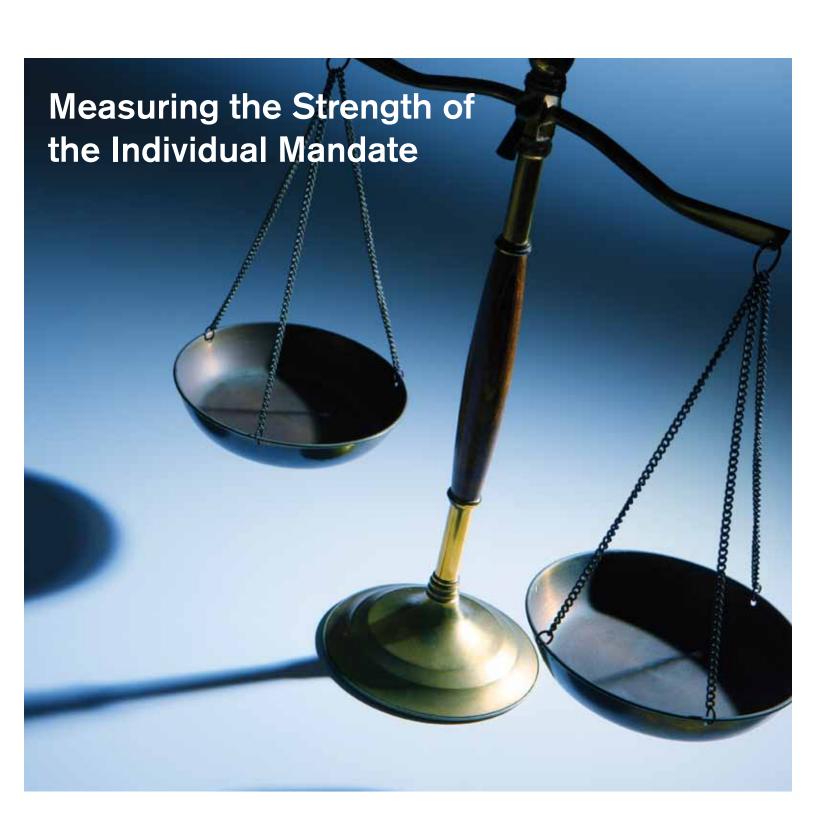
Milliman Research Report

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March 2012







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EXECUTIVE SUMMARY

The theory behind the individual mandate's inclusion in the Patient Protection and Affordable Care Act (PPACA) is that a portion of the potentially insured population needs a financial incentive to purchase health insurance. Otherwise, they may elect to forgo insurance coverage until the need for healthcare arises, and the perceived benefit of insurance exceeds the premium cost. This *adverse selection* against the insurance market results in a less healthy insured risk pool, which creates the need for increasingly higher premiums to cover the risk pool's insured healthcare expenses.

This paper focuses on the individual mandate's penalties in relation to the expected out-of-pocket premium for bronze-level coverage in the individual market. It does not consider the value of having coverage versus not having coverage in the analysis. For individuals age 30 and older in the individual insurance market, bronze-level coverage will be the least expensive qualified coverage available for purchase.

HOW STRONG OR WEAK IS THE INDIVIDUAL MANDATE?

The relationship between the individual mandate penalty amounts and the bronze plan premium will vary significantly across different population segments. This variation between the penalty amounts and the bronze plan premiums occurs because of the individual mandate penalty and premium tax credit formulas' interaction with the following demographic and premium rating variables:

- Household income (defined by federal poverty level [FPL])
- Age
- Family type

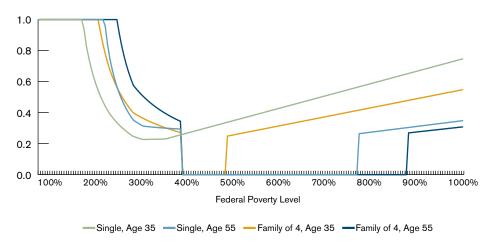
As the relationship between the individual mandate penalty amounts and bronze plan premium varies significantly by household income level, it is also important to understand the income distribution of the potential individual insurance market beginning in calendar year 2014, and its implications on the effectiveness of the individual mandate. The individual mandate's overall impact to the individual health insurance market will be influenced by the relative proportion of households with a strong or weak mandate in relation to bronze plan premiums.

VARIATION BY HOUSEHOLD DEMOGRAPHICS

Figure 1 illustrates the **calendar year 2016** ratio of the individual mandate penalty to the estimated out-of-pocket bronze plan premium for the following households: single 35-year-old, single 55-year-old, family of four with parents age 35, and a family of four with parents age 55. For example, if the individual mandate penalty amount for a household is \$1,000 and the out-of-pocket premium amount is \$2,000, a ratio of 0.5 will be illustrated. **Results for calendar years 2014 and 2015 will be substantially different (generally lower ratios), as the individual mandate penalty amounts do not reach fully implemented levels until calendar year 2016.**

The individual mandate's overall impact to the individual health insurance market will be influenced by the relative proportion of households with a strong or weak mandate in relation to bronze plan premiums.

FIGURE 1: RATIO OF INDIVIDUAL MANDATE PENALTY TO OUT-OF-POCKET BRONZE PLAN PREMIUM - CY 2016



Notes:

- In cases where the individual mandate penalty exceeds the estimated out-of-pocket premium amount, the illustrated ratio has been capped at 1.0.
- For households that are exempt from the individual mandate, the ratio between the mandate penalty amount and out-of-pocket premium is 0%.

Household income

- For households under 200% FPL, individual mandate penalty amounts are generally greater than or equal to the estimated out-of-pocket bronze plan premium amount, after application of the federal premium subsidy. For many households below 200% FPL, the premium for the bronze plan may be \$0.
- As income increases from 200% to 300% FPL, the mandate penalties will quickly decrease from at or near 100% of bronze plan premium to less than 50% of the estimated premium cost.
- For households with income between 300% and 400% FPL, the penalty amount will generally range from 25% to 35% of the bronze plan premium.
- For households with income above 400% FPL, the individual mandate's affordability exemption may impact a material portion of households, particularly those with older adults who will have higher premiums resulting from the age rating allowance, resulting in no penalties.

Age

- For a single 35-year-old at 300% FPL, it is estimated that the out-of-pocket premium for the bronze plan will be over 40% greater than the premium for a 55-year-old at the same income level. This phenomenon is created by the leveraging effect of the federal premium subsidy calculation, and will result in the individual mandate penalty being a smaller percentage of the bronze plan premium for younger individuals. This leveraging effect may reduce insurance participation rates for the younger adult population.
- Older individuals will be the most likely to be exempt from the individual mandate at household income levels above 400% FPL, as premiums increase with age. By virtue of meeting the unaffordability test, these older individuals may be eligible for the catastrophic health plan, otherwise only available to individuals under age 30, which could result in a bimodal age distribution for these products.

Family Type

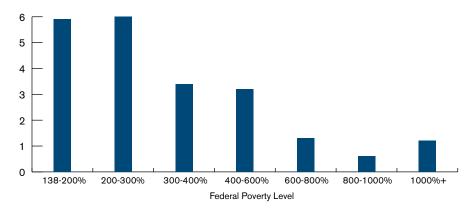
For families eligible for federal premium subsidies, the individual mandate penalties are estimated to be a larger percentage of the bronze plan out-of-pocket premium for a given age and FPL income level relative to single households. For households under 200% FPL, individual mandate penalty amounts are generally greater than or equal to the estimated out-of-pocket bronze plan premium amount, after application of the federal premium subsidy. For many households below 200% FPL, the premium for the bronze plan may be \$0.

HOUSEHOLD INCOME DISTRIBUTION

Figure 2 illustrates the income distribution of individuals between the ages of 30 and 64 who either were uninsured or individually insured during calendar year 2010. These populations will likely represent the majority of the individual insurance market population beginning in 2014.

FIGURE 2: INDIVIDUALLY INSURED AND UNINSURED POPULATIONS (MILLIONS)

AGES 30-64 WITH HOUSEHOLD INCOME ABOVE 138% FPL,CY 2010 AMERICAN COMMUNITY SURVEY



Notes: Total population 21.6 million. Individuals under age 30 are eligible for the catastrophic plan, which will have premium rates lower than bronze- level coverage. Therefore, the minimum cost of purchasing insurance will be lower for this population.

- Individual mandate, strong financial incentive: For the population with income below 300% FPL, individual mandate penalties are generally 50% or more of out-of-pocket premium amounts.
- Individual mandate, medium/weak financial incentive: For households between 300% and 400% FPL, there may be a significant dollar difference between purchasing insurance and paying the mandate penalty amount.
- Individual mandate, potentially exempt: A material portion of households above 400% FPL may be exempt from the individual mandate and therefore will be eligible for the catastrophic health plan, which is otherwise only available to individuals under 30.

INTRODUCTION

Section 1501 of the Patient Protection and Affordable Care Act (PPACA) institutes an *individual* mandate to purchase health insurance. The individual mandate requires non-exempt individuals to either purchase minimum essential health insurance coverage or pay a penalty amount. This paper focuses on the individual mandate's impact on the individual insurance market. Beginning in 2014, the individual insurance market requires all non-grandfathered plans to be guaranteed issue and does not allow health status premium rating. The individual mandate is intended to increase insurance participation in the individual market and minimize the degree of the adverse selection that would occur if a significant percentage of healthy individuals did not purchase insurance.

However, the question remains: How effective will the individual mandate be in motivating healthy individuals to purchase insurance? Certainly even without an individual mandate, many healthy individuals would desire to purchase health insurance. Although healthy individuals do not expect to experience a high-cost health event during the short-term future, many realize that insurance is needed to protect them against unforeseen healthcare expenses. However, for a portion of healthy individuals, health insurance may be viewed as a lower-priority expense. For these individuals, the insurance purchasing decision may be heavily influenced by the relative cost of the mandate penalty relative to the cost of insurance. If the individual mandate penalty exceeds the cost of purchasing insurance, one would expect that the vast majority of these individuals would maintain minimum essential coverage rather than paying a higher penalty amount. Conversely, if the individual mandate penalty amounts were substantially less than the cost of insurance, the mandate may have considerably less impact on the insurance participation rates.

This paper discusses the parameters of the individual mandate, the affordability exemption, and its ability to encourage healthy individuals to purchase or maintain health insurance coverage by comparing assessed calendar year 2016 penalty amounts to the estimated cost of purchasing the lowest-cost bronze plan in a state or federal insurance exchange. The individual mandate penalty amounts in calendar years 2014 and 2015 are lower than the long-term penalty amounts, and therefore, calendar year 2016 is the first year of the individual mandate's full implementation. For adults age 30 and older, the lowest-cost bronze plan reflects the least expensive form of minimum essential health insurance coverage for the population that is not eligible for employer-sponsored insurance or a public health insurance program. The relationship between the individual mandate penalty amounts and the out-of-pocket bronze plan premium, after the application of the premium tax credit subsidy, is modeled by household income, age, and family size.

The conclusions made in this paper are based on the individual mandate's penalty amounts in 2016, when the penalty amounts are increased to their long-term levels. The illustrations and modeling performed in this paper are based on the author's interpretation of forthcoming regulations governing the premium tax credit subsidies, individual mandate, and affordability exemption. The results shown in this paper may differ significantly based on the final regulations. The premium rates illustrated in this paper are estimates, and may differ significantly from actual results.

For households under 250% FPL, additional cost-sharing subsidies are available if the household chooses a silver plan. The cost-sharing subsidies are significant for households under 200% FPL, as they increase the actuarial value of the silver plan from 70% to either 87% (FPL 150%-200%) or 94% (FPL under 150%). These cost-sharing subsidies may provide strong financial incentives for qualifying households to purchase a silver- rather than a bronze-level plan. This paper does not analyze the impact of the cost-sharing subsides on the insurance purchasing decision, but rather the minimum out-of-pocket premium cost for compliance with the individual mandate.

This paper discusses the parameters of the individual mandate, the affordability exemption, and its ability to encourage healthy individuals to purchase or maintain health insurance coverage by comparing assessed calendar year 2016 penalty amounts to the estimated cost of purchasing the lowest-cost bronze plan in a state or federal insurance exchange.

INDIVIDUAL MANDATE PROVISIONS

Section 1501 of the PPACA requires non-exempt individuals to purchase minimum essential health insurance coverage or pay a penalty amount. The individual mandate is intended to encourage healthy individuals to purchase insurance, rather than wait until the need for healthcare arises. In states that have community rating and guaranteed issue requirements in the individual market, but without an individual mandate, adverse selection has increased the cost of individual insurance.¹

Minimum essential health insurance coverage includes the following types of insurance:

- Medicare
- Medicaid (including Children's Health Insurance Program)
- Other government-sponsored plans
- Individual market plans (meeting minimum coverage standards)
- Employer-sponsored coverage

An individual enrolled in any of the above health insurance plans or public programs would be considered to have minimum essential coverage and would not be subject to the individual mandate penalty.

The individual mandate requirement and associated penalties will first be implemented in calendar year 2014 with the introduction of guaranteed issue coverage, modified community rating, and premium tax credit subsidies in the individual insurance market. The penalty amount for not having minimum essential health insurance coverage is the *greater* of:

- 1. A flat per-person dollar amount (\$95 in 2014, \$325 in 2015, \$695 in 2016 and beyond, adjusted for inflation). The flat amount for a family cannot exceed three times the individual penalty amount. Children are assessed a penalty that is 50% of the full amount.
- 2. A percentage of income above the tax-filing threshold² (1.0% in 2014, 2.0% in 2015, and 2.5% in 2016).

After calendar year 2016, the flat dollar amount penalties are increased by a cost-of-living adjustment. The penalty amounts cannot exceed the national average bronze premium for qualified health plans for a household's applicable family size.

Individuals exempted from the individual mandate include the following populations:

- Individuals and their dependents whose household income is less than the filing threshold for federal income taxes.
- Individuals whose required contribution for self-only minimum essential health benefits coverage exceeds 8% of household income in 2014. The affordability test percentage of 8% will increase in future years to the extent that average premium growth exceeds household income growth. In addition to exempting qualifying individuals from the individual mandate requirement, Section 1302 of the PPACA also permits those meeting the affordability test to purchase coverage in the catastrophic health plan, which will have an actuarial value below 60%. The catastrophic health plan is otherwise only available to individuals under age 30.
- Individuals with qualifying religious exemptions, in a healthcare sharing ministry, incarcerated, members of Indian tribes, or not lawfully present in the United States. Those who experience a short coverage gap of less than three months are also not subject to the penalty.

requirement and associated penalties will first be implemented in calendar year 2014 with the introduction of guaranteed issue coverage, modified community rating, and premium tax credit subsidies in the individual insurance market.

The individual mandate

Leida, Hans and Wachenheim, Leigh. The Impact of Guaranteed Issue and Community Rating Reforms on Individual Insurance Markets. Milliman. August 2007. http://www.ahipcoverage.com/wp-content/uploads/2011/01/MillimanIndivMarket.pdf.

The tax filing threshold for 2011 is \$9,500 for single filers and \$19,000 for joint filings. For year 2016, \$10,250 and \$20,500 were used as the estimated tax filing thresholds.

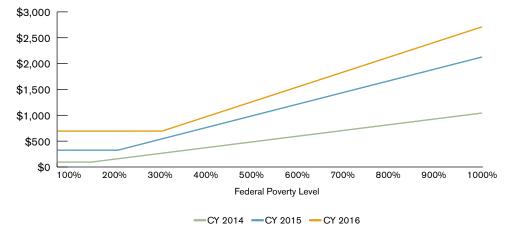
PROJECTED PENALTY AMOUNTS

BY YEAR AND HOUSEHOLD INCOME

Figure 3 illustrates the individual mandate penalty for calendar years 2014 through 2016 for a single adult for household income ranging from 100% to 1,000% of FPL. As the graph shows, the individual mandate penalty is significantly lower in 2014 than in the following years. In calendar year 2016, one-member households up to approximately 325% FPL would be subject to the flat dollar penalty amount of \$695.

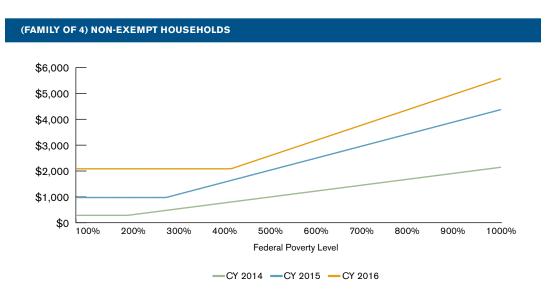
FIGURE 3: INDIVIDUAL MANDATE PENALTY AMOUNTS FOR CY 2014-16 BY FEDERAL POVERTY LEVEL (SINGLE) NON-EXEMPT HOUSEHOLDS

The individual mandate penalty is significantly lower in 2014 than in the following years. In calendar year 2016, one-member households up to approximately 325% FPL would be subject to the flat dollar penalty amount of \$695.



Note: FPL income level, tax exemptions, and tax deductions have been trended forward from CY 2011 values based on the CBO's forecasted annual CPI-U growth.

Figure 4 illustrates the individual mandate penalty for calendar years 2014 through 2016 for a family of four (two adults, two children) for household income ranging from 100% to 1,000% FPL. In calendar year 2016, a family of four that does not have minimum essential coverage will be required to pay the flat dollar penalty amount of \$2,085 up to approximately 430% FPL. Families of four above 430% FPL are estimated to be subject to the 2.5% assessment on income above the tax-filing threshold.



Note: FPL income level, tax exemptions, and tax deductions have been trended forward from CY 2011 values based on the CBO's forecasted annual CPI-U growth.

These penalties would be paid only by individuals and families for whom the lowest-cost self-only premium did not exceed 8% (calendar year 2014) of the household's income.

LOWEST-COST BRONZE PLAN

For households purchasing health insurance in the individual market, with the exception of individuals eligible for the catastrophic health plan (individuals under 30 and those qualifying for an affordability or hardship exemption), bronze-level plans will be the least expensive plans meeting the definition of minimum essential coverage and satisfying the individual mandate requirement. Bronze plans are required to have an actuarial value of 60%. For a household weighing the decision to purchase insurance strictly based on the dollar differential between the individual mandate penalty and the cost of insurance, the lowest-cost bronze plan would serve as the lowest-cost alternative to the penalty amount.

For individuals qualifying for the premium tax credit subsidy, the subsidy amount may be applied to the lowest-cost bronze plan. The premium tax credit subsidy is tied to the second-lowest-cost silver plan (70% actuarial value) offered on the exchange for the applicant's age, family status, and geographic area. For a portion of households qualifying for the subsidy, the value of the premium tax credit subsidy may result in a \$0 out-of-pocket premium for the lowest-cost bronze plan.

In theory, since the bronze plan has an actuarial value³ of at least 60%, 10% less than the 70% of actuarial value required of a silver plan, the bronze plan should be priced approximately 14% less $(0.1 \div 0.7)$ than the silver plan for an adult population. However, actual price differences between plans are likely to vary by age. The impact of increased cost sharing for an individual purchasing a bronze plan rather than a silver plan will not be symmetrical by age and gender. For example, increasing a policy deductible from \$2,500 to \$4,000 would decrease the insurer's expected paid benefit expenses for a 25-year-old by a larger percentage than on a 60-year-old, as a \$1,500 deductible increase would reflect a larger percentage of the 25-year-old's total expected healthcare expenses relative to the 60-year-old. Without restricted age rating allowances, the percentage premium decrease from moving from a silver to bronze plan may be greater for younger individuals. Insurance carriers are limited to using a 3:1 age rating ratio, which may limit a carrier's ability to reflect the actual differences in paid benefit expenses for a given age.

Additionally, a carrier's administrative expenses on a per-member basis may be similar between the bronze and silver plans, which would not create a differential on a portion of the premium cost. Depending on insurer pricing, the lowest-cost bronze plan may also have lower premiums beyond the benefit differential created by the actuarial value difference between the bronze and silver actuarial value. It may be expected that the households purchasing the bronze plans will be healthier than silver plan risk pool, but the risk adjustment process is intended to normalize population morbidity differences between the two tiers. Therefore, insurers are unlikely to reflect full selection differences in their bronze plan rates compared with those of their silver plans based on expected risk pool health status.

Figures 5 and 6 illustrate the estimated out-of-pocket premium cost for the lowest-cost bronze plan for a single 35-year-old and 55-year-old (Figure 5), and for a family of four with parents age 35 and 55 (Figure 6) in calendar year 2016 when the individual mandate penalty has been fully implemented. The premium estimates are based on the Kaiser Premium Subsidy⁴ calculator, which estimates silver plan premiums in 2014 for single and family households based on the CBO's silver plan premium estimates for the individual insurance market. The silver plan premium estimates have been trended forward to calendar year 2016 at an estimated 5% annual trend and reflect a medium-cost geographic area. It is assumed the silver plan premiums calculated from the Kaiser Premium Subsidy calculator reflect the second-lowest-cost silver plan.

For a household weighing the decision to purchase insurance strictly based on the dollar differential between the individual mandate penalty and the cost of insurance, the lowest-cost bronze plan would serve as the lowest-cost alternative to the penalty amount.

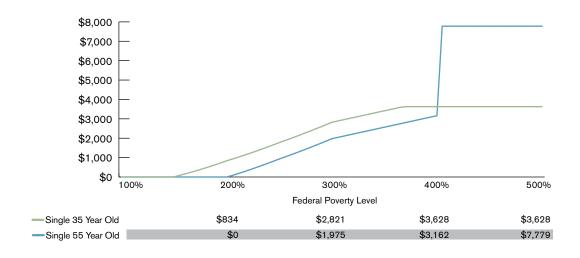
Based on a preliminary review of the Actuarial Value and Cost Sharing Reductions Bulletin released by HHS on February 24, 2012, the proposed methodology for determining actuarial value of qualified health plans in the individual and small group insurance markets will not materially impact the results of the analysis presented in this paper. The approach to calculating a plan's actuarial value may impact the results of the analysis presented in this paper somewhat, although significant differences are not expected. However, there are likely to be characteristics of a health plan and its administration that do not get reflected in the actuarial value of the plan, but do affect the price that is charged for the plan.

The Kaiser Premium Subsidy calculator can be found at http://healthreform.kff.org/SubsidyCalculator.aspx.

The calculation of the premium tax credit subsidy for the second-lowest-cost silver plan and the estimated lowest-cost bronze plan premium reflect the following assumptions:

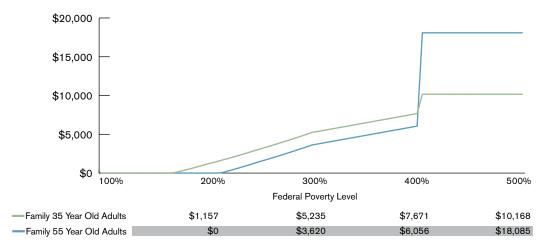
- Premium subsidy tax credit percentages have been indexed to reflect the excess of premium growth relative to average household income.⁵
- 88% of silver plan premium cost reflects medical expenditures and administrative expenses that vary by benefit level.
- The bronze plan premium was set to reflect:
 - The approximately 14% benefit differential between the bronze and silver plans.
 - The benefit differential percentage has not been adjusted by age. Actual benefit differential
 percentages may vary by age depending on insurer pricing.
 - A 5% premium differential beyond benefit differences has been estimated between the lowest-cost bronze plan and second-lowest-cost silver plan.
- 12% of silver plan premium cost reflects fixed administrative costs and underwriting gain and does not differ from the bronze plan on a per-member-per-month basis.

FIGURE 5: ESTIMATED OUT-OF-POCKET LOWEST COST BRONZE PREMIUM SINGLE HOUSEHOLD AFTER APPLICATION OF THE PREMIUM TAX CREDIT SUBSIDY, CALENDAR YEAR 2016



Please see Appendix 1 for a discussion on the indexing of the premium subsidy tax credit percentages.

FIGURE 6: ESTIMATED OUT-OF-POCKET LOWEST COST BRONZE PREMIUM FAMILY OF FOUR AFTER APPLICATION OF THE PREMIUM TAX CREDIT SUBSIDY, CALENDAR YEAR 2016



Note: Low-income children may be eligible for the Children's Health Insurance Program (CHIP). The premium values illustrated assume all family members are enrolled in the bronze plan without other coordinating coverage.

Figures 5 and 6 illustrate that for households qualifying for a premium tax credit subsidy, older individuals are estimated to pay a materially lower out-of-pocket premium for the lowest cost bronze plan than younger individuals. This phenomenon is created by the calculation of the premium tax credit subsidy and the greater dollar difference between the bronze and silver plans at older ages.

To illustrate the *leveraging effect* that the premium tax credit subsidy creates for older individuals, Figure 7 illustrates the calculation of the lowest-cost bronze plan out-of-pocket premium for a 35-year-old and 55-year-old at 300% FPL (approximately \$36,000 for single individual, \$73,000 family of four).

For households qualifying for a premium tax credit subsidy, older individuals are estimated to pay a materially lower outof-pocket premium for the lowest cost bronze plan than younger individuals.

FIGURE 7: DEVELOPMENT OF OUT-OF-POCKET BRONZE PLAN PREMIUM

CY 2016 -	HOUSEHOLD INCOME 300% FPL
CI 2010 -	TIOUSETICED INCOME 30070 I FE

0. 20.0 11000211025 111001112 000 // 1 1 2				
	SIN	GLE	FAMILY	OF FOUR
	AGE 35	AGE 55	AGE 35	AGE 55
SECOND-LOWEST-COST SILVER PLAN PREMIUM	\$4,368	\$9,366	\$12,242	\$21,774
MAXIMUM OUT-OF-POCKET PREMIUM CONTRIBUTION	\$3,561	\$3,561	\$7,309	\$7,309
PREMIUM TAX CREDIT SUBSIDY VALUE	\$807	\$5,804	\$4,933	\$14,465
LOWEST-COST BRONZE PLAN PREMIUM	\$3,628	\$7,779	\$10,168	\$18,085
% REDUCTION FROM SECOND LOWEST COST SILVER PLAN	16.9%	16.9%	16.9%	16.9%
PREMIUM REDUCTION FOR SUBSIDY	\$807	\$5,804	\$4,933	\$14,465
OUT-OF-POCKET PREMIUM BRONZE PLAN	\$2,821	\$1,975	\$5,235	\$3,620

Notes

- 1. CY 2016 maximum premium contribution for second-lowest-cost silver plan estimated at 10.01% of household income.
- 2. FPL values reflect estimated CY 2016 federal poverty level measures.

Figure 7 illustrates that while a 35-year-old and 55-year-old will have identical out-of-pocket premiums for the second-lowest-cost silver plan, the out-of-pocket premium for the lowest-cost bronze plan is approximately 45% higher for the 35-year-old relative to the 55-year-old for both a single person and family of four. Because of the greater dollar premium differential between the bronze and silver plans for older individuals, older individuals qualfying for the premium tax credit subsidy will have lower out-of-

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pocket bronze premiums relative to younger individuals. The higher out-of-pocket premium to purchase the lowest-cost plan for subsidy-qualified younger individuals and households may decrease insurance participation, relative to if younger individuals had the same out-of-pocket premiums as older individuals in the individual market.

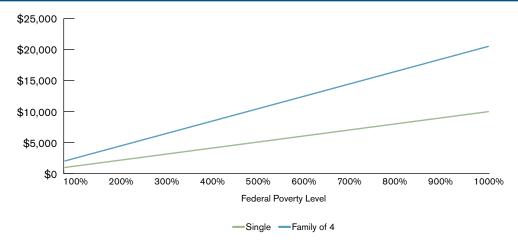
Also of note in Figures 5 and 6 are the cost differentials between those just under the 400% FPL and those just above it, particularly for older adults. This is reflective of the lack of subsidy graduation beyond the 400% level. This higher premium for those above 400% can result in premiums in excess of the affordability test threshold that exempts them from non-coverage penalties (as seen in Figure 1), which in turn may result in lower insurance participation.

AFFORDABILITY TEST

As stated previously, individuals who cannot purchase minimum essential coverage for less than 8% of household income in 2014 are exempt from the individual mandate requirement. This affordability percentage will be indexed to excess premium growth relative to average household income. The author's interpretation of this provision would also exempt a family from the individual mandate if the family premium exceeds the affordability percentage of household income. Figure 8 illustrates the estimated affordability percentage in calendar year 2016, 8.43%, by household income for an individual and family of four at increasing levels of income.

Individuals who cannot purchase minimum essential coverage for less than 8% of household income in 2014 are exempt from the individual mandate requirement. This affordability percentage will be indexed to excess premium growth relative to average household income.

FIGURE 8: PREMIUM THRESHOLD FOR EXEMPTION FROM THE INDIVIDUAL MANDATE DUE TO AFFORDABILITY TEST INCOME AND AFFORDABILITY TEST INDEX TO CY 2016



Note: Estimated CY 2016 income levels. Estimated affordability percentage 8.43%

At 400% FPL, the income limit for the premium tax credit subsidy, the affordability percentage translates to approximately \$4,000 for a single person household and \$8,200 for a family of four. For households below 300% FPL, it is not anticipated that out-of-pocket premiums will exceed the affordability percentage because of the premium tax credit subsidy.

For households qualifying for the premium tax credit subsidy with income between 300% and 400% FPL, the premium contribution for the second-lowest-cost silver plan is estimated to be capped at approximately 10.01% of household income in calendar year 2016. For a single 35-year-old, the premium for the lowest-cost bronze plan is estimated to vary between 7.9% and 8.4% of household income. However, for a single 55-year-old, the contribution decreases to between 5.5% and 6.7% of household income, resulting from the increased value of the premium tax credit subsidy.

Insurer pricing of the lowest-cost bronze plan in relation to the second-lowest-cost silver plan will determine whether any individuals in this cohort will qualify for an affordability exemption. For example, if the lowest-cost bronze plan was priced 10% below its normalized actuarial value instead of the 5% used in the above analyses, then it would be less likely for households to qualify for an affordability exemption. However, if there is essentially no pricing difference other than for benefit difference between the second-lowest-cost silver plan and the lowest-cost bronze plan, more individuals will potentially qualify for the affordability exemption.

For households above the 400% FPL threshold, it appears that the lowest-cost bronze plan will exceed the affordability test for a material number of households. Older individuals will have higher premium rates than young individuals, and therefore the affordability exemption income threshold will increase with the

At a given income level, two-adult households are more likely to have premiums exceed the threshold than an individual. age of the household. For example, a 25-year-old's premium cost will likely be below the affordability test for all households above 400% FPL. However, a 60-year-old's premium cost may be higher than the affordability test for households with income significantly higher than 400% FPL. This can be seen in the illustrations provided in Figure 1.

At a given income level, two-adult households are more likely to have premiums exceed the threshold than an individual. For example, in calendar year 2016, 400% FPL is estimated to translate into \$47,000 of annual income for a single person and \$63,000 for a married couple. If the bronze premium is \$4,000 for a single individual at a given age, it will be approximately \$8,000 for a married couple with the same ages. For a single person with income just above the 400% FPL threshold, the premium cost will be approximately 8.3% of household income ($40.00 \div 47,000$). However, for a married couple, the premium cost will be approximately 12.7% of household income ($80.00 \div 63,000$), which will be deemed unaffordable. The married couple will be exempt from the individual mandate, and will also be allowed to purchase insurance coverage in the catastrophic health plan that is otherwise limited to individuals under 30 years old.

LOWEST-COST BRONZE PREMIUM VS. PENALTY AMOUNTS

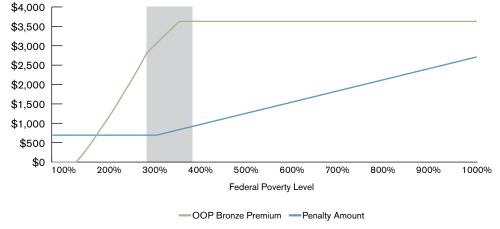
Individuals not eligible for government-sponsored programs or employer-sponsored health insurance will have the choice of purchasing minimum essential coverage in the individual market or paying the individual mandate penalty. The decision an individual makes may depend on the individual's health status and the incremental cost of paying the penalty relative to the cost of purchasing the lowest-cost bronze plan in the individual market. Individuals in poor health will be more likely to purchase insurance because they have an existing need for healthcare services. Individuals in excellent or good health will be more likely to weigh the financial cost of purchasing insurance relative to paying the individual mandate penalty. The next series of charts illustrates the cost relationship between the individual mandate penalty amounts for selected ages, family size, and household income relative to the estimated out-of-pocket premium cost for the lowest-cost bronze plan.

Individuals not eligible for government-sponsored programs or employer-sponsored health insurance will have the choice of purchasing minimum essential coverage in the individual market or paying the individual mandate penalty.

When the individual mandate penalty amount is \$0 for a given income level, this indicates the household is exempt from the individual mandate because of the affordability provision or income below the tax-filing threshold. Shaded income levels indicate income levels where the estimated out-of-pocket premium for the lowest-cost bronze plan is estimated to be within +/-0.5% of the affordability test. The affordability test percentage has been estimated at 8.43% for calendar year 2016. Therefore, households whose estimated out-of-pocket premium cost ranges from 7.93% to 8.93% are shaded.

Figure 9 provides a comparison of the out-of-pocket bronze premium relative to the individual mandate penalty amount for a single 35-year-old. The lowest-cost bronze plan premium for a single 35-year-old individual is estimated at \$3,600 per year in 2016. The out-of-pocket cost to purchase this plan is reduced due to subsidies at lower income levels. By comparsion, the penalty for not purchasing insurance is \$695 at lower income levels, but rises as the 2.5% income penalty exceeds this amount.

FIGURE 9: INDIVIDUAL MANDATE PENALTY RELATIVE TO BRONZE OUT-OF-POCKET PREMIUM COST SINGLE 35 - YEAR OLD, CY 2016 ESTIMATED FPL AND PREMIUM



Notes:

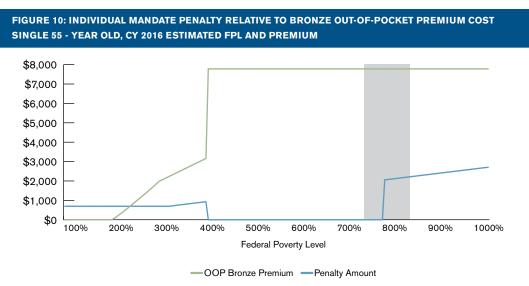
- CY 2016 estimated lowest-cost bronze premium is \$3,600. Premium is estimated to be 5% less than the second-lowest-cost silver plan after normalization for benefit differences.
- 2. Affordability test estimated at 8.43% of household income.
- Shaded income levels indicate income levels where the estimated out-of-pocket premium for the lowest-cost bronze plan is estimated to be within +/-0.5% of the affordability test.

Figure 9 indicates that the bronze premium cost will actually be less than the individual mandate penalty for individuals with income below 200% FPL. This should result in a high insurance take-up rate for low-income individuals, as it would be in the individual's best financial interest to purchase insurance.

However, as income increases above 200% FPL, the annual out-of-pocket premium for the lowest-cost bronze plan exceeds the penalty amount by more than \$2,000. Between 300% and 400% FPL, the penalty amount is approximately 25% of the estimated out-of-pocket premium cost of the lowest-cost bronze plan. For households with income above 400% FPL, the penalty amount is estimated to not reach 50% of the lowest-cost bronze plan premium until income reaches 700% FPL (\$83,000).

For individuals with income between approximately 300% FPL and slightly above 400% FPL, it may be possible that the individual would be exempted from the individual mandate because of the affordability provision. However, based on the assumptions used in this analysis, single 35-year-old individuals at all income levels are estimated to pay less than the affordability test limit for the lowest-cost bronze plan premium. This estimate is sensitive to the indexing of the premium tax credit percentage, the indexing of the affordability test percentage, and the relative premium difference between the lowest-cost bronze plan and the second-lowest-cost silver plan.

Figure 10 compares the bronze plan cost and individual mandate penalty amounts for a 55-year-old individual. The bronze plan premium is estimated to increase from \$3,600 for the 35-year-old to \$7,800 annually for the 55-year-old. This results in individuals with significantly higher incomes being exempt from the individual mandate, as premium amounts will not meet the affordability definition. For low-income individuals, the out-of-pocket bronze premium may be less than individual mandate penalty for individuals with income up to 235% FPL (\$28,000). A significant out-of-pocket premium increase is created at the 400% FPL threshold by eliminating the premium tax credit.



Notes:

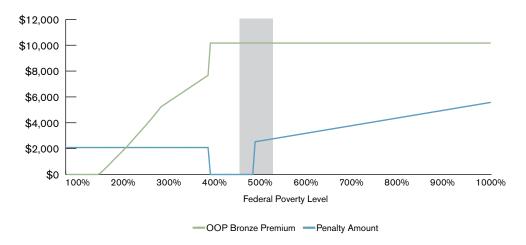
- CY 2016 estimated lowest-cost bronze premium \$7,800. Premium is estimated to be 5% less than the second-lowest-cost silver plan after normalization for benefit differences.
- 2. Affordability test estimated at 8.43% of household income.
- Shaded income levels indicate income levels where the estimated out-of-pocket premium for the lowest-cost bronze plan is estimated to be within +/-0.5% of the affordability test.

As the result of older individuals having a lower out-of-pocket bronze premium cost, as illustrated in Figure 5, the ratio of the penalty amount to the bronze plan premium cost for households with income between 300% and 400% FPL is approximately 5% greater (30%) for the 55-year-old relative to the 35-year-old (25%).

Figure 11 illustrates the cost differences between the bronze plan and individual mandate penalty amounts for a family of four with parents age 35 and two children. As with single households, the out-of-pocket bronze premium is estimated be lower than the penalty amount for households with income slightly above 200% FPL. However, from approximately 345% FPL (\$84,000) to 640% FPL (\$156,000),

the penalty amount is estimated to be less than or equal to one-third of the lowest-cost bronze plan out-of-pocket premium amount. A portion of households between 400% and 500% FPL are very likely to be exempt from the individual mandate because of the affordability provision. The exempted income range may be wider or narrower depending on the cost difference between the lowest-cost bronze plan and the second-lowest-cost silver plan and the indexing of the premium tax credit and affordability test percentages.

FIGURE 11: INDIVIDUAL MANDATE PENALTY RELATIVE TO BRONZE OUT-OF-POCKET PREMIUM COST FAMILY OF 4 - PARENTS AGE 35, CY 2016 ESTIMATED FPL AND PREMIUM



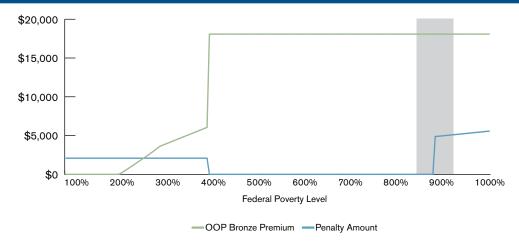
Notes:

- CY 2016 estimated lowest-cost bronze premium \$10,200. Premium is estimated to be 5% less than the second-lowest-cost silver plan
 after normalization for benefit differences.
- 2. Affordability test estimated at 8.43% of household income.
- Shaded income levels indicate income levels where the estimated out-of-pocket premium for the lowest-cost bronze plan is estimated to be within +/-0.5% of the affordability test.

Figure 12 illustrates the cost differences between the bronze plan and individual mandate penalty amounts for a family of four with parents age 55 and two children. Relative to the family with 35-year-old parents, the main difference is a significant increase in household income level above 400% that may be exempted from the individual mandate. This occurs because the estimated bronze plan premium cost increases from \$10,200 to \$18,100. Based on the assumptions used in this analysis, households at this age with income up to 880% FPL (\$214,000) will be exempted from the individual mandate. While a significant number of older households will be exempted from the mandate, many of these households may still have incentive to purchase insurance to protect against paying for a high-cost medical event, particularly since health status declines with age. Exempted households will also be eligible for the catastrophic health plan that is otherwise only open to individuals under age 30.

While a significant number of older households will be exempted from the mandate, many of these households may still have incentive to purchase insurance to protect against paying for a high-cost medical event.

FIGURE 12: INDIVIDUAL MANDATE PENALTY RELATIVE TO BRONZE OUT-OF-POCKET PREMIUM COST FAMILY OF 4 - PARENTS AGE 55, CY 2016 ESTIMATED FPL AND PREMIUM



Notes:

- CY 2016 estimated lowest-cost bronze premium \$18,100. Premium is estimated to be 5% less than the second-lowest-cost silver plan after normalization for benefit differences.
- 2. Affordability test estimated at 8.43% of household income.
- Shaded income levels indicate income levels where the estimated out-of-pocket premium for the lowest-cost bronze plan is estimated to be within +/-0.5% of the affordability test.

For households with income up to approximately 265% FPL (\$64,000), the individual mandate penalty amount is estimated to exceed the out-of-pocket premium cost for the lowest-cost bronze plan. Many households approaching the Medicaid eligibility threshold (138% FPL) will have \$0 out-of-pocket premiums for the lowest-cost bronze plan. However, as income increases above 200% FPL, the ratio of the mandate penalty amount to the estimated out-of-pocket premium quickly decreases. For example, the ratio decreases from 1.00 for a household at 265% FPL (\$64,000) to only 0.34 for a household at 400% FPL (\$97,000), and zero (0.00) for a wide range of income levels.

Figure 13 illustrates the ratio of the individual mandate penalty amount relative to the out-of-pocket bronze plan premium amount for the households represented in Figures 9 through 12 for selected household income values (as a percentage of FPL).

FIGURE 13: RATIO OF INDIVIDUAL MANDATE PENALTY AMOUNT RELATIVE TO OUT-OF-POCKET PREMIUM FOR BRONZE PLAN

BASED ON CALENDAR YEAR 2016 ESTIMATED PREMIUM AND INDIVIDUAL MANDATE PENALTY AMOUNTS

	FEDERAL POVERTY LEVEL PERCENTAGE								
HOUSEHOLD SIZE AND AGE	150%	200%	250%	300%	400%	500%	600%	800%	1000%
SINGLE, AGE 35	100%	83%	39%	25%	26%	34%	42%	58%	75%
SINGLE, AGE 55	100%	100%	75 %	35%	29%	0%	0%	27%	35%
FAMILY OF 4, AGE 35	100%	100%	68%	40%	27%	25%	31%	43%	55%
FAMILY OF 4, AGE 55	100%	100%	100%	58%	34%	0%	0%	0%	31%

Notes:

- 1. For income levels where the individual mandate penalty exceeds the out-of-pocket bronze plan premium, the ratio is shown as 100%.
- $2. \quad \text{For income levels where the household is exempt from the mandate, the ratio is shown as } 0\%.$

With the exception of the single 35-year-old, the individual mandate penalty is estimated to exceed the out-of-pocket bronze plan premium for households with income at or below 200% FPL. As not purchasing health insurance would be a financially irrational decision for households with a mandate penalty amount exceeding the out-of-pocket bronze plan premium, these households should have higher insurance participation rates relative to households whose individual mandate penalty amount is considerably less than the minimum cost of insurance.

As household income reaches 300% FPL, the individual mandate penalty is significantly less than the out-of-pocket bronze plan premium. Therefore, the individual mandate's ability to encourage high insurance participation rates at higher income levels is less certain. While the individual mandate penalty will not differ by age, the penalty amount will be a lower percentage of the out-of-pocket bronze plan premium for younger individuals qualifying for the premium tax credit subsidy. As young, healthy individuals are less likely to perceive health insurance as a necessity, this population's behavior may be less impacted by the individual mandate.

Ignoring the affordability exemption, the ratio of the mandate penalty amount to the out-of-pocket bronze plan premium gradually increases for households with income above 400% FPL. For younger individuals, the penalty amount will be a higher percentage of the bronze plan premium because of the 3:1 age rating allowance permitted in the individual health insurance market. However, for older individuals and families, the penalty amount is substantially less than the bronze plan premium amount, even for households with income reaching 1,000% FPL.

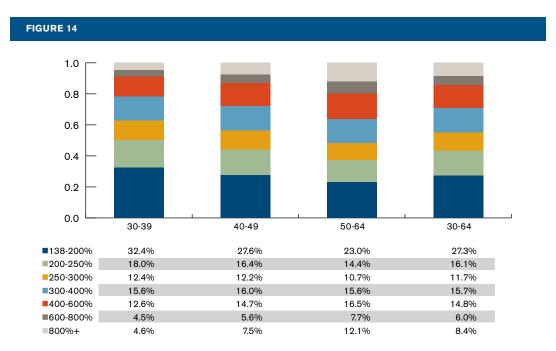
While the individual mandate penalty will not differ by age, the penalty amount will be a lower percentage of the out-of-pocket bronze plan premium for younger individuals qualifying for the premium tax credit subsidy.

The populations that are currently uninsured or purchase insurance individually are anticipated to represent the majority of the future individual insurance market population, and will include individuals who purchase insurance in the state insurance exchanges.

ESTIMATED INDIVIDUAL MARKET HOUSEHOLD INCOME DISTRIBUTION

The populations that are currently uninsured or purchase insurance individually are anticipated to represent the majority of the future individual insurance market population, and will include individuals who purchase insurance in the state insurance exchanges. To understand how the aggregate individual insurance market will be impacted by the individual mandate requirement, it is important to understand the household income distribution of these populations. For example, if most of the households in these two populations had income under 200% FPL, it would be anticipated that the individual mandate would have a very strong impact on insurance participation, as it is estimated that that individual mandate penalty amounts will exceed the out-of-pocket bronze plan premium for many households at this income level. However, if the vast majority of households had income above 400% FPL, the mandate may have significantly less overall impact on encouraging insurance participation.

Figure 14 illustrates the calendar year 2010 estimated household income distribution for adults ages 30 to 64 with household income above 138% FPL (households with income at or below 138% FPL will be eligible for Medicaid in 2014) from the calendar year 2010 American Community Survey (ACS). Figure 14 illustrates the income distribution by age group, which indicates that average household income increases with age.



Age Group Population Values: 30-39: 6.6 million, 40-49: 6.7 million, 50-64: 8.4 million, Total: 21.6 million.

Ignoring other reasons to purchase health insurance, households with income at or below 200% FPL, representing 27% (5.9 million) of adults age 30 to 64 in the two populations, are the most likely to purchase insurance in 2016 **solely because of the individual mandate**, as the individual mandate penalty is likely to exceed or be comparable to the out-of-pocket cost for the lowest-cost bronze plan.

Individuals with household income between 200% and 300% FPL accounted for an additional 6.0 million individuals that were either uninsured or individually insured in calendar year 2010. For these individuals, the individual mandate penalty relative to out-of-pocket bronze plan premiums will be very sensitive to household income changes, age, and family type. For households in this cohort with household income

near 200% FPL, the mandate penalty may even exceed the bronze plan premium amounts. However, for households with income near 300% FPL, the penalty amount may as little as 25% of the bronze plan premium amount.

For the populations above 300% FPL, the majority of households' penalty amount is estimated to be less than 50% of the out-of-pocket bronze plan premium. The affordability exemption may also impact a significant number of households with income above 400% FPL. Ignoring other potential age group/ income cohorts that may be impacted by the affordability test, individuals age 40 to 49 with income between 400% and 600% FPL and individuals age 50 to 64 with income between 400% and 800% FPL represent approximately 3.0 million individuals who may be impacted by the affordability exemption. As individuals meeting the requirements of the affordability exemption can enroll in the catastrophic health plan option, the catastrophic health plan may consist of a mix of individuals under 30 and older individuals with income above 400% FPL.

The affordability exemption may also impact a significant number of households with income above 400% FPL.

While it is difficult to estimate with great confidence the overall impact that the individual mandate provision will have, by modeling estimated penalty amounts relative to estimated out-of-pocket premium amounts, several conclusions can be made.

CONCLUSION

Beginning in 2014, the individual health insurance market, with the exclusion of grandfathered plans, will require all policies to be guaranteed issue without any health status rating. The individual mandate is intended to reduce the degree of adverse selection that would otherwise occur in such a rating environment. While it is difficult to estimate with great confidence the overall impact that the individual mandate provision will have, by modeling estimated penalty amounts relative to estimated out-of-pocket premium amounts, several conclusions can be made about the mandate's impact on insurance participation and insurance exchange operations:

- For households with income below 200% FPL, the individual mandate will provide high financial incentive for insurance participation, as remaining or becoming uninsured would be more costly than purchasing insurance.
- For households with income between 200% and 300% FPL, the penalty amount becomes significantly smaller relative to out-of-pocket premium amounts because of the premium tax credit subsidy's decreasing value. The influence of the individual mandate will be very strong for a portion of this income cohort, but less certain for households with income approaching 300% FPL, individuals, and the young.
- Households with income between 138% and 250% FPL represent almost 50% of the combined uninsured and individually insured population in calendar year 2010, and therefore will likely represent a significant portion of the individual insurance market beginning in 2014. Even if the individual mandate is considered weak for higher-income households, the mandate should encourage high insurance participation for a significant portion of the potential individual health insurance market.
- The affordability exemption may impact a significant number of households with income significantly above 400% FPL, particularly individuals older than 50. As older individuals have greater health needs on average, the desire for insurance may be greater for them than for younger individuals. Therefore, even if a significant portion of older individuals are exempted from the individual mandate, insurance participation may still be reasonably high from the exempt population. Catastrophic health plan enrollment may be larger than anticipated because of enrollment from exempt individuals seeking a lower cost plan relative to the metallic plans.
- State insurance exchanges or the federal exchange will be required to verify exemption from the individual mandate penalty. Many of the individuals that may seek an exemption, either to avoid paying the penalty or to enroll in the catastrophic health plan, will have income above 400% FPL, and would not otherwise interact with the insurance exchange. Exchange planners should not ignore the potential exchange interaction from this population cohort.
- The indexing of the premium tax credit subsidy percentages and the affordability test percentage, as well as the pricing of the lowest-cost bronze plan in relation to the second-lowest-cost silver plan, may have a material impact on the individual mandate's ability to encourage insurance participation.

Insurance carriers, regulators, and state policymakers should take these considerations into account when trying to estimate the individual mandate's impact on adverse selection, insurance participation, and insurance plan selection in the new individual insurance market.

LIMITATIONS

Differences between the projections illustrated and 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.

In developing the projections, I relied on data and other information from the U.S. Census Bureau and other publicly available information. I have not audited or verified this data and other information. Estimates developed from other publicly available census survey data and government resources will differ from this analysis. A limited review of the data used directly in this analysis was performed for reasonableness and consistency. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

The analysis was not able to factor in the perceived value of having health insurance coverage on its own merits other than consideration of premium costs and penalties. Such value will vary based upon a person's demographics, income level, health status, and other characteristics.

The projections included in this research paper are based on the author's understanding of the PPACA and its associated regulations issued to date. Forthcoming PPACA-related regulations and additional legislation may materially change the impact of the PPACA, necessitating an update to the projections included in this paper.

The views expressed in this issue brief are made by the author of this paper and do not represent the opinion of Milliman, Inc. Other Milliman consultants may hold different views.

QUALIFICATION

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. I am a member of the American Academy of Actuaries, and meet the qualification standards for performing the analyses in this report.

ACKNOWLEDGMENTS

I would like to thank Charles Clark, ASA, MAAA, and Scott Weltz, FSA, MAAA, for reviewing the indexing methodology underlying the values in this report. I would like to thank numerous colleagues in the Milliman Indianapolis Health practice for their review and comments on this report. I would also like to thank Jim O'Connor, FSA, MAAA, who peer reviewed this report.

APPENDIX 1

INDEXING METHODOLOGY

A number of PPACA and federal tax provisions are or will be indexed on an annual basis. Many of these provisions will impact out-of-pocket premiums, the individual mandate affordability exemption, and individual mandate penalty amounts. Many of the regulations and rules governing these calculations have not been released. Therefore, final interpretations of the law may differ significantly from the interpretation of the provisions presented in this report. These provisions include:

- Federal poverty level
- Federal tax-filing thresholds
- Premium tax credit subsidy calculation
- Affordability test income percentage

The following is a discussion of how these parameters are indexed and the sources used to estimate future values of these parameters as presented in this report.

FEDERAL POVERTY LEVEL

The federal poverty level (FPL) or *poverty line* is used to determine the maximum percentage of household income that a household qualifying for a premium tax credit subsidy must pay for the second-lowest-cost silver plan. The poverty line measure used in the PPACA is defined in section 673 of the Community Services Block Grant Act as "the official poverty line defined by the Office of Management and Budget based on the most recent data available from the Bureau of the Census. The Secretary shall revise annually (or at any shorter interval the Secretary determines to be feasible and desirable) the poverty line, which shall be used as a criterion of eligibility in the community services block grant program established under this subtitle. The required revision shall be accomplished by multiplying the official poverty line by the percentage change in the Consumer Price Index for All Urban Consumers (CPI-U) during the annual or other interval immediately preceding the time at which the revision is made."

The CBO's Budget and Economic Outlook: Fiscal Years 2011 through 2021 contains forecasted year-to-year changes in the CPI-U.⁶ Figure 1 illustrates the estimated FPL for a single- and four-person household from calendar year 2011 through calendar year 2016 and the CBO's forecasted change in the CPI-U.

FIGURE 1:ESTIMATED FPL - CALENDAR YEAR 2011 THROUGH 2016 48 CONTIGUOUS STATES AND WASHINGTON, D.C. **HOUSEHOLD SIZE** CY 2011 CY 2012 CY 2013 CY 2014 CY 2015 CY 2016 \$10,890 \$11,064 \$11,208 \$11,421 \$11,638 \$11.859 \$22,350 \$22,708 \$23,003 \$23,440 \$23,885 \$24.339 **CPI-U CHANGE FROM THE** 1.60% 1.30% 1.90% 1.90% 1.90% **PREVIOUS CALENDAR YEAR**

Note: This table is the calendar year table, as opposed to the federal fiscal year table, as per Section 36B.

Congressional Budget Office. Budget and Economic Outlook: Fiscal Year 2011 through 2021. Table 2-1, page 29. http://www.cbo.gov/ftpdocs/120xx/doc12039/01-26_fy2011outlook.pdf.

TAX-FILING THRESHOLDS

As the individual mandate penalty percentage amount is based on income exceeding the tax-filing threshold, a projection has to be made for future filing thresholds for federal income tax to estimate the individual mandate penalty amounts. The term *tax-filing threshold* is defined in this report as income that is above the sum of standard exemption and deduction amounts. Exemption and deduction amounts are indexed to growth in the CPI-U relative to a base year. Figure 2 illustrates the tax-filing thresholds for a single and married household, based on the calendar year 2011 standard deductions and exemptions.⁸

FIGURE 2: TAX FILING THRESHOLD – CALENDAR YEAR 2011					
	SINGLE	MARRIED FILING JOINTLY			
STANDARD EXEMPTIONS	\$3,700	\$ 7,400			
STANDARD DEDUCTION	\$5,800	\$11,600			
TAX-FILING THRESHOLD	\$9,500	\$19,000			

For purposes of the calculations presented in this paper, tax-filing thresholds for future years have been indexed to the CBO's forecasted CPI-U change. The actual indexing of the exemption and deduction amounts is based on the average annual CPI-U from September through August.⁹

PREMIUM TAX CREDIT PERCENTAGES

The calculation of the premium tax credit subsidy is dependent upon the value of **premium tax credit percentages**. Section 1401 of the ACA has the following language concerning the indexing of the premium tax credit percentages:

"(I) IN GENERAL.—Subject to subclause (II), in the case of taxable years beginning in any calendar year after 2014, the initial and final applicable percentages under clause (i) (as in effect for the preceding calendar year after application of this clause) shall be adjusted to reflect the excess of the rate of premium growth for the preceding calendar year over the rate of income growth for the preceding calendar year.

"(II) ADDITIONAL ADJUSTMENT.—Except as provided in subclause (III), in the case of any calendar year after 2018, the percentages described in subclause (I) shall, in addition to the adjustment under subclause (I), be adjusted to reflect the excess (if any) of the rate of premium growth estimated under subclause (I) for the preceding calendar year over the rate of growth in the consumer price index for the preceding calendar year.

"(III) FAILSAFE.—Subclause (II) shall apply for any calendar year only if the aggregate amount of premium tax credits under this section and costsharing reductions under section 1402 of the Patient Protection and Affordable Care Act for the preceding calendar year exceeds an amount equal to 0.504 percent of the gross domestic product for the preceding calendar year.

The CBO has stated the indexing adjustment will be equal "to the difference between (1) the percentage change in average premiums for private health insurance for the nonelderly nationwide between the prior year and the year before that and (2) the percentage change in average U.S. household income between those same two years." ¹⁰

Congressional Research Service. Individual Mandate and Related Information Requirements under PPACA. August 16, 2010. http://www.nahu.org/legislative/resources/Individual%20Mandate%20and%20Related.pdf.

Internal Revenue Service. Publication 501: Exemptions, Standard Deductions, and Filing Information For Use in Preparing 2011 Returns. http://www.irs.gov/pub/irs-pdf/p501.pdf.

Tax Foundation. The Tax Foundation Projects 2012 Tax Parameters Following Release of August CPI-U Data. September 15, 2011. http://www.taxfoundation.org/files/ff282.pdf.

Congressional Budget Office. Additional Information About CBO's Baseline Projections of Federal Subsidies for Health Insurance Provided Through Exchanges. May 12, 2011. http://www.cbo.gov/ftpdocs/121xx/doc12188/05-12-Subsidies_in_Exchanges.pdf.

January 2011 projections from the CMS Office of the Actuary for health insurance enrollment and expenditures through 2018 were used to estimate annual per capita non-elderly private health insurance premium growth. Figure 3 illustrates the annual per capita premium growth developed from the *Employersponsored Private Health Insurance* and *Exchanges* categories from Table 17 of the Office of the Actuary projections, summarizing *Health Insurance Enrollment and Enrollment Growth Rates, Calendar Years, 2009-2020.*¹¹

FIGURE 3: CHANGES IN PER CAPITA PRIVATE HEALTH INSURANCE PREMIUMS

BASED ON CMS OFFICE OF THE ACTUARY NATIONAL HEALTH EXPENDITURE PROJECTIONS

CALENDAR YEAR	PRIVATE HEALTH INSURANCE ENROLLMENT (MILLIONS)	PRIVATE HEALTH INSURANCE EXPENDITURES (\$ BILLIONS)	PER CAPITA ANNUAL EXPENDITURES	ANNUAL PER CAPITA CHANGE	
2013	179.4	\$ 923.0	\$5,145		
2014	184.2	\$1,010.0	\$5,483	6.6%	
2015	187.2	\$1,073.0	\$5,732	4.5%	
2016	187.7	\$1,137.0	\$6,058	5.7%	
2017	189.9	\$1,197.0	\$6,303	4.1%	
2018	190.5	\$1,247.0	\$6,546	3.8%	

For calendar year 2013 values, enrollment and expenditures for non-elderly individual health insurance were included in the *Other Private Health Insurance* category. Prior to calendar year 2014, this category also includes Medicare Supplement plans. Beginning in 2014, the *Other Private Health Insurance* category includes only Medicare Supplement plans. An adjustment was made for the calendar year 2013 values illustrated in Figure 3 to reflect the estimated portion of enrollment and insurance expenditures from the *Other Private Health Insurance* category attributable to non-Medicare Supplement plans.

From calendar year 2015 through 2018, the premium subsidy tax credit percentages defined in section 1401 of the PPACA will be indexed by the excess per capita private health insurance growth relative to changes in average household income. For the purposes of this paper, it has been assumed that household income growth will exceed the CPI-U growth rate by 1% each calendar year. Figure 4 illustrates the estimated premium tax credit percentage adjustment for each calendar year for selected income levels.

CMS Office of the Actuary. National Health Expenditure Projections 2010-2020. Table 17. January 2011. https://www.cms.gov/NationalHealthExpendData/downloads/proj2010.pdf.

FIGURE 4: ESTIMATED MAXIMUM HOUSEHOLD INCOME PERCENTAGE FOR SECOND-LOWEST-COST SILVER PLAN

CALENDAR YEARS 2014 THROUGH 2018

	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018
PREMIUM GROWTH	6.6%	4.5%	5.7%	4.1%	3.8%
HOUSEHOLD INCOME GROWTH	2.9%	2.9%	2.9%	3.3%	3.3%
EXCESS PREMIUM GROWTH FROM PRICE	OR YEAR	3.7%	1.6%	2.8%	0.8%
PREMIUM TAX CREDIT PERCENTAGE	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018
150% FPL	4.00%	4.15%	4.21%	4.33%	4.36%
250% FPL	8.05%	8.35%	8.48%	8.72%	8.78%
400% FPL	9.50%	9.85%	10.01%	10.29%	10.37%

For the calendar year 2015 premium tax credit percentages, the calendar year 2014 percentages will be adjusted for the excess premium growth relative to average household income. For example, for a household at 400% FPL, the calendar year 2015 premium tax credit percentage (PTCP) will equal:

CY 2015 PTCP = CY 2014 PTCP X [1+ (CY 2014 Premium Growth - CY 2014 Income Growth)]

$$9.85\% = 9.50\% \times [1 + (6.6\% - 2.9\%)]$$

AFFORDABILITY TEST

The *affordability test* for exemption from the individual mandate will be indexed in a manner identical to the premium tax credit percentages.

Section 1501 of the PPACA includes an affordability exemption from the individual mandate. The law states, Any applicable individual for any month if the applicable individual's required contribution (determined on an annual basis) for coverage for the month exceeds 8 percent of such individual's household income for the taxable year described in section 1412(b)(1)(B) of the Patient Protection and Affordable Care Act. For purposes of applying this subparagraph, the taxpayer's household income shall be increased by any exclusion from gross income for any portion of the required contribution made through a salary reduction arrangement.

Section 1501 of the ACA does not make clear if families will be exempted from the individual mandate if the family's premium exceeds 8% of household income, or if the premium for each individual member of a family must exceed 8% of household income. It is clear, however, that for **families eligible for employer-sponsored coverage**, agency interim final regulations related to eligibility for premium tax credits state, future proposed regulations ... are expected to provide that the affordability test for purposes of applying the individual responsibility requirement to related individuals is based on the employee's required contribution for employer-sponsored family coverage.¹²

Families eligible for employer-sponsored health insurance that must pay more than 8% of household income for coverage will not be required to pay the individual mandate penalty if they fail to purchase family coverage. With the expectation that regulations governing the individual health insurance market will be consistent with employer-sponsored insurance, the modeling used for the calculations presented in this paper assumes that families unable to purchase family coverage for less than 8% of household income will also be exempt from the individual mandate.

Department of the Treasury, Internal Revenue Service. REG-131491-10 Health Insurance Premium Tax Credit. August 12, 2011. http://www.gpo.gov/fdsys/pkg/FR-2011-08-17/pdf/2011-20728.pdf.

For an individual only eligible to purchase minimum essential coverage in the individual market, the Section 1501 of the PPACA states the affordability provision will be applied to the "annual premium for the lowest-cost bronze plan available in the individual market through the Exchange in the State in the rating area in which the individual resides (without regard to whether the individual purchased a qualified health plan through the Exchange), reduced by the amount of the credit allowable under section 36B for the taxable year (determined as if the individual was covered by a qualified health plan offered through the Exchange for the entire taxable year)."

The PPACA states that the affordability test percentage will be indexed "by substituting for '8 percent' the percentage the Secretary of Health and Human Services determines reflects the excess of the rate of premium growth between the preceding calendar year and 2013 over the rate of income growth for such period."

For the purposes of the calculations presented in this paper, it is assumed that the affordability test will be indexed in a manner identical to the premium tax credit percentage. Borrowing from the calculations illustrated in Figure 4 (see the line labeled *Excess Premium Growth From Prior Year*), Figure 5 illustrates the estimated affordability test percentage for calendar year 2014 through 2018.

FIGURE 5: ESTIMATED AFFORDABILITY TEST PERCENTAGE FOR EXEMPTION FROM THE INDIVIDUAL MANDATE

CALENDAR YEARS 2014 THROUGH 2018

	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	
EXCESS PREMIUM GROWTH FROM PRICE	R YEAR	3.7%	1.6%	2.8%	0.8%	
AFFORDABILITY TEST PERCENTAGE	8.00%	8.29%	8.43%	8.66%	8.73%	

APPENDIX 2

SUMMARIZATION OF CENSUS SURVEY DATA

The calendar year (CY) 2010 American Community Survey (ACS), published by the U.S. Census Bureau, was used to estimate the age and income distribution of the uninsured and individually insured populations. The ACS is based on a survey of 2 million households in all states and counties. The ACS data is commonly used by health policy analysts to profile health insurance coverage and demographic information.

The modified adjusted gross income (MAGI) calculation under the PPACA will be based on a household's reported income and number of dependents claimed on the tax return. The households defined in the ACS do not always correspond to a *tax-filing* household. For example, adult children living with parents are identified in the same household as the parents, but would not be claimed as dependents on their parent's tax return (assuming they had minimal earnings during the year). Therefore, adjustments were made to the data to create *tax-filing* households.

The methodology for organizing families was based on IRS tax rules regarding which people may be claimed as a dependent. In the ACS data, the data was organized by household, with the first person listed in a household being the *reference person*. The reference person was considered the head of household, and in his or her family spouses were included, as well as any other relative in the household who met any of the following three criteria:

- 1. Child (biological or adopted) under the age of 19
- 2. Child (biological or adopted) under the age of 24 and attending school
- 3. Any person making less than \$3,650 in gross income

Income for the reference person, spouse, and qualified dependent or relative are included in the household's income total. For individuals living in the household, but not part of the tax filing household, a separate tax filing household is created. For example, a 25-year-old adult with \$10,000 in annual income would be considered a separate household.

MAGI, for purposes of calculating the household's FPL percentage, was calculated based on the household's actual gross income, with deductions for Supplemental Security Income (SSI). This methodology reflects the modification of the MAGI definition to include non-taxable Social Security income that was included under legislation signed by President Obama on November 22, 2011 (HR 674).

Household income has not been reduced for other common deductions from gross income, such as contribution to qualified retirement accounts, dependent care expenses, and tuition expenses. These deduction amounts are not available from the ACS data.



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