

Can the Cadillac Tax Be Made Less Regressive by Replacing It with an Exclusion Cap?

Methods and Results

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About This Document

The Affordable Care Act's "Cadillac tax" consists of a 40-percent excise tax on premiums for employer-sponsored health plans in excess of a dollar limit. This report uses RAND's COMPARE microsimulation model to compare the effects of the Cadillac tax versus an alternative tax, based on an exclusion gap, on families in different income ranges.

This RAND report is a technical appendix that accompanies the National Institute for Health Care Reform's Research Brief No. 20, "Limiting Tax Breaks for Employer-Sponsored Health Insurance: Cadillac Tax vs. Capping the Tax Exclusion," October 2015, available at www.nihcr.org.

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Background

One of the sources of funding for the coverage expansions in the Affordable Care Act (ACA) is the so-called “Cadillac tax,” which is scheduled to take effect beginning in 2018. The Cadillac tax consists of a 40-percent excise tax on premiums for employer-sponsored health plans in excess of a dollar limit, or “attachment point.” The ACA specifies the dollar value of the Cadillac tax attachment point in 2018 (\$10,200 for a single plan, and \$27,500 for a family plan). The ACA also specifies that the attachment point will be increased from 2018 to 2019 by the Consumer Price Index for All Urban Consumers (CPI-U) plus one percentage point, and each year from 2020 and thereafter by the CPI-U.^{1,2} The premiums potentially subject to the Cadillac tax include employer and employee premiums contributions for medical plans, as well as contributions to health savings accounts (HSAs) and flexible health spending accounts (FSAs) (premiums for stand-alone vision and dental plans are excluded).

The Cadillac tax addresses the open-ended tax exclusion for employer-sponsored coverage, which has been criticized by health economists for decades for encouraging overly comprehensive benefits.³ But the Cadillac tax has been criticized as making high-cost plans prohibitively expensive, particularly for firms with older and sicker workers, and because the flat 40-percent excise tax is not progressive, like the federal income tax schedule. Policymakers will be talking more and more about tweaking, or scrapping, the Cadillac tax as 2018 draws nearer.

One alternative to the Cadillac tax is an “exclusion cap.” Under an exclusion cap, individuals enrolled in employer-sponsored plans would be able to exclude premiums from their taxable income only up to a dollar limit (i.e., the cap). Premiums in excess of the cap would be treated as taxable income and, therefore, subject to federal and state income taxes. In our analysis, we assume that excess premiums are not subject to payroll taxes, although, depending on the policy specifications, they could be.

The goals of the analysis are to (1) define an exclusion cap scenario that would produce the same amount of federal tax revenues as the Cadillac tax and (2) compare the impacts of the exclusion cap and the Cadillac tax on families in different income ranges. The Cadillac tax is scheduled to apply in tax years 2018 and beyond, with the Cadillac tax attachment point growing more slowly than health insurance premiums. We chose the year 2020 for the simulation because

¹ Joint Committee on Taxation, Technical Explanation of the Revenue Provisions of the “Reconciliation Act of 2010,” as Amended, in Combination with the “Patient Protection and Affordable Care Act,” JCX-18-10. (Mar. 21, 2010). Accessed at <https://www.jct.gov/publications.html?func=startdown&id=3673>.

² Congressional Research Service, *Health-Related Revenue Provisions in the Patient Protection and Affordable Care Act (PPACA)*, Washington, D.C., R41128. (May 3, 2010). Accessed at <http://www.crs.gov/ReportPDF/R41128.pdf>.

³ Pauly, Mark V. 1986. “Taxation, Health Insurance, and Market Failure in the Medical Economy.” *Journal of Economic Literature* 24(2), 629-75.

it is not too far into the future, but the Cadillac tax will be affecting a larger share of the population than in 2018.

Data and Methods

The analysis uses, as its starting point, RAND's COMPARE microsimulation model.⁴ COMPARE is designed to simulate the health insurance enrollment decisions of individuals and the health insurance offering behavior of firms under various tax and subsidy scenarios. COMPARE includes a synthetic population of individuals designed to be representative of the U.S. non-institutionalized population, and workers in COMPARE are grouped into synthetic firms. Each individual is assigned a simulated level of health expenditures, and each synthetic firm is assigned a premium based on the characteristics of its workers.

In general, there are three types of health insurance decisions modeled in COMPARE: firms choose whether to offer health insurance, individuals choose whether to enroll in a plan, and firms (or, in the nongroup market, individuals) choose the comprehensiveness of the plan. Comprehensiveness reflects patient cost sharing, but also the scope of covered benefits, the breadth of the provider network, and the degree of utilization management. For the current analysis, we determined that only the choice of comprehensiveness of the plan was relevant. The Cadillac tax and the exclusion cap, by definition, only directly affect firms and workers that have revealed that they place a very high value on health benefits. We view it as unlikely that firms facing the Cadillac tax would drop health benefits altogether when they could instead reduce the comprehensiveness of their plan just enough to avoid paying the tax. We also do not see the Cadillac tax as encouraging individual employees to decline coverage offered by an employer. Therefore, for this analysis we assumed that offering firms would continue to offer and that workers would continue to enroll, regardless of the Cadillac tax or the exclusion cap.

The analysis followed the following steps:

1. Simulate firm offering behavior and premiums in 2020 in a “no-tax” scenario. We used the COMPARE model to simulate firm offering behavior in 2020, taking into account all of the provisions for expansions of coverage in the ACA. Premiums for each offering firm were simulated using the standard COMPARE approach, which takes into account the characteristics of each synthetic firm's workforce. The level and distribution of premiums were adjusted to match the distribution observed in the 2014 Kaiser Family Foundation's Employer Health Benefits survey.⁵ Premiums were then inflated from 2014 to 2020 using the projected growth in

⁴ It is possible that firms will avoid paying the Cadillac Tax almost entirely, but reducing the value of health benefits so that the thresholds for paying the tax are never reached. However, if firms reduced health benefits, most economists believe that wages would increase to avoid a reduction in total compensation. These wages would be taxable, creating a new source of revenue. For an exclusion cap, the likely response would be a mix of reduction in contributions and some direct additional tax payments.

⁵ Kaiser Family Foundation and Health Research & Educational Trust, “2014 Employer Health Benefits Survey.” (2014). Accessed at <http://kff.org/health-costs/report/2014-employer-health-benefits-survey/>.

per capita National Health Expenditures.⁶ These premiums do not incorporate any behavioral responses to the Cadillac tax or the exclusion cap, which we refer to as the “no-tax” scenario (i.e. no special tax provision targeting high-premium plans).

2. Simulate the Cadillac tax attachment point in 2020. We used projected CPI-U from the Congressional Budget Office (CBO) to estimate Cadillac tax attachment points in 2020 of \$10,800 for a single plan and \$29,118 for a family plan (see Table 1).⁷ The Cadillac tax attachment points, as specified in the ACA, include several adjustments, such as higher attachment points for employees in high-risk professions. We did not include those adjustments in the analysis because of data limitations, and because they are not directly relevant to the analysis.

Table 1. Features of the Cadillac Tax Versus the Exclusion Cap

Scenario	Attachment point		Percentage of Families in Employer-Sponsored Plans with “No-Tax” Premiums Exceeding the Attachment Point (millions)			
	Single	Family	All	Family Income Below 200% of the FPL	Family income 200-500% FPL	Family income 500%+ FPL
Cadillac Tax	\$10,800	\$29,118	17%	16%	17%	19%
Exclusion Cap	\$10,451	\$28,178	21%	19%	21%	23%

SOURCE: Authors’ analysis.

NOTES: FPL = Federal Poverty Level. The “no-tax premium” is the simulated premium in 2020 in the absence of either the Cadillac tax or the exclusion cap. We project that 69.3 million families will be enrolled in employer-sponsored plans in 2020 (14.3 million below 200% FPL, 33.6 million 200-500% FPL, and 21.4 million 500%+ FPL).

3. Simulate the increase in federal revenues in 2020 from the Cadillac tax. The Cadillac tax will increase federal revenues in two ways. First, some firms with “no-tax” premiums above the attachment point will reduce spending on health benefits to reduce, or eliminate altogether, their payment of the Cadillac tax. Following a standard approach used by health economists, we assume that, in that situation, the total pre-tax compensation paid by the employer will remain constant, and the reduction in health benefits will result in an increase in other forms of compensation.⁸ For simplicity, we assume that any reduction in health benefits will be shifted to taxable wages (i.e., a “wage passback”). In reality, employers may retain some of the reduction

⁶ Sisko, Andrea M., Sean P. Keehan, Gigi A. Cuckler, Aandrew J. Madison, Sheila D. Smith, Christian J. Wolfe, Devin A. Stone, Joseph M. Lizonitz, and John A. Poisal. 2014. “National Health Expenditure Projections, 2013–23: Faster Growth Expected with Expanded Coverage and Improving Economy,” *Health Affairs*, Vol. 34, No. 9, September 2015.

⁷ Congressional Budget Office, 2014. *An Update to the Budget and Economic Outlook: 2014 to 2024*. (August 2014). Accessed at http://www.cbo.gov/sites/default/files/cbofiles/attachments/45653-OutlookUpdate_2014_Aug.pdf.

⁸ See Health—Option 15 in Congressional Budget Office, *Options for Reducing the Deficit: 2014 to 2023*. (November 2013). Accessed at <https://www.cbo.gov/sites/default/files/cbofiles/attachments/44715-OptionsForReducingDeficit-3.pdf>.

in health benefits as increased earnings, or shift compensation from health benefits to some mix of taxable wages and tax-advantaged forms of compensation such as retirement benefits. The wage passback will increase federal income and payroll tax revenues (both from the employer and employee), although those additional revenues will not be designated as Cadillac tax payments. Second, if premiums remain above the attachment point, the employer, or the insurer, will pay the 40 percent Cadillac tax on the amount above the attachment point.

To simulate reductions in spending by firms on health benefits, we used the concept of the “tax price” for employer-sponsored health benefits. Conceptually, the tax price equals the amount of non-health care consumption that must be given up in order to receive an additional dollar in health benefits, while holding total compensation constant. Historically, the uncapped tax exclusion for employer-sponsored health benefits has reduced the tax price well below one, meaning that workers have had to give up much less than one dollar in non-health consumption in exchange for an additional dollar in health benefits.⁹

For firms with “no-tax” premiums above the attachment point, the Cadillac tax raises the tax price by about 67 percent (i.e., one divided by one minus the 40 percent Cadillac tax rate), which puts the tax price for most firms above \$1.¹⁰ Using the COMPARE model, we simulated the increase in the tax price due to the Cadillac tax for each worker and firm. Then, based on the empirical results from a 2004 analysis of tax prices and employer spending on health benefits,

⁹ The general formula for the tax prices for health benefits is
$$TP = \frac{(1 - t_{inc,fed} - t_{inc,state} - t_{ee,socsec} - t_{ee,HI})}{(1 + t_{er,socsec} + t_{er,HI})}$$
,

where $t_{inc,fed}$ is the marginal federal income tax rate, $t_{inc,state}$ is the marginal state income tax rate, $t_{er,socsec}$ is the marginal employer tax rate for Social Security, $t_{ee,socsec}$ is the marginal employee tax rate for Social Security, $t_{er,HI}$ is the marginal employer tax rate for Medicare Hospital Insurance, and $t_{ee,HI}$ is the marginal employee tax rate for Medicare Hospital Insurance. (See Gruber, Jonathan, and Michael Lettau, “How Elastic Is the Firm’s Demand for Health Insurance?” *Journal of Public Economics*, Vol. 88. Nos. 7–8, 2004, pp. 1273–1293.) Using the COMPARE model, we calculated the tax price for each worker enrolled in an employer health plan, and then measured the average tax price among all enrolled workers for each synthetic firm.

¹⁰ For employers offering plans exceeding the Cadillac tax attachment point, the tax price equals

$$TP^{Cadillac} = \frac{(1 - t_{inc,fed} - t_{inc,state} - t_{ee,socsec} - t_{ee,HI})}{(1 + t_{er,socsec} + t_{er,HI})} \left(\frac{1}{1 - t_{inc,corp} - t_{Cadillac}} \right).$$

This assumes that insurers would increase premiums to

recoup any Cadillac tax payments, and any additional corporate income tax payments resulting from the increased premiums. For example, suppose the Cadillac tax attachment point equals \$30,000 and the “no-tax” premium equals \$31,000. If the premium remained unchanged, the insurer (or self-funded employer) would owe \$400, i.e., 40 percent of \$1,000. To recoup that \$400, a not-for-profit insurer would have to increase the premium by \$667, so that the new premium (\$31,667) minus the Cadillac tax payment (\$667, i.e., 40 percent of \$1667) equals the “no-tax” premium (\$31,000). Unlike most excise payments by firms, the Cadillac tax excise payment is not deductible as a business expense for the purposes of calculating federal corporate income tax liability. Therefore, a for-profit insurer would have to increase the premium by even more than \$667 to recoup both the Cadillac tax payments and the additional federal corporate income tax liability. For this analysis, we applied a federal marginal corporate income tax rate was 0, based on the assumption that any employer wishing to offer a plan above the Cadillac tax attachment point would use a not-for-profit insurer.

we adjusted premiums downward based on the increase in the tax price, assuming a premium elasticity with respect to the tax price of -0.7 .¹¹ The Cadillac tax creates a sharp divide at the attachment point in the marginal price of health benefits. Following the standard approach to dealing with “kinked” budget constraints, we assumed that the Cadillac tax would not lead firms to reduce premiums below the attachment point, but would lead to clumping of premiums at the attachment point.

Based on the increase in the tax price under the Cadillac tax, and the simulated reduction in the comprehensiveness of employer benefits, we estimate that the increase in federal revenues in 2020 will be \$13.1 billion (see Table 2). Of that amount, 65 percent is revenue from taxes on the wage passback, and 35 percent is revenues from payments of the Cadillac tax. Our revenue estimates are very similar to CBO’s projected revenues from the Cadillac tax for 2020, and the split between payments of the Cadillac tax versus revenues from the wage passback is also similar.¹²

Table 2. Increase in Federal Revenues Under the Cadillac Tax Versus the Exclusion Cap, 2020

Scenario	Increase in Revenues from the Wage Passback (\$ billions)	Increase in Designated Revenues (\$ billions)	Total Increase in Revenues (\$ billions)	Share of Increase in Revenues Due to the Wage Passback
Cadillac Tax	8.5	4.6	13.1	65%
Exclusion Cap	7.6	5.4	13.0	59%

SOURCE: Authors’ analysis.

NOTES: The “wage passback” is the increase in taxable compensation due to a reduction in health insurance premiums.

4. Identify an attachment point for an exclusion cap that produces the same increase in federal revenues. We modeled an exclusion cap that differs from the Cadillac tax in two key

¹¹ Gruber, Jonathan, and Micghael Lettau, “How Elastic Is the Firm’s Demand for Health Insurance?” *Journal of Public Economics*, Vol. 88, Nos. 7–8, 2004, pp. 1273–1293. Gruber and Lettau analyzed employer spending on health benefits per worker among offering firms, and regressed the natural logarithm of spending on health benefits on the tax price plus a comprehensive set of controls. To apply their estimated elasticity of -0.7 , we used the following formula:

$$healthbens^{Cadillac} = \max\left(\min\left(Cadattach, healthbens^{notax}\right), healthbens^{notax} * e^{-0.7(TP^{Cadillac} - TP)}\right)$$

where $healthbens^{notax}$ is the no-tax premium, and $Cadattach$ is the Cadillac tax attachment point. This approach assumes that the Cadillac tax will drive employers to reduce health benefits only to the attachment point and no further.

¹² CBO estimates that the Cadillac tax will increase federal revenues, and reduce the federal deficit, by \$13 billion in federal fiscal 2020 (See Congressional Budget Office, *Updated Estimates of the Effects of the Insurance Coverage Provisions of the Affordable Care Act, April 2014*. (April 2014). Accessed at http://www.cbo.gov/sites/default/files/cbofiles/attachments/45231-ACA_Estimates.pdf.) CBO also estimates that “Roughly one-quarter of that increase [in revenues] 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.”

ways. First, we assumed that taxes under the exclusion cap would be paid by individuals, rather than insurers or employers. Second, we assumed that the exclusion cap would apply only to federal income taxes, not Social Security or Medicare payroll taxes. In principle, an exclusion cap could apply both for the purposes of income and payroll taxes, but the proposals with which we are familiar would only apply to income taxes. We defined the tax price under the exclusion cap scenario using the same basic approach used for the Cadillac tax.¹³ The increase in the tax price in the exclusion cap scenario is smaller than the increase in the Cadillac tax scenario.

Using that smaller increase in tax price, we simulated an exclusion-cap premium for each firm. We then calculated the increase in federal revenues from the wage passback (including federal income and payroll tax revenues), and the increase in federal income tax revenues from exclusion-cap premiums that exceed the attachment point. We tested various exclusion-cap attachment points until we identified an attachment point (\$10,451 for a single plan and \$28,178 for a family plan) that produced the same increase in federal revenues as the Cadillac tax (see Table 1). For simplicity, we fixed the ratio of the single-to-family attachment points using the ratio from the Cadillac tax (i.e., a ratio of \$10,800 to \$29,118).

5. Compare impacts on workers' health benefits and take-home pay under three scenarios: no tax, Cadillac tax, and exclusion cap. For each of the three scenarios (no tax, Cadillac tax, and exclusion cap), we measured the following dollar amounts for each worker:

- *Health benefits*: health plan premiums (including the employer plus employee contributions) minus any Cadillac tax payments. This includes benefit payments (i.e., amounts paid to medical providers) plus the administrative expenses of the plan.
- *Take-home pay*: taxable income minus federal and state income and payroll taxes.

One key assumption in the analysis is the degree to which employers adjust premiums and health benefits to avoid exceeding the attachment points for the Cadillac tax and the exclusion cap. In the main analyses, the premium elasticity with respect to the tax price was assumed to be -0.7 , based on Gruber and Lettau's (2004) analysis. To test the sensitivity of the key results to that assumption, we created two alternative simulations. In the first alternative simulation, employers in the Cadillac tax scenario were assumed *not* to adjust premiums (i.e., a premium elasticity of 0). In the second alternative simulation, in the Cadillac tax scenario all employers exceeding the attachment point were assumed to reduce premiums to exactly equal the attachment point.

¹³ For employees whose premium exceeds the exclusion cap attachment point, the tax price equals

$$TP^{cap} = \frac{(1 - t_{socsec} - t_{HI})}{(1 + t_{socsec} + t_{HI})}$$

This assumes that states would apply the same exclusion cap in the calculation of state income tax liabilities.

Results

The Cadillac tax and the exclusion cap have attachment points that differ by only 3 percent, and they are both projected to directly impact only a small share of the population in 2020. The exclusion cap is projected to have a direct impact on 14.8 million families (see Table 1), meaning that their “no-tax” premium for their employer-sponsored health plan exceeds the exclusion cap attachment point. Those 14.8 million families represent 21.4 percent of the 69.3 million families with employer-sponsored insurance. The Cadillac tax, because it has a slightly higher attachment point than the exclusion cap, is projected to have a direct impact on even fewer families: 12.0 million families with employer-sponsored insurance.

Under both the Cadillac tax and the exclusion cap scenarios, most of the increase in federal revenues is from increased revenues on the wage passback, rather than revenues from payment of the Cadillac tax (see Table 2). That finding suggests that the impacts on workers of the two tax policies will be similar. Note that workers will be affected identically by a reduction in health benefits, and corresponding increase in taxable compensation, regardless of whether that reduction is prompted by the Cadillac tax or the exclusion cap. The importance of the wage passback also explains why the attachment points are so similar.

The remainder of the discussion of results focuses just on the 14.8 million families who are directly affected either by the Cadillac tax or the exclusion cap. As shown in Table 3, the impacts of the Cadillac tax and the exclusion cap on those families are quite similar, both for low- and high-income families. Under the Cadillac and exclusion-cap tax scenarios, health benefits are reduced, relative to the “no-tax” scenario, by between \$2,000 and \$3,000 per family. Take-home pay increases under both those scenarios, due to the increase in taxable compensation, but the increase in take-home pay is smaller than the reduction in health benefits—that wedge corresponds to the increase in federal revenues.

Table 3. Simulated Impacts of the Cadillac Tax and a Revenue-Equivalent Exclusion Cap in 2020
(dollars per family among families affected by one or both scenarios)

Scenario	Family Income Below 200% of FPL			Family Income 200–500% of FPL			Family Income 500%+ of FPL		
	Health Benefits	Take-Home Pay	Health Benefits + Take-Home Pay	Health Benefits	Take-Home Pay	Health Benefits + Take-Home Pay	Health Benefits	Take-Home Pay	Health Benefits + Take-Home Pay
No Tax	\$21,028	\$21,958	\$42,986	\$24,612	\$54,890	\$79,502	\$26,642	\$129,085	\$155,727
Cadillac Tax	\$18,396	\$23,602	\$41,998	\$21,909	\$56,491	\$78,401	\$23,879	\$130,554	\$154,434
Exclusion Cap	\$18,916	\$23,187	\$42,103	\$22,453	\$56,020	\$78,473	\$24,429	\$129,948	\$154,377
Difference Between Cadillac Tax and No Tax									
\$ per family	-\$2,632	\$1,643	-\$988	-\$2,703	\$1,601	-\$1,102	-\$2,763	\$1,469	-\$1,293
% (relative to No-Tax scenario)	-13%	7%	-2%	-11%	3%	-1%	-10%	1%	-1%
Difference Between Exclusion Cap and No Tax									
\$ per family	-\$2,113	\$1,229	-\$883	-\$2,159	\$1,130	-\$1,030	-\$2,213	\$863	-\$1,350
% (relative to No-Tax scenario)	-10%	6%	-2%	-9%	2%	-1%	-8%	1%	-1%
Difference Between Exclusion Cap and Cadillac Tax									
\$ per family	\$519	-\$414	\$105	\$543	-\$471	\$72	\$550	-\$606	-\$57
% (relative to No-Tax scenario)	2%	-2%	0%	2%	-1%	0%	2%	0%	0%

SOURCE: Authors' analysis.

NOTES: This analysis only includes families that are directly affected either under the Cadillac tax scenario or the exclusion cap scenario (weighted n=14.8 million). The "no-tax" scenario reflects the absence of either the Cadillac tax or the exclusion cap.

The sum of health benefits plus take-home pay can be used as a simple indicator of workers' well-being under the different scenarios. Under the Cadillac tax, health benefits plus take-home pay falls by around \$1,000 among low-income families, and by a somewhat greater amount—around \$1,300—among high-income families. The negative impact of the Cadillac tax is slightly greater for high-income families than for low-income families because of the wage passback and the progressivity of the federal income tax system. Put another way, if a certain amount of compensation is shifted from health benefits to taxable wages, the increase in the tax liability will be greater for high-income than low-income families, and the increase in take-home pay will be smaller. Compared with the Cadillac tax scenario, the exclusion cap scenario is more favorable to low-income families and less favorable to high-income families, but the differences are very slight, averaging \$100 or less per family.

Results of Sensitivity Checks

In the first alternative simulation (results shown in Table 4), employers in the Cadillac tax scenario were assumed *not* to adjust premiums (i.e., a premium elasticity of 0). Although premiums were assumed to be unchanged, claims paid by the health plan (and associated administrative costs) in the Cadillac tax scenario are assumed to fall in order to allow the insurer or self-funded employer to recoup Cadillac tax payments. The federal revenues produced under this simulation equal \$33.5 billion, which is 2.5 times as large as the revenues from the Cadillac tax in the main analyses. An attachment point for the exclusion cap was then identified that generated the same amount of federal revenue.

In the second alternative simulation (results shown in Table 5), in the Cadillac tax scenario all employers exceeding the attachment point were assumed to reduce premiums to exactly equal the attachment point. The federal revenues in this simulation equal \$11.1 billion, which is about 15 percent lower than the federal revenues in the main analyses. An attachment point for the exclusion cap was then identified that generated the same amount of federal revenue.

The alternative simulations produce very different degrees of shifting of compensation from health benefits to take-home pay. In the “pay tax” simulation (shown in Table 4) no shifting occurs, whereas in the “fully offset” simulation (shown in Table 5) compensation is shifted fully from health benefits to take-home pay.

The motivation for the analysis is to quantify the differences in the progressivity of the Cadillac tax versus a revenue-equivalent exclusion cap. In both of the alternative simulations, as in the main analysis, there is very little difference in progressivity between the Cadillac tax and a revenue-equivalent exclusion cap.

Table 4. Simulated Impacts of the Cadillac Tax and a Revenue-Equivalent Exclusion Cap in 2020, Assuming Employers Do Not Adjust Premiums Paid for Health Benefits (dollars per family among families affected by one or both scenarios)

Scenario	Family Income Below 200% of FPL			Family Income 200–500% of FPL			Family Income 500%+ of FPL		
	Health Benefits	Take-Home Pay	Health Benefits + Take-Home Pay	Health Benefits	Take-Home Pay	Health Benefits + Take-Home Pay	Health Benefits	Take-Home Pay	Health Benefits + Take-Home Pay
No Tax	\$17,128	\$21,379	\$38,507	\$19,948	\$51,429	\$71,376	\$21,503	\$117,843	\$139,346
Cadillac Tax	\$16,228*	\$21,345	\$37,573	\$18,992	\$51,383	\$70,376	\$20,485	\$117,773	\$138,258
Exclusion Cap	\$17,128	\$20,681	\$37,809	\$19,948	\$50,548	\$70,495	\$21,503	\$116,485	\$137,988
Difference Between Cadillac Tax and No Tax									
\$	-\$901	-\$34	-\$934	-\$955	-\$45	-\$1,000	-\$1,018	-\$70	-\$1,088
% (relative to No-Tax scenario)	-5%	0%	-2%	-5%	0%	-1%	-5%	0%	-1%
Difference Between Exclusion Cap and No Tax									
\$	\$0	-\$698	-\$698	\$0	-\$881	-\$881	\$0	-\$1,358	-\$1,358
% (relative to No-Tax scenario)	0%	-3%	-2%	0%	-2%	-1%	0%	-1%	-1%
Difference Between Exclusion Cap and Cadillac Tax									
\$	\$901	-\$664	\$236	\$955	-\$836	\$119	\$1,018	-\$1,288	-\$270
% (relative to No-Tax scenario)	5%	-3%	1%	5%	-2%	0%	5%	-1%	0%

SOURCE: Authors' analysis.

Notes: *: In the Cadillac Tax scenario, premiums are the same as in the no-tax scenario, but health benefits are reduced—the reduction in health benefits is necessary to recoup the payment of the Cadillac tax by the insurer. This analysis only includes families that are directly affected either under the Cadillac tax scenario or the exclusion cap scenario (weighted n=34.7 million). The “no-tax” scenario reflects the absence of either the Cadillac tax or the exclusion cap.

Table 5. Simulated Impacts of the Cadillac Tax and a Revenue-Equivalent Exclusion Cap in 2020, Assuming That All Employers in the Cadillac-Tax Scenario Reduce Premiums to Avoid Paying the Tax (dollars per family among families affected by one or both scenarios)

Scenario	Family Income Below 200% of FPL			Family Income 200–500% of FPL			Family Income 500%+ of FPL		
	Health Benefits	Take-Home Pay	Health Benefits + Take-Home Pay	Health Benefits	Take-Home Pay	Health Benefits + Take-Home Pay	Health Benefits	Take-Home Pay	Health benefits + Take-Home Pay
No Tax	\$22,171	\$22,215	\$44,386	\$26,084	\$56,494	\$82,578	\$28,376	\$134,032	\$162,408
Cadillac Tax	\$18,512	\$24,818	\$43,330	\$22,155	\$59,165	\$81,320	\$24,421	\$136,442	\$160,863
Exclusion Cap	\$20,069	\$23,422	\$43,490	\$23,887	\$57,608	\$81,495	\$26,135	\$134,865	\$161,000
Difference Between Cadillac Tax and No Tax									
\$	-\$3,658	\$2,603	-\$1,056	-\$3,930	\$2,671	-\$1,259	-\$3,955	\$2,410	-\$1,545
% (relative to No-Tax scenario)	-17%	12%	-2%	-15%	5%	-2%	-14%	2%	-1%
Difference Between Exclusion Cap and No Tax									
\$	-\$2,102	\$1,207	-\$895	-\$2,197	\$1,114	-\$1,083	-\$2,241	\$833	-\$1,408
% (relative to No-Tax scenario)	-9%	5%	-2%	-8%	2%	-1%	-8%	1%	-1%
Difference Between Exclusion Cap and Cadillac Tax									
\$	\$1,556	-\$1,396	\$160	\$1,733	-\$1,557	\$176	\$1,714	-\$1,577	\$137
% (relative to No-Tax scenario)	7%	-6%	0%	7%	-3%	0%	6%	-1%	0%

SOURCE: Authors' analysis.

Notes: This analysis only includes families that are directly affected either under the Cadillac tax scenario or the exclusion cap scenario (weighted n=12.0 million). The "no-tax" scenario reflects the absence of either the Cadillac tax or the exclusion cap.

Limitations

The analysis has several notable limitations:

1. We have assumed that firms offer, at most, one plan. According to the most recent data from Kaiser/HRET (2012), 82 percent of all offering firms offer only one plan, so this simplification is not too severe. Moreover, using data from the 2014 Kaiser/HRET survey, we estimate that 86.5 percent of single-employee plans that will hit the Cadillac tax limit by 2018 are offered by a firm that offers only one plan.
2. The analysis does not differentiate between Social Security revenues, Medicare Hospital Insurance revenues, and federal income tax revenues. It is important to note, however, that Social Security revenues and Medicare Hospital Insurance revenues are both credited to dedicated trust funds for those programs. Also, because of the Social Security benefit formula, increases in taxable compensation and Social Security revenues from current workers will result in increases in Social Security benefit payments in future years when those workers retire. The Social Security benefit formula is highly progressive, so increases in benefits would disproportionately accrue to lower-income workers, but those future benefit payments are not included in the analysis.
3. The analysis assumes that firms trade off taxable wages and spending on health benefits without friction, and that that total worker compensation remain constant. In reality, wage passbacks have been shown to be “sticky,”¹⁴ compensation may be shifted from health benefits to non-taxable forms of compensation, and adjustments may take years to occur. Also, the analysis assumes that insurers’ profits remain constant, but market power on the part of insurers may mean that that condition does not hold.¹⁵
4. Only limited evidence is available on how tax policy affects employers’ offering of health benefits, and the evidence that does exist is drawn from natural experiments that differ from the scenarios being analyzed. The firms affected by the Cadillac tax or the exclusion cap may be less responsive than we have assumed, given the very high value they place on health benefits. On the other hand, employers may be highly responsive to the Cadillac tax and the exclusion cap given that they draw highly salient “lines in the sand.”
5. Workers in COMPARE are matched to firms based on census region, industry, firm size, employer health insurance offer status, and an indicator for whether the firm has unionized workers. This approach should capture some of the correlations between worker and employer characteristics. However, it is likely that there are some correlations we do not capture, for example, if sicker, older, or lower-wage workers tend to be grouped together at certain firms. This is a limitation not just of COMPARE, but of all national models of that match employees and employers, because national-level data that capture these correlations are not publicly available. At the same time, due to the lack of data, we have no way to gauge the degree to which this issue may affect our results, or to make adjustment to correct for this issue.

¹⁴ Sommers, Benjamin D., “Who Really Pays for Health Insurance? The Incidence of Employer-Provided Health Insurance with Sticky Nominal Wages.” *International Journal of Health Care Finance and Economics*, Vol. 5, No. (1), 2005, pp. 89–118.

¹⁵ Dafny, Leemore S., “Are Health Insurance Markets Competitive?” *American Economic Review*, Vol. 100, No. 4, 2010, pp. 1399–431.