

# Deregulating Health Insurance Markets: Value to Market Participants

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# Executive Summary

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The Trump Administration's broad policy agenda is to deregulate markets and expand choice and competition to keep costs down for consumers and taxpayers. This report considers three changes that have the effect of expanding consumers' health insurance options: (1) reducing, through The Tax Cuts and Jobs Act of 2017, the individual mandate penalty to zero owed by consumers who did not have federally approved coverage or an exemption; (2) permitting, via a June 2018 rule, more small businesses to form Association Health Plans (AHPs) to provide lower-cost group health insurance to their employees; and (3) expanding, through an August 2018 rule, short-term, limited-duration insurance (STLDI) plans.

Previous assessments of the Affordable Care Act (ACA) have relied on ad hoc metrics and rationales that are related to but do not directly measure or address the impact of regulations on market participants. To overcome this problem, we use standard methods of welfare economics to assess the potential efficiency gains to the consumers and taxpayers affected by the deregulatory reforms. We rely on estimates from the Congressional Budget Office and other reliable statistical sources for the basic inputs into this welfare analysis.

Our overall finding is that these changes, including the Trump Administration's deregulatory reforms to expand health coverage options, will generate benefits to Americans that are worth an estimated \$450 billion over the next 10 years. The reduction of the individual mandate penalty to zero accounts for \$14 billion per year; the AHP rule accounts for \$8 billion per year; the STLDI reform accounts for \$8 billion per year; and the reduction in the excess burdens of labor taxation accounts for \$15 billion per year. We estimate that the reforms will benefit lower- and middle-income consumers and all taxpayers but will impose costs on some middle- and higher-income consumers, who will pay higher insurance premiums. The benefits of giving a large set of consumers more insurance options will far outweigh the projected costs imposed on the smaller set who will pay higher premiums. We provide estimates that these reforms do not "sabotage" the ACA but rather provide a more efficient focus of tax-funded care to those in need.

## Introduction

The Trump Administration’s broad policy agenda is to deregulate markets and expand choice and competition to keep costs down for consumers and taxpayers. This report considers three deregulatory reforms that expand consumers’ health insurance options: (1) reducing, through The Tax Cuts and Jobs Act of 2017, the individual mandate penalty to zero owed by consumers who did not have federally approved coverage or an exemption; (2) permitting, via a June 2018 rule, more small businesses to form Association Health Plans (AHPs) to provide lower-cost group health insurance to their employees; and (3) expanding, through an August 2018 rule, short-term, limited-duration insurance (STLDI) plans.<sup>1</sup> Both 2 and 3 stem from the President’s October 2017 Executive Order 13813, “Promoting Healthcare Choice and Competition Across the United States” (White House 2017b).

The deregulatory reforms we consider expand options mainly for consumers who purchase health insurance individually, through what is known as the nongroup market. Such insurance provides coverage for about 15 million American consumers in 2018, or a little more than 5 percent of the population, according to the Congressional Budget Office (CBO 2018b).<sup>2</sup> Many consumers who purchase insurance in the nongroup market are in lower- to middle-income households. Of the 15 million consumers in the nongroup market, over 60 percent purchased it in 2018 through the health insurance exchanges established by the Affordable Care Act (ACA). Most consumers on the exchanges purchase health insurance that is subsidized through the ACA’s premium tax credits and cost-sharing reductions (hereafter, “premium subsidies” or “exchange subsidies”).

The 2010 ACA made several changes to how American consumers obtain health insurance. In addition to establishing insurance exchanges in the nongroup market, the ACA expanded Medicaid insurance coverage for low-income adults. A growing body of research finds that the Medicaid expansions and the ACA premium subsidies have reduced the number of uninsured (Courtemanche et al. 2017; Freaun, Gruber, and Sommers 2017; Kaestner et al. 2017). However, the ACA also imposed a tax penalty on nonexempt consumers who chose not to have ACA minimum essential coverage. Further, regulations promulgated under the ACA and other laws banned a number of insurance options that were popular among consumers who made choices based on what was best for them. These regulations are not required by the ACA or other laws, so the deregulatory reforms we consider restore and expand options in health insurance markets within the existing statutory frameworks, including the ACA.

In assessing the impact of the ACA and other health insurance regulations, it is crucial to focus on how the population being regulated—mainly lower- and middle-income consumers and the

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<sup>1</sup> Throughout the report, we will treat the reduction of the individual mandate penalty to zero as a deregulatory action because it removes a regulatory burden, though it is technically considered a legislative change.

<sup>2</sup> All the health insurance enrollments cited in this paragraph are CBO (2018b) projections.

taxpayers supporting them—is affected. However, most previous policy assessments have focused on metrics, such as how many consumers are insured on the exchanges and the ACA’s premium growth rates.<sup>3</sup> Many public and Congressional evaluations of the ACA have also focused on these metrics. However, these metrics relate to, but do not directly capture, the well-being of consumers and taxpayers in terms of the full set of costs and benefits they face. In this report, we therefore use standard methods of welfare economics to assess the potential efficiency gains to the consumers and taxpayers who are being affected by the recent deregulatory reforms of health insurance. For example, as opposed to previous evaluations, in assessing the mandate penalty tax cut, we use traditional tax incidence analysis. Also, in performing our standard welfare analysis, we rely on CBO projections, the analyses contained in the AHP and STLDI rules, and other studies.<sup>4</sup>

Our overall finding is that the Trump Administration’s health insurance deregulations to date will generate benefits to Americans that are worth about \$450 billion over the next 10 years. Setting the individual mandate penalty to zero annually leads to \$14 billion in benefits; the AHP reform, \$8 billion; the STLDI reform, \$8 billion; and the reduction in the excess burdens of labor taxation, \$15 billion.<sup>5</sup> We estimate that the reforms will benefit lower- and middle-income consumers and all taxpayers, but will impose costs on some middle- and higher-income consumers, who will pay somewhat higher premiums. The benefits of giving some consumers more insurance coverage options outweigh the costs imposed on those consumers who are projected to pay higher premiums.

One aspect of the projected benefits of the Administration’s deregulatory reforms is that they reduce Federal expenditures on ACA premium subsidies and reduce the deficit by \$185 billion (CBO 2017b, 2018b). Generally, eliminating taxes and subsidies has larger welfare effects beyond government revenues due to the excess burden of such measures. The CEA thus finds that the regulatory reforms will generate benefits that are larger than the reduction in Federal spending. For example, until the AHP and STLDI deregulatory reforms, insurance regulations created additional private sector administrative costs that were ultimately borne by

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<sup>3</sup> An exception that focuses on ACA exchange enrollees is the research by Pauly, Leive, and Harrington (2018). A partial exception is the CBO’s assessment of the distributional effects of the provisions of the ACA that affected means-tested transfers and Federal taxes (CBO 2018a). The CBO’s analysis of the ACA’s impact on the distribution of household income is a useful and important step, but it does not capture all the effects included in the CEA’s cost-benefit analysis. Examples that focus on the number of consumers insured on the exchanges and ACA premiums include Eibner and Nowak’s (2018) assessment of the repeal of the individual mandate penalty, and Blumberg, Buettgens, and Wang’s (2018) assessment of State-based individual mandates.

<sup>4</sup> To the extent that CBO projections and other projections underestimate or overestimate the effects of the reforms on insurance enrollments, our analysis underestimates or overestimates the actual efficiency gains. The appendix includes a quantitative analysis of the sensitivity of the results to different assumptions about insurance enrollments.

<sup>5</sup> In the remainder of the report, the cost benefit analyses show estimates for 2021, when the CBO (2017b, 2018b) projects that markets will have largely adjusted to the reforms. The benefits grow over time, so the benefits in 2021 are lower than average annual benefits over the 10-year horizon.

consumers. Reducing these costs has provided benefits to consumers, even though the costs did not appear in Federal budgets.

As we discuss in more detail later in this report, the often-expressed view that deregulation “sabotages the ACA” by giving consumers more insurance coverage options is misguided, for several reasons. First, as of February 2018, 87 percent of the enrollees in the ACA’s exchanges receive premium subsidies and as a result only pay a fraction of their health insurance costs. The premium subsidies stabilize the ACA exchanges because the net premiums paid by healthy consumers are not a critical source of revenue for the exchanges. Second, as some lower- and middle-income consumers potentially depart from the ACA’s exchanges, they will gain benefits because they will have a larger range of coverage alternatives. We estimate that 5 million consumers will benefit because they will be able to obtain lower-cost insurance that better meets their needs through AHP or STLDI coverage. Another 5 million consumers will benefit because setting the mandate penalty to zero gives them the option of not paying for health insurance they did not want; instead, they can purchase other goods and services that they value more highly. Although the benefits of dropping health insurance may be disputed by policy analysts focusing on specific insurance-market metrics, our metrics also include the value held by those who are regulated and can make choices in their own best interest. Our metrics also account for “adverse selection” and other frictions that may affect insurance markets. We find that consumers and taxpayers can simultaneously benefit when the mandate penalty is removed.

In addition to being part of the Trump Administration’s healthcare policy agenda, the health insurance reforms are also part of the Administration’s broad deregulatory agenda established by Executive Order 13771, “Reducing Regulation and Controlling Regulatory Costs” (White House 2017c). Under this Executive Order, in fiscal year 2018, Federal agencies eliminated 176 regulatory actions and reduced regulatory costs by an estimated \$23 billion. This estimate understates the full impact of deregulation because incomplete information was used in accounting for the cost savings.<sup>6</sup> Two of the health insurance deregulations featured in this report are good examples because they had been the subject of qualitative reviews and thus were not included in the estimated \$23 billion cost reduction. We estimate that by themselves, these two deregulations eliminated net costs in the tens of billions of dollars associated with restrictions on consumer choice.

The rest of this report is outlined as follows. The first section explains why the deregulatory reforms should not be expected to destabilize the market for ACA-compliant insurance. The second section provides background on the deregulatory reforms. This section also reviews CBO projections and other studies that provide the basic inputs into our analysis, such as the

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<sup>6</sup> The Office of Information and Regulatory Affairs and Federal agencies established consistent accounting standards for regulatory cost savings. However, sometimes agencies are able to provide only qualitative information about costs, or are able to only estimate the savings in compliance costs and omit opportunity cost savings.

impact of the reforms on the numbers of enrollees in different types of plans and the impact on premiums. The third section presents our estimates of the potential effects of the deregulatory reforms on consumer welfare. The report concludes with a summary showing that over the next 10 years, the potential positive effects of the reforms will be about \$450 billion.

## **Deregulatory Reforms and the Stability of the Nongroup Health Insurance Market**

Some have argued that all the components and regulations of the ACA need to work together in order for the act to work economically. In particular, three features are supposed to be essential and mutually reliant—the so-called three-legged stool (see Gruber 2010). The stool’s first leg is guaranteed issue and community rating, where consumers must be offered coverage without the premium varying by preexisting condition or health status. The stool’s second leg is the mandate penalty on the remaining uninsured, so that healthy consumers do not just wait to fall ill to sign up. The stool’s third leg is the system to subsidize premiums, so that lower- and middle-income consumers can afford coverage. Under this view, deregulatory reforms that expand health coverage options outside the ACA’s insurance markets run the risk of destabilizing or even sabotaging the ACA’s insurance markets. The relatively healthy consumers who might best respond to expanded options are seen as critical sources of ACA insurance market revenue because their premiums are expected to exceed their healthcare claims.<sup>7</sup>

However, several features of insurance markets contradict this logic. Most important, the common argument that the individual mandate is valuable is misguided, due to the large ACA premium subsidies. The view that deregulation sabotages the ACA is based on the assumption that the premiums paid by unsubsidized healthy consumers are a critical source of exchange revenue.<sup>8</sup> But Federal subsidies through premium tax credits and cost-sharing reductions are far more important. Figure 1 displays annual premiums as a function of family income and composition. Only consumers who are ineligible for premium subsidies—typically, those with incomes higher than 400 percent of the Federal poverty line—actually pay the entire premium. In 2018, only 13 percent of consumers who purchased insurance on the ACA’s exchanges did

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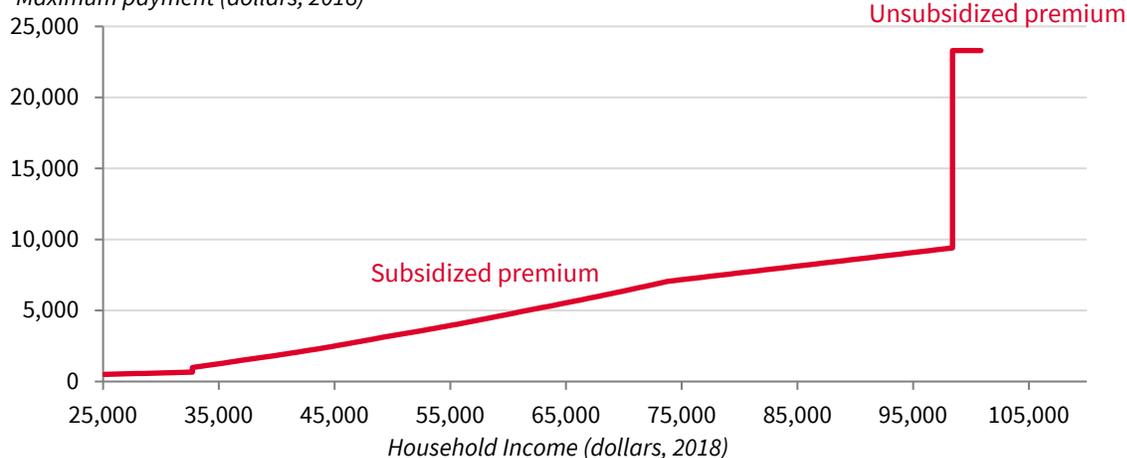
<sup>7</sup> When it adopted the ACA, Congress itself evidently believed that the individual mandate was necessary to a regulatory scheme that included guaranteed issue and community rating. Congress expressly found that the individual mandate was “essential to creating effective health insurance markets in which improved health insurance products that are guaranteed issue and do not exclude coverage of pre-existing conditions can be sold” and that “the absence of the [individual mandate] would undercut Federal regulation of the health insurance market” (42 U.S.C. § 18091).

<sup>8</sup> This is closely related to “adverse selection”: the departure of a healthy person from a risk pool is purported to be adverse in terms of reducing plan premium revenue more than it reduces claims. Due to the ACA subsidies, adverse selection will operate differently, in that subsidized healthy persons will have less of an incentive to leave the ACA’s exchanges.

not receive subsidies and therefore paid the full premium.<sup>9</sup> The other 87 percent of exchange consumers receive subsidies through the ACA premium tax credits and thus pay just a fraction of the full premium. For example, a family of four with an annual income of \$55,000 after the subsidy pays under \$4,000 in premiums, or about 17 percent of the full premium. ACA-compliant coverage is sold both on and off the ACA’s exchanges, but subsidies are available only for coverage purchased on the exchanges. Including both on- and off-exchange ACA-compliant individual market coverage, about 30 percent of consumers who purchased insurance on the ACA-compliant individual market paid the full premium in 2017.

**Figure 1. Subsidized and Unsubsidized Premiums as a Function of Household Income for a Family of Four, 2018**

*Maximum payment (dollars, 2018)*



Sources: Kaiser Family Foundation; CEA calculations.

Note: The annual premium is the national average for a family of four with two 50 year-old adults and two teenagers with no tobacco use.

The regulatory reforms expand health coverage options, and to the extent that the consumers who choose these options and leave the ACA exchanges are healthier than average, their departure is expected to somewhat raise gross premiums for those who remain on the exchanges.<sup>10</sup> But for most consumers who remain on the exchanges, the higher premiums will

<sup>9</sup> “Grandfathered” plans that were in effect when the ACA was passed are exempt from some of the ACA provisions. The fraction of workers with employer-sponsored insurance enrolled in grandfathered plans decreased from 56 percent in 2011 to 16 percent in 2018 (Kaiser Family Foundation 2018). During the transitional period, another set of “grandmothered” plans have also been exempt from certain ACA provisions.

<sup>10</sup> Below, we cite and use CBO projections that the combined effect of the three deregulatory reforms will be to increase exchange premiums by 12.5 percent (CBO 2017b, 2018b; CMS 2018b). The projections assume that the reforms will induce healthier-than-average members to leave the exchanges, which can be justified by the observation that the difference between premiums and expected healthcare claims risk is greater for healthier consumers. The CEA adopts the same assumption, but notes that claims risk is often not the primary characteristic determining who is insured (Cawley and Philipson 1999; Cohen and Siegleman 2010; Einav and Finkelstein 2011).

be mainly paid by taxpayers, not the consumers themselves. Although the CBO projects that setting the individual mandate tax penalty to zero will encourage healthier-than-average enrollees to leave the ACA's exchanges, the CBO also projects that their departure from 2018 through 2027 will reduce Federal expenditures on ACA premium subsidies by \$185 billion (CBO 2017b; Gruber 2010).<sup>11</sup> It is surprising that setting a tax to zero reduces the Federal deficit. Of course, CBO projections of Federal expenditures are uncertain. But figure 1 shows the origin of the projections: For consumers with family incomes less than 400 percent of the Federal poverty line, the individual mandate penalty taxes them for turning down large amounts of government assistance.

Encouraging consumers to buy ACA-compliant individual coverage by prohibiting various alternative types of coverage would be even more inefficient than pushing them with a financial penalty. The prohibitions destroy value without delivering any funds to the Treasury (or to taxpayers).

The role of the ACA premium subsidies in stabilizing the exchanges is acknowledged by others (CEA 2017; Sacks 2018; Collins and Gunja 2018). The premium subsidies' stabilizing role is consistent with the experience of the past few years, as rising premiums have not curtailed demand. ACA exchange premiums have almost doubled in just a few years (figure 2), while there has been hardly any change in exchange enrollment.<sup>12</sup> Figure 2 illustrates how the U.S. Treasury (i.e., taxpayers) has shouldered almost the entire premium increase for ACA plans.

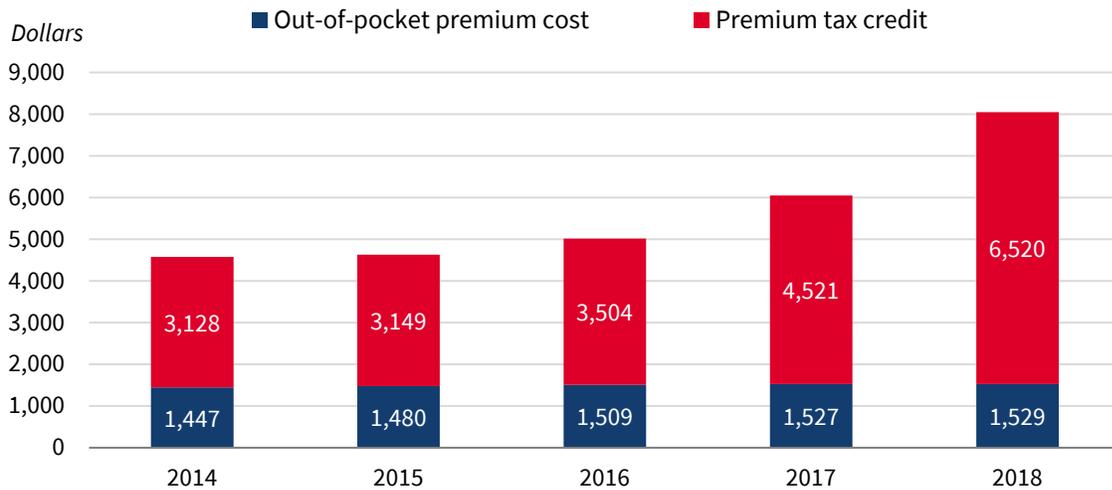
Even though gross premiums almost doubled between 2014 and 2018, many lower- and middle-income consumers were insulated from the effects of these increases by the subsidies. Although there may have been other factors at work, these trends are consistent with CBO (2017b, 2018b) projections that further increases in the full exchange premiums (usually referenced as the "gross" premiums) will not destabilize the ACA's exchange markets. As further evidence of the stability of the ACA exchanges, from 2018 to 2019 the benchmark ACA premiums dropped by 1.5 percent.

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<sup>11</sup> Taking into account all the effects of setting the individual mandate penalty to zero, the CBO projects a \$338 billion reduction in Federal expenditures from 2018 through 2027, \$179 billion of which is a reduction in Federal expenditures on Medicaid (CBO 2017b).

<sup>12</sup> Figure 2 does not include cost-sharing reduction (CSR) payments or reinsurance payments; Fiedler (2018) calculates that CSR payments were equivalent to about 9 percent of average exchange premiums in 2017.

**Figure 2. Gross Premiums Per Member Per Year for Subsidized Enrollees, 2014–18**



Source: Kaiser Family Foundation.

Note: Annual data show average national premium for a single, nonsmoking 50-year-old earning 200 percent of the Federal poverty line with no children.

The individual mandate penalty adds an unnecessary leg to the ACA stool, which results in economic inefficiencies. Comprehensive insurance, particularly with extremely low cost sharing, could cause patients to consume healthcare that provides little benefit relative to the cost.<sup>13</sup> The significant decline in premium subsidies as income rises also distorts labor markets by taxing income and some types of full-time employment and introduces another marriage penalty into the tax code (Mulligan 2015).<sup>14</sup> Consumers have heterogeneous preferences for risk, smooth cash flow, and a range of coverage. As such, it is wasteful to use a tax penalty to coerce people to purchase insurance that does not meet their needs (Mulligan and Philipson 2004).

In sum, the three-legged-stool justification for the individual mandate tax penalty is not consistent with the basic facts of how the ACA is structured. The penalty and other restrictions on consumer choice are not needed to support the guaranteed issue of community-rated

<sup>13</sup> The possibility that insurance causes patients to use healthcare that provides little benefit relative to cost is known as moral hazard. Moral hazard is not unique to ACA-compliant insurance, but the requirements of the ACA restrict market mechanisms for reducing moral hazard. Some evidence suggests that higher cost sharing to reduce moral hazard causes consumers to reduce healthcare used across the spectrum of services, including potentially valuable services (Brot-Goldberg et al. 2017). Cost sharing may be a blunt tool to limit moral hazard, but it is only one potential market response. The CEA (2018) discusses the large body of evidence that the additional healthcare consumed by consumers as the result of insurance provides little benefit relative to cost.

<sup>14</sup> Unfortunately, many of the “health insurance simulation models” ignore moral hazard and any effect of health insurance policy on labor market equilibrium. The simulations therefore rule out by assumption many of the benefits of allowing consumers to voluntarily leave ACA-compliant plans. See Gallen and Mulligan (2018) for further discussion of these issues.

health insurance to all consumers, including those with preexisting conditions. The ACA premium subsidies stabilize the exchanges.

## **The Trump Administration's Deregulatory Health Insurance Reforms**

In this section, we provide details of the three deregulatory health insurance reforms, the regulations they replaced, and the available estimates of how many consumers are thus expected to change insurance status. First, we discuss the individual mandate penalty, and then the expansions of Association Health Plans (AHPs) and short-term, limited-duration insurance (STLDI). This report looks primarily at Federal programs and regulations related to private health insurance and the insurance status of nonelderly consumers whose income is above the poverty line. The CEA is still examining deregulation effects on Medicaid participation.

### ***Setting the Individual Tax Mandate Penalty to Zero***

The Tax Cuts and Jobs Act of 2017 involved a tax cut on uninsurance as well as people purchasing noncompliant ACA coverage like STLDI by setting the individual mandate penalty to zero, becoming effective in the 2019 tax year. The ACA individual mandate requires nonexempt consumers to have one of several enumerated forms of insurance coverage. It was enforced with a monetary penalty that by 2016 was 2.5 percent of income above the tax-filing threshold or \$695 per adult per year, whichever is greater, but capped at the national average bronze plan premium amount.<sup>15</sup> Part of our analysis is the amount of penalty revenue that would have been collected over the next 10 years if the act had not set the penalty to zero. We take the revenue projections from the CBO, and note their consistency with actual collections for tax year 2016, which is the first year that the ACA put the full penalty in place. In that year, about 4 million returns included individual mandate payments, down from 6.7 million for tax year 2015 (table 1). The average 2016 penalty paid per household return was \$708.<sup>16</sup> The mandate tax penalty is a regressive tax that falls more heavily on the relatively poor; the majority of those who paid the tax penalty in 2015 were lower- and middle-income consumers with incomes less than 400 percent of the Federal poverty line.

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<sup>15</sup> See IRS (2018). The penalty is half the amount for children under age 18. The flat part of the penalty is capped at \$2,085 per family in 2016. The ACA adjusted the dollar amounts for inflation in years after 2016. Before 2016, lesser amounts applied.

<sup>16</sup> Note that the penalty applies only to the months and family members that failed to have either coverage or an exemption.

**Table 1. IRS Reporting of Individual Mandate (IM) Payments, 2014–16**

Tax Year	Returns Paying IM Penalty (millions of people)	IM Revenue (billions of dollars)	Mean Penalty Paid (dollars)	Minimum Statutory Penalty per Person-Year (dollars)	Exemptions (millions of people)
2014	8.1	1.69	210	95	12.4
2015	6.7	3.11	465	325	12.7
2016	4.0	2.83	708	695	10.7

Sources: Internal Revenue Service; Taxpayer Advocate Service; Busch and Houchens (2018); CEA calculations.

Analyses looking at the effect of removing the individual mandate penalty provide a range of estimates of the impact on the number of insured consumers and on gross ACA premiums. The estimates refer to increases in the full ACA premiums (gross of subsidies), not the out-of-pocket (net) premiums enrollees pay after taking into account the premium subsidies they receive. The CBO projects that setting the mandate tax penalty to zero will result in 3 million fewer consumers with ACA-compliant nongroup insurance coverage in 2019, 4 million fewer in 2020, and 5 million fewer each year from 2021 through 2027 (CBO 2017b).<sup>17</sup> Because the enrollees who leave ACA-compliant individual coverage are projected to be healthier than those remaining, the CBO also projects that the gross premiums will rise by an average of 10 percent. Nevertheless, the CBO projects that the 2018–27 budgetary impact of setting the mandate penalty to zero will be to reduce the Federal deficit, which includes a \$185 billion reduction in Federal expenditures on ACA premium subsidies. A study published by the Commonwealth Fund analyzed the impact of setting the individual mandate penalty to zero under 10 scenarios (Eibner and Nowak 2018). Each scenario reflected different assumptions about how people respond to both financial and nonfinancial factors. In this study’s baseline scenario, setting the mandate penalty to zero is predicted to reduce enrollment in the nongroup market by 3.4 million in 2020 and to increase the gross premium for bronze plans on the ACA’s exchanges by 7 percent (Eibner and Nowak 2018).

### **Association Health Plans**

On October 12, 2017, President Trump signed Executive Order 13813, “Promoting Healthcare Choice and Competition Across the United States” (White House 2017b), which directed the Secretary of Labor to consider proposing regulations to ease employers’ abilities to form Association Health Plans (AHPs) that allow small businesses to group together to self-insure or purchase large group insurance. AHPs enable employers to band together, which decreases administrative costs through economies of scale. The Department of Labor finalized this new rule on June 21, 2018, pursuant to its authority under the Employee Retirement Income Security Act (known as ERISA).

<sup>17</sup> The CBO also projects voluntary reductions in Medicaid enrollment and enrollment in employment-based coverage. The CEA is still studying these effects, which thus are not included in the current analysis.

The 2018 AHP rule allows small businesses to form associations to provide more affordable health coverage by taking advantage of economies of scale. Many uninsured Americans today work for small businesses. The ACA subjected health insurance coverage for small businesses to mandated coverage of essential health benefits and price controls that are not required for large businesses. The AHP rule also broadens plan participation eligibility to sole proprietors. New AHPs can form by industry or geographic area (e.g., metropolitan area, State). Fully insured AHPs could be established beginning on September 1, 2018, while self-funded AHPs will need to wait until early 2019.<sup>18</sup>

Two studies provide estimates of the effects of the AHP rule on insurance coverage and ACA premiums. The CBO (2018b) projects that after the rule is fully phased in, it will expand AHP enrollments by about 4 million people. And the CBO projects that the consumers who switch to AHP coverage will be healthier than average. Based on these CBO projections, we estimate that the AHP rule will cause gross (of subsidy) premiums in the individual market to increase by slightly more than 1 percent.<sup>19</sup> These CBO projections also imply that the 2018–28 budgetary impact of the AHP rule will be to reduce the Federal deficit by \$0.45 billion.<sup>20</sup> Another study estimated that the proposed rule on AHPs will cause 3.2 million enrollees to leave the individual and small group markets and enter AHPs by 2022 (Avalere 2018).

### *Short-Term, Limited-Duration Insurance*

Executive Order 13813 also directed the Secretaries of the Treasury, Labor, and Health and Human Services to consider issuing regulations to expand the market for short-term, limited-duration insurance (STLDI). On August 3, 2018, these departments published a final rule that extended the length of the initial STLDI contract term to less than 12 months and allowed for the renewal of the initial insurance contract for up to 36 months, which is the same as the

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<sup>18</sup> Existing associations may establish a self-funded AHP on January 1, 2019, and new associations may establish a self-funded AHP on April 1, 2019.

<sup>19</sup> The CBO (2018b) projects that the combined effect of the AHP and STLDI rules will be to increase gross premiums in the individual and small group markets by about 2.5 percent. We estimate the fraction of the premium increase that is due to the AHP rule, as follows. The CBO projects that after the rules, 3.6 million currently insured consumers will switch into AHPs, and 1.35 million currently insured consumers will switch into STLDI coverage. Avalere (2018) estimates that 30 percent of the new AHP enrollees will be from the individual market and 70 percent will be from the small group market. Based on these estimates, we assume that about 1.1 million consumers will switch from individual coverage into AHP coverage and 2.5 million will switch from small group coverage into AHP large group coverage. We assume that 100 percent of the 1.35 million new STLDI enrollees will be from the individual market. Based on these assumptions, the AHP rule accounts for 1.1 million of the 2.45 million enrollment drop caused by the two rules, which is 45 percent. We estimate that it accounts for the same share (45 percent) of the 2.5 percent premium increase rate, i.e., slightly more than 1 percentage point.

<sup>20</sup> The CBO projects that the combined effect of the AHP and STLDI rules will be to reduce the Federal deficit by \$1 billion. For reasons explained in footnote 19, we estimate that the AHP rule will account for 45 percent of the reduction.

maximum coverage term required under COBRA continuation coverage (83 FR 38212; U.S. Congress 1985).<sup>21</sup> The 2018 STLDI rule reversed a rule issued by the previous Administration in 2016. The 2016 final rule expressed a concern that consumers were purchasing STLDI as their primary form of coverage to avoid ACA requirements. The 2016 rule therefore shortened the total duration of STLDI plans from less than 12 months to less than 3 months (81 FR 75316).

Because STLDI plans are not considered to be individual health insurance coverage under the Health Insurance Portability and Accountability Act and the Public Health Service Act, STLDI coverage continues to be exempt from all ACA restrictions on insurance plan design and pricing. This allows STLDI to offer a form of alternative coverage to those who do not seek permanent individual health insurance coverage. The STLDI rule requires that STLDI policies must provide a notice to consumers that these plans may differ from ACA-compliant plans and, among other differences, may have limits on preexisting conditions and on health benefits, and have annual or lifetime limits.<sup>22</sup> Insurers were allowed to begin issuing STLDI plans on October 2, 2018—60 days after publication of the final rule.

Four studies provide estimates of the nationwide effects of the STLDI rule on insurance coverage and ACA premiums. The CBO projects that the STLDI regulatory reform will result in an additional 2 million consumers in STLDI plans by 2023 (CBO 2018b). Based on CBO projections, we estimate that the STLDI rule will increase gross premiums by slightly more than 1 percent in the same time frame.<sup>23</sup> Based on CBO projections, we estimate that the 2019–8 budgetary impact of the STLDI rule will be to reduce the Federal deficit by \$0.5 billion.<sup>24</sup> The Centers for Medicare & Medicaid Services (CMS 2018b) projects that by 2022, 1.9 million consumers will take up STLDI policies and that, as a result, gross premiums for ACA coverage could increase by up to 6 percent by 2022. A study published by the Urban Institute in 2018

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<sup>21</sup> The 1985 Consolidated Omnibus Budget Reconciliation Act (COBRA) provides for the continuation of employer health coverage that would be otherwise canceled due to job separation or other qualifying events.

<sup>22</sup> ACA compliant coverage, included coverage offered on the exchange, continue to have no limits on preexisting health conditions.

<sup>23</sup> The CBO (2018b) projects that the combined effect of the AHP and STLDI rules will be to increase gross premiums in the individual and small group markets by about 2.5 percent. We estimate the fraction of the premium increase that is due to the STLDI rule as follows. The CBO projects that after the rules, 3.6 million currently insured consumers will switch into AHPs and 1.35 million currently insured consumers will switch into STLDI coverage. Avalere (2018) estimates that 30 percent of the new AHP enrollees will be from the individual market and 70 percent will be from the small group market. On the basis of these estimates, we assume that about 1.1 million consumers will switch from individual coverage into AHP group coverage. We assume that 100 percent of the 1.35 million new STLDI enrollees will be from the individual market. Based on these assumptions, the STLDI rule accounts for 1.35 million of the 2.45 million enrollment drop caused by the two rules, which is 55 percent. We estimate that it accounts for the same share (55 percent) of the 2.5 percent premium increase rate—i.e., slightly more than 1 percentage point.

<sup>24</sup> The CBO projects that the combined effect of the AHP and STLDI rules will be to reduce the Federal deficit by \$1 billion. For reasons explained in footnote 23, we estimate that the STLDI rule accounts for 55 percent of the reduction.

predicts that the rule could increase STLDI enrollment by 4.2 million while slightly reducing deficits, but does not provide an estimate of the impact on gross ACA premiums.<sup>25</sup> A 2018 study published by the Commonwealth Fund estimates that the rule could increase STLDI enrollment by 5.2 million and could increase gross ACA premiums by 2.7 percent (Rao, Nowak, and Eibner 2018).

## Cost-Benefit Analysis of the Deregulatory Reforms

In this section, we report the results of traditional welfare analyses of the Trump Administration's deregulatory reforms that expand consumer health coverage options. This contrasts to most previous policy assessments, which examined various metrics such as the fraction insured or the growth rate in ACA exchange premiums. These metrics are related to, but do not directly capture, the well-being of those regulated. We first present and discuss the analysis of the effects of the reforms for 2021, when the CBO (2017b, 2018b) projects that markets will have largely adjusted to the changes. When we sum up the results in the conclusion, we provide estimates of the reforms' total benefits from 2019 through 2029.

We use CBO projections and other estimates to conduct prospective cost-benefit analyses of the three deregulatory reforms.<sup>26</sup> We discuss each reform's benefits and costs separately, but our analysis accounts for interactions between them. Specifically, the CBO (2018b) projects the combined impact of the AHP and STLDI rules, and incorporates the effects of the repeal of the mandate penalty. For example, CBO projections of the growth in STLDI coverage take into account the zero mandate penalty. Because the reforms are not independent, if one of the deregulatory reforms were repealed, it would be necessary to re-estimate the other reforms' benefits and costs.

### *Analysis of Setting the Individual Mandate Tax Penalty to Zero*

Setting the ACA's individual mandate penalty to zero benefits society by allowing people to choose not to have health coverage without facing a tax penalty, and potentially by saving taxpayers money if fewer consumers purchase heavily subsidized ACA coverage. We estimate that setting the mandate penalty to zero in 2021 yields benefits worth \$12.6 billion.

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<sup>25</sup> Blumberg, Buettgens, and Wang (2018), contrary to the CEA's analysis, assume that STLDI is unavailable without the new rule.

<sup>26</sup> It would be instructive to use data on how health insurance markets evolve over the next few years to follow-up this study with a retrospective cost-benefit analysis. The Department of Labor conducted a regulatory impact analysis of the AHP final rule. The Department of the Treasury, the Department of Labor, and the Department of Health and Human Services conducted a regulatory impact analysis of the STLDI final rule. Our cost-benefit analyses of the AHP and STLDI rules build on and provide quantified estimates of benefits and costs in these regulatory impact analyses. Our study relies on CBO projections that were published after the end of the comment periods for the AHP and STLDI final rules.

We first describe in qualitative terms our cost-benefit analysis of the effects of setting the mandate penalty to zero. Without the tax penalty, consumers are likely to choose to reduce their ACA-compliant coverage, which refers in this section to coverage purchased on the ACA exchanges and coverage obtained outside the exchanges as long as it complies with the provisions of the ACA. Our analysis begins by recognizing that consumers value the ACA-compliant coverage they give up: the coverage yields social benefits.<sup>27</sup> To the extent that these consumers are healthier than average, including them in the insurance pool also benefits others in the pool by reducing the premium needed to cover the pool's average healthcare expenditures.

At the same time, of course, society incurs costs to provide health insurance coverage. Providing insurance to those who value it most highly nets large social benefits. Insuring more and more of the population nets progressively smaller social benefits, because the coverage still costs society but is directed at enrollees who do not value the coverage as highly. When insuring even more of the population requires providing insurance to enrollees who value the insurance at less than what it costs society, on net the social benefits become negative. In figure 3, this is captured by the downward-sloping net marginal social benefits (MSB) schedule, which shows that as enrollment increases, the net social benefits decline and eventually become negative. The MSB schedule is the cumulative distribution of net social benefits; for illustrative purposes only, the MSB schedule in figure 3 is linear.<sup>28</sup> The appendix provides more discussion of figure 3.

Our cost-benefit analysis summarized by the MSB schedule in figure 3 uses standard methods in welfare economics. Consumers' decisions about whether to have ACA-compliant coverage reveal the value that consumers place on this coverage. The value consumers place on insurance reflects their expected healthcare expenditures and the value they place on reducing their financial risk. After the mandate penalty is set to zero, some consumers who choose not to have ACA-compliant coverage might have higher healthcare expenditures than they

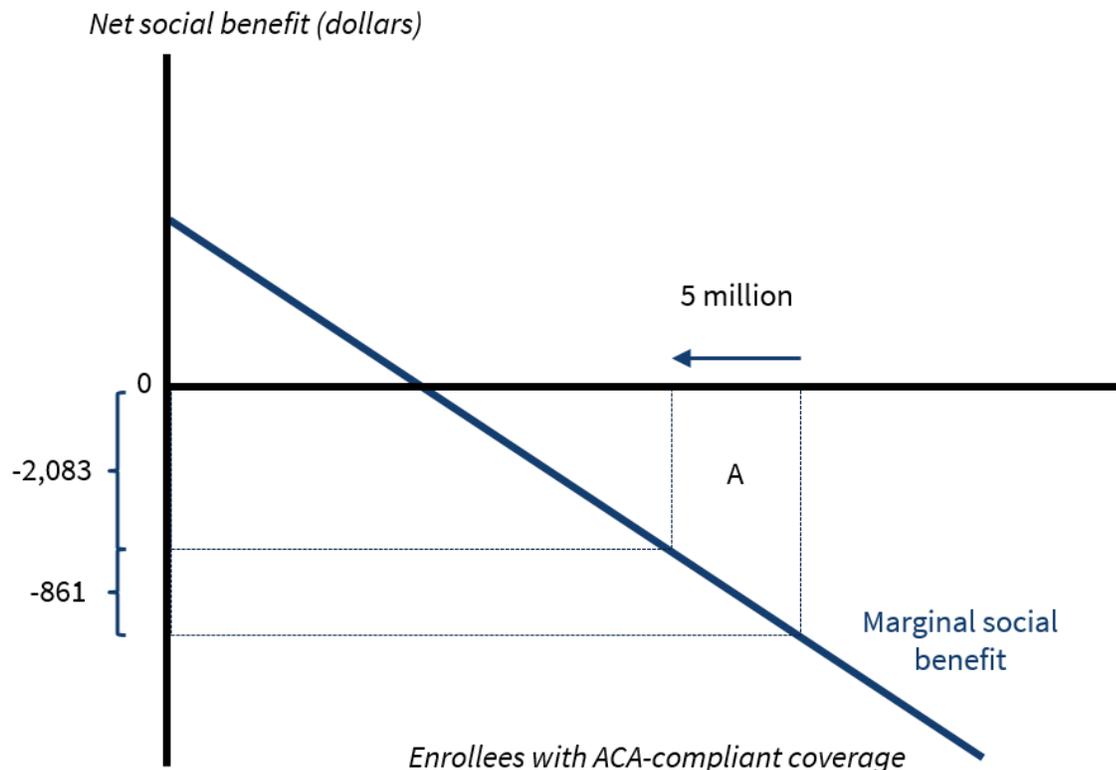
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<sup>27</sup> Following much of the cost-benefit literature, the CEA uses the Kaldor-Hicks criterion, which means that all citizens' benefits and costs are measured in dollars, with all citizens' totals getting the same weight. In keeping with this focus on Kaldor-Hicks economic efficiency, our analysis estimates the value of health insurance coverage to the consumers themselves. The appendix discusses an extension that allows for health insurance coverage for low- and middle-income consumers to be a merit good. Although the merit good argument supports public subsidies for health insurance coverage for low- and middle-income consumers, it is not clear that it justifies imposing a tax penalty, or imposing regulations that degrade unsubsidized coverage, to force those consumers to accept the subsidies.

<sup>28</sup> As noted below, our triangle analysis assumes that the MSB schedule is approximately linear in the portion of the distribution that responds to the removal of the tax penalty. We also assume zero economic profits for insurers, in that premium revenues are exhausted by claims and loads. Loads, in turn, reflect competitive payments to labor and capital employed in the insurance industry.

expected and also lack coverage. This would not necessarily mean that these consumers were unwise in their choice of insurance; they were simply unfortunate.<sup>29</sup>

**Figure 3. Benefits of Setting the Individual Mandate Penalty to Zero**



Although the MSB schedule shown in figure 3 reflects the value that consumers place on their own health insurance, it also captures a set of third-party effects. First, some consumers who lack insurance coverage and then fall ill or have an accident receive uncompensated care from providers. The providers might bear some or all of the costs of uncompensated care; or they might pass some of the costs along to other third parties, such as privately insured patients. Garthwaite, Gross, and Notowidigdo (2018) analyzed confidential hospital financial data and concluded that, on average, each additional uninsured person costs hospitals about \$800 each year. We use this result to estimate the third-party effects of uncompensated care provided to consumers who do not have ACA-compliant coverage. Second, to the extent that the enrollees who choose to leave the market are healthier than average, their health insurance decisions will increase insurance premiums charged to those who remain in ACA-compliant coverage. Most of the enrollees who remain in ACA-compliant coverage receive premium subsidies, which means that this effect mainly increases Federal expenditures on the subsidies. A subset of enrollees who do not receive subsidies will pay higher premiums. Our empirical

<sup>29</sup> The appendix discusses the alternative approach in behavioral welfare economics that assumes that consumers make systematically unwise decisions that are not in their own best interests. The appendix discusses in qualitative terms the implications of this extension for the results of our cost-benefit analysis.

implementation of the MSB schedule incorporates the third-party effects on uncompensated care, on Federal expenditures for premium subsidies, and on premiums paid by nonsubsidized enrollees.

We conclude that setting the individual mandate penalty to zero benefits society by reducing inefficient coverage in the market for ACA-compliant health insurance. The ACA premium subsidies are the first source of inefficiency. The premium subsidies are provided to make health coverage more affordable to lower- and middle-income consumers. Although the subsidies help the enrollees who receive them, on net the subsidies reduced the social benefits from health insurance because they resulted in a number of enrollees who valued the insurance at less than its cost. Pauly, Leive, and Harrington (2018) also estimate that many uninsured consumers experience financial losses due to ACA coverage.<sup>30</sup> The tax penalties that enforced the individual mandate are the second source of inefficiency and exacerbate the inefficiency due to the premium subsidies.

Setting the individual mandate penalty to zero may reduce some ACA premium subsidy payments and, if it does, generate a social gain. It is often the case in cost-benefit analysis that a reduction in subsidy payments is merely a transfer that leaves social benefits unchanged; the benefits to taxpayers are exactly offset by the costs to the recipients who lose the subsidy. The ACA premium subsidy is properly treated as a transfer when the task is evaluating the effects of the subsidy—that is, when comparing the ACA with premium subsidies with a hypothetical ACA without subsidies. But the purpose of this report is to evaluate the effect of relaxing restrictions on consumer choice, not changing the ACA premium subsidy rules. We refer readers to the subset of individuals who, as shown in figure 3, may have subsidized ACA coverage only due to the mandate penalty. To illustrate: An individual who voluntarily gives up his or her \$6,000 subsidy when the \$861 penalty is removed is not, by comparison with his or her situation with the penalty in place, harmed because the Treasury is no longer providing a subsidy.<sup>31</sup> Instead, the individual has received a benefit by no longer being constrained by a penalty at the same time that taxpayers benefit by no longer having to finance the \$6,000 subsidy. The CEA's application of standard welfare economics to this situation is proper but unfamiliar because of the ACA's complicated design and related regulations.<sup>32</sup>

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<sup>30</sup> On the basis of research in behavioral economics, some might question the judgment of consumers for whom a large subsidy is not enough by itself to induce them to purchase ACA-compliant insurance. Such an assessment ignores the reality of the ACA's exchanges. With administrative loading fees, price controls, moral hazard, premium subsidies that distort labor markets, and heterogeneous preferences, it is perfectly reasonable, and consistent with economic efficiency, for a risk-averse person to go uninsured when his or her risk is low enough. The appendix includes additional discussion of the implications of behavioral economics research for our analysis.

<sup>31</sup> This report does not consider a policy of changing the subsidy amounts specified in the ACA. Reducing these amounts would harm even the marginal individuals who receive the subsidies solely because of the individual mandate.

<sup>32</sup> Goulder and Williams (2003) discuss the importance of including general equilibrium interactions when estimating the net social loss due to an excise tax when there are preexisting distortions in other markets. In

We use data from the CBO's (2017b, 2018b) projections to estimate the effects of setting the individual mandate tax penalty to zero. The CBO projects that setting the tax penalty to zero will decrease enrollment in ACA-compliant coverage in 2021 by 5 million enrollees. We estimate that after accounting for the average premium assistance received and the other third-party effects, each of these 5 million enrollees reduces third-party expenditures by \$2,083.<sup>33</sup> If it had not been set to zero, the average tax penalty would have been \$861 in 2021.<sup>34</sup> As a result of these two market frictions, we estimate that each of these enrollees valued their coverage by \$2,514 less than what it cost society.<sup>35</sup> In figure 3, the social benefits of repealing the mandate are given by the base of area A (5 million) multiplied by its average height, which measures the value gap (\$2,514). That is, aggregated over the 5 million enrollees, we estimate that setting the individual mandate tax penalty to zero will yield social benefits of \$12.6 billion in 2021.

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their framework, the tax penalty on being uninsured creates an additional social cost in the market for ACA-compliant coverage because that market is distorted by the ACA premium subsidies. The additional social cost is measured by a "rectangle" equal to the preexisting subsidy times the change in quantity in the ACA-compliant market caused by the mandate penalty tax. That is, the premium subsidy payments were part of the social loss created by the tax penalty. So, in our analysis, the reduction in the subsidy payments are part of the social benefits created by the tax penalty repeal. Our analysis accounts for important general equilibrium interactions between the deregulatory reforms and preexisting distortions created by the premium subsidies and labor market taxation. However, our analysis does not account for all possible interactions. We assume that additional potential distortions are small, often because they are addressed by other existing policies. For example, laws requiring vaccinations address potential positive externalities, and antitrust laws address potential market power in health insurance and healthcare markets. The appendix discusses in qualitative terms the sensitivity of our analysis to the extent of certain market frictions not included in our baseline approach.

<sup>33</sup> That is, the difference could be negative if there were no premium assistance. The CBO (2017b) projects that the net impact of the individual mandate penalty repeal is to reduce premium assistance paid in 2021 by \$19 billion. This captures the reduction in premium assistance due to lower ACA enrollment and the increase in premium assistance provided to the subsidized enrollees who remain on the ACA exchanges. The increase in premium assistance is due to the CBO's projection that the enrollees who leave are healthier than average, so they were previously paying cross-subsidies to the remaining subsidized enrollees. The CBO projects that the mandate penalty repeal leads to 5 million fewer enrollees in 2021, so the average net saving is \$3,800 per consumer. The enrollees who leave were also previously paying cross-subsidies to the unsubsidized enrollees who remain on the exchanges. Taking into account the projected increase in premiums paid by unsubsidized consumers reduces the net value from \$3,800 to \$3,072 per consumer who leaves ACA-compliant coverage. We also take into account the projected increase in hospitals' uncompensated care costs. Garthwaite, Gross, and Notowidigdo (2018) estimate that in 2011, each additional uninsured person costs hospitals about \$800 each year. We use the CMS Personal Health Care Price Index and CMS (2018b) projections to estimate that the value of uncompensated care in 2021 will be \$989 per uninsured person. This reduces the net value from \$3,072 to \$2,083 per consumer who leaves ACA-compliant coverage.

<sup>34</sup> From table 1 above, the average tax penalty paid in 2016 was \$708. We assume that the tax penalty would have grown at an annual rate of 4 percent.

<sup>35</sup> We use the standard Harberger triangle analysis to measure the deadweight loss of the tax penalty. The tax penalty averages \$861 per enrollee, so the triangular area of deadweight loss per person induced to take compliant coverage equals half of \$861, which is \$431. This is added to the \$2,083 net subsidy to arrive at an average gap of \$2,514.

It is important to note that our analysis takes into account both benefits and costs, including the costs imposed on third parties. First, our analysis accounts for the costs imposed on third parties when uninsured consumers received uncompensated care (Garthwaite, Gross, and Notowidigdo 2018). Second, our analysis accounts for the possibility that setting the mandate tax penalty to zero imposes new costs because insurance premiums might increase. Because the enrollees who leave the individual market are expected to be healthier than average, the CBO (2017b) projects that the zero tax penalty will increase premiums in the nongroup market by about 10 percent. There are certainly reasons to believe 10 percent is too high, such as the decline in benchmark premiums from 2018 to 2019 despite the individual mandate penalty being set to zero in 2019. Our analysis uses the estimate of 10 percent and accounts for the third-party effects on Federal expenditures for premium subsidies and on premiums paid by nonsubsidized enrollees.

### *Analysis of the Deregulatory Reform of Association Health Plans*

The AHP rule benefits society by expanding small businesses' ability to join AHPs, which enables them to offer their workers more affordable and potentially more attractive insurance coverage, and potentially by saving taxpayers money when consumers join an AHP instead of purchasing more subsidized ACA-compliant individual coverage. We estimate that the AHP rule will yield benefits in 2021 worth \$7.4 billion.

The AHP rule will allow small businesses to offer their workers more affordable health coverage by reducing the administrative cost of coverage through greater economies of scale. The share of the premium accounted for by administrative costs falls with insurance group size: the share is 42 percent for firms with 50 employees or fewer, compared with 17 percent for firms with 101 to 500 employees and 4 percent for firms with more than 10,000 employees (Karaca-Mandic, Abraham, and Phelps 2011). On the basis of this pattern, we assume that every 10 percent increase in group size reduces the administrative cost share by almost 3 percent.<sup>36</sup> The AHP rule allows the average group size to expand, which reduces the average cost of AHP coverage—a significant advantage for many small and medium-sized businesses.

The AHP rule expands organizations' ability to offer AHPs on the basis of common geography or industry. For example, existing organizations such as local chambers of commerce could offer potentially large AHPs. According to the Association of Chamber of Commerce Executives, local chambers of commerce range in size from a few dozen firms to more than 20,000 firms. Depending upon the number of workers per chamber member, the potential group size of chambers of commerce–based AHPs range from the hundreds into the tens of thousands.

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<sup>36</sup>Based on the results of Karaca-Mandic, Abraham, and Phelps (2011), we calculate that the elasticity of cost share with respect to group size is  $-0.27$ .

The expansion of the AHP market and other provisions of the AHP rule could substantially increase the average AHP group size and significantly reduce administrative costs. We estimate that before the new rule, there were at least 5 million enrollees in AHPs.<sup>37</sup> The CBO projects that the AHP rule will lead to 4 million additional AHP enrollees, which is a 90 percent increase. Noting the greater flexibility to form larger AHPs, we assume that the AHP rule will increase the average AHP group size by 100 percent. Based on the relationship between group size and administrative costs, this implies that the AHP rule will reduce the share of premiums accounted for by administrative costs by 27 percent. Assuming that before the rule the average administrative cost share was 15 percent, this corresponds to a reduction of about 4 percentage points.<sup>38</sup>

The AHP rule also gives small businesses more flexibility to offer their workers health coverage more tailored to their needs.<sup>39</sup> At this point, it is speculative whether AHPs will provide relatively comprehensive coverage or provide more tailored coverage. Providing more tailored coverage options can have substantial value to consumers. An analysis of choices made in the employment-related group market found that offering multiple plan choices was as valuable to the median consumer as a 13 percent premium reduction (Dafny, Ho, and Varela 2013). Our analysis does not include a separate estimate of the value of more tailored plan options. We note that in some circumstances, there may be a trade-off between AHP group size and the extent of tailoring, because the more tailored plan might not be attractive to all potential AHP members. In this context, our estimate of the benefits of reduced administrative costs provides a lower-bound estimate of the benefits; consumers who do not take advantage of the lower administrative costs of larger AHPs do so because they value tailored coverage more highly than the cost savings.

Our analysis of the effects of the AHP rule parallels our analysis of setting the mandate tax penalty to zero, as shown in figure 3, with modifications to capture important sources of additional benefits. Although figure 3 analyzes an explicit tax penalty, the AHP rule reduces administrative costs that made insurance coverage more costly. The AHP rule affects four groups of people: consumers who move out of the individual market; consumers who move out of small group coverage; consumers who would have AHP coverage with or without the rule; and consumers who would have been uninsured without the rule. The different benefits

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<sup>37</sup> Kofman et al. (2006) report an estimate that registered multiple-employer welfare associations covered 5 million enrollees in AHPs. Underreporting due to incomplete registrations creates uncertainty about the number of AHP enrollees.

<sup>38</sup> A commenter on the AHP final rule suggested that the reduction is not likely to be more than 2 to 3 percentage points. In our judgment, this understates the potential economies of scale from the formation of large and very large AHP groups, where the administrative cost is as low as 4 percent (Karaca-Mandic, Abraham, and Phelps 2011).

<sup>39</sup> As discussed further in the STLDI section of this report, the choice of range of coverage is not a zero-sum game. A person saving, say, \$1,000 in premium payments by carving out a certain type of coverage is not imposing a \$1,000 cost on others in the insurance market because of moral hazard and insurance loadings.

for each of these groups make the analysis more complicated than in figure 3. The appendix presents an illustration.

To estimate the effects of the AHP rule, we use data from CBO (2018b) projections and estimates of administrative costs. The first step is to estimate the benefits that flow from consumers moving out of ACA-compliant coverage in the individual market to the AHP's ACA-compliant coverage in the group market. The CBO projects that the AHP rule will lead to 4 million more consumers with AHP coverage, and that 90 percent of them, or 3.6 million, would have been insured in the absence of the rule. From several sources, we estimate that over 1 million of these will move out of ACA-compliant coverage in the market.<sup>40</sup> Based on differences in administrative costs of ACA exchange plans in the individual market versus AHPs, we estimate that each enrollee who shifts from coverage that is compliant with ACA small group and individual market rules to AHP coverage saves \$619 in administrative costs and enjoys \$309 in net surplus from the cost reduction.<sup>41</sup>

In addition, we estimate that after accounting for the loss of cross-subsidies and their effects on ACA-compliant individual market insurance premiums and subsidies, each enrollee who shifts from such ACA-compliant individual coverage to ACA-compliant AHP group coverage reduces third-party expenditures by \$1,933.<sup>42</sup> Aggregated over the 1.1 million enrollees who shift, in 2021 these effects of the AHP regulatory reform will yield benefits worth \$2.5 billion.

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<sup>40</sup>Based on Avalere's (2018) estimates that 30 percent of the new AHP enrollees will be from the individual market and 70 percent from the small group market, we estimate that about 1.1 million consumers will switch from individual coverage to AHP coverage and 2.5 million will switch from small group coverage to AHP coverage. We note that the CBO projections are for 2023, when the CBO estimates that the effects of the rule will be fully phased in. We assume that the effects of the rule will be fully phased in by 2021.

<sup>41</sup> The CMS (2018b) projects that the average ACA premium in 2021 will be \$8,364. We assume that the administrative cost share of the ACA premium is 18.4 percent (Commonwealth Fund 2016). As explained above, we assume that after the AHP rule, the administrative cost share of the AHP premiums will be 11 percent. The administrative cost savings are 7.4 percent of \$8,364, which is \$619. The deadweight loss of surplus due to the cost reduction equals half the size of the reduction.

<sup>42</sup> Recall our discussion in the previous section of why, to the extent that a tax or regulation induces consumers to receive a subsidy, the additional subsidy expenditures are properly treated as a social loss rather than a transfer. This same issue arises a third time with our STLDI analysis. Our estimate of the change in third-party expenditures accounts for reduced Federal spending on ACA premium subsidies, increased Federal tax expenditures on AHP insurance, and reduced cross-subsidies to the subsidized and unsubsidized enrollees who remain in coverage that is compliant with ACA small group and individual market rules. We assume that, on average, each consumer who shifts out of coverage that is compliant with ACA small group and individual market rules reduces Federal expenditures for premium subsidies, which is partly offset by the higher premiums paid by the Federal government on behalf of those with subsidized coverage, leaving \$3,800 Federal savings per enrollee in ACA transactions, which is the same amount derived in footnote 33 above in connection with consumers leaving coverage that is compliant with ACA small group and individual market rules in response to a zero mandate penalty. We estimate that, in addition, the average enrollee who shifts to ACA-compliant AHP large group coverage becomes eligible for an average in \$1,519 of tax expenditures for employer-sponsored coverage, leaving  $\$3,800 - \$1,519 = \$2,281$  net Federal savings per enrollee. Finally, we estimate that the average enrollee who leaves coverage that is compliant with ACA small group and individual market rules was paying

The second step is to estimate the benefits that flow from the estimated 2.5 million consumers who respond to the rule by moving from small group coverage to AHP coverage.<sup>43</sup> By allowing enrollees to switch to AHPs that are larger than their existing small group plans, we estimate that the AHP rule will on average reduce insurance administrative costs by \$1,924, so each enrollee enjoys \$962 of surplus from this cost reduction.<sup>44</sup> We assume that the reduction in administrative costs also reduces Federal tax expenditures on health insurance on average by \$349 per enrollee.<sup>45</sup> Aggregated over the 2.5 million enrollees who make this shift, these effects of the AHP rule yield benefits worth \$3.3 billion.

The third step is to estimate the benefits the AHP rule generates for the consumers who would have AHP coverage with or without the rule. As explained above, we estimate that at least 5 million consumers would have AHP coverage with or without the rule. Due to the increase in average AHP group size, we estimate that the rule reduces administrative costs by \$335 per enrollee.<sup>46</sup> We assume that the reduction in administrative costs also reduces Federal tax expenditures on health insurance on average by \$61 per enrollee.<sup>47</sup> The aggregate benefits from this effect of the AHP rule are worth \$1.7 billion.

The fourth step is to estimate the benefits the AHP rule generates for consumers who would have been uninsured without the rule. The CBO (2018b) projects that the AHP regulatory reform will reduce the number of uninsured consumers by 400,000. Because they are responding to a reduction in administrative costs that averages \$619 per enrollee (calculated above), each of the newly insured AHP enrollees enjoys a consumer surplus of \$309 from their purchase. We also estimate that third-party costs of uncompensated care fall by \$989 for each newly insured AHP enrollee. Offsetting these benefits, we estimate that Federal tax expenditures on health insurance increase by \$1,519 per newly insured AHP enrollee. The aggregated net costs of these effects of the AHP rule are \$0.1 billion.

Summing up over the four groups of consumers whose insurance options are expanded by the AHP rule, we estimate that the rule will yield social benefits worth \$7.4 billion in 2021. It is

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\$348 of cross-subsidies to the unsubsidized enrollees who remain, leaving total third-party savings of \$2,281 – \$348 = \$1,933.

<sup>43</sup> Footnote 19 above provides the sources for this estimate.

<sup>44</sup> We estimate that the administrative cost share in existing small group plans is 34 percent, compared with our estimated 11 percent for AHP. We calculate the administrative cost savings assuming the average premium is \$8,364, which is the CMS (2018b) projection for 2021. The administrative cost reduction is 23 percent (= 34 – 11) of \$8,364, which equals \$1,924, half of which is consumer surplus.

<sup>45</sup> The ratio of the average tax expenditure of \$1,519 and the average premium of \$8,364 is 18 percent. We assume that the \$1,924 reduction in administrative costs reduces tax expenditures by 18 percent, or \$349.

<sup>46</sup> We assume that the administrative cost share in AHPs drops from 15 percent to 11 percent. We calculate the administrative cost savings assuming the average premium is \$8,364, which is the CMS (2018b) projection for 2021.

<sup>47</sup> The ratio of the average tax expenditure of \$1,519, and the average premium of \$8,364 is 18 percent. We assume that the \$335 reduction in administrative costs reduces tax expenditures by 18 percent, or \$61.

important to note that our estimate of social benefits takes into account both benefits and costs, including the possibility that the AHP rule imposes new costs on a subset of enrollees in the nongroup market who pay higher insurance premiums.

### *Analysis of the Deregulatory Reform of Short-Term, Limited-Duration Insurance*

The STLDI regulatory reform benefits society by allowing greater choice and lower-cost coverage for the subset of the population seeking short-term, limited-duration insurance and potentially by saving taxpayers money that would otherwise be spent on subsidized ACA coverage. We estimate that the STLDI rule will yield benefits worth \$7.3 billion in 2021.

Under both the Obama Administration’s and Trump Administration’s rules, STLDI plans are exempt from ACA requirements, including the mandated coverage of the 10 essential health benefits (CCIIO 2011). The Obama Administration’s 2016 STLDI rule limited the duration of an STLDI contract to less than 3 months. The 2016 rule’s restrictions on the duration of an STLDI contract exposed potential STLDI enrollees to the risk of losing their coverage, or if they could obtain another STLDI policy, having their deductibles reset, among other things. We therefore model both the duration restriction and the limited terms as an addition to the load and hassle costs of STLDI associated with applying for coverage every 3 months rather than every 36 months, which are hereafter referred to as “loads.”<sup>48</sup> Assuming no tax penalty on the uninsured, we compare high-loaded STLDI (2016 rule) with low-loaded STLDI (new rule), and take the difference to be the impact of the new rule.

Allowing for (excessively expensive) STLDI under the 2016 rule makes the CEA’s analysis different from those of some others (e.g., Blumberg, Buettgens, and Wang 2018) that assume that no STLDI is available under the 2016 rule, and fundamentally changes some of the results. According to the CEA’s approach, even under the 2016 rule, there would be little reason for consumers paying premiums far in excess of their expected claims to continue with ACA-compliant individual coverage, because at least they have the expensive but not impossible option of reapplying for STLDI coverage every three months. As we explain further in the appendix, the marginal STLDI enrollees must instead be those who receive either an exchange subsidy or a cross-subsidy from other members of the ACA-compliant individual market risk pool.<sup>49</sup> The CEA’s approach also does not permit adding an additional benefit to STLDI enrollees from relief from the essential health benefits mandate, because they already had this relief under the previous rule, albeit with higher loads.

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<sup>48</sup> The CEA notes that, under the 2016 rule, a consumer having difficulty continuing STLDI coverage could turn to ACA-compliant plans, which in a sense is a choice with extra loading, to the extent that the applicable regulations deviate from the consumer’s preferences.

<sup>49</sup> It is possible that the 2017 ACA-compliant risk pool included a number of consumers with a low ratio of expected claims to net premiums, but this report is looking at plan years 2019 through 2028, when the individual mandate penalty is zero and market participants have had time to adjust to the reality of high premiums for ACA-compliant plans.

Lower premiums result from smaller loads because premiums finance both claims and loads. However, with the exemption from ACA regulations, STLDI plans also have more freedom to control moral hazard and to dispense entirely with loads associated with unwanted services by excluding those services from the plan. These are some of the reasons why premiums for STLDI coverage are often less expensive than premiums on ACA-compliant individual market insurance plans (CMS 2018b; Pollitz et al. 2018).

Many health insurance simulation models treat consumer choice as a negative- or zero-sum game. A person who reduces his or her net premium spending by \$1,000 when he or she forgoes unwanted coverage merely increases by \$1,000 the premiums that must be collected from those who retain this coverage. This assumption is unrealistic because of moral hazard, administrative costs, and the fact that the exchanges cap and means-test premiums. For example, this person's gross premium for the forgone coverage may have been \$1,500 (he or she receives premium subsidies on the exchange), \$300 of which goes to administrative costs, and with another \$1,200 going to the person's own claims that were of little value but are made as long as they are forced to have the coverage. This person's enhanced choice saves taxpayers \$500, and imposes no cost on the risk pool. As demonstrated in this report, a broader and more realistic range of insurance market frictions, and thereby more reliable conclusions, are possible without unduly complicating the analysis.

Our analysis of the effects of the STLDI rule parallels our analysis of setting the mandate tax penalty to zero. The analysis of the additional loads created by the 2016 STLDI rule is similar to the analysis of the individual mandate tax penalties, except that the loads are a social loss rather than a transfer from the public to the Treasury. In this application, the marginal social benefit curve is a comparison of the benefit of ACA-compliant individual coverage with the benefit of STLDI. The STLDI rule is projected to affect three groups of consumers: consumers who move from ACA-compliant individual coverage to STLDI coverage because of the rule; consumers who would have chosen STLDI coverage with or without the rule; and consumers who would have been uninsured without the rule. The different benefits for each group makes the analysis more complicated than figure 3. The appendix presents an illustration.

To estimate the effects of the STLDI rule, we use data from the CBO's (2018b) projections, estimates of the elasticity of demand for health insurance, and estimates of the administrative and time costs of STLDI coverage. The first step is to estimate the benefits that the STLDI rule generates for consumers who move from ACA-compliant individual coverage to STLDI coverage because of the rule. The CBO projects that the rule will result in 2 million new enrollees in STLDI plans. We assume that over 1 million of these are consumers who shift from ACA-compliant individual coverage to STLDI coverage.<sup>50</sup> The CMS projects that the average

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<sup>50</sup>The CBO (2018b) projects that 65 percent of the 2 million new STLDI enrollees, or 1.3 million consumers, would have had insurance in the absence of the STLDI rule. We assume that these 1.3 million consumers would have purchased ACA-compliant individual insurance.

STLDI premium in 2021 will be \$4,200. Assuming that the elasticity of demand for STLDI coverage is -2.9, we estimate that by removing the combined effects of the renewability restrictions, the limited term, and the administrative and hassle costs, the STLDI rule reduces the load by \$1,218.<sup>51</sup> On average, each enrollee who switches from ACA-compliant individual coverage to STLDI coverage thus enjoys a consumer surplus of \$609.<sup>52</sup> After accounting for the loss of cross-subsidies, we estimate that each enrollee who shifts from ACA-compliant individual coverage to STLDI coverage reduces third-party expenditures by \$3,459.<sup>53</sup> Aggregated over the 1.3 million enrollees who shift, in 2021 these benefits of the STLDI rule are worth \$5.3 billion.

The effects of the STLDI rule depend upon how many consumers shift from ACA-compliant individual coverage to STLDI coverage, and of those, how many received ACA premium subsidies. We use CBO projections that over 1 million consumers will switch from ACA-compliant individual coverage (CBO 2018b). The economic analysis in the STLDI final rule assumes that 600,000 enrollees will switch from ACA exchange plans to STLDI coverage in 2021, and another 800,000 will switch from off-exchange plans. With respect to how many switchers received ACA premium subsidies, we assume that the STLDI switchers will be on average similar to the enrollees projected to respond when the tax penalty is set to zero (CBO 2018b). This assumption is again uncertain. The CMS (2018b) projects that mostly unsubsidized enrollees will switch to STLDI coverage. Similarly, the economic analysis in the STLDI final rule anticipates that most consumers who switch to STLDI coverage will have incomes that make them ineligible for ACA premium subsidies. The sensitivity analysis given in the appendix reports the estimated benefits from the STLDI rule under different assumptions about the

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<sup>51</sup> A recent econometric study of choices between different ACA plans estimated that the own-premium elasticity of demand is -2.9 (Saltzman 2017). Using this estimate in a constant semielasticity demand function, the CBO-based estimates that the rule will increase STLDI enrollment by 1 million implies that the rule's effects are equivalent to a \$1,218 reduction in costs. We note several pieces of supporting data for our estimate that the STLDI rule is equivalent to a substantial reduction in costs. First, estimates that administrative costs account for 50 percent of STLDI premiums (CMS 2018b) imply that there is considerable scope for the STLDI rule to decrease premiums by allowing the fixed cost of underwriting, sales commissions, and other policy administration costs to be spread over a longer period of coverage. Second, even before the STLDI rule, some insurers were spreading administrative and hassle costs over a longer period of coverage by selling "four-packs" of three-month coverage (Pollitz et al. 2018). The demand for STLDI four-packs supports our estimate that consumers will place a high value on spreading administrative and hassle costs over three years, which is made possible by the STLDI rule.

<sup>52</sup> The average net surplus equals half the total cost savings of \$1,218.

<sup>53</sup> We assume that on average each consumer who shifts out of ACA-compliant individual coverage reduces Federal expenditures for premium subsidies, which is partly offset by the loss of cross-subsidies paid to subsidized enrollees, leaving \$3,800 per enrollee. We assume that the enrollees who shift out of ACA-compliant individual coverage in response to the STLDI rule are similar to the enrollees who shift out of ACA-compliant individual insurance in response to the reduction of the mandate tax penalty. So we use the same estimate of \$3,800, which is explained in footnote 33 above. We estimate that the average enrollee who leaves ACA-compliant individual coverage was paying \$341 of cross-subsidies to the unsubsidized enrollees who remain in ACA-compliant individual coverage, leaving net third-party savings of  $\$3,800 - \$341 = \$3,459$ .

number of consumers who switch from ACA-compliant individual coverage and the number of unsubsidized switchers.

The second step is to estimate the benefits that the STLDI rule generates for consumers who would have chosen STLDI coverage with or without the new rule. We assume that 750,000 consumers would have chosen STLDI coverage with or without the new rule.<sup>54</sup> Each of these consumers gains the \$1,218 in reduced load costs estimated above. Aggregating over 750,000 consumers, the STLDI rule yields an additional \$0.9 billion in benefits.

The third step is to estimate the benefits that the STLDI rule generates for those consumers who would have been uninsured without the rule. The CBO (2018b) projects that the STLDI deregulatory reform will reduce the number of uninsured consumers by 0.7 million, each of whom also enjoys a consumer surplus of \$609 from their purchases (estimated above). We also estimate that third-party costs of uncompensated care will fall by \$989 for each newly insured STLDI enrollee. Aggregated over 0.7 million, the benefits for previously uninsured consumers who move to STLDI plans add another \$1.1 billion in benefits.

Summing up over the three groups of consumers whose insurance options are expanded by the STLDI rule, we estimate that the rule will yield benefits worth \$7.3 billion in 2021. It is important to note that our estimate of social benefits takes into account both the benefits and costs, including the possibility that the STLDI rule will impose new costs on a subset of enrollees in the nongroup market who pay higher insurance premiums.

### *Additional Benefits from Reducing the Excess Burden of Labor Taxation of Federal Expenditures*

In addition to the estimated \$27.3 billion in direct economic benefits in 2021, the three deregulatory reforms will provide additional social benefits because they will reduce economic inefficiency due to the excess burden of taxation. We estimate that in 2021, the value of these reform benefits will be worth \$13.7 billion.

The deregulatory reforms not only reduce inefficiency in health insurance markets but also have interaction effects that ripple into other economic sectors. Before the AHP and STLDI rules, administrative costs were unnecessarily high. These extra costs of AHP and STLDI coverage, along with the original ACA's individual mandate penalty, are functionally equivalent to taxes on consumption, albeit not broad-based ones. Specifically, the mandate penalty and

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<sup>54</sup> The STLDI final rule cites estimates of the size of the STLDI market in 2017 as ranging from 120,000 to over 1 million enrollees. We assume a market size of 500,000 enrollees in 2017. Assuming that the elasticity of demand is -2.9 (Saltzman 2017), reducing the mandate tax penalty from \$861 to zero is predicted to increase STLDI enrollment by 54 percent, to about 750,000 enrollees even without the STLDI rule.

the extra administrative costs—in fact, all the regulations’ net costs—were reducing the purchasing power of labor income and therefore reducing the supply of labor.<sup>55</sup> The regulations’ effect on the supply of labor is therefore associated with an additional welfare cost due to, among other things, the fact that labor is taxed. Although the impact per person is small, the aggregate impact can be substantial, due to the number of workers affected and the large magnitude of preexisting labor market distortions (Goulder and Williams 2003).

An example of the additional regulatory costs is the distortion of labor markets when the Federal government collects additional payroll, excise, or income taxes to fund additional Federal expenditures on ACA premium subsidies. We use standard methods to include the reduced excess burdens of labor taxation in our cost-benefit analysis (Boardman et al. 2017, 64–65). In line with the usual estimates of the compensated elasticity of taxable income with respect to the after-tax share, we assume that the marginal excess burden is \$0.50 per \$1 (Feldstein 1999; Saez, Slemrod, and Giertz 2012; Weber 2014). The reduction in the excess burdens in 2021 due to the three deregulatory reforms yields net social benefits worth \$13.7 billion.<sup>56</sup>

## Conclusion

To sum up, after taking into account both projected costs and benefits, the effects of the three deregulatory reforms that expand health insurance options will yield benefits worth over \$40 billion in 2021. Setting the individual mandate tax penalty to zero accounts for \$12.6 billion; the AHP rule, \$7.4 billion; the STLDI rule, \$7.3 billion; and the reduction in the excess burdens of labor taxation, \$13.7 billion.<sup>57</sup>

Table 2 provides the estimated benefits over 10 years, from 2019 to 2028. The table provides the sum over 10 years and the discounted present values calculated when future benefits are discounted at rates of 3 and 7 percent. Over 10 years, the benefits of the three deregulatory reforms total \$453 billion; the discounted present value of the net benefits are \$376 billion at 3 percent and \$298 billion at 7 percent.

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<sup>55</sup> A loss of purchasing power of wages has the usual substitution effect in the direction of reducing the labor supply. Administrative costs also have an aggregate income effect in the direction of additional labor supply, although the AHP administrative costs are tied to employment and an important part of the STLDI administrative costs are consumer hassle costs, which means that they both have more than the usual substitution effect reducing the labor supply.

<sup>56</sup> The \$0.50 excess burden rate is applied to the net benefits and therefore, for example, nets uncompensated care costs and forgone penalty revenue from the Federal savings on premium tax credits. The CEA notes that the individual mandate penalty was concentrated on a small fraction of the population, but has not yet assigned any benefit to the shift from a concentrated tax to general revenue. The CEA also notes that the usual estimates of excess burdens assume that workers are purchasing consumer goods at their marginal costs; alternatively, incorporating “markups” would result in even greater estimates of the net benefits of the deregulatory reforms.

<sup>57</sup> The appendix provides quantitative and qualitative analyses of the sensitivity of these results to alternative assumptions.

**Table 2. Net Benefits of the Deregulatory Reforms: 2019–28**

Type of Reform	Total Benefits (billions of dollars)	Discounted Present Value, $r = 3\%$ (billions of dollars)	Discounted Present Value, $r = 7\%$ (billions of dollars)
Setting mandate tax penalty to zero	136	112	88
AHP rule	84	70	56
STLDI rule	82	69	55
Reductions in excess burden of labor taxation	151	125	99
Total	453	376	298

Source: CEA calculations.

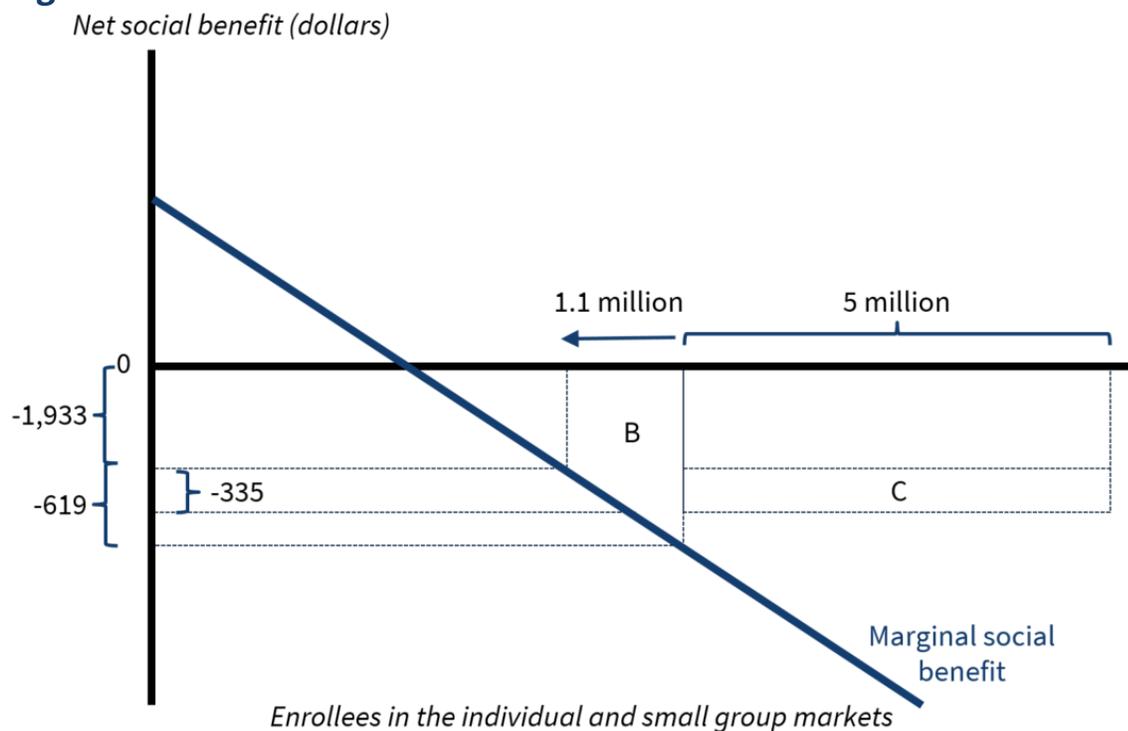
The benefits reported in table 2 reflect the value of improving the efficiency of health insurance markets by expanding consumer insurance options. Although we have not conducted a complete analysis of the distributional consequences of the reforms, the broad patterns of how the benefits and costs are distributed across income groups are as follows. We estimate that the reforms benefit lower- and middle-income consumers with incomes between 100 percent and 400 percent of the Federal poverty line. The reforms also benefit all taxpayers. In addition, setting the individual mandate penalty to zero specifically eliminates a tax burden that was mainly borne by lower- and middle-income consumers. Because we estimate that some consumers will have to pay somewhat higher premiums, the reforms will impose costs on some middle- and higher-income consumers with incomes above 400 percent of the Federal poverty line.

## Appendix

### Analysis of the AHP Rule

The cost-benefit analysis of the AHP rule is illustrated in figure 4. The area labeled B measures the net social benefits from the estimated 1.1 million consumers who are projected to switch from ACA-compliant coverage in the individual and small group markets, to ACA-compliant coverage through an AHP. The area labeled C measures the net social benefits from the estimated 5 million consumers who would have had AHP coverage with or without the rule. As described in the text above, the AHP rule affects several other groups of consumers. Although not shown in figure 4, we use the same approach to measure the social benefits for the other groups affected.

**Figure 4. Benefits of the AHP Rule**

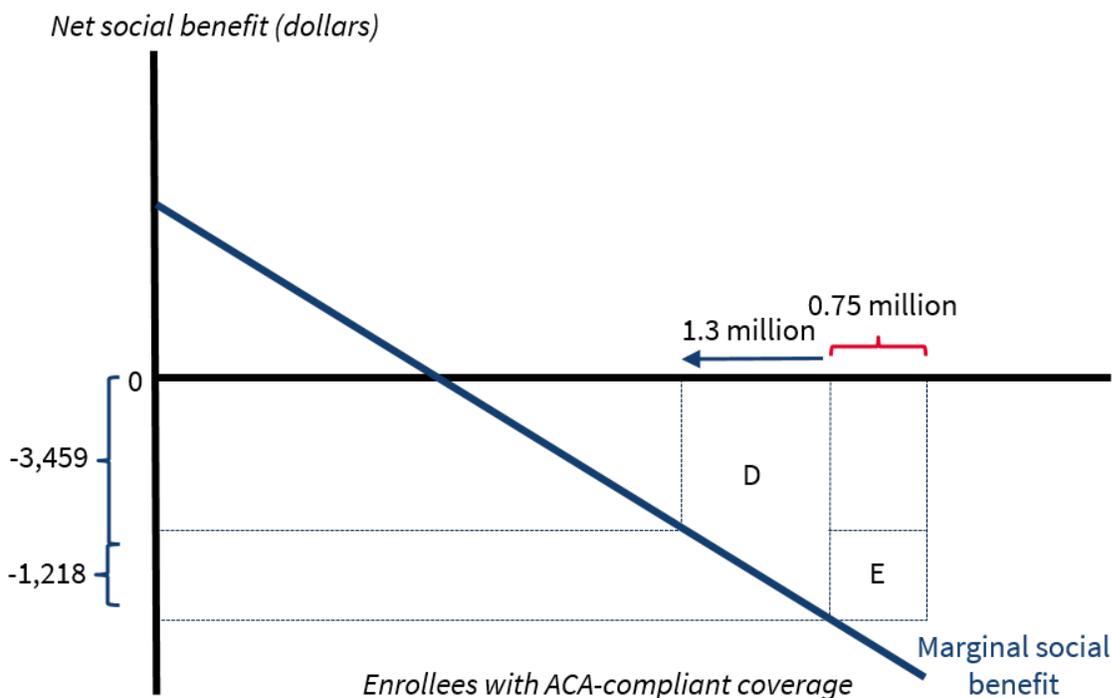


### Analysis of the STLDI Rule

The cost-benefit analysis of the STLDI rule is illustrated in figure 5. The area labeled D measures the net social benefits from the estimated 1.3 million consumers who switch from ACA-compliant exchange coverage to STLDI coverage. Because the marginal social benefit of ACA-compliant individual insurance is negative for these consumers, the move out of ACA-compliant individual insurance yields the benefits measured by area D. The area labeled E

measures the benefits from the estimated 0.75 million consumers who would have had STLDI coverage with or without the new rule. The MSB schedule does not apply to these consumers, because with or without the new rule, they would purchase noncompliant STLDI coverage. But after the new rule, the cost of STLDI coverage is reduced by \$1,218 per consumer on average; the aggregate benefits are measured by area E. As described in the text above, the STLDI rule affects several other groups of consumers. Although not shown in figure 5, we use the same approach to measure the social benefits from the other groups affected.

**Figure 5. Benefits of the STLDI Rule**



**Additional Discussion of the Analytical Framework**

The analytical framework illustrated in figure 3 and appendix figures 4 and 5 follows the standard approach for cost-benefit analysis (Boardman et al. 2017). The benefits and costs of the effects of the deregulatory reforms are measured based on consumers’ revealed preferences in health insurance markets. Figures 3, 4, and 5 show the schedules of marginal social benefits (MSB) that correspond to each level of enrollment in ACA-compliant individual insurance coverage. We use the MSB schedules for ease, but we note that they are equivalent to the supply-and-demand framework, which is more familiar to readers with a background in economics. In the familiar supply-and-demand framework, the height of the supply curve shows the marginal cost of providing insurance coverage to an additional enrollee. The height of the demand curve shows the marginal enrollee’s willingness to pay for ACA-compliant individual coverage. The vertical distance between the marginal cost and demand curves is the net marginal social benefit shown by the MSB schedules in figures 3, 4, and 5. At the

intersection of supply and demand—that is, at the equilibrium of an unregulated market—marginal social benefits equal zero, so the MSB schedule intersects the horizontal axis. At this point, the social surplus from ACA-compliant individual coverage is maximized, where the social surplus is the sum of consumer surplus and producer surplus. The expositional advantage of the MSB framework is that it avoids the need for multiple shifts of demand and cost curves needed to analyze deregulatory reforms.

### *Sensitivity Analysis*

We follow good practice in cost-benefit analysis and explore the sensitivity of the results to alternative assumptions. An important set of inputs into our analysis are from the CBO's (2017b, 2018b) projections of the effects of the deregulatory reforms on health insurance enrollments. The CBO does not include ranges or other measures of uncertainty about the projections we use, but it (CBO 2018b) acknowledges the uncertainty in its estimates and tries to develop estimates in the middle of the distribution of potential outcomes. Earlier CBO projections overestimated ACA enrollments by 14 percent in 2014, 23 percent in 2015, and 50 percent in 2016 (CBO 2017a). CBO projections might either overestimate or underestimate responses to the deregulatory reforms we consider. For example, some business groups appear reluctant to establish AHPs. However, the potential gains to consumers create strong incentives for small businesses and health insurance providers to learn to navigate the new rules, perhaps in innovative ways that were unanticipated in CBO projections.

Policy innovations might also affect the accuracy of CBO projections. For example, on October 24, 2018, the Centers for Medicare & Medicaid Services, Department of Health and Human Services, and Department of the Treasury published new guidance related to section 1332 of the ACA. The new guidance is intended to give States more flexibility to pursue waivers to improve their individual insurance markets. States might pursue and be granted waivers that could further expand the markets for AHP and STLDI coverage. Of course, the effects of future market and policy innovations are speculative.

Our sensitivity analysis uses a range that is the larger of plus or minus 50 percent of CBO projections; or the range of estimates from other studies of the deregulatory reforms (reviewed above). We have not formed any conclusions on the relative accuracy of the various sources. Table 3 summarizes the quantitative sensitivity analysis.

**Table 3. Sensitivity of Estimated Benefits of the Deregulatory Reforms, 2021**

Source of Societal Benefits	Key CBO Projection	Range for Sensitivity Analysis	Benefits Based on CBO Projection (billions of dollars)	Benefits Based on Range (billions of dollars)
Setting tax penalty to zero	5 million fewer enrollees	2.5–7.5 million fewer enrollees	12.6	8.1–24
AHP rule	4 million AHP enrollees	2–6 million AHP enrollees	7.4	5.8–8.9
STLDI rule	2 million STLDI enrollees	1–5.2 million STLDI enrollees	7.3	3.8–18
Reductions in excess burdens of labor taxation			13.7	8.9–25
<b>Total</b>			<b>41</b>	<b>26.6–75.9</b>

Source: CEA calculations.

In addition to uncertainty about the total number of new STLDI enrollees, the effects of the STLDI rule also depend upon how many of the consumers who shift from ACA-compliant individual market insurance coverage (referred to in this section as “ACA-compliant coverage”) received ACA premium subsidies. CMS (2018b) projections and the economic analysis in the STLDI final rule assume that most of the switchers will be unsubsidized. As a sensitivity analysis, we assume that all the switchers will be unsubsidized. Given this assumption, we estimate that the STLDI rule will yield benefits worth \$2.4 billion in 2021.

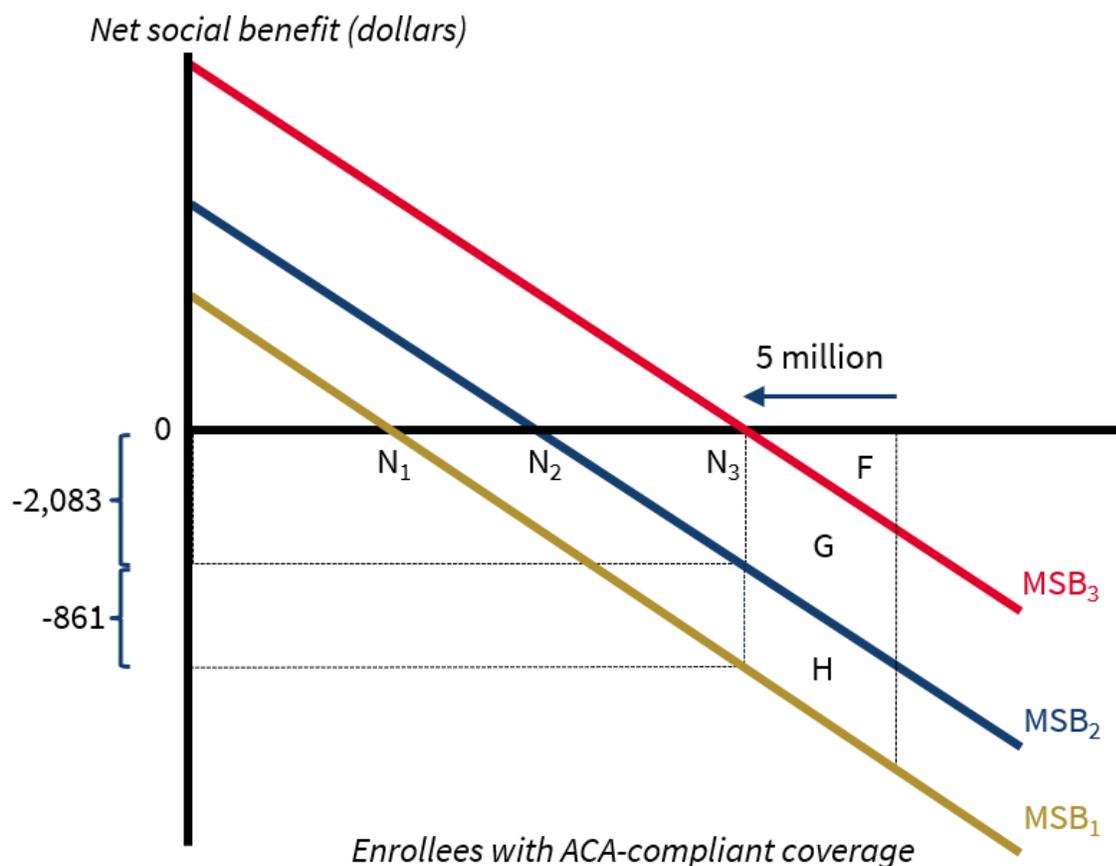
The results of the cost-benefit analyses are also sensitive to other assumptions that are more difficult to quantify. We now discuss in qualitative terms the sensitivity of the estimates to other uncertainties.

First, it is difficult for microsimulation models like those used by the CBO to capture dynamic responses on the supply side of the health insurance market. Setting the mandate tax penalty to zero combined with the expansion of options through the AHP and STLDI rules create incentives for insurers to develop new insurance products to better meet consumers’ preferences. Additional AHP and STLDI plans might also drive down premiums and profit margins for other insurance products. The possibility that the deregulatory reforms will spur further expansion of insurance options means that our analysis understates the net benefits of the reforms.

Next, we discuss in qualitative terms the sensitivity of the results of our cost-benefit analysis of the deregulatory reforms to the extent of frictions in the market for ACA-compliant insurance coverage: adverse selection, advantageous selection, individual failures to optimize, and

societal preferences for health insurance. Figure 6 illustrates the implications of each of these frictions for our cost-benefit analysis of setting the mandate penalty to zero. As is explained in more detail below, the different frictions are summarized by different schedules that show the MSBs of ACA-compliant coverage under various hypothetical scenarios. The baseline schedule, labeled MSB<sub>2</sub> in figure 6, corresponds to the MSB schedule shown in figure 3, which itself is inferred from the CBO’s projections.

**Figure 6. Marginal Social Benefits of ACA-Compliant Coverage under Different Hypothetical Scenarios**



Adverse selection can be analyzed in the standard supply-and-demand framework, or equivalently the MSB framework. The key modification in the supply-and-demand framework is that the supply side of the health insurance market is described by downward-sloping marginal cost and average cost curves (Einav and Finkelstein 2011). The cost curves slope downward based on the assumption that demand-side selection into insurance is driven by differences in expected healthcare costs, so the consumers with the highest willingness to pay for insurance are the most costly to cover. More adverse selection increases the vertical distance between the marginal cost and demand curves and shifts the MSB schedule up. The baseline schedule incorporates CBO projections that setting the mandate penalty to zero will

lead healthier-than-average consumers to leave ACA-compliant insurance (CBO 2017b, 2018b). That is, the baseline schedule assumes a degree of adverse selection. The schedule labeled  $MSB_3$  in figure 6 corresponds to substantially more adverse selection; it represents a case in which the CBO overestimated the Federal savings from setting the individual mandate penalty to zero.

With more adverse selection, an unregulated insurance market reaches an equilibrium level of enrollment  $N_2$ , which is below the level  $N_3$  where  $MSB_3 = 0$  and social surplus is maximized. The  $MSB_3$  schedule also reflects the administrative costs of insurance and moral hazard, where comprehensive insurance with low cost sharing leads consumers to consume healthcare that provides little benefit relative to the cost. Given administrative costs and moral hazard, even with adverse selection, it is not efficient to enroll the entire population (Einav and Finkelstein 2011); thus in figure 6,  $N_3$  is less than  $N$  that corresponds to 100 percent of the population ( $N_{100\%}$ ).

Substantial adverse selection changes the critical assumptions used in the cost-benefit analyses of the reforms presented above. In qualitative terms, the changes would lead to lower estimated net benefits from each of the deregulatory reforms we consider. Figure 6 illustrates the example of setting the individual mandate penalty to zero. With the  $MSB_3$  schedule as drawn for adverse selection, the reduced tax penalty yields benefits given by the area labeled F in figure 6. In contrast, under the assumptions used in the text, the reduced penalty yields benefits given by the area labeled F plus the area labeled G in figure 6 (equivalent to the area labeled A in figure 3 above in the main text).

Determining the extent of adverse selection in the market for ACA-compliant health insurance is a difficult empirical problem. Although the theoretical possibility of adverse selection in insurance markets has attracted much attention from academic economists (e.g., Cutler and Zeckhauser 2000; Rothschild and Stiglitz 1976), the limited empirical evidence is mixed. Adverse selection is a feature of some insurance markets but not others (Cawley and Philipson 1999; Cohen and Siegleman 2010; Einav and Finkelstein 2011). Cutler and Reber (1998) provide an empirical case study of a death spiral in a health insurance plan offered to Harvard University employees. Some recent empirical research explores adverse selection in contexts that are more relevant for the ACA's exchanges (Chandra, Gruber, and McKnight 2011; Finkelstein, Hendren, and Shepard 2017; Hackman, Kolstad, and Kowalski 2015). However, much of the discussion of adverse selection and the ACA continues to rely on qualitative predictions from the theoretical economic model rather than quantified empirical analysis.

The second market friction we consider is advantageous selection, which is the opposite of adverse selection. If consumers have heterogeneous risk preferences and select insurance based on these preferences, the consumers with the most willingness to pay for insurance are the least costly to cover. Consistent with this possibility, descriptive evidence shows that insured consumers are less likely to be sedentary, smoke, fail to use seatbelts, and fail to own

a smoke detector (Cutler, Finkelstein, and McGarry 2008; Kenkel 2000). The case of advantageous selection corresponds to the schedule labeled  $MSB_1$  in figure 6, and corresponds to a case in which the CBO underestimated the Federal savings from setting the individual mandate penalty to zero. With advantageous selection, an unregulated market insures an inefficiently high fraction of the population (Einav and Finkelstein 2011). In figure 6, this result corresponds to the result that  $N_2$  is larger than  $N_1$ .

Substantial advantageous selection changes critical assumptions used in the cost-benefit analyses discussed above. In this case, the changes would lead to higher estimated net benefits from each of the deregulatory reforms we consider. Figure 6 illustrates the example of setting the individual mandate penalty to zero. With the  $MSB_1$  schedule as drawn for advantageous selection, the reduced tax penalty yields benefits given by the sum of the areas labeled F, G, and H in the figure. In contrast, under the assumptions used in the text, the reduced tax penalty yields benefits given by the area labeled F plus the area labeled G in figure 6 (equivalent to the area labeled A in figure 3 above in the main text).

The third market friction we consider is an individual's failure to optimize, which happens when a consumer fails to choose the option that is in his or her own best self-interest. If this happens, observed consumer choices in markets are no longer reliable guides to infer their preferences about policy outcomes (Bernheim and Taubinsky 2018). A possibility that has received attention in insurance choices is behavioral inertia, where consumers tend to stick with their previous choices rather than switching to plans that are a better option for them (Ericson 2014; Handel 2013). Inertia implies that after the deregulatory reforms, consumers might fail to switch from ACA-compliant individual health insurance to lower-cost options like STLDI coverage. The supply-and-demand framework can be used to analyze optimization failures like inertia by distinguishing the observed demand schedule that reflects errors versus the rational demand schedule that reflects optimization (Cutler et al. 2015). The schedule labeled  $MSB_1$  in figure 6 can be reinterpreted as the corresponding rational MSB schedule. With inertia, too many consumers keep their ACA-compliant insurance, and the unregulated market reaches an equilibrium  $N_2$ , which is larger than  $N_1$ .

Substantial inertia changes the critical assumptions used in the cost-benefit analyses discussed above. As was the case with advantageous selection, the changes to capture inertia would lead to higher estimated net benefits from each deregulatory reform we consider. Figure 6 illustrates the example of reducing the individual mandate penalty to zero. With the  $MSB_1$  schedule as drawn for behavioral inertia, the reduced tax penalty yields benefits given by the sum of the areas labeled F, G, and H in the figure. In contrast, under the assumptions used in the text, the reduced penalty yields benefits given by the area labeled F plus the area labeled G (equivalent to the area labeled A in figure 3 above in the main text).

Determining the extent of optimization failures in health insurance choices is yet again a difficult empirical problem. Compared with previous CBO projections, the CBO's (2017b)

projections of the impact of setting the mandate tax penalty to zero incorporate a slower phase in over three years; the impact during the first year is only 60 percent of the full impact. Eibner and Nowak (2018) also build inertia into some of their projected scenarios. The evidence base for inertia is growing but remains thin (Ericson 2014; Handel 2013). The CEA is unaware of any direct empirical evidence on the existence or magnitude of inertia of choices in the nongroup insurance market. To complicate matters, there are other possible reasons consumers might fail to make optimizing choices in health insurance markets (Bernheim and Taubinsky 2018). Some possible consumer errors provide other reasons that the market is best described by the schedule MSB<sub>1</sub>, while other consumer errors suggest that the market might be best described by the schedule MSB<sub>3</sub>.

The fourth market friction we consider is the argument that the MSB schedule based on consumers' preferences should be adjusted to capture additional societal preferences for insurance. Health insurance coverage for the poorest members of society might be viewed as a merit good that deserves special societal concern. The merit good argument suggests adjusting the MSB schedule upward for some consumers. However, this consideration is not as relevant for the non-Medicaid population that is affected by the deregulatory reforms we consider. Another reason to adjust the MSB schedule upward is to capture positive externalities from insurance coverage for vaccinations. However, there are not likely to be large remaining externalities from vaccinations because other public policies, including mandatory childhood vaccination laws, already address the problem.

In light of the evidence, we view our framework of analysis as a reasonable approximation of the appropriate model of the market for ACA-compliant insurance. Ongoing and future research might suggest refinements and modifications to capture the most relevant market frictions.

### *Further Analysis of the Choice Margin between STLDI and ACA-Compliant Insurance Coverage*

Our analysis of the benefits of the STLDI rule use estimates of how many of the consumers who will shift from ACA-compliant individual health coverage would have received ACA premium subsidies. Above, in the text, we discuss empirical uncertainty about these estimates. Earlier in this appendix, we report the sensitivity of our results to different assumptions. Here, we discuss the economic reasoning and evidence for our baseline estimates. Economic reasoning suggests that the types of enrollees who are at the margin between ACA-compliant coverage and STLDI coverage must be receiving a subsidy, either directly from the Treasury or indirectly as a cross-subsidy from other members of the same ACA-compliant risk pool. The previous STLDI rule therefore results in a larger Federal deficit than the new rule does because the new rule requires less Federal spending on ACA premium subsidies, even though the new rule may increase the gross premiums for ACA-compliant individual market plans. In contrast, other

analyses conclude that the new rule will increase ACA premiums and Federal expenditures on ACA premium subsidies (CBO 2018b; CMS 2018b).<sup>58</sup>

Rulemaking in the Obama Administration made STLDI coverage less attractive (i.e., more costly) than it is under the Trump Administration. Two key facts, then, drive economic conclusions: (1) both STLDI and ACA-compliant individual market coverage have nonzero market shares under both rules, and (2) STLDI plans are less regulated than ACA-compliant individual plans. From fact 1, it follows that, under either rule, there are enrollees on the margin between the two types of coverage. From fact 2, it follows that, under the new rule, STLDI must be more attractive to an enrollee who receives no Federal subsidy and no cross-subsidy because he or she could take their funds to the STLDI market where it is possible to have additional controls on moral hazard, forgo coverage of unwanted services, or even just be exposed to more pleasant advertising (STLDI plans are not regulated in terms of the fraction of premiums that must be spent on claims). Therefore, the marginal enrollee must receive a subsidy if he or she chooses an ACA-compliant individual plan. We let  $s$  denote the amount of the marginal subsidy.

This reasoning does not predict whether the subsidy is in the form of a premium subsidy from Federal expenditures or as a cross-subsidy from other members of the risk pool. We expect that the marginal enrollees are a mix of both; that is, some are high-income sick enrollees and some are low- or medium-income healthy enrollees who would receive ACA premium subsidies if they chose an exchange plan.

The previous rule did not ban STLDI, but rather made it more difficult to use because the enrollee had to go through underwriting every 3 months, as compared with the new rule that permits a single policy to be renewed up to 36 months. The CEA models the previous rule as significantly adding to STLDI loads and enrollees' hassle costs (hereafter, both are summarized as "loads"), as compared with the loads present under the new rule.

As a conceptual exercise, start with the new rule and add a small bit of load to STLDI plans. This addition takes STLDI plans only a small part of the way toward their situation under the previous rule. By making STLDI plans less attractive, it brings the aforementioned marginal enrollee from STLDI into the ACA-compliant risk pool. If this enrollee receives an ACA premium subsidy, then this addition to STLDI loads increases the Federal deficit because the premium subsidy must be financed by the Treasury. But if, instead, this enrollee receives a cross-subsidy, then this addition to STLDI loads still increases the deficit because adding this comparatively sick enrollee to the ACA-compliant risk pool raises premiums and therefore adds to the premium subsidies of the inframarginal exchange plan members.

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<sup>58</sup> Here, we use "spending on PTCs" broadly to include tax expenditures, and therefore including two legally distinct transactions according to the refundable and nonrefundable parts of the PTCs.

Although the small addition to STLDI loads unambiguously increases the deficit, it may increase or reduce the premiums on ACA-compliant individual plans. It is theoretically possible that the marginal enrollees tend to be high-income sick consumers, in which case adding to the load (as the previous rule did) makes the ACA-compliant risk pool sicker. Perhaps it is more likely that the marginal enrollee is a low- or middle-income healthy person, in which case adding him or her to the exchanges reduces ACA-compliant premiums. Either way, the application of economic reasoning to facts 1 and 2 contradicts the assertion that the marginal enrollee is a high-income healthy person.<sup>59</sup>

With the small addition to STLDI loads, we have a different marginal enrollee whose subsidy is somewhat less than  $s$ , but is still positive, because he or she is indifferent in choosing between an ACA-compliant individual market insurance plan and a slightly loaded STLDI plan. It follows that adding still more load to the STLDI plans will increase the Federal deficit. As we continue adding loads to STLDI plans, we eventually reach a point where the marginal enrollee's subsidy is exactly zero. The addition to loads required to reach this point is equal to cost  $c$  (to the unsubsidized consumer) of the extra regulations on ACA-compliant individual plans. Therefore, adding  $c$  or less to STLDI loads must increase the Federal deficit.

We conservatively estimate  $c$ , which is the combined additional costs of ACA-compliant individual coverage from the perspective of an enrollee receiving neither an ACA premium subsidy nor a cross-subsidy, to be \$1,000 per year. This exceeds our estimate of the addition to STLDI loads (broadly defined) by the previous rule, which means that the marginal enrollee would be receiving a subsidy even if the previous rule had remained in place. Therefore, the new STLDI rule must reduce the Federal deficit.

The analysis by the CMS (2018b) does not discuss how consumers choose between STLDI and ACA-compliant individual plans under the previous rule; but its analysis assumes that there are marginal enrollees with negative subsidies. We note, in the neighborhood of the previous rule, that negative subsidies at the margin are possible if the previous rule made STLDI prohibitively expensive. The CEA does not agree that the previous rule added several thousands of dollars per enrollee, on an annual basis, to the cost of having STLDI coverage, which is required to reach the CMS deficit conclusions because deficit effects of enrollees with negative subsidies must be enough to offset the deficit effects of consumers near the margin under the new rule.

The CEA also notes that the dollar value to consumers of ACA premium subsidies is far less than their cost to the Treasury because the subsidies significantly distort the labor supply, imposing

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<sup>59</sup> To be clear, this discussion refers to the market equilibrium over the next 10 years, with the new rule and with the previous rule, and in both cases without an individual mandate penalty. Because the individual mandate penalty was not zero in, say, 2017, and because consumers and insurers may take some time to adjust to rule changes, it is possible that ACA-compliant plans had a significant number of healthy high-income enrollees in 2017.

marginal tax rates of about 40 percent on income (on top of all other income and payroll taxes) and, in most cases, on full-time employment (Mulligan 2015).

The CBO's analysis of the deficit effects of repealing the individual mandate is informative (CBO 2017b). CBO projections imply that enrollees on the margin of ACA-compliant individual market insurance plans and no insurance are receiving a large subsidy: at least \$3,800 per year. If the CBO is correct, many subsidized consumers are unhappy with ACA-compliant individual plans—so unhappy that they leave these plans to become uninsured. The vast majority of high-income enrollees in ACA-compliant individual plans must be comparatively unhealthy—that is, receiving a cross-subsidy—in order to justify paying the high premiums. Therefore, to the extent that the new rule induces high-income enrollees to leave ACA-compliant individual market insurance plans, many of them must be receiving cross-subsidies.

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