

Variation in Premiums for Private Plans in Health Insurance Marketplaces under the Affordable Care Act

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Outline

- Background:
 - Affordable Care Act (ACA) and “Marketplaces”
 - What is the issue? Why is variation important?
 - Model, Hypotheses, Data and Methods
 - Findings
 - Conclusions, Policy Implications, Limitations, Future Work
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Background



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Building Blocks: Expanding Insurance Coverage

■ Health Insurance Marketplaces:

- Access to affordable coverage for uninsured and small businesses
- Exchange offers access to Private insurance plans
 - Companies offer five types of plans: platinum, gold, silver, bronze
 - Also catastrophic (only available to those under age 30)
- Federally-facilitated (n=34) and State-based marketplaces (n=17)
- Plans offered in rating areas (n=501)

■ Subsidies:

- Provide assistance to make insurance affordable (up to 400% of poverty line)
- Pegged to second-lowest cost silver plan

■ Insurance Reforms:

- Eliminate pre-existing conditions, exclusions, rescissions, denials of coverage

■ Public Program Expansions:

- Strengthen and Expand Medicaid (up to 133% of poverty line)
- NOTE: due to Supreme Court decision, Medicaid Expansion is voluntary (27 expanding Medicaid, 24 not expanding Medicaid)

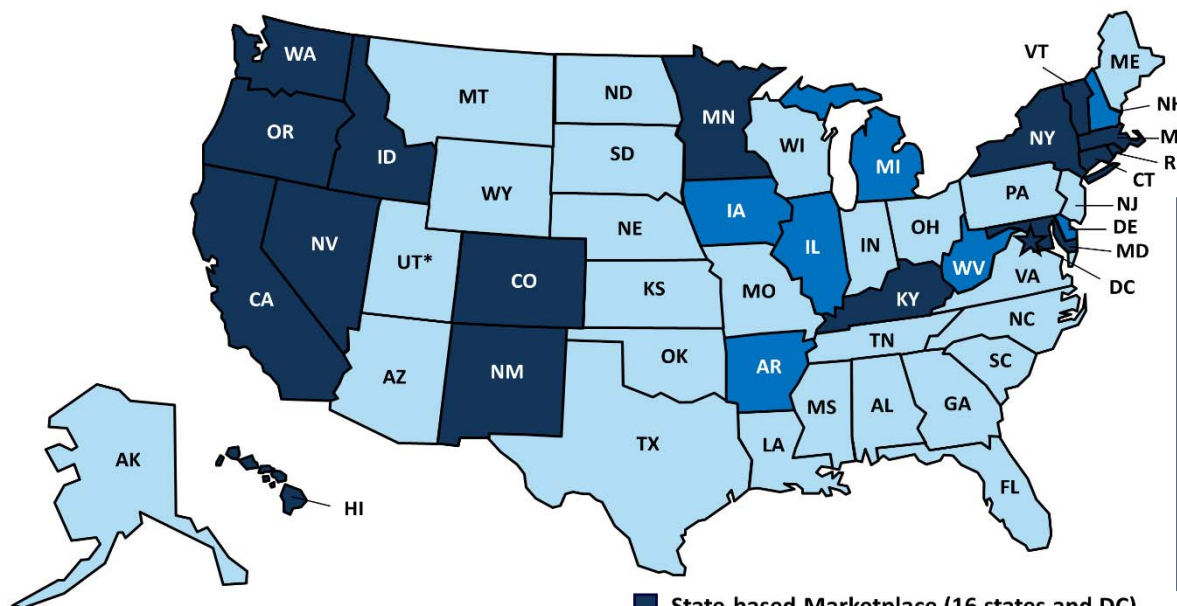
■ Mandates:

- Individual and Employer Responsibility



Establishment of State Health Exchanges, 2014

State Health Insurance Marketplace Decisions, 2014



- State-based Marketplace (16 states and DC)
- Partnership Marketplace (7 states)
- Federally-facilitated Marketplace (27 states)

* In Utah, the federal government will run the marketplace for individuals while the state will run the small business, or SHOP, marketplace.

SOURCE: State Decisions For Creating Health Insurance Marketplaces, 2014, KFF State Health Facts: <http://kff.org/health-reform/state-indicator/health-insurance-exchanges/>.

State activity on Health Insurance Exchanges:
17 State-Based Exchange
7 Partnership Exchange
27 Federal Exchange



SOURCE: Kaiser Family Foundation, <http://www.statehealthfacts.org/comparabletable.jsp?ind=962&cat=17&sub=205&yr=1&typ=5>

Enrollment in Affordable Care Act Marketplaces and Medicaid

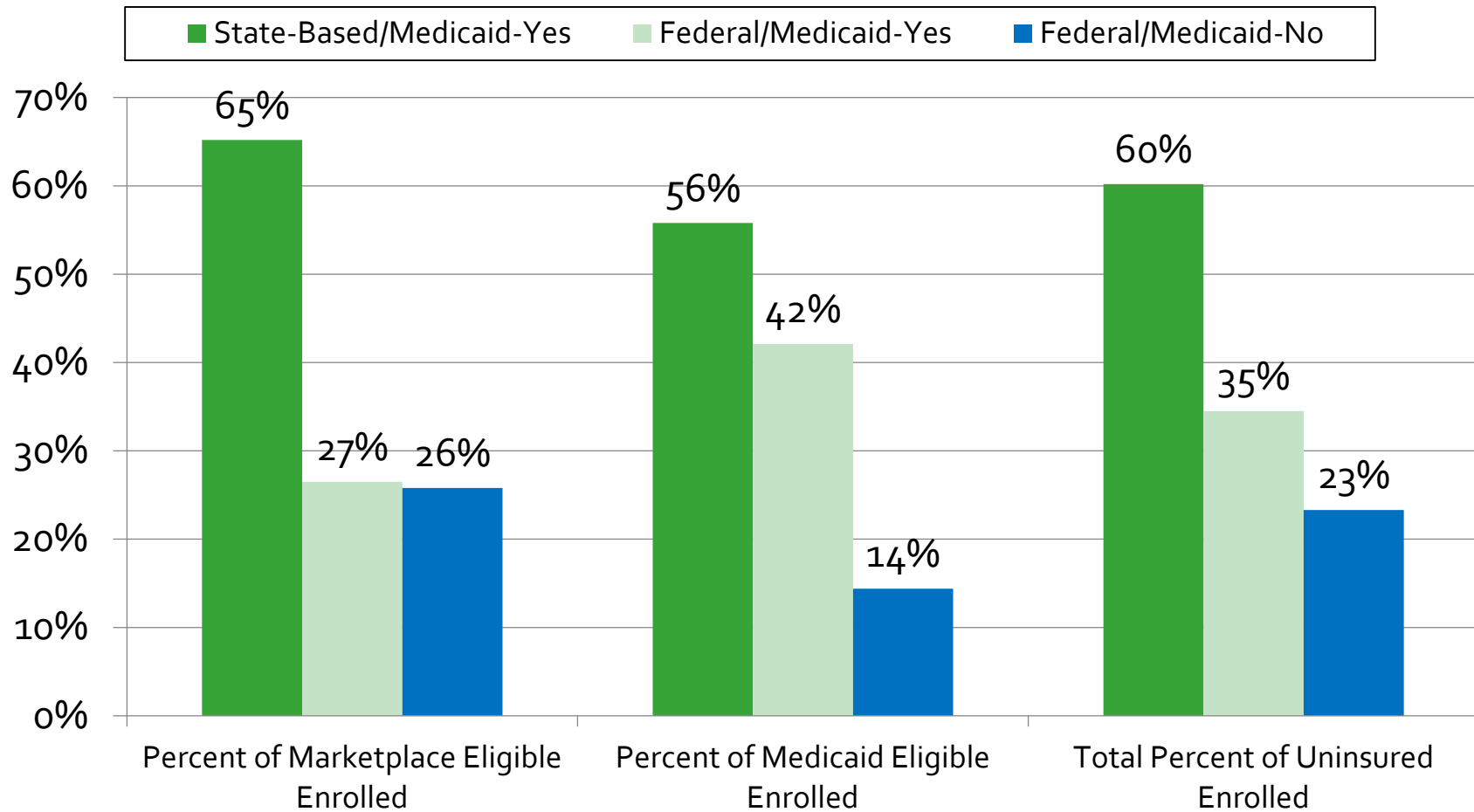
(October 2013-end of April 2014)

By Type of Marketplace (Federal or State)
And Medicaid decision

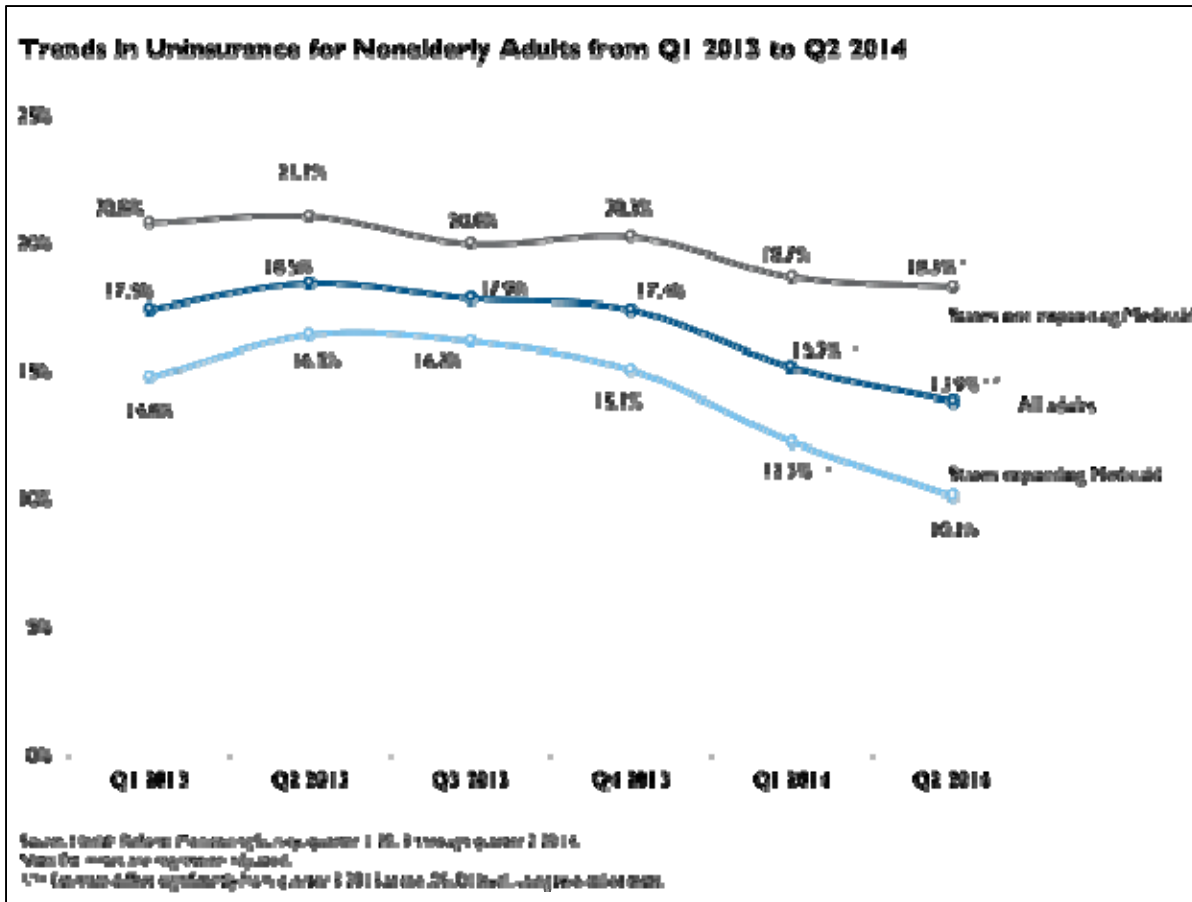
Type of Marketplace	TOTAL	Marketplace Plans (millions)	Medicaid (millions)	Average population density
State-based Marketplaces	7.4	2.6	4.8	246
FFM/Medicaid-Yes	2.3	1.4	0.9	326
FFM/Medicaid-No	5.4	4.3	1.1	158
TOTAL	14.7	8.0	6.7	248

*Sources: RUPRI Center analysis of HHS/ASPE data, <http://aspe.hhs.gov/> adjusted for recent enrollment by figures from ACA Signups data, <http://acasignups.net/>, retrieved, 4/26/14.

Proportion of Uninsured Covered, by State Marketplace and Medicaid Decisions



Affect of ACA on Uninsurance in the U.S.: Early Indications?



- Huge drop in uninsurance rates since 3rd quarter 2013... from 17.9% to 13.9% (4 percentage points), 22.3% drop in uninsured in just two quarters.
- Larger – 5 percentage-point drop in states that expanded Medicaid – a 33.1% drop

Source: Urban Institute, Health Reform Monitoring Survey.

Marketplaces and Variation

- “Variation” in the Marketplaces: What is the Issue and Why is this Important?
 - Prior to passage of ACA, a great deal of variation in premiums
 - Across individuals and families
 - Why? Main reason: adverse selection? Small risk pools?
 - Implication for some: insurance not affordable
 - Across geographic regions (states, substates, groups, employers)
 - Why? Variation in costs, adverse selection, risk pool size, regulations
 - Implication again: in some places insurance not affordable
 - Question: did ACA fix/remove this variation in premiums?
 - Explicit goal of ACA to eliminate variation due to adverse selection based on health
 - Was other variation removed?

Comparing Apples to Oranges



- Anecdotal reports

- *"Evidence is emerging that one of the program's loftiest goals — to encourage competition among insurers in an effort to keep costs low — is falling short for many rural Americans.... While competition is intense in many populous regions, **rural areas and small towns have far fewer carriers** ...of the roughly 2,500 counties served by the federal exchanges, more than half, or 58 percent, have plans offered by just one or two insurance carriers...two might not be enough to create competition that would help lower prices."* [New York Times, 10/24/13]
- *"**The way the pricing came in under the Affordable Care Act ... was anything but affordable in Summit and Eagle counties,**" Rep. Jared Polis says. 'Upwards of \$500 to \$600 a month, minimum. Whereas in other parts of my district — like Fort Collins and the Boulder area — the pricing is really good. You [can] get a very strong, good insurance program for \$300 to \$350 a month.' People in the mountain communities are upset because insurance rates across the county line are dramatically lower. **They want to be added into a so-called rating area with the regions paying lower rates.**"* [National Public Radio, 12/12/13]

- The problem here: comparing apples to oranges?



Model, Hypotheses, Data, Methods



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Model

- We are looking at premium price setting by firms/organizations in the HIE marketplaces
 - And what are the determinants of premium price setting in these markets
 - Our particular question is what are the determinants of price variation across markets, the price variation across geography?
- Model:
 - $P_{ij} = \beta_1 \alpha_j + \beta_2 X_j + \beta_3 R_j + \beta_4 F_i$
 - P=premium per member per month; X_j = characteristics of the market in rating area j; R_j = Regulatory factors for market j; F_i = Firm characteristics for firm i.
 - Market characteristics = Number of firms, Population density, proportion uninsured, health status of population, health costs
 - Regulatory factors = Federal or State-based system; community-rate state or not;
 - Firm characteristics = HMO or PPO; for pro-profit or not;
 - However, here at this point (for now) in our analysis we are not looking at firm level price-setting, but at market-level price-setting -- so limit our question to model that focuses on: $P_{ij} = \beta_1 \alpha_j + \beta_2 X_j + \beta_3 R_j$

Marketplaces and Variation: Hypotheses

- Question: did ACA fix/remove this variation in premiums?
 - H₀: Premium variation in marketplaces under ACA in 2014 all due to known factors explicitly allowed for under the law.^a
 - H₁: Premium variation remains that is due to geographic factors, unexplained by factors explicitly allowed for under the law.

^aFactors allowed by law: individual factors (age, family structure, or smoking), plan type, and rating area.

Data, Methods

- Large database on Marketplaces
 - All rating areas in the U.S. (n=500)
 - Sources:
 - Obtained data on all plans in the Health Insurance Marketplaces (HIM) in U.S.
 - Plan organization, plan type (metal level)
 - Premiums by plan at the rating area level
 - Linked to other data at the geographic level
 - From various files: U.S. Census, U.S. Economic Research Service, Area Resources File, other administrative data
 - Insurance coverage prior to ACA
 - Social determinants, economic variables, health systems
 - Unfortunately no enrollment data as of this point.
 - Methods:
 - Descriptive and Multivariate methods (log-linear, OLS)

Proper methods: Compare Apples to Apples



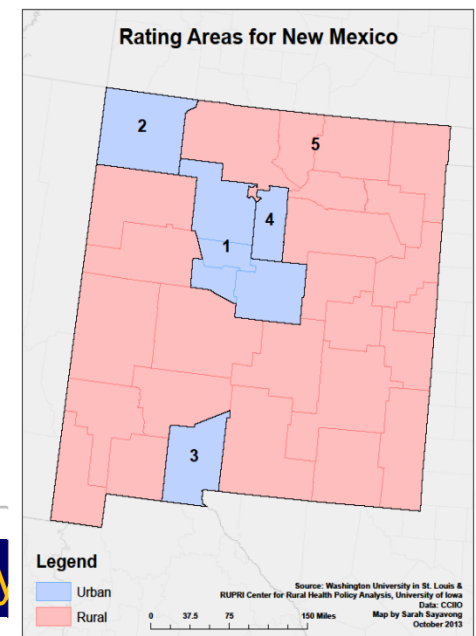
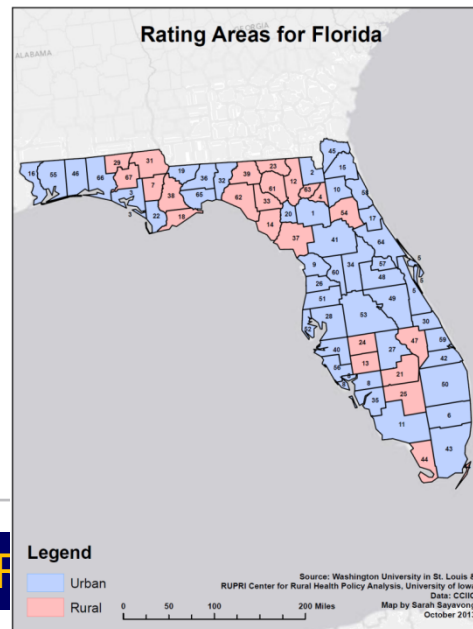
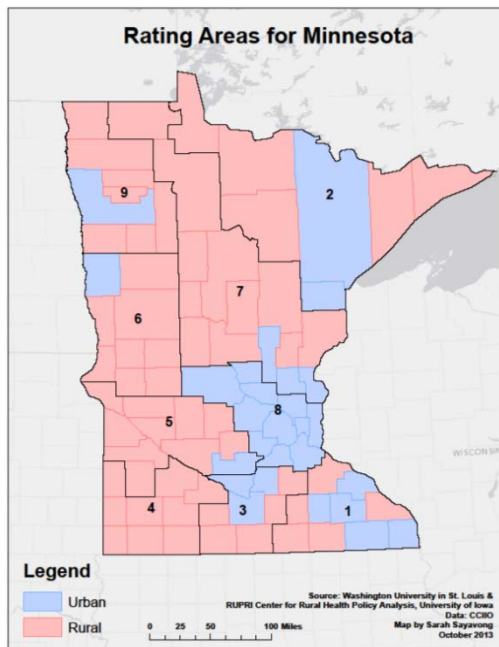
- So how do we compare apples to apples?
 - Control for:
 - “Metal level” of plan
 - “Actuarial value” of premiums and other costs of plans
 - Rating area plan is offered in (n=501 rating areas across U.S.)
 - Cost of living by rating area to control for price differences
 - After adjusting for all this, premium variation that remains should
 - disappear,
 - reflect differences across plan organizations,
 - Reflect uncontrolled for geographic variation (perhaps reflecting role of geography, rurality, sociodemographics, economics), or
 - Random noise?

More on Adjustment Factors

- Rating Areas (RAs) are the relevant geography for comparing premiums
 - LAW requires state to set up a number of rating areas NOT TO EXCEED the number of MSAs in the state plus one
 - Seven states chose default option
 - Important points:
 - Rating Areas are determined at state level, subject to states' motivations
 - Does setting of these choices affect premiums, competition, choice?
- Metal Levels and Actuarial Value (AV): the expected percentage of costs that will be covered by the plan for the *average* consumer
 - **Bronze** (60% AV); **Silver** (70% AV); **Gold** (80% AV); (90% AV)
 - Firms submit bids with costs that vary around these levels by 4 percentage points (+/- 2%)
 - Source: www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/av-calculator-final.xlsm
 - There is a single underlying "sample" population used regardless of location of the plan or expected population; 2010 claims data provide utilization and cost estimates based upon the parameters of the plan.
 - Key point: if we know metal level, and we know premium, we roughly know expected AV and expected OOP costs and Loss Ratio

Rating Area Decisions

State Rating Area Decisions				
Actively Established at the State Level				ACA Default
One Statewide Rating Area	Regions within State			MSAs + 1
	Groups of Counties	Groups of 3-Digit ZIP Codes	Each County Its Own Rating Area	
DE HI NH NJ RI VT	AZ AK CA CO* GA IL IN IA KS KY LA ME MD MI MN MS MO* MT NV NY NC OH OR PA SD TN UT WA WV WI	AK ID MA NE	CT FL SC	AL NM ND OK TX VA WY



More on Adjustment Factors

- Cost of living across rating areas
 - Premiums may simply reflect overall price differences
 - For example: \$200/mo. premium in Waterloo, IA is more expensive than \$200/month in Newark, NJ, after adjusting for cost of living
 - Why? \$200 could buy more other goods in Waterloo than in Newark.
 - How do we adjust for cost of living?
 - Purchased county-level COLA index
 - Models prices based on various factors and can successfully predict 78% of geographic variation. We adjust premiums with this index.

Other Geographic Effects?

- Even after controlling for all these other factors, what about:
 - Plans setting “Narrow Networks”
 - Evidence there are “narrow” networks in plans offered in the Marketplaces
 - From anecdotal and other evidence that plan organizations have adjusted or varied the “networks” of their plans
 - An effort to control costs?
 - Example: In St. Louis, two plan organizations and one offers the BJC network (Coventry), and the other does not (Anthem)
 - Is there a rural/urban differential here? Unclear
 - Other characteristics of rating area/region
 - For example, health status, economic factors
 - This should not be a factor given how AV was computed.

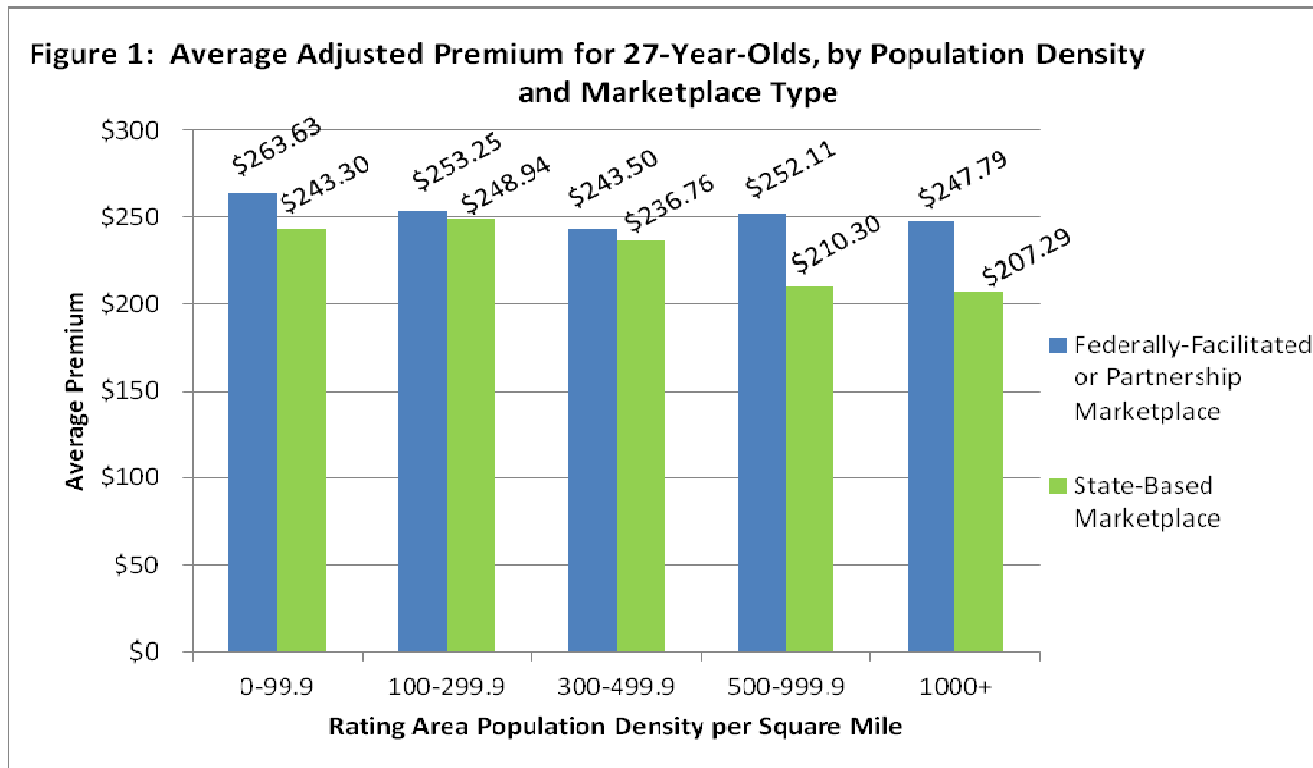
Findings



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Descriptive Findings



- Adjusted premiums in State-Based Marketplaces (SBMs) tend to be lower (\$20 on average) than premiums in Federally-Facilitated and Partnership Marketplaces (FFM/PMs)
 - Average premiums drop slightly as population density increases, but declines more in SBM

Descriptive Statistics

Variable	Definition	Mean	Std.Dev.	Min.	Max.
LogPremium_2ndLowest_SilverPlan	Log 2 nd lowest Silver premium in RA	5.41	0.183	4.8121	6.0125
NumFirms	Number of firms participating at RA level	3.33	2.127	1.0000	14.0000
RA_PopDensity	Population density at RA level	369.48	1229.64	0.564	17180..18
MktType	= 0 for federal-facilitated marketplace; =1 for state-based marketplace	0.21	0.409	0.00	1.0000
ActiveRole	dummy = 0 is acting as clearinghouse; =1 if at actively manage/limit participation	0.13	0.341	0.00	1.0000
FullCommRating	=1 for NY and VT (community rated); 0 otherwise)	0.018	0.133	0.00	1.0000
RAUninsured138%400%	Percent of population between 138-400%FPL uninsured	0.186	0.051	0.0588	0.3833
RAMortality	mortality rate per 1000 population	0.009	0.002	0.0031	0.0166
LogFFScosts	log of Medicare FFS costs	6.53	0.152	5.7405	7.1142
RA_hcprof_density	primary and specialist providers divided by RA land area	2.735	17.200	0.002	277.58
RA_hcspec_density	specialist providers divided by RA land area	0.547	3.475	0	54.291

Multivariate Results

Dependent Variable: Log of Premium for Second Lowest Silver Premium in Rating Area (RA)

Design	Coefficient	P(Coeff=0)
NumFirms	-0.0218**	<.0001
RA_PopDensity	-0.0001**	<.0001
Inter_Firms*PopDensity	0.0000	0.6155
MktType	-0.1221**	<.0001
ActiveRole	0.0762	0.0213
FullCommRating	0.4944**	<.0001
RAUninsured138%400%	-0.1563	0.2858
RAMortality	0.0653	0.9868
RA_hcprof_density	-0.0200	0.1382
RA_hcspec_density	0.1179	0.1074
LogFFScosts	0.0068	0.9054
Intercept	5.4093**	<.0001

Summary Statistics: N=500, R-sq=.298; adj-R-sq=.283; F=18.87 (P<.0001)

Marginal Effects

Variable	Premium, 2 nd Lowest Cost Silver Plan	Change, relative to mean rate
All variables set at mean	\$376.52	
Effect of change in Number of firms:		
Increase in firms by one standard deviation (from 3.3 to 5.4 firms)	\$360.21	-\$16.31
Decrease in firms by one std. dev. (from 3.3 to 1.2 firms)	\$389.42	+\$12.90
Change in population density		
Higher population density: one standard deviation (from mean of 369 to 1589)	\$335.74	-\$40.78
Lower population density: one std. dev. (minimum of 0.564)	\$389.42	+\$12.90
Marketplace type		
State-based marketplace	\$341.71	-\$34.81
Federally-facilitated marketplace	\$386.09	+\$9.57

Conclusions, Policy Implications, Limitations, Future Work



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Premium Analysis: Key Findings

- Average adjusted premiums appear to be higher after controlling for a range of important factors
 - Seem to be higher in low-population density areas
 - And in areas where fewer firms have entered marketplaces
 - Also in federally-facilitated marketplaces (FFMs) as compared to state-based marketplaces (SBMs)
- Work is preliminary, and findings cautious
 - Findings from first year of marketplaces
 - Anecdotes suggest firms based premium bids on little information
 - We have little information so far on other characteristics of plans such as
 - Networks (broad or narrow), enrollment, payment policies
 - 2015 or 2016 data may provide much more sense of marketplace

2014

2015

2016

2017

2018

2019

2020

Policy Implications

- To make proper, careful comparisons of premiums across geographic areas, it is important to:
 - compare similar types of plans to each other (by metal level) and for people at the same age, understand the context of how rating areas were set, adjust for relevant factors
 - Understand that total costs consumers face are not just premiums, but AV is a good proxy
- Preliminary results suggest that high premiums may be an issue for some people
 - In states with Federally-Facilitated Marketplaces
 - In rating areas with lower population density
 - In areas with fewer firms competing
- Congress, federal and state policymakers need to be mindful of these issues as they monitor ACA implementation and assess the fairness and affordability of plans across the U.S.



Future work

- In October 2014, Health Insurance Marketplace (HIM) data on plan availability and premiums for 2015 will be released
- New offerings will presumably have been influenced by actual demographic and claims data on the part of insurance firms
 - We will track and analyze changes compared to the initial availability and premiums; exit and entry into marketplaces
 - Also analyze enrollment data if it becomes available
 - And analyze networks of plans



Questions, Discussion?

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- Questions??



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