

Will the Cadillac Tax Generate Revenue?

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AT A GLANCE

- When the ACA passed in 2010, the Cadillac tax, a nondeductible 40 percent excise tax imposed on the portion of health coverage costs that exceeds \$10,200 for single coverage and \$27,500 for family coverage, was scheduled to take effect in 2018. It has since been delayed twice and is currently scheduled to take effect in 2022. At that point, the portion of health coverage costs that exceeds \$11,200 for single coverage and \$30,150 for family coverage will be subject to the tax.
- The Cadillac tax is controversial. It is the first time that the historically unlimited tax exclusion for employment-based health benefits has been impacted. Although it has its enthusiasts, there has been bipartisan support for repealing it.
- In May 2018, the Congressional Budget Office (CBO) estimated that the tax would generate \$168 billion in tax revenue from 2022 to 2028. The Joint Tax Committee (JCT) and CBO assume that when employers reduce the comprehensiveness of health benefits to avoid the tax that they will in turn increase worker taxable wages such that total compensation is unchanged. Shifting the composition of compensation toward a higher proportion of taxable wages will translate into additional tax revenue. Repealing the tax would mean finding \$168 billion (or the equivalent in today's dollars) in new tax revenue.
- Why is understanding the wage-benefit tradeoff so important? Research on the tradeoff has focused almost exclusively on what happens to worker wages when the cost of health insurance increases. The literature on the wage-benefit tradeoff is being used in such a way that it assumes that wage responses to health insurance cuts and health insurance cost increases are symmetric. Only one study on the wage-benefit tradeoff has been found that examines what happens to worker wages when the cost of health insurance decreases, as would be the case with the Cadillac tax. It examined the impact of community rating in New York State on the wages of older workers in small firms, firms that would see premium reductions as a result of community rating, and found that older workers in small firms saw their wages increase relative to workers in large firms and workers in other states. However, it is possible that wages do not respond symmetrically to increases and decreases in the cost of employment-based health insurance. There is evidence of asymmetric effects in other aspects of health care, labor markets, and elsewhere that could inform the economic theory on wage-benefit tradeoffs.
- Even if workers' taxable wages do not increase as a result of employers reducing the comprehensiveness of health benefits, the added tax revenue may still be realized. If employers kept the savings and those savings became corporate profits, they might become partially taxable as dividends and increased capital gains, thus producing higher federal tax revenue. If employers use the savings to purchase capital equipment, the seller of that equipment would see higher sales, which would result in federal tax revenue through a combination of profits, higher worker wages from sales bonuses, and worker wages possibly associated with the cost of installing the equipment. If employers used the savings to grow the business and hire additional workers, those workers would be paid wages that were taxable.

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By Paul Fronstin, Ph.D., Employee Benefit Research Institute

Introduction

The excise tax on high-cost employment-based health plans (aka the Cadillac tax) is a provision in the 2010 Patient Protection and Affordable Care Act (ACA). When the ACA passed in 2010, the Cadillac tax, a nondeductible 40 percent excise tax imposed on the portion of health coverage costs that exceeds \$10,200 for single coverage and \$27,500 for family coverage, was scheduled to take effect in 2018. It has since been delayed twice and is currently scheduled to take effect in 2022. At that point, the portion of health coverage costs that exceeds \$11,200 for single coverage and \$30,150 for family coverage will be subject to the tax. The tax was included in the ACA as a way to mitigate the rising cost of health care and to generate tax revenue to pay for other provisions in the ACA.

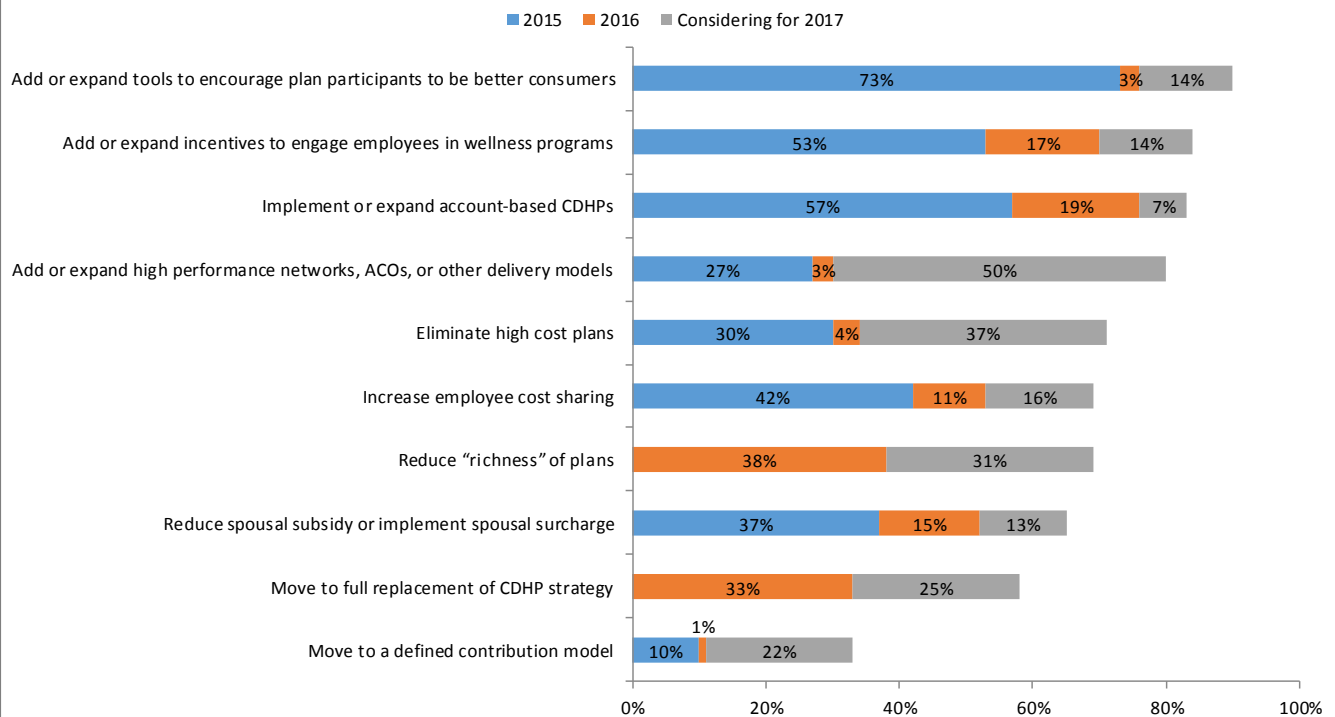
The Cadillac tax is controversial. It is the first time that the historically unlimited tax exclusion for employment-based health benefits has been impacted, albeit indirectly. Although it has its enthusiasts, there has been bipartisan support for repealing it. Repealing the tax in a budget-neutral fashion would mean finding the estimated \$168 billion (or the equivalent in today's dollars) in new tax revenue to replace the amount of revenue that the Congressional Budget Office (CBO) estimated the tax would generate from 2022 to 2028.¹ Increased tax revenue is expected to come from two sources. One source is the direct effect of the tax. Health plans that exceed the tax thresholds will incur the nondeductible 40 percent tax on the value of the coverage above the threshold. The other source is the indirect effect. The Joint Tax Committee (JCT) and CBO assume that when employers reduce the comprehensiveness of health benefits to avoid the tax that they will in turn increase worker taxable wages such that total compensation is unchanged.² Shifting the composition of compensation toward a higher proportion of taxable wages will translate into additional income and payroll tax revenue. In a 2014 report, the CBO found that roughly one-quarter of the increase in tax revenue stems from excise tax receipts, and roughly three-quarters is from the effects on revenues of changes in employees' taxable compensation and, to a lesser extent, in employers' deductible expenses.³

Why Use a Cadillac Tax

The theory behind capping the health exclusion rests on the assumption that, because of the ability of workers to exclude the value of employment-based health coverage from taxable income without limit, workers prefer additional health insurance benefits over cash wages (and other forms of compensation) — and because of this preference, they are "over-insured." Once workers either have health coverage or see an increase in the comprehensiveness of their coverage, the theory is they then use more health care services than they otherwise would. Workers over-insure because health insurance premiums are not included in taxable income, while out-of-pocket spending on health care services does not automatically enjoy the same tax preference.⁴ As a result, workers are theorized to prefer higher-premium comprehensive coverage with low cost sharing over lower premium, less comprehensive coverage with higher cost sharing. Ultimately, higher-premium, lower cost-sharing health coverage leads to overuse of health care services, which drives up insurance premiums and makes coverage less affordable.

Employers have been expected to take a number of different actions to avoid the Cadillac tax (Figure 1), including reducing the comprehensiveness of employment-based health coverage. This would cause cost sharing for health care services (such as deductibles and copayments) to increase, translating into a reduction of use of health care services among workers and their families. Health care costs and premiums for employment-based health benefits would decline as a result of the reduction in health care services, while workers' taxable wages would increase.⁵ Some employers, however, will choose to pay the Cadillac tax. Employers offer health coverage to their workers to be competitive in the labor market (Fronstin forthcoming). To the degree employers are concerned about the impact that cutting health benefits may have on recruiting and retaining workers (even with a compensating wage income), they may choose to continue to pay the Cadillac tax.

Figure 1
Employer Actions to Minimize the Impact of the Excise Tax



Source: National Business Group on Health (2015).

While economic theory appears straightforward, how the Cadillac tax plays out in the real world is a subject of intense debate. Questions arise related to:

- Whether reducing the comprehensiveness of coverage will reduce use of services among the small portion of the population that accounts for most of the spending.
- The implications of reduced use of health care services.
- The extent to which the tax will result in increased federal tax revenue.

This paper addresses this last consideration. The next section examines the literature on the wage-benefit tradeoff. The following section discusses why the wage-benefit tradeoff may be irrelevant when it comes to predicting the impact of the Cadillac tax on federal revenue.

A Look at the Wage-Benefit Tradeoff

Economists assume that when employers reduce the comprehensiveness of health benefits they will in turn increase worker wages such that total compensation is unchanged. Hence, if employers reduce health benefits to avoid a tax cap, workers' taxable wages are assumed to increase. Shifting the composition of compensation toward taxable wages will translate into additional tax revenue. This is a long-standing position of economists and others, and is one of the reasons why a group of economists signed a letter to congressional leaders in opposition of any action that would weaken, delay, or reduce the Cadillac tax, unless an effective alternative to the Cadillac tax was first enacted.⁶

Economists have long taken the position that the cost of paying for health benefits comes from a worker's own compensation, regardless of whether the payment originated with worker contributions through payroll deduction or employer contributions made directly to the health plan. Economic theory predicts that individuals receiving a higher level of employee benefits are paid a lower wage than those receiving a lower level of employee benefits, assuming that human capital and other variables that affect worker wages are held constant (Rosen 1986). As a result of higher health insurance costs, the theory is that employers will reduce worker wages in order to keep total compensation unchanged (Summers 1989). However, employers may bear some of the costs of health benefits because they receive a benefit from offering health benefits that they would not realize by paying workers strictly in cash wages; in those cases, workers would not fully bear the cost of health benefits in either the short or long run (Garrett and Chernew 2008) (O'Brien 2003).

Much of the early research⁷ on the wage-benefit tradeoff found that increases in health insurance costs were mostly borne by workers through lower wages or slower wage growth:

- Eberts and Stone (1985) found that an increase in employer spending on health insurance resulted in a decrease in worker wages. For every \$1 increase in health insurance, worker wages fell by 83 cents.
- Gruber and Krueger (1991) studied the impact of the workers' compensation program on worker wages and found that worker wages were 86 percent lower as a result.⁸
- Gruber (1994) and Sheiner (1995) found that as a result of an increase in health insurance costs, worker wages grew slower over time among particularly more costly groups, such as older workers, workers with family coverage, and women of child-bearing age.
- Pauly and Herring (1999) found that predicted medical expenses had a negative impact on the wages of older workers.
- Olson (2002) found that health insurance reduced wages by only 20 percent among married working women.
- Miller, Jr. (2004) found that having health insurance led to a 10–11 percent wage reduction among prime-aged working men.

The more recent findings also generally support a wage-benefit tradeoff, and they go further to examine a range of more specific effects. However, the findings are more mixed than earlier work:

- Baicker and Chandra (2006) found that rising health insurance costs were fully offset by reductions in workers' wages.
- Bhattacharya and Bundorf (2009) found a significant wage differential between obese and non-obese women among those with insurance, but no differential for those without insurance.
- Kolstad and Kowalski (2012) found that wages adjusted fully to offset the cost of the health insurance mandate that took effect with the 2006 Massachusetts law.
- Clemens and Cutler (2014) found that only a small fraction (15 percent) of increased health and retirement benefit costs were offset through a reduction in wages among public school workers, though the effect was not statistically different than zero.
- Qin and Chernew (2014) also found a 15 percent reduction among public sector workers, that the reduction was larger during the great recession of 2007–2009, and that it was larger among non-union workers.
- Anand (2013) found evidence that rising health insurance costs were shifted onto workers through higher employee-paid premiums, but not through lower wages or by affecting other employee benefits.

- Lubotsky and Olson (2015) found no evidence that teachers' salaries were affected by changes in insurance costs.

A few of the above studies also looked at whether rising health insurance costs led to a change in hours of work or the number of workers employed:

- Cutler and Madrian (1998) and Gruber (1994) found that an increase in health insurance costs leads to an increase in hours worked instead of an increase in the number of workers employed.
- Montgomery and Cosgrove (1993) and Buchmueller (1999) found mixed evidence as to whether employers expand the share of the workforce eligible for health insurance.
- Lubotsky and Olson (2015) found no evidence that school districts respond to higher health insurance costs by reducing the number of teachers.

Why is understanding the tradeoff so important? With respect to the Cadillac tax, the JCT and CBO assume that when employers reduce the comprehensiveness of health insurance in order to avoid the tax, worker wages will increase, with about 75 percent of the \$168 billion cited above coming from increased income and payroll tax revenue associated with the increase in worker wages. One of the potential shortcomings of the assumption relates to the fact that research on the wage-benefit tradeoff has focused almost exclusively on what happens to worker wages when the cost of health insurance *increases*. The literature on the wage-benefit tradeoff is being used in such a way that it assumes that wage responses to health insurance cuts and health insurance cost increases are symmetric. Only one study on the wage-benefit tradeoff has been found that examines what happens to worker wages when the cost of health insurance *decreases*, as would be the case with the Cadillac tax. This paper examined the impact of community rating in New York state on the wages of older workers in small firms, firms that would see premium reductions as a result of community rating⁹ (Adams 2007). Adams found that older workers in small firms saw their wages increase relative to workers in large firms and workers in other states as a result of community rating in New York. A similar study examined how the more general movement toward limited premium variation in the small group market adopted by many states in the early 1990s affected the wage gap between workers in small and large firms. It also examined whether there was an increase in employment of older workers, as the marginal cost of hiring an older worker fell as premiums were less dependent on the age composition of a firm's employee pool (Rutledge and Crawford 2017). The study found that the earnings gap fell equally for workers of all ages, but the premium restrictions had only a small effect on employment of older workers.

Despite there being only one study on what happens to worker wages when the cost of health insurance decreases, economists continue to predict that when employers reduce the comprehensiveness of health insurance, worker wages will increase.¹⁰ It is possible that the effects are asymmetric. In other words, it is possible that wages do not respond symmetrically to increases and decreases in the cost of employment-based health insurance. There is evidence of asymmetric effects in other aspects of health care, labor markets and elsewhere that could inform the economic theory on wage-benefit tradeoffs.¹¹ It is also possible that the effects vary by industry and geographically.

As mentioned above, Qin and Chernenov (2014) found that worker wages fell 15 percent when the cost of health insurance increased, but also found that the tradeoff was larger during the Great Recession of 2007–2009. They conclude that economic environments matter when it comes to enabling or precluding the wage-benefit tradeoff. Hence, employers may be able to adjust worker wages down (or slow wage growth) in economic climates that include recessions and high unemployment rates, but during a strong economy and low unemployment rates it may be more difficult for an employer to shift the rising cost of health benefits onto workers. Similarly, when the cost of employment-based health insurance falls, employers may have to increase wages when the economy is strong and unemployment is low in order to compete and retain workers, but when the economy is weak and unemployment is high, employers may not need to increase worker wages. The bottom line is that employers pay higher compensation when competition for scarce labor is high, and that compensation often includes tax-free health benefits.

Two surveys have found that at least some employers were considering wage increases in response to reductions in the comprehensiveness of employment-based health benefits. A June 2015 survey of large employers conducted by the American Health Policy Institute found that 16 percent of employers reported that they would increase wages to offset their reduction in health benefits that occurred to avoid the Cadillac tax.¹² Another survey, conducted in 2015 as part of a webinar, found that 5 percent of respondents had planned to increase worker wages.¹³

There are examples where the wage-benefit tradeoff did not occur. For instance, many employers halted or suspended 401(k) matching programs during the Great Recession. Workers did not experience a corresponding wage increase as a result of the cut in compensation. One question to examine is whether wage growth will be higher for these workers over time as compared to workers whose 401(k) matching program was unaffected. It is possible, however, that workers who lost 401(k) matches will never get offsetting wage or salary increases because the economic environment at the time enabled employers to halt or suspend the matching program.

There is evidence that a strong economic environment can have an effect on whether employers will cut health benefits. In 2015, the Pacific Maritime Association and International Longshore and Warehouse Union agreed on a contract that would continue providing very comprehensive health insurance coverage to dockworkers. Instead of reducing the comprehensiveness of health coverage, as the Cadillac tax was expected to do, the five-year contract was expected to trigger \$60 million to be paid toward the Cadillac tax.¹⁴ Other recent examples of compensation and work environment enhancements, presumably because of the strong economic climate, include unlimited paid family leave for certain workers at high-tech companies such as Adobe, Facebook, Google, Microsoft, and Netflix, and, among other things, relaxation of dress codes at Walmart.¹⁵

The Relationship Between Benefit Costs and Other Business Expenses: Will the Tax Revenue Materialize?

Even if workers' taxable wages do not increase as a result of employers reducing the comprehensiveness of health benefits, the added tax revenue may still be realized. If employers reduce the cost of health benefits and they do not increase worker wages, where does the money go? If employers keep the savings and those savings become corporate profits, they might become partially taxable as dividends and increased capital gains, thus producing higher federal tax revenue. If employers use the savings to purchase capital equipment, the seller of that equipment would see higher sales, which would result in federal tax revenue through a combination of profits, higher worker wages from sales bonuses, and worker wages possibly associated with the cost of installing the equipment. If employers use the savings to grow the business and hire additional workers, those workers would be paid wages that are taxable.

While most versions of the benefit-business expense tradeoff result in higher federal tax revenue, there are exceptions. Some employers report that they were inclined to use the savings from offering reduced health coverage to add health-related benefits not subject to the tax, such as dental or vision benefits, or to add to the 401(k) match.¹⁶ If employers increased contributions to worker retirement savings plans, higher tax revenue would not be realized until the worker took a distribution at some point in the future.¹⁷ Similarly, if employers adopt an HSA-eligible health plan and recycle some or all of the savings from the higher deductible into workers' HSAs (assuming the combination of the premium and the employer contribution to the HSA do not trigger the Cadillac tax), the HSA contribution will not generate tax revenue unless a worker takes a distribution not used for a qualified medical expense. Finally, more employers may expand paid leave programs.

In determining whether an HSA-eligible health plan triggers the Cadillac tax, employer and employee contributions via payroll deduction to the HSA are added to premiums.¹⁸ Worker contributions would be included because under the tax code worker contributions are treated as employer contributions. As a result, worker contributions could trigger the Cadillac tax. However, it is unlikely that HSA-eligible health plans would have triggered the Cadillac tax in 2018. Premiums for HSA-eligible health plans averaged \$6,272 for employee-only coverage and \$18,054 for family coverage in 2018 (Figure 2). Employer contributions averaged \$603 and \$1,073 for employee-only and family coverage, respectively. In the absence of worker HSA contributions, premiums and employer contributions totaled \$6,875 for

employee-only coverage and \$19,127 for family coverage, well below the \$10,200 and \$27,500 thresholds. Even if workers contributed the maximum of \$3,450 and \$6,900 for those with employee-only and family coverage in 2018, the Cadillac tax thresholds would not be met.

Figure 2
Average Annual Premiums and Employer Contributions to HSAs, 2018

	<u>Employee-Only</u> <u>Coverage</u>	<u>Family Coverage</u>
Total Annual Premium	6,272	18,054
Annual Employer Contribution to HSA	603	1,073
Total Annual Employer Spending	6,875	19,127
Maximum Worker HSA Contribution	3,450	6,900
Total Subject to Cadillac Tax	\$ 9,722	\$ 24,954

Source: EBRI estimates using average premium and average employer contributions to HSAs from Exhibit 8.7 in <https://www.kff.org/report-section/2018-employer-health-benefits-survey-section-8-high-deductible-health-plans-with-savings-option/>.

Conclusion

The Cadillac tax is currently scheduled to take effect in 2022. Because the thresholds that trigger the tax are tied to inflation, if the tax takes effect in 2022, the 40 percent excise tax will be imposed on the portion of health coverage costs that exceeds \$11,200 for single coverage and \$30,150 for family coverage for that year. While the tax is controversial for a number of reasons, a main point of contention is whether the tax will generate federal tax revenue as predicted. The tax is expected to generate tax revenue because as employers cut back on the generosity of health benefits, workers will receive higher wages in return. While it is debatable as to whether higher wages will materialize, higher tax revenue may still appear if the savings from less generous health benefits are used for other purposes that result in taxable income.

References

- Adams, Scott. 2007. "Health Insurance Market Reform and Employee Compensation: The Case of Pure Community Rating in New York." *Journal of Public Economics* 91 (5-6): 1119-1133. doi:10.1016/j.jpubeco.2006.09.010.
- Anand, Priyanka. 2013. "The Effect of Rising Health Insurance Costs on Compensation and Employment." Accessed October 26, 2015. <http://aida.wss.yale.edu/~pa88/research/docs/PAnand-JMP.pdf>
- Baicker, Katherine, and Amitabh Chandra. 2006. "The Labor Market Effects of Rising Health Insurance Premiums." *Journal of Labor Economics* 24 (3): 609-634. doi:10.1086/505049.
- Bhattacharya, Jay, and M. Kate Bundorf. 2009. "The Incidence of the Healthcare Costs of Obesity." *Journal of Health Economics* 28 (3): 649-658.
- Brown, Stephen P.A., and Mine K. Yücel. 2000. "Gasoline and Crude Oil Prices: Why the Asymmetry?" *Economic and Financial Review: Federal Reserve Bank of Dallas*. Accessed October 26, 2015. <https://www.dallasfed.org/assets/documents/research/efr/2000/efr0003b.pdf>

- Buchmueller, Thomas C. 1999. "Fringe Benefits and the Demand for Part-Time Workers." *Applied Economics* 31 (5): 551-563. doi:10.1080/000368499324002.
- Clemens, Jeffrey, and David M. Cutler. 2014. "Who pays for public employee health costs?" *Journal of Health Economics* 38: 65-76. doi:10.1016/j.jhealeco.2014.04.008.
- Creddy, John, and Nicolas Herault. 2009. *Optimal Marginal Income Tax Reforms: A Microsimulation Analysis*. Research Paper Number 1080, Working Paper Series, The University of Melbourne, Department of Economics. Accessed October 26, 2015. http://fbe.unimelb.edu.au/__data/assets/pdf_file/0017/801170/1080.pdf
- Cutler, David M., and Brigitte C. Madrian. 1998. "Labor Market Responses to Rising Health Insurance Costs: Evidence on Hours Worked." *RAND Journal of Economics* 29 (3): 509-530.
- Eberts, Randall W., and Joe A. Stone. 1985. "Wages, Fringe Benefits, and Working Conditions: An Analysis of Compensating Differentials." *Southern Economic Journal* 52 (1): 274-280. doi:10.2307/1058920.
- Fronstin, Paul. forthcoming. "What Does the Future Hold for the Employment-Based Health Benefits System?" *EBRI Issue Brief* (Employee Benefit Research Institute).
- Garrett, Bowen, and Michael Chernew. 2008. "Health Insurance and Labor Markets: Concepts, Open Questions, and Data Needs." *Inquiry* 45 (1): 30-57.
- Gruber, Jonathan. 1994. "The Incidence of Mandated Maternity Benefits." *American Economic Review* 84 (3): 622-641.
- Gruber, Jonathan, and Alan B. Krueger. 1991. *The Incidence of Mandated Employer-Provided Insurance: Lessons from Workers' Compensation Insurance*. Vol. 5, in *Tax Policy and the Economy*, by David Bradford, 111-144. The MIT Press. Accessed October 23, 2015. <http://www.nber.org/chapters/c11270>
- Kolstad, Jonathan T., and Amanda E. Kowalski. 2012. "Mandate-Based Health Reform and the Labor Market: Evidence from the Massachusetts Reform." *NBER Working Paper No. 17933*.
- Lubotsky, Darren, and Craig A. Olson. 2015. "Premium Copayments and the Trade-Off Between Wages and Employer-Provided Health Insurance." *Journal of Health Economics* 44: 63-79. doi:10.1016/j.jhealeco.2015.08.006.
- Miller, Jr., Richard D. 2004. "Estimating the Compensating Differential for Employer-Provided Health Insurance." *International Journal of Health Care Finance and Economics* 4 (1): 27-41.
- Montgomery, Mark, and James Cosgrove. 1993. "The Effect of Employee Benefits on the Demand for Part-Time Workers." *Industrial and Labor Relations Review* 47 (1): 87-98.
- O'Brien, Ellen. 2003. "Employers' Benefits from Workers' Health Insurance." *Milbank Quarterly* 81 (1): 5-43.
- Olson, Craig A. 2002. "Do Workers Accept Lower Wages in Exchange for Health Benefits?" *Journal of Labor Economics* 20 (2, Part 2): S91-S114.
- Pauly, Mark V., and Bradley Herring. 1999. *Pooling Health Insurance Risks*. Washington, DC: AEI Press.
- Qin, Paige, and Michael Chernew. 2014. "Compensating Wage Differentials and the Impact of Health Insurance in the Public Sector on Wages and Hours." *Journal of Health Economics* 38: 77-87. doi:10.1016/j.jhealeco.2014.08.001.
- Rosen, Sherwin. 1986. "The Theory of Equalizing Differences." *Handbook of Labor Economics* 641-692.

- Rutledge, Matthew S., and Caroline V. Crawford. 2017. "Do Health Insurance Reforms Boost Demand for Older Workers by SES?" *Center for Retirement Research at Boston College Working Paper Number 17-7*. http://crr.bc.edu/wp-content/uploads/2017/03/IB_17-7.pdf
- Sheiner, L. 1995. *Health Care Costs, Wages and Aging: Assessing the Impact of Community Rating*. Federal Reserve Board.
- Summers, Lawrence H. 1989. "Some Simple Economics of Mandated Benefits." *American Economic Review* 79 (2): 177-183.
- Volpp, Kevin G., George Lowenstein, and David Asch. 2012. "Choosing Wisely: Low-Value Services, Utilization, and Patient Cost Sharing." *JAMA* 308 (16): 1635-1636. doi:10.1001/jama.2012.13616.

Endnotes

¹ See <https://www.cbo.gov/system/files?file=2018-06/53826-healthinsurancecoverage.pdf>

² See https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/45231-ACA_Estimates.pdf

³ See https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/45231-ACA_Estimates.pdf

⁴ Workers can pay out-of-pocket expenses on a pre-tax basis through FSAs and HSAs.

⁵ A reduction in use of services among workers and their families has broader implications for overall prices. As overall demand declines, prices for health care services outside of the employment-based system should fall as well, though the amount that prices may fall depends on the elasticity of supply of health care services.

⁶ See http://www.cbpp.org/sites/default/files/atoms/files/cadillac_tax_letter.pdf

⁷ More detailed literature reviews can be found in Qin and Chernew (2014) and Lubotsky and Olson (2015).

⁸ Gruber and Krueger (1991) argue that the findings from their study would be applicable to health insurance if employers were mandated to provide coverage much like they are mandated to provide workers' compensation coverage.

⁹ Community rating requires that insurers offer health insurance policies at the same price within a geographic region to all persons regardless of their health status.

¹⁰ See http://www.cbpp.org/sites/default/files/atoms/files/cadillac_tax_letter.pdf

¹¹ As cited in Volpp, Lowenstein and Asch (2012), a series of studies found that increasing and decreasing patient copayments for prescription medications do not have mirror-image effects. Raising copayments reduced use of prescription drugs and medication adherence, but reducing copayments did not increase use of prescription drugs and medication adherence nearly as much. Other examples are as follows: Creddy and Herault (2009) found that marginal welfare changes for the Australian income tax structure are not symmetric with respect to increases and decreases in tax rates. Brown and Yücel (2000) reference much of the literature that finds asymmetry between gasoline and crude oil prices such that gasoline prices rise more quickly when the price for crude oil increases, as compared to gasoline prices declining when crude oil prices fall.

¹² See http://www.americanhealthpolicy.org/Content/documents/resources/AHPI_Excise_Tax_October_2015.pdf

¹³ See <http://ushealthnews.mercer.com/article/462/introducing-mercer-s-excise-tax-survival-kit>

¹⁴ See <http://www.wsj.com/articles/west-coast-port-contract-may-stick-employers-with-cadillac-tax-1432745959>

¹⁵ See <http://www.businessinsider.com/gates-foundation-announces-unlimited-leave-policies-2015-10> and http://money.cnn.com/2015/06/04/news/companies/walmart-jeans-music-temperature/index.html?iid=SF_LN

¹⁶ See <http://ushealthnews.mercer.com/article/462/introducing-mercer-s-excise-tax-survival-kit>

¹⁷ Shifting compensation from nontaxable health benefits to taxable retirement benefits may result in increased federal income tax revenue, but the increased revenue may occur outside of the budget window for which legislation is scored.

¹⁸ Worker contributions to HSAs outside of payroll deduction do not count toward the Cadillac tax threshold.