The Affordable Care Act (ACA), or Obamacare, has had a transformational effect on the individual market for health insurance in the United States and specifically for people with pre-existing health conditions.

Over 12 million people signed up for 2016 insurance coverage on one of the new exchanges created by the law. And along with an expansion of Medicaid eligibility that 31 states have adopted—the other key element of the ACA—over 22 million Americans have acquired health insurance since 2013. But the program has failed to meet many of its enrollment targets, and the combination of narrow networks and higher than anticipated premiums have made it difficult for some people to realize the benefits of their coverage, particularly when paired with high deductibles. Others remain financially burdened by the requirement to purchase minimum coverage in the individual market, despite the fact that an overwhelming majority of those insured through exchanges received federal aid in the form of insurance subsidies.

Republicans have been attempting to undo the law, either in whole or in part, essentially since its inception, citing the ACA’s high costs and lack of “universal access”—a common party term, not to be confused with the Democrats’ health insurance goal of “universal coverage.”

After numerous repeal attempts (and one veto) during the Obama Administration’s tenure, both the Senate and House passed budget resolutions in early

**SUMMARY**

- This Issue Brief uses a new economic model to empirically examine the pivotal mechanisms of the Affordable Care Act, such as the individual mandate, employer mandate, and premium subsidies, to inform the current debate over repealing and replacing the ACA.

- Simulations based on the model suggest that the ACA, if left intact, in the long run significantly reduces the uninsured rate among workers in the estimation sample to below 4 percent.

- Interestingly, the simulations also suggest that the employer mandate is not a crucial pillar for the success of the ACA. In an ACA scenario without that mandate, the uninsured rate would be only slightly higher than the uninsured rate under the full ACA.

- The analysis indicates it is the premium subsidy, rather than the employer mandate or the individual mandate, that is crucial for the success of the ACA, in terms of expanded coverage.

- The brief concludes with a look at the key elements of the main legislative proposals Congressional Republicans have offered to replace the ACA, including the American Health Care Act.
January to draft repeal bills for the ACA through the budget reconciliation process. Through this process, Republicans have the power to eliminate and replace any provision of the ACA that costs the federal government money, like premium subsidies, without requiring any Democratic votes. To achieve a complete overhaul of the ACA, however, several Democrats would have to support a new, comprehensive law, which is unlikely for a variety of reasons that are beyond the scope of this Issue Brief. Republican legislators nevertheless are now debating the merits of several detailed replacement plans that have been introduced within the last two years.

Some of these plans may increase the number of people who receive insurance, which is a frequently stated goal of President Donald Trump, despite its being at odds with established Republican policy priorities. Other policymakers have crafted proposals that significantly scale back aspects of the current law, such as the Medicaid expansion or the creation of insurance exchanges. The recently released House Republican budget reconciliation, titled the American Health Care Act (AHCA), retains some of the most popular features of Obamacare as it still allows young adults to stay on their parents’ plans until they reach age 26, and prohibits insurance companies from denying coverage to individuals with pre-existing health conditions. But it completely repeals the employer mandate of the ACA. The individual mandate of the ACA is also repealed; instead, it incentivizes young and healthy individuals to buy insurance with a continuous coverage requirement in order to avoid being charged a premium penalty (see Table 1). It also replaces the income based premium tax credit under the ACA with an age/income based refundable tax credit. Significantly, it will change Medicaid into a block grant program starting from 2020. Notably, the insurance exchange and the essential benefit requirements for qualified insurance plans, two ACA features, remain as key components of the AHCA. As expected, the new act has stirred significant opposition both from the Democrats and conservative Republicans, for very different reasons.

This Issue Brief uses new research on the labor and health insurance market dynamics of the ACA to empirically dissect the pivotal mechanisms of Obamacare and identify their effects, thus shedding some much-needed light on the repeal-and-replace debate. It also provides a model to examine what health insurance coverage in the U.S. could look like in the long run (i.e., after the markets have a chance to settle into a new steady state in response to the provisions of the ACA) in the absence of repeal. Understanding the effects of specific elements of the ACA, such as the individual mandate and premium subsidies, is crucial to predicting the effects of any policy that seeks to replace all or part of the current system. This Issue Brief illustrates in summary-level detail the impact of these ACA elements, including some of the often-neglected benefits of expanded coverage, especially to employers, which policymakers should consider in all of their upcoming debates over costs and the streamlining of operations.

**Modeling Obamacare: The Labor Market and the Uninsured**

There is a brand new model that integrates both the labor and health insurance markets in order to both qualitatively and quantitatively evaluate the impacts of the key components of the ACA, including the individual mandate, the employer mandate, the insurance exchanges, and the income-

**NOTES**


5. This model and the subsequent results come from a working paper by Naoki Aizawa and Hanming Fang entitled “Equilibrium Labor Market Search and Health Insurance Reform” (Second Version, October 2015), http://economics.sas.upenn.edu/~hfang/WorkingPaper/healthreform/Aizawa-Fang-October14-2015.pdf. This research is only a first step toward understanding the mechanisms through which the ACA, and more generally any health insurance reform, may influence labor markets equilib-
based insurance premium subsidies, as well as various combinations of these ACA components. This model offers robust insights into the mechanisms through which Obamacare affects the labor market in a state of equilibrium, where risk averse workers facing potentially significant medical expenditures are matched with firms making health insurance coverage decisions. The predictions generated by this model are largely consistent with the dynamics of workers’ labor market experience, health, health insurance, and medical expenditure, as well as the distributions of employer sizes and wages that are observable in the real data.

This labor market search model, as it is called, is a departure from its predecessors because it incorporates considerations of health and health insurance in the decisions of workers and firms. A model like this one is necessary for understanding the general equilibrium implications of health insurance reform, and it is deeply influenced both by previous research and the greater contextual landscape of American health care. Specifically, the United States is unique among industrialized nations in that it lacks a national health insurance system and most of the nation’s working-age population obtains health insurance coverage through their employers. Fortunately, there already exists an abundance of research showing the well-documented connections between firm sizes, wages, health insurance offerings, and worker turnovers upon which a model like this depends in order to be numerically estimated.

For example, it is well known that firms that do not offer health insurance are more likely to be small firms, to offer low wages, and to experience higher rates of worker turnover. In the data used in the paper, the average firm size was about 8.8 for employers that did not offer health insurance, in contrast to an average size of 33.9 for employers that did offer health insurance; the average annual wage was $20,560 for workers at firms that did not offer health insurance, in contrast to an average wage of $29,077 at firms that did; and the annual separation rate of workers at firms that did not offer health insurance was 17.3 percent, while it was 15.8 percent at firms that did. Moreover, workers in firms that offer health insurance are more likely to self-report better health than those in firms that do not offer health insurance. The estimated model is capable of replicating all the above empirical patterns in the US labor market prior to the implementation of the ACA.

**OVERALL EFFECTS OF THE ACA**

With all of this background knowledge serving as a foundation, the model shows that the first interesting and important effect of the ACA is that it lessens the degree of adverse selection for less productive firms (which are more likely to be small firms). This levels the playing field for the low- and high-productivity firms to offer health insurance in terms of the adverse selection problem. The adverse selection problem decreases over time because of the positive effect of health insurance—now available through regulated exchanges with subsidized premiums—on employee health. However, this result (i.e., improved health status of the workforce) is captured to a greater extent by high-productivity firms relative to low-productivity firms, due to a “retention effect.” The retention effect simply refers to the fact that high-productivity firms tend to offer higher wages and retain workers longer. These various effects collectively generate a positive relationship

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between wage, health insurance, and firm size. They also explain why the health status of employees covered by employer-sponsored insurance plans (ESIs) is better than that of uninsured employees in the data. In fact, due to these effects, the incentives for firms, even the more productive ones, to offer health insurance is only slightly reduced in a hypothetical scenario where the tax exclusion of ESI premiums is eliminated.

The second important effect of the ACA is that, due to the availability of subsidized health insurance from the exchange, it significantly reduces workers’ willingness to pay for ESI. Since a worker now has an option to buy health insurance from the exchanges, possibly with a federal subsidy if his/her income is low, he/she is less willing to work for a firm that offers ESI but with low pay. Also, the firms’ benefits in terms of increased productivity from offering ESI are also significantly reduced under the ACA, and importantly, the reduction is much more pronounced for the low-productivity (and typically smaller) firms. This acts as a countervailing force that lowers the incentives of small firms to offer ESI.

In light of the current policy debates, the model can be used to examine the impact of the aforementioned four key components of the ACA. Simulations based on the model predict that, left intact, the ACA would in the long run significantly reduce the uninsured rate among the workers in the estimation sample from 22.34 percent in the pre-ACA benchmark economy to about 3.67 percent or 3.93 percent, depending on whether the expanded Medicaid rolls are included in the risk pool of health insurance exchanges. This large reduction of the uninsured rate is mainly driven by the unemployed (5.13 percent of the population) receiving Medicaid coverage due to its expansion and around 17 percent of employed workers with relatively low wages participating in the insurance exchanges with their premiums supported by the income-based subsidies. The net reduction of the uninsured rate is smaller than the sum of 5.13 percent and 17 percent because the ESI offering rate for firms with less than 50 workers would decrease from 55.40 percent in the benchmark to 46.05 percent under the ACA, which we further discuss below.

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8 According to the Kaiser Family Foundation and Health Research and Educational Trust (2009), more than 60 percent of the non-elderly population in the U.S. received their health insurance sponsored by their employers, and about 10 percent of workers’ total compensation was in the form of ESI premiums. Full survey available at https://kaiserfamilyfoundation.files.wordpress.com/2013/04/7936.pdf.

9 Based primarily on the 1997 Robert Wood Johnson Foundation Employer Health Insurance Survey.

10 In this case, adverse selection refers to the likelihood that less healthy job candidates will seek work at a disproportionately higher rate than healthy workers, unbeknownst to employers, and that their poor health will be a burden to their new firms (i.e., lost productivity and higher cost of providing insurance).

11 A high-productivity firm offering health insurance can poach workers from a much wider range of firms, including a larger fraction of workers who work in firms that already offer insurance and are thus healthier; in contrast, a low-productivity firm offering health insurance can only poach workers from firms with even lower productivity, many of which do not offer health insurance and thus have less healthy workers.

12 Recall that the sample used in the analysis of this paper is males and females between ages 26-46 with no more than a high school graduation. Their uninsured rate, at 22.34 percent, is higher than that of the overall population (which stood around 16 percent in that period).

13 The individual mandate requires everyone in the U.S. to have health insurance that meets the law’s minimum

**THE EMPLOYER MANDATE EFFECT**

Due to the employer mandate, should it ever be implemented, the health insurance offering rate for firms with 50 or more workers would increase from 92.03 percent in the benchmark to 98.67 percent under the ACA; however, the health insurance offering rate for firms with less than 50 workers would decrease from 55.40 percent in the benchmark to 46.05 percent under the ACA. Again, the reason for the reduction in small firms’ ESI offering rate is that the ACA reduces the value of ESI for workers, particularly those with low income, because of the availability of premium-subsidized health insurance from the regulated health insurance exchanges. The size-dependent employer mandate would lead to a slight increase in the fraction of firms with less than 50 workers, with a small but noticeable clustering of firms with size just below the employer mandate threshold of 50. Overall, there would be a small reduction in the fraction of employed workers receiving ESI, from 82.17 percent in the benchmark to 79.15 percent under the ACA.

Interestingly, under an ACA scenario without the employer man-
date, the uninsured rate would be 4.63 percent, just slightly higher than the uninsured rate under the full ACA. Without the employer mandate on firms with 50 or more workers, small firms increase their ESI offering rate, and individuals without ESI also have stronger incentives to purchase insurance from the exchange. The simulations suggest that the employer mandate, surprisingly, is not a crucial pillar for the success of Obamacare.

THE INDIVIDUAL MANDATE AND PREMIUM SUBSIDY EFFECTS

The uninsured rate in a simulation of the ACA without the individual mandate would be 7.34 percent, significantly lower than the 22.34 percent under the benchmark. And with neither the individual nor the employer mandate, the uninsured rate would be 9.22 percent. The premium subsidy component of the ACA would have drawn all of the unemployed (regardless of their health) and the low-wage employed (again regardless of their health) into the insurance exchange by itself. In fact, if the premium subsidies, instead of the individual mandate, were removed from the ACA, the insurance exchanges would suffer from an adverse selection problem so severe as to render them non-functioning. Obamacare without premium subsidies would only lead to a small reduction of the uninsured rate to 18.19 percent from the 22.34 percent in the benchmark. These results suggest that the premium subsidy is the key pillar for the success of Obamacare.

THE TAX EXCLUSION FOR ESI PREMIUMS EFFECT

A final simulation covers the effects of eliminating the tax exclusion for ESI premiums both under the benchmark and under the ACA. The elimination of the tax exclusion for ESI premiums would reduce, but not eliminate, the incentives of firms, especially the larger ones, to offer health insurance to their workers, and the overall effect on the uninsured rate is modest. The uninsured rate would increase from 22.34 percent to 35.10 percent when the ESI tax exclusion is removed in the benchmark economy, and it would increase from 3.67 percent to 6.05 percent under the ACA. Prohibiting firms from offering ESI in the post-ACA environment would lead to a large increase in the uninsured rate, which suggests that ESI complements, rather than hinders, the smooth operations of the health insurance exchanges.

This is the reality of insurance coverage under the ACA. If the goal, as President Trump seems to believe, is to insure everyone, then it is essential to understand the potential and the inner-workings of the program that will be replaced, so as to learn from its limitations. In that case, this model is highly instructive. If, however, the goal is mere cost reduction, then it still behooves policymakers to fully understand the benefits of expanded health insurance coverage, as neither side of the economic coin should be debated in isolation. The next section sheds more light on these benefits.

THE SOLIDIFYING SHAPE OF REPEAL AND REPLACEMENT

There appear to be several points of consensus among Republicans over potential reform measures. These include: the elimination of the explicit individual mandate; the elimination of the ACA’s essential health benefits package, which is a regulation that requires insurers to provide ten universal benefits in each exchange plan; the elimination of the yet-to-be-implemented employer mandate; and the ability to purchase exchange plans standards or else face a penalty when filing taxes for the year. Currently, the penalty is 2.5 percent of income or $695, whichever amount is greater. The original motivations for this mandate included compelling younger and healthier people to join insurance pools to bring down premium costs for everyone, as well as the fact that people without insurance who become seriously sick or catastrophically injured impose enormous costs for taxpayers. Accordingly, it remains one of the most politically divisive elements of Obamacare.

16 The age band is the allowable range of price discrimination based on age. Under the ACA, older people can be charged premiums that are up to three times higher than those offered to younger people. The Republican proposals seek either to raise this cap from three to five times or to eliminate it entirely.

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across state lines. All of these measures would require new legislation and require (at least some) bipartisan approval. But there also has been significant disagreement among Republicans over other aspects of what a potential ACA replacement would look like. Five noteworthy proposals have thus far been introduced as legislation or for open debate, and their primary differences are represented in Table 1.

With such broad Republican support for eliminating the ACA’s individual mandate, it is interesting that four of these proposals include a more subtle mandate for younger and healthier individuals to purchase coverage. Though the details differ, a common element across proposals is the idea of a “continuous coverage” requirement, which typically would incentivize a person seeking to purchase insurance on an exchange to have maintained some type of minimum health coverage for a specific period of time (e.g., 63 days in the American Health Care Act) in order to avoid significantly higher premiums or even outright coverage denial if they have a pre-existing condition (PEC). A continuous coverage requirement, therefore, is a policy that can protect consumers against insurance companies denying or charging them much higher premiums for coverage because of PECs if they have no lapses in coverage. This may play the role of the ACA individual mandate, albeit implicitly, to acquire coverage out of concern for their future selves, who may become seriously sick or injured. In other words, the requirement uses an individual’s risk aversion toward potential higher future premiums against them to incentivize them to obtain coverage now, when they are still healthy. Given this policy option, it may be useful for future research to consider the role and effects of the current individual mandate, and to model and analyze how a continuous coverage requirement policy, with specific parameters such as the length of the look-back period for continuous coverage requirement and the permissible premium hike if continuous coverage is not maintained, may resemble or differ from this pillar of the ACA. In particular, it remains an open question whether AHCA’s 12-month look-back period and 30% premium hike irrespective of the enrollee’s health risk provide sufficiently strong incentives for the young and the healthy to buy insurance. In addition, continuous coverage requirement works only if consumers are sufficiently forward looking, and demonstrate adequate financial and health literacy. Thus, extensive information campaign and consumer educational outreach will be crucial. Moreover, there also needs to a new borrowing mechanism so that credit-constrained consumers who experience temporary liquidity shocks can continue paying their health insurance premiums.

A second key point of disagreement among these legislative proposals involves a potential cap on the tax exclusion for ESIs. After spending on Medicare (roughly $400 billion) and Medicaid (roughly $300 billion), the current tax exclusion for ESIs (roughly $260 billion) is the country’s largest public (tax) expenditure on health

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**TABLE 1: DIFFERENCES IN REPUBLICAN LEGISLATIVE PROPOSALS**

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<tbody>
<tr>
<td>“Continuous Coverage” Requirement - Implicit Individual Mandate</td>
<td>Included (18 Months of Coverage Required Prior to Enrollment)</td>
<td>Included (18 Months of Coverage Required Prior to Enrollment)</td>
<td>None (Repeals All ACA Changes to the Individual Mandate)</td>
<td>Included (Unspecified Amount of Time Required)</td>
<td>Included (No More Than 63 Continuous Days of Lapse in the 12 Months Prior to Enrollment)</td>
</tr>
<tr>
<td>Cost of Not Maintaining “Continuous Coverage” - Allowable Price Discrimination by Health Status</td>
<td>Up to 1.5x Higher Premiums for 2 Years</td>
<td>No Limits on Premium Increases or Coverage Denial</td>
<td>No Limits on Premium Increases or Coverage Denial</td>
<td>Unspecified</td>
<td>30% Premium Surcharge for 1 Year</td>
</tr>
<tr>
<td>New Age Band Limit (3x at present) - Allowable Price Discrimination by Age</td>
<td>No Limit</td>
<td>Premiums Up to 5x Higher for Older Americans</td>
<td>No Limit</td>
<td>Premiums Up to 5x Higher for Older Americans</td>
<td>Premiums Up to 5x Higher for Older Americans</td>
</tr>
<tr>
<td>Cap on Tax Exclusions for Employer-Sponsored Plans</td>
<td>$8,000 for Individuals; $20,000 for Families</td>
<td>Included (Unspecified)</td>
<td>None</td>
<td>Included (Unspecified)</td>
<td>None</td>
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</tbody>
</table>
care. A cap would be designed to incentivize workers to select plans that offer fewer benefits and include more cost-sharing, which economists generally endorse because cost-sharing helps to reduce unnecessary healthcare spending, which in turn could drive down costs throughout the entire system. Since employers are always vying for the best workers, they benefit from offering health insurance purely from a competitiveness standpoint. Currently, there is no penalty for offering candidates the most generous plans on the market. Employers, however, may view a cap as a large tax increase, particularly if they deem the ability to offer these generous plans (or Cadillac Plans, using Obamacare parlance) as a necessary means of attracting top talent. However, the findings discussed earlier suggest that the effect of the magnitude of the tax exclusion cap for ESI premiums on the uninsured rate is likely to be moderate.

Aside from these various legislative proposals, a recent white paper from House leadership, which was prepared for the five House and Senate Committees responsible for health care oversight, highlights critical replacement steps that can be enacted through the budget reconciliation process alone. One of these steps has a clear Obamacare analogue: the policy proposal of offsetting the cost of insurance from new exchanges with tax credits. (For a list of other noteworthy steps recommended by House leadership, see Table 2. A detailed discussion of the merits and shortcomings of these features is beyond the scope of this Issue Brief.) Under the ACA, most people who receive coverage in the federal marketplace or from state exchanges receive subsidies based on their income. The current proposal favors the idea of cost assistance based on age instead. This is perhaps because other reform proposals, such as increases in the age band or the elimination of essential benefits at the discretion of insurers, likely would raise the cost of insurance for older people, who may need the sort of comprehensive plans that younger and healthier people may no longer be compelled to buy. But regardless of motivation, there again may be wisdom in studying the role and effects of the current income subsidies and how they may predict the effects of age-based tax credits, even with the knowledge that these proposed credits are notably less generous than the Obamacare subsidies.

### CONCLUSION

Despite the enormous and time-sensitive political pressure on Congressional Republicans to produce replacement legislation for Obamacare, any pivotal new element of health care reform would benefit (prior to implementation) from the type of quantitative and qualitative analysis now accessible for the ACA. Left intact, the ACA would significantly reduce the uninsured rate among U.S. workers from 22.34 percent in the pre-ACA economy to about 3.67-3.93 percent in the long run. Under a scenario in which the employer mandate is never implemented, the uninsured rate would be only slightly higher, at 4.63 percent. Without the individual mandate, the uninsured rate would be 7.34 percent. And without either mandate, the uninsured rate would be 9.22 percent.

If premium subsidies, instead of the individual mandate, were removed from the ACA, the insurance exchanges would suffer from an adverse selection problem so severe that the exchanges would cease to function. Obamacare without premium subsidies would only lead to a small reduction of the uninsured rate to 18.19 percent. The uninsured rate would increase from 22.34 percent to 35.10 percent if the ESI tax exclusion were removed in the benchmark economy, and it would increase from 3.67 percent to 6.05 percent under the ACA. Obamacare is not without serious flaws, including narrow networks and many instances of high premiums paired with high deductibles. Policy-makers honestly debating repeal-and-replacement proposals, however, would do well to consider both the costs and benefits of the current system—and to model new policies before implementing them.

### TABLE 2: ACA REPLACEMENT VIA BUDGET RECONCILIATION

<table>
<thead>
<tr>
<th>Proposition</th>
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<tbody>
<tr>
<td>Age-Based Tax Credits: The New Premium Subsidies</td>
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<tr>
<td>Increased Limits for Tax-Free Health Savings Accounts</td>
</tr>
<tr>
<td>Medicaid Reform (including Repeal of the ACA’s Expansion)</td>
</tr>
<tr>
<td>“State Innovation Grants” (i.e., High Risk Pools)</td>
</tr>
<tr>
<td>Elimination of Several Health Care Industry Taxes</td>
</tr>
</tbody>
</table>

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