

MILLIMAN RESEARCH REPORT

Impact of Changing ACA Age Rating Structure

An Analysis of Premiums and Enrollment by Age Band

January 31, 2017

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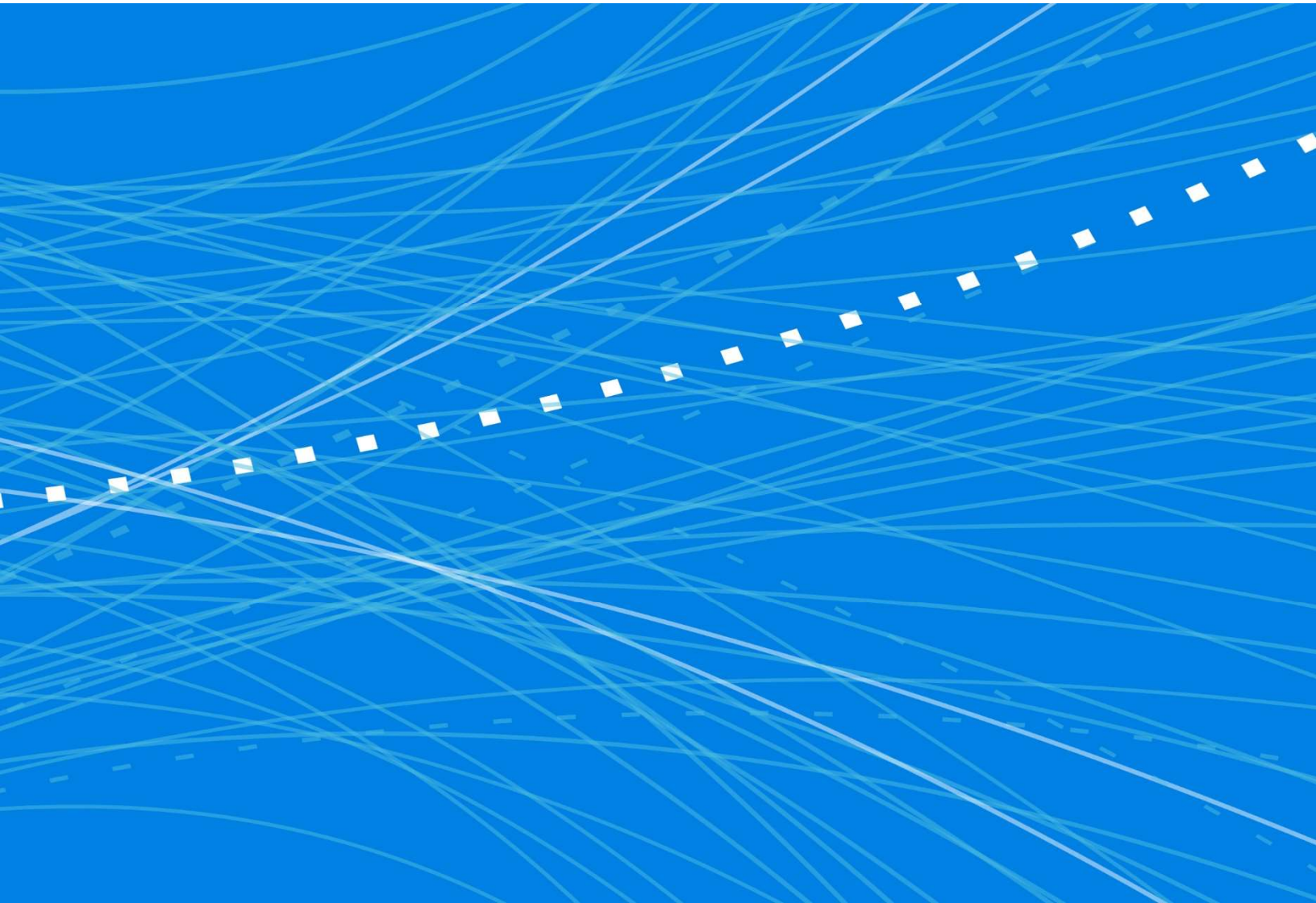




Table of Contents

INTRODUCTION: SCOPE AND PURPOSE	1
KEY RESULTS	2
UNDERSTANDING THE RESULTS	2
DEVELOPING PREMIUMS WITH 3:1 AND 5:1 AGE CURVES.....	2
HCRFM MODELING RESULTS – IMPACT ON PER CAPITA PREMIUM RATES	2
HCRFM MODELING RESULTS – EFFECTS ON ENROLLMENT BY AGE GROUP	3
HCRFM MODELING RESULTS – APTC SUBSIDIES BY AGE UNDER 3:1 AND 5:1 AGE CURVE SCENARIOS..	4
BACKGROUND ON AFFORDABLE CARE ACT AGE RATING RULES	6
PREMIUM RATE DEVELOPMENT BEFORE AND AFTER THE AFFORDABLE CARE ACT	6
ACA AGE RATING IMPACT STUDIES	6
IMPACT OF CHANGE IN AGE RATING CURVE ON PREMIUMS AND ENROLLMENT: MILLIMAN STUDY	10
BACKGROUND ON MILLIMAN HEALTH CARE REFORM FINANCING MODEL (HCRFM)	10
CREATION OF 5:1 RATING CURVE.....	10
DEVELOPING ILLUSTRATIVE PREMIUMS WITH 3:1 AND 5:1 AGE CURVES.....	11
HCRFM MODELING RESULTS – SCENARIO DESCRIPTIONS	12
IMPACT OF CHANGE IN AGE CURVE ON PREMIUMS AND ENROLLMENT	12
HCRFM Modeling Results – Impact On Per Capita Premium Rates	12
HCRFM Modeling Results – Effects on Enrollment by Age Group	13
Impact of Allowing 2017 Transitional Plan Policyholders to Keep Those Policies	14
Impact of Removal of Premium Subsidies	14
DISCUSSION AND POLICY IMPLICATIONS	14
CAVEATS AND LIMITATIONS	16
ACKNOWLEDGMENT OF QUALIFICATION.....	16
APPENDIX	

Introduction: Scope and Purpose

The Affordable Care Act, or “ACA”, was enacted in 2010 and most rating and underwriting provisions were first implemented in 2014, bringing sweeping changes to the way individual health insurance is priced, marketed, and purchased in the United States. Included in this body of legislation, among many other new rules, were requirements for health premium setting in the individual and small group markets. With the aim of increasing market transparencyⁱ and making individual health coverage more accessible and more affordableⁱⁱ, these rating rules limited the factors by which premiums could vary for a given plan. A key facet of these “fair health premium rating requirements” was to limit the ratio of the premium charged for the oldest adult to three times the premium for a 21-year old (3:1). With pre-ACA prevailing age rating ratios at five to one (5:1) or greaterⁱⁱⁱ, the new age rating rule had the impact of compressing total premium ranges, with older people receiving relatively lower rates than previously, while increasing relative premiums for younger enrollees. However, due to the existence of other ACA features such as tax credits (premium subsidies) to reduce the cost of coverage according to household income, some younger people were shielded from the impact of the rate increases resulting from the mandated age rating slope, while others still experienced rate increases even after application of any premium subsidies (although these were caused due to a combination of moving to unisex rating, modifying the age curve, and the elimination of select pricing for healthy people).ⁱⁱⁱ

With the potential for federal policy direction in 2017 to consider repeal and/or replacement of the ACA, it is possible that the three-to-one (3:1) age banding methodology promulgated under the ACA could be relaxed. In fact, as of December 2016, both Speaker of the House Ryan’s “A Better Way” proposal^{iv} and the Patient CARE Act sponsored by Senators Burr, Hatch, and Upton^v include a move to a five-to-one (5:1) age rating structure with state-level ability to modify. In order to provide additional context for this potential change, AARP engaged Milliman to conduct an independent actuarial study of the impact on individual market premiums, before and after the impact of subsidies, and enrollment by age band, under a scenario in which the maximum allowable age rating ratio is altered from three-to-one (3:1) to five-to-one (5:1).

This research paper reviews individual market premium-setting rules prior to and after the advent of the ACA and summarizes existing research on the effect of various age banding restrictions on health insurance premiums and enrollment. We use the Milliman Health Care Reform Financing Model (HCRFM) to analyze the potential impact of moving from a 3:1 to 5:1 age banding structure on the individual marketplace, holding all other assumptions constant. We also compare the 3:1 and 5:1 age banding structures in a scenario in which tax subsidies for purchase of individual policies on state exchanges are discontinued. We then compare our results to prior studies and discuss the implications of the results for policymaking.

It is important to note that this analysis assumes that all other provisions of the ACA remain as is through 2018, including but not limited to such items as the individual mandate to purchase health insurance, Medicaid expansion, and the termination of transitional (i.e., “grand-mothered”) policies. Modeled results may differ significantly if other provisions of the ACA are reformed or eliminated.

Milliman is not advocating any particular policy position, nor is Milliman recommending any particular age banding structure for premium setting purposes.

Key Results

UNDERSTANDING THE RESULTS

The results presented in this paper are illustrative point estimates. In many cases, there is a relatively wide range of possible outcomes. We present our point estimates based on a unique set of numerous underlying interdependent assumptions that we believe are reasonable based upon our research. However, the reader must note that actual results will differ from our estimates. While the projection model was developed to estimate future premiums and enrollment using underlying data points that reflect recent insurer financial data, the 2018 market projections are certain to differ from other published sources or studies. In addition, our model is continually updated as new information becomes available; results from this study will differ from future studies due to model updates. We encourage the reader to focus on the relative outcomes between the 3:1 age curve and the 5:1 age curve more closely than the absolute premiums and enrollment numbers in this report.

DEVELOPING PREMIUMS WITH 3:1 AND 5:1 AGE CURVES

We begin by illustrating in Table 1 below a set of estimated 2018 silver plan premiums marketed on the individual exchange under a presumed 5:1 age curve compared to those under the current ACA 3:1 age curve for a sample of ages. For example, our analysis estimates that 2018 silver plan monthly premiums for a 21-year old would decrease by 25% while those for a 64-year old would increase by 25% prior to any tax credits. Note that these are illustrative premiums *marketed* to each age group (not necessarily the lowest or second lowest exchange rates), and they are estimated prior to the application of any enrollment decisions made by policyholders, as opposed to the average premiums for policies *purchased* by each age group, which would incorporate enrollment decisions and which are shown in Table 2. The premiums in Table 1 below were developed simply by applying the appropriate age factor to the estimated sample 2018 nationwide silver plan index premium rate (i.e. the age 21 rate) for each age group.

TABLE 1: SAMPLE OF CHANGES IN 2018 ILLUSTRATIVE MONTHLY INDIVIDUAL SILVER PLAN PREMIUMS - 3:1 AGE CURVE V. 5:1 AGE CURVE

AGE BAND	PREMIUM (3:1 CURVE)	PREMIUM (5:1 CURVE)	\$ DIFFERENCE	% DIFFERENCE
21	\$348	\$262	-\$86	-25%
30	\$394	\$332	-\$62	-16%
40	\$444	\$407	-\$37	-8%
50	\$621	\$673	\$52	8%
60	\$943	\$1,159	\$216	23%
64 AND OLDER	\$1,043	\$1,308	\$266	25%

The full table of results for all ages is shown in Table A.2 of the Appendix, and a detailed description of the methodology underlying these results is described later in this report.

HCRFM MODELING RESULTS – IMPACT ON PER CAPITA COMPOSITE PREMIUM RATES

We used the HCRFM to model average market-wide premiums of *purchased* policies for *all* metal levels (as opposed to average *marketed silver plan* premiums shown in Table 1) that result from enrollment decisions made under the 5:1 and 3:1 age curve scenarios. The modeled enrollment decisions were based on the estimated 2018 marketed premiums across plans at all metal levels, not just the silver plans summarized in Table 1 above. These results assume that all provisions of the ACA other than the 3:1 age curve remain intact, including advance premium tax credits (APTC) and the movement of people enrolled in transitional policies into the individual market in 2018. The outcomes are compared in Table 2 below:

TABLE 2: 2018 INDIVIDUAL ACA-COMPLIANT MARKET PER CAPITA MONTHLY PREMIUM COMPOSITED OVER ALL METAL PLANS - 3:1 AGE CURVE V. 5:1 AGE CURVE

AGE BAND	PREMIUM (3:1 CURVE)	PREMIUM (5:1 CURVE)	\$ DIFFERENCE	% DIFFERENCE
<20	\$295	\$275	-\$19	-7%
20-29	\$392	\$334	-\$58	-15%
30-39	\$507	\$444	-\$64	-13%
40-49	\$622	\$603	-\$19	-3%
50-59	\$943	\$1,070	\$127	13%
60+	\$1,227	\$1,493	\$266	22%
COMBINED	\$589	\$596	\$7	1%

Table 2 differs from Table 1 in that it represents average 2018 individual market premiums of *all* metal levels, and incorporates enrollment behavior entailing different plan selection patterns across different age bands. These modeled changes include the impact of enrollment or disenrollment decisions as well as individual decisions to purchase a different metallic level of coverage compared to 2017 due to the changes in premium rates. Table 2 presents average results for 10-year age bands over all metal plans, while Table 1 are single age illustrations for a silver plan. We also note that the distribution of enrollees within each metal level varies by age and income level, and the distribution of members within a given age band is not necessarily uniform.

It is notable in Table 2 that, while the rating factors for children under age 20 do not change between the 3:1 and 5:1 adult age slopes, the under-age-20 rates decrease by 7% by moving to a 5:1 age slope basis. This is due to a combination of the change in age curve, the change in distribution of the number and ages of children whose families newly enter or exit the market due to the shift in age curve, and the difference in distribution of plans covering children.

HCRFM MODELING RESULTS – EFFECTS ON ENROLLMENT BY AGE GROUP

Estimated enrollment by age is compared between the 3:1 and 5:1 age curve scenarios in Table 3, with the following results:

TABLE 3: 2018 TOTAL ACA-COMPLIANT INDIVIDUAL MARKET ENROLLMENT (THOUSANDS) - 3:1 AGE CURVE V. 5:1 AGE CURVE
(in thousands)

AGE BAND	ENROLLMENT (3:1 CURVE)	ENROLLMENT (5:1 CURVE)	DIFFERENCE	% DIFFERENCE
<20	3,213	3,302	89	3%
20-29	3,665	3,797	133	4%
30-39	2,588	2,696	107	4%
40-49	2,516	2,573	57	2%
50-59	2,762	2,747	(15)	-1%
60+	1,285	1,281	(3)	0%
COMBINED	16,028	16,395	367	2%

The increase in older adult premiums under the 5:1 age curve creates a reduction in enrollment that is mitigated by the effect of federal subsidies, which act to shield some enrollees from the full impact of premium changes. Additionally, older people generally value the need for health insurance coverage more than younger people and therefore are more willing to persist when faced with higher costs. The increased enrollment from younger adults

under the 5:1 age curve is of much greater magnitude than the decreased older age enrollment, which is driven by the reduced premium rates for young adults under the 5:1 scenario.

These results reflect significant inertia on the part of young people currently uninsured to purchase coverage, as well as reluctance of those covered by employer-sponsored plans to move to the individual market. It is quite possible that greater enrollment increases by currently uninsured young people could result if non-enrollment penalties increase coupled with an effective educational promotion program. The low projected change in enrollment for older adults reflects the high value those currently insured place on retaining such coverage, along with the protective insulation from rate increases that the APTC premium subsidy program provides to many enrollees. Under other reasonable scenarios, changes in and out of the individual market could be markedly different.

HCRFM MODELING RESULTS – APTC SUBSIDIES BY AGE UNDER 3:1 AND 5:1 AGE CURVE SCENARIOS

Assuming APTC subsidies continue to be available, changing from a 3:1 to a 5:1 age rating rule has a significant impact on the subsidy dollars to be paid by the federal government. We illustrate the difference in average per capita annual APTC by age band under 3:1 and 5:1 age rating scenarios in Table 4.

TABLE 4: PERCENT DIFFERENCE IN 2018 INDIVIDUAL MARKET PER CAPITA ANNUAL APTC - 3:1 AGE CURVE V. 5:1 AGE CURVE

AGE BAND	% DIFFERENCE IN APTC
<20	-2.4%
20-29	-12.0%
30-39	-6.8%
40-49	6.5%
50-59	25.0%
60+	33.7%
COMBINED	9.9%

As the premiums for older subsidy-eligible policyholders increase due to the shift to a 5:1 age curve, the federal subsidies also increase and shield those consumers from additional premium cost; the cost of the premium increase is borne by the federal government. Additionally, some older policyholders who were ineligible for APTC subsidies under a 3:1 age rating approach may become eligible for subsidies under 5:1 rating due to increased premiums. It's also important to note that moving to a 5:1 age banding approach increases the differential in financial outlay between subsidized and unsubsidized older individuals; there is a steeper increase in the out of pocket premium between a person with an income of 400% of the federal poverty level (who would qualify for some subsidy) and a subsidy-ineligible person with income at 401% of the federal poverty level or greater.

For younger adults whose premiums decline under the 5:1 scenario, the impact on their financial outlay is a function of the interaction of the premium change and the individual's income, which determines the value of premium subsidies. For those who were eligible for subsidies under 3:1 age rating, the decrease in premiums under the 5:1 scenario may make them ineligible for a subsidy, if the cost of the benchmark plan becomes lower than the maximum allowable outlay per the subsidy formula. In that case, the premium paid by the individual would be lower than under the 3:1 scenario and the government would no longer pay a subsidy for that person. If the person were still eligible for a subsidy under the 5:1 approach, then the individual's out of pocket spend would remain the same under the two scenarios, and any premium change would accrue to the federal government. The increase in enrollment for younger adults in the 5:1 age curve scenario is greater than the decreased enrollment by older adults in that same scenario, due to the estimated relatively less elastic demand for health care for older people. The higher federal subsidies to older individuals cause the premium subsidies paid by the government under 5:1 age banding to increase overall on a per capita basis by an expected 9.9% over the 3:1 status quo average subsidy. This increase coupled with the estimated increase in total membership corresponds to an estimated calendar year 2018 growth in federal budget spending of about \$6.7 billion on APTC subsidies, off a base of approximately \$50 billion under the 3:1 scenario.

Note that total ACA federal outlays may also be affected as result of the age curve shift's impact on other subsidies such as the cost-sharing reduction (CSR) program payments made by the federal government.

Background on Affordable Care Act Age Rating Rules

PREMIUM RATE DEVELOPMENT BEFORE AND AFTER THE AFFORDABLE CARE ACT

Before the ACA was enacted in 2010 and continuing through the end of 2013, health insurers selling policies in the individual market were largely free to adjust premiums for an individual's medical history, pre-existing medical conditions, health status, age, gender, occupation, and other factors. Coverage could also be denied to or limited for people with pre-existing conditions or poor health status. These premium adjustments were commonplace; beyond requiring rates to be actuarially sound, only a few states placed specific restrictions on these individual market rating practices.^{vi} Benefit plans could be marketed that excluded or significantly limited coverage for major categories of service like maternity, mental health, substance abuse, or pharmacy benefits. While health care premiums or costs were subsidized under most employer-based plans and under public programs like Medicaid or Medicare, consumers purchasing coverage on the individual market had to bear the full cost of the premiums. The lack of a premium subsidy, coupled with prevailing premium-setting practices, left individual coverage unaffordable or unattainable for many Americans; in 2013, approximately 48 million Americans were uninsured.^{vii}

The ACA introduced sweeping changes to the way health insurance is priced, marketed, and purchased in the United States. Included in this body of legislation, among many other new rules, were requirements for health premium setting in the individual and small group markets, which became effective January 1, 2014. These "fair health insurance premiums" rating requirements, set forth in Section 1201 of the ACA, limited the variation in premiums charged by an insurer for a given plan. Under the ACA, premiums for a particular plan are allowed to differ according to only four variables: geography, family size, tobacco use, and age. For the geography variable, each state was required to create a standard set of geographic rating areas based on counties, three-digit zip codes, or Metropolitan Statistical Areas (MSAs) that all issuers in the state would use, with MSA rating being the default if the state did not create its own scheme. Family size variation is handled via a per-member rating scheme whereby the premium for a family is set equal to the sum of the premiums for each individual within the family (with no more than three children counted in the premium calculation), except for two states which instead use uniform family rate tier factors. Issuers are also allowed to vary rates according to an individual's tobacco use status: tobacco users may be charged no more than 1.5 times the premium of a non-user in the individual market. The tobacco rating factor may be used in the small group market only when accompanied by a wellness program for employees.^{viii}

Prior to the ACA, health insurers generally used age and gender as factors in premium development. While different premiums by gender are no longer permitted under the ACA in the individual and small group markets, rating by age is still allowed under the law as long as the ratio of the highest-cost adult age band to the lowest-cost adult age band does not exceed 3:1. A person's age for rating purposes is determined as of the date of policy issue or renewal. The Centers for Medicaid & Medicare Services (CMS) established a standard age curve, with one-year age rating factors for each age between 21 and 63 and a single age bucket covering adults aged 64 and older.^{ix} As such, under the 3:1 rule, an adult aged 64 or older may not be charged more than three times the premium of a 21-year old. The CMS curve originally contained a single age band for children aged 0 to 20; according to the HHS Notice of Benefit and Payment Parameters for 2018 Final Rule, starting in 2018 there will be a band for ages 0 to 14 and then single year age bands from 15 to 20.^x Please refer to Appendix Table A.1 for the CMS age rating curve, modified to contain the proposed 2018 child age factors.

States had some leeway in implementing the age rating rule as long as state specific methods were at least as strict as the federal standard. While the vast majority of states implemented the standard age curve and factors as set by CMS, five states plus Washington DC employed state-specific variations. In Washington DC, Minnesota, and Utah, the 3:1 federal ratio was maintained but state specific age curves were submitted and approved by CMS. In Massachusetts, the maximum age rating ratio is a more stringent 2:1 and a customized age curve is used. New York and Vermont had prohibited age rating prior to the ACA and continue to use that approach.^{xi}

ACA AGE RATING IMPACT STUDIES

According to an Urban Institute report, the prevailing age rating ratio prior to the ACA was 5:1 or higher,^{xii} while a study conducted by the Georgetown University Center on Health Insurance Reforms, funded through a Robert Wood Johnson Foundation grant, stated that people in their early sixties could face premiums up to six times as much as younger people.^{xiii} America's Health Insurance Plans (AHIP) indicates that prior to the ACA, 42 states allowed for

age-rating ratios of 5:1 or greater.^{xiv} As such, in the many states that did not have age rating limitations prior to the ACA, the 3:1 age rating ratio limitation generally had the effect of lowering the premiums charged by the insurer for older individuals and increasing premiums charged by the insurer for younger individuals. Assuming the unregulated pre-ACA ratios were designed by insurers to reflect the observed differences in health claim costs by age, narrowing the age bands to a 3:1 ratio would have the effect of increasing premiums for younger people beyond a self-supporting level in order to reduce the rates being charged to older people. As the ACA was being implemented, concerns were raised that the increased premiums at younger ages under the 3:1 scheme could cause young healthy people to forego coverage, leading to an increase in the number of uninsured young people. Furthermore, the resulting reduction in the number of young people in the individual market risk pool to offset the higher costs of older people could lead to premium rate increases for the older people remaining in the individual market.^{xv} As an example, Blue Cross Blue Shield Association indicated that 3:1 age bands would require younger people to pay more for coverage, on average, than they would expect to receive in benefits. As the financial penalty for foregoing insurance under the ACA is small relative to the premium, roughly 500,000 younger people could be expected to leave the market under 3:1 rating even after accounting for the penalty, which could lead to higher premiums for older individuals remaining in the risk pool.^{xvi} Of course, the changes in premium rates as a result of ACA provisions were due to numerous interacting factors, not just the adjustment to the age rating curve. The effects described here isolate the impact of the age curve on premiums and do not necessarily reflect the overall change in premium rates to individual consumers when the ACA was implemented.

The actual financial impact of the change in age factors on individual health market consumers of various ages is affected by factors beyond the age curve itself. The ACA provides subsidies for lower income people toward coverage purchased on the individual health exchange. The subsidy comes in the form of the Advance Premium Tax Credit or APTC, and it is available to households with incomes between 100% of the Federal Poverty Level or FPL (138% FPL in states that expanded Medicaid) and 400% FPL who do not have access to affordable employer-based coverage and are ineligible for Medicare or Medicaid. The dollar value of the subsidy for a given individual or family is calculated as the difference between the cost of the second lowest priced Silver Plan available to them on the state's exchange and a designated percentage of household income (varying by income level) a family could pay for health coverage.^{xvii} For 2017 the percentage varies from 2.04% of income for families at less than 133% FPL to 9.69% for families with incomes from 300% to 400% FPL.^{xviii} Those with incomes higher than 400% FPL do not qualify for a subsidy. Many people purchasing insurance on the individual exchange qualify for the tax credit; in the state exchanges utilizing healthcare.gov, 85% of the 2016 plan selections qualified for tax credits, and those credits reduced premiums on average by 73%.^{xix}

In the period directly preceding the implementation date of the Affordable Care Act rating provisions, several studies assessed the impact of the age rating compression after accounting for the effect of premium subsidies in order to gain a better understanding of how consumers of different ages were likely to fare under a 3:1 age rating scheme compared to a 5:1 approach. The Urban Institute published a study in March 2013 in which they used their Health Insurance Policy Simulation Model to simulate the impact of a 3:1 age rating structure compared with a broader 5:1 structure, including the impact of premium subsidies and out of pocket costs such as deductibles and coinsurance. They found that for people with incomes under 400% FPL, total net costs to the consumer were very similar under 3:1 and 5:1 age rating, due to the structure of the premium subsidies which limit premium levels according to family income. For families whose incomes qualify them for a subsidy under a 5:1 age rating structure, any premium increases under a 3:1 scheme would just increase the subsidy available to them, leaving their financial contribution toward the premium unchanged; the full effect of the change would be borne by the federal government. The results of the study indicated that 92% of adults enrolling for single coverage aged 21 to 27 and 85% aged 28 to 44 would see no change in premium between 3:1 and 5:1 age band approaches due to the effect of the subsidies. The corresponding estimates for those aged 45 to 56, and for those aged 57 and older, were 79% and 76% respectively. However, for those with incomes over 400% FPL and therefore ineligible for subsidies, the cost of coverage was shown to increase for the young – for example, by an average of \$470 annually for 21 to 27 year olds purchasing single policies – while decreasing for older adults, with those aged 57 and older purchasing single coverage seeing \$1,400 in annual savings under a 3:1 age structure. From a demographic perspective, the likelihood of qualifying for subsidies or for Medicaid/CHIP eligibility decreases significantly with age, as household incomes trend upward with age. As such, the premium savings for older people under the 3:1 rating scheme are more likely to accrue to the

individuals paying the premium, while the premium increases to younger people are more likely to be financed by the federal government.^{xx} If a move back to a wider age rating structure is considered, it will be important for policymakers to understand how the changes in premiums will be financed – by the government or by the individuals purchasing the coverage – and the resulting impact on enrollment in the individual market by age band.

A Commonwealth Fund study simulated the 2017 coverage purchasing behavior of a synthetic population using the COMPARE model, a utility maximization approach in which each individual weighs the costs and benefits of available outcomes, including the impacts of the tax penalty associated with foregoing health coverage, premium levels, the APTC, and out of pocket costs. Coverage levels and premium rates were developed under 3:1 and 5:1 age rating approaches. Results indicated that below age 46, premiums were higher under a 3:1 age rating scheme than 5:1, and above that age premiums were lower under the 3:1 scenario. The report noted that moving from a 3:1 to 5:1 age rating scheme would result in varied enrollment impact by age range, with 2.2 million people under age 50 opting into coverage and 400,000 people in the 50 to 64 age range discontinuing coverage, and that “relaxing the rate banding would have an adverse effect on older individuals”^{xxi}. When rate bands were relaxed in the model, younger people were more likely to drop group coverage and purchase individual coverage, while older people were more likely to transition out of the individual market to uninsured status. The increase in enrollment among younger groups was larger than the decrease for older people due to two factors: (i) older people are assumed to have less elastic demand for health insurance, and (ii) older people are more likely to qualify for subsidies based on their income as their premiums increase. Almost all of the shift in enrollment occurred in the unsubsidized population; those receiving subsidies are relatively insensitive to premium increases because the level of subsidy increases along with the premiums. Notably, the study found that premium reductions to younger people mainly accrued to those individuals, while premium increases to older people were financed largely by the government via increased subsidies; widening the age bands from 3:1 to 5:1 would increase annual federal subsidy spending by \$8.3 billion.^{xxii} Another study published by Inside Health Insurance Exchanges estimated the annual federal subsidy increase at \$9.3 billion and estimated that 400,000 older individuals ineligible for subsidies would drop insurance coverage.^{xxiii}

In December 2016, noting that leading proposals to repeal and/or replace the ACA include a move to 5:1 age banding, The Commonwealth Fund published an updated analysis examining a move from a 3:1 to 5:1 age rating structure. In addition they modeled an alternative policy option: to adjust the subsidy program such that younger enrollees receive higher tax credits than currently provided for by the ACA, while keeping the age banding limit at 3:1. Specifically, they assumed a \$50 per month increase in subsidy for eligible adults aged 19 to 30 and smaller increases for people aged 30 to 35.^{xxiv} They found that total health insurance enrollment was similar in both scenarios, but the distribution by age was markedly different. According to their model, under the 5:1 age rating scheme, the number of individual market enrollees under age 35 would increase by more than 3 million, while 0.7 million enrollees aged 47 to 64 would drop out of the marketplace. Under the increased tax credit approach, individual market enrollment would increase by only 0.9 million, but coverage would be similar overall as young people were likely to keep their employer coverage rather than move to the individual market. Meanwhile, older people were more likely to stay enrolled in the individual market under this scenario as they would still benefit from the lower premiums associated with 3:1 age rating.^{xxv}

Taken together, the studies on the impact of age rating restrictions in the individual marketplace indicate that:

- Total health premiums in the individual marketplace are relatively higher for older people aged mid-40s and above, and relatively lower for younger people, under a 5:1 age banding scheme as compared to a 3:1 approach.
- The structure of the ACA tax subsidies provides some level of protection against premium rate changes due to a change in the age rating curve; most people purchasing coverage on the individual exchange are eligible for the subsidy.
- For people purchasing subsidized coverage, the net cost of coverage is fairly similar under a 3:1 and a 5:1 age rating scheme.
- Due to the structure of the advance premium tax credit, increases in premiums due to a change in age banding approach are likely to be funded primarily by the federal government. The APTC is determined by

comparing the maximum percentage of income payable by an enrollee to the 2nd lowest-cost silver plan available for the enrollee, with the cost of the plan (and thus the size of the subsidy) being based on the age of the member. The greater the cost of the 2nd lowest-cost silver plan, the more likely the plan's premium will exceed the maximum percentage of income, triggering a subsidy for the member. For this reason, if a member is eligible for APTC subsidies and experiences rate increases by virtue of the shift to a 5:1 age curve, the member – particularly elderly enrollees with high premiums – will tend to receive higher subsidies that offset the cost of rising rates. Using similar logic, premium decreases are likely to benefit the individuals purchasing the coverage, since a shift to a 5:1 age curve reduces premiums mainly for younger enrollees whose lower premiums (relative to older individuals) are less likely to trigger an APTC subsidy. Rate decreases for the young adults are therefore less likely to be offset by reduced APTC subsidies than for their older counterparts, all else being equal.

- For people with household incomes greater than 400% FPL and therefore ineligible for subsidies, the net cost of coverage is expected to be much greater for older people, and relatively lower for younger people, under a 5:1 scheme as compared to a 3:1 approach.

Impact of Change in Age Rating Curve on Premiums and Enrollment: Milliman Study

BACKGROUND ON MILLIMAN HEALTH CARE REFORM FINANCING MODEL (HCRFM)

Milliman's HCRFM is designed to assess the potential impact of a particular health care reform requirement or change in requirements on the health care financing system. The HCRFM models the potential costs and movements of individuals within and between the various insurance markets that comprise the U.S. health care system for a given proposed health care financing scheme. The model includes logic for key components of the ACA such as advance premium tax credits for people purchasing coverage on exchanges, risk mitigation programs, and premium-setting rules.

The HCRFM employs a switching process that develops the probability of a given individual switching from his or her current market segment or insurance plan into each available competing market segment and plan. Plan movement is based on the premium variance and benefit richness between current and possible alternative market segment plans, adjusted by elasticity factors related to the individual's health status, current insured status, income level, and other characteristics at each decision point in time. Similarly, movement to a new market is based upon selected characteristics of the individual or employer. Market segments include the individual market, small group market, large group market, Medicaid/CHIP, Medicare, and the uninsured.

We used the HCRFM to model the expected change in premiums and individual market enrollment by age band if the current standard ACA 3:1 age rating curve was altered to a 5:1 structure.

CREATION OF 5:1 RATING CURVE

As a first step in the modeling process, we derived a representative age curve using a 5:1 rating scheme, such that a person aged 64 or older would be charged five times the premium of a 21 year old. To create the 5:1 age rating curve we assumed a linear transformation of the existing 3:1 age curve, which leads to the following formula:

$$\text{5:1 Age Curve Factor} = \{3:1 \text{ Age Curve Factor} * 2.0\} - 1.0; \text{ for all age factors}$$

As mentioned earlier in this report, based on the final rule from the Department of HHS released December 16, 2016,^{xxvi} the standard age curve for children will be modified in 2018. The 3:1 and 5:1 curves have been adjusted to include the factors disclosed in that document. These factors have not been adjusted according to the above 5:1 conversion formula.

In essence, this formula takes the differential between two adjacent age factors under the 3:1 Age Curve, and multiplies that difference by two; this calculation is done at all ages to compute the 5:1 Age Curve. Although it cannot be known how CMS (or whoever is designated to do so) would develop a replacement 5:1 age curve, this methodology is consistent with the equation developed by Saltzman and Eibner of the Commonwealth Fund Study.^{xxvii} This methodology has the effect of increasing the age factors of older age bands more heavily, since the differential between age factors is greatest at older ages. This means that, all else equal, if CMS applies this methodology to implement a 5:1 age rating curve, the percentage increase to older policyholder age factors will be greater than the percentage increase to younger policyholder age factors. However, as we explain in the following section, the percentage change in the age factors is not the same as the percentage change in premiums – additional modeling is required to determine the impact of a change in the age curve on the change in premiums.

In Table 5 below, we provide the derived 5:1 age factors for a sample of ages and compare them to the existing 3:1 age factors. Complete tables of 3:1 and 5:1 age curves are shown in Appendix table A.1.

TABLE 5: SAMPLE OF CHANGES IN ACA AGE CURVE FACTORS - 3:1 AGE CURVE V. 5:1 AGE CURVE

AGE BAND	APTC (3:1 CURVE)	APTC (5:1 CURVE)	% DIFFERENCE
21	1.000	1.000	0%
30	1.135	1.270	12%
40	1.278	1.556	22%
50	1.786	2.572	44%
60	2.714	4.428	63%
64 AND OLDER	3.000	5.000	67%

If the age rating rule were changed to a 5:1 ratio without federal promulgation of a prescribed rating curve, states and/or individual insurers may have the flexibility to design their own age curves as long as the 5:1 ratio is preserved. While we presume that premium rates would still have to be demonstrated as actuarially sound to state insurance departments, insurers could attempt to set their age curves to provide relatively greater enrollment incentives for younger people or any other strategically advantageous age group. Different 5:1 age curves will generate different premium rates and enrollment results from what we present in this report.

DEVELOPING ILLUSTRATIVE PREMIUMS WITH 3:1 AND 5:1 AGE CURVES

Next we estimated the change in premiums by age group from shifting to a 5:1 age curve. To do this, we illustrate a sample 2018 individual silver plan premium for a 21 year old from the HCRFM under the 3:1 age curve scenario; this became our base rate. Using this base rate and the 3:1 age curve, we developed assumed silver plan premiums for all age bands under the 3:1 age curve.

The key to producing premiums under the 5:1 age curve was in determining a proper base rate on which to apply the 5:1 age factors. We define the base rate as the premium whereby total aggregate revenues remain budget neutral under the 3:1 and 5:1 age curve scenarios for a given covered population. We relied on the projected 2018 individual market enrollment distribution from the HCRFM. Furthermore, for this illustration we make the simplifying assumption that 2018 enrollment levels and distributions do not change under the 5:1 age curve when compared to the 3:1 scenario, and we assume no changes in policyholder morbidity to show the isolated impact of changing the age curve only. Under these conditions, we determined the weighted average silver plan premiums under the 3:1 age curve and 5:1 age curve. The calculation of the 5:1 age curve scenario base rate is then as follows:

$$\text{5:1 AF Base Rate} = \text{3:1 AF Base Rate} * (\text{5:1 AF Weighted Avg. Premium} / \text{3:1 AF Weighted Avg. Premium})$$

The age factors from the 5:1 age curve were then applied to the base rate to obtain silver plan premiums by age for the 5:1 age curve scenario. In Table 6 below, we provide the derived 5:1 age curve silver plan premiums for a sample of ages and compare them to the estimated 3:1 age curve silver plan premiums. Table 6 values are identical to those shown in Table 1 of the Key Results section. Complete tables of 3:1 and 5:1 age curve silver plan premiums are shown in Appendix table A.2.

TABLE 6: SAMPLE OF CHANGES IN 2018 ILLUSTRATIVE MONTHLY INDIVIDUAL PLAN PREMIUMS* - 3:1 AGE CURVE V. 5:1 AGE CURVE

AGE BAND	PREMIUM (3:1 CURVE)	PREMIUM (5:1 CURVE)	\$ DIFFERENCE	% DIFFERENCE
21	\$348	\$262	-\$86	-25%
30	\$394	\$332	-\$62	-16%
40	\$444	\$407	-\$37	-8%
50	\$621	\$673	\$52	8%
60	\$943	\$1,159	\$216	23%
64 AND OLDER	\$1,043	\$1,308	\$266	25%

* Prior to application of APTC premium subsidies

We found that the silver plan premiums under the 5:1 age rating structure begin increasing relative to the 3:1 age curve premiums at about age 46, similar to the findings of prior cited studies. Below age 46, silver plan premiums are lower under the 5:1 structure than under the 3:1 age curve. Because rates are determined on a single pool basis, the percentage changes for other metal levels would be similar to those illustrated for the silver plan. Also, while the dollar amounts illustrated in Table 6 and in Appendix Table A.2 may vary considerably by health plan and geographic area, the percentage differences should be fairly consistent among them.

HCRFM MODELING RESULTS – SCENARIO DESCRIPTIONS

Using the HCRFM, we modeled 2018 individual market enrollment and premiums by age band under two scenarios. The first (Scenario 1) is meant to replicate the 2018 market under status quo conditions with no changes to the ACA; 3:1 age banding and premium subsidies are left intact. Scenario 2 assumes that age rating rules are modified such that a 5:1 age ratio is allowed, with all other assumptions matching those in Scenario 1.

In both scenarios we assume that people with transitional policies move to the individual market, into Medicaid, or forego insurance in 2018. Transitional policies are non-ACA-compliant individual policies into which people enrolled between March 2010 and the advent of the exchanges; under current rule, enrollees are allowed to keep those plans throughout 2017 at which point they will need to move into ACA compliant individual market plans, move to Medicaid if eligible, or go uninsured. Some might also be able to enroll in their employer's sponsored plan. We do not model the results of extending the period in which transitional policies remain in force, but we do provide brief commentary on how the modeled results could change were the transitional population allowed to remain in their current plans, as we expect that this would have a significant impact on the composition of the individual marketplace in 2018.

IMPACT OF CHANGE IN AGE CURVE ON PREMIUMS AND ENROLLMENT

HCRFM Modeling Results – Impact On Per Capita Premium Rates

We compared the HCRFM results from Scenario 1 - in which all aspects of the ACA remain in place for 2018 - to Scenario 2 in which 5:1 age banding is allowed. This change in age curve resulted in changes to average marketed silver plan premiums by age band that are demonstrated in Table 6 above (and in Table 1 of the Key Results section). It is important to note that the marketed silver plan premiums in Table 6 reflect only the change in in the age curve from 3:1 to 5:1; they do not reflect the impact of the plan selections made by enrollees in response to the change in premiums. Table 7 summarizes average 2018 premium output from the HCRFM for all metal levels, while also incorporating the assumed enrollment decisions of individual market participants by age band (this is identical to Table 2 shown in the Key Results section)..

TABLE 7: 2018 INDIVIDUAL MARKET PER CAPITA COMPOSITE MONTHLY PREMIUM COMPOSITED OVER ALL METAL PLANS* - 3:1 AGE CURVE V. 5:1 AGE CURVE

AGE BAND	PREMIUM (3:1 CURVE)	PREMIUM (5:1 CURVE)	\$ DIFFERENCE	% DIFFERENCE
<20	\$295	\$275	-\$19	-7%
20-29	\$392	\$334	-\$58	-15%
30-39	\$507	\$444	-\$64	-13%
40-49	\$622	\$603	-\$19	-3%
50-59	\$943	\$1,070	\$127	13%
60+	\$1,227	\$1,493	\$266	22%
COMBINED	\$589	\$596	\$7	1%

* Prior to application of APTC premium subsidies

The changes in purchased premiums shown in Table 7 differ from the changes in silver premiums in Table 6; this is both because Table 7 includes plans of all metal levels and incorporates the modeled purchasing decisions of individual market enrollees. The actual increases in composite premium rates (prior to APTC premium subsidies) for older people would be higher, except that some older adults choose leaner benefit plans under a 5:1 age rating limit than with a 3:1 limit. Conversely, actual decreases for young adults would be greater than those shown in Table 7, except that some opt for richer benefit plans with higher premium rates under the 5:1 scenario.

HCRFM Modeling Results – Effects on Enrollment by Age Group

We also summarized enrollment projections from the HCRFM, shown in Table 8 (same as Table 3 shown previously).

TABLE 8: 2018 TOTAL INDIVIDUAL MARKET ENROLLMENT (THOUSANDS) - 3:1 AGE CURVE V. 5:1 AGE CURVE
(in thousands)

AGE BAND	ENROLLMENT (3:1 CURVE)	ENROLLMENT (5:1 CURVE)	DIFFERENCE	% DIFFERENCE
<20	3,213	3,302	89	3%
20-29	3,665	3,797	133	4%
30-39	2,588	2,696	107	4%
40-49	2,516	2,573	57	2%
50-59	2,762	2,747	(15)	-1%
60+	1,285	1,281	(3)	0%
COMBINED	16,028	16,395	367	2%

We see increased enrollment from young adults (particularly those aged 20-44¹), with slightly offsetting reductions in individual market participation from adults ages 50 and older, under the 5:1 scenario. These results are consistent with the changes in premiums discussed previously. It is worth noting that while the greatest reduction in premiums goes to the 20-29 age group, the largest projected percentage increase in enrollment under the 5:1 age curve is exhibited by the 30-39 age group. We attribute this affect to the inclusion of some adults through age 26 as dependents under their parents' family policies; such adults would not have the same sensitivity to the cost of their premiums as adults with stand-alone individual policies.

These results also reflect significant inertia on the part of young people currently uninsured to purchase coverage, as well as reluctance of those covered by employer-sponsored plans to move to the individual market. It is quite possible that greater enrollment increases by currently uninsured young people could result, particularly if non-enrollment penalties increase coupled with an effective educational promotion program.

While older adults are predicted to respond with lesser uptake of insurance coverage under the 5:1 age curve due to higher premiums, this effect is muted by a combination of the greater recognition of the need for health insurance coverage by older people than that of younger people, and the protection against rate increases inherent in the subsidy formula. The APTC subsidies are based on the second lowest-cost silver plan available to each eligible enrollee, and the premium rates for that silver plan will likewise increase for older adults as a result of the 5:1 age curve, all else being equal. In effect, the APTC shields eligible enrollees from premium rate hikes, resulting in only a slight reduction in individual market membership for older consumers. By contrast, younger adults exhibit increasing enrollment due to premium reductions driven by the shift to a 5:1 age curve. Because younger adults tend to have lower-cost premiums than their older counterparts, they also tend to receive lower levels of APTC subsidies compared to older individuals of the same income and family size levels. Younger APTC-eligible adults therefore tend to be more responsive to any changes in their premiums than are older APTC-eligible adults when premium rates drop below their "fair share" contribution levels, leading to higher enrollment for adults ages 20-49 (please refer to Table 9 for a graphical representation of this output).

The overall projected difference in 2018 individual market enrollment is an increase of 2% under a 5:1 versus a 3:1 age banding. Under other reasonable scenarios, changes in and out of the individual market could be markedly different.

While we did not expressly model the health risk profile of those insured, we expect that the effects of a change in the age curve illustrated by Scenarios 1 and 2 would impact not only the size and composition of the market by age, but also the relative morbidity of the market by age. Due to APTC subsidies, older adults are not projected to be as responsive to their increase in premiums as younger adults are to the decrease in their premiums. The greater sensitivity of younger adults to decreased premiums causes relatively more members of that age group to enroll under a 5:1 age curve scenario, while older adults are relatively less likely to enroll. However, the increased

¹ Note that this level of granularity in the age bands is not provided in the appendix exhibits.

enrollment at younger ages overshadows the decreases at older ages, reducing the average age of covered individuals. As younger healthier individuals with lower morbidity join the market, the average health risk of the market improves. Additionally, rising premiums tend to encourage healthier members to exit the insurance market (all else equal) while individuals with high health risk choose to remain in the market. We would expect to see this dynamic affect older aged adults who experience rate increases under the 5:1 age curve – the adults who remain enrolled are likely to be of higher morbidity risk.

Impact of Allowing 2017 Transitional Plan Policyholders to Keep Those Policies

Under current regulations, enrollees in non-ACA-compliant “transitional” policies are required to enroll in ACA-compliant policies beginning in 2018; this assumption was applied to all scenarios in this report. If regulations were modified to allow transitional policies to continue beyond 2017, we would expect a sizable drop in projected 2018 individual market enrollment due to the majority of transitional policyholders remaining in those policies. The morbidity implications would be driven largely by the age, income level and demographic distribution of this population; a detailed discussion of these factors is beyond the scope of this report.

Impact of Removal of Premium Subsidies

Our modeling assumed that subsidies toward the purchase of individual insurance would remain intact. If subsidies were eliminated, results would differ from what we have discussed above. We would expect this policy change to result in a sizeable contraction of the individual marketplace regardless of the age curve scenario in place; in other words, the removal of subsidies would be expected to reduce enrollment across all age bands. We would expect, however, that disenrollment would be greater among relatively younger insureds due to their higher price elasticity for health coverage. Older people with relatively less elastic demand due to higher health care needs and/or greater income would be less likely to disenroll but would face the full cost of increased premiums should age bands be widened. It is also expected that healthier people would be more likely to either exit the market or downgrade their coverage to leaner plans.

Discussion and Policy Implications

The results presented above are generally consistent with prior studies discussed in this report. Specifically, our results are similar to the key conclusion from the Robert Wood Johnson Foundation-sponsored study, which found that the 3:1 age band restriction primarily impacts young individuals ages 21 to 27 and older individuals ages 57 and greater.^{xxviii} Additionally, we discovered that adults ages 28-39 are predicted to be affected at similar, if not greater, magnitudes to their younger counterparts.

While our enrollment results were directionally similar to those from the Commonwealth Fund study, the extent of the enrollment increase under the 5:1 age curve scenario was projected to be far less than in the Commonwealth Fund model, with an estimated 2018 net enrollment increase of 367,000 from the HCRFM as opposed to the 2.5 million increase estimated for the 2014 calendar year by the Commonwealth Fund study. Factors that reduce the comparability of the two estimates include the difference in calendar year enrollment being estimated, as well as the 2013 publishing date of the referenced Commonwealth Fund paper, prior to the start of the exchanges.^{xxix} Still, our studies concluded with similar findings regarding the effects of the age curve shift on younger and older aged individuals.

When considering potential policy changes such as loosening age band rating rules or removing tax credits toward purchase of insurance, policymakers must balance the expected impact on overall enrollment with considerations for how members in each age band and in each household income range fare under different policy scenarios. Removing the APTC would cause the enrollment in the insured market to contract regardless of age banding, while widening the age curve to a 5:1 ratio causes net disenrollment at older ages and net enrollment increases at younger ages.

Finally, policymakers should consider the potential change in required APTC funding as a result of changing the age rating curve. Changes in the age curve cause premium changes that drive corresponding changes in APTC subsidy amounts. Table 9 below (same as Table 4 in the Key Results section) shows the projected change in per capita APTC caused by moving the age curve from a 3:1 to 5:1 basis.

TABLE 9: PERCENT DIFFERENCE IN 2018 INDIVIDUAL MARKET PER CAPITA ANNUAL APTC 3:1 AGE CURVE V. 5:1 AGE CURVE

AGE BAND	% DIFFERENCE IN APTC
<20	-2.4%
20-29	-12.0%
30-39	-6.8%
40-49	6.5%
50-59	25.0%
60+	33.7%
COMBINED	9.9%

Overall, average APTC per capita subsidies are expected to grow by 9.9% by moving to the 5:1 age-curve, which after accounting for the increase in overall enrollment corresponds with an increase in federal budget spending of about \$6.7 billion. Policyholders over the age of 40 are expected to receive an increased tax credit, and the increased credit likewise increases with age. Policyholders over the age of 60 are expected to receive a 33.7% higher APTC when premiums are capped at a 5:1 ratio than under the current 3:1 requirement. Members under the age of 40 are projected to receive decreased APTC subsidies under the 5:1 age curve, and similar to the older adults, the APTC change is correlated with age.

Caveats and Limitations

This Milliman report has been prepared for the specific purpose of estimating the impact on premium rates and marketplace enrollment of a potential change in ACA age rating rule. This information may not be appropriate, and should not be used, for any other purpose. This report has been prepared solely for the internal business use of, and is only to be relied upon by, the management of AARP. No portion of this report may be provided to any other party without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work even if we permit the distribution of our work product to such third party.

The results presented herein are estimates based on carefully constructed actuarial models. It is quite possible that new allowed age factors could vary from those illustrated in this report, even where the age rating rule allows for a 5:1 age slope. Changes in the age mix of members and their claims experience are almost certain to vary somewhat from our projected estimates. Differences between our estimates and future actual amounts depend on the extent to which future experience conforms to the assumptions made for this analysis. It is certain that actual experience will not conform exactly to the assumptions used in this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

Milliman does not provide legal advice, and recommends that AARP consult with its legal advisors regarding legal matters.

The terms of Milliman's Consulting Services Agreement with AARP signed on December 12, 2016 apply to this report and its use.

ACKNOWLEDGMENT OF QUALIFICATION

We, Joanne Fontana, FSA, MAAA and Thomas Murawski, FSA, MAAA are Consulting Actuaries for Milliman. We are members of the American Academy of Actuaries, and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

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- ⁱⁱ J. Giovannelli, K. Lucia, S. Corlette. *Implementing the Affordable Care Act: State Approaches to Premium rate Reforms in the Individual Health Insurance Market*. (The Commonwealth Fund pub. 1795 Vol. 34, December 2014).
- ⁱⁱⁱ L. Blumberg and M. Buettgens. *Why the ACA's Limits on Age-Rating Will Not Cause "Rate Shock": Distributional Implications of Limited Age Bands in Nongroup Health Insurance*. Timely Analysis of Immediate Health Policy Issues. (Urban Institute and Robert Wood Johnson Foundation, March 2013.)
- ^{iv} A Better Way, Health Care Policy Paper. June 22, 2016. https://abetterway.speaker.gov/_assets/pdf/ABetterWay-HealthCare-PolicyPaper.pdf
- ^v The Patient Choice, Affordability, Responsibility, and Empowerment Act Two-Pager. February 5, 2015. <https://energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/114/20150205-PCARE-Act-Two-Pager.pdf>
- ^{vi} J. Giovannelli, K. Lucia, S. Corlette. *Implementing the Affordable Care Act: State Approaches to Premium rate Reforms in the Individual Health Insurance Market*. (The Commonwealth Fund pub. 1795 Vol. 34, December 2014).
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- ^{xviii} <https://www.irs.gov/pub/irs-drop/rp-16-24.pdf>
- ^{xix} Health Insurance Marketplace Premiums After Shopping, Switching, and Premium Tax Credits 2015-2016. ASPE Issue Brief, Department of Health and Human Services, April 12, 2016.

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^{xxii} Ibid.

^{xxiii} *How Switching to a 5:1 Age-Rating Band May Impact Rates, Enrollment, CMS Spending*. Inside Health Insurance Exchanges, October 2016, Volume 6, Issue 10.

^{xxiv} E. Saltzman and C. Eibner. *Insuring Younger Adults Through the ACA's Marketplaces: Options to Expand Enrollment*. The Commonwealth Fund, December 16, 2016.
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^{xxv} Ibid.

^{xxvi} S. Lorenz. *Insurance Standards Bulletin Series – INFORMATION: Guidance Regarding age Curves and State Reporting*. Health and Human Services Department, December 16, 2016.
<https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/Final-Guidance-Regarding-Age-Curves-and-State-Reporting-12-16-16.pdf>

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^{xxviii} L. Blumberg and M. Buettgens. *Why the ACA's Limits on Age-Rating Will Not Cause "Rate Shock": Distributional Implications of Limited Age Bands in Nongroup Health Insurance*. Timely Analysis of Immediate Health Policy Issues. (Urban Institute and Robert Wood Johnson Foundation, March 2013.)

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<http://www.commonwealthfund.org/publications/blog/2016/dec/insuring-younger-adults>

Appendix

TABLE A.1: AGE RATING FACTORS - 3:1 ACA AGE CURVE AND DERIVED 5:1 AGE CURVE, BOTH WITH 2018 CHILD FACTORS

AGE BAND	DERIVED		AGE BAND	DERIVED	
	3:1 AGE RATING FACTOR	5:1 AGE RATING FACTOR		3:1 AGE RATING FACTOR	5:1 AGE RATING FACTOR
0-14	0.765	0.765	40	1.278	1.556
15	0.833	0.833	41	1.302	1.604
16	0.859	0.859	42	1.325	1.650
17	0.885	0.885	43	1.357	1.714
18	0.913	0.913	44	1.397	1.794
19	0.941	0.941	45	1.444	1.888
20	0.970	0.970	46	1.500	2.000
21	1.000	1.000	47	1.563	2.126
22	1.000	1.000	48	1.635	2.270
23	1.000	1.000	49	1.706	2.412
24	1.000	1.000	50	1.786	2.572
25	1.004	1.008	51	1.865	2.730
26	1.024	1.048	52	1.952	2.904
27	1.048	1.096	53	2.040	3.080
28	1.087	1.174	54	2.135	3.270
29	1.119	1.238	55	2.230	3.460
30	1.135	1.270	56	2.333	3.666
31	1.159	1.318	57	2.437	3.874
32	1.183	1.366	58	2.548	4.096
33	1.198	1.396	59	2.603	4.206
34	1.214	1.428	60	2.714	4.428
35	1.222	1.444	61	2.810	4.620
36	1.230	1.460	62	2.873	4.746
37	1.238	1.476	63	2.952	4.904
38	1.246	1.492	64+	3.000	5.000
39	1.262	1.524			

TABLE A.2: CHANGES IN 2018 ILLUSTRATIVE MONTHLY INDIVIDUAL SILVER PLAN PREMIUMS - 3:1 AGE CURVE V. 5:1 AGE CURVE

AGE BAND	PREMIUM (3:1 CURVE)	PREMIUM (5:1 CURVE)	% DIFFERENCE	AGE BAND	PREMIUM (3:1 CURVE)	PREMIUM (5:1 CURVE)	% DIFFERENCE
0-14	\$266	\$200	-25%	40	\$444	\$407	-8%
15	\$289	\$218	-25%	41	\$452	\$420	-7%
16	\$299	\$225	-25%	42	\$460	\$432	-6%
17	\$308	\$232	-25%	43	\$472	\$449	-5%
18	\$317	\$239	-25%	44	\$485	\$469	-3%
19	\$327	\$246	-25%	45	\$502	\$494	-2%
20	\$337	\$254	-25%	46	\$521	\$523	0%
21	\$348	\$262	-25%	47	\$543	\$556	2%
22	\$348	\$262	-25%	48	\$568	\$594	5%
23	\$348	\$262	-25%	49	\$593	\$631	6%
24	\$348	\$262	-25%	50	\$621	\$673	8%
25	\$349	\$264	-24%	51	\$648	\$714	10%
26	\$356	\$274	-23%	52	\$678	\$760	12%
27	\$364	\$287	-21%	53	\$709	\$806	14%
28	\$378	\$307	-19%	54	\$742	\$856	15%
29	\$389	\$324	-17%	55	\$775	\$905	17%
30	\$394	\$332	-16%	56	\$811	\$959	18%
31	\$403	\$345	-14%	57	\$847	\$1,014	20%
32	\$411	\$357	-13%	58	\$885	\$1,072	21%
33	\$416	\$365	-12%	59	\$905	\$1,101	22%
34	\$422	\$374	-11%	60	\$943	\$1,159	23%
35	\$425	\$378	-11%	61	\$977	\$1,209	24%
36	\$427	\$382	-11%	62	\$998	\$1,242	24%
37	\$430	\$386	-10%	63	\$1,026	\$1,283	25%
38	\$433	\$390	-10%	64+	\$1,043	\$1,308	25%
39	\$439	\$399	-9%				

TABLE A.3: 2018 TOTAL INDIVIDUAL MARKET ENROLLMENT (THOUSANDS) - 3:1 AGE CURVE V. 5:1 AGE CURVE

AGE BAND	ENROLLMENT (3:1 CURVE)	ENROLLMENT (5:1 CURVE)	DIFFERENCE	% DIFFERENCE
<20	3,213	3,302	89	3%
20-29	3,665	3,797	133	4%
30-39	2,588	2,696	107	4%
40-49	2,516	2,573	57	2%
50-59	2,762	2,747	(15)	-1%
60+	1,285	1,281	(3)	0%
COMBINED	16,028	16,395	367	2%

**TABLE A.4: 2018 INDIVIDUAL MARKET PER CAPITA MONTHLY PREMIUM COMPOSITED OVER ALL METAL PLANS -
3:1 AGE CURVE V. 5:1 AGE CURVE**

AGE BAND	PREMIUM (3:1 CURVE)	PREMIUM (5:1 CURVE)	\$ DIFFERENCE	% DIFFERENCE
<20	\$295	\$275	-\$19	-7%
20-29	\$392	\$334	-\$58	-15%
30-39	\$507	\$444	-\$64	-13%
40-49	\$622	\$603	-\$19	-3%
50-59	\$943	\$1,070	\$127	13%
60+	\$1,227	\$1,493	\$266	22%
COMBINED	\$589	\$596	\$7	1%