Impacts of the Elimination of the ACA's Individual Health Insurance Mandate Penalty on the Nongroup Market in New York State

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Preface

In this report, the authors use RAND's COMPARE microsimulation model to estimate the effects of the elimination of the Affordable Care Act's individual mandate penalty in New York State. New York's health care landscape is different than most states', in that New York has community rating on its nongroup market and opted to offer a Basic Health Program to individuals who would otherwise be eligible for subsidies on the nongroup market.

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Summary

In December 2017, the Tax Cuts and Jobs Act was signed into law, eliminating the penalty associated with the Patient Protection and Affordable Care Act's (ACA's) individual health insurance mandate, effective January 1, 2019. The elimination of the individual mandate penalty is likely to have unique impacts on the nongroup insurance market in the state of New York. New York is different from other states in both its regulation of the nongroup market and in its comprehensive public coverage programs serving low-income individuals. In particular, New York has full community rating on the nongroup market and is one of two states to offer a Basic Health Program, called the Essential Plan (EP) in New York, to certain qualifying low-income individuals. We estimate that, for 2019, elimination of the individual mandate penalty in New York will lead to a 23–25 percent increase in premiums in the nongroup market, and a 37 percent reduction in enrollment in the nongroup market. Due to New York's full community rating and existence of the EP, its nongroup market is particularly susceptible to adverse selection when the individual mandate penalty is removed. We predict that, among the unsubsidized population, young, healthy individuals will leave the nongroup market in much higher numbers than their older, sicker counterparts, leading to the steep increases in premiums. Additionally, we find that subsidized individuals, including the young and healthy, will remain enrolled at high rates. Relative to other states, New York's subsidized population is small; many EP enrollees would be eligible for subsidized nongroup coverage in most other states. To understand the unique impacts of the EP in New York, we also consider a scenario in which both the individual mandate penalty and the EP are eliminated. This scenario allows us to determine the effect of eliminating the mandate penalty, if the EP were not contributing to New York's susceptibility to adverse selection. In this scenario, we find that premiums increase by 7–10 percent relative to the ACA being in full effect, which suggests that the existence of the EP has important implications for how elimination of the individual mandate penalty in New York affects its nongroup risk pool. Elimination of the EP in addition to the individual mandate leads to smaller increases in premiums relative to elimination of the individual mandate penalty alone.

Acknowledgments

Abbreviations

ACA	Affordable Care Act
APTC	Advance Premium Tax Credit
CBO	Congressional Budget Office
CHIP	Children's Health Insurance Program
CSR	cost-sharing reduction
EP	Essential Plan
FPL	federal poverty level

Introduction

In December 2017, the Tax Cuts and Jobs Act (P.L. 115-97) was signed into law. The act eliminated the penalty associated with the Patient Protection and Affordable Care Act's (ACA's) (P.L. 111-148) individual health insurance mandate, effective January 1, 2019. The Congressional Budget Office (CBO) estimated that, at the national level, eliminating the individual mandate penalty would reduce health insurance enrollment for those age 65 and younger by 7 million in 2020 and 13 million by 2027, and increase premiums in the nongroup market by around 10 percent (CBO, 2017). Our analysis uses the RAND COMPARE microsimulation model to estimate the impacts of the removal of the ACA's individual mandate penalty on New York's nongroup market. We define the nongroup market as including all ACA-compliant plans sold both on and off New York State of Health, which is New York's health insurance marketplace. Together, ACA-compliant marketplace and non-marketplace plans comprise a single insurance risk pool, and are hence jointly affected by adverse selection, which occurs when younger and healthier people leave the market, increasing premiums for remaining enrollees.

The elimination of the individual mandate penalty is likely to have unique impacts on New York. This is because New York is different from other states both in its regulation of the nongroup market and in its comprehensive public coverage programs serving low-income individuals. Most importantly, New York has full community rating, requiring insurers to charge all adults[1] purchasing nongroup plans the same premiums regardless of age or tobacco use status (Centers for Medicare and Medicaid Services, Center for Consumer Information and Insurance Oversight, 2017). Most other states use the maximum rate bands allowed under the ACA—3:1 for age rating and 1.5:1 for tobacco use. In 2017, New York had an estimated 243,000 nongroup enrollees in the marketplace, 59 percent (about 143,000) of whom received Advance Premium Tax Credits (APTCs) (NY State of Health, 2017a). Total nongroup enrollment in New York, including both marketplace and off-marketplace plans, was approximately 308,000 in 2017, according to data from Wakely Consulting Group (2017).

In addition, New York is one of two states (the other is Minnesota) that uses an option under the ACA to offer a Basic Health Program for individuals with incomes between 139 and 200 percent of the federal poverty level (FPL), who would otherwise be eligible to purchase subsidized coverage through the marketplace. The Basic Health Program option was included in

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[1] Most children in nongroup plans are effectively charged lower premiums than adults, as New York's rating rules establish that premiums for a family plan with one adult and one or more children are 1.7 times the cost of a plan for a single adult, and a plan for two adults and one or more children costs 2.85 times the cost of a plan for a single adult.

the ACA to allow states to provide more affordable and continuous health insurance coverage for low-income residents. New York calls its Basic Health Program the Essential Plan (EP); in addition to covering marketplace-eligible individuals with incomes between 139 and 200 percent FPL, the EP provides coverage for individuals who are legally present, but ineligible for Medicaid, with incomes up to 138 percent FPL. The EP is either free or costs $20 per month per individual, depending on a family's income (NY State of Health, 2017b). Enrollment in the EP was 665,000 in 2017 (NY State of Health, 2017a). Approximately 385,000 of EP enrollees would have otherwise been eligible for a subsidized nongroup marketplace plan offered in NY's health insurance marketplace (NY State of Health, 2017a). The EP has been successful at insuring low-income individuals; only one other state—Massachusetts—has lower uninsurance rates[2] for non-elderly individuals with incomes below 200 percent FPL in the nation (Kaiser Family Foundation [KFF], 2018a). New York receives federal funding for its EP, which is calculated as 95 percent of the APTCs and cost sharing reductions (CSRs)[3] that would have been provided to the individuals had they been enrolled in the second-lowest-cost silver plan available on the marketplace.

New York's EP creates important implications for the nongroup market following the elimination of the individual mandate penalty. In particular, New York's EP is not risk-adjusted with the nongroup market (Medicaid and CHIP Learning Collaborative, 2015). As described above, without the EP, more than half of the population that is eligible for New York's EP would be eligible to enroll in the marketplaces and receive subsidized coverage through APTCs (NY State of Health, 2017a). Compared with other states (besides Minnesota), the EP reduces the number of APTC-eligible individuals in the nongroup risk pool.

The objective of this work was to understand the impact of eliminating the individual mandate penalty on premiums, enrollment, and the likelihood of individuals disenrolling from the nongroup market in New York State. New York's nongroup market is particularly susceptible to adverse selection following repeal of the individual mandate penalty because of New York's full community rating and the existence of the EP, which effectively reduces the size of the population receiving subsidies in New York's nongroup marketplace. We expect subsidized enrollees to be less likely to exit the nongroup market than unsubsidized enrollees following the elimination of the individual mandate penalty. This is because subsidized enrollees receive health insurance at a relatively low cost and are protected from premium increases that

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[2] New York's uninsurance rate for this population was 9 percent in 2016. It was tied with three other states— Oregon, Rhode Island, and Vermont—for the second-lowest spot. Massachusetts's uninsurance rate for this population was 8 percent.

[3] CSR payments were not being made at the time of this writing; nonpayment is taken into consideration in the model. However, the CSR pass-through funding for the EP is in litigation and may change pending the outcomes of future lawsuits.

may accompany the penalty's elimination. Therefore, subsidized enrollees may help stabilize nongroup premiums, and New York's EP may decrease the market's stability.

To better understand the unique impact of the EP in New York, we examined the combined impact of eliminating both the individual mandate penalty and the EP. We modeled the nongroup market in New York State in 2019 under three scenarios: a "baseline ACA" scenario, an "ACA, no individual mandate" scenario, and an "ACA, no individual mandate, no EP 139–200 percent FPL" scenario. The "baseline ACA" scenario reflects ACA regulations in effect in calendar year 2018. Because the federal government is no longer making CSR payments, we assumed that these costs are loaded on to the price of a silver plan (KFF, 2017). This decision has minimal effect in New York State, as most CSR-eligible individuals are enrolled in the EP. However, those with incomes between 200 and 250 percent of FPL are eligible for CSRs in New York (effectively increasing the silver plan's actuarial value from 70 to 73 percent), and we assumed that this cost of reduced out-of-pocket payments for CSR-eligible individuals was loaded onto the silver plan premium.[4] The "ACA, no individual mandate" scenario is the same as our baseline ACA scenario, except that we eliminated the individual mandate penalty. In the "ACA, no individual mandate, no EP 139–200 percent FPL" scenario, we eliminated both the individual mandate penalty and the EP for individuals with incomes between 139 and 200 percent FPL. Those in the EP with incomes between 139 and 200 percent of FPL are the population covered by the EP that would be eligible for subsidies in the absence of the EP, and would therefore be most likely to enter the nongroup market without the EP in place. In this scenario, we retain the EP for individuals with incomes at or below 138 percent FPL. We include this scenario to understand in more detail the unique impact of the EP on the effect of eliminating the individual mandate penalty. In addition to these three main scenarios, we included a "no ACA" scenario, in which the ACA was never implemented, as a validation for the model in the appendix.

We used the RAND COMPARE model, which is a microsimulation model that uses economic theory, nationally representative data, and evidence from past experience to estimate how consumers and businesses will respond to health policy changes (Cordova et al., 2013). The model includes a synthetic population of individuals, families, health expenditures, and firms derived from data from the April 2010 wave of the 2008 Survey of Income and Program Participation (U.S. Census Bureau, undated); the 2010–2011 Medical Expenditure Panel Survey (U.S. Department of Health and Human Services, undated); and the 2009 Kaiser Family Foundation/Health Research and Educational Trust Employer Health Benefits Survey (KFF, 2018e; HRET, 2017). While the data sources predate the implementation of the ACA, we update them to reflect population growth based on factors reported by the U.S. Census Bureau, and to

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[4] We note that the elimination of federal funding for CSRs has an additional impact on New York State: Part of the funding for the EP has come in the form of pass-through funding that would have been spent on CSRs for the EP. As of July 2018, the state will continue to receive these payments for its EP (Sullivan, 2018), but the ultimate outcome is uncertain.

reflect health care cost growth using the Centers for Medicare and Medicaid Services National Health Expenditures Accounts. We made adjustments to the national model using 2016 data from the American Community Survey (U.S. Census Bureau, 2018) and 2017 nongroup enrollment data from New York State (NY State of Health, 2017a) and Wakely Consulting Group (2017). This created a 2017 New York baseline from which we modeled three scenarios for which we made projections for 2019. When modeling individuals' responses to the individual mandate penalty, we assumed that people are aware of the penalty and consider the cost of this penalty when making decisions. As a result, fewer people opt to get insurance when the penalty is reduced to $0. The methods and data sources that we used to derive our estimates, including a longer discussion of the individual mandate response function and adjustments we made to model the New York market, are described in an appendix.

Results

Figure 1 shows our estimates for nongroup premiums in New York State under (1) a baseline ACA scenario, (2) with the elimination of the individual mandate penalty, and (3) with the elimination of both the individual mandate penalty and the EP for individuals with incomes between 139 and 200 percent FPL in 2019. We estimate that the elimination of the individual mandate penalty will cause premiums in the nongroup market to increase by approximately 23 percent for bronze and 25 percent for silver plans relative to what premiums would be under our baseline ACA scenario. Because we account for the ACA's statutory risk adjustment requirement, which transfers funding from health plans with lower-than-average actuarial risk to health plans with higher-than-average actuarial risk, we assume that the ratios between bronze, gold, and platinum premiums are fixed.[5] This leads us to estimate that premium increases for gold and platinum plans will be the same as the estimated increase for bronze plans—23 percent. Premium changes for silver differ from other metal tiers because we assume that the CSR costs are loaded onto silver plans. Note that the federal government stopped paying CSRs in 2018, and the costs of the CSRs were loaded onto the silver rates (KFF, 2017).

Figure 1. Projected 2019 Individual Market Premiums in New York

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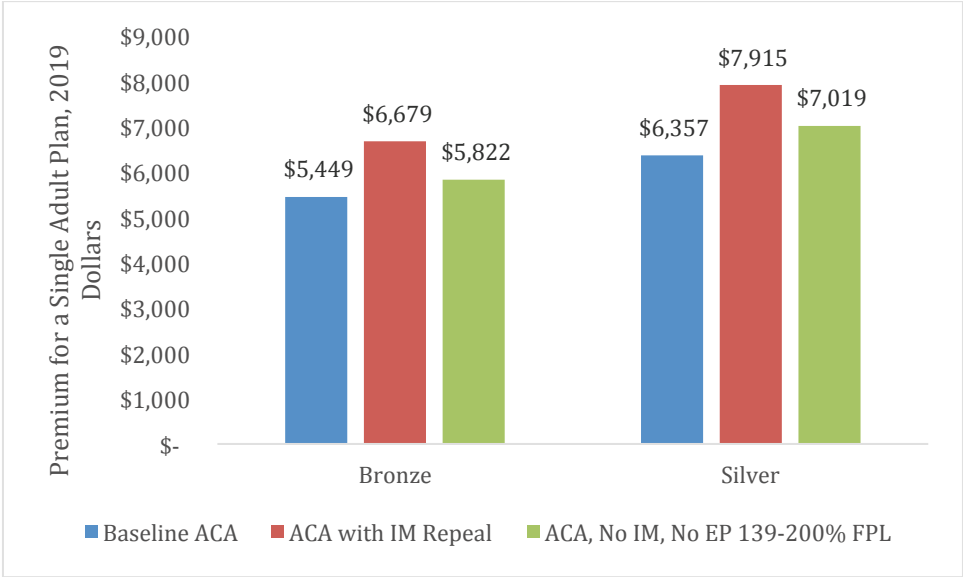
[5] As of July 9, 2018, the Centers for Medicare and Medicaid Services has temporarily suspended risk adjustment payments pending a decision on the appropriate risk adjustment methodology. The analyses presented in this report assume that such payments are in place.

We estimate that if both the individual mandate penalty and the EP for individuals between 139 and 200 percent FPL were eliminated, premiums in the nongroup market would increase by about 7 percent for bronze plans and by 10 percent for silver plans, relative to what premiums would be under our baseline ACA scenario. Again, we assume that the ratios between bronze, gold, and platinum premiums are fixed. Our approach for modeling premiums within COMPARE is described in more detail in the appendix.

The EP makes the New York nongroup market particularly susceptible to adverse selection following repeal of the individual mandate penalty. This is because the EP reduces the number of individuals eligible to receive subsidies on the nongroup market. Figures 2 and 3 show that nongroup enrollees who receive subsidies are far more likely to remain enrolled than unsubsidized nongroup enrollees. In fact, the rates at which young and healthy *subsidized* enrollees exit the nongroup market are similar to the rates at which older, sicker *unsubsidized* individuals exit the market. Therefore, we find that subsidized enrollees can have a significant stabilizing influence on the nongroup market.

Figure 2. Predicted Probability That Individuals Will Disenroll from the Nongroup Market, by Age, Health Status, and Subsidy Eligibility with the Elimination of the Individual Mandate Penalty, 2019
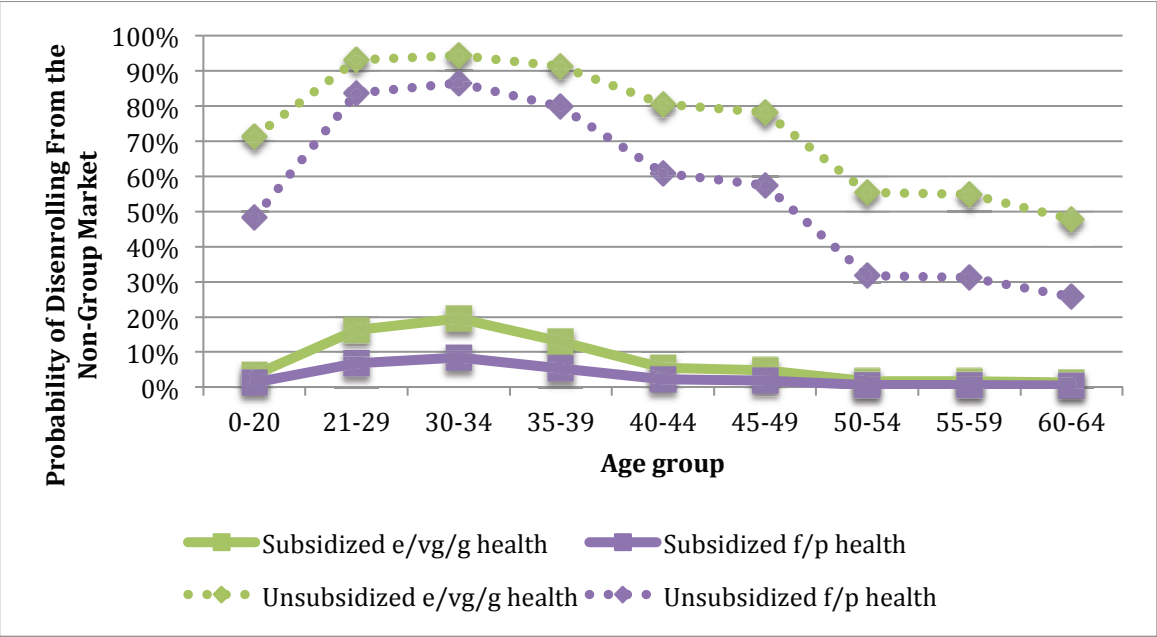
Figure 3. Predicted Probability That Individuals Will Disenroll from the Nongroup Market, by Age, Health Status, and Subsidy Eligibility with the Elimination of Individual Mandate Penalty and EP, 2019

Table 1 shows our estimates for nongroup enrollment, EP enrollment, and the number of uninsured in New York state under the baseline ACA, with the elimination of the individual mandate penalty, and with the elimination of both the individual mandate penalty and the EP for individuals with incomes between 139 and 200 percent FPL in 2019. We estimate that total nongroup enrollment will decrease by 37 percent, from 310,000 to 194,000, without the individual mandate penalty in place, relative to what enrollment would be under our baseline ACA scenario. Most of this decrease will come from individuals both on- and off-marketplace, which we estimate will decrease by 64 percent, from 166,000 to 60,000. We anticipate that the majority of these individuals will become uninsured. We estimate a total increase in the number of uninsured of 292,000. If both the individual mandate penalty and the EP were eliminated for individuals with incomes over 138 percent FPL, nongroup enrollment would increase to 539,000, driven by an influx of individuals who were previously enrolled on the EP who are eligible for subsidies on the nongroup market. We estimate that, under this scenario the number of uninsured individuals would increase by 327,000, slightly more than the increase in the number of uninsured with the elimination of the individual mandate penalty.

Table 1. Projected 2019 Health Insurance Coverage by Type for the Non-Elderly Population (Age 0–64) in New York State

Type of Coverage	Base ACA[a]	ACA, No Individual Mandate	ACA, No Individual Mandate, 139–200% FPL
Total nongroup	310,000	194,000	539,000
Nongroup, subsidized	144,000	134,000	455,000
Nongroup, unsubsidized	166,000	60,000	84,000
EP, 139–200% FPL	382,000	393,000	0
Medicaid and other private[b]	14,531,000	14,343,000	14,357,000
Uninsured	1,403,000	1,695,000	1,730,000

[a] Our "Base ACA" scenario is a projection of 2019 enrollment under regulations in under the ACA in 2017.
[b] This includes individuals enrolled on the EP with incomes ≤138% FPL, and CHIP enrollees and other sources of public insurance.

Figure 2 shows projected changes in enrollment in the nongroup market by age, health status, and subsidy eligibility. We show nongroup enrollment by these groups for the baseline ACA scenario in the appendix (Table A.2). In terms of health status, "e/vg/g" indicates individuals in excellent, very good, or good health, and "f/p" indicates individuals in fair or poor health. We find that older, subsidized individuals are the most likely to remain enrolled, while younger, unsubsidized individuals are the most likely to disenroll. We also find that individuals in fair or poor health are more likely to remain enrolled than healthier individuals. Finally, we find that children are more likely to remain in the market than young adults. This is primarily due to an assumption in COMPARE that health insurance decisions are made by the family; therefore, children often remain in the market if their parents remain.

Figure 3 shows projected changes in enrollment in the nongroup market by age, health status, and subsidy eligibility with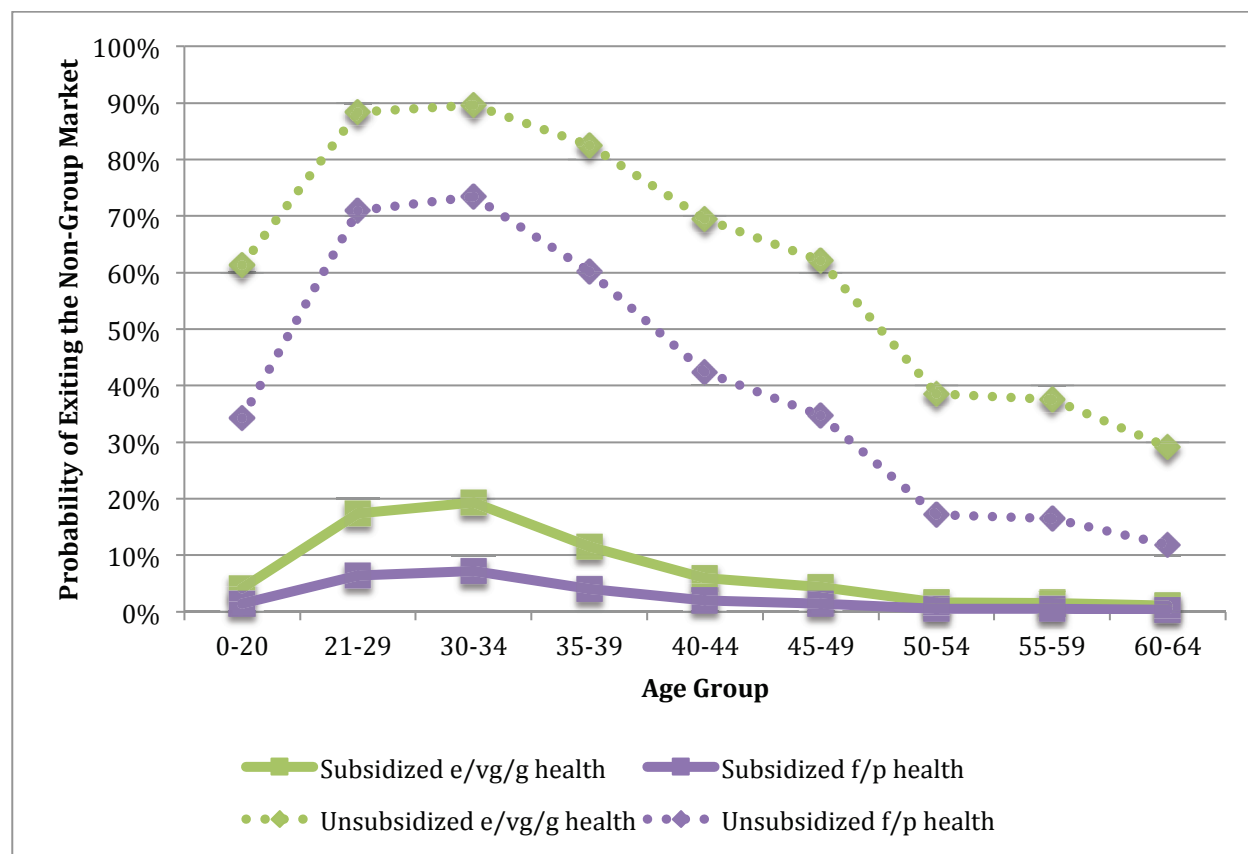 the elimination of the individual mandate penalty and the portion of the EP for individuals with incomes between 139 and 200 percent FPL. Similar to the previous scenario, in which the individual mandate penalty is eliminated, the probability of disenrolling is generally low among subsidized individuals and higher among unsubsidized individuals, and disenrollment is more likely among younger, unsubsidized individuals; healthier individuals; and young adults, compared with children.

Discussion

We estimate that eliminating the individual mandate penalty in New York State will cause nongroup premiums to increase by 23 percent for platinum, gold, and bronze plans, and 25 percent for silver plans. Simultaneously, we estimate that enrollment in the New York's nongroup market will fall by about one-third (37 percent). Because New York has full community rating, which does not allow premiums to vary by age or tobacco use status, the estimated premium increases are identical (in both percentage and dollar terms) for all adult enrollees. Individual market enrollees who are not eligible for APTCs—and hence would have to pay the full premium out-of-pocket—will be much more likely to disenroll, if the mandate penalty were removed, than would those who are APTC-eligible. Those leaving the nongroup market also tend to be younger and healthier than those remaining in the market.

Our estimated premium increases for New York are substantially higher than national increases estimated by both CBO and by us in other RAND analysis. CBO estimates that eliminating the individual mandate penalty will increase premiums by 10 percent (CBO, 2017), and, in recent work, we estimated that premiums would increase by 7 percent (3 to 13 percent in sensitivity analyses) with the elimination of the individual mandate penalty (Eibner and Nowak, 2018). The impact of removing the penalty is larger in the New York marketplace than in the national market for several reasons. First, New York has full community rating, as opposed to modified community rating in most other states. With full community rating, younger people face the same premiums as older people, and non-smokers face the same premiums as smokers. These requirements make nongroup insurance particularly expensive for younger people not eligible for APTCs, increasing their likelihood of disenrolling when the mandate penalty is eliminated. Second, New York established a Basic Health Program, the EP, under the ACA, and approximately 40 percent of individuals enrolled in the EP would be eligible for APTCs offered in the marketplace if the EP for those between 139 and 200 of FPL percent were dismantled. Because of the EP, New York has fewer APTC-eligible people enrolled in nongroup marketplace plans (59 percent in New York, compared with 83 percent nationwide) (KFF, 2018c). Because fewer enrollees with nongroup marketplace plans receive premium subsidies through APTCs relative to other states, more people in New York's market will face the impact of the price increases as a result of the elimination of the individual mandate penalty, given that APTCs create an independent incentive to remain enrolled.

We estimate that less than 20 percent of APTC-eligible enrollees will disenroll from the individual market when the mandate penalty is removed, compared with over half of unsubsidized enrollees in most age groups. Crucially, individuals who receive APTCs through the marketplace are in the same risk pool as all individuals who buy on- or off-marketplace nongroup plans. Therefore, when these individuals remain enrolled, it mitigates some of the

effects of young or healthy individuals who disenroll from the pool when the individual mandate penalty is eliminated. While EP enrollees are also likely to remain enrolled with the removal of the individual mandate penalty, the EP risk pool is separate from the nongroup market and therefore cannot have a mitigating effect on the nongroup risk pool.

Finally, the Trump administration's decision to halt federal payment of cost-sharing reductions had the effect of increasing APTCs in most states (through silver loading), further strengthening the incentive for APTC-eligible people to remain enrolled. However, because New York had implemented the EP, which covers most CSR-eligible enrollees, the administration's decision had a smaller effect on APTCs in New York.

To understand the unique impacts of the EP in New York, we also ran a scenario in which we eliminated both the individual mandate penalty and the EP for individuals with incomes between 139 and 200 percent FPL. In this scenario, we found that unsubsidized enrollment in the nongroup market fell substantially, and uninsurance increased. Eliminating the EP for individuals with incomes between 139 and 200 percent FPL along with the elimination of the individual mandate penalty moderated the premium increase estimates in the nongroup market to an estimated 7 to 10 percent, which is similar to the premium increases we and CBO have previously estimated at the national level (CBO, 2017; Eibner and Nowak, 2018). However, it is important to note that premium payments would increase dramatically for some individuals currently enrolled in the EP if the EP were eliminated. For example, as of 2018, a single individual making $24,000 per year (a little below 200 percent FPL) pays $20 a month for an EP. If that person did not have access to an EP, he or she would have to pay nearly $1,600 per year ($133 a month) for subsidized coverage on the marketplace, plus additional point-of-service cost sharing. In addition, we estimate that the number of uninsured in New York would be higher in a scenario without the EP for individuals with incomes between 139 and 200 percent FPL and elimination of the individual mandate penalty, compared with elimination of the individual mandate penalty alone.

The individual market in New York State is unique, because of both full community rating and the presence of the EP. We find that these factors make New York's nongroup market particularly susceptible to adverse selection when the individual mandate penalty is removed. We find that New York's coverage of individuals with incomes between 139 and 200 percent FPL through its EP may drive much of this effect, because we estimate that premium increases would be similar to the national average in the absence of the EP.

Appendix: Methods

Modeling the Removal of the Individual Mandate Penalty in COMPARE

The COMPARE model is a national-level model that uses a utility maximization approach to predict individual and firm health insurance decisions. The synthetic population of individuals in COMPARE is based on data from the Survey of Income and Program Participation (SIPP; U.S. Census Bureau, undated), and health care expenditures from the Medical Expenditure Panel Survey (U.S. Department of Health and Human Services, undated) are matched to records in the SIPP. Health care spending is matched based on age, sex, health status, income, and health insurance category. The utility function takes the form

$$(1)\ U_{ijk} = u(H_{ij}) - E(OOP_{ij}) - p_{ij}^{(H)} - \frac{1}{2}rVAR(OOP_{ij}) - R_{ij} + Calibration_{jk}.$$

Within this equation:

- U_{ijk} is the total utility for individual i in demographic category k for insurance type j.
- $u(H_{ij})$ is the utility associated with consuming health care services for individual i under insurance option j.
- OOP_{ij} is the out-of-pocket spending expected.
- $p_{ij}^{(H)}$ is the individual's premium contribution (after adjusting for tax credits).
- r is the coefficient of risk aversion.

R_{ij} represents the individual's response to the tax penalty associated with insurance status j, and—in scenarios in which the mandate penalty is in effect—it is 0 for all but the uninsured insurance status. When the individual mandate penalty is in place, we assume that R_{ij} equals 0.8*penalty_i for j = uninsured, where *penalty_i* is the penalty the individual owes. We assume that R_{ij} is equal to zero for individuals who are exempt from the penalty. The 0.8 multiplier captures the fact that, on average, the Internal Revenue Service collects only about 80 percent of taxes owed (Internal Revenue Service, 2018). In scenarios without the individual mandate penalty, R_{ij} is zero for all individuals i, and, for all insurance statuses j, including for the uninsured.

$Calibration_{jk}$ is a calibration constant that captures noneconomic factors, which may influence individual decisionmaking. We adjust the calibration constants so that our estimated pre-ACA enrollment matches actual pre-ACA enrollment by demographic group based on data from the American Community Survey.

There is significant uncertainty regarding how people will respond to the elimination of the individual mandate penalty, and prior research is mixed regarding both the extent of individuals' responses to health insurance mandates and the mechanisms driving these responses (Chandra, Gruber, and McKnight, 2014; Wettstein, 2018; Frean, Gruber, and Sommers, 2017; Saltzman, 2017). When modeling the individual mandate penalty, we assume that people are aware of the

requirement to obtain insurance and understand whether they are exempt from this requirement (e.g., due to being below the tax filing threshold). Among those who are subject to the penalty, we assume that people expect to pay, on average, only 80 percent of what they owe to the IRS. Prior research has hypothesized that people may have a "taste for compliance" with the law that incentivizes compliance regardless of the size of the mandate penalty (Auerbach et al., 2010). It is unclear how a taste for compliance would affect decisions given the approach taken in the Tax Cuts and Jobs Act, which zeros-out the penalty but does not technically eliminate the requirement to enroll in coverage. We do not account for a taste for compliance in this analysis.

Nongroup Premium Calculations

To calculate nongroup premiums in the COMPARE model, we impose the condition that the total amount collected in premiums, $\sum_i w_i p_i$, where w_i and p_i are individual i's weight and premium, respectively, is equal to the total cost to insurers, that is, $\sum_i w_i s_i AV_i(1 + \delta)$. In this equation, s_i is the health care spending of individual i, AV_i is the actuarial value of the plan in which individual i is enrolled, and δ is the administrative cost of the plans. This equality yields the equation

(2) $\sum_i w_i p_i = \sum_i w_i s_i AV_i(1 + \delta)$.

To calculate premiums, we use the fact that premium rating regulations fix the ratios of premiums that can be charged to any individual given their age and tobacco use status. We further assume that risk adjustment constrains premiums across metal tiers. We choose a reference group (for example, children enrolled in a bronze plan) and define the premium of that reference group to be p_1. We then define the ratio of an individual's premium to the reference premium. This is: $r_i = p_{i/p_1}$. We assume that risk adjustment policies compensate for any differences in metal tier enrollment by risk level, so that premiums across metal tiers vary based on the ratio of their actuarial values (e.g., the premium for a gold plan is 0.8/0.6 = 1.33 times the cost of a bronze plan). This approach is conceptually consistent with ACA statute, but does not incorporate specific regulations that govern how risk adjustment is implemented.

Substituting the definition of r_i into equation 2 and solving for p_i we compute the nongroup premiums as follows:

(3) $p_i = r_i \frac{\sum_i w_i s_i AV_i(1+\delta)}{\sum_i w_i r_i}$.

Adjustment to Silver Plan Premiums

Along with tax credits, some enrollees are eligible for CSRs, which reduce out-of-pocket payments at the point of service (e.g., copays, deductibles). By law, insurers must provide CSRs to tax-credit eligible enrollees with incomes below 250 percent FPL. Because of the EP in New York (which provides comprehensive coverage with limited cost sharing and federal premium

subsidies for individuals with incomes between 138 and 200 percent FPL), CSRs are available to only those with incomes at 200–250 percent FPL. However, Congress did not appropriate funding for CSRs, and in late 2017, the Trump administration halted federal payment to insurers to cover these costs. In response, insurers in most states increased the premiums for silver plans (KFF, 2017) to accommodate these reductions, resulting in higher tax credit amounts that are tied to the second-lowest-cost silver plan. Therefore, we load the estimated cost of CSR payments onto the silver plan in the COMPARE model.

Customization for New York

We made two types of adjustments to our national model to estimate the impact of the elimination of the individual mandate penalty in New York. First, we incorporated New York–specific policies into the model. Second, we adjusted the weights in the model to reflect the population and demographics of New York.

The New York–specific policies we included in the model were pure community rating, New York's EP, and New York's Child Health Plus (CHP) program, based on the programs' eligibility requirements (NY State of Health, 2017b). We reweighted the COMPARE model results so that our *modeled* 2019 baseline ACA results matched what we project 2019 enrollment would have been in 2019 based on *inflated actual* 2016 survey and 2017 enrollment data.

We used data from the 2016 American Community Survey for New York (U.S. Census Bureau, 2018), population growth projections from the University of Virginia (University of Virginia Demographics Research Group, 2016), state marketplace enrollment data (NY State of Health, 2017a), and Wakely Consulting Group (Wakely Consulting Group, 2017) data on nongroup market enrollment to match the joint distribution of health insurance status, income by group (<138 percent FPL, 138–200 percent FPL, 200–300 percent FPL, 300–400 percent FPL, >400 percent FPL), and age. For most insurance categories, we used five age categories (<18, 18–34, 35–49, 50–64, 65+), and we used the risk-adjustment age groups to adjust nongroup enrollment (≤20, 21–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54 55–59, 60–64).

Estimating Probabilities of Disenrolling from the Nongroup Market

We used a regression-based approach to estimate individuals' probabilities of disenrolling from the nongroup market by age, subsidy eligibility status, and health status. We found that using a regression-based approach allowed us to produce estimates at a finer level of detail than we could produce by directly estimating exit probabilities by comparing "baseline ACA" and "ACA, no individual mandate" scenario estimates because the regression-based method could produce stable estimates for groups with few enrollees where the direct method could not. For our regression-based approach, we analyzed the subset of records that were in the nongroup market in our base ACA run. For those records, we constructed a variable E_i, which is an indicator for

whether individual *I* disenrolled from the nongroup market in the no individual mandate scenario. We then constructed the following model:

$$E_i = \text{logit}(\beta_a a_i + \beta_s s_i + \beta_h h_i + \varepsilon_i),$$

where a_i is the age category of individual i, s_i is the subsidy eligibility status[6], h_i is the individual's health status, and ε_i is an error term. We estimated the coefficients β_a (one for each age category a, with the exception of the reference group), β_s, and β_h. We then used the estimated model to predict the probability that an individual in any of our cells would disenroll from the nongroup market.

Model Validation

To validate our results, we estimate premiums and enrollment in the nongroup market in 2019 if the ACA had never been implemented. Our estimates serve as a validation because there are data on pre-ACA enrollment and premiums in New York, and the New York State Department of Financial Services has analyzed this information to understand how the ACA's provisions affected the nongroup market. Compared with our baseline scenario, this involved eliminating the individual mandate, CSRs, APTCs, Medicaid expansion, the EP for individuals with incomes between 139 and 200 percent FPL, Medicaid expansion, and employer mandate. This scenario includes full community rating and guaranteed issue as the state had both of these regulations in place prior to the ACA (KFF, 2018d).

The ACA introduced new subsidies and an individual mandate that encouraged younger and healthier nongroup enrollees. This led to decreased nongroup premiums and increased nongroup enrollment in New York (Rabin and Abelson, 2013).

Figure A.1 shows projected 2019 premiums in New York State under our "baseline ACA" and "no ACA" scenarios. We estimate that, under a baseline ACA scenario in 2019, premiums would be about 45 percent lower in New York than they would be without the ACA. The New York Department of Financial Services estimated that 2018 nongroup market premiums in New York are 55 percent lower than they would have been without the ACA, after adjusting for inflation (New York Department of Financial Services, 2017). In addition, as shown in Figure A.2, we estimate that enrollment in the nongroup market would be only 16,000—about 95 percent lower than baseline—if the ACA had never been implemented. This is consistent with estimates that the pre-ACA nongroup market enrollment was about 17,000 (Luhby, 2013). Comparisons of COMPARE estimates to other data sources are shown in Table A.1.

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[6] Subsidy eligibility status is calculated within the model based on individuals' income; access to affordable health insurance, such as Medicaid or employer-sponsored insurance; and immigration status.

Figure A.1. Projected Average Nongroup Market Premiums in New York for a Single Adult Under the Baseline ACA Scenario and Under the No ACA Scenario, 2019
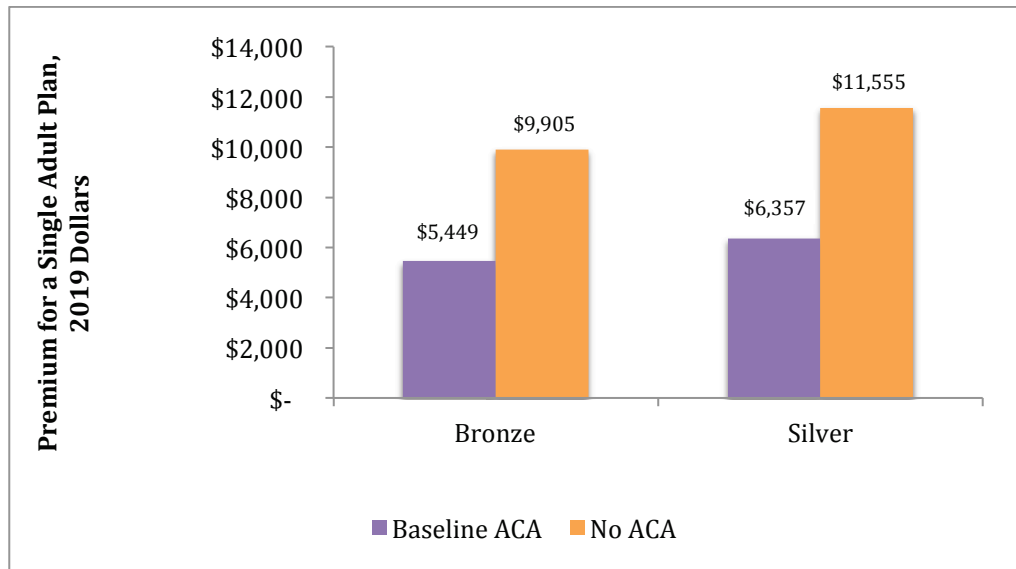
Table A.1. Outcomes from "No ACA" Validation

Outcome	RAND Estimate, 2019	Benchmark
Individual Market Enrollment	16,000	17,000 pre-ACA (Luhby, 2013)
Individual Market Premium Change Under the ACA, Relative to No ACA	-45 percent	-55 percent (New York Department of Financial Services, 2017)

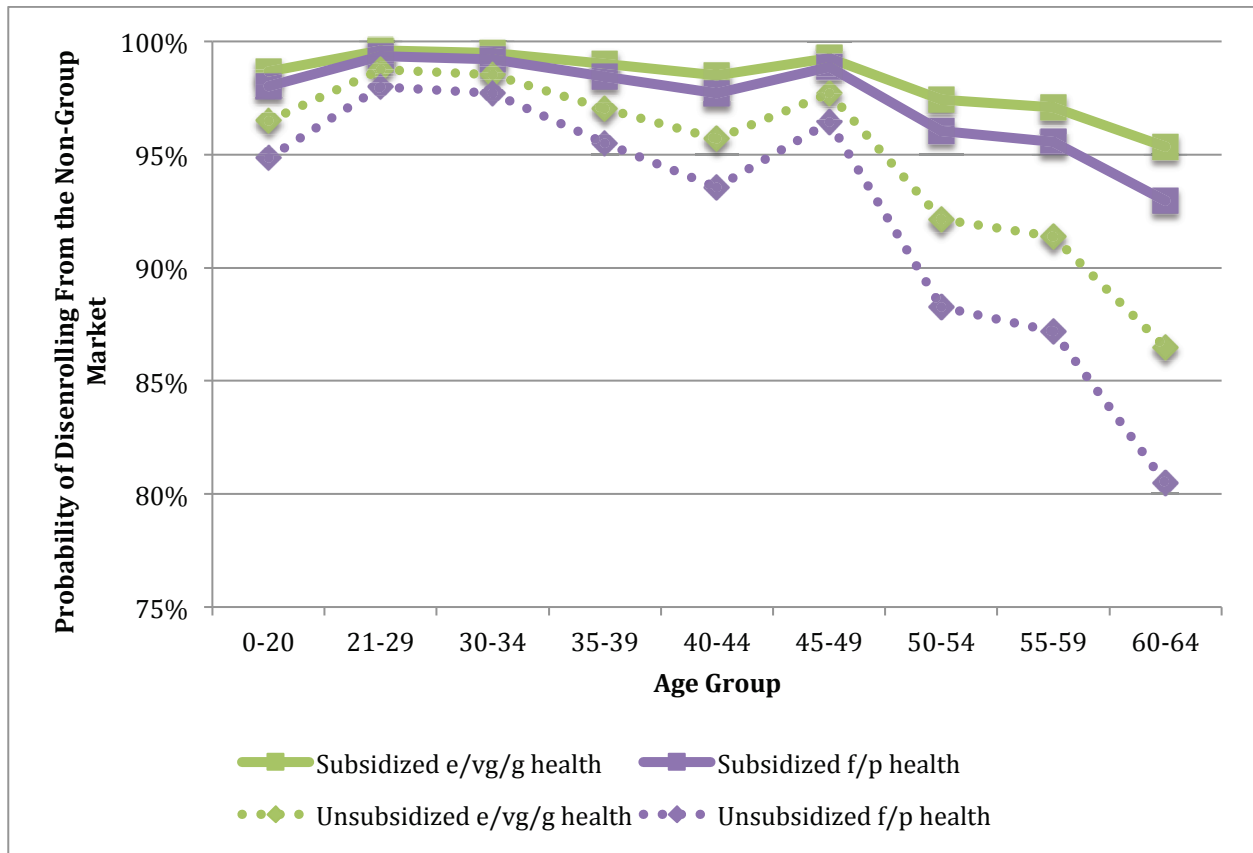**Figure A.2. Projected 2019 Nongroup Enrollment in New York Under the Baseline ACA and No ACA Scenarios**
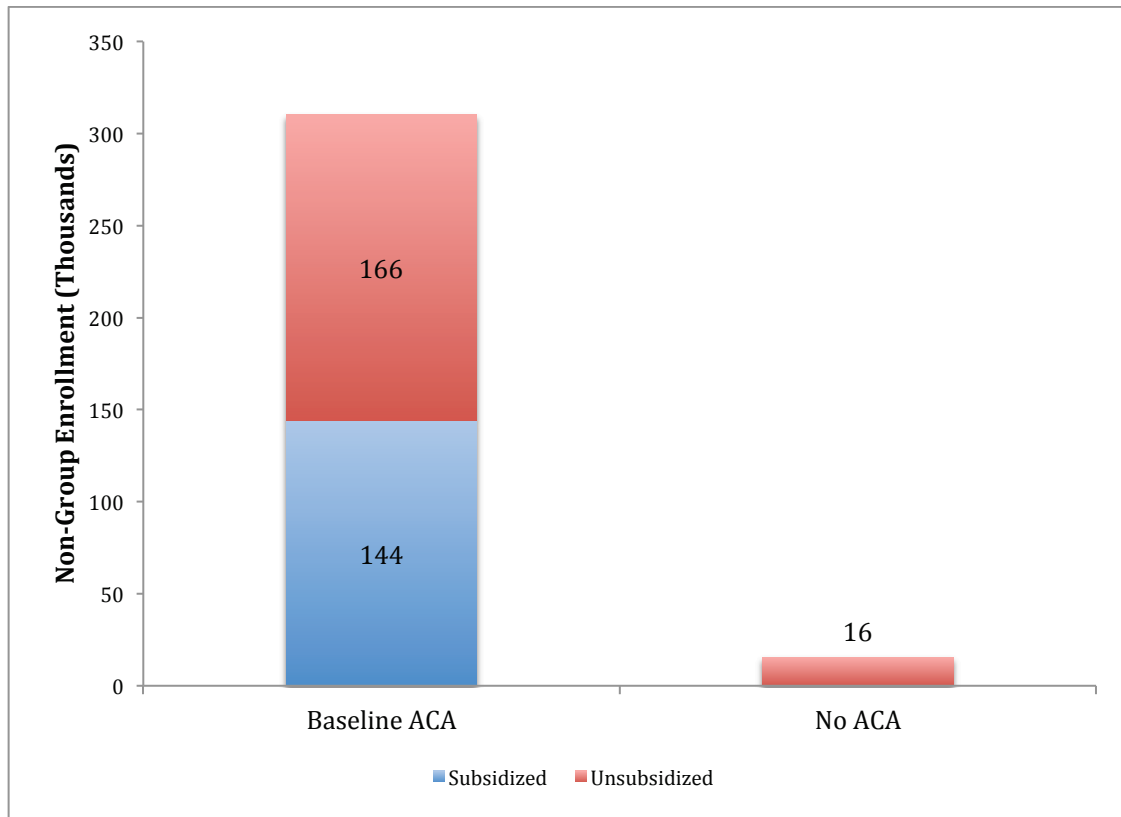
NOTE: In the "No ACA" scenario, subsidies are not available.

Figure A.3 shows our estimates for the probability that individuals would disenroll from the nongroup market under a no ACA scenario, compared with our baseline ACA scenario. The baseline ACA enrollment for individuals in these groups is shown in Table A.2. Most of the individuals who disenroll would become uninsured. We find that the majority of individuals in all groups would disenroll from the nongroup market, but that older individuals who do not qualify for subsidies under the ACA (generally because their incomes exceed 400 percent FPL) would be more likely to remain than other groups. Most lower-income individuals would disenroll from the market, because of the loss of subsidies.

Figure A.3. Projected Changes in Nongroup Enrollment in New York Under a "No Affordable Care Act" Scenario, Relative to Baseline ACA

Nongroup Enrollment in Baseline ACA

Table A.2. shows projected 2019 enrollment in the nongroup market by age, subsidization status, and health status. The groups in this table are the same as those presented in Figures 2, 3, and A.3. For example, Figure A.3 shows that with the elimination of the ACA, about 98 percent of individuals age 0–20 who are subsidized under baseline ACA and who are in excellent, very good, or good health would exit the market. Table A.2 shows that we estimate there are 18.3 thousand individuals in this group under the baseline ACA scenario in 2019. Therefore, we would expect $0.98 \times 18,300 = 17,900$ subsidized individuals in excellent, very good, or good health ages 0–20 to exit the nongroup market with the elimination of the ACA.

Table A.2. Projected Enrollment by Age, Subsidization Status, and Health Status with Baseline ACA, 2019 (thousands)

Age Group	Subsidized, Excellent, Very Good or Good Health Status (Thousands)	Subsidized, Fair or Poor Health Status (Thousands)	Unsubsidized, Excellent, Very Good or Good Health Status (Thousands)	Unsubsidized, Fair or Poor Health Status (Thousands)	Total
0–20	18.3	0.1	10.3	0.1	28.7
21–29	24.9	0.8	5.5	1.9	33.1
30–34	7.2	0.6	16.5	0.4	24.7
35–39	14.9	0.4	7.2	1.0	23.6
40–44	11.0	0.9	10.4	0.7	23.0
45–49	10.0	1.1	15.9	2.1	29.1
50–54	15.0	2.8	16.7	1.7	36.1
55–59	13.6	2.1	25.8	3.7	45.2
60–64	17.1	3.1	40.1	6.3	66.6
Total	132.1	11.9	148.5	17.8	310.1

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