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## **Political Adverse Selection**

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Pietro Tebaldi and Noam Yuchtman

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# Political Adverse Selection

## Abstract

We study how the politicization of policies designed to correct market failures can undermine their effectiveness. The Patient Protection and Affordable Care Act (ACA) was among the most politically divisive expansions of the US government. We examine whether partisanship distorted enrollment and market outcomes in the ACA insurance marketplaces. Controlling for observable characteristics and holding fixed plans and premiums available, Republicans enrolled less than Democrats and independents in ACA marketplace plans. Selection out of the ACA marketplaces was strongest among Republicans with lower expected healthcare costs, generating adverse selection. Computing enrollment and average cost with and without partisan differences, we find that this political adverse selection reduced enrollment by around three million people and raised average costs in the marketplaces, increasing the level of public spending necessary to provide subsidies to low-income enrollees by around \$105 per enrollee per year. Lower enrollments and higher costs are concentrated in more Republican areas, potentially contributing to polarized views of the ACA.

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# Political Adverse Selection\*

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June 2022

## Abstract

We study how the politicization of policies designed to correct market failures can undermine their effectiveness. The Patient Protection and Affordable Care Act (ACA) was among the most politically divisive expansions of the US government. We examine whether partisanship distorted enrollment and market outcomes in the ACA insurance marketplaces. Controlling for observable characteristics and holding fixed plans and premiums available, Republicans enrolled less than Democrats and independents in ACA marketplace plans. Selection out of the ACA marketplaces was strongest among Republicans with lower expected healthcare costs, generating adverse selection. Computing enrollment and average cost with and without partisan differences, we find that this political adverse selection reduced enrollment by around three million people and raised average costs in the marketplaces, increasing the level of public spending necessary to provide subsidies to low-income enrollees by around \$105 per enrollee per year. Lower enrollments and higher costs are concentrated in more Republican areas, potentially contributing to polarized views of the ACA.

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# 1 Introduction

Governments increasingly rely on markets to provide important impure public goods, such as health care, education, or retirement savings. This approach, sometimes called *managed competition*, is characterized by subsidized private provision or by competition between public and private options. In theory, managed competition can deliver greater choice and more efficient provision of benefits and services (Enthoven, 1993, Einav and Levin, 2015). Achieving those goals depends on matching consumers to products or options, a process policymakers and economists typically view as determined by household preferences over products and market conditions (e.g. prices). Importantly, while public intervention affects market conditions, preferences are typically modeled as independent of the role of government.

We consider an alternative view in which the presence of government intervention also affects choices directly: government involvement is a product attribute, the value of which depends on consumers’ partisan affiliation. Political preferences of this kind can have important impacts beyond the private consumption decisions of those individuals. Because government involvement typically occurs in markets with important externalities — e.g. selection markets (Veiga and Weyl, 2016) — such politically-influenced demand may affect not only individuals’ own consumption decisions and utility, but also costs, prices, government spending, and welfare in aggregate.

We study this phenomenon in the context of the Patient Protection and Affordable Care Act of 2010 (ACA). Popularly known as “Obamacare,” the ACA was one of the most significant and politically divisive expansions of the American government in decades. The law passed on party lines in 2010, and even as late as 2019, the political divide remained: 80% of Democrats held a favorable view of the ACA, compared to only 20% of Republicans (Brodie et al., 2020).

To the extent that partisanship makes some of the intended beneficiaries (i.e., uninsured, low-income Republicans) more likely to opt out of the government-sponsored ACA marketplaces, political enrollment decisions pose an obstacle to the primary ACA goal of achieving near-universal insurance coverage. Moreover, if political selection out of the ACA marketplaces is stronger among healthier, low-cost individuals (e.g. because these individuals have more appealing outside options), partisanship can not only reduce enrollment, but also worsen risk selection into the marketplaces. This “political adverse selection” implies an increase in insurers’ average costs, which then translates to higher premiums and larger per-enrollee subsidy outlays.

This paper formalizes the concepts of political enrollment and political adverse selection and empirically estimates their effects on market outcomes. Controlling for demographics, health status, and supply-side factors, we find that Republicans were significantly less likely to enroll in ACA marketplace insurance plans than independents and Democrats. This difference is driven by healthy Republicans: while unhealthy Republicans were 4 percentage points less likely to enroll than unhealthy independents and Democrats, healthy Republicans were 12 percentage points less likely to

enroll than healthy independents and Democrats. Political enrollment decisions thus worsened risk selection into the marketplaces.

We develop a simple model of political adverse selection, building from [Einav et al. \(2010a\)](#). The model generates necessary and sufficient conditions for political enrollment to increase average costs. Taking the model to the data, we show that these conditions hold in the ACA marketplaces, and we estimate that political adverse selection led to a 2.7% increase in average cost. In the context of the ACA, higher costs translate to higher premiums for high-income households and higher subsidies to low-income households. Since most enrollees on ACA insurance exchanges receive large subsidies, our estimates suggest that political adverse selection increased the level of public spending necessary to provide subsidies to low-income enrollees by around \$105 per enrollee per year.

Our work highlights important social costs arising from increased political polarization (see, e.g., [Gentzkow, 2016](#); [Iyengar et al., 2019](#)), and in particular, the increased politicization of policy adoption ([DellaVigna and Kim, 2022](#)). In markets featuring government involvement or private-public competition — for example, health insurance ([Epple and Romano, 1998](#); [Curto et al., 2019](#)), education ([Dinerstein and Smith, 2021](#)), pharmaceuticals ([Duggan and Scott Morton, 2006](#); [Atal et al., 2021](#)), and broadcasting ([Berry and Waldfogel, 1999](#)) — individual political behavior may generate important externalities, arising from adverse selection or from unrealized economies of scale. As a result, stronger political preferences may not only shape *individual* consumption choices ([Fouka and Voth, 2013](#); [McConnell et al., 2018](#); [Nardotto and Sequeira, 2021](#); [Atkin et al., 2021](#)) — but also distort aggregate market prices and quantities: negative politically-driven views, potentially driven by false or misleading claims, may generate market dynamics leading those views and claims to be self-fulfilling. In the ACA context, conservative politicians and media outlets claimed that premiums would be high and grow quickly even before the marketplaces were established. Our results demonstrate that market outcomes in more heavily Republican locations were in fact worse than outcomes in less Republican locations — precisely as claimed prior to any actual evidence, and potentially *due* to those claims.<sup>1</sup> From school choice to the response to COVID-19 and beyond, such dynamics may be important in settings in which political rhetoric appears increasingly divorced from fact and partisan spatial segregation is growing ([Bishop, 2009](#); [Rodden, 2019](#)).<sup>2</sup>

We also speak to the large literature studying consumer choice in health insurance markets (see [Einav et al., 2010a](#), for an early review), and particularly to work studying deviations from

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<sup>1</sup>Moving from a market in which fewer than 30% enrollees are Republican to a market in which greater than 60% of enrollees are Republican more than quadruples the premium increase due to political adverse selection (from 1.20% to 5.83%). In the 25 states with above-median Republican vote share, we estimate that premium increases due to political adverse selection were almost twice as large as the impact in the 25 states with the below-median Republican vote share (4.01% vs. 2.17%).

<sup>2</sup>Recent work examining partisan differences in COVID-19-related behaviors and outcomes ([Allcott et al., 2020](#); [Bursztyjn et al., forthcoming](#); [Larsen et al., 2022](#)) suggests that politically-motivated choices may also have important spillovers in health-related contexts.

narrowly rational consumer choice (see [Handel and Kolstad, 2015a](#); [Chandra et al., 2019](#), for reviews).<sup>3</sup> We add to this literature evidence that political preferences affect health plan choices for consumers with otherwise similar characteristics, including health status. More specifically, our work contributes to a growing literature studying the performance of the ACA marketplace and the similar Massachusetts health care reform of 2006,<sup>4</sup> and to a small body of papers studying consumer behavior in the ACA marketplace through a political economy lens. Existing work has identified an association between partisanship and ACA marketplace plan take-up ([Lerman et al., 2017](#); [Sances and Clinton, 2019](#)) and between partisanship and health care premiums ([Trachtman, 2019](#)). Our analysis adds two crucial elements: first, we isolate choices made on the demand side of the market, holding the supply side fixed by examining behavior *within* health insurance rating areas, the level at which consumers face the same menu of plans and prices. Second, we identify enrollment differences by *both* partisanship *and* health status to document and quantify the effects of political adverse selection on enrollment and costs.

We provide an overview of the institutional context of our study in Section 2. We present a simple model of political enrollment and political adverse selection in Section 3, highlighting how this mechanism plays out in the ACA context. In Section 4, we describe our data and present descriptive evidence suggestive of our mechanism. In Section 5, we present our empirical analyses and results. Section 6 discusses implications and concludes.

## 2 Background

### 2.1 ACA marketplaces

A key provision of the ACA was to establish insurance marketplaces in all fifty states and the District of Columbia, providing private coverage beginning in 2014. The regulation and design of these marketplaces was multifaceted and complex. A large and growing literature has developed focusing on the industrial organization of these markets and considering numerous policies and market design variables (see e.g. [Handel and Kolstad 2021](#); [Handel and Ho 2021](#), and references therein). In the discussion that follows, we abstract away from many of these details and focus on the key components relevant for our empirical strategy and interpretation of our findings: the design and importance of subsidies (premium tax credits), product regulations, and market definitions.

Each state is divided into geographic rating areas — groups of counties or ZIP codes — defining the level at which insurers set plans and premiums. In a given coverage year, the supply side of

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<sup>3</sup>Distortions of rational choice identified in the literature include search and switching costs, inattention, and limited information. See, for example, [Fang et al. \(2008\)](#); [Heiss et al. \(2010\)](#); [Abaluck and Gruber \(2011\)](#); [Ketcham et al. \(2012\)](#); [Handel \(2013\)](#); [Ericson \(2014\)](#); [Handel and Kolstad \(2015b\)](#); [Abaluck and Gruber \(2016\)](#); [Ketcham et al. \(2019\)](#); [Polyakova \(2016\)](#); [Abaluck and Gruber \(2016\)](#); [Ho et al. \(2017\)](#).

<sup>4</sup>See, e.g., [Hackmann et al. \(2012\)](#); [Dickstein et al. \(2015\)](#); [Ericson and Starc \(2015\)](#); [Hackmann et al. \(2015\)](#); [Handel et al. \(2015\)](#); [Orsini and Tebaldi \(2017\)](#); [Aizawa \(2019\)](#); [Tebaldi \(2022\)](#).

each marketplace is fixed within each rating area: participating insurers are mandated to offer a specific set of plans, or metal tiers (Bronze, Silver, Gold, and Platinum). For each plan, insurers set a baseline premium, which is then adjusted for each household as a function of income and age composition following a federally mandated formula (see also [Saltzman, 2019](#); [Polyakova and Ryan, 2019](#); [Tebaldi, 2022](#)).

The ACA defines a maximum affordable amount for every household with income between 100% and 400% of the Federal Poverty Level (FPL); the amount is increasing in income. Given premiums in each rating area, subsidies are adjusted so that a Silver plan can be purchased for this amount. As highlighted in [Jaffe and Shepard \(2020\)](#) and [Tebaldi \(2022\)](#), price-linked subsidies of this kind imply that changes in premiums result in changes in subsidies, rather than changes in the premiums facing consumers. Therefore, regulatory or behavioral interventions affecting costs and premiums have a first-order effect on the level of public spending necessary to guarantee broad insurance coverage in the marketplaces.<sup>5</sup> Although marketplace-based insurance is available for the entire individual market, including those at higher incomes, in practice the vast majority of ACA marketplace purchases were by households receiving a subsidy: as of 2016, around 85 percent of the 18 million buyers in the marketplaces were subsidized ([Layton et al., 2018](#)).

## 2.2 Political conflict and ACA market outcomes

After Barack Obama won the presidency in 2008 on a platform emphasizing healthcare reform, Republican opposition was vehement. Eventually, the US House of Representatives passed a healthcare reform bill 220–215, with only a single Republican representative voting in favor. The Senate then passed a reform bill 60–39 on a strictly party-line vote: no Republican senator voted in favor. Plans for the Senate and House to negotiate over a final bill were derailed by the special election of Scott Brown, a Republican, to the Senate from Massachusetts. This meant that Democrats could no longer pass a new health reform bill in the Senate: Republicans now had the 41 votes needed to filibuster (i.e., procedurally defer) any legislation. President Obama then led a process (including holding a healthcare summit) that produced a political compromise based on the Senate’s law. The House passed this compromise bill 219–212 in March 2010, with no Republican representatives voting in favor.

The Affordable Care Act was politically divisive immediately upon its passage: Kaiser Family Foundation Health Tracking Polls showed that around 70% of Democrats viewed the legislation favorably in 2010, compared to fewer than 20% of Republicans (see [Brodie et al., 2020](#)). Experience with the ACA has not diminished the partisan divide: as of 2019, around 80% of Democrats held a favorable view of the ACA, compared to only 20% of Republicans ([Brodie et al., 2020](#)). Republican state officials engaged in a number of practices to undermine the ACA’s objectives, including passing

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<sup>5</sup>We focus on the cost of expanding health insurance coverage rather than the total cost of the program. Total costs can be reduced simply by reducing coverage, which is at odds with the policy’s primary goal.



laws preventing federally-appointed “navigators” from helping consumers choose plans and blocking state expansion of Medicaid (Seitz-Wald, 2013; Rocco et al., 2020). Opposition to the ACA was also a central component of Donald J. Trump’s 2016 presidential campaign; on the campaign trail, Trump repeatedly announced his intention to dismantle the policy (e.g., “Real change begins with immediately repealing and replacing the disaster known as Obamacare.”<sup>6</sup>). Thus, ever since its passage, the ACA was a fundamentally *partisan* public policy, with its policy impact experienced by US citizens alongside its political implications.

In some respects, it is surprising that the ACA generated such intense partisan conflict. While it was implemented by a Democratic president and Democrat-controlled Congress, the broad outlines of the policy were proposed by the Heritage Foundation (a right-of-center think tank). Like the similar policy implemented by Republican Governor Mitt Romney of Massachusetts in 2006 (“Romneycare”), the ACA aimed to expand Medicaid for the poor, facilitate employer-sponsored insurance, and develop marketplaces for *private* insurance for individuals and small businesses. For both policies, regulations were intended to facilitate access to private insurance by subsidizing the near poor and to overcome inherent problems of selection markets (Enthoven, 1993; Einav and Levin, 2015) using an individual mandate, minimum product standards, and restrictions on underwriting.

The literature studying the “Romneycare” experience suggests it was largely successful (see, e.g., Hackmann et al., 2015; Finkelstein et al., 2019). Uninsurance in Massachusetts was approximately zero by 2010, and — also thanks to the intervention of the state government — premiums and enrollment were quite stable across years. Given the strong similarities between the two reforms, there was reason to believe the ACA might lead to similar experiences in the rest of the country. This did not turn out to be the case: between 2014 and 2020, premiums and participating insurers varied widely, and participation was lower than the Congressional Budget Office predictions. On average across rating areas, the minimum (pre-subsidy) premium in 2018 was 70% higher than the 2014 average.<sup>7</sup> The average number of insurers participating in a marketplace was six in 2015 and fewer than four in 2018. While subsidized enrollment was stable over time, given that subsidized buyers are shielded from premium increases, unsubsidized enrollment in the individual insurance market in 2018 was half its 2015 level.<sup>8</sup>

Many competing factors jointly determined outcomes in ACA marketplaces, and a comprehensive analysis is far beyond our scope. What we argue here — both theoretically and empirically — is that the politicization of the ACA may have been one factor lowering enrollment and increasing per-buyer public spending in the marketplaces.

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<sup>6</sup>See e.g. <https://slate.com/news-and-politics/2017/03/trump-says-he-never-promised-to-repeal-obamacare-quickly-a-list-of-times-he-did.html>, last accessed April 30, 2020.

<sup>7</sup>Authors’ calculations using data from the Centers for Medicare & Medicaid Services (CMS).

<sup>8</sup>See: <https://www.kff.org/private-insurance/issue-brief/data-note-changes-in-enrollment-in-the-individual-health-insurance-market-through-early-2019/>; and <https://www.kff.org/private-insurance/issue-brief/insurer-participation-on-the-aca-marketplaces-2014-2021/>, last accessed on February, 13, 2022.

### 3 Political Enrollment and Adverse Selection

#### 3.1 Model

We extend the canonical model of insurance markets developed by [Einav, Finkelstein and Cullen \(2010b\)](#) — EFC henceforth — to explicitly include political identity as a determinant of individual choices. A consumer chooses whether to buy insurance or not; our focus is on the extensive margin decision to insure, rather than the intensive margin decision of plan generosity within a market (e.g. [Geruso et al., 2019](#); [Marone and Sabety, 2022](#)).

The population of consumers is defined by a distribution  $G$  of types  $\tilde{\zeta}$ . Letting political identity be denoted by  $\iota \in \{0, 1\}$ ,  $\tilde{\zeta} = (\zeta, \iota)$ , where  $\zeta$  is a generic, multidimensional EFC-type that encompasses non-political determinants of insurance preferences and all determinants of costs. We denote by  $c(\zeta_i)$  the expected monetary cost associated to the insurable risk for individual  $i$ . This is not varying by  $\iota_i$ : we assume that conditional on  $\zeta_i$ , political identity does not affect healthcare risk or medical care utilization when insured.

Political identity does affect willingness to pay for insurance. In EFC notation, we let  $\pi(\tilde{\zeta}_i)$  be the maximum premium at which individual  $i$  purchases coverage. If  $\pi(\zeta_i, 0) = \pi(\zeta_i, 1)$ , our model is identical to the one in EFC. If instead

$$\begin{aligned} \pi(\zeta, 0) &\geq \pi(\zeta, 1), \text{ with} \\ \pi(\zeta, 0) &> \pi(\zeta, 1) \text{ for at least one value of } \zeta, \end{aligned} \tag{1}$$

the model features what we call *political enrollment*.<sup>9</sup>

Political enrollment means that individuals whose behavior is political, who have  $\iota = 1$  (Republicans in the ACA context), are willing to pay less for insurance than their non-political counterparts, who have  $\iota = 0$  (non-Republicans). Letting  $Q^I(p)$  be the total enrollment given the population  $G$ ,<sup>10</sup> and  $Q^{NI}(p)$  the total enrollment given a counterfactual population in which  $\iota_i = 0$  for all  $i$  (holding constant the marginal distribution of  $\zeta$ ), an immediate implication of Equation (1) is:

$$\begin{aligned} Q^I(p) &= \int \mathbf{1}(\pi(\zeta, 0) \geq p) dG(\zeta, 0) + \int \mathbf{1}(\pi(\zeta, 1) \geq p) dG(\zeta, 1) \\ &< \int \mathbf{1}(\pi(\zeta, 0) \geq p) dG(\zeta, 0) + \int \mathbf{1}(\pi(\zeta, 0) \geq p) dG(\zeta, 1) = Q^{NI}(p). \end{aligned} \tag{2}$$

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<sup>9</sup>Our model can be extended to model a continuous political type  $\iota$ , with political enrollment defined by  $\frac{\partial \pi(\zeta_i, \iota_i)}{\partial \iota} < 0$ . Since our empirical application considers two political types, Republican and non-Republican, our model considers binary  $\iota$  throughout.

<sup>10</sup>To avoid notational ambiguity with premium  $p$ , we use the superscript  $I$  to indicate variables relating to the population (in which some individuals' demand is influenced by political, or *ideological*, considerations) and the superscript  $NI$  to indicate variables relating to the counterfactual population in which no individuals' demand is influenced by political considerations.

Political considerations then lower total enrollment for a given premium  $p$ .

In addition to premiums and quantity, equilibrium depends on the average cost of insured individuals, which can be written as

$$AC^I(p) = \frac{\int c(\zeta) \mathbf{1}(\pi(\zeta, 0) \geq p) dG(\zeta, 0)}{Q^I(p)} + \frac{\int c(\zeta) \mathbf{1}(\pi(\zeta, 1) \geq p) dG(\zeta, 1)}{Q^I(p)}. \quad (3)$$

Removing political identity from the population, we would have the counterfactual average cost curve

$$AC^{NI}(p) = \frac{\int c(\zeta) \mathbf{1}(\pi(\zeta, 0) \geq p) dG(\zeta, 0)}{Q^{NI}(p)} + \frac{\int c(\zeta) \mathbf{1}(\pi(\zeta, 0) \geq p) dG(\zeta, 1)}{Q^{NI}(p)}. \quad (4)$$

While (2) is simply derived from political enrollment, (1) does not imply a clear ordering of  $AC^I$  and  $AC^{NI}$ . We say that the market features *political adverse selection* if

$$AC^I(p) > AC^{NI}(p), \quad (5)$$

that is, political considerations imply higher average costs for any level of premium  $p$ .

Trivially, political enrollment is a necessary condition for political adverse selection. But even under political enrollment,  $AC^I(p) = AC^{NI}(p)$  as long as political considerations do not change the cost-composition of the enrollment pool (even if it shrinks its size).

To see this, let

$$f^I(\hat{c}; p) = \frac{\sum_{\iota=0,1} \int \mathbf{1}(c(\zeta) = \hat{c}) \mathbf{1}(\pi(\zeta, \iota) \geq p) dG(\zeta, \iota)}{Q^I(p)}, \text{ and} \quad (6)$$

$$f^{NI}(\hat{c}; p) = \frac{\sum_{\iota=0,1} \int \mathbf{1}(c(\zeta) = \hat{c}) \mathbf{1}(\pi(\zeta, 0) \geq p) dG(\zeta, \iota)}{Q^{NI}(p)}. \quad (7)$$

The expression in (6) defines the density  $f^I(\hat{c}; p)$  of expected cost among individuals buying coverage at premium  $p$  when individuals act politically. The density  $f^{NI}(\hat{c}; p)$  is analogously defined in (7) for the counterfactual situation in which political identity does not affect consumption.

We can then rewrite

$$AC^I(p) = \int_0^\infty \hat{c} f^I(\hat{c}; p) d\hat{c}, \quad AC^{NI}(p) = \int_0^\infty \hat{c} f^{NI}(\hat{c}; p) d\hat{c}, \quad (8)$$

so that

$$AC^I(p) - AC^{NI}(p) = \int_0^\infty \underbrace{\hat{c} (f^I(\hat{c}; p) - f^{NI}(\hat{c}; p))}_{\text{difference in share of buyers with expected cost } \hat{c}} d\hat{c}. \quad (9)$$

A sufficient condition for political adverse selection is that the distribution  $f^I$  first-order stochastically dominates  $f^{NI}$ , since average cost is the expectation of  $\hat{c}$  taken with respect to the density corresponding to each scenario, as shown in (8). Formally,

$$\int_0^{\hat{c}} f^I(s; p) - f^{NI}(s; p) ds < 0 \text{ for all } \hat{c} \Rightarrow AC^I(p) > AC^{NI}(p). \quad (10)$$

Thus, political considerations can reduce enrollment, and if they disproportionately reduce enrollment among low-cost individuals, they will also increase average cost in the market.

### 3.2 Graphical Analysis

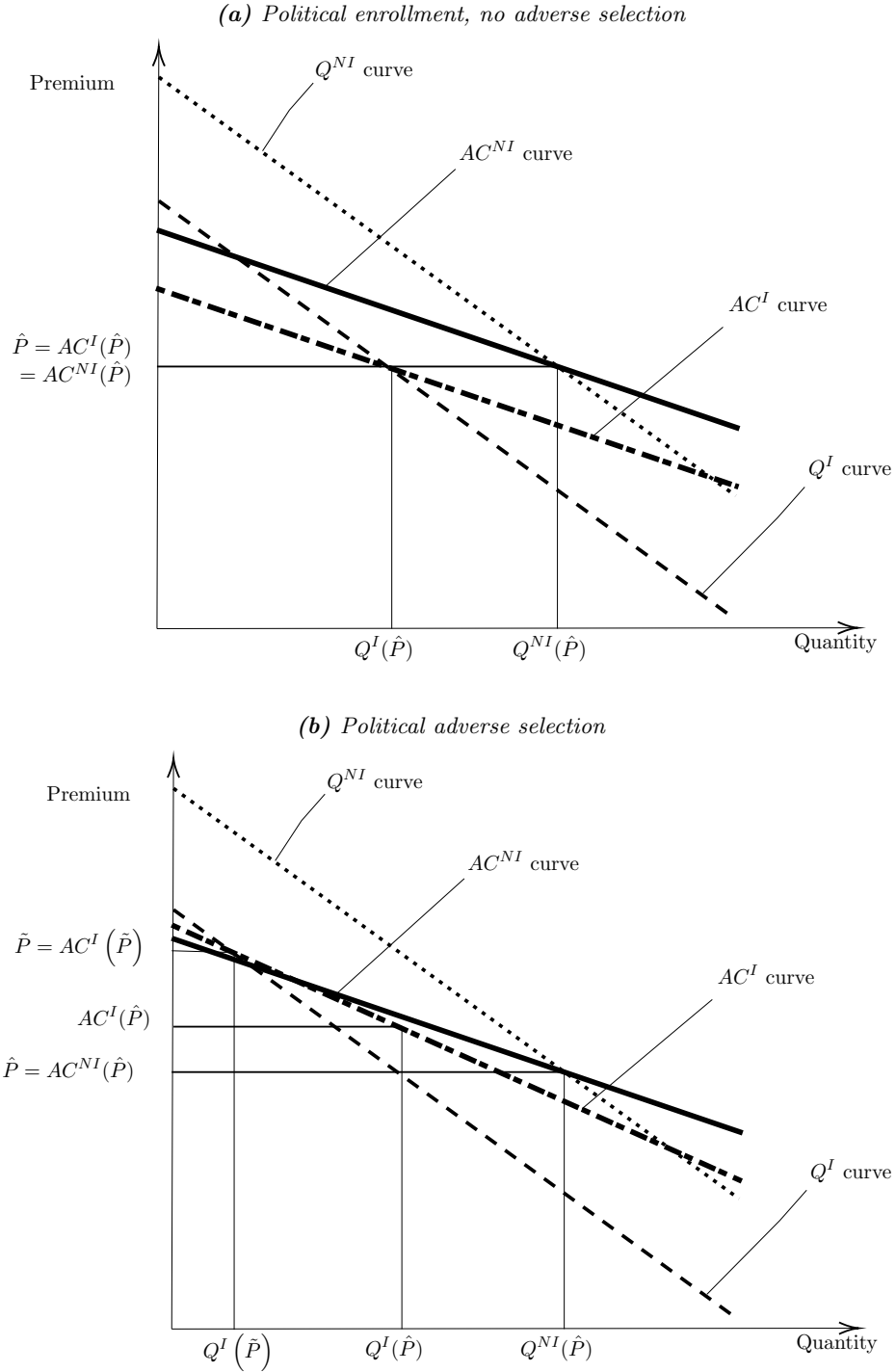
We graphically summarize the case of political enrollment, with no political adverse selection, in Figure 1a. We plot the demand curves  $Q^I$ ,  $Q^{NI}$  and the cost curves  $AC^I$ ,  $AC^{NI}$ .

With political considerations, demand and cost intersect at the (competitive) equilibrium premium  $\hat{P}$ , determined by setting  $AC^I(\hat{P}) = \hat{P}$ , and enrollment is equal to  $Q^I(\hat{P})$ . We draw average cost as downward sloping to indicate the presence of adverse selection, as in EFC (see also [Einav and Finkelstein, 2011](#)). In the counterfactual scenario, we remove political considerations, affecting preferences and choices and therefore shifting  $Q^I$  to  $Q^{NI}$  and  $AC^I$  to  $AC^{NI}$ . The market features political enrollment —  $Q^{NI}(\hat{P}) > Q^I(\hat{P})$  — but there is no relationship between expected cost and the effect of political identity on preferences: the average cost curve shifts downward from  $AC^I$  to  $AC^{NI}$ , and  $AC^I(\hat{P}) = AC^{NI}(\hat{P})$ . This is the case if individuals changing their insurance choice because of political identity do so in a manner orthogonal to their expected costs. That is, under political enrollment depicted in Figure 1a, the size of the market varies when political considerations do or do not affect demand, but the equilibrium premium remains the same.

Figure 1b instead shows political adverse selection, in which choices by riskier individuals are less affected by political identity than choices by less risky individuals. When this is the case, removing political considerations leads to a shift *and* a rotation of the average cost curve:  $AC^I$  and  $AC^{NI}$  are similar at low enrollment levels and further apart at higher enrollment levels. Political considerations therefore affect both equilibrium enrollment and premiums.

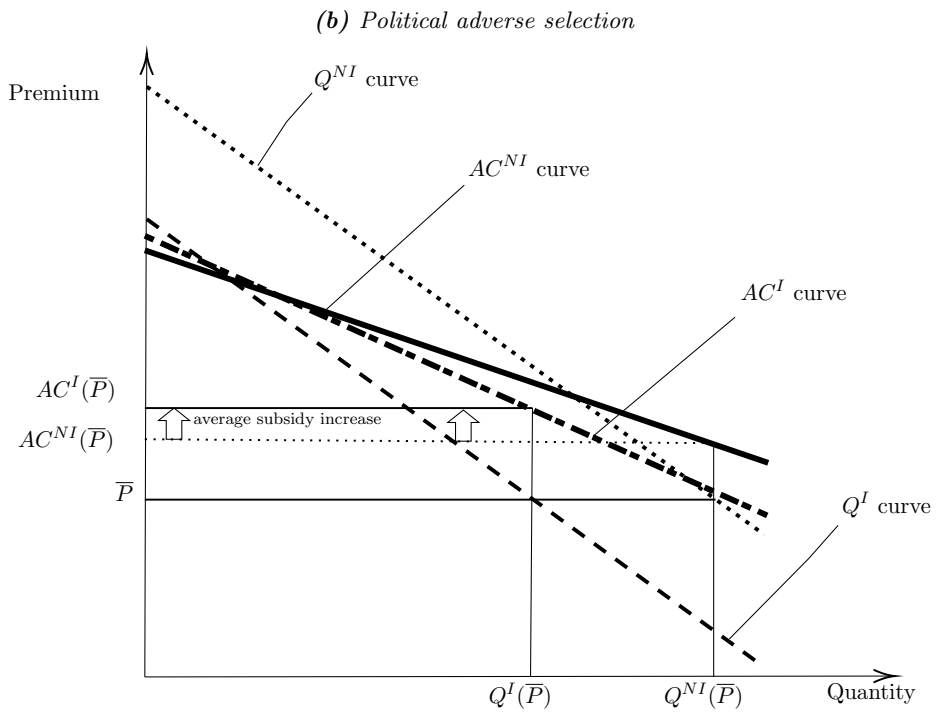
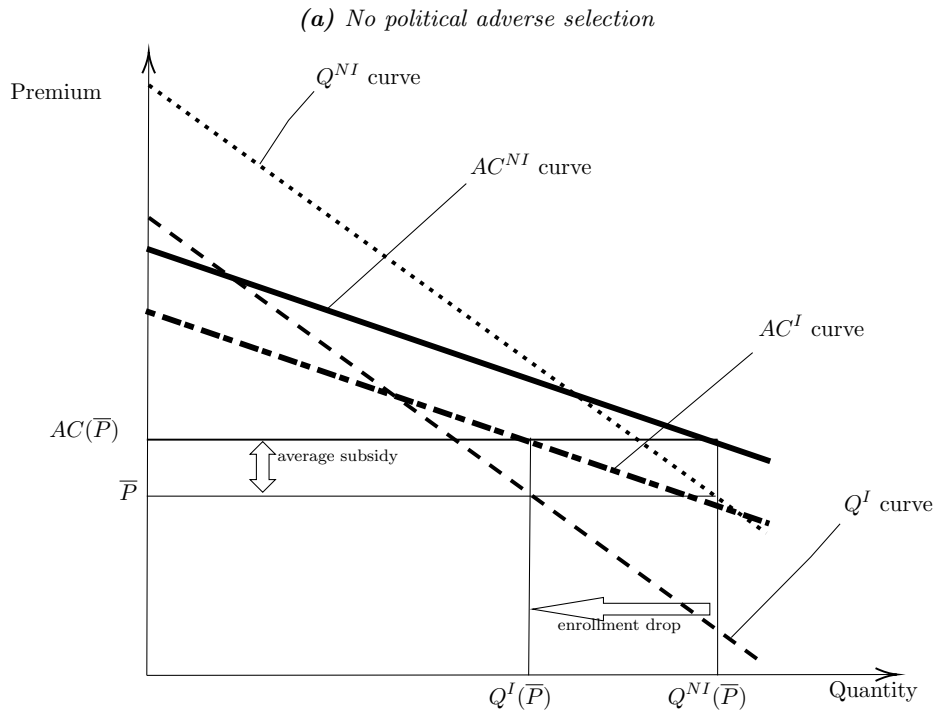
In Figure 1b,  $\hat{P}$ , defined above as the competitive equilibrium premium for the non-political case, is no longer an equilibrium:  $AC^I(\hat{P}) > Q^I(\hat{P})$ . Because of political adverse selection, insurers must also increase the premium to avoid negative expected profits. The equilibrium premium with political considerations would be the point  $\tilde{P}$ , at which  $AC^I$  and  $Q^I$  intersect; this is higher than

**Figure 1:** Simple Illustration of Political Enrollment and Political Adverse Selection



$\hat{P}$ , and equilibrium enrollment would be further reduced (beyond the reduction directly caused by political enrollment) to  $Q^I(\tilde{P})$ .

**Figure 2:** Political Enrollment and Political Adverse Selection in ACA Marketplaces



This shows how political factors that differentially affect the enrollment of riskier and less-risky individuals would deteriorate welfare in this market. Even if we assume that the  $Q^{NI}(\hat{P}) - Q^I(\hat{P})$  individuals leaving the market due to political considerations are acting rationally (i.e. political preferences over products are welfare relevant) political considerations also affects the  $Q^I(\hat{P}) - Q^I(\tilde{P})$  consumers who find the new equilibrium premium too high and thus leave the market. Furthermore, by increasing premiums, it also reduces the surplus of the remaining  $Q^I(\tilde{P})$  enrollees.

### 3.3 Application to ACA Marketplaces

For high-income households who are not eligible for premium subsidies under the ACA (that is, those above 400% of the FPL), the graphical analysis of Figure 1 directly applies. For low-income households, the incidence of higher average cost is primarily absorbed by the government, since premium subsidies increase to ensure that households must pay no more than the maximum affordable amount, which we denote  $\bar{P}$ . Assuming perfect competition, the average subsidy paid by the government is then computed as the difference  $AC(\bar{P}) - \bar{P}$ .

In Figure 2, we illustrate how political enrollment and political adverse selection play out in a stylized example of a subsidized ACA marketplace. Figure 2a presents the case in which there is political enrollment, but no political adverse selection. Enrollment is determined by the subsidized premium  $\bar{P}$ . Without political considerations, enrollment would be  $Q^{NI}(\bar{P})$ , which is greater than the level of political enrollment  $Q^I(\bar{P})$ . The average subsidy is determined by the difference between average cost and subsidized premium; because average cost does not change, average subsidy also remains constant.

Figure 2b presents the case of political adverse selection, which may arise if political identity differentially impacts those with lower cost. In this scenario, political considerations imply not only lower enrollment but also higher average cost:  $AC^I(\bar{P}) > AC^{NI}(\bar{P})$ . This higher cost translates to higher pre-subsidy equilibrium premiums, and subsidies must then increase so that subsidized buyers do not pay more than  $\bar{P}$ .

In what follows, we estimate  $Q^{NI}(\bar{P}) - Q^I(\bar{P})$ , we show evidence that  $AC^I(\bar{P}) > AC^{NI}(\bar{P})$ , and we provide a measure of this difference.

## 4 Data and Descriptive Evidence

To study how political considerations affected insurance uptake in ACA marketplaces and whether the effect of political identity was heterogeneous across individuals of differing health status, we draw upon two primary sources of data: (1) the Kaiser Family Foundation Health Tracking Poll, which provides data on individual-level enrollment decisions; and (2) the Medical Expenditure Panel Survey (MEPS), which provides data on individual-level healthcare costs.

**Table 1: Summary statistics**

	KFF			MEPS		
	Overall	Healthy	Unhealthy	Overall	Healthy	Unhealthy
Age	46.0 (11.8)	45.4 (12.0)	46.6 (11.5)	44.6 (11.2)	43.2 (11.2)	46.3 (10.9)
Male	0.564 (0.496)	0.580 (0.494)	0.548 (0.498)	0.466 (0.499)	0.485 (0.500)	0.443 (0.497)
White	0.778 (0.416)	0.809 (0.394)	0.747 (0.435)	0.709 (0.454)	0.715 (0.452)	0.703 (0.457)
Black	0.140 (0.347)	0.120 (0.325)	0.161 (0.368)	0.181 (0.385)	0.166 (0.372)	0.199 (0.399)
Asian	0.019 (0.137)	0.021 (0.143)	0.017 (0.131)	0.074 (0.262)	0.087 (0.282)	0.059 (0.235)
College degree	0.342 (0.474)	0.451 (0.498)	0.230 (0.421)	0.298 (0.457)	0.383 (0.486)	0.196 (0.397)
Married	0.432 (0.495)	0.467 (0.499)	0.396 (0.489)	0.557 (0.497)	0.595 (0.491)	0.511 (0.500)
Income	45918 (31496)	53682 (31865)	37952 (29035)	58359 (33592)	65438 (32280)	49823 (33158)
Expenditures	—	—	—	5054 (15464)	3021 (9023)	7506 (20453)
Republican	0.386 (0.487)	0.405 (0.491)	0.366 (0.482)	—	—	—
Independent	0.149 (0.356)	0.136 (0.343)	0.162 (0.368)	—	—	—
Democrat	0.466 (0.499)	0.459 (0.498)	0.473 (0.499)	—	—	—
Marketplace insurance	0.157 (0.364)	0.178 (0.383)	0.135 (0.341)	—	—	—
Observations	5136	2601	2535	63113	34499	28614

*Notes:* The first three columns present means and standard deviations of key variables from the KFF subsample used for analysis: individuals who are aged between 26-64, who are not covered under Medicare or Medicaid, and who are not covered by employer-sponsored health insurance. The last three columns present means and standard deviations of key variables from the MEPS subsample used for analysis: individuals who are aged between 26-64 and who have some form of coverage.

**KFF Health Tracking Poll** Our measure of individuals’ ACA marketplace plan enrollment decisions relies on the Health Tracking Poll, a nationally representative cross-section conducted monthly by the Kaiser Family Foundation (KFF). Uniquely among datasets on health insurance enrollment, the Health Tracking Poll includes questions on partisan affiliation and support, allowing us to separately examine self-reported Republicans, Democrats, and independents. The poll includes questions on demographics, household income, and health insurance coverage; most waves also include a question about health status. We use all 48 waves between 2014 and 2019 that include questions on health status.

To focus our analysis on the relevant population — those who could choose a subsidized plan through an ACA exchange — we restrict our sample to individuals who are aged between 26-64, who are not covered under Medicare or Medicaid, and who are not covered by employer-sponsored



health insurance.<sup>11</sup> While KFF provides sample weights to allow researchers to better match the US population on observables, because we focus on this very particular subgroup of the population, weighting may increase, rather than attenuate, bias (Solon et al., 2015). In most specifications, we thus weight observations equally, though we show that our results are extremely similar if we use the provided survey weights. Our resulting sample, summarized in Columns 1–3 of Table 1, contains 5,136 individuals, 16% of whom purchase coverage in an ACA marketplace.

We group the measure of health status into two discrete bins: “Unhealthy” encompasses individuals who report that they are in “Poor”, “Only fair”, or “Good” health (49% of our sample), while “Healthy” encompasses individuals who report they are in “Very good” or “Excellent” health (51% of our sample). We also collapse our five values of partisan affiliation (Republican, Republican-leaning independent, non-leaning independent, Democrat-leaning independent, Democrat) into a single indicator taking value one if the individual is a Republican or a Republican-leaning independent and value zero otherwise. The constructed Republican/non-Republican indicator takes value one for 38.6% of our sample.

Upon request, the Kaiser Family Foundation provided us with individual-level ZIP code identifiers, allowing us to match individuals to their health insurance rating areas.<sup>12</sup> The menu of plans and premiums individuals face is fixed within a rating area in a given year; we observe 399 distinct rating areas and 1383 distinct rating area $\times$ year cells.

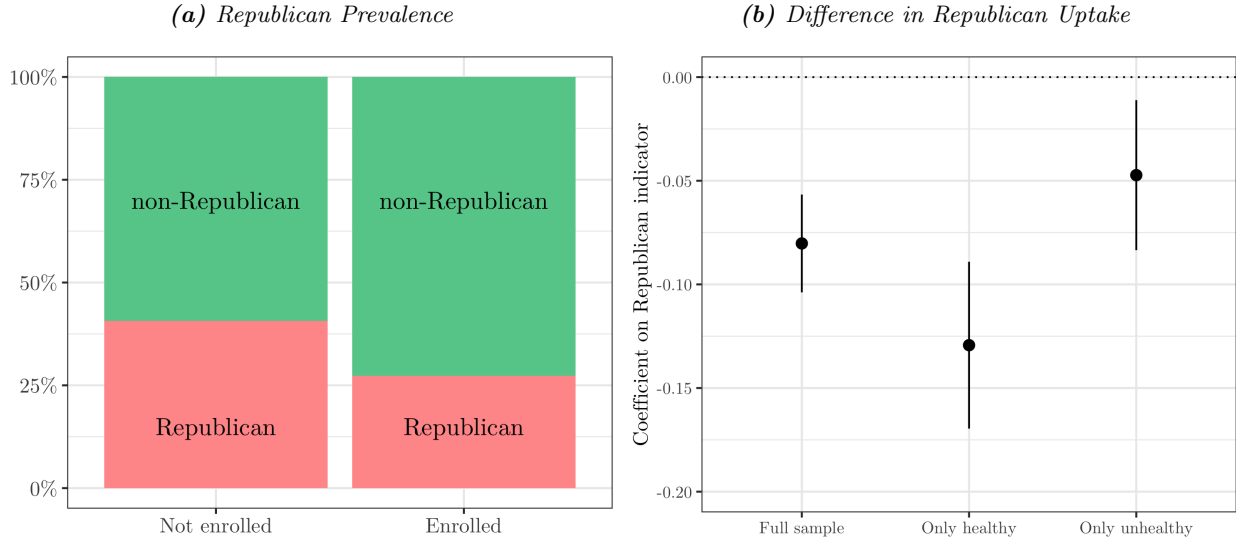
The left panel of Figure 3 shows how enrollment varies with political identity in the raw data. Republicans and Republican-leaning independents represent 39% of our sample, but account for fewer than 30% of ACA enrollees. The difference in enrollment becomes even more stark if we split the sample by health status. The right-hand panel of Figure 3 shows OLS coefficients from regressing an indicator for ACA marketplace coverage on a Republican indicator for different samples. Considering the entire sample (i.e., without conditioning on health status), Republicans are 8.0% less likely to purchase marketplace coverage (the 95% confidence interval is 5.6%–10.4%). Yet among healthy survey respondents, Republicans are 12.9% less likely to purchase marketplace coverage (8.9%–16.9%) than Democrats and independents. In contrast, unhealthy Republicans are only 4.7% less likely to purchase marketplace coverage (1.1%–8.3%) than unhealthy Democrats and independents.

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<sup>11</sup>We do not restrict our sample based on income due to missing information on children in the household (which is needed to establish the Federal Poverty Level, FPL, for a household). When we approximate households’ incomes relative to the FPL and limit our analysis to households (roughly) below 400% of the FPL, we find results similar to, and slightly larger in magnitude than, those presented here.

<sup>12</sup>We use a ZIP code to rating area crosswalk provided by the Centers for Medicare and Medicaid Services: <https://www.cms.gov/CCIIO/Programs-and-Initiatives/Health-Insurance-Market-Reforms/vi-gra>, last accessed April 23, 2020. In our preferred specification, we drop individuals living in ZIP codes that are not fully contained in a single rating area. However, our results are virtually unchanged if we instead duplicate these individuals across rating areas and assign each duplicate a regression weight of the percentage of the population of the individual’s ZIP code that lies in the corresponding rating area.

**Figure 3: Republican vs. Non-Republican Enrollment in ACA Marketplaces**



Notes: Panel A presents the share of Republicans and non-Republicans who comprise the non-enrolled population (left) and the enrolled population (right). Panel B presents OLS coefficients from regressing an indicator for ACA marketplace coverage on a Republican indicator, using the full sample (left), only healthy individuals (center), and only unhealthy individuals (right).

**Medical Expenditure Panel Survey** The data from KFF lack information on individuals’ insurable healthcare costs. To incorporate this information into our analysis, we use the Medical Expenditure Panel Survey (MEPS), a large-scale survey administered by the Agency for Healthcare Research and Quality (AHRQ) under the Department of Health and Human Services. The MEPS is the most widely used publicly-available dataset recording individual healthcare spending, and it includes self-reported health status, binned in the same categories as the same variable in the KFF dataset. The MEPS also contains each individual’s Census region and a wide range of demographics that overlap with those included in the KFF Health Tracking Poll. We limit the sample to years 2014-2019 and to insured individuals who are between the ages of 26 and 64 (the same sample restriction we impose in the KFF data). The resulting sample has 63,113 observations, summarized in Columns 4–6 of Table 1.

We estimate an individual-level model of expected healthcare costs that can be linked to our demand estimates. Using the MEPS data, we specify

$$C_{ict} = \phi_{ct} + \eta X_{ict} + \omega_{ict}, \tag{11}$$

where  $C_{ict}$  is the total annual healthcare spending for individual  $i$ , living in Census region  $c$ , in year  $t$ . The controls included in  $X_{ict}$  are the same as the one used in equations (12) and (13) above: an indicator  $\text{Healthy}_{ict}$ , a quadratic polynomial in age, a gender indicator and its interaction with age, an indicator for college education or higher, an indicator for white, an indicator for marital status,

**Table 2: MEPS cost estimates**

	Total cost (yearly)			
Healthy	-4857.976*** (255.070)	1274.909** (593.813)	1325.639** (583.529)	1389.158** (583.475)
Age	-180.779*** (44.191)	-26.114 (44.614)	-21.580 (44.783)	-7.910 (44.452)
Age squared	3.481*** (0.523)	2.723*** (0.518)	2.664*** (0.521)	2.492*** (0.516)
Male	-2523.617*** (254.181)	-3059.494*** (391.404)	-3099.816*** (397.159)	-2972.691*** (403.838)
Male × age	28.957*** (7.900)	35.084*** (7.233)	35.610*** (7.303)	33.767*** (7.234)
College	612.872*** (187.160)	695.624*** (188.577)	621.760*** (195.901)	583.774*** (180.188)
White	972.757*** (170.666)	1026.811*** (169.821)	994.459*** (168.621)	1023.494*** (169.852)
Marital status	-0.872 (221.755)	55.375 (221.968)	100.624 (206.896)	154.335 (187.144)
Family size	-457.517*** (47.796)	-460.795*** (46.077)	-473.164*** (44.851)	-478.084*** (49.275)
Healthy × age		-149.513*** (13.346)	-150.537*** (13.366)	-150.210*** (13.190)
Healthy × male		380.314 (379.565)	400.480 (382.263)	369.248 (384.331)
Census region × year FE	No	No	Yes	Yes
Income category FE	No	No	No	Yes
Observations	61980	61980	61980	61980
Dep. var. mean	5192.013	5192.013	5192.013	5192.013
Dep. var. std. dev.	15709.414	15709.414	15709.414	15709.414

*Notes:* Table presents coefficient estimates from regressions of yearly total cost on individual characteristics. All columns weight observations by provided sample weights. Standard errors are clustered at the census region × year level.

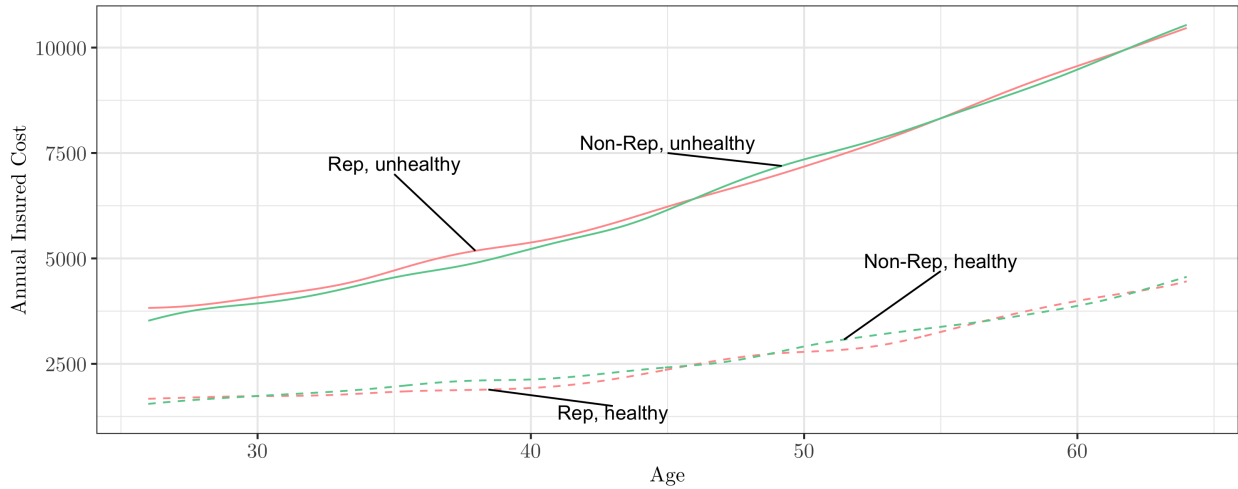
family size, and seven income brackets.<sup>13</sup> We report results in Table 2.

Using these estimates, we then impute predicted annual spending for every individual in the KFF sample. To adjust for the fact that insurers do not cover all healthcare spending, and that under the ACA the actuarial value of the modal plan is approximately 75%, we adjust the fitted value by this factor.<sup>14</sup> The resulting model of predicted costs for each individual in the KFF sample is illustrated in Figure 4, which plots average predicted spending ( $\hat{c}_{irt} = 0.75(\hat{\phi}_{c(r)t} + \hat{\eta}X_{irt})$ ) as a function of age, distinguishing between healthy and unhealthy individuals and between Republicans

<sup>13</sup>We replace the rating area × year indicators used above with Census region × year indicators because MEPS does not include such disaggregated region identifiers as KFF. We omit the Republican indicator and its interaction with  $\text{Healthy}_{ict}$  because individual partisan affiliation cannot be observed in the MEPS. We maintain the assumption that costs and partisan affiliation are conditionally independent after controlling for a rich set of covariates (this is equivalent to  $c(\tilde{\zeta}) = c(\zeta)$  in Section 3.1).

<sup>14</sup>Our main results are robust to varying this factor, since we focus on interpreting relative changes in average costs. Imposing actuarial values between 65-80%, we estimate average costs in the ACA marketplaces that match average costs from other sources (Saltzman, 2021; Tebaldi, 2022).

**Figure 4:** Predicted Costs by Partisan Affiliation, Age and Health Status



Notes: Figure presents average predicted insured costs as a function of age, split by Republican vs. non-Republican survey respondents and by healthy vs. unhealthy respondents.

and Democrats/independents. Although we do not estimate a direct effect of partisan affiliation on cost, differences in partisan affiliation across income, education, and other demographics included in  $X_{irt}$  allow for different costs between Republicans and non-Republicans. These differences are quantitatively small when compared to the magnitude of the relationship between health and costs.

Together, the disproportionately negative relationship between Republican identity and marketplace enrollment for healthy individuals and the significantly lower expected costs for healthy individuals are suggestive of political adverse selection. However, these patterns in the raw data may reflect characteristics of individuals or of the health insurance markets in which they act that are correlated with political identity and health, and relevant to insurance choices. For example, individuals who are both healthy and Republican may live in regions with less well-functioning ACA exchanges, or they may systematically differ in other ways (e.g., in family structure or income). We now develop our empirical strategy to address this issue and to incorporate the predictions developed in our model above 3.1.

## 5 Empirical Strategy and Results

Our empirical analysis proceeds in two main steps. First, we estimate models that measure enrollment decisions as a function of political identity and health status. In the language of Section 3, we estimate  $Q^I - Q^{NI}$  and examine whether this difference varies with a component of  $\zeta$  — health status — that affects costs. This allows us to exploit the richness of the KFF data, in which we directly observe individuals’ (self-reported) health status. While this analysis does not definitively establish the existence of political adverse selection (which would require considering costs),

it serves as important motivating evidence given the strong relationship between health status and costs. We then directly test for political adverse selection: we calculate expected costs among the pool of marketplace enrollees when political considerations influence enrollment, and we simulate expected costs among the counterfactual pool of individuals who enroll if political considerations do not affect costs. That is, we estimate  $f^I$ ,  $f^{NI}$ ,  $AC^I$ , and  $AC^{NI}$ , which jointly allow us to test for sufficient conditions for political adverse selection (by evaluating whether  $f^I$  first-order stochastically dominates  $f^{NI}$ ) and to quantify its effects on average costs (by comparing  $AC^I$  to  $AC^{NI}$ ).

## 5.1 OLS Model of Political Identity and Enrollment

We begin with a simple model of the decision to enroll in a marketplace plan. Our primary estimating equation is:

$$Y_{irt} = \delta_{rt} + \beta X_i + \gamma_0 \text{Republican}_i + \gamma_1 \text{Republican}_i \times \text{Healthy}_i + \varepsilon_{irt}, \quad (12)$$

where  $Y_{irt} = 1$  if individual  $i$  in rating area  $r$  and year  $t$  enrolls in the ACA marketplace, and  $Y_{irt} = 0$  otherwise. The key coefficients of interest for our analysis are  $\gamma_0$  and  $\gamma_1$ . If  $\gamma_0 < 0$ , the data shows evidence of political enrollment among the unhealthy; if  $\gamma_1 \neq 0$ , the data shows evidence of *differential* political enrollment among the healthy relative to the unhealthy (that is, political selection). Crucially, we include rating area  $\times$  year fixed effects  $\delta_{rt}$ , so that our estimates are obtained comparing enrollment decisions across individuals who face *identical* options in terms of insurers and number (and type) of plans. We also include a wide range of individual characteristics  $X_{irt}$ , including the direct effect of  $\text{Healthy}_{irt}$ , a quadratic polynomial in age, a gender indicator and its interaction with age, an indicator for college education or higher, an indicator for marital status, an indicator for white, family size, and seven income brackets. Controls for age and income are particularly important, as these are the only variables that affect premiums within a rating area in a given year.

Panel A of Table 3 presents our estimates for equation (12) along with several robustness specifications. We find consistent evidence that Republicans enrolled less than Democrats or independents, and that political differences are far larger for the healthy. In Column 1, our preferred specification, which includes demographic controls (age, age squared, gender, gender  $\times$  age, education, marital status, race, family size, and income) and rating area  $\times$  year fixed effects, we estimate that unhealthy Republicans are four percentage points less likely to enroll than unhealthy Democrats and independents ( $\gamma_0 = -0.039$ ), and that this gap is larger for healthy Republicans ( $\gamma_1 = -0.080$ ). Thus, the enrollment difference between healthy Republicans and healthy Democrats/independents is 12 percentage points, three times larger than the gap between unhealthy Republicans and unhealthy Democrats/independents.

**Table 3:** Predictive effects of partisanship and health on marketplace enrollment

	Individual is on marketplace plan						
	Panel A OLS				Panel B Logit		
Republican	-0.039** (0.016)	-0.033** (0.014)	-0.056*** (0.014)	-0.100 (0.199)	-0.068*** (0.018)	-0.038* (0.023)	-0.034** (0.016)
Republican × healthy	-0.080*** (0.023)	-0.083*** (0.020)	-0.075*** (0.020)	-0.061** (0.025)	-0.074*** (0.026)	-0.088** (0.034)	-0.074*** (0.023)
Republican	-0.502** (0.196)	-0.298** (0.126)	-0.491*** (0.134)	-1.856 (2.627)	-0.818*** (0.210)	-0.411* (0.245)	-0.546** (0.230)
Republican × healthy	-0.744*** (0.279)	-0.569*** (0.169)	-0.501*** (0.178)	-0.630** (0.290)	-0.626** (0.295)	-0.739** (0.369)	-0.691** (0.327)
Demographic controls	Yes	No	Yes	Yes	Yes	Yes	Yes
Demographic controls × republican	No	No	No	Yes	No	No	No
Rating area × year FE	Yes	No	No	Yes	Yes	Yes	Yes
Sample restrictions	None	None	None	None	No pure Inds	Large cells	None
Survey weights	No	No	No	No	No	No	Yes
Observations	5136	5136	5136	5136	4373	2232	5135
Dep. var. mean	0.157	0.157	0.157	0.157	0.166	0.154	0.157
Dep. var. std. dev.	0.364	0.364	0.364	0.364	0.373	0.361	0.364

*Notes:* Table presents coefficient estimates from regressions of an indicator for whether the individual is on a marketplace plan on an indicator for whether the individual is a Republican or a Republican-leaning independent, an indicator for whether the individual is healthy, and the interaction of the two. Demographic controls include age, age squared, gender, gender × age, college degree, marital status, race (whether white or not), family size, and income. Column 4 includes the interactions between all controls and the Republican indicator. Column 5 omits independents who report that they lean neither Republican nor Democrat. Column 6 keeps only individuals in rating area × year cells for which the KFF data contain ten or more observations meeting our sample restrictions. Column 7 weights observations by KFF’s provided sample weights. Standard errors are clustered at the rating area × year level.

We next probe the robustness of our results to alternative choices of control variables. Column 2 presents a parsimonious specification, including neither the demographic controls nor the rating area × year fixed effects. We continue to find significant political enrollment and large and significant political adverse selection. Column 3 includes the demographic controls but not the rating area × year fixed effects, thus exploiting variation both across and within rating area × year cells. We find effects here that are very similar to our baseline. To examine whether the lower enrollment we observe among healthy Republicans reflects the effects of some other characteristic correlated with health, Column 4 reports a specification that includes our baseline controls (in Column 1) as well as the interaction of all controls with a Republican indicator. We continue to find statistically significant adverse selection.

In Column 5, we estimate the preferred model from Column 1, but dropping “pure” independents (that is, those who report leaning neither Democrat nor Republican) to facilitate a cleaner political comparison. In Column 6, we restrict our sample to individuals living in “large” rating area × year cells (those in which there are at least ten individuals in the KFF data who meet our sample restrictions), to ensure that our findings are not driven by very small cells. Finally, in Column 7, we weight individuals by KFF’s provided survey weights. Across all alternative sample restrictions and weighting choices, we continue to estimate economically and statistically significant

political adverse selection.

It is worth noting that we are unable to distinguish among precise mechanisms underlying Republicans’ differential enrollment in ACA marketplace plans. For example, Republicans may act to preserve their political identities, or they may have different beliefs about marketplace plan quality. Since we are unable to assess the microfoundations, we do not consider political identity in a normative assessment of enrollment decisions.<sup>15</sup> We instead focus on the impact of political identity on enrollment and costs.

## 5.2 Logit Model of Political Identity and Enrollment

Modeling the implications of political considerations for selection and average cost requires us to construct the counterfactual composition of enrollment without political considerations. Thus, we estimate a simple logit model incorporating political identity, health status, and a rich set of demographic characteristics.

We parameterize the indirect utility of individual  $i$  when enrolled in a marketplace plan to be  $u_i$ , specified as a linear function of individual characteristics, including political identity and again including rating area  $\times$  year fixed effects:

$$u_i = \delta_{rt} + \beta X_i + \gamma_0 \text{Republican}_i + \gamma_1 \text{Republican}_i \times \text{Healthy}_i + \varepsilon_i, \quad (13)$$

where  $\varepsilon_i$  is drawn *i.i.d.* from the Type 1 extreme value distribution and  $X_i$  again includes the direct effect  $\text{Healthy}_i$ .

Standard results (see e.g. [McFadden, 1973](#)) imply that we can write  $Q^I$  in our model as:

$$Q^I = \sum_i \sigma_{irt}^I, \quad \text{where} \quad (14)$$

$$\sigma_{irt}^I = \frac{e^{\delta_{rt} + \beta X_i + \gamma_0 \text{Republican}_i + \gamma_1 \text{Republican}_i \times \text{Healthy}_i}}{1 + e^{\delta_{rt} + \beta X_i + \gamma_0 \text{Republican}_i + \gamma_1 \text{Republican}_i \times \text{Healthy}_i}}.$$

We estimate this model via maximum likelihood, reporting results in Panel B of Table 3. We consistently find coefficient estimates in line with the OLS results in Panel A. In our preferred specification (Column 1) we find that unhealthy Republicans are less likely to enroll than unhealthy Democrats and independents; the coefficient estimate of  $-0.502$  translates to a marginal effect of  $-0.072$ . Our primary interaction of interest demonstrates that healthy Republicans are differentially less likely to enroll: the coefficient on  $\text{Republican} \times \text{healthy}$  is  $-0.744$  (marginal effect =  $-0.107$ ). One can see in Columns 2–7 of Panel B that the logit estimates, too, are robust to including fewer or more controls, exploiting variation across or only within rating area  $\times$  years, examining only

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<sup>15</sup>See [Handel and Schwartzstein \(2018\)](#) for a discussion of these distinctions in health insurance choice generally and [Handel and Kolstad \(2021\)](#) for a discussion of how these factors may impact assessment of the ACA exchanges.

either all rating area  $\times$  year cells or only large cells, dropping pure independents, or applying survey weights.

Based on these demand parameters, we compute the counterfactual probability of enrollment without political considerations by setting  $\text{Republican}_i = 0$  for all individuals. We estimate that overall enrollment would be 5 percentage points higher (or 20% higher) if partisan affiliation were unrelated to demand. Total enrollment in ACA marketplaces fluctuated between 10 and 14 million between 2014 and 2018 (Handel and Kolstad, 2021); extrapolating our estimates to the broader population implies that approximately 3 million more individuals would have enrolled in the absence of political considerations.

### 5.3 Political Identity and Costs in ACA Marketplaces

We now quantify the extent to which this political enrollment generates political adverse selection, and therefore impacts average costs.

Our demand and cost estimates allow us to compute the effect of political identity on average cost. The cumulative density functions of expected costs among ACA enrollees with political considerations “turned on,”  $\widehat{F}^I(\widehat{c})$ , and political considerations “turned off,”  $F^{NI}(\widehat{c})$ , are

$$\widehat{F}^I(\widehat{c}) = \frac{\sum_{i:\widehat{c}_{irt} \leq \widehat{c}} \widehat{\sigma}_{irt}^I}{\sum_i \widehat{\sigma}_{irt}^I}, \quad \widehat{F}^{NI}(\widehat{c}) = \frac{\sum_{i:\widehat{c}_{irt} \leq \widehat{c}} \widehat{\sigma}_{irt}^{NI}}{\sum_i \widehat{\sigma}_{irt}^{NI}}. \quad (15)$$

In this expression,  $\widehat{\sigma}_{irt}^{NI}$  is computed by setting  $\gamma_0 = \gamma_1 = 0$  in (14), which defined  $\widehat{\sigma}_{irt}^I$ . As shown in Equation (10), a sufficient condition for political adverse selection is that  $\widehat{F}^I(\widehat{c}) - \widehat{F}^{NI}(\widehat{c}) < 0$  for all  $\widehat{c}$ . Figure 5 shows that this condition indeed holds: the empirical density of costs among ACA enrollees with political considerations is always lower than the counterfactual density induced by non-political demand. Thus, our empirical model implies that  $AC^I > AC^{NI}$ .

To quantify the difference, we compute the two quantities as the weighted mean of predicted costs, where the weights are given by  $\widehat{\sigma}_{irt}^I$  for  $\widehat{AC}^I$  and  $\widehat{\sigma}_{irt}^{NI}$  for  $\widehat{AC}^{NI}$ :

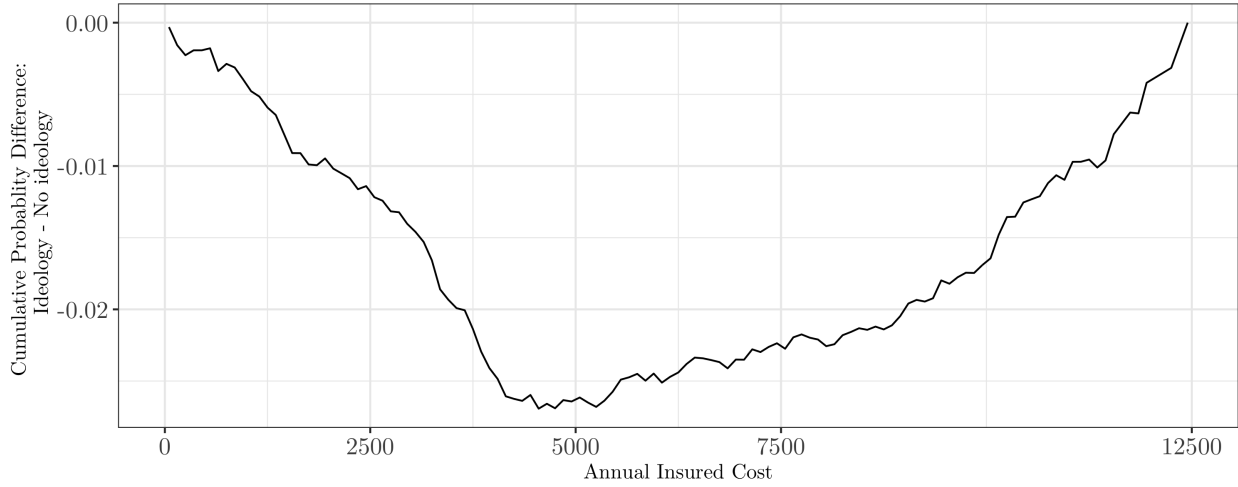
$$\widehat{AC}^I = \frac{\sum_i \widehat{c}_{irt} \widehat{\sigma}_{irt}^I}{\sum_i \widehat{\sigma}_{irt}^I}, \quad \text{and} \quad \widehat{AC}^{NI} = \frac{\sum_i \widehat{c}_{irt} \widehat{\sigma}_{irt}^{NI}}{\sum_i \widehat{\sigma}_{irt}^{NI}}. \quad (16)$$

Table 4 summarizes our results. We estimate that political adverse selection increased average per capita cost in ACA marketplaces from \$4654 to \$4779, corresponding to a 2.69% increase. This effect is primarily driven by the increase in adverse selection amongst Republicans, because healthy Republicans are less likely to enroll than their Democratic and Independent counterparts. In the Republican subsample, we find that political considerations increased average cost by 11.45%.

Political preferences are geographically heterogeneous, which leads to large differences in political adverse selection across markets. Columns 3-5 of Table 4 demonstrate these differences. In



**Figure 5:** Sufficient Condition for Political Adverse Selection:  $\widehat{F}^I(\widehat{c}) - \widehat{F}^{NI}(\widehat{c})$



*Notes:* Figure presents the difference between the CDF of predicted cost when political identity is allowed to influence enrollment decisions vs. when it does not influence enrollment decisions.

rating areas in which Republicans comprise less than 30% of the population, we estimate that political adverse selection increased costs by 1.20%. In contrast, in rating areas in which Republicans comprise more than 60% of the population, political adverse selection increased costs by 5.83%, while it increased costs in rating areas with intermediate levels of Republicans (30-60%) by 3.69%. Across states, the 25 states with below-median share of Republican enrollees experienced cost increases due to political adverse selection of around half the size of the increases experienced by the states with above-median Republican enrollees share (2.17% instead of 4.01%).

**Table 4:** Change in Average Cost due to Ideological Adverse Selection

	Full Sample	Only Republican	By ACA Rating Region			By State	
			<30% Republican	30-60% Republican	>60% Republican	25 Least Republican	25 Most Republican
$\widehat{AC}^I$	\$4779	\$5286	\$4627	\$4838	\$5283	\$4659	\$5034
$\widehat{AC}^{NI}$	\$4654	\$4743	\$4572	\$4666	\$4992	\$4560	\$4840
$\frac{\widehat{AC}^I - \widehat{AC}^{NI}}{\widehat{AC}^{NI}} \%$	+2.69%	+11.45%	+1.20%	+3.69%	+5.83%	+2.17%	+4.01%

*Notes:* Table presents average costs in the marketplaces when ideological considerations influence enrollment decisions ( $\widehat{AC}^I$ ) and counterfactual average costs when ideological considerations do not influence enrollment decisions ( $\widehat{AC}^{NI}$ ). Column 1 presents average costs among the full sample; Column 2 presents average costs among Republican enrollees; Columns 3-5 present average costs among enrollees living in rating areas in which Republicans comprise fewer than 30%, 30-60%, and greater than 60% of the enrollees, respectively; and Columns 6-7 present average costs among enrollees living in states with the share of Republican enrollees below and above the median, respectively.

## 6 Discussion and Conclusion

Our findings suggest that partisanship and partisan narratives affect not only which policies are adopted (DellaVigna and Kim, 2022), but also how these policies perform. In our setting, this may in turn have *reinforced* the partisan differences that existed upon the law’s passage: individuals in rating areas with more Republicans (and thus more healthy Republicans) are more likely to see anemic ACA marketplaces with higher costs than individuals in rating areas with more Democrats. This endogenous outcome of political adverse selection may thus reinforce Republicans’ unfavorable views of the ACA.

We investigate this possibility empirically using data on individuals’ *perceptions* of the ACA from the KFF Health Tracking Poll.<sup>16</sup> In particular, we examine whether respondents who live in rating areas with a larger share of healthy Republicans have a less favorable opinion of the ACA, controlling for individual characteristics, by estimating the following specification:

$$O_i = \phi_0 S_{r(i)}^R + \phi_1 S_{r(i)}^H + \phi_2 S_{r(i)}^{HR} + X_i \beta + \varepsilon_{irt}; \quad (17)$$

The outcome of interest is  $P_i$ , which takes value  $P_i = 1$  if individual  $i$  reports being “very favorable” or “somewhat favorable” towards the ACA and  $P_i = 0$  otherwise.  $S_{r(i)}^R$  is the share of eligible buyers in  $i$ ’s rating area of residence who are Republicans;  $S_{r(i)}^H$  is the share of healthy individuals, and  $S_{r(i)}^{HR}$  is the share of healthy Republicans. The controls  $X_i$  include individual demographics used in Section 5, individual health, individual political identity, the interaction of individual health and political identity, year fixed effects, and a set of county-level controls. We present results in Table 5, ranging from a parsimonious specification to specifications with extensive individual and county-level controls. We find a statistically significant negative estimate for  $\phi_2$  in all specifications: that is, individuals in markets where there are more healthy Republicans, and therefore greater political adverse selection, have a less favorable view of the ACA.

Thus, political adverse selection does not only affect market outcomes in the cross section: it may also facilitate a dynamic process in which negative views or narratives translate into consumer behavior, undermining the marketplace and thus making those original views or narratives factual, even if they were not at the outset. As polarization and trust in institutions continue to decline, both in the United States and in Western Europe (Draca and Schwarz, 2020), the performance of the ACA might foreshadow a future in which the effectiveness of public policy is increasingly undermined by political behavior and political narratives. In settings where individuals’ engagement with government programs generates externalities — such as vaccination campaigns or public education — this mechanism may have significant consequences for the effectiveness of public policy.

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<sup>16</sup>Future research investigating this phenomenon in more depth, including a more formal analysis of the reinforcing mechanisms between political identity and market outcomes remains an interesting avenue for future research. This would require additional sources of identification, richer data, and careful modelling of the dynamic process involved.

**Table 5:** *Political spillovers on favorability toward the ACA*

	Favorable toward the ACA				
$\phi$ :					
Share Republican	-0.605*** (0.058)	-0.606*** (0.056)	-0.199*** (0.048)	-0.141*** (0.048)	-0.080 (0.050)
Share healthy	0.370*** (0.051)	0.367*** (0.049)	0.254*** (0.042)	0.220*** (0.041)	0.096** (0.046)
Share healthy Republican	-0.295*** (0.095)	-0.288*** (0.091)	-0.203** (0.080)	-0.200** (0.079)	-0.136* (0.081)
$\beta$ :					
Republican			-0.525*** (0.006)	-0.502*** (0.006)	-0.500*** (0.006)
Healthy			0.048*** (0.005)	0.040*** (0.006)	0.038*** (0.006)
Republican $\times$ healthy			-0.075*** (0.008)	-0.075*** (0.008)	-0.074*** (0.008)
Year FE	No	Yes	Yes	Yes	Yes
Ind. demographic controls	No	No	No	Yes	Yes
County demographic controls	No	No	No	No	Yes
Observations	43639	43639	43639	43639	43639
Dep. var. mean	0.503	0.503	0.503	0.503	0.503
Dep. var. std. dev.	0.500	0.500	0.500	0.500	0.500

*Notes:* The dependent variable is an indicator for whether the individual reports being very favorable or somewhat favorable towards the ACA. Share Republican is the share of Republicans within the individual's rating area. Share healthy is the share of healthy individuals within the individual's rating area. Share healthy Republican is the share of healthy Republicans within the individual's rating area. All shares are calculated leaving out the individual themselves. Individual demographic controls include age, age squared, gender, gender  $\times$  age, college degree, marital status, race (whether white or not), family size, and income. County demographic controls are as of 2018 and include the rating area's share under the FPL, median household income, unemployment rate, share with a high school degree, share with a college degree, log population, log population density, share white, share black, share Hispanic, share over the age of 65, share under the age of 18, and the age-adjusted average number of physically unhealthy days reported in the past 30 days. Standard errors are clustered at the rating area  $\times$  year level.

## References

- Abaluck, Jason and Jonathan Gruber**, “Choice inconsistencies among the elderly: Evidence from plan choice in the medicare part d program,” *American Economic Review*, 2011, *101* (4), 1180–1210. 3
- **and** – , “Improving the quality of choices in health insurance markets,” Working Paper 22917, National Bureau of Economic Research, 2016. 3
- Aizawa, Naoki**, “Labor market sorting and health insurance system design,” *Quantitative Economics*, 2019, *10* (4), 1401–1451. 3
- Allcott, Hunt, Levi Boxell, Jacob Conway, Matthew Gentzkow, Michael Thaler, and David Yang**, “Polarization and public health: Partisan differences in social distancing during the coronavirus pandemic,” *Journal of Public Economics*, 2020, *191*, 104254. 2
- Atal, Juan Pablo, José Ignacio Cuesta, Felipe González, and Cristóbal Otero**, “The economics of the public option: Evidence from local pharmaceutical markets,” *Available at SSRN*, 2021. 2
- Atkin, David, Eve Colson-Sihra, and Moses Shayo**, “How do we choose our identity? a revealed preference approach using food consumption,” *Journal of Political Economy*, 2021, *129* (4), 1193–1251. 2
- Berry, Steven T. and Joel Waldfogel**, “Free Entry and Social Inefficiency in Radio Broadcasting,” *The RAND Journal of Economics*, 1999, *30* (3), 397–420. 2
- Bishop, Bill**, *The big sort: Why the clustering of like-minded America is tearing us apart*, Houghton Mifflin Harcourt, 2009. 2
- Brodie, Mollyann, Elizabeth C. Hamel, Ashley Kirzinger, and Drew E. Altman**, “The past, present, and possible future of public opinion on the ACA,” *Health Affairs*, 2020, *39* (3), 462–470. 1, 4
- Bursztyn, Leonardo, Aakaash Rao, Christopher Roth, and David Yanagizawa-Drott**, “Opinions as Facts,” *The Review of Economic Studies*, forthcoming. 2
- Chandra, Amitabh, Benjamin Handel, and Joshua Schwartzstein**, “Behavioral economics and health-care markets,” in “Handbook of Behavioral Economics: Applications and Foundations 1,” Vol. 2, Elsevier, 2019, pp. 459–502. 3
- Curto, Vilsa, Liran Einav, Amy Finkelstein, Jonathan Levin, and Jay Bhattacharya**, “Health care spending and utilization in public and private Medicare,” *American Economic Journal: Applied Economics*, 2019, *11* (2), 302–32. 2
- DellaVigna, Stefano and Woojin Kim**, “Policy Diffusion and Polarization across U.S. States,” Working Paper 30142, National Bureau of Economic Research, 2022. 2, 22
- Dickstein, Michael J., Mark Duggan, Joe Orsini, and Pietro Tebaldi**, “The impact of market size and composition on health insurance premiums: Evidence from the first year of the affordable care act,” *American Economic Review*, 2015, *105*, 120–125. 3

- Dinerstein, Michael and Troy D Smith**, “Quantifying the supply response of private schools to public policies,” *American Economic Review*, 2021, *111* (10), 3376–3417. 2
- Draca, Mirko and Carlo Schwarz**, “How polarized are citizens? Measuring ideology from the ground-up,” *Measuring Ideology from the Ground-Up (June 1, 2020)*, 2020. 22
- Duggan, Mark and Fiona M Scott Morton**, “The distortionary effects of government procurement: evidence from Medicaid prescription drug purchasing,” *The Quarterly Journal of Economics*, 2006, *121* (1), 1–30. 2
- Einav, Liran, Amy Finkelstein, and Jonathan Levin**, “Beyond testing: Empirical models of insurance markets,” *Annual Review of Economics*, 2010, *2* (1), 311–336. 2
- , – , and **Mark R Cullen**, “Estimating welfare in insurance markets using variation in prices,” *The Quarterly Journal of Economics*, 2010, *125* (3), 877–921. 6
- and – , “Selection in insurance markets: Theory and empirics in pictures,” *Journal of Economic Perspectives*, 2011, *25* (1), 115–38. 8
- and **Jonathan Levin**, “Managed competition in health insurance,” *Journal of the European Economic Association*, 2015, *13* (6), 998–1021. 1, 5
- Enthoven, Alain C**, “The history and principles of managed competition,” *Health affairs*, 1993, *12* (suppl 1), 24–48. 1, 5
- Epple, Dennis and Richard E Romano**, “Competition between private and public schools, vouchers, and peer-group effects,” *American Economic Review*, 1998, pp. 33–62. 2
- Ericson, Keith Marzilli**, “Market design when firms interact with inertial consumers: Evidence from medicare part d,” *American Economic Journal: Economic Policy*, 2014, *6* (1), 38–64. 3
- and **Amanda Starc**, “Measuring consumer valuation of limited provider networks,” *American Economic Review*, 2015, *105* (5), 115–119. 3
- Fang, Hanming, Michael Keane, and Dan Silverman**, “Sources of advantageous selection: Evidence from the medigap insurance market,” *Journal of Political Economy*, 2008, *116* (2), 303–350. 3
- Finkelstein, Amy, Nathaniel Hendren, and Mark Shepard**, “Subsidizing health insurance for low-income adults: Evidence from Massachusetts,” *American Economic Review*, 2019, *109* (4), 1530–67. 5
- Fouka, Vasiliki and Hans-Joachim Voth**, “Reprisals remembered: German-Greek conflict and car sales during the Euro crisis,” Discussion Paper DP9704, Center for Economic and Policy Research, 2013. 2
- Gentzkow, Matthew**, “Polarization in 2016,” *Working Paper*, 2016, pp. 1–23. 2
- Geruso, Michael, Timothy J Layton, Grace McCormack, and Mark Shepard**, “The two margin problem in insurance markets,” *The Review of Economics and Statistics*, 2019, pp. 1–46. 6

- Hackmann, Martin B., Jonathan T. Kolstad, and Amanda E. Kowalski**, “Health reform, health insurance, and selection: Estimating selection into health insurance using the Massachusetts health reform,” *American Economic Review*, 2012, *102* (3), 498–501. 3
- , – , and – , “Adverse selection and an individual mandate: When theory meets practice,” *American Economic Review*, 2015, *105* (3), 1030–1066. 3, 5
- Handel, Ben and Jonathan Kolstad**, *Getting the Most from Marketplaces: Smart Policies on Health Insurance Choices*, Brookings Institution Washington (DC), 2015. 3
- and **Kate Ho**, “The industrial organization of health care markets,” in “Handbook of Industrial Organization,” Vol. 5, Elsevier, 2021, pp. 521–614. 3
- Handel, Benjamin**, “Adverse selection and inertia in health insurance markets: When nudging hurts,” *American Economic Review*, 2013, *103* (7), 2643–2682. 3
- and **Jonathan T. Kolstad**, “Health insurance for humans: Information frictions, plan choice, and consumer welfare,,” *American Economic Review*, 2015, *105* (8), 2449–2500. 3
- and **Joshua Schwartzstein**, “Frictions or mental gaps: what’s behind the information we (don’t) use and when do we care?,” *Journal of Economic Perspectives*, 2018, *32* (1), 155–78. 19
- , **Igal Hendel**, and **Michael D. Whinston**, “Equilibria in health exchanges: Adverse selection versus reclassification risk,” *Econometrica*, 2015, *83*, 1261–1313. 3
- Handel, Benjamin R and Jonathan T Kolstad**, “The Affordable Care Act After a Decade: Industrial Organization of the Insurance Exchanges,” Working Paper 29178, National Bureau of Economic Research, 2021. 3, 19, 20
- Heiss, Florian, Daniel McFadden, Joachim Winter, Amelie Wupperman, and Bo Zhou**, “Mind the gap! Consumer perceptions and choices of medicare part d prescription drug plans,” *Research Findings in the Economics of Aging*, 2010, pp. 413–481. 3
- Ho, Kate, Joseph Hogan, and Fiona Scott Morton**, “The impact of consumer inattention on pricing in the medicare part d program,” *RAND Journal of Economics*, 2017, *48* (4), 877–905. 3
- Iyengar, Shanto, Yphtach Lelkes, Matthew Levendusky, Neil Malhotra, and Sean J. Westwood**, “The Origins and Consequences of Affective Polarization in the United States,” *Annual Review of Political Science*, 2019, *22* (1), 129–146. 2
- Jaffe, Sonia and Mark Shepard**, “Price-linked subsidies and imperfect competition in health insurance,” *American Economic Journal: Economic Policy*, 2020, *12* (3), 279–311. 4
- Ketcham, Jonathan, Claudio Lucarelli, Eugenio Miravete, and Christopher Roebuck**, “Sinking, swimming, or learning to swim in medicare part d?,” *American Economic Review*, 2012, *102* (6), 2639–2673. 3
- Ketcham, Jonathan D, Nicolai V Kuminoff, and Christopher A Powers**, “Estimating the heterogeneous welfare effects of choice architecture,” *International Economic Review*, 2019, *60* (3), 1171–1208. 3

- Larsen, Bradley J, Timothy J Ryan, Steven Greene, Marc J Hetherington, Rahsaan Maxwell, and Steven Tadelis**, “Using Donald Trump’s COVID-19 Vaccine Endorsement to Give Public Health a Shot in the Arm: A Large-Scale Ad Experiment,” Working Paper 29896, National Bureau of Economic Research, 2022. 2
- Layton, Timothy J, Ellen Montz, and Mark Shepard**, “Health Plan Payment in US Marketplaces: regulated competition with a weak mandate,” in “Risk Adjustment, Risk Sharing and Premium Regulation in Health Insurance Markets,” Elsevier, 2018, pp. 491–522. 4
- Lerman, Amy E., Meredith L. Sadin, and Samuel Trachtman**, “Policy uptake as political behavior: Evidence from the affordable care act,” *American Political Science Review*, 2017, 111 (4), 755–770. 3
- Marone, Victoria R and Adrienne Sabety**, “When Should There Be Vertical Choice in Health Insurance Markets?,” *American Economic Review*, 2022, 112 (1), 304–42. 6
- McConnell, Christopher, Yotam Margalit, Neil Malhotra, and Matthew Levendusky**, “The economic consequences of partisanship in a polarized era,” *American Journal of Political Science*, 2018, 62, 5–18. 2
- McFadden, Daniel**, “Conditional logit analysis of qualitative choice behavior,” 1973. 19
- Nardotto, Mattia and Sandra Sequeira**, “Identity, Media and Consumer Behavior,” Discussion Paper DP15765, Center for Economic and Policy Research, 2021. 2
- Orsini, Joe and Pietro Tebaldi**, “Regulated age-based pricing in subsidized health insurance: Evidence from the Affordable Care Act,” Working Paper 2017-02, Becker Friedman Institute for Research in Economics, 2017. 3
- Polyakova, Maria**, “Regulation of insurance with adverse selection and switching costs: Evidence from medicare part d,” *American Economic Journal: Applied Economics*, 2016, 8 (3), 165–195. 3
- **and Stephen P Ryan**, “Subsidy targeting with market power,” Working Paper 26367, National Bureau of Economic Research, 2019. 4
- Rocco, Philip, Ann C Keller, and Andrew S Kelly**, “State Politics And The Uneven Fate Of Medicaid Expansion: An examination of mechanisms that affected Medicaid expansion, including electoral competition, ballot-box initiatives, interest-group coalitions, and entrepreneurial administrators,” *Health Affairs*, 2020, 39 (3), 494–501. 5
- Rodden, Jonathan A**, *Why cities lose: The deep roots of the urban-rural political divide*, Basic Books, 2019. 2
- Saltzman, Evan**, “Demand for health insurance: Evidence from the California and Washington ACA exchanges,” *Journal of Health Economics*, 2019, 63, 197–222. 4
- , “Managing adverse selection: underinsurance versus underenrollment,” *The RAND Journal of Economics*, 2021, 52 (2), 359–381. 15

- Sances, Michael W. and Joshua D. Clinton**, “Who participated in the ACA? Gains in insurance coverage by political partisanship,” *Journal of Health Politics, Policy, and Law*, June 2019, *44* (3), 349–379. 3
- Seitz-Wald, Alex**, “The fight of Obamacare’s ‘navigators’ against Republican hurdles,” *National Journal*, 2013. 5
- Solon, Gary, Steven J Haider, and Jeffrey M Wooldridge**, “What are we weighting for?,” *Journal of Human resources*, 2015, *50* (2), 301–316. 13
- Tebaldi, Pietro**, “Estimating equilibrium in health insurance exchanges: Price competition and subsidy design under the ACA,” Working Paper 29869, National Bureau of Economic Research 2022. 3, 4, 15
- Trachtman, Samuel**, “Polarization, participation, and premiums: How political behavior helps explain where the ACA works, and where it doesn’t,” *Journal of Health Politics, Policy, and Law*, December 2019, *44* (6), 855–884. 3
- Veiga, André and E Glen Weyl**, “Product design in selection markets,” *The Quarterly Journal of Economics*, 2016, *131* (2), 1007–1056. 1