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RAND HEALTH

TECHNICAL REPORT

The Effect of the Affordable Care Act on Enrollment and Premiums, With and Without the Individual Mandate

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Introduction

Perhaps no provision in the Patient Protection and Affordable Care Act of 2010 (ACA) has received as much scrutiny as the individual mandate, which requires all Americans to either obtain health insurance or pay a fine. In the spring of 2012, the legality of the mandate will be settled by the Supreme Court, which could invalidate the entire ACA outright or invalidate only the individual mandate while leaving the remainder of the law intact.

Economists in support of the law have argued that the individual mandate is justified because the chance of unforeseen illness or injury makes it impossible for citizens to fully opt out of the market for medical care.[1] Further, to the extent that existing laws require hospitals and emergency departments to provide care to everyone in acute need,[2] the costs of treating those who are uninsured will unavoidably be passed on to the rest of society (Pauly et al., 1991). Others have argued that without the mandate, people will obtain coverage only when they foresee high health expenditures, leading to adverse selection (Blumberg and Holahan, 2009; Chandra, Gruber, and McKnight, 2011). Still others have argued that the mandate is necessary to achieve the goal of universal health insurance, simply because—even with substantial subsidies—some people will not get around to enrolling in health insurance unless they are compelled to do so (Krueger and Reinhardt, 1994).

In this analysis, we use RAND's Comprehensive Assessment of Reform Efforts (COMPARE) microsimulation model to predict the effects of a possible Supreme Court decision invalidating the individual mandate while keeping the other parts of the law intact.[3] We predict the effects of such a decision on health insurance coverage overall and for subgroups based on income. We also estimate where people will obtain insurance in scenarios with and without the mandate. Finally, we estimate how the elimination of the individual mandate will affect insurance premiums. Several other groups, including the Congressional Budget Office (2010), Jonathan Gruber (2011), the Lewin Group (Sheils and Haught, 2011), and the Urban Institute (Buettgens and Carroll, 2012), have estimated the effect of eliminating the individual mandate. However, our work differs from previous estimates in that we estimate the premium increase that a given individual could expect with the repeal of the individual mandate. In contrast, prior models have estimated the change in average premiums, an approach that combines the change in premium per enrollee with compositional effects, such as changes in the age and tobacco use composition of the enrolled population. We find that the elimination of the individual mandate leads to a 12.5-million–person reduction in the number of newly insured individuals and increases government spending per newly insured individual by a factor of more than two. While we find that average exchange premiums increase by approximately 9.3 percent when the individual mandate is eliminated, this finding is mostly driven by compositional effects. The increase in premiums that would be faced by any given individual is only 2.4 percent. Given the high uncertainty about the likely effects of the ACA, estimates from a variety of models are useful for gauging the likely implications of policy changes.

Policy Context

The ACA introduces new regulations for individual health plans and health plans offered by employ-

[1] See Brief Amici Curiae of Economic Scholars in Support of Defendants-Appellees.

[2] See, for example, the Emergency Medical Treatment and Active Labor Act (EMTALA) of 1986, discussed at Centers for Medicare and Medicaid Services (2011).

[3] For more information, see RAND (2011).

ers with 100 or fewer workers (the "small group" market). The new regulations allow premiums to vary only by age, family size, geographic region, and tobacco use status, with limits on the degree of premium variation even across these categories. In addition, insurers will be prohibited from refusing to sell or renew policies to specific individuals, including individuals with preexisting conditions. The new regulations apply to all small group and individual health plans, with "grandfathering" exceptions for plans that both existed on or before March 23, 2010, and have not made substantial changes to cost-sharing requirements or the scope of services covered. Analyses published by the U.S. Departments of the Treasury, Labor, and Health and Human Services indicate that most small group plans will lose their grandfathered status over time because of cost pressures (Federal Register, 2010).

The ACA also introduces new, state-based "exchanges": marketplaces for buying and selling small group and individual health insurance policies. Plans offered in the exchanges will include bronze, silver, gold, and platinum policies, with corresponding actuarial values of 60, 70, 80, and 90 percent.[4] Although insurers can still offer plans outside of the exchanges, most of the new regulations will apply both within and outside of the exchanges.

Insurance-rating regulations, such as those enacted by the ACA, tend to have the effect of reducing premiums for sicker and more-expensive enrollees while increasing premiums for healthier and lower-cost enrollees. Taken alone, these regulations could lead to "adverse selection," in which lower-cost enrollees leave the risk pool and premiums increase. However, additional policy changes enacted with the ACA may mitigate this effect. First, the individual mandate requires all legal U.S. residents to obtain health insurance coverage, with noncompliance penalties that can reach 2.5 percent of household income. Several categories of people are exempted from these penalties, including individuals with incomes below the tax filing threshold and those who would be required to pay more than 8 percent of income to acquire the lowest-cost plan available to them. However, for most people, the mandate will strengthen their incentive to enroll in insurance.

The individual mandate requires all legal U.S. residents to obtain health insurance coverage, with noncompliance penalties that can reach 2.5 percent of household income.

Second, the law provides federal health insurance subsidies to individuals with incomes between 133 and 400 percent of the federal poverty level (FPL) who receive a qualifying offer of coverage from an employer. The subsidy amount is equal to the difference between a given percentage of an individual's or family's income and the price of the second-lowest-cost silver plan available in the exchanges. The applicable percentage of income that a family must contribute is means-dependent and ranges from 2 to 9.5 percent of income. Subsidies in general can reduce adverse selection, since they insulate enrollees from the full force of premium increases. The subsidy structure of the ACA provides relatively strong insulation because—unless the enrollee chooses a relatively expensive plan—spending is capped.[5]

The ACA makes numerous other changes to national health care policy, including raising the Medicaid eligibility threshold to 138 percent of the FPL and penalizing employers if they do not offer coverage and, consequently, their employees then receive subsidies in the exchanges.

The COMPARE Model

The COMPARE microsimulation model predicts how households and firms will respond to health care policy changes based on economic theory and existing evidence from smaller-scale changes (e.g., changes in Medicaid eligibility). The model relies on data from the Survey of Income and Program Participation (SIPP); the Kaiser Family Foundation/Health Research and Educational Trust (Kaiser/HRET); the Statistics of U.S. Businesses; the Medical Expenditure Panel Survey, Household Component (MEPS-HC); and the Society of Actuaries Large Claims Database to create a synthetic population of individuals, families, and firms with behaviors that match, to the extent possible, those reported in the health economics literature. We match workers in the SIPP to firms in the Kaiser/HRET data based on region, firm size, industry, and whether the firm currently offers coverage. Health expenditures from the MEPS-HC are then assigned based on age, insurance status, health status, region, and income. We augment expenditure data from the MEPS-HC with data on high-cost claims from the Society of Actuaries to ensure that we capture the full distribution of health care spending, including very large claims. We age the population over time to reflect Census Bureau estimates of population growth by age, race, and sex. We also make several adjustments to the baseline population to reproduce estimates reported in other, well-known models. Specifically, we adjust the starting population to reflect figures reported by the Congressional Budget Office (CBO), and we

[4] The actuarial value is the proportion of health expenditures covered by the plan, assuming a standard enrollee population.

[5] This effect is reinforced by cost-sharing subsides, which raise the effective actuarial value of the silver plan for enrollees with incomes below 250 percent of the FPL and reduce the incentive to choose a more generous gold or platinum plan.

adjust the number of people enrolled in nongroup coverage to reflect estimates reported by economist Jonathan Gruber (Gruber, 2008).

Individuals and families in the COMPARE model make decisions about health insurance enrollment using a concept that economists call "utility maximization." It assumes that individuals rationally weigh the benefits of an option (e.g., reduced out-of-pocket expenditure, lower risk) against the costs (e.g., higher premiums). In making health insurance decisions, individuals in the model consider an array of factors, including eligibility for Medicaid, eligibility for subsidies in the health insurance exchanges, the generosity of employer benefits (if available), and expected health expenditure. To ensure that we accurately predict enrollment decisions in the status quo, we adjust the utilities using empirically based calibration factors. These factors account for observed choice patterns from the real world that are not easily explained by standard economic theory, such as persistent uninsurance among individuals who are Medicaid-eligible. We account for the effect of the individual mandate by increasing the cost associated with the option of being uninsured by the amount of the financial penalty. Unlike CBO's model, which allowed for imperfections in penalty collection (Auerbach et al., 2010), our approach implicitly assumes that the penalty will be perfectly enforced. CBO also assumed that the mandate would increase insurance enrollment rates even among those not subject to penalties, due to an intrinsic "taste" for compliance with the law. We did not account for these factors because the magnitudes of the effects are highly uncertain, and because they work in opposite directions. That is, while imperfect enforcement will reduce the probability of complying with the mandate, an intrinsic taste for obeying the law will increase the probability of compliance relative to an approach that considers income effects alone.

Firms in our model decide whether and what type of plan to offer based on a "group choice" algorithm, in which they consider the aggregate utility to their workers associated with each health plan choice available to the firm (including the option of not offering coverage). We assume that if a firm opts to drop an existing health insurance offer, it would have to compensate workers by passing back the savings in the form of higher wages. While in a purely competitive environment the pass-back rate would be 100 percent, we assume that the pass-back rate is only 80 percent because of the stickiness of nominal wages. We also account for the fact that any savings passed back in the form of wages would be subject to taxes, while compensation paid as health benefits is untaxed.

Premiums in the COMPARE model are determined endogenously, using the predicted expenditure of enrollees in each health insurance plan. When individuals become newly insured or change their source of insurance, we adjust spending levels to account for the likelihood that people use more health services when they have more generous coverage, based on a demand curve derived from the RAND Health Insurance Experiment (Newhouse and the Insurance Experiment Group, 1996). We do not adjust spending levels to reflect differences in payment rates across insurers or to account for capacity constraints or supply-side responses to new enrollment. The model calculates premiums and then allows individuals and firms to change their health insurance decisions using an iterative process until results converge to an equilibrium. Premiums for large employers and for small employers with grandfathered health plans (i.e., plans in existence before March 23, 2010) are based on a weighted average of firm-specific and community experience. We assume that insurers place a higher weight on community experience for small firms, and that—for firms with more than 500 workers—premiums are fully experience-weighted. Premiums for individual and small group plans offered in the health insurance exchanges are community-rated, with variation allowed only across geographic regions, by family size, and by age (with a 3-to-1 rate band).[6] We assume that the individual and Small Business Health Options Programs (SHOP) exchange markets are split for the purposes of risk pooling. The ACA stipulates that rating regulations and risk pools for the small group and individual markets must be the same both in and out of the exchanges. As a result, we do not attempt to model non-exchange individual and small group markets, other than the grandfathered market.

We assume that higher insurance enrollment rates lead to reduced spending on uncompensated health care and use estimates from Hadley et al. (2008) to calculate the magnitude of these savings. The savings are directly proportional to the number of newly insured, with roughly a quarter of the savings accruing to the private sector and the remaining portion going to the government. Savings to the private sector reflect reductions in cost-shifting. The uncompensated care savings estimates incorporate all current

Individuals and families in the COMPARE model make decisions about health insurance enrollment using a concept that economists call "utility maximization."

[6] The 3-to-1 rating on age stipulates that premiums for the oldest individuals enrolled in the exchanges can be no more than three times as high as premiums for the youngest individuals, conditional on plan actuarial value.

spending on the uninsured, not just the reductions to disproportionate share hospital (DSH) payments outlined in the law.

For the purposes of this analysis, we assume that all grandfathered and large group employer health insurance plans have an actuarial value of 0.80 (McDevitt et al., 2010).[7] We predict that some plans will lose their grandfathered status over time, based on projections reported in the Federal Register (2010). We also assume that administrative costs for small firms (≤100 workers) are lower in the SHOP exchanges than in the traditional small group market.[8] Further, we account for a recent proposed rule clarifying that citizens with incomes below 133 percent of the FPL will be ineligible for exchange subsidies, since they are eligible for Medicaid (Federal Register, 2011). All results are based on the average of 30 runs of the COMPARE model.[9] We report outcomes for 2016, the first year in which the individual mandate penalty reaches its maximum level. All dollar values are reported in projected 2016 price levels. Additional details on the COMPARE model, including equations and sensitivity tests, can be found in Eibner et al. (2010) and Eibner et al. (2011). These sensitivity tests showed that model results are relatively insensitive to assumptions about plan administrative costs, the presence of the employer mandate, and self-insurance options available to small firms.

With the individual mandate, we predict that the ACA would result in coverage for 91 percent of the nonelderly population, compared with only 81 percent without any policy change.

Results

Coverage

Figure 1 shows the share of the nonelderly population predicted to enroll in health insurance coverage in 2016 without the ACA, with a "mandate-less" version of the ACA, and with the ACA as currently written. If the individual mandate is included, we predict that the ACA would result in coverage for 91 percent of the nonelderly population,[10] compared with only 81 percent without any policy change. If the ACA is implemented but the mandate is voided, we predict that 87 percent of the population would have insurance coverage. In terms of the number of people covered, we predict that 27 million people would be newly insured with the ACA as written, compared with 15 million if the ACA were implemented without the individual mandate.

For individuals with incomes below 400 percent of the FPL, insurance coverage increases under the ACA both with and without the mandate, due to the Medicaid expansion and new federal subsidies. However, for people with incomes above 400 percent of the FPL, there would actually be fewer with insurance under a mandate-less ACA than would be the case following full repeal of the ACA. This effect is small in magnitude (a net increase of 1.7 million uninsured, or about 2 percent of the insured population in this income group) and stems primarily from the new rating regulations in the individual and small group markets, which increase premiums for some enrollees.

While lower-income groups experience an increase in insurance coverage with or without the mandate, the mandate is critical to ensuring high levels of participation by people with incomes below 400 percent of the FPL. The results in Figure 1 imply that, while nearly 90 percent of people with incomes below 138 percent and above 400 percent of the FPL will be insured even without the individual mandate, only 80 percent of people with incomes between 250 and 400 percent of the FPL will be insured if the individual mandate is excluded from the ACA. This compares to 86 percent of people in this income range having coverage if the mandate is upheld. These results suggest that people with modest incomes that are nevertheless too high to qualify for Medicaid or substantial subsidies will be the individuals most likely to remain uninsured if the individual mandate is eliminated.

Sources of Coverage

Table 1 shows the sources of coverage that people would have without the ACA and how people are expected to transition to other sources of coverage when the ACA is fully implemented. We predict that enrollment in traditional employer-sponsored coverage will decline significantly with the ACA, but most of the individuals who lose traditional employer coverage (34.5 out of 41.0 million people moving

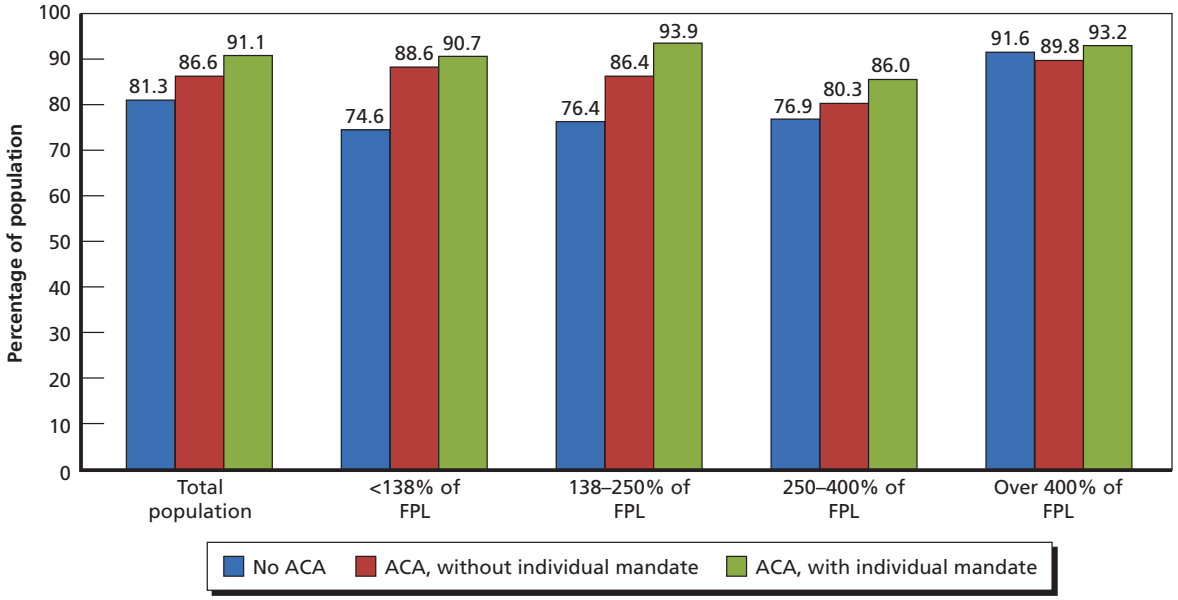
[7] In previous versions of the model, we have allowed actuarial value to vary based on firm size.

[8] In traditional plans, we assume that administrative costs account for 20 percent of premiums for firms with fewer than 25 workers and 13 percent of premiums for firms with between 25 and 100 workers. In the SHOP exchanges, we assume that administrative costs are 12 percent of premiums for all firms.

[9] Variation enters through two stochastic components of the multinomial probit model predicting firm offer decisions. First, offer decisions are modeled by comparing estimates from the probit model with random draws and assigning status based on the comparison of the numbers. Second, we assign a stochastic noise parameter to the worker utility associated with coverage in the exchanges, which is a key variable in estimating predicted health insurance choices. The noise parameter accounts for inherent uncertainties in how people will perceive the utility of the exchanges and is positively correlated across exchange plans.

[10] Twenty-seven million is lower than estimates produced in a previous COMPARE analysis (Eibner et al., 2010) and reflects three changes: (1) While we have always assumed that there is uncertainty in individuals' preferences to enroll in the exchanges, we now assume that this uncertainty is correlated across the four exchange plans; (2) we allow for erosion of the grandfathered market, which reduces enrollment slightly; and (3) we split the risk pools for the individual and small group exchanges, which causes overall enrollment to decline.

Figure 1
Share of Nonelderly Population with Insurance by Poverty Category, Alternative Scenarios Regarding ACA Implementation (2016)



NOTES: Predicted population sizes for the nonelderly are as follows: 61.5 million (<138% of the FPL), 57.3 million (138–250% of the FPL), 62.8 million (250–400% of the FPL), 95.2 (over 400% of the FPL), and 276.8 million (total).

RAND *TR1221-1*

Table 1
Transitions, All Nonelderly—with Mandate

Source of Coverage and Total Enrollment, No ACA		Source of Coverage, with ACA (2016)						
		Medicaid	Individual Exchange	Nongroup	SHOP Exchange	Traditional Employer	Other	Uninsured
Medicaid	37.0	35.2	0.0	0.0	1.4	0.4	0.0	0.0
Nongroup	17.7	0.6	14.1	0.2	1.9	0.3	0.0	0.6
Traditional employer	154.2	3.5	1.9	0.0	34.5	113.2	0.0	1.1
Other	15.8	0.0	0.0	0.0	0.0	0.0	15.8	0.0
Uninsured	52.2	10.8	11.9	0.0	4.2	2.5	0.0	22.8
Total	276.8	50.1	27.9	0.2	42.0	116.4	15.8	24.5

SOURCE: COMPARE model estimates.

out of traditional employer coverage) are expected to enroll in employer-sponsored coverage offered in the SHOP exchanges. The rest of those losing traditional coverage will enroll in Medicaid (3.5 million) or acquire coverage through the individual exchange (1.9 million), with a small fraction (1.1 million) becoming uninsured. Medicaid enrollment increases from 37.0 million to 50.1 million after the law takes effect. Most people (35.2 million) previously enrolled in Medicaid will remain enrolled in the program after the law goes into effect. Additionally, 10.8 million people who were previously uninsured will newly enroll in Medicaid. The remainder of new Medicaid enrollment comes primarily from very-low-wage people who were previously covered through employer-sponsored insurance (ESI). Finally, 28 million people are expected to enroll in the individual component of the health insurance exchange. Most of the individual exchange enrollees were previously enrolled in the nongroup market (14.1 million) or were uninsured (11.9 million).

Twenty-eight million people are expected to enroll in the individual component of the health insurance exchange.

In Table 2, we describe how transitions would occur if the ACA were implemented without the individual mandate, compared with a scenario with

Table 2
Transitions, All Nonelderly—No Mandate

Source of Coverage and Total Enrollment, No ACA		Source of Coverage, with ACA, No Mandate (2016)						
		Medicaid	Individual Exchange	Nongroup	SHOP Exchange	Traditional Employer	Other	Uninsured
Medicaid	37.0	35.6	0.0	0.0	1.3	0.1	0.0	0.0
Nongroup	17.7	0.3	12.9	0.2	1.8	0.2	0.0	2.2
Traditional employer	154.2	3.6	1.3	0.0	33.5	113.1	0.0	2.6
Other	15.8	0.0	0.0	0.0	0.0	0.0	15.8	0.0
Uninsured	52.2	8.5	7.6	0.0	3.5	0.5	0.0	32.1
Total	276.8	47.9	21.9	0.2	40.2	113.9	15.8	37.0

SOURCE: COMPARE model estimates.

no ACA. Table 2 can be directly compared with Table 1 to determine how the elimination of the individual mandate would affect transitions. Relative to the case with the individual mandate shown in Table 1, Table 2 implies that approximately 2.2 million fewer people will enroll in Medicaid, 6 million fewer people will enroll in the individual exchanges, 1.8 million fewer people will enroll in the SHOP exchanges, and 2.5 million fewer people will enroll in traditional employer coverage. In total, 12.5 million fewer people will enroll in insurance relative to the case with the individual mandate. Moreover, if the individual mandate is eliminated, our model predicts that the number of people transitioning from traditional nongroup or traditional employer coverage to being uninsured will more than double. Specifically, without the individual mandate, we estimate that 2.2 million people previously enrolled in nongroup coverage will become uninsured, and 2.6 million people previously enrolled in the employer market will become uninsured (Table 2). By comparison, with the individual mandate, only 600,000 people move from nongroup to uninsured status, and 1.1 million move from traditional employer coverage to uninsured status (Table 1). The increase in the number of people transitioning from insured to uninsured status is consistent with findings reported in Figure 1 (in which we saw a slight decline in coverage among people with incomes over 400 percent of the FPL) and reflects that—for a small subset of healthier people who are ineligible for subsidies—new rating regulations in the individual and small group markets will reduce the attractiveness of insurance coverage.

Without the individual mandate, we estimate that 2.2 million people previously enrolled in nongroup coverage will become uninsured, and 2.6 million people previously enrolled in the employer market will become uninsured.

Premiums

The reduction in coverage in the scenario without the individual mandate compared with the scenario with the individual mandate raises concern that adverse selection may influence premiums. Specifically, if the individual mandate induces a subset of healthier people to enroll in insurance coverage, the elimination of the mandate may encourage many people to disenroll or cancel their coverage, leading to an increase in premiums among those who remain. The difference in premiums may be particularly important for the individual component of the exchange, since—in results described above—we find that enrollment in the individual exchanges is more than 20 percent lower in the scenario without the individual mandate compared with the scenario with the mandate. Although the elimination of the individual mandate is associated with lower enrollment in other insurance markets as well, these differences are less pronounced than the difference found for the individual exchanges (ranging from a 2-percent decline in the large group and grandfathered employer markets to a 4-percent decline in Medicaid and the employer exchanges).

Table 3 shows predicted premiums for individual exchange plans, with and without the individual mandate. In the first row, we show the average premium per enrollee with and without the individual mandate. The analysis suggests that eliminating the mandate will cause average premiums to rise by approximately 9.3 percent, an estimate that is similar to the 10-percent increase reported by the Urban Institute (Buettgens and Carroll, 2012) and slightly lower than the 12.6-percent increase predicted by the Lewin Group (Sheils and Haught, 2011). All three of these estimates are considerably lower than the 15- to 27-percent increases predicted by the CBO (2010) and Jonathan Gruber (2011).

However, it is not clear that the average premium per enrollee is the most appropriate metric for gaug-

Table 3
Annual Nongroup Premiums for Single Coverage (2016)

	With Individual Mandate (standard deviation)	Without Individual Mandate (standard deviation)	% Change
Average premium per covered life	$5,755 ($80)	$6,289 ($75)	9.3
Age-standardized premiums			
Bronze	$4,915 ($42)	$5,035 ($56)	2.4
Silver	$5,734 ($49)	$5,874 ($66)	2.4
Gold	$6,554 ($56)	$6,713 ($75)	2.4
Platinum	$7,373 ($63)	$7,552 ($84)	2.4

SOURCE: COMPARE model estimates.

NOTES: Standard deviations based on 30 model runs are in parentheses. Exchange premiums are reported for a standard population. The bronze, silver, gold, and platinum plans vary by their actuarial values, with bronze being the least generous and platinum being the most generous plan. Changes in age-standardized premiums are constant across bronze, silver, gold, and platinum tiers because of risk adjustment in the exchanges. As implemented in our model, risk adjustment constrains premiums across bronze, silver, gold, and platinum tiers to vary by the ratio of actuarial values.

ing the amount of adverse selection in the exchanges. Because of the rate banding on age, average exchange premiums will reflect both the price faced by a given individual and the age composition of enrollees.[11] To avoid showing variation due only to changes in the age composition of enrollees, the bottom rows of Table 3 report average exchange premiums for an age-standardized population. These rows, therefore, show the premium difference that a given individual would face in the two alternative scenarios. To determine whether reported premium differences are statistically significant, we report standard deviations from 30 model iterations in parentheses. When we eliminate the individual mandate, individual exchange premiums increase by a statistically significant 2.4 percent. The increase in premiums is constant across plan tiers (i.e., bronze, silver, gold, and platinum) because we assume that the risk adjustment provisions constrain premiums in the exchange tiers to vary by the ratio of actuarial values.[12]

When we eliminate the individual mandate, individual exchange premiums increase by a statistically significant 2.4 percent.

While individual exchange premiums are higher without the mandate, the effect is relatively small, and not large enough to cause market instability. For example, the annual silver plan premium increases by only about $140 in the case with no individual mandate, relative to the case with the mandate. The size of the adverse selection effect is tempered by several factors. First, even though some young, low-cost people who are not subsidy-eligible will opt to remain uninsured without the mandate, rating regulations in the exchange have a stabilizing effect on premiums. Specifically, the 3-to-1 rate band on age ensures that premiums for older individuals are only partially determined by the experience of younger exchange enrollees. Thus, if younger people disproportionately avoid enrolling, it does not shift premiums more than 2.4 percent. Second, the subsidy for individual exchange enrollees with incomes below 400 percent of the FPL (and no employer offer of coverage) will keep many people enrolled in the individual exchanges regardless of premium levels. In fact, because the federal government pays for premiums above a fixed percentage of each enrollee's income, many subsidized exchange enrollees would experience no change in out-of-pocket spending if the individual mandate were eliminated. And because younger individuals are more likely to be low-income, the subsidy schedule is disproportionately generous to younger, lower-cost people, keeping them enrolled in the exchanges. Finally, results from Tables 1 and 2 show that about half of the individuals enrolled in the individual exchanges would have enrolled in nongroup coverage without ACA. These people will tend to obtain individual exchange coverage even if the mandate is eliminated, so they further act to stabilize exchange premiums.

Because we report age-standardized premiums, we are controlling for any changes in average premiums that result purely from a change in the age composition of exchange enrollees. Age-standardized premiums are a relevant metric for assessing adverse selection because they show how the premiums for any given individual will change due to the elimination

[11] As a simplified example, suppose that there are two types of people, young and old, and that rate banding permits insurers to charge old people three times as much as young people. Further, suppose that the premium for a young person is $1,000, and the premium for an old person is $3,000. The average premium per covered life in a group with one old person and three young people would be $1,500, while the average premium per covered life in a group with three old people and one young person would be $2,500. Age-standardized premiums, however, are the same in both groups.

[12] While it is not clear how states will implement risk adjustment in practice, Milliman, an actuarial research firm that advises states on exchange implementation, has suggested constraining premiums across tiers to vary only by the ratio of actuarial values as a possible approach. See Milliman, Inc., 2011, p. 50.

of the individual mandate. Other studies assessing the repeal of the individual mandate (CBO, 2010; Gruber, 2011; Sheils and Haught, 2011; Buettgens and Carroll, 2012) have assessed adverse selection by reporting the change in average premium per covered life in the exchanges.[13] The average premium per covered life reflects both the change in premiums faced by individuals of a given age and the change in premiums due to the age composition of enrollees. With our methods, we find a 9.3-percent increase in the average premium per covered life when the mandate is repealed. However, most of this change is due to a change in the age composition of enrollees and does not reflect the change in premium that a given individual could expect due to the repeal of the individual mandate.

Table 4 compares the results across models and clarifies the premium estimation approach used by each modeling group.[14] In addition to the method of quantifying adverse selection, the models differ in terms of the approach used to estimate behavior responses to policy changes. RAND and the Urban Institute use a "utility maximization" approach, in which individuals and firms make choices by weighing the costs and benefits of available options. CBO and Jonathan Gruber, in contrast, use an "elasticity-based" approach, in which behavioral responses are estimated based on past experience with premium changes. We chose not to use an elasticity-based approach because many of the policies introduced by the ACA, such as the health insurance exchanges, are wholly new options, and there is little prior experience available to confidently predict how people will respond to these options. Generally, it appears that models using an elasticity-based approach predict higher adverse selection than models that use a utility maximization approach. The Lewin Group, which predicts midrange premium increases, uses a combination of elasticity-based and utility maximization methodologies.

With the mandate, the total government cost per newly insured individual is $3,659, compared with $7,468 if the individual mandate is eliminated.

Government Spending

In Table 5, we report total government spending in a no-ACA scenario and in ACA scenarios with and without the individual mandate. For the purposes of reporting Medicaid expenditure, we combine state and federal spending. We do not estimate spending related to employer tax credits, since these credits are temporary and eligibility for many firms will have expired by 2016. The results shown in Table 5 predict that government spending will increase by approximately 34 percent under the ACA, relative to a comparison scenario with no ACA. In scenarios that include the ACA, new spending amounts to approximately $99 billion with the mandate and $109 billion with the ACA but without the individual mandate. When we eliminate the mandate, our model predicts a small decline in Medicaid spending and a larger decline in spending for premium subsidies, relative to the mandate scenario. However, these declines in spending are offset by the loss of revenue generated by the individual mandate penalty and reduced government savings on uncompensated care. The changes in uncompensated care, however, are highly uncertain. Importantly, the assumptions we use to estimate possible changes in uncompensated care spending are not limited to the DSH spending reductions outlined in the law but assume that all spending for uncompensated care of individuals who become newly insured will be recaptured. Without explicit mechanisms in place to reclaim these funds, it may be unrealistic to imagine that these savings will materialize. However, even if we omit the changes in uncompensated care spending from the calculation, we still find no difference in new government spending with the mandate versus without the mandate ($132 billion in new spending with the mandate versus $131 billion without).

Medicaid spending is only marginally affected by the mandate, falling by 1 percent when the mandate is eliminated. Because of their lower incomes, Medicaid enrollees are not typically subject to individual mandate penalties, and their decision to enroll is driven largely by eligibility rules.[15] Because the primary component of the ACA that directly affects state budgets is the Medicaid expansion, the stability of Medicaid spending implies that the individual mandate is unlikely to have significant effects for state budgets.

Gruber (2008) uses a measure of new government spending per new insurance enrollee, which he calls "bang for the buck," as a way of assessing the value of new health spending. These figures imply that on a per capita basis, the government gets a much higher "bang for the buck" when the individual mandate is included. With the mandate, the total government cost per newly insured individual is $3,659, compared with $7,468 if the individual mandate is

[13] In cases in which studies' methodologies were unclear, we confirmed the analytic approach through communication with the authors.

[14] We cite only the most recent estimate published by each modeling group. The Urban Institute published an earlier report (Buettgens, Garrett, and Holahan, 2010) citing lower adverse selection, while Gruber published an earlier report (Gruber, 2010) that predicted higher adverse selection than the most recent paper.

[15] We do not account for the possibility that people may not know their incomes with certainty, which might induce some low-income people to enroll in insurance to guard against penalties that could result from an unanticipated income change.

Table 4
Comparison of Key Results Across Models

Modeling Group	Premium Estimation Approach	Number Newly Insured, ACA as Written (in millions)	Number Newly Insured, ACA with No Individual Mandate (in millions)	Change in Individual Exchange Premium Predicted After Elimination of Individual Mandate
CBO	Covered life	32.0	16.0	+15 to 20%
Jonathan Gruber (MIT)	Covered life	32.0	8.0	+27%
The Lewin Group	Covered life	30.9	23.1	+12.6%
The Urban Institute	Covered life	23.9	10.5	+10%
RAND	Covered life	27.1	14.6	+9.3%
RAND	Age-standardized	27.1	14.6	+2.4%

SOURCES: CBO, 2010; Gruber, 2011; Sheils and Haught, 2011; Buettgens and Carroll, 2012.

Table 5
Government Spending, Overall and Per Enrollee (2016)

Outcome	No ACA	ACA, with Mandate	ACA, No Mandate
A. Government spending, in billions			
Total	$295	$394	$404
Medicaid*	$295	$383	$378
Premium subsidies	$0	$75	$65
Cost-sharing subsidies	$0	$5	$5
Individual fees	$0	–$14	$0
Employer fees, billions	$0	–$22	–$22
Uncompensated care savings		–$32	–$22
Change in spending (relative to no ACA)		$99	$109
B. Number newly insured, in millions			
Number newly insured (relative to no ACA)		27.1	14.6
C. New government spending			
New government spending per newly insured individual		$3,659	$7,468

SOURCE: COMPARE model estimates.

* This estimate reflects estimated Medicaid spending only for nonelderly, noninstitutionalized individuals who are enrolled in full benefits.

eliminated. This is because following repeal of the mandate, new government spending will be roughly the same, but 12.5 million fewer people will gain coverage.

National Health Spending

Much of the policy debate has focused on the effect of the ACA on government spending. Government spending is one of the most relevant metrics for policymakers (e.g., the CBO scores are based only on government spending) and is particularly important given rising concerns over the national debt. However, the ACA will also affect spending by individuals and employers. If policymakers focus only on government spending, they risk counting as "savings" health care costs that are merely passed on to other payers. To avoid this type of misinterpretation, Table 6 shows the total impact of the policies considered on health insurance spending for individuals under the age of 65. The overall effects are much different than the effects for the government. First, the ACA increases total insurance spending by only

If the mandate is repealed, new government spending will be roughly the same, but 12.5 million fewer people will gain coverage.

Table 6
Total Health Spending, Overall and Per New Enrollee (2016)

Outcome	No ACA	ACA, with Mandate	ACA, No Mandate
A. Spending, in billions			
Total	$1,447	$1,493	$1,458
Employer, traditional	$870	$620	$606
Employer, exchanges	$0	$202	$193
Individual exchanges	$0	$163	$141
Nongroup	$116	$3	$3
Medicaid*	$295	$383	$378
Other	$166	$166	$166
Uncompensated care	$0	–$43	–$30
Change in spending (relative to no ACA)		$46	$10
B. Number newly insured, in millions			
Number newly insured (relative to no ACA)		27.1	14.6
C. New spending			
New spending per newly insured individual		$1,684	$711

* This estimate reflects estimated Medicaid spending only for nonelderly, noninstitutionalized individuals who are enrolled in full benefits.

SOURCE: COMPARE model estimates.

$46 billion, compared with a $99 billion increase in government spending (Table 5). The smaller impact on total spending is caused in part by the fact that ESI spending *declines* after the ACA takes effect. The decline in ESI spending is largely driven by assumed administrative savings in the exchanges, which reduce employer spending relative to projections without the ACA.[16] New government spending is also partly affected by people who move from ESI to the individual exchanges or Medicaid, creating new costs for the government without adding to total societal spending on health care.

The increase in insurance spending by the nonelderly population would be $46 billion with the mandate, compared with only $10 billion without.

Second, in a scenario in which the individual mandate is repealed, new societal spending falls considerably. The increase in insurance spending by the nonelderly population would be $46 billion with the mandate, compared with only $10 billion without. In contrast, government spending increases when the mandate is eliminated. The decline in societal spending is driven by people who opt to remain uninsured if the mandate is eliminated. These individuals have a relatively large effect on overall societal spending but little effect on government spending because they are mostly ineligible for subsidies.

Limitations

A limitation of the COMPARE model is that we estimate premiums using the predicted expenditures of enrollees in each risk pool, allowing people to sort in and out of risk pools based on premiums estimated through successive model iterations. While this type of iterative process likely reflects long-term market dynamics, in the short run, insurers in the exchanges will have to set premiums with little actual data on exchange enrollees, their expenditures, or their likely responses to the mandate. If insurers believe that adverse selection is likely to happen, they may set premiums higher than we have predicted. This price-setting strategy, in turn, could lead only the sickest individuals to enroll, reinforcing the adverse selection effect.

A second potential limitation is that we assume that risk adjustment can be implemented by constraining premiums across bronze, silver, gold, and platinum tiers to vary with the ratio of actuarial values. While this mechanism has been suggested by actuarial consultants, it is not clear whether risk adjustment would be implemented perfectly. To the degree that risk adjustment "slipped," we expect that

[16] The decline in spending on employer health insurance is also partly driven by a compositional effect—those leaving the employer market for Medicaid or the exchanges tend to have higher health spending than those remaining in the employer market.

adverse selection due to the repeal of the individual mandate would become less pronounced than estimated in this report. The reason for this prediction is that imperfect risk adjustment would tend to reduce premiums for the relatively young and healthy people for whom the mandate is most binding, making insurance in the absence of the mandate slightly more attractive.

Another limitation of the model is that, due to limitations of existing data sources, we must match individuals from the SIPP to health expenditures from the MEPS-HC. Although we try to do this accurately, accounting for such characteristics as insurance status, income, age, and health status, we may not be fully adjusting for all correlations between individual characteristics and health spending. We also assume that the mandate is perfectly enforced, which is unlikely to be the case in practice. More generally, like all models, COMPARE is limited by difficulties in predicting the nuances of human behavior and by the quality of existing data. Nevertheless, policymakers must make decisions about how to implement and regulate the ACA with almost no empirical data on how people will respond to a policy change of this magnitude. Despite their limitations, models such as COMPARE are useful and necessary to understand the range of possible effects of a large-scale health care reform. As Milton Weinstein and colleagues (2003) have argued about health simulation models generally, "To reject the model because of incomplete evidence would imply that a decision with neither the data nor the model is better than with the model but without the data."

Conclusion

Our analysis demonstrates that the individual mandate is important to achieving the goal of near-universal coverage for all Americans. While 27 million people become newly insured with the mandate, only 15 million individuals become newly insured without the mandate. These enrollment results are consistent with prior research published by other modeling groups, which also found that the individual mandate had a dramatic effect on the number of individuals covered. Those most likely to remain uninsured without the mandate are individuals and families with incomes in the range of 250 to 400 percent of the FPL. These individuals do not qualify for Medicaid or substantial federal exchange subsidies, but many still find it difficult to afford coverage. Enrollment in the individual exchanges is particularly sensitive to the mandate. With the mandate, we predict that 28 million people will enroll in the individual exchanges, compared with 22 million if the mandate is eliminated.

While enrollment in ESI is relatively insensitive to the mandate, we find that—with or without the mandate—total spending on ESI falls after the ACA takes effect. The savings for employers and their workers reflect an assumption that the SHOP exchanges will lead to administrative savings in the small group market. Certainly, there is considerable hope that savings will occur once small firms are able to capitalize on economies of scale in insurance administration and negotiation with health plans (Buntin and Cutler, 2009). Whether these savings will actually occur, and over what time frame, is a subject for debate. Our analysis points to the importance of efficient exchange operations for achieving the goals of health care reform.

While our analysis suggests that enrollment in the individual exchanges is relatively sensitive to the mandate, we find only modest evidence of adverse selection when the mandate is eliminated. Compared with the mandate case, premiums in the individual exchanges are 2.4 percent higher when the mandate is eliminated. Although this finding reflects adverse selection, we do not predict a "death spiral" or an extreme increase in premiums as a result of eliminating the mandate. The relative stability of the individual exchange market results from federal exchange subsidies, which keep some younger, healthier individuals enrolled, as well as rate banding, which buffers premiums for older individuals against the enrollment decisions of younger individuals. Exchange premiums are further stabilized by the fact that most people who would obtain coverage in the nongroup market *without the ACA* are predicted to move into the individual exchanges. Since these individuals would purchase nongroup health coverage even without subsidies, they are relatively price-insensitive and tend to remain enrolled with or without the mandate.

We find less adverse selection than other models because we use a different approach to estimate the adverse selection effect. Rather than reporting the change in the average exchange premium, we report the change in premium that could be expected for an individual of a given age. We believe that this is the most relevant metric for assessing adverse selection because it quantifies the expected impact on an individual's pocketbook. Part of the small effect of premiums is due to the buffering effect of the federal subsidies. Unless they choose a relatively generous plan, subsidized exchange enrollees pay no more than a fixed share of income for health insurance, with the federal government making up the difference.

While 27 million people become newly insured with the mandate, only 15 million individuals become newly insured without the mandate.

Because the federal government bears most of the burden of higher premiums in the individual exchanges, federal spending *per new enrollee* more than doubles when the mandate is eliminated.

As a result, many enrollees will perceive no change in their contribution amount even when premiums increase, reducing the chance of a large-scale unraveling of the market. Because the federal government bears most of the burden of higher premiums in the individual exchanges, and because those who leave the market with the elimination of the mandate are less likely to be eligible for subsidies, federal spending *per new enrollee* more than doubles when the mandate is eliminated. The mandate, therefore, is important not only to achieving near universal coverage, but also to yielding a high "bang for the buck" in terms of the government's cost per new enrollee. ■

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About This Report

In this report, we use RAND's COMPARE microsimulation model to predict the effects of a possible Supreme Court decision invalidating the individual mandate provision in the Patient Protection and Affordable Care Act of 2010 while keeping the other parts of the law intact. We predict the effects of such a decision on health insurance coverage overall and for subgroups based on income. We also estimate where people will obtain insurance in scenarios with and without the mandate. Finally, we estimate how the elimination of the individual mandate will affect insurance premiums.

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