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Diminishing Insurance Choices In The Affordable Care Act Marketplaces: A County-Based Analysis

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ABSTRACT While the Affordable Care Act has expanded health insurance to millions of Americans through the expansion of eligibility for Medicaid and the health insurance Marketplaces, concerns about Marketplace stability persist—given increasing premiums and multiple insurers exiting selected markets. Yet there has been little investigation of what factors underlie this pattern. We assessed the county-level prevalence of limited insurer participation (defined as having two or fewer distinct participating insurers) in Marketplaces in the period 2014–18. Overall, in 2015 and 2016 rates of insurer participation were largely stable, and approximately 80 percent of counties (containing 93 percent of US residents) had at least three Marketplace insurers. However, these proportions declined sharply starting in 2017, falling to 36 percent of counties and 60 percent of the population in 2018. We also examined county-level factors associated with limited insurer competition and found that it occurred disproportionately in rural counties, those with higher mortality rates, and those where insurers had lower medical loss ratios (that is, potentially higher profit margins), as well as in states where Republicans controlled the executive and legislative branches of government. Decreased competition was less common in states with higher proportions of residents who were Hispanic or ages 45–64 and states that chose to expand Medicaid.

The Affordable Care Act (ACA) increased insurance coverage through expanding eligibility for Medicaid and implementing health insurance Marketplaces, but its future remains uncertain. While prospects for a large-scale repeal of the ACA may have temporarily abated, policy makers have expressed concerns that insurers exiting the Marketplaces may lead to inadequate choices for consumers and higher premiums.[1–3] These concerns were punctuated by several high-profile insurer exits since 2016, which left some state regulators scrambling to persuade at least one insurer to participate in their ACA Marketplaces.[4,5] Policy changes during the administration of President Donald Trump—such as the cancellation of payments to insurers for cost-sharing reductions, temporary freezing of risk-adjustment payments,[6] removal of the individual mandate,[7] and the expansion of short-term insurance options[8]—may also increase uncertainty and hasten insurer exits.

While previous studies have described the extent of insurer participation,[9,10] there has been less research evaluating which regions are most likely to be affected by limited Marketplace options and factors associated with limited options. In this article we assess the frequency of limited Marketplace insurer participation over

time and identify county- and state-level predictors of that outcome.

Study Data And Methods

DATA Data for 2014–18 for this study were obtained from the Robert Wood Johnson Foundation's Health Insurance Exchange (HIX) Compare database. HIX Compare contains information on nearly every ACA-compliant individual and small-group Marketplace plan offered in all fifty states plus the District of Columbia, as well as most off-Marketplace plans.[11] Insurance rating areas follow county lines in most states. However, four states (Alaska, California, Massachusetts, and Nebraska) use rating areas and ZIP codes that can cross county lines. We used data from the Census Bureau and the Missouri Census Data Center's Geocorr Index to map rating areas, ZIP codes, and counties for these states.[12] For the seven counties that had varying numbers of insurers depending on the ZIP code, we assigned each county the number of insurers that covered the largest population share.

ANALYTIC METHODS We first calculated the number of insurers (one, two, or three or more) participating in ACA Marketplaces by county ($N = 3{,}142$) for each year in the period 2014–18. We used data from the Centers for Medicare and Medicaid Services (CMS) on medical loss ratios (the amounts of premiums that insurers spend on medical care, separate from administrative and marketing costs) to identify subsidiaries of the same parent company and counted them as one insurer. We then conducted a set of regressions to identify predictors of limited insurance options (that is, having two or fewer insurers that participated in the Marketplace) in 2018. Ideally, consumers in a county would have a large number of insurers available, and the minimum number of competitors needed to prevent oligopolistic competition is unclear. Following the work of Richard Kronick and coauthors,[13] we assumed that at least three insurers were needed as a precondition for competition based on price and plan quality. We recognize that the "right" threshold likely varies based on each region's unique characteristics and history, which makes the selection of any threshold somewhat arbitrary. In sensitivity analyses, we tested the robustness of our results using the presence of just one insurer as the definition of limited competition.

Our covariates consisted of a variety of county-level characteristics that could affect insurers' participation, including demographic characteristics, health spending, mortality, and the state policy environment. From the Health Resources and Services Administration's Area Health Resources Files, we obtained data on county-level poverty rates, crude death rates, and per capita Medicare spending. We included rural versus urban status, defined using the Department of Agriculture's Rural-Urban Continuum Codes.[14] Data on the proportion of nonelderly residents ages 45–64 and the proportions of residents who were black, Hispanic, or Latino were obtained from the Census Bureau.

We included a binary indicator of pre-ACA insurance market concentration from the 2014 Robert Wood Johnson Foundation's Insurer's Marketshare Dataset.[15] Markets in which one insurer controlled more than 50 percent of the market were considered concentrated. To identify the potential effect of areas in which premiums may have previously been set at unsustainable levels, we included variables for statewide average premiums (for a person age fifty) from HIX Compare and medical loss ratios from CMS for 2016, the earliest year for which complete data were available.

We also assessed state party control using data from the National Conference of State Legislatures.[16] We defined states as being Republican controlled (with a Republican governor and a legislature controlled by Republicans) or Democrat controlled (with a Democratic governor and a legislature controlled by Democrats), or having a divided government. Variables for key ACA-related policies included whether a state had accepted the Medicaid expansion (with or without a section 1115 waiver),[17] managed its own Marketplace,[18] or placed restrictions on the activities of Marketplace navigators.[19] All continuous dependent variables were standardized into z-scores as a means of comparing the effects of variables measured in different metrics; binary variables were not normalized. A z-score indicates how many standard deviations a particular value is from a variable's mean. A z-score of less than 0 indicates that a value is less than the mean, while a z-score of more than 0 indicates that a value is higher than the mean.

We estimated linear probability models to explore the unadjusted (bivariate) associations between the aforementioned covariates and outcomes, as well as a multivariate model. Standard errors were clustered by state, and counties were population-weighted to produce nationally representative estimates. As sensitivity analyses, we estimated logistic regression models instead of linear probability models and used alternative data on insurers' participation from the Henry J. Kaiser Family Foundation.[9]

The study was deemed not to be human subjects research by the Boston University Institutional Review Board.

LIMITATIONS This analysis had several limita-

tions. First was its cross-sectional nature, which meant that it could identify only associations.

Second, the various state policy variables were correlated. We addressed this issue by presenting results of both bivariate and multivariate models. The multivariate model allowed us to assess the associations between each variable and insurers' participation independently, controlling for the policy and other variables.

Third, the HIX Compare data presented a more conservative estimate of the extent of limited insurers' participation on the ACA Marketplaces, compared to previous estimates by CMS or the Kaiser Family Foundation.[9,10]

Fourth, the HIX Compare data did not contain information on the caps in enrollment that some insurers have in place.

Fifth, insurers' participation was listed at the rating-area level, while some insurers choose to participate in only a subset of counties within a given rating area.

Also, HIX Compare was missing data for 17 percent of counties in 2014 and 8 percent in 2015. However, a sensitivity analysis using alternative data (more counties but fewer years) from the Kaiser Family Foundation yielded results similar to those in our main analysis.[9]

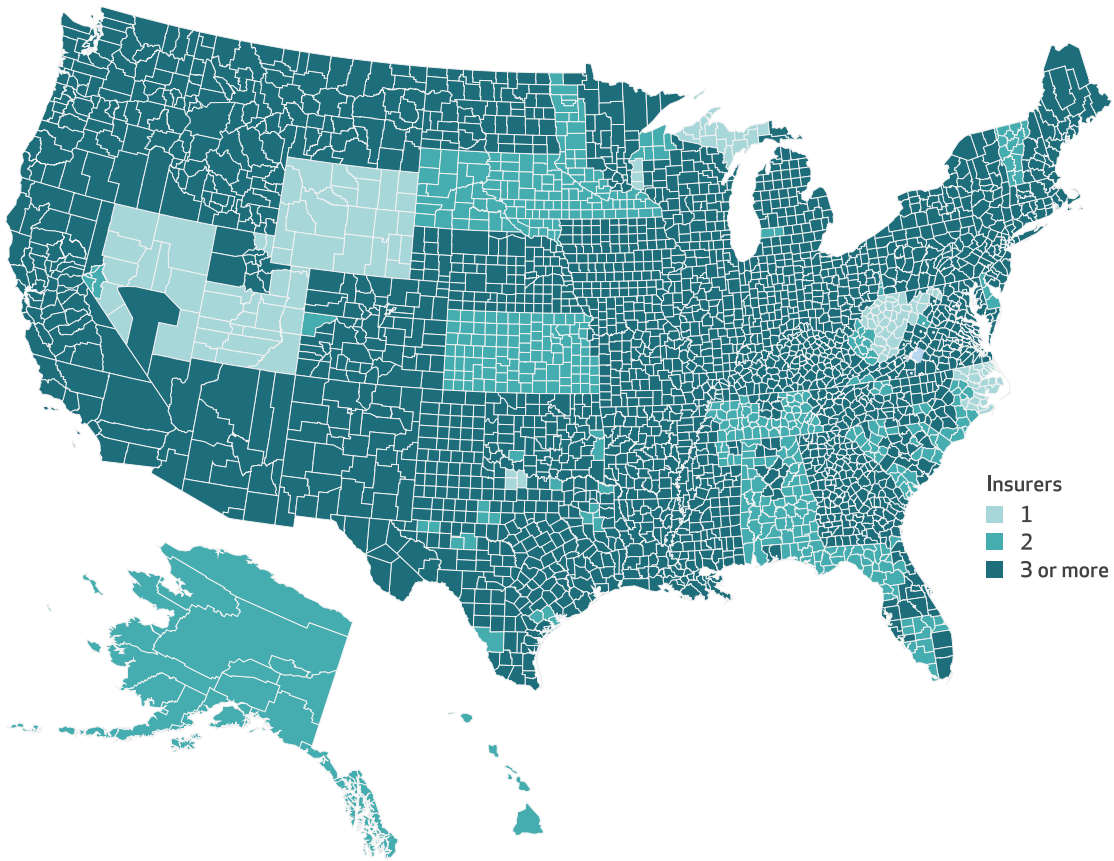
Study Results

Limited competition increased from 21.3 percent of counties in 2016 to 64.4 percent of counties in 2018, representing 8.2 percent and 40.5 percent of the US population in those years, respectively. Counties with only one or two insurers were primarily concentrated in less-populated parts of the Great Plains and southeastern United States (exhibits 1 and 2). All counties had at least one insurer all study years.

In 2016 approximately 79 percent of counties, comprising 92 percent of US residents, had three or more Marketplace insurers (exhibit 3). This dropped to 51 percent of counties and 69 percent of the population in 2017, and to 36 percent of counties and 60 percent of the population in 2018. In 2018 more than one-third of counties,

EXHIBIT 1

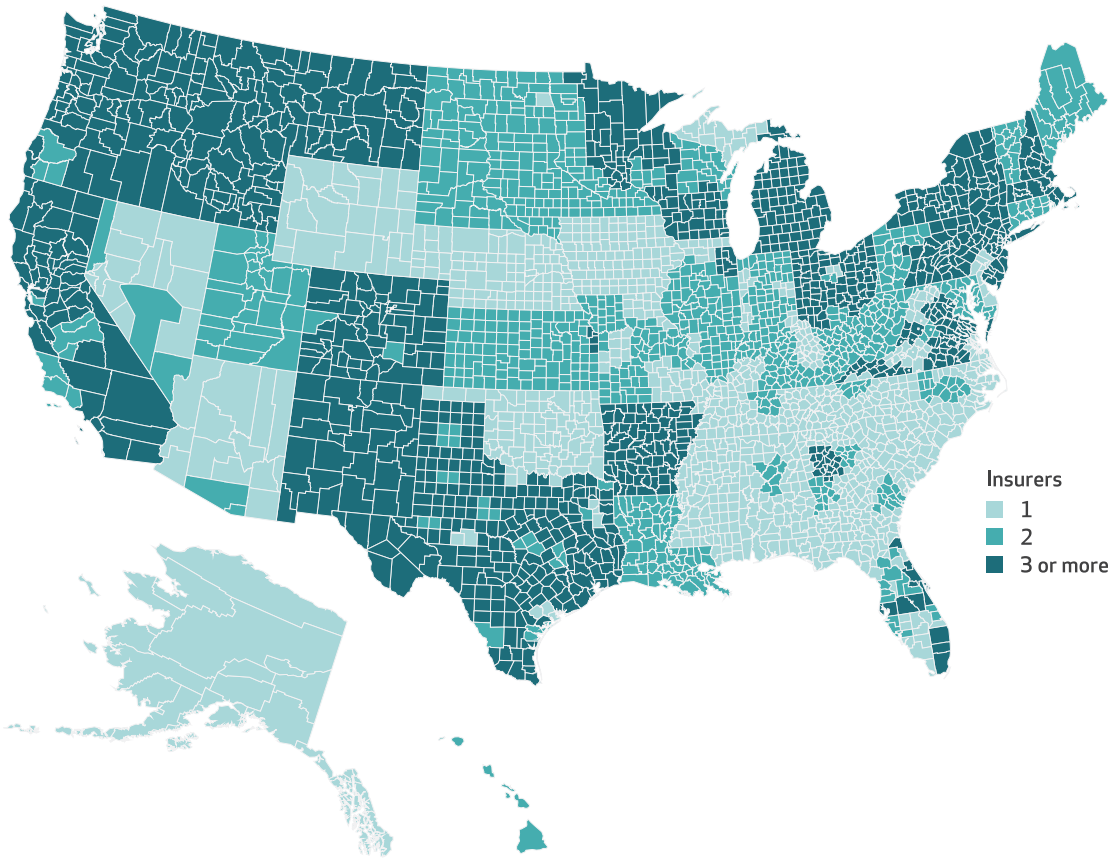
Marketplace insurer competition, by county, 2016



SOURCE Authors' analysis of data from the Robert Wood Johnson Foundation's Health Insurance Exchange (HIX) Compare database.
NOTE "Marketplace insurers" are those participating in the Affordable Care Act Marketplaces.

EXHIBIT 2

Marketplace insurer competition, by county, 2018



SOURCE Authors' analysis of data from the Robert Wood Johnson Foundation's Health Insurance Exchange (HIX) Compare database.
NOTE "Marketplace insurers" are those participating in the Affordable Care Act Marketplaces.

comprising one-fifth of the US population, are served by a single Marketplace insurer.

Exhibit 4 shows regression results for both county- and state-level variables associated with two or fewer insurers in 2018. Continuous variables were rescaled to enable comparisons between variables with different metrics. For example, the amount of change in the percentage of residents in poverty associated with limited insurer participation can be directly compared to the amount of change in Medicare spending, even though the first variable is measured as a percentage and the second in dollars. Corresponding unscaled results are in online appendix exhibit A1.[20]

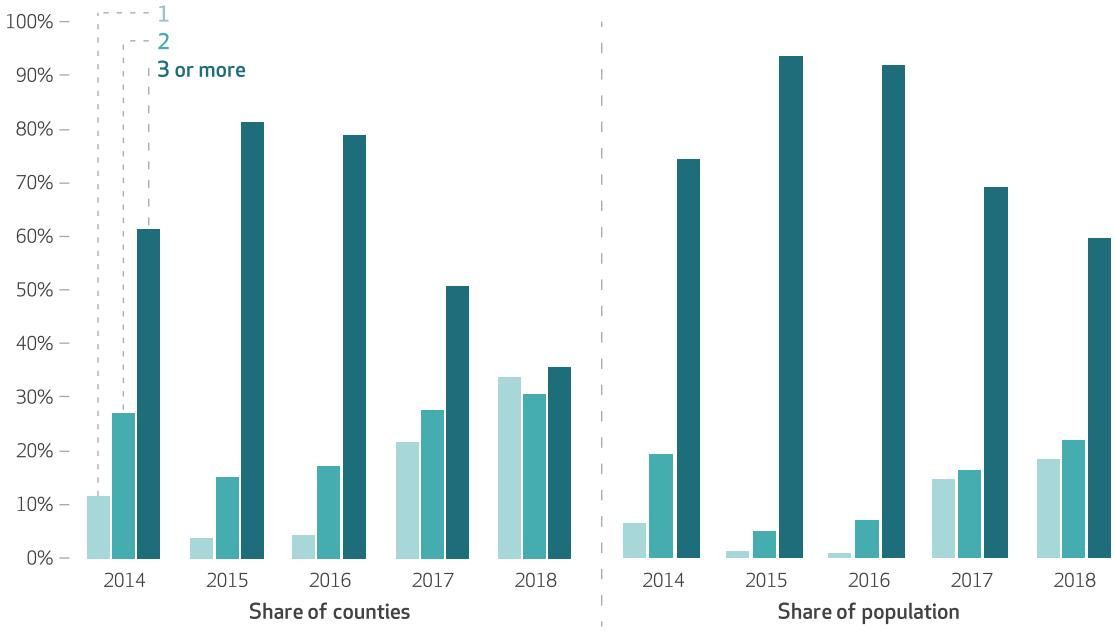
In terms of county-level factors associated with having limited competition, in an unadjusted analysis we found that limited insurer participation was more common in counties that were rural (28 percentage points more than in nonrural counties) or had relatively high mortality (16 percentage points per standard deviation [SD]) or percentages of residents in poverty (6 percentage points per SD) (exhibit 4). Limited insurer participation was less common in counties that had relatively large Hispanic/Latino populations (–13 percentage points per SD), insurers with higher average medical loss ratios (–11 percentage points per SD), or high per capita Medicare spending (–10 percentage points per SD).

In the multivariate model we found that four of these six variables remained significantly associated with limited insurer participation and the percentage of residents in middle age (ages 45–65) gained significance, with mortality rate and the percentage of residents in middle age showing the strongest association with limited insurer participation (22 percentage points and –23 percentage points per SD, respectively). Weaker but still significant associations were found for rural status, medical loss ratio, and Hispanic/Latino population (exhibit 4).

Among state policy variables, in an unadjusted analysis we found that limited insurer participation was more than 30 percentage points more

EXHIBIT 3

Shares of US counties and population with one, two, or three or more Marketplace insurers, 2014–18



SOURCE Authors' analysis of data from the Robert Wood Johnson Foundation's Health Insurance Exchange (HIX) Compare database and the Census Bureau. **NOTES** "Marketplace insurers" are those participating in the Affordable Care Act Marketplaces. HIX Compare lacked data for 17 percent of counties in 2014 and 8 percent in 2015.

common in states with Republican-controlled or divided government, compared to states with Democrat-controlled government. Limited insurer participation was 30 percentage points less common in states with state-run Marketplaces, compared to those with federally facilitated Marketplaces, and 26 percentage points less common in states that chose to expand Medicaid.

In the multivariate model we found that only Medicaid expansion (−28 percentage points) retained significance, and it was marginal.

Sensitivity analyses defining counties with limited insurer participation as those having one Marketplace insurer, or using insurer participation data from the Kaiser Family Foundation, produced largely similar multivariate results. However, the medical loss ratio was no longer a significant predictor of limited participation, and state Medicaid expansion had a stronger association with greater participation (appendix exhibits 2 and 3).[20]

Discussion

Reduced Marketplace competition can lead to higher premiums and reduced consumer choices.[2,3] We found a sharp increase in the numbers of counties with restricted competition in 2017 and 2018, but a smaller increase in the share of the population living in counties with restricted competition. This problem is more common in rural areas and those with higher mortality rates, and less common in counties with a higher percentage of residents ages 45–64 and larger Hispanic populations. Limited participation in 2018 was also associated with lower 2016 medical loss ratios, which suggests that insurers may be reluctant to enter even profitable exchanges, and factors other than setting premiums at unsustainably low levels in previous years are driving insurer exits.

Future work is needed to identify potential causal mechanisms behind these associations, since it is unclear why a higher-risk population or lower medical loss ratios should lead to lower insurer participation as opposed to changes in premiums. Additionally, it is unclear if the observed pattern of insurer participation represented a long-run equilibrium or more transient factors such as the fluid policy environment and insurer "panic" over early losses. Future changes in this pattern are likely to reflect the uncertainty of the ACA's risk-adjustment program, given the mixed signals from the Trump administration in July 2018.[21]

Demographic characteristics and the insurer risk pool were not the only factors associated with restricted Marketplace competition. In unadjusted models, we found that Republican-controlled and divided-government states had

EXHIBIT 4

Rescaled county- and state-level variables associated with having 2 or fewer Marketplace insurers in 2018

	Mean value	Unadjusted	Adjusted
COUNTY-LEVEL VARIABLES			
Residents in poverty	0.15	0.062*	−0.021
Crude death rate (per 1,000 people)	10.13	0.161***	0.217***
Per capita Medicare spending (hundreds of dollars)	98.25	−0.103***	−0.047
Black	0.13	0.051	−0.014
Hispanic/Latino	0.16	−0.129***	−0.085**
Ages 45–64	0.31	0.020	−0.227***
Rural status	0.21	0.280***	0.132*
STATE POLICY VARIABLES			
Concentrated insurance market	0.61	0.119	−0.046
Average medical loss ratio	0.93	−0.112*	−0.128***
Average insurance premium (hundreds of dollars)	4.91	−0.058	−0.064
State-run Marketplace	0.13	−0.301**	−0.021
Navigator restrictions	0.55	0.076	−0.078
Medicaid expansion status			
Standard expansion	0.31	−0.257*	−0.283*
Waiver expansion	0.17	0.039	0.006
Nonexpansion	0.52	Ref	Ref
State party control			
Republican controlled	0.65	0.328***	−0.079
Divided government	0.27	0.363***	0.232
Democrat controlled	0.09	Ref	Ref

SOURCE Authors' analysis of data from the Robert Wood Johnson Foundation's Health Insurance Exchange (HIX) Compare database, National Conference of State Legislatures, Census Bureau, and Health Resources and Service Administration's Area Health Resource File. **NOTES** The exhibit shows regression results for county- and state-level factors associated with having fewer than two Marketplace insurers participating in the Affordable Care Act Marketplaces in 2018. There were 3,142 counties. Observations were weighted by county population younger than age sixty-five. All continuous independent variables were rescaled to z-scores, with standard errors clustered at the state level. The "mean value" column presents average value variables weighted by population, before rescaling. Estimates of effect for binary variables may be interpreted as percentage-point changes in limited insurer participation compared with the stated reference group (for example, a concentrated versus unconcentrated insurance market). Estimates of effect for rescaled variables may be interpreted as percentage-point changes in limited insurer participation for a one-standard-deviation increase in the variable. Unscaled results are available in appendix exhibit A1 (see note 20 in text). *$p < 0.01$ **$p < 0.05$ ***$p < 0.01$

more limited insurer participation, which some have attributed to political efforts in those states to destabilize the Marketplaces.[22,23] In our multivariate model, partisan control of state government was no longer significant, which indicates that the effect of party control of state government was largely mediated by Medicaid expansion. Moreover, nonexpansion status was the strongest predictor of limited Marketplace participation in the multivariate model. Previous work has demonstrated that the largest health insurers in the United States are highly dependent on Medicaid and Medicare for enrollments, revenues, and profits.[24] Thus, states' decisions to expand Medicaid may increase the attractiveness of their markets to insurers and could have important spillover effects in the Marketplaces.

These findings suggest that state-level Republican opposition to the ACA may be self-reinforcing, leading to less robust competition in the Marketplace. Idaho serves as an interesting example of the importance of political support. It is the only Republican-controlled state that chose to run its own ACA Marketplace. Unlike other Republican-controlled states or other states that rejected the Medicaid expansion, in Idaho every county has consistently had at least three insurance companies selling plans in the Marketplace. Insurers and other stakeholders in Idaho describe a willingness to remain engaged because they have deeper relationships with and greater trust in regulators in Boise than they expect they would have with federal leaders if the state relied on Healthcare.gov.[25]

Overall, our findings reiterate the need for additional research on the increasing challenge of restricted Marketplace competition in some areas of the US and the potential mediating effects of Medicaid expansion. Media reports on the number of counties experiencing limited insurer participation overstate the difficulties[26] compared to population-based estimates, but it is clear that the challenge grew in the past two years. With some data sources already suggesting a recent decline in coverage rates nationally during the Trump administration,[27,28] and new poli-

cy uncertainty going forward because of the elimination of the individual mandate for 2019 and the temporary halting of risk-adjustment payments, it will be important to monitor factors that affect restricted competition in the coming years. ■

NOTES

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