Technical Appendix: Rate Banding Analysis

By Evan Saltzman and Christine Eibner

This technical appendix provides an overview of the methods used to estimate the impact of relaxing the ACA's age rating restrictions. In the first section, we provide an overview of the ACA's rating rules. The second section provides a general overview of COMPARE, while the third section focuses on how rate banding is modeled. The fourth section presents a summary of our results.

Overview of Rating Rules

The ACA introduced a large number of reforms to insurer practices in the individual market. Prior to the ACA, insurers could deny individuals coverage or charge higher prices to individuals with pre-existing conditions. Both practices have been banned under the ACA. In addition, the ACA only allows insurers to charge differential premiums on the basis of an enrollee's geographic residence location, family size, smoking status, and age. States have some discretion in defining geographic rating areas, but they are typically based on metropolitan statistical areas (MSAs), three-digit ZIP codes (that is, ZIP code groupings based on the first 3 digits of the ZIP code), or counties. Insurers are permitted to charge smokers up to 50 percent more than nonsmokers, although states are allowed to tighten the differential (e.g., New York does not allow smokers to be charged any more than nonsmokers).

Rating by age is the focus of our analysis. Under the ACA, insurers can charge a 64-year-old up to three times as much as a 21-year-old, a policy known as 3-to-1 rate banding. CMS has suggested a default rating curve that increases at an increasing rate with age, as shown by the red curve in Figure 1 (CMS, 2013). Under the CMS default curve, premiums are health constant for 21- to 24-year-olds, and then gradually increase with age. The rating factor indicates the multiple of the premium for a 21-year-old that is charged for a given age. For instance, a 40-year-old has a rating factor of 1.278, and hence is charged a premium that is 1.278 times the premium for a 21-year-old. A 64-year-old has a rating factor of 3, implying a premium that is three times as much as the premium for a 21-year-old. Individuals under age 21 are charged only 63.5 percent of the premium that a 21-year-old is charged. Hence, if children are included, premiums can vary by a factor of 4.7 across the full age distribution.

The CMS default rating curve was developed by the Center for Consumer Information and Insurance Oversight (CCIIO) Office of the Actuary in consultation with the National Association of Insurance Commissioners (see 78 FR 13405). Prior research has shown that the rating curve is consistent with actual patterns of spending, subject to the constraint that 64 year olds cannot be charged more than 3 times as much as 21 year olds (Blumberg et al., 2013). The ACA allows states to tighten the age rating bands (and propose adjustments to the rating curve to CMS), but states cannot relax the bands. For example, Massachusetts has tightened the rate band to 2 (i.e., a 64-year-old can be charged up to two times as much as a 21-year-old).

In this blog, we consider relaxing the 3-to-1 rate banding to 5-to-1 rate banding, under which a 64-year-old can be charged as much as five times what a 21-year-old is charged.

¹ Available at: https://www.federalregister.gov/articles/2013/02/27/2013-04335/patient-protection-and-affordable-care-act-health-insurance-market-rules-rate-review - h-19

Figure 1: Age Rating Curves

Notes: The 3-to-1 rating curve is based on the curve proposed by CMS, and the 5-to-1 rating curve is derived by the authors, using equation 1 described later in this report.

Overview of the COMPARE Model

We used the COMPARE microsimulation model to estimate how relaxing the rate banding restrictions would affect nonelderly (under age 65) insurance coverage and premiums in the ACA-compliant individual market, which includes plans on the exchange and other ACA-compliant, individual market plans. A complete description of the methods underlying the COMPARE model can be found in Cordova et al. (2013). Briefly, we created a synthetic population of individuals, families, health expenditures, and firms using data from the April 2010 cross-section of the 2008 Survey of Income and Program Participation (SIPP), the 2010 and 2011 Medical Expenditure Panel Survey (MEPS), and the 2010 Kaiser Family Foundation Annual Survey of Employer Benefits. These datasets are linked together using statistical matching on key demographic characteristics, such as self-reported health status and income. We assign each individual in the SIPP a spending amount using the spending of a similar individual from the MEPS; we then augment spending imputations with data on aggregate spending levels from the National Health Expenditures Accounts (NHEA), as well as data on high-cost claims from the Society of Actuaries (SOA). The NHEA adjustment accounts for the fact that the MEPS underestimates total medical spending levels, while the SOA adjustment corrects the underrepresentation of individuals with high spending in the MEPS data.

To model individual and family health insurance enrollment decisions, COMPARE uses a utility maximization approach, in which decision-makers weigh the costs and benefits of available options. The utility-maximization framework accounts for the tax penalty for not purchasing insurance, the value of

health care consumption, premium costs, expected out-of-pocket health care spending, and financial risk associated with out-of-pocket spending. We scale each of these components of utility to dollars and assume that they are additively separable, following Goldman, Buchanan, and Keeler (2000).

Possible health insurance enrollment choices in the model may include employer coverage, Medicaid or the Children's Health Insurance Program (CHIP), an ACA-compliant individual market plan (including plans available on and off the exchanges), non-ACA-compliant individual market plans as allowed under the Obama Administration's extension, or another source of coverage. Individuals can also choose to forgo insurance. Specific modeling strategies for each source of coverage are given below:

1) Employer Coverage

Employer plans are distinguished for small firms, which are permitted to purchase a plan in the Small Business Health Options Program (SHOP) exchange, and large firms, which do not have access to SHOP. Initially, the ACA only allows firms with fewer than 50 employees to access SHOP, but the cap rises to 100 employees in 2016. Starting in 2017, states can also allow firms with more than 100 employees to access SHOP. In COMPARE, we assume that no states will take such a step because it would tend to attract large firms with poor risk profiles, likely increasing premiums in the SHOP exchange. Small firms are permitted to purchase a bronze, silver, gold, or platinum plan on the SHOP exchange, where a firm's employees are pooled with the employees of other small firms to spread risk. In addition, small firms that retain grandfather status can offer a traditional employer plan. We assume that a certain percentage of small firms will lose grandfather status each year; model output is not sensitive to the assumed percentage. We allow large firms to choose between four different plans, with 60 percent, 70 percent, 80 percent, or 90 percent actuarial value, which are distinguished by plan generosity and rated by experience. Although some firms are able to offer plans with actuarial values below 60 percent, less than one-half of one percent of employer plans have an actuarial value below 60 percent, and hence we don't expect this omission to have a measurable impact on our results (Gabel et al., 2012). Not all individuals will have access to employer coverage, depending on firm offering decisions, employment, and family circumstances (such as the presence of a spouse's employer plan). The firm's decision to offer insurance is modeled using structural econometric techniques; more details are provided in the appendix of Eibner et al. (2011).

2) Medicaid

COMPARE uses data from the Kaiser Family Foundation to determine pre-ACA Medicaid eligibility income levels by state and eligibility group. Under the ACA, Medicaid eligibility is expanded according to which states have participated in Medicaid expansion as of June 22, 2015 (Kaiser Family Foundation, 2015). In states that did not expand Medicaid, individuals who would have qualified for Medicaid expansion and have income above the federal poverty line can obtain tax credits on the exchange. However, those with incomes below the federal poverty line are ineligible for tax credits.

² Other sources of coverage include Medicare for the nonelderly with qualifying conditions and military-related sources of coverage such as TRICARE.

3) Individual Market

The individual market consists of three components: 1) the insurance exchanges where individuals can receive tax credits, 2) off-exchange plans that comply with the ACA's requirements, and 3) off-exchange plans that do not comply with the ACA's requirements and can be offered until Oct. 1, 2016 under the transitional fix. We assume that enrollment in grandfathered plans that were offered before March 23, 2010 and have not made substantial changes to their cost-sharing requirements or benefit structure in the intervening years, falls to zero by 2017. Because the ACA requires all plans in the individual market (except non-ACAcompliant plans that have been continued under the administration's extension) to be rated together, we model on- and off-exchange plans that are ACA-compliant as a single risk pool. Hence, we do not distinguish between enrollment in on-exchange plans and in off-exchange plans that comply with the ACA. In the ACA-compliant individual market, agents in the model can purchase a bronze, silver, gold, or platinum plan. We do not model catastrophic plans, which are available only to those who are under 30 or who qualify for a hardship exemption from the individual mandate. According to a 2015 fact sheet published by the Centers for Medicare and Medicaid Services (CMS), less than 1 percent of all marketplace enrollees have selected catastrophic coverage (Centers for Medicare & Medicaid Services, 2015).

ACA-compliant market premiums are calculated endogenously in the model based on the health expenditure profile of those who choose to enroll. We also account for the ACA's risk adjustment requirements, which transfer funds from plans with lower than average actuarial risk to plans with higher than average actuarial risk. We find that COMPARE, which uses average enrollee spending to compute premiums, slightly overestimates premiums found in the marketplaces. Several factors that may also influence premiums, but cannot be modeled, include cross subsidization between an insurer's plans, the breadth or narrowness of plans' provider networks, competitive market forces between insurers, and imprecise insurer forecasting. When reporting premiums, we adjust the COMPARE premiums by a common ratio after the model is run to be in line with actual premiums in the marketplaces.

The premium contribution that an enrollee pays is adjusted to account for tax credits, available to qualifying individuals with incomes between 100 and 400 percent of the federal poverty level (FPL). We apply the ACA's subsidy formula using the benchmark silver premium and the individual's income. Eligible individuals who have income between 100 and 250 percent of the federal poverty line can also receive cost sharing subsidies (CSRs) that help to lower out-of-pocket spending. As required in the ACA, individuals receiving CSRs in COMPARE must purchase a silver plan (70 percent actuarial value), and out-of-pocket spending is reduced to what it would be under a 94 percent, 87 percent, or 73 percent actuarial value plan if the individual's income is between 100 and 150 percent, 150 and 200 percent, or 200 and 250 percent of FPL, respectively. Note that out-of-pocket spending enters the individual's utility function, and hence individuals receiving CSRs are more likely to purchase coverage.

To forecast enrollment and premiums under the ACA, we calibrate COMPARE to approximate the pre-ACA health insurance market that existed in 2010 as a basis for estimating the impact of reforms under the ACA. Calibration is a process by which we adjust the algorithms in the model so that estimates of the pre-ACA insurance market match health insurance enrollment data collected before the provisions of

the law took effect. We calibrate the model to reflect enrollment data by insurance type, age group, income group, and self-reported health status from the SIPP, with additional adjustment to account for pre-ACA individual market enrollment targets reported to healthcare.gov. We simulate coverage denial rates based on market survey data from America's Health Insurance Plans. In addition, we calibrate the model to match average premiums observed in the pre-ACA individual market, according to data from the Kaiser Family Foundation.

A key feature of the model is that premiums in the ACA-compliant market are calculated dynamically. As noted above, premiums in the model are computed endogenously using the imputed expenditure of modeled enrollees. Individuals sort into health insurance plans by choosing their preferred option. Next, premiums are recalculated based on the profile of the enrolled pool. If premiums are too high, some enrollees will opt to drop an insurance option, while if premiums are low, additional individuals may enroll. This iterative process continues until an equilibrium is achieved in which premiums and enrollment decisions are sufficiently stable between model iterations. The model can detect a "death spiral" if enrollment approaches zero while premiums rise to a very large number. A "death spiral" is an extreme manifestation of adverse selection, in which younger and healthier enrollees may respond to high premiums by dropping out of the risk pool, leaving older and sicker enrollees who have higher medical spending in the pool.

The model has several important limitations. First, COMPARE is a partial equilibrium model that does not consider the impacts of health reform on the broader economy. For example, we do not account for changes in employment that might occur due to the law, such as individuals retiring early or becoming self-employed because they now have the opportunity to get subsidized health insurance on the exchanges. In addition, there is no single data source that links individuals, firms, and health spending. As a result, we need to impute information from several data sources to generate a synthetic population of the United States. These imputations could cause error; for example, we may not fully capture correlations in health spending among workers at a given firm. Finally, to validate the model, we ensure that the model accurately predicts outcomes under pre-ACA policy. But, because we have limited data on post-ACA outcomes, we have few opportunities to ensure that the model accurately predicts outcomes in the post-ACA policy environment.

Modeling Rate Banding

As discussed above, the total premium in the individual market is based on enrollee age, smoking status, and the market rating reforms implemented under the ACA. We first compute the average spending level in the risk pool and apply an administrative loading factor to obtain the average enrollee premium. In the baseline ACA scenario, we use the weights of the enrolled population and the rating factors on the red curve of Figure 1 to calculate premiums by age to model 3-to-1 rate banding. The final premium schedule satisfies two conditions: 1) 3-to-1 rate banding and 2) the linear combination of the population weights and the premium schedule equals the average enrollee premium.

In the alternative scenario, we relax the rate banding to 5-to-1 as depicted by the green curve in Figure 1. The rating factors from the default ACA rating curve are scaled using the following formula:

Eqn. 1: 5 to 1 rating factor =
$$(2 \times (3:1 \text{ rating factor})) - 1$$

Hence, for a 40-year-old, the rating factor increases from 1.278 to 1.556 under 5-to-1 rate banding. For a 64-year-old the rating factor increases to 5 from 3. We continue to assume that children and young

adults under the age of 21 will be charged 63.5 percent of the premium charged to a 21-year-old under 5-to-1 rate banding. The formula in equation 1 is designed to preserve the general shape of CMS' standard default rating curve, while steepening the gradient so that a 64 year old is now charged 5 times as much as a 21 year old.

Results

Figure 2 shows how the silver premium changes for enrollees in different age groups when we relax the rate band to 5-to-1. For an adult who is approximately 46 years of age, premiums under 3-to-1 and 5-to-1 rate banding are the same. Individuals over age 46 will pay higher premiums than under 3-to-1 rate banding, while individuals under age 46 will benefit from lower premiums. In some cases, the changes in premiums are particularly dramatic. For instance, a 64-year-old would see an increase of nearly \$2,100 under 5-to-1 rate banding. Such an increase could be financially onerous if the individual does not receive subsidies, which cap individuals' premium spending as a percent of income. For individuals who do receive subsidies, the federal government would likely finance much of the increased premium. Conversely, a 21-year-old individual would face a premium that is approximately \$700 lower under 5-to-1 rate banding. If lower premiums for younger individuals encourage more "young invincibles" to enroll, then the risk profile of the exchanges may improve. Our model takes these improvements in the risk pool into account, and we estimate that the average premium in the market falls by a factor of 9.5 percent. However, as demonstrated in Figure 2, the premium reductions are not equally distributed across the population, and older individuals face higher premiums than they would under 3-to-1 rate banding.

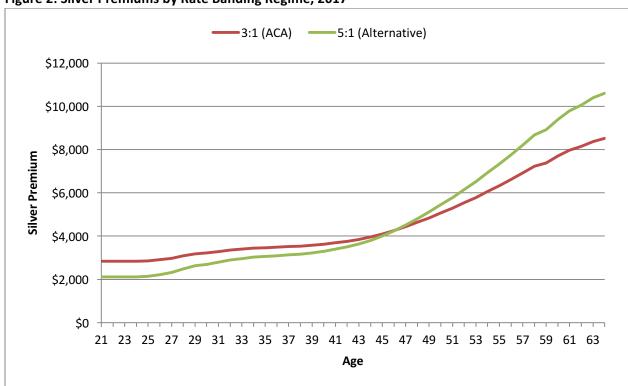


Figure 2: Silver Premiums by Rate Banding Regime, 2017

Notes: Analysis is based on output from the COMPARE microsimulation model.

Because 5-to-1 rate banding causes shifts in premiums, we observe a response in consumer decision-making, as shown in Table 1. Relaxing the rating bands increases coverage by just under 2 million people. However, enrollment impacts vary by age. While 2.2 million individuals under the age of 50 become insured, about 400,000 individuals between the ages of 50 and 64 lose insurance. Hence, relaxing the rate banding would have an adverse effect on older individuals. In addition, Table 1 shows that shifts in coverage occur almost entirely in the unsubsidized population.

Table 1: Coverage Impacts of Relaxing Rating Bands, 2017

	3-to-1	5-to-1	Change
Overall Coverage			
Total insured	250.1	251.9	1.8
Employer-Sponsored Insurance	155.1	153.6	-1.4
Individual	25.1	28.4	3.3
Medicaid	57.8	57.7	-0.1
Other	12.1	12.1	0.0
Uninsured	28.0	26.2	-1.8
Subsidy Eligibility of Individual Market Enrollees			
Eligible	16.2	16.3	0.1
Ineligible	8.7	11.9	3.2
Age Distribution of the Uninsured			
0-17	3.8	3.2	-0.6
18-34	13.1	11.7	-1.4
35-46	5.5	5.3	-0.2
47-64	5.6	6.0	0.4
Premiums			
Enrollee Weighted Average Silver Premium	\$4,340	\$3,920	-\$420
Silver Premium, 21-year-old	\$2,840	\$2,120	-\$720
Silver Premium, 27-year-old	\$2,970	\$2,320	-\$650
Silver Premium, 40-year-old	\$3,630	\$3,300	-\$330
Silver Premium, 64-year-old	\$8,510	\$10,600	\$2,090

Notes: Table reflects COMPARE model output for 2017.

Table 1 suggests that a net 1.4 million people drop employer sponsored insurance (ESI) when the rate bands are relaxed; in general these individuals move to individual market coverage. People who switch from employer insurance to individual market coverage have higher employer premiums than average, and about 75 percent of switchers are under age 20. In most cases, the switch occurs because—by moving a child or children to the individual market—the family can save money. Children's premiums in the individual market are pegged at 63.5 percent of the premium for a 21 year old. When the rate-band is relaxed, this causes a decline in premiums for 21 year olds, which then causes children's premiums to fall as well. For some families, moving a child to the individual market can save money both because employer-sponsored family plans are more expensive than employer-sponsored single plans, and because employers typically require workers to contribute a greater percentage of the premium for

family versus single coverage. Importantly, children in the model will not switch to the individual market based solely on cost calculations. The model accounts for the fact that people tend to prefer employer-coverage to individual market coverage, even if individual market coverage is cheaper. However, despite these preferences, we estimate that some families, generally those with particularly expensive employer coverage, will view the switch to the individual market as beneficial. It's possible that some families would have benefited from shifting children to the individual market even under 3-to-1 rate banding, and the model allows for this possibility. However, at the margin, moving from 3-to-1 to 5-to-1 rate banding lowers premiums for children, and thus strengthens the incentive to move children to the individual market. A limitation of our approach is that we do not account for hassle and paperwork costs that might make it less likely for families to enroll children and parents in separate plans.

Table 1 also implies a slight decrease in Medicaid enrollment when the rate band is relaxed. This is because the model incorporates a "disutility" parameter that accounts for potential stigma and hassle costs associated with Medicaid enrollment. As a result, a small number of Medicaid-eligible individuals switch from Medicaid to individual market plans when individual market premiums fall. However, the predicted reduction in Medicaid enrollment is extremely small and may not be robust to minor changes in modeling assumptions.

Table 1 focuses on net changes in insurance coverage, so it cannot be used to fully understand how changes in the rate-banding rules affect coverage choices. In Tables 2a and 2b, we report coverage transitions for those under age 47 and those ages 47 and above.

Table 2a: Coverage Transitions, 3-to-1 versus 5-to-1 Rate Banding, Individuals under Age 47

		5:1 Rate Banding				
		ESI	Individual	Medicaid	Other	Uninsured
8	ESI	105.9	1.9	0.3	0.0	0.2
Banding	Individual	0.3	15.2	0.0	0.0	0.2
	Medicaid	0.2	0.2	50.6	0.0	0.0
3:1 Rate	Other	0.0	0.0	0.0	4.8	0.0
33.	Uninsured	0.3	2.3	0.0	0.0	19.8

Notes: Table reflects COMPARE model output for 2017.

³ For example, imagine an employer that offers a single plan with a \$6,000 total premium and a family plan with a \$16,200 total premium. Suppose the employer requires workers to contribute 20 percent of the single premium amount, and 30 percent of the family premium amount. For a single-parent family with two children, the cost for a family plan would be \$4,860 (=\$16,200*0.30), while the cost for employee-only coverage would be \$1,200 (=\$6,000*0.20). Under the 5-to-1 rating curve, the silver premium for a child under age 20 is \$1,346, so if the family purchased employee-only coverage and a silver plan for each child, total costs would be \$3,892, which is lower than the cost of the employer-sponsored family plan. Because the model factors in actuarial value and intrinsic preferences for employer coverage versus individual market coverage, decisions will not be driven solely by these cost outcomes. But, the example shows that, for some families, switching children to the individual market could be advantageous.

Table 2b: Coverage Transitions, 3-to-1 versus 5-to-1 Rate Banding, Individuals Age 47 and Over

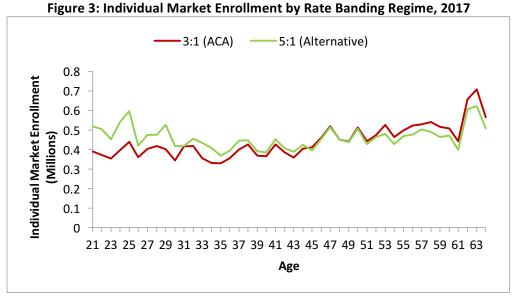
		5:1 Rate Banding				
		ESI	Individual	Medicaid	Other	Uninsured
<u>8</u>	ESI	46.7	0.0	0.0	0.0	0.1
Banding	Individual	0.2	8.7	0.0	0.0	0.5
te Ba	Medicaid	0.0	0.0	6.8	0.0	0.0
3:1 Rate	Other	0.0	0.0	0.0	7.3	0.0
ά	Uninsured	0.1	0.1	0.0	0.0	5.5

Notes: Table reflects COMPARE model output for 2017.

Table 2a shows that moving from 3-to-1 to 5-to-1 rate banding causes a gross 4.4 million individuals under the age of 47 to transition into the individual market. However, almost 50 percent of these individuals transition from employer coverage or Medicaid. Simultaneously, 500,000 individuals ages 47 and over move from individual market coverage to uninsured status due to higher premium on the marketplaces for individuals in this age range (Table 2b). This gross reduction of 500,000 older people with individual market insurance is partially offset by about 100,000 older individuals who gain individual coverage. Those gaining may have become newly eligible for subsidies, for example because their employer dropped coverage in response to the rate banding change. Ultimately, a net 400,000 older individuals lose marketplace coverage.

Figure 3 provides a more systematic look at how individual market enrollment varies under the two rating regimes. As expected, enrollment among younger age groups is higher under 5-to-1 rate banding relative to 3-to-1 rate banding, and enrollment among older age groups is lower under 5-to-1 rate banding. The figure demonstrates that the increase in enrollment among younger age groups is larger in magnitude than the decrease in enrollment among people over the age of 46. This is partly due to the fact that older individuals have less-elastic demand for health insurance, and partly due to the fact that older individuals with incomes between 100 and 400 percent of the federal poverty level (FPL) are more likely to hit the subsidy cap than younger adults.

⁴ A small number of employers may drop coverage in response to the rate banding change if they have a substantial share of younger workers who now face cheaper premiums in the non-group market.



Source: COMPARE model estimates for 2017.

Under the ACA, individuals receiving premium subsidies are relatively insensitive to premium increases because the subsidy is calculated as the difference between the premium for a benchmark plan and the individual's income-based contribution cap. Premiums for the benchmark plan vary with age, and will reflect any changes in premiums caused by relaxing the rate band. Given the formula for calculating the subsidy, the federal government absorbs the entire cost of any premium increase that occurs above the enrollee's contribution cap, up to the price of the benchmark plan. However, when premiums fall, the federal government only reaps savings to the extent that the enrollee hits the contribution cap. With both 3-to-1 and 5-to-1 rate banding, younger enrollees are less likely to hit the contribution cap than older enrollees. As a result, the premium reductions that accrue to younger enrollees when the rate band is relaxed are absorbed mainly by individuals, while the premium increases that accrue to older individuals are financed primarily by the federal government.

Table 3 illustrates these points more precisely. The average subsidy per enrollee declines for individuals under age 50 when the rating band is relaxed, but rises from \$3,530 to \$5,180 for those between the ages of 50 and 64. Total subsidy spending in this older group rises by about \$10 billion, while subsidy spending among younger enrollees declines by only \$1.7 billion. Furthermore, Table 3 indicates that the share of older enrollees receiving a positive subsidy under 5-to-1 rate banding is six percentage points higher than under 3-to-1 rate banding. This outcome is due to more individuals in the older group facing a premium that exceeds their contribution cap under 5-to-1 rate banding.

Table 3: Annual ACA-Compliant Individual Market Enrollment and Subsidy Spending, 2017, Alternative Rate Banding Scenarios

Age Group	Enrollees	% Subsidy Eligible	% w/ Positive Subsidy	Average Subsidy per Enrollee	Total Subsidy Spending (Billions)	
A. 3-to-1 Rate B	anding Scenario					
All under 50	17.0	61%	58%	\$1,130	\$19.1	
0-18	4.0	30%	30%	\$260	\$1.0	
18-34	6.8	70%	66%	\$1,190	\$8.1	
35-49	6.1	72%	69%	\$1,630	\$10.0	
50-64	7.9	74%	73%	\$3,530	\$27.9	
Total	24.9	65%	63%	\$1,890	\$47.1	
B. 5-to-1 Rate B	B. 5-to-1 Rate Banding Scenario					
All under 50	20.9	50%	46%	\$830	\$17.4	
0-18	5.9	21%	19%	\$130	\$0.8	
18-34	8.6	57%	50%	\$750	\$6.5	
35-49	6.4	68%	65%	\$1,590	\$10.1	
50-64	7.3	79%	79%	\$5,180	\$38.0	
Total	28.2	58%	54%	\$1,960	\$55.4	

Notes: Analysis is based on output from the COMPARE microsimulation model. Total enrollment reflects all individuals enrolled in the ACA-compliant market, including people enrolled both on and off the exchanges. As a result, enrollment levels are high and the share of subsidized enrollees is low relative to administrative reports that tally exchange enrollment only. In addition, the table indicates that 3.3 million additional people enroll in the ACA-compliant individual market under 5-to-1 rate banding relative to 3-to-1 rate banding. The increase in individual market enrollment is larger than the total increase in insurance because some people switch from employer coverage to individual market plans when the rate bands are relaxed.

Table 3 indicates that relaxing the rating bands increases federal subsidy spending by a net \$8.3 billion. In addition, the small expansion in coverage caused by this policy leads to about a \$1 billion decrease in individual mandate revenue. Table 4 summarizes the total net budgetary effect of relaxing the rating band.

Table 4: Annual Net Budgetary Impact of Relaxing Rate Bands to 5-to-1, 2017

Budget Outcome	Net Change (Billions)
Spending on Premium Subsidies	\$8.3
Loss of Individual Mandate Revenue	\$1.0
Total Net Change in Spending	\$9.3

Source: COMPARE Model Estimates for 2017

REFERENCES

Bernard D., Selden TM., Pylypchuk YO. Aligning the Medical Expenditure Panel Survey to Aggregate U.S. Benchmarks, 2010. January 2015.

http://meps.ahrq.gov/mepsweb/data files/publications/workingpapers/wp 15002.pdf.

Blumberg L, Buettgens M. "Why the ACA's Limits on Age Rating Will Not Cause 'Rate Shock': Distributional Implications of Limited Age Bands on Nongroup Health Insurance," March, 2013, Urban Institute. As of July 30, 2015: http://www.urban.org/sites/default/files/alfresco/publication-pdfs/412757-Why-the-ACA-s-Limits-on-Age-Rating-Will-Not-Cause-quot-Rate-Shock-quot-Distributional-Implications-of-Limited-Age-Bands-in-Nongroup-Health-Insurance.PDF

Centers for Medicare & Medicaid Services, "Sub-Regulatory Guidance Regarding Age Curves, Geographical Rating Areas, and State Reporting." February 25, 2013. As of July 29, 2015: https://www.cms.gov/CCIIO/Resources/Files/Downloads/market-reforms-guidance-2-25-2013.pdf

Centers for Medicare & Medicaid Services, "Fact Sheet: March 31, 2015 Effectuated Enrollment Snapshot," June 2, 2015, 2015. As of July 1, 2015:

http://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2015-Fact-sheets-items/2015-06-02.html

Cordova, Amado, Federico Girosi, Sarah Nowak, Christine Eibner, Kenneth Finegold, "The COMPARE Microsimulation Model and the US Affordable Care Act," *International Journal of Microsimulation*, 2013, 6(3):78-117.

Eibner, Christine, Federico Girosi, Amalia Miller, Amado Cordova, Elizabeth A. McGlynn, Nicholas M. Pace, Cart C. Price, Raffaele Vardavas, Carole Roan Gresenz. "Employer Self-Insurance Decisions and the Implications of the Patient Protection and Affordable Care Act as Modified by the Health Care and Education Act of 2010 (ACA)." RAND Corporation, 2011. As of July 3, 2015: http://www.rand.org/content/dam/rand/pubs/technical_reports/2011/RAND_TR971.pdf

Gabel, Jon R., Ryan Lore, Roland D. McDevitt, Jeremy D. Pickreign, Heidi Whitmore, Michael Slover and Ethan Levy-Forsythe. "More Than Half Of Individual Health Plans Offer Coverage That Falls Short Of What Can Be Sold Through Exchanges As Of 2014." *Health Affairs*, 31, no.6 (2012):1339-1348

Goldman, Dana P, Joan L Buchanan, Emmett B Keeler, "Simulating the Impact of Medical Savings Accounts on Small Business," *Health Services Research*, 2000, 35(1 Pt 1):53–75.

Internal Revenue Service, Rev. Proc. 2014-46, 2014. As of July 1, 2015: http://www.irs.gov/pub/irs-drop/rp-14-46.pdf

Internal Revenue Service, Rev. Proc. 2015-15, 2015. As of July 1, 2015: http://www.irs.gov/pub/irs-drop/rp-15-15.pdf

Kaiser Family Foundation, Current Status of State Medicaid Expansion Decisions, June 22, 2015. As of July 1, 2015: http://kff.org/health-reform/slide/current-status-of-the-medicaid-expansion-decision/