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The Impact of the Coverage-Related Provisions of the Patient Protection and Affordable Care Act on Insurance Coverage and State Health Care Expenditures in Montana

An Analysis from RAND COMPARE

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Executive Summary

The Patient Protection and Affordable Care Act (ACA) contains substantial new requirements aimed at increasing rates of health insurance coverage. These include a mandatory expansion of Medicaid programs to cover individuals in households with incomes below 133 percent of the federal poverty level, a requirement that states develop and run health insurance exchanges through which individuals and small businesses can purchase health care coverage, a requirement that large and mid-sized employers—including state governments—provide qualifying coverage to employees or face the possibility of penalties, and a requirement that most individuals purchase or otherwise obtain coverage.¹ Because many of these provisions impose additional costs on the states, officials need reliable estimates of the likely impact of the ACA in their state. To demonstrate the usefulness of modeling for state-level decisionmaking, RAND undertook a preliminary analysis of the impact of the ACA on five states—California, Connecticut, Illinois, Montana, and Texas.

To estimate the ACA's impact on coverage and health care spending in Montana, we used the RAND COMPARE (*Comprehensive Assessment of Reform*

Efforts) microsimulation model.² The following represents our best estimates of the effect of the coverage-related provisions of the ACA, though there is, of course, considerable uncertainty associated with these projections. Unless otherwise indicated, all projections apply to the year 2016, the year that all of the provisions in the ACA related to coverage expansion will be fully implemented:

- The proportion of Montana residents with health insurance will increase from 82 to 97 percent—a reduction in the uninsured of around 125,000.
- The nature of employer-sponsored coverage will change slightly after implementation of the ACA: There will be little change in the number of employees offered coverage, but approximately 18,000 will have coverage through the exchange.
- By 2016, 20 percent of the insured, nonelderly population (roughly 140,000) will have coverage through the exchange.
- Enrollment in Medicaid will increase by 51 percent (58,000), with the majority of the new enrollees being newly eligible adults.
- Total state government spending on health care will be 3 percent higher for the combined 2011–2020 period because of the ACA—mostly from increases in Medicaid costs. In dollar terms, this amounts to roughly \$10 million in additional state

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¹ ACA also involves substantial changes to Medicare, insurance regulation, and other aspects of health care that could substantially impact state and private-sector costs and coverage—factors that are not included in this analysis.

² For a detailed description of the methods used in the RAND COMPARE microsimulation model, including a discussion of the parameters and assumptions used in the modeling, see Girosi et al., 2009.

spending in 2016, approximately \$83 per year for each newly insured individual.

I. Introduction and Background

The Patient Protection and Affordable Care Act (P.L. 111-148, or ACA), along with amendments attached through the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152), introduce new obligations for states pertaining to health care coverage. Among these requirements are mandatory expansion of Medicaid to cover individuals in households with incomes below 133 percent of the federal poverty level (FPL) (\$14,404 for a single person; \$29,327 for a family of four), a requirement that states develop and run health insurance exchanges through which individuals and small businesses can purchase health care coverage, a requirement that large and mid-sized employers—including state governments—provide qualifying coverage to employees or face the possibility of penalties, and a requirement that individuals purchase or otherwise obtain coverage (unless they qualify for a waiver). These requirements, particularly the Medicaid expansion and the additional Medicaid take-up among the currently eligible, have potential consequences for state budgets.

While the law contains numerous provisions intended to improve health care delivery and reform how health care providers are paid (provisions that could have substantial impacts on the cost and quality of health care), in this analysis, we consider the implications of the main coverage provisions of the ACA for the state of Montana, focusing on total health insurance coverage in the state, Medicaid expenditures, exchange enrollment, and spending on private health insurance for state employees.³

Overview of the ACA

The ACA includes several provisions that will dramatically alter levels of coverage and associated costs at the state level. These include the following:

Medicaid expansion. As noted above, the ACA requires that states expand Medicaid eligibility to include anyone in households with income below 133 percent of the federal poverty level (FPL) (\$14,404 for a single person; \$29,327 for a family of four). Initially, the federal government will pay all of the Medicaid expenses for the newly eligible; this will later decline to 90 percent, a far higher federal share than is historically associated with Medicaid programs.⁴ States are not required to expand eligibility until 2014, but federal Medicaid contributions for newly

eligible populations will be made available immediately to any state that chooses to expand eligibility ahead of the deadline.

State-based health insurance exchanges. Beginning in 2014, state health insurance exchanges (Internet-based virtual marketplaces for private insurance plans) must be made available to individuals and to businesses with 50 or fewer workers. By 2016, all businesses with 100 or fewer workers must be permitted to offer coverage through the exchanges, and states can opt to expand the exchange eligibility to all businesses, regardless of size, in 2017. Even when the option is available to them, employers will not be required to offer exchange coverage to their employees; for employers that choose to offer coverage on their own in lieu of the exchanges, their employees will not be permitted to obtain coverage through the exchanges. States also have the option of joining together to create regional exchanges, or they may opt to make use of the federal “fall-back” of an exchange operated by the federal government. In addition, states have the option to offer a basic health plan for individuals with incomes between 133 and 200 percent of the FPL in lieu of coverage through the exchanges for this group.

Individual mandate. The ACA requires that, beginning in 2014, everyone must have health insurance, either through a private source or a public program. Those who do not must pay a penalty. For individuals with incomes between 100 and 400 percent of the FPL who do not have qualifying health insurance offers through their employer, federal subsidies in the form of tax credits are available to offset the cost of purchasing insurance. Subsidies, however, are available only for plans purchased through the health insurance exchanges.

Employer penalties. Under the ACA, beginning in 2014 mid-sized and large employers (defined as those with more than 50 workers) will face penalties if they do not offer coverage and any of their workers receive subsidized coverage on the exchanges. The penalty is \$2,000 per worker, with the first 30 workers excluded from the payment calculation. Although the penalty is triggered only if a worker receives subsidized coverage from the exchanges, the penalty amount is calculated based on the total size of the firm’s workforce. For example, if a firm had 50 employees and did not offer coverage, the penalty would be $(50 - 30) \times \$2,000 = \$40,000$. Mid-sized and large businesses are also at risk for penalties if a worker’s premium contribution share exceeds 9.5 percent of that employee’s income or if the actuarial value of offered coverage is lower than 60 percent.

Finally, starting in 2018, some premiums in excess of \$10,200 for single coverage and \$27,500 for family coverage will be subject to an excise tax (the so-called Cadillac tax). Those thresholds will be higher if premiums grow faster than expected, and in 2018 the excise tax is expected

³ The analysis does not consider the possibility that Montana would seek to obtain a state innovation waiver, which would supplant many of the requirements, including the individual mandate, with a state-designed system that would be required to achieve the same coverage goals.

⁴ The federal matching rate for newly eligible Medicaid enrollees is set at 100 percent for FY2014 through FY2016; it falls to 95 percent for FY2017, to 94 percent for FY2018, to 93 percent for FY2019, and to 90 percent for FY2020 and beyond.

to affect only a small fraction of policies. However, in the following years, the threshold for the tax rises only with general inflation, so that if premiums continue to increase more quickly than inflation, the tax will affect more and more policies with each subsequent year.

In previous analyses, RAND projected that the coverage expansion options included in the ACA will result, at the national level, in the number of uninsured being reduced from 52 million to 22 million—a reduction of 56 percent. Although the Congressional Budget Office (CBO) estimates that the coverage expansion provisions alone would increase the national deficit by \$938 billion between 2010 and 2019, CBO estimates that other aspects of the ACA—including fees imposed on health insurers, cuts to payments to private plans offering the Medicare benefit, revenues from the Cadillac tax, and adjustments to Medicare reimbursement rates—will reduce federal government health care spending by more than \$1 trillion, resulting in a net savings of \$143 billion over that time period (Elmendorf, 2010). States will not benefit from most of these federal revenue provisions.

Overview of Health Insurance in Montana

In 2011, approximately 18 percent of Montana's non-elderly population is uninsured—a rate that is just slightly higher than the national average of 17 percent. Montana's rate of employer-sponsored coverage (56 percent among the nonelderly population) is also near the national average (59 percent). Approximately 13 percent of the state's nonelderly are enrolled in Medicaid, and 12 percent are covered in the individual market or in other insurance programs, such as military coverage or Medicare disability coverage. Many of the former will likely opt to obtain federal subsidies under the ACA to transfer their coverage to the exchange, but these shifts in coverage will generally not have much consequence for state costs.

State Consequences of Medicaid Expansion

The expansion of Medicaid will increase state spending, since—in the long run—states will be required to pay 10 percent of Medicaid costs for the newly eligible population. Although this is far less than the traditional state share of Medicaid funding (ranging from 50 to 20 percent, depending on the state's per capita income), it is more than the states would spend if these individuals remained uninsured. However, those states that currently cover or subsidize the coverage of low-income individuals who are not Medicaid-eligible may financially benefit from the new requirement, since the federal government will pay most of the costs for these populations through federal Medicaid matching dollars or exchange subsi-

dies.⁵ We expect that individual mandates will induce some Medicaid-eligible individuals who are not currently enrolled to take up coverage. To the extent that these individuals subsequently use health care, this will increase state and federal expenditures. At the same time that these changes are happening, employer penalties and the option for some employers to offer health insurance coverage in the exchanges may increase eligibility for employer-sponsored insurance, leading some currently and newly Medicaid-eligible individuals to take up employer-sponsored coverage instead of Medicaid. Our analysis projects expected levels of Medicaid enrollment and state spending for the years 2011 to 2020, enabling us to determine their net effects.⁶

Exchange Operation

Only three states—Massachusetts, Utah, and Washington—currently operate health insurance exchanges, and their level of investment varies widely. Annual operating budgets range from \$700,000 to more than \$30 million. California was the first state to authorize the creation of a state exchange, which is expected to be fully functional by 2014, to accommodate the ACA; it set up the entity to fund itself entirely from assessments on premiums, so it does not require state funds. Expenses vary depending on both exchange enrollment and the level of services provided by the exchange, which could include regulation of plans, risk adjustment, assessment of exchange eligibility, customer service, and marketing. We assume that states will attempt to recoup all costs associated with running health insurance exchanges through administrative charges levied on plans; for example, Massachusetts currently levies fees equal to 4.5 percent of premiums or 4 percent of capitated expenditure for subsidized plans (Lischko, Bachman, and Vangelis, 2009). Under the ACA, the federal government will also provide start-up grants to states for the initial costs of establishing exchanges, but the amount of money available is not specified in the ACA.

Since it is unclear which services each state exchange will provide or how much of these expenses will be financed through administrative charges levied on plans, we did not attempt to project the costs of establishing and operating a health insurance exchange in Montana. Instead, we estimated the number of people that will be enrolled in the exchange, in both the individual market

⁵ Also, states that currently extend Medicaid eligibility for adults beyond 133 percent of the FPL could save state dollars by rolling back the eligibility threshold to 133 percent by 2014, at which time the federal government would cover those individuals through exchange subsidies. We do not account for this possibility in the model; rather, we assume that states with eligibility thresholds above 133 percent of FPL will maintain those levels under the ACA.

⁶ State costs associated with administering the Medicaid program are not included in this analysis, nor are the effects of enhanced federal matching rates for the Children's Health Insurance Program (CHIP) from 2015 to 2019.

and the small group market. Citing the Massachusetts experience, Lishko, Bachman, and Vangeli (2009) argue that the number of exchange enrollees is the most important predictor of total exchange operating costs.

Spending on State Employee Health Insurance

The mandate requiring all individuals to obtain health insurance or pay a penalty could increase the number of state employees who have health insurance. To the extent that these workers enroll in plans offered by the state and use covered health care benefits, state outlays on health insurance will increase. However, it is possible that some state employees or dependents will enroll in alternative health insurance options after the ACA is implemented (e.g., if a spouse's employer begins to offer coverage), so the net effect on enrollment in state health insurance policies is uncertain. In our analysis, we consider the total number of state employees enrolled in state-sponsored health insurance coverage before and after the reform and the net impact on state health insurance spending.

States will also have to ensure that health benefits offered to their employees meet the standards outlined in the ACA, or else face penalties (separate from the penalties related to the failure to offer or accept coverage). Specifically, if any state employee receives subsidized coverage through the health insurance exchange, the state will be subject to a fine equal to the lesser of \$3,000 per worker receiving subsidized coverage or \$2,000 per worker. Employees are eligible to receive subsidies from the exchange only if their employer does not offer qualifying coverage or if the employee would be required to spend more than 9.5 percent of household income on premium contributions for employer-sponsored coverage. As of 2009, health benefits provided by Montana appeared to meet most of the requirements for qualified health plans under the ACA, so it is unlikely that the state will face fines associated with the quality of coverage. It is possible that employer contribution requirements for some low-income workers could exceed 9.5 percent of household income. However, for the purpose of this analysis, we assume that the state will not face any penalties associated with inadequate benefit generosity.

Other Impacts

There are several other possible impacts of the ACA on Montana spending or health care provision more broadly that we are not able to estimate precisely and thus do not include in the quantitative analysis. As a result of a reduction in the number of uninsured, health care providers will likely provide less charity or "uncompensated" care, and, therefore, state or private subsidies for that care might be reduced. Private and state employee premiums could go down if part of these premiums is currently covering the costs of uncompensated care. On

the other hand, federal disproportionate share hospital (DSH) subsidies to state hospitals will also be reduced, so the net effect of the reduction in the number of uninsured on state spending is uncertain. Separately, if spending on employer-sponsored insurance is reduced (because of fewer people enrolled, lower premiums in the employer market, or lower premiums because small employers shifted their workers to the exchange), some of the avoided spending may be paid out to employees as higher wages, a move that would boost state income tax revenues.

Finally, there are numerous potential impacts of the ACA that could have spillover, or indirect, effects on state budgets—effects that are very difficult to estimate.⁷ For example, the law reduces Medicare payment rates to hospitals and to private insurers that administer Medicare Advantage plans. Both of these moves will reduce federal spending on Medicare, but they may also reduce access to care for some elderly residents. There are also provisions designed to encourage more-efficient and higher-quality care, such as withholding payments to hospitals for readmissions, provisions that create accountable care organizations, and a measure that creates a new cost-cutting board to oversee Medicare payment policy. All together, those provisions may have a major effect on the costs and quality of health care for both Medicare-eligible and non-Medicare-eligible Montanans, though the magnitude of impact is highly uncertain.⁸

II. How We Estimated the Effect of the ACA on Montana

In the appendix to this report, we provide a more detailed explanation of the methods used to estimate the effect of the ACA in Montana. We briefly summarize our approach here so that readers can understand the basis of our results.

We conducted this analysis using a microsimulation model developed by RAND researchers for the COMPARE project. This sophisticated model produces estimates of the effects of various coverage expansion policy changes on the number of people who newly obtain insurance and/or change sources of insurance, the types of plans they choose to enroll in, and the resulting changes in private- and public-sector spending. The microsimulation model provides a way of looking at the choices made by individuals, employers, insurance companies, and governments in response to changes in their

⁷ Secondary effects of changes in premiums on the overall business climate or labor market, or changes in the overall health of the population due to changes in insurance coverage, are beyond the scope of this report.

⁸ For example, although the Congressional Budget Office and the Centers for Medicare and Medicaid Services Office of the Actuary have estimated relatively minor impacts of the ACA on the overall health care system, some analysts estimate substantial reductions in costs. See, for example, Cutler, Davis, and Stremikis, 2010.

opportunities for obtaining health insurance. Typically, people and employers consider the option that is in their best financial interest, taking into account both expected spending on health care and the risk of experiencing high costs associated with a very expensive health problem (e.g., hospitalization or major surgery). Two of the more important assumptions relevant to this analysis are the effect of the individual mandate on decisions to obtain insurance and the stigma associated with Medicaid coverage, both of which affect Medicaid take-up rates. Parameters that govern those assumptions were chosen to be consistent both with economic theory and with empirical estimates of these effects, where available. We estimated the results for each year from 2011 to 2020, noting that it is not until 2016 that all of the changes in the law related to coverage expansion will be fully implemented.⁹ We then compared these results to projections of what would have occurred if the law had not been enacted.

III. Results

Using our COMPARE model, we predict that, under the ACA, the proportion of Montana residents with insurance will increase from 82 to 97 percent. (See Table 1.) As a result, the number of nonelderly Montana residents without health insurance in 2016 will be roughly one-sixth what it would have been in the absence of the law (25,000 uninsured compared with 150,000).

The nature of employer-sponsored coverage will change only slightly under the ACA. We predict that slightly more employers will opt to offer coverage through the exchange. The largest source of coverage will continue to be employer-sponsored insurance. However, some employers (mostly small) may opt to offer coverage through the exchange rather than on their own. We estimate that, once the exchange is in place, approximately 18,000 people (representing 4 percent of all workers with employer-sponsored coverage in Montana) will get their health insurance through an employer plan offered through the state's new health insurance exchange.¹⁰

By 2016, 20 percent of the insured, nonelderly population of Montana will have coverage through the exchange. In addition to the 18,000 Montana residents who get small employer-sponsored insurance through the exchange, we predict that, by 2016, roughly 140,000 Montana residents will purchase private health insurance

through the exchange. This will bring the total number of Montanans insured through the exchange to 158,000, or just over 20 percent of the state's insured, nonelderly population in 2016. Approximately 67 percent of Montana residents who will be enrolled in the exchange as individuals in 2016, some 98,000 people, will receive federal government subsidies to purchase this coverage.

Once the law is fully implemented, enrollment in Medicaid will have increased by 51 percent, relative to what it would be in the absence of the ACA. In 2016, an additional 58,000 Montana residents will be enrolled in Medicaid, an increase of 51 percent. Much of that increase (35,000 people) will come from individuals who are newly eligible for Medicaid as a result of the ACA.

Total state government spending on health care will be 3 percent higher for the combined 2011–2020 period because of the ACA. Table 2 shows the cumulative changes in state government spending for Medicaid and on private coverage for state employees. The net effect on State Employee Insurance will be small and will arise from minor changes in premiums and enrollment. Medicaid enrollment and associated spending, on the other hand, will increase substantially under the ACA. The cumulative effect will be a 3 percent increase in spending between 2011 and 2020, a total of roughly \$140 million.

Roughly the same percentage of Montana workers will get their health insurance coverage from their employer. Figure 1 shows the change in the percentage of Montana workers offered coverage through their employer with and without the ACA. The total number of workers offered coverage will change very little. The stability is due mainly to the individual mandate and penalties for not offering coverage, which *increase* demand for employer coverage, more than offsetting the subsidies available in the exchange, which *decrease* demand for employer coverage.

Bottom Line: Substantially more Montana residents will be insured, and state Medicaid costs will rise. We predict that under ACA there will be a roughly 120,000, or 80 percent, fewer uninsured Montanans than there would be without the ACA. This increased coverage is coupled with a 3 percent increase in state government spending over the combined period between 2011 and 2020. The increase in state government spending is driven by increases in Medicaid expenditures and expenditures on health insurance for state employees.

The estimates provided in this analysis are rooted both in economic theory and in past experience, and, to the extent that the future brings unforeseen challenges and incentives, actual impacts could differ from these projections. Furthermore, it is important to note that there is a good deal of flexibility in how individual states implement various provisions of the ACA. Some

⁹ In the analysis, we did not assume a start-up period, or "phase-in," of the full effect of the law from the date when the provision becomes law, because such implementation lags would vary extensively by state in ways that would be hard to predict.

¹⁰ In arriving at this estimate, the model does not account for the fact that many employers will eventually face having to comply with the new benefit requirements under the ACA because of changes they wish to make to their plans that will end their grandfathered status. That, in turn, will lead more employers to offer insurance through the exchanges than are estimated here.

Table 1: Predicted Health Insurance Enrollment in Montana, 2011–2020 (thousands)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total nonelderly population	830	830	830	830	830	830	830	820	820	820
Status Quo										
Insured, nonelderly	680	680	680	680	680	680	680	670	670	670
Employer-sponsored insurance	470	470	470	460	460	460	460	460	460	460
Traditional employer policies	450	450	440	440	440	440	440	440	440	440
State employer policies	20	20	20	20	20	20	20	20	20	20
Exchanges	–	–	–	–	–	–	–	–	–	–
Medicaid	110	110	110	110	110	110	110	110	110	110
Nongroup/other	100	100	100	100	100	100	100	100	100	100
Individual exchanges	–	–	–	–	–	–	–	–	–	–
Uninsured	150	150	150	150	150	150	150	150	150	150
% Nonelderly with insurance	82	82	82	82	82	82	82	82	82	82
Change Under the ACA										
Insured, nonelderly	0	0	0	120	120	120	120	120	120	120
Employer-sponsored insurance	0	0	0	–20	–20	–20	–20	–20	–20	–20
Traditional employer policies	0	0	0	–30	–30	–40	–40	–40	–40	–40
State employer policies	0	0	0	0	0	0	0	0	0	0
Exchanges	0	0	0	20	20	20	20	20	20	20
Medicaid	0	0	0	60	60	60	60	60	60	60
Nongroup/other	0	0	0	–70	–70	–70	–70	–70	–60	–60
Individual exchanges	0	0	0	140	140	150	150	150	150	150
Uninsured	0	0	0	–120	–120	–120	–120	–120	–120	–120
% Nonelderly with insurance	82	82	82	96	96	97	97	97	97	97

NOTES: The upper portion of the table, labeled “Status Quo,” is our estimate of what the distribution of insurance enrollment would have been had the ACA not been enacted. Everything in the lower panel represents the change under the ACA from the status quo, except for the final, shaded row, which provides the resulting percentage of insured under the ACA. Values in the table have been rounded to the nearest 10,000 and therefore may not sum to total.

of these decisions could alter our projections. The timing of implementation, the management and oversight of the exchanges, the mechanisms created for determining Medicaid or subsidy eligibility, and the extent of outreach efforts designed to enroll individuals in Medicaid or the exchanges will affect rates of coverage and, by extension, state costs. Finally, there are many courses of action that states can take to reduce health care spending generally, many of which are summarized in a recent RAND report for the state of Massachusetts, which has been struggling with many of the same issues that the nation will be upon full implementation of the ACA (Eibner et al., 2009).

Methodological Appendix

Overview of COMPARE Model

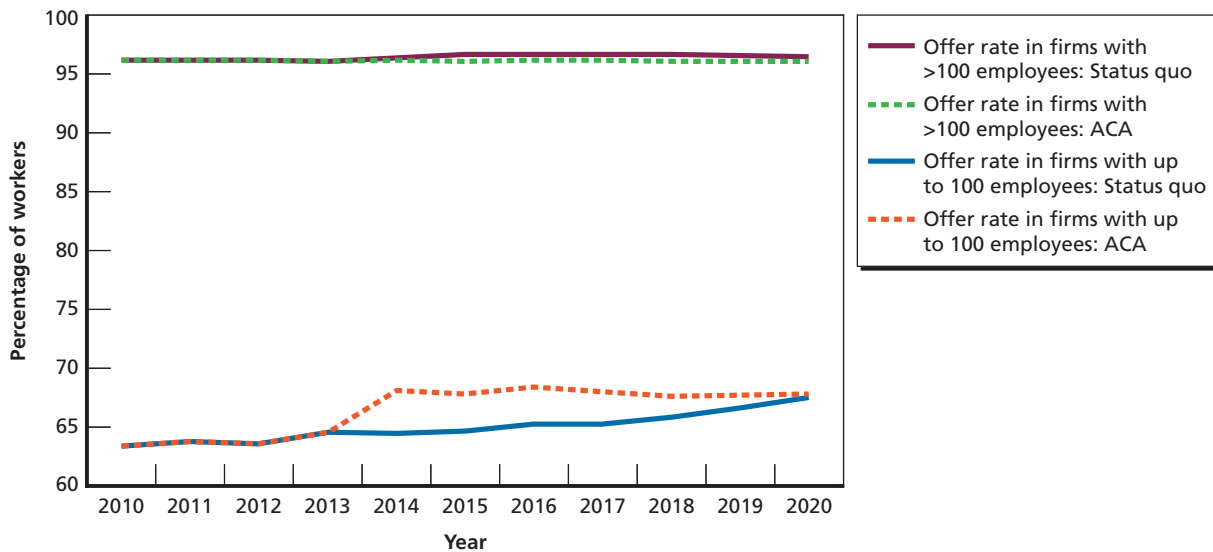
We modeled the effects of the ACA on state health expenditure and state-specific health insurance enrollment levels for Montana using RAND’s COMPARE microsimulation model. The analysis accounts for the individual mandate, employer penalties associated with not offering coverage, subsidies for low-income individuals, and the Medicaid expansion. The COMPARE model is based on a nationally representative population of synthetic individuals and firms derived from data sources including the Survey of Income and Program Participation (SIPP), the Medical Expenditure Panel Survey (MEPS), and the Kaiser/Health Research and Educational Trust (Kaiser/

Table 2: Montana State Spending on Health Insurance, 2011–2020 (\$ millions)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011–2020
Status Quo											
Medicaid	150	230	240	260	270	290	310	330	350	370	2,780
State health insurance	130	140	140	150	160	170	180	190	200	210	1,660
Total	280	370	380	410	430	460	490	510	550	580	4,440
Change Under the ACA											
Medicaid—previously eligible	0	0	0	0	0	0	0	10	0	0	20
Medicaid—newly eligible	0	0	0	0	0	0	10	10	10	20	60
State health insurance	0	0	0	0	10	10	10	10	10	10	60
Total	0	0	0	10	10	10	20	30	30	40	140

NOTES: The upper portion of the table, labeled “Status Quo,” is our estimate of what Montana would have spent between 2011 and 2020 had the ACA not been enacted. Values in the table have been rounded to the nearest \$10 million and therefore may not sum to total.

Figure 1: Percentage of Montana Workers Offered Coverage, 2011–2020



NOTE: “Status quo” refers to the offer rate that we estimate would have occurred in Montana had the ACA not been enacted.
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HRET) employer survey. Individuals in the model make decisions about health insurance enrollment by comparing the benefits of an option (e.g., reduced out-of-pocket expenditure, lower risk) to its costs (e.g., higher premiums). Firms in the model decide whether and what type of insurance to offer based on a “group choice” algorithm, in which they consider preferences of their workers and the costs of providing coverage. The firm decisionmaking process accounts for the fact that some workers may be eligible for Medicaid or subsidized coverage on the exchanges, both of which reduce the incentives to the employer to offer company-sponsored health insurance. It also accounts for penalties that may be levied on firms with 50 or more workers that do not offer coverage and

for the fact that firms with 100 or fewer workers will have the option to offer coverage from the exchanges. A full description of the model methodology can be found in Eibner et al. (2010).

Premiums in the COMPARE model are determined endogenously, using the predicted expenditure of enrollees in each health insurance plan. In calculating employer health insurance premiums, we assume that plans offered by businesses with less than 25 workers have an actuarial value of 0.75, plans offered by businesses with 25 to 99 workers have an actuarial value of 0.80, and plans offered by businesses with 100 or more workers have an actuarial value of 0.85. Actuarial values (the percentage of expected health expenses that will be paid for by the

insurance plan) for employer health insurance coverage in the COMPARE model correspond with actuarial values reported in the literature (e.g., Buntin et al., 2003; Gabel et al., 2006). Exchange plans have actuarial values of 0.60 (bronze), 0.70 (silver), 0.80 (gold), and 0.90 (platinum). We assume that administrative costs will be lower on the exchanges than in the grandfathered employer-sponsored health insurance (ESI) market (12 percent of premiums on the exchanges versus 20 percent of premiums for firms with fewer than 25 workers in grandfathered ESI plans and 13 percent of premiums for firms with 25–99 workers in grandfathered ESI plans). Administrative costs for traditional ESI plans correspond to values used by another health insurance microsimulation model (Blumberg et al., 2003). We further assume that health insurance exchanges will be open to all businesses with 100 or fewer workers. Many of these assumptions are currently uncertain, and actual details could well vary from state to state. We have the ability to adjust these assumptions if and when state-specific information becomes available to guide our choice of parameters.

For purposes of this report, we did not model the creation of a basic health plan. In addition, we assumed that Montana will ultimately decide to establish a state-specific health insurance exchange rather than participate in a regional compact or defer operation of the state's exchange to the federal government.

Montana-Specific Adjustments

Although the original COMPARE microsimulation model was nationally representative, the number of observations in each state was too small to support state-specific estimates. To address this issue, we reweighted all of the data in the COMPARE model to reflect the distribution of workers and firms in Montana.¹¹ The reweighting procedure accounted for race, insurance status (public, employer-based, nongroup, other insurance, or uninsured), employment status, firm size, and the joint distribution of age and poverty category among all Montana residents. We also recalculated the Medicaid eligibility status of modeled individuals using criteria specific to Montana and based on a Congressional Research Service report and information from the Kaiser Family Foundation (Hearne, 2005). To account for population changes over time, we calibrated the model to reflect Montana-specific population projections based on data from the U.S. Census and the American Community Survey. Our population adjustments account for changes in the total size of the population and the distribution of the population by age, race, and sex. We did not adjust for possible differences in health status for Montana residents versus

the nation as a whole. Medicaid enrollment in the state under the status quo was adjusted to match estimates from the Kaiser Family Foundation.

We adjusted health care spending in the model to match the state health insurance expenditure accounts (SHEAs) reported by the Centers for Medicare and Medicaid Services (CMS). Since state health expenditure data from CMS are available only through 2004, we projected expenditures forward using historical expenditure growth rates for Montana derived from the SHEAs. In reconciling our figures with the SHEA data, we accounted for both overall spending and for spending for particular categories of payer (e.g., private expenditure, Medicaid, Medicare, other federal, and other state and local expenditures).

We identified state government employees by (1) selecting workers in SIPP who reported that they are employed by the government and (2) reweighting a subset of this population to represent all state government workers in Montana (the remainder are assumed to be federal government employees—state and federal workers cannot be disentangled using the SIPP question). Using Montana-specific data from the 2008 American Community Survey, the reweighting strategy adjusted the data so that approximately 17,000 individuals were flagged as full-time employees of the state of Montana in our model. This figure includes all state employees, including university workers, workers employed by public utilities, and workers employed by the state correctional system. With additional information from Montana state government, we could more accurately describe the population of state workers.

References

- Blumberg, Linda J., Yu-Chu Shen, Len M. Nichols, Matthew Buettgens, Lisa C. Dubay, and Stacey McMorrow, *The Health Insurance Reform Simulation Model (HIRSM): Methodological Detail and Prototypical Simulation Results*, Washington, D.C.: The Urban Institute, July 2003.
- Buntin, Melinda Beeuwkes, Jose S. Escarce, Kanika Kapur, Jill M. Yegian, and M. Susan Marquis, "Trends and Variability in Individual Insurance Products in California," *Health Affairs*, Vol. 22, September 24, 2003, pp. w3–w452.
- Cutler, David M., Karen Davis, and Kristof Stremikis, *The Impact of Health Reform on Health System Spending*, New York: The Commonwealth Fund, Issue Brief, Publication 1405, Vol. 88, May 2010.
- Eibner, Christine, Peter S. Hussey, M. Susan Ridgely, and Elizabeth A. McGlynn, *Controlling Health Care Spending in Massachusetts: An Analysis of Options*, Santa Monica, Calif.: RAND Corporation, TR-733-COMMASS, 2009. As of January 16, 2011: http://www.rand.org/pubs/technical_reports/TR733.html
- Eibner, Christine, Federico Girosi, Carter C. Price, Amado Cordova, Peter S. Hussey, Alice Beckman, and Elizabeth A.

¹¹ The reweighted procedure that we use is known as iterative proportional fitting.

McGlynn, *Establishing State Health Insurance Exchanges: Implications for Health Insurance Enrollment, Spending, and Small Businesses*, Santa Monica, Calif.: RAND Corporation, TR-825-DOL, 2010. As of March 24, 2011:
http://www.rand.org/pubs/technical_reports/TR825.html

Elmendorf, Douglas W., director, Congressional Budget Office, letter to Nancy Pelosi, Speaker of the U.S. House of Representatives, March 18, 2010. As of March 24, 2011:
<http://www.cbo.gov/ftpdocs/113xx/doc11355/hr4872.pdf>

Gabel, Jon, Roland McDevitt, Laura Gandolfo, Jeremy Pickreign, Samantha Hawkins, and Cheryl Fahlman, "Generosity and Adjusted Premiums in Job-Based Insurance: Hawaii Is Up, Wyoming Is Down," *Health Affairs*, Vol. 25, No. 3, 2006, pp. 832–843.

Girosi, Federico, Amado Cordova, Christine Eibner, Carole Roan Gresenz, Emmett B. Keeler, Jeanne S. Ringel, Jeffrey Sullivan, John Bertko, Melinda Beeuwkes Buntin, and Raffaele Vardavas, "Overview of the COMPARE Microsimulation Model," Santa Monica, Calif.: RAND Corporation, WR-650, 2009. As of March 24, 2011:
http://www.rand.org/pubs/working_papers/WR650.html

Hearne, Jean, *Medicaid Eligibility for Adults and Children*, Washington, D.C.: Congressional Research Service, RL33019, 2005.

Lischko, Amy M., Sara S. Bachman, and Alyssa Vangeli, *The Massachusetts Commonwealth Health Insurance Connector: Structure and Functions*, New York: The Commonwealth Fund, Issue Brief, Publication 1268, Vol. 55, May 2009. As of March 24, 2011:
<http://www.commonwealthfund.org/Content/Publications/Issue-Briefs/2009/May/The-Massachusetts-Commonwealth-Health-Insurance-Connector.aspx>

About This Report

The Patient Protection and Affordable Care Act (ACA) contains substantial new requirements aimed at increasing rates of health insurance coverage. Because many of these provisions impose additional costs on the states, officials need reliable estimates of the likely impact of the ACA in their state. To demonstrate the usefulness of modeling for state-level decisionmaking, RAND undertook a preliminary analysis of the impact of the ACA on five states—California, Connecticut, Illinois, Montana, and Texas—using the RAND COMPARE microsimulation model. This technical report presents the findings for Montana. This research was sponsored by and conducted in partnership with the Council of State Governments. It was carried out within the Economics, Finance, and Organization Program of RAND Health, which addresses the financing and delivery of health care services, health insurance, cost control, the reorganization of health care markets and providers, and distributional issues in health and health care. The program includes RAND COMPARE.

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