insurance status and source before and after ACA: CBO and MEPS-based estimates, 2016 (in millions)

Insurance status and source	Before ACA		After full ACA implementation		Change	
	CBO	MEPS	CBO	MEPS	CBO	MEPS
ESHI	159	161	154	156	-5	-5
Medicaid and CHIP	32	33	42	43	10	10
Nongroup and other insurance [a]	28	27	26	25	-2	-2
Uninsured	56	55	30	29	-26	-26
Policy obtained through state insurance exchange	…	…	23	23	23	23
Total	275	276	275	276	0	0

SOURCES: CBO (2012); authors' calculations based on MEPS household and employer survey data.

NOTE: … = not applicable.

a. Includes Medicare.

through a state insurance exchange; or they can become or remain uninsured. We assume that workers will ordinarily select the insurance option that is most financially advantageous for their families. Because employers heavily subsidize the coverage they offer, employees usually choose that option when available.

Medicaid and CHIP are free for many households, and by liberalizing the income eligibility limits to 138 percent of the federal poverty line for families and single adults, the ACA will increase the number of low-income working families qualifying for Medicaid. For workers and dependents who already receive insurance under the program, we assume their Medicaid coverage will continue because of an ACA provision prohibiting states from restricting Medicaid eligibility. In the case of uninsured workers' families, we assume that, if all states adopted the Medicaid expansions permitted by the ACA, 80 percent of newly eligible people would enroll in the program.[10] We designate new Medicaid enrollees at random from among the newly eligible. (Employees who were eligible for Medicaid before the ACA, but were observed to be enrolled in an employer-sponsored or other private plan, are assumed to remain in the employer or nongroup plan. We assume those employees will continue to prefer private insurance to Medicaid because the ACA did not make Medicaid any more attractive for those workers.)

The 2012 Supreme Court decision is expected to reduce the number of states that will adopt liberalized Medicaid eligibility rules, because states are no longer required to expand coverage to retain their current Medicaid funding. We follow CBO (2012) in assuming the ruling will reduce Medicaid enrollment in 2016 by about 7 million compared with the estimated enrollment if liberalized Medicaid eligibility rules were implemented nationwide. To account for that predicted loss of new Medicaid enrollees, we randomly selected a group of 7 million to lose their new Medicaid coverage. Curiously, workers with family incomes below the poverty line are not eligible to obtain government subsidies for insurance purchased through state exchanges. However, low- and moderate-income workers with incomes above the poverty line can qualify for such subsidies. The Supreme Court's decision, combined with the reluctance of many states to adopt a more liberal income cutoff for Medicaid eligibility, will deprive some workers with poverty-level incomes of the opportunity to enroll in an affordable health plan.

Employees who are not eligible for Medicaid (before or after the ACA) can be offered subsidized or unsubsidized coverage through a state insurance exchange. In principle, insurance obtained through an exchange could be less expensive than the insurance offered by their employers. We assume that some employer-insured workers will switch their coverage from a (more expensive) employer plan to a (less expensive, potentially subsidized) exchange policy. Note, however, that employees who are offered ESHI can only obtain *subsidized* insurance through an exchange if their ESHI plan is deemed unaffordable.

In order to compare net premiums between an employer-sponsored plan and a plan purchased

through an exchange, we calculate the subsidized premiums workers would pay for a policy obtained through an exchange. That requires calculating the likely cost of a group policy premium and the public subsidy for which the worker is eligible. The subsidy is determined by family income, as specified in the reform law. We assume that workers currently covered under ESHI would need net premium savings of at least 15 percent before choosing to switch to a policy obtained through an exchange. Although the assumption may seem arbitrary, it attempts to reflect the behavioral reality that inertia predisposes many workers to retain their current coverage even when a cheaper alternative is available.

For workers who reported their employers did not offer insurance in the initial MEPS data, we have to determine whether the employers would offer a group health plan after ACA implementation and, if so, the cost of the plan to employees. That determination depends on the penalties the employer would face if no plan were offered to a particular worker. We assume that private establishments with 50 or more workers will offer group insurance plans to all full-time workers, and to part-time workers only if they were previously insured by the employer. We assume establishments with fewer than 50 employees will offer insurance to an employee only if they did so before the reform. Further, even if a small employer offered an insurance plan to a part-time, seasonal, or temporary employee before the ACA, we assume that a certain percentage of those offers would be withdrawn after ACA implementation. Possible government penalties on large employers will persuade most of them to establish plans covering at least their full-time employees, defined in the new law as those who work 30 or more hours a week. We do not think the subsidies encouraging small employers to establish plans will materially change the percentage that offer a company health plan. In fact, we follow the CBO forecast and assume that, on balance, small employers are likely to withdraw insurance offers from some of the employees they currently cover. The appendix includes details about how we determine the source of employees' postreform insurance coverage.

After assigning workers to a postreform coverage category, we estimate how changes in insurance status affect employee wages. For each worker, we convert the annual wage reported in the MEPS to 2016 dollars to reflect the assumed growth of nominal wages (including some real wage growth). As noted earlier, we assume that any new employer-paid health insurance premium and any penalty for failure to offer an affordable plan will be subtracted from an employee's wage. On the other hand, any savings to employers because workers leave an employer-sponsored plan will result in an increase in the employees' money wages. Thus, we assume the total compensation of each employee remains the same, but the division of employee compensation between wages and insurance premiums or penalties can change. For workers who continue to be covered under their employer's old health plan, we assume no change in the employer's cost of providing coverage and hence no change in the wage. For workers with no employer-sponsored coverage before or after reform, employers' health insurance cost will rarely change. That change can only occur when a large employer declines to offer affordable health insurance and its employees receive subsidies for policies purchased through an exchange. In that instance, the employer must pay a financial penalty for failing to offer an affordable plan, and we subtract the penalty from the compensation paid to affected employees.[11] For workers who begin to receive health insurance coverage under an employer plan, the new employer health insurance contribution must be subtracted from the worker's wage. A worker who leaves an employer-sponsored plan can receive an increase in money wages equal to the reduction in employer health premiums minus any penalty the employer may have to pay if the employee receives publicly subsidized insurance.[12]

Results

We focus on Social Security–covered wages that are below the taxable wage ceiling, estimated to be $125,500 in 2016. Employees' wages will increase if they switch from ESHI to either Medicaid or an insurance plan obtained through a state exchange. Even if an employer penalty accompanies the employee's switch, our calculations suggest that the penalty is typically less than the employer would have spent on premiums for workers who switched out of the plan. Employees' wages will fall if they switch from uninsured status or from coverage under a nongroup plan into ESHI. Wages will also fall for previously uninsured workers who obtain subsidized insurance through an exchange, compelling the employer to pay a penalty. Our simulation model predicts which workers will switch coverage either to or away from an employer-provided plan, and we then calculate the resulting change in the employees' taxable wage.

Table 4 shows our estimates of average money wages and aggregate Social Security–covered wages, and the effects of the ACA, by wage decile. The table includes columns detailing, for the employees so affected, aggregate increases in wages (because employers make smaller contributions for employee health insurance) and decreases in wages (because employers either provide new coverage to their workers or pay penalties for failing to offer affordable coverage). Note that workers who lose money wages do not ordinarily suffer a loss in welfare. They are obtaining either employer-subsidized insurance or government-subsidized insurance purchased through an exchange. If they value this insurance highly, they will be better off.

We find that the ACA will lead to an increase in money wages for all deciles but the 8th, where wages fall slightly. The shift in compensation toward money wages occurs in part because some workers with modest earnings will become eligible for Medicaid. Workers who switch from an employer plan to Medicaid will no longer receive part of their compensation in the form of an employer health plan contribution. We assume that the part of compensation that formerly was allocated for insurance premiums is now added to workers' money wages.

Many employer-insured workers in the lower wage deciles are employed in small establishments. Small firms are not expected to pay penalties when employees switch from ESHI to coverage obtained through an exchange. For example, among earners in the bottom wage decile who are predicted to switch from ESHI to exchange-provided insurance, 50 percent work for small firms. Because those firms are unlikely to be penalized when their workers obtain insurance outside the employer plan, we add the full amount of the premium to the employee's wage. A smaller fraction of employer-insured workers in higher wage deciles are employed in small establishments. In the top decile, only 35 percent of workers who switch from ESHI to an exchange-provided policy work in small firms. Employers of the remaining 65 percent of top wage-decile workers will be subject to a penalty for each worker obtaining subsidized insurance through an exchange. Of course, high-wage employees are usually members of high-income households, very few of which would qualify for a subsidy if they purchased insurance through an exchange. If there is no public insurance subsidy to the employee, there is no employer penalty for failure to offer an affordable plan.

Many employees in the lower ranks of the wage distribution work part time. The employers of

Table 4.
Simulated effect of the ACA on Social Security–covered wages, by wage decile, projected 2016 (in 2016 dollars)

	Average covered wage—		Aggregate covered wages (in billions)					
Wage decile	Before ACA	After ACA	Before ACA	Gains among affected employees [a]	Losses among affected employees [b]	After ACA	Net change in covered wages (in billions)	Net change in covered wages (%)
1	4,082	4,167	60.4	1.5	-0.2	61.6	1.2	2.1
2	11,510	11,613	170.5	2.5	-1.0	172.0	1.5	0.9
3	18,475	18,727	274.6	5.4	-1.7	278.3	3.7	1.4
4	25,574	25,960	383.8	7.3	-1.5	389.6	5.8	1.5
5	32,620	32,884	471.2	5.5	-1.7	475.0	3.8	0.8
6	40,460	40,764	604.4	6.0	-1.4	609.0	4.5	0.8
7	49,596	49,615	726.0	2.9	-2.6	726.3	0.3	0.0
8	61,557	61,498	908.9	1.8	-2.7	908.1	-0.9	-0.1
9	80,278	80,282	1,186.4	1.4	-1.4	1,186.5	0.1	0.0
10	115,848	115,866	1,712.1	1.9	-1.1	1,712.4	0.3	0.0
Total	43,961	44,099	6,498.4	36.2	-15.4	6,518.8	20.4	0.3

SOURCE: Authors' calculations based on MEPS household and employer survey data.

a. Reflects employees switching out of ESHI as a result of ACA.

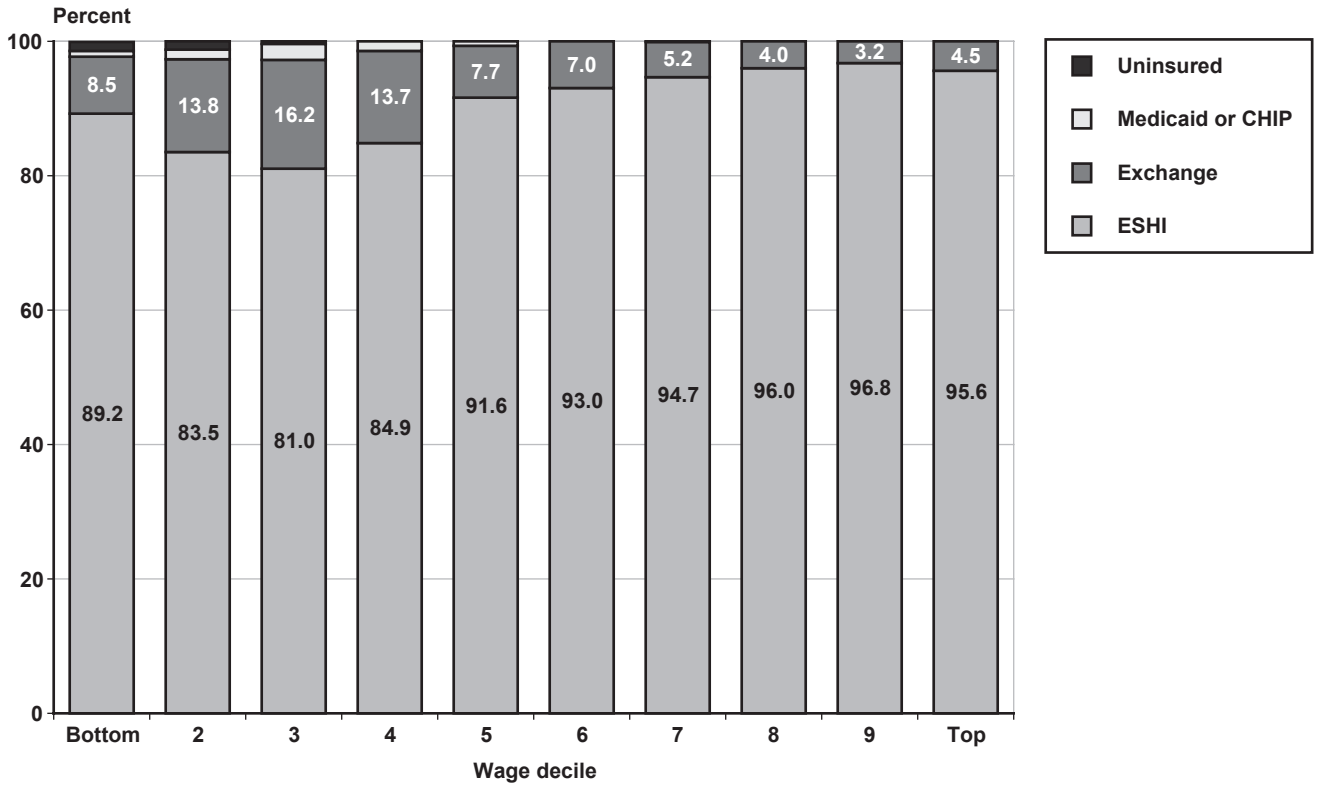
b. Reflects employees who obtain ESHI as a result of ACA or whose employer must pay a penalty when they obtain subsidized insurance through a state exchange.

part-time workers, whether large or small, do not pay penalties when their employees obtain subsidized health policies through an exchange. Because part-time work is much less common in the top wage deciles, it is less likely that employers of high-wage workers can avoid penalties in those rare instances when their workers switch to a subsidized exchange-provided plan.

In the top wage deciles, we predict virtually no change in the source of insurance coverage for workers who had ESHI before reform (Chart 13). Less than 5 percent of employer-insured workers in the top half of the wage distribution are predicted to switch to insurance obtained through an exchange. In some cases, the employer would be required to pay a penalty because of the switch, although those workers' high wages typically make them ineligible for the subsidies. For large firms, we assume employers will begin offering health plans and many high-wage workers will enroll in them. The employer cost for this new coverage would result in an equivalent reduction in wages. Because employee participation in ESHI changes little in the top wage deciles, the effect on workers' wages is small. Average money wages and aggregate Social Security–covered wages remain essentially unchanged in the top wage deciles.

The net predicted effect of the ACA is to boost total Social Security–covered wages by about 0.3 percent. The effects are concentrated, not surprisingly, in the bottom wage deciles, where current insurance coverage tends to be lower. On balance, health insurance reform's effects on the proportions of employee compensation paid as wages and as employer health insurance contributions would only slightly affect Social Security payroll tax receipts. From the earlier discussion it should be obvious that the reform's more important potential effect involves health insurance costs and hence ESHI premiums. The simulations in this section suggest that changes in compensation arising from changes in the source of employees' health insurance are likely to have only a small impact on the Social Security tax base.

Chart 13.
Postreform coverage status of employees covered by ESHI before reform, by wage decile, 2016



SOURCE: Authors' calculations based on MEPS household and employer survey files.

NOTE: "Exchange" comprises subsidized or unsubsidized insurance obtained through a state insurance exchange.

Conclusion

In the past six decades, health care costs have increased much faster than employee compensation and other consumer prices. Over that span, employers assumed a growing role in insuring their workers' health care expenses. The great majority of wage and salary workers and their dependents now receive health insurance through an employer-provided plan. Even when the expansion of employer coverage ended and the liberalization of employer health insurance coverage ceased, employer outlays on workers' health insurance continued to grow because of increases in health care prices and utilization. Those trends have important implications for the Social Security tax base. Money wages are included in taxable earnings, but employer contributions for health benefits are not. Assuming that workers ultimately bear the cost of employer-provided health benefits through lower wages, the continuing rapid growth in health insurance costs reduces the share of employee compensation included in the tax base. In recent decades the outsize growth of health insurance costs has been accompanied by a rise in wage and compensation inequality. Workers at the top of the wage distribution have seen faster increases in wages and compensation than workers in the middle and at the bottom of the distribution. Growing wage inequality also reduces the Social Security tax base as a fraction of compensation, because it increases the proportion of wages above the taxable earnings ceiling.

This article examined the relationship between rising ESHI costs and growing wage inequality using wage and insurance premium data from the MEPS household and employer surveys. During the years we analyze, 1996–2008, we find only modest changes in the insurance coverage of wage and salary workers and somewhat larger changes in the percentage of workers who opt for more costly family plans. The proportion of workers enrolling in more costly plans fell in every wage decile. Nonetheless, employer outlays on employee health plans rose considerably faster than wages in every part of the wage distribution except the bottom decile. Across the top 80 percent of the wage distribution, we find that employer contributions for employee health plans increased at approximately the same rate. However, ESHI premiums represent a larger percentage of total compensation in the middle and near the bottom of the wage distribution than they do at the top. Consequently, the growth in employer health insurance costs absorbed a larger percentage of compensation gains in the middle and at the bottom of the wage distribution—except at the very bottom—compared with those at the top of the distribution. Differences in the rate of growth of wages tended to reinforce this differential in rising health insurance costs. Wages grew faster at the top of the distribution, especially above the Social Security taxable wage ceiling, compared with the middle and bottom of the distribution. In simulations, we find that the combined effect of rising health insurance costs and increasing wage inequality was a significant reduction in the share of Social Security taxable wages in employee compensation. If employer costs of providing health insurance had increased at the same rate as overall compensation, the 2008 Social Security tax base would have been 1.7 percent larger. We project that the tax base would be 3.8 percent larger by 2020 if employer costs of providing health insurance grew between 1996 and 2020 at the same rate as employee compensation.

In estimating the potential effects of the ACA on money wages and the Social Security tax base, we ignore the potential effects of the law on overall health insurance costs. We take that trend as given, and instead estimate the impact of reform on the sources of employee health insurance coverage. Further assuming that total employee compensation will remain unchanged, we then trace the effects of changes in the source of health coverage on the division of employee compensation between money wages and employer contributions for health insurance. On balance, we find that health insurance reform is likely to increase employee compensation subject to Social Security taxes. The main reason is that some employers of low- and middle-wage workers are likely to see some of their employees switch from ESHI to subsidized insurance plans provided through state health insurance exchanges or, less often, to Medicaid. Because those employers will be relieved of some of the burden of contributing to their group health plans, they will be able to offer higher wages to affected employees. Of course, other employers will begin to offer health insurance. The net benefits to an employer of introducing a health plan, taking account of the penalties assessed for not offering affordable coverage, will exceed the net cost of providing coverage. Empirical evidence suggests that workers who enroll in ESHI plans place a high value on the benefits they receive under the plan (Kolstad and Kowalski 2012). That fact, combined with penalties for having workers obtain subsidized insurance through state insurance

exchanges, makes it cost effective for some employers to begin providing insurance to their workers. Those employers will likely reduce money wages to compensate for their higher health care costs. Overall, the money wage increases received by employees who impose lower health insurance costs on their employers are likely to more than offset the higher contributions for workers who gain access to an ESHI plan. The net effect on Social Security taxable wages is likely to be small.

The more profound effect of health insurance reform on taxable employee compensation is likely to occur through a different channel. If insurance reform leads to slower long-term growth in health care spending, then a larger fraction of future compensation will take the form of money wages.

Appendix

For this analysis, each worker must be assigned a source of insurance or to uninsured status in the postreform period. There are five possible categories: (1) Medicaid and CHIP; (2) ESHI; (3) nongroup and other insurance (including Medicare); (4) a policy obtained through a state insurance exchange; and (5) uninsured. Workers and worker dependents who were already enrolled in Medicaid or CHIP before reform were assumed to remain in Medicaid or CHIP. The new law effectively raises the income cutoff for Medicaid to 138 percent of the poverty line and states are required to maintain their current eligibility limits with the expansion, so any person currently covered by the program would be unlikely to lose eligibility. Among uninsured workers and worker dependents who are predicted to become newly eligible for Medicaid as a result of the higher income limit, we assume 80 percent will enroll in Medicaid. We use random assignment to determine which workers will enroll.

Workers covered by ESHI before reform will have four postrefrom coverage options: take up Medicaid, obtain insurance through a state exchange, remain in the employer-sponsored plan, or become uninsured. (Some workers had ESHI and were not eligible for Medicaid before reform, then enrolled in Medicaid after reform. We assume that ESHI was still offered to those workers after reform, except for a small number of part-time and seasonal or temporary employees at small firms.) To determine which of the four options a given worker would select, we first calculate the premium that each worker would have to pay if he or she obtained insurance through an exchange. The net premium depends on workers' family incomes and their eligibility for subsidies. We then compare that calculated premium with the amount the worker currently contributes toward ESHI coverage. We assume that the exchange premium must be at least 15 percent lower than the current premium before the worker switches out. Workers in families with incomes below the poverty line who lose an ESHI offer are not eligible for subsidies in an exchange. (However, if they live in a state that adopts liberalized Medicaid eligibility rules, they will be eligible for free health insurance under Medicaid.) We assume that very low-income workers who lose their offer of ESHI will become uninsured and will not have to pay a penalty for noncoverage. Without subsidies, an exchange-provided insurance plan is simply unaffordable for very low-income families.

Workers covered by a nongroup or other insurance plan before reform have four potential sources of coverage after reform: Medicaid, insurance purchased through a state exchange, ESHI, or their prereform nongroup or other insurance plan. We assign some workers newly eligible for Medicaid into that program using procedures already described. For the remainder, we calculate the premium that each worker would have to pay if he or she obtained insurance through an exchange. After reform, some employers will offer insurance that was not offered before reform. For workers whose employers will offer a group plan, we calculate their expected contribution as the national average premium for workers in an employer-sponsored plan.[13] We then compare the premiums individuals currently pay for nongroup insurance with the premiums they would pay under the exchange and if they were offered ESHI. Most workers are assigned to the least expensive option. However, we assume that workers will switch out of their present coverage only if the alternative is at least 30 percent less expensive than their current nongroup insurance plan.

For workers who are uninsured before reform, there are also four postreform coverage options: Medicaid, insurance through a state exchange, ESHI, or remaining uninsured. As before, we assign some of those workers to Medicaid based on their income, and calculate for each worker a potential exchange premium and a potential contribution toward ESHI if their employer is assumed to offer insurance.[14] In order to encourage health insurance take-up, the new law stipulates that workers who choose to remain uninsured must pay a penalty. Our simulation assigns to all workers the penalty they would have to pay if they chose to

remain uninsured. The penalty is based on family size and income. We compare this penalty with the net premium workers would pay for insurance obtained through an exchange and the predicted contribution toward ESHI (if it is offered). We assign workers to the coverage category with the lowest cost to the worker.

Notes

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[1] For a more detailed description of the MEPS program and its component surveys, see the introductory material in Bernard and Banthin (2007). For an analysis of the MEPS data files and a comparison of their estimates of health spending, health insurance, and income with those from other data sources, see Sing and others (2006) and Burtless and Svaton (2010).

[2] Because MEPS households are included in the sample for a 2-year period, it is possible that some household members who were present before December in a particular calendar year were absent from the household by December. Most of our analysis focuses on the wages, health insurance coverage, and health spending of workers in the sample and their dependents who were still present at the end of December in each calendar year.

[3] In cases where MEPS household respondents did not report the establishment size of their employers, we imputed the average premium in their industry, regardless of firm size. Where respondents failed to report the insured employee's industry, we imputed the average premium payment for all US employers. Clearly, imputing average ESHI premiums by industry and establishment size understates the amount of premium variation among all employees.

[4] Average annual wages are reported every year by the Social Security Administration based on data from a large sample of W-2 forms. We calculated the change in consumer prices using the Bureau of Labor Statistics' Consumer Price Index Research Series Using Current Research Methods (CPI-U-RS).

[5] We use a MEPS wage-earner sample that excludes all earners who identify themselves as self-employed. This sample restriction is necessary because the MEPS public-use file combines all of a respondent's labor income in a single variable, preventing us from distinguishing wage income from self-employment income when an earner has both.

[6] In an earlier version of this article we documented the close correspondence between employer-reported insurance premium payments and net insurance reimbursement payments reported by households and health care providers in the MEPS files (Burtless and Milusheva 2012, Table 2).

[7] Our analysis of the MEPS files suggests that ESHI premium costs increased slightly faster among workers with earnings below the taxable maximum than among their counterparts above the maximum, 5.8 percent versus 5.5 percent. Over a 13-year period, however, this small difference does not materially affect the simulation results, so we disregard it here.

[8] By using data from both the 2006 and 2008 MEPS panels, we effectively double the number of observations available for the analysis. There is no overlap in the two samples, because household panel participation is limited to 2 years.

[9] MEPS respondents reporting multiple sources of insurance are classified according to the source in effect during the longest portion of the year.

[10] After Massachusetts implemented health insurance reform, 80 percent of those without private insurance who became eligible for Medicaid enrolled in the program (Sommers and Epstein 2010).

[11] Our calculations exclude the effects of the ACA on 25 percent of public sector employees, selected at random from among the public employees in the MEPS household survey files. We make this exclusion because approximately one-quarter of public employees are not covered by Social Security.

[12] Employers with 50 or more full-time employees that offer health insurance coverage but have a full-time employee who obtains insurance through an exchange and receives a premium tax credit must pay the lesser of $3,000 for each employee receiving a premium credit or $2,000 for each full-time employee, excluding the first 30 employees from the assessment (Kaiser Family Foundation 2011). We assume that paying the $3,000-per-employee penalty is more economical for many firms than paying $2,000 for every full-time employee in the firm. In our simulation, we therefore subtract $3,000 whenever an employer must pay a penalty because a worker decides to obtain insurance through an exchange. Note that final rules for determining employer and individual penalties had not been determined when this article was completed. Our estimates were prepared using our best assessment of what the final rules would be.

[13] We assume that all full-time workers employed in large private establishments (50 or more workers) will be offered insurance. We also assume that ESHI will not be offered to workers in small private establishments unless their employers currently offer such plans. Until 2016, firms with fewer than 25 employees will be entitled to receive a subsidy for offering a plan. However, beginning in 2016 the subsidy will end. Our assumptions about large- and small-firm insurance offers are consistent with Urban Institute predictions about the effect of reform on employer insurance offers (Garrett and Buettgens 2011).

[14] Some of the uninsured were offered ESHI before and chose not to take it. We assume their employers still

offer that plan. Other uninsured workers were not offered an ESHI plan before reform. Again, we assume that all employees of private establishments with 50 or more employees will offer insurance coverage after reform, but the only small firms to offer insurance will be the ones that already did so.

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