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Source: Analysis of data from eHealthInsurance.com.

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THE EFFECT OF STATE REGULATIONS ON HEALTH INSURANCE PREMIUMS: A PRELIMINARY ANALYSIS

MICHAEL J. NEW, PH.D.

The U.S. Census Bureau estimates that 45.8 million Americans (15.7 percent of the total population) lack health insurance.¹ Even though many are uninsured for only part of the time in a given year, the persistently high number of Americans without health insurance continues to inspire an intense debate in policy circles, with both Democrats and Republicans offering ideas about how to provide affordable health care coverage for more Americans.

Indeed, many health policy analysts who cite Census Bureau statistics argue for greater government intervention in health care as a way to cover a larger percentage of Americans. One commonly proposed solution is a “single payer” plan, in which the government would directly pay for or subsidize various health services. Another proposal that continues to receive some attention is “pay or play” plans, in which employers are required either to provide a specified level of health insurance for their employees or to pay a tax that is earmarked for providing coverage for the uninsured.

Often overlooked is the fact that government policy, particularly excessive regulatory intervention, may price many Americans out of coverage and thus contribute to the high numbers of uninsured.

THE CURRENT SYSTEM

Health insurance is heavily regulated at the state level. Some states require insurance plans to cover

certain types of health care providers or provide certain types of health benefits. Other state regulations affect the rating rules for insurance or the ability of insurance plans to exclude people from coverage. Still others limit the ability of insurance companies to select health care providers.

Many of these regulatory initiatives, particularly in the area of health insurance underwriting, are designed to achieve specific policy goals, such as controlling escalating health care costs or expanding the availability of health coverage, particularly for high-risk individuals. Achieving these goals invariably requires trade-offs, but policymakers rarely make these trade-offs explicit. For example, rating rules that enable high-risk, older, or sicker employees to get low-cost health insurance without exclusions for medical conditions can make health insurance affordable for these employees, but at the price of making younger and healthier employees pay higher premiums than they would otherwise obtain in the market. When younger persons do not or cannot participate in the health insurance market, their conspicuous absence increases the pressure on the premiums for those who remain in it.

Of course, the impact varies from state to state depending on the specific regulations. In some states, regulations make it impossible for individuals to purchase a low-cost plan that would provide

1. Carmen DeNavas-Walt, Bernadette D. Proctor, and Cheryl Hill Lee, *Income, Poverty, and Health Insurance Coverage in the United States: 2004*, U.S. Census Bureau, *Current Population Reports: Consumer Income*, P60-229, August 2005, at www.census.gov/prod/2005pubs/p60-229.pdf (October 18, 2005).

only catastrophic coverage. In other cases, the benefit mandates and insurance rules might raise premiums to the point that insurance is prohibitively costly for many people.

The economic impact of state-level health insurance regulations has generally received little analytic attention from both the academy and the broader health policy community. However, a more detailed analysis of this topic might provide insights into how to lower insurance costs and provide better health care coverage for more Americans.

It should be noted that the scope of this study is limited to *individual* health insurance plans. This constitutes only a small subset of the overall health insurance market. In 2000 and 2001, 67.2 percent of the U.S. non-elderly population was enrolled in employer group coverage. Conversely, only 3.6 percent were enrolled in non-group or individual coverage.²

However, even though only a relatively small number of individuals obtain insurance in the non-group market, it should be noted that insurance costs in the individual market can have a large impact on the number of uninsured individuals. The individual market is effectively a residual market, consisting largely of those without access to employer-sponsored insurance. Workers who buy individual health insurance policies, in sharp contrast to workers enrolled in employer-based group insurance, do not enjoy the generous tax breaks that accompany the purchase of employer group plans. Because non-group markets are a market of last resort for so many individuals, the cost of premiums in these markets likely affects whether or not many of these Americans can afford to purchase health insurance for themselves and their families.

Furthermore, emerging economic trends will likely increase the share of the working population without access to employer-sponsored insurance. Beyond those who work in businesses where the employer does not offer health insurance, increasing numbers of individuals are employed as sole proprietors or independent contractors and need to purchase insurance in non-group markets. Ensuring

access to affordable non-group health insurance should therefore be a priority for policymakers.

OTHER REGULATORY STUDIES

Relatively little academic and policy literature examines the impact of state-level health insurance regulations on health insurance premiums. Historically, part of the reason has been the lack of publicly available state data on individual health insurance costs. This is starting to change, and three studies issued during the past year have examined the issue.

In January 2005, Mark Showalter, William Congdon, and Amanda Kowalski published a working paper entitled “State Health Insurance Regulation and the Price of High-Deductible Policies.”³ The authors used two separate datasets in their analysis. Golden Rule insurance provided 2003 insurance premium data from a series of random zip codes in 37 states, and eHealthInsurance.com, a major Internet broker of health insurance, provided premium data from insurance policies sold through its Web site.

The authors focused on four types of regulations: (1) mandated health benefits, which require insurers to cover particular treatments or particular services; (2) “any willing provider” laws, which restrict insurers’ ability to exclude hospitals and doctors from their networks; (3) community rating laws, which require insurers to limit premium differences across individuals; and (4) guaranteed issue laws, which require insurers to sell insurance to all potential customers regardless of health or pre-existing conditions.

The authors found that each of these four types of regulations results in statistically significant increases in health insurance premiums. The findings were consistent across both the eHealthInsurance.com and Golden Rule datasets. The authors estimated that eliminating all of these regulations could save individuals up to \$2,000 per year in insurance premiums.

A second, unpublished study was released by Tracey LaPierre and Chris Conover of the Center for Health Policy, Law and Management in the

2. Center for Studying Health System Change, Community Tracking Survey 2000–2001.

3. William J. Congdon, Amanda Kowalski, and Mark H. Showalter, “State Health Insurance Regulations and the Price of High-Deductible Policies,” January 12, 2005, at fhss.byu.edu/econ/faculty/showalter/insurance-regulations-1%2014%2005.pdf (October 17, 2005).

Terry Sanford Institute of Public Policy at Duke University.⁴ They obtained data on health insurance premiums from the Community Tracking Surveys in 1996–1997, 1998–1999, and 2000–2001 and used the data to examine a wider range of health insurance regulations.

Overall, the authors found that regulations have a mixed impact on health insurance premiums. However, the authors argue that they are limited by a small sample size. Furthermore, state regulatory policies exhibit little variance across time, and this makes it more difficult to reach definitive conclusions about the causal impact of mandates.

Finally, the Congressional Budget Office (CBO) recently released a study that examines how insurance prices affect health care coverage in the non-group market.⁵ The CBO authors did not have direct access to state premium data, but they were able to impute premiums by examining the strength of various state community rating regulations.

Community rating laws limit the extent to which insurers can charge different prices to individuals with varying medical conditions. Community rating laws are commonly thought to increase premiums because they require insurance companies to charge healthy and unhealthy people relatively similar premiums. Since low premiums will not generate enough revenue to cover higher-risk individuals, premiums eventually increase, and the cost of insurance goes up for both healthy and unhealthy individuals in the non-group market.

In the CBO study, the authors found that, after holding a variety of other factors constant, more individuals choose to forgo coverage in states with

strict community rating laws. This finding achieves statistical significance.⁶ Overall, this analysis provides solid evidence that community rating laws increase the cost of health insurance.

PROBLEMS WITH THE ACADEMIC AND POLICY LITERATURE

All three studies provide some evidence that state-level health insurance regulations increase insurance premiums. However, these studies could all be improved in some ways.

First, it is not clear that the policies examined by these studies are comparable across states. The Showalter and LaPierre studies hold constant deductibles, coinsurance rates, and costs for physician visits. However, policies that possess identical deductibles, coinsurance, and coverage for physician visits often have different prices because they offer different types of coverage. The best way to examine the impact of insurance regulation would be to compare the premiums of identical insurance policies in different states. However, that was not done in any of these studies.

Second, the studies did not examine some potentially relevant regulatory policies. There is a considerable amount of anecdotal evidence about the impact of community rating and guaranteed issue rules.⁷ However, relatively little research has analyzed the impact of laws that allow health plan subscribers to go directly to a specialist without a prior referral, liability laws, or laws that interfere with a health plan's ability to contract selectively with providers. These kinds of regulations would likely increase the costs of providing insurance; however, they are largely unexamined in the policy literature.

4. Tracy LaPierre and Chris Conover, "Estimating the Impact of State Health Mandates on Premium Costs Using the Community Tracking Survey," working paper, May 2005.
5. Congressional Budget Office, "The Price Sensitivity of Demand for Nongroup Health Insurance," *Background Paper*, August 2005, at www.cbo.gov/ftpdocs/66xx/doc6620/08-24-HealthInsurance.pdf (October 13, 2005).
6. *Ibid.*, p. 12.
7. Data from the State of New Jersey indicate that when New Jersey adopted guaranteed issue in 1993, premiums for a family policy with a \$500 deductible and a 20 percent copayment increased anywhere from 500 percent to 700 percent. Premiums also increased in New York, New Hampshire, and Kentucky when these states adopted guaranteed issue laws. Victoria Craig Bunce, "What Were These States Thinking? The Pitfalls of Guaranteed Issue," Council for Affordable Health Insurance *Issues & Answers* No. 104, May 2002, at www.cagionline.org/cahidoc.pdf (October 17, 2005). Finally, eHealthInsurance.com periodically releases state data on average premiums on policies sold through its Web site. In October 2004, March 2003, and September 2003, the highest average premiums were in New York and New Jersey, the only two states included in the dataset that have both guaranteed issue laws and strict community rating laws.

METHODOLOGY

In this paper, I address both of these shortcomings. I look at the costs of identical health insurance plans across a number of states and analyze a wider range of insurance regulations. This should provide better and more accurate insights into how state-level regulations affect the price of insurance policies.

To conduct this study, I obtained data on health insurance premiums through the eHealthInsurance.com Web site, including nine plans offered by Celtic, six plans offered by Golden Rule, and seven plans offered by Fortis.⁸ These plans exhibited significant variance in terms of deductible, coinsurance, and coverage of doctors visits. This allowed me to obtain data on health insurance premiums from over 37 states. (For a list of the 22 health insurance plans, see Appendix A; for a list of states in which the three insurance providers sell insurance, see Appendix B.)

Health insurance markets are regulated in a number of ways. However, I focus on four sets of regulations⁹ that affect health insurance premiums:

1. **Mandated benefits** regulations require insurers to cover particular treatments. Both service and provider mandates are included in this variable. Service mandates require insurers to offer coverage for particular medical conditions. Provider mandates require insurers to offer coverage for specific health care providers like chiropractors.
2. **Health plan liability** laws create a cause of action against health plans and their employers for damages for harm done to enrollees under assorted liability theories.
3. **Direct-access-to-specialists** laws allow subscribers to go directly to a specialist without

8. The premium data were collected for a 30-year-old male who does not smoke and is not a student. The insurance policy would have been purchased sometime in August 2005, and coverage would have begun on September 1, 2005.
9. Considerable anecdotal data indicate that guaranteed issue rules and community rating laws increase health insurance premiums. However, neither regulation is considered in this study because Celtic, Fortis, and Golden Rule do not sell insurance in states that have guaranteed issue laws or strict community rating.
10. Data on state-level regulations were obtained from Blue Cross Blue Shield, "State Legislative Health Care and Insurance Issues," December 2004. For a listing of the states that have these various regulations, see Appendix C.

	Yes	No	Difference
Health Plan Liability	\$177.64	\$134.40	43.24***
Direct Access to Specialists	\$148.79	\$120.29	28.50***
Provider Due Process	\$157.06	\$139.56	17.50**
More Than 26 Mandated Benefits	\$158.46	\$134.88	23.58***

* Significant at the 10 percent level.
 ** Significant at the 5 percent level.
 *** Significant at the 1 percent level.

Note: The analysis is based on premium data for a 30-year-old male who is not a full-time student and has not used tobacco in the last 12 months.

Source: Analysis of data from eHealthInsurance.com.

prior referral from the health care plan primary physician.

4. **Provider due process** laws interfere with a health plan's ability to contract selectively with a provider.¹⁰

To begin this analysis, I compared the average health insurance premiums in states that have these types of regulations to the average premiums in states without such regulations. Since the average state has 26 mandated benefits, I also compared health premiums in states with more than 26 mandated benefits to insurance premiums in states with 26 or fewer mandated benefits. The results are shown Table 1.

Table 1 shows that premiums tend to be higher in states that regulate more heavily. On average, states with health plan liability laws, direct-access-to-specialist laws, and provider due process mandates have higher health insurance premiums than states without these regulations. Furthermore, states with more than 26 mandated benefits have higher premiums than states with 26 or fewer benefits. All of these findings easily achieve conventional standards of statistical significance.

Table 2		CDA 05-07			
The Impact of State Health Insurance Regulations on Insurance Premiums					
	Model 1	Model 2	Model 3	Model 4	
Insurance Company	Celtic	Golden Rule	Fortis	All plans	
Health Plan Liability	20.84*** (4.36)	43.78*** (7.23)	0.45 (10.08)	26.72*** (3.87)	
Direct Access to Specialists	36.08*** (4.79)	24.09*** (7.55)	52.18*** (10.88)	33.10*** (4.27)	
Provider Due Process	16.77*** (4.55)	20.06*** (6.01)	40.94*** (8.32)	22.49*** (3.62)	
Mandated Benefits	0.41 (0.27)	0.11 (0.31)	2.90*** (0.50)	0.89*** (0.21)	
Number of Cases	201	121	114	436	
Number of States	28	21	17	37	
R Squared	0.819	0.802	0.706	0.807	
<p>* Significant at the 10 percent level. ** Significant at the 5 percent level. *** Significant at the 1 percent level.</p> <p>Note: Standard errors are in parentheses. The analysis used fixed effects with insurance policy indicator variables, using data for September 2005. The analysis is based on premium data for a 30-year-old male who is not a full-time student and has not used tobacco in the last 12 months..</p> <p>Source: Analysis of data from <i>eHealthInsurance.com</i>.</p>					

This analysis can be furthered through regression analysis, which allows us to isolate the effects of each individual type of regulation by “holding constant” other factors. Four sets of regressions were run. Separate regressions were run on premium data obtained from Celtic, Golden Rule, and Fortis. The fourth regression was run on a combined dataset that included premium data from all three insurance companies. In each regression, indicator variables were included to hold constant the price differences among the different types of plans. The results are shown in Table 2.

DISCUSSION

Overall, these results provide solid evidence that the state-level regulations of health insurance are correlated with higher premiums. The regression

model estimates that the presence of health plan liability laws increases monthly premiums by \$26.72. Laws that give subscribers direct access to specialists increase monthly premiums by \$33.10. Provider due process laws increase premiums by \$22.49. Finally, each additional mandated benefit increases monthly premiums by \$0.89. All of these findings easily achieved statistical significance.

The three separate regressions run on premium data exclusively obtained from Celtic, Golden Rule, and Fortis indicate that these findings are robust. The coefficients for variables indicating the presence of direct-access-to-specialist laws and provider due process laws are positive and statistically significant in all three regressions. The coefficients for the variables indicating the presence of health

plan liability laws are positive in all three regressions and statistically significant in two. Finally, the mandated benefits coefficients are positive in all three regressions, reaching statistical significance in one regression and approaching statistical significance in a second.

FUTURE RESEARCH

One limitation of this research is that some of the variation in health insurance premiums could be due to regional differences in the underlying cost of health care, which could be caused by prevailing wages and professional fees, the volume of medical services, or medical practice patterns. However, it should be noted that premiums in high-cost states are routinely 50 percent to 100 percent higher than premiums in low-cost states, and it is extremely unlikely that regional cost differences could account completely for such disparities. Nonetheless, this is something that should be considered in more detail in future research.

Another limitation of this study is that none of the three companies studied offers health insurance in states with guaranteed issue laws or states with strict community rating. Therefore, this study provides no hard data on how these particular regulations affect these insurance prices. However, the

CBO study provides evidence that community rating laws result in higher premiums. Furthermore, considerable anecdotal evidence indicates that both guaranteed issue laws and strict community rating laws substantially increase the cost of insurance. In addition, the fact that none of the three companies studied offers policies in states with these laws underscores the difficulty of providing individual health insurance policies in these states.¹¹

Time series, cross-sectional data on both premiums and regulatory policies would add considerable leverage to this analysis. Time series data would enable researchers to determine with greater confidence how changes in state regulatory policy affect the cost of insurance. However, this study analyzed premium and regulatory data only from a single period because time series data proved difficult to acquire. Nonetheless, this research still contributes to the policy and academic literature that indicates that state-level health insurance regulations are correlated with higher prices for purchasers of health insurance.

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11. In September 2004, six states had guaranteed issue laws: New York, New Jersey, Massachusetts, Maine, New Hampshire, and Vermont. Fortis, Celtic, and Golden Rule did not offer policies in any of these states, and eHealthInsurance.com sold insurance in only two of these states (New York and New Jersey).

Appendix A		CDA 05-07	
Insurance Plans Analyzed			
Company	Deductible	Coinsurance	Doctors Visits
1. Celtic	\$5,000	0%	\$10
2. Celtic	\$2,500	0%	\$25
3. Celtic	\$2,500	0%	\$10
4. Celtic	\$1,000	20%	\$25
5. Celtic	\$1,000	20%	\$10
6. Celtic	\$1,000	0%	\$25
7. Celtic	\$1,000	0%	\$10
8. Celtic	\$250	20%	\$25
9. Celtic	\$250	20%	\$10
10. Golden Rule	\$5,000	20%	NC
11. Golden Rule	\$2,500	20%	NC
12. Golden Rule	\$5,000	0%	NC
13. Golden Rule	\$1,000	20%	NC
14. Golden Rule	\$750	20%	\$35
15. Golden Rule	\$500	20%	\$25
16. Fortis	\$2600	20%	\$20
17. Fortis	\$2000	50%	\$50
18. Fortis	\$2100	0%	\$0
19. Fortis	\$1,000	50%	\$50
20. Fortis	\$1,000	20%	\$20
21. Fortis	\$1,000	50%	\$25
22. Fortis	\$1,000	20%	\$25

Source: Health insurance quotes from *eHealthInsurance.com*.

Appendix B		CDA 05-07	
States Where Three Insurance Plans Are Sold			
State	Celtic	Golden Rule	Fortis
Alabama	Yes	Yes	Yes
Alaska	Yes	No	No
Arizona	Yes	Yes	Yes
Arkansas	Yes	Yes	No
California	No	No	Yes
Colorado	Yes	Yes	No
Connecticut	Yes	Yes	No
Delaware	Yes	Yes	No
District of Columbia	Yes	No	Yes
Florida	Yes	No	Yes
Georgia	Yes	No	Yes
Hawaii	No	No	No
Idaho	No	No	Yes
Illinois	Yes	Yes	Yes
Indiana	No	Yes	No
Iowa	Yes	Yes	No
Kansas	Yes	No	No
Kentucky	No	No	No
Louisiana	Yes	No	Yes
Maine	No	No	No
Maryland	No	Yes	No
Massachusetts	No	No	No
Michigan	Yes	Yes	Yes
Minnesota	No	No	No
Mississippi	Yes	Yes	No
Missouri	Yes	Yes	No
Montana	Yes	No	Yes
Nebraska	Yes	Yes	No
Nevada	No	No	No
New Hampshire	No	No	No
New Jersey	No	No	No
New Mexico	Yes	No	No
New York	No	No	No
North Carolina	Yes	No	Yes
North Dakota	No	No	Yes
Ohio	Yes	No	Yes
Oklahoma	Yes	Yes	No
Oregon	No	No	No
Pennsylvania	No	Yes	Yes
Rhode Island	No	No	No
South Carolina	Yes	Yes	No
South Dakota	Yes	No	No
Tennessee	Yes	Yes	No
Texas	Yes	Yes	Yes
Utah	No	No	No
Vermont	No	No	No
Virginia	No	Yes	No
Washington	No	No	No
West Virginia	No	No	No
Wisconsin	Yes	Yes	No
Wyoming	No	No	Yes
Total States	28	21	17

Source: Data from eHealthInsurance.com.

Appendix C		CDA 05-07		
State Level Regulations of Health Insurance				
State	Number of Mandates	Health Plan Liability	Direct Access to Specialists	Provider Due Process
Alabama	15	No	Yes	No
Alaska	25	No	Yes	No
Arizona	18	Yes	Yes	No
Arkansas	26	No	Yes	No
California	40	Yes	Yes	Yes
Colorado	31	No	Yes	No
Connecticut	38	No	Yes	No
Delaware	20	No	Yes	Yes
District of Columbia	12	No	Yes	No
Florida	38	No	Yes	No
Georgia	28	Yes	Yes	Yes
Hawaii	18	No	No	No
Idaho	6	No	Yes	Yes
Illinois	27	No	Yes	No
Indiana	24	No	Yes	Yes
Iowa	14	No	No	No
Kansas	25	No	Yes	No
Kentucky	23	No	Yes	No
Louisiana	31	Yes	Yes	No
Maine	34	Yes	Yes	Yes
Maryland	46	No	Yes	Yes
Massachusetts	33	No	Yes	No
Michigan	19	No	Yes	No
Minnesota	34	No	Yes	No
Mississippi	19	No	Yes	Yes
Missouri	31	No	Yes	No
Montana	27	No	Yes	No
Nebraska	19	No	No	Yes
Nevada	38	No	Yes	No
New Hampshire	30	No	Yes	Yes
New Jersey	30	Yes	Yes	Yes
New Mexico	29	No	Yes	No
New York	34	No	Yes	No
North Carolina	34	Yes	Yes	No
North Dakota	20	No	No	Yes
Ohio	19	No	No	Yes
Oklahoma	26	Yes	No	No
Oregon	19	Yes	Yes	Yes
Pennsylvania	25	No	Yes	No
Rhode Island	29	No	Yes	No
South Carolina	19	No	Yes	No
South Dakota	26	No	No	No
Tennessee	28	No	Yes	No
Texas	37	Yes	Yes	Yes
Utah	28	No	Yes	No
Vermont	16	No	Yes	No
Virginia	39	No	Yes	No
Washington	28	Yes	Yes	No
West Virginia	28	Yes	Yes	No
Wisconsin	21	No	Yes	No
Wyoming	25	No	No	No
Total States		12	43	15

Source: Blue Cross Blue Shield, "State Legislative Health Care and Insurance Issues," December 2004.

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