MPR Reference No.: 6246

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Options for Expanding Coverage in Missouri: State Offer of a Small Group Product

Revised Final Report

July 31, 2007

Deborah Chollet, Ph.D.
Su Liu, Ph.D.

Submitted to:

Health Services Research and Policy
School of Public Health
MMC 729, 420 Delaware St., SE
Minneapolis, MN 55455-0381
Telephone: (612) 624-5599
Facsimile: (612) 624-1493

Project Officer: Lynn Blewett

Submitted by:

Mathematica Policy Research, Inc.
600 Maryland Ave. S.W., Suite 550
Washington, DC 20024-2512
Telephone: (202) 484-9220
Facsimile: (202) 863-1763

Project Director: Deborah Chollet

CONTENTS

CONTENTS (*continued*)

TABLES

FIGURES

Figure **Page**

EXECUTIVE SUMMARY

The Missouri State Planning Grant (MSPG) Policy Workgroup requested that Mathematica Policy Research (MPR) investigate whether a subsidized state health insurance purchasing arrangement for small employers could be useful in reducing the high and growing number of uninsured workers and dependents in Missouri. The strategy developed by the Workgroup would use the Missouri Consolidated Health Care Plan (MCHCP) as a purchasing arrangement for small groups. The MSPG Policy Workgroup envisioned that all workers in small groups would be eligible for coverage and for premium assistance if income-qualified, but asked MPR to estimate three alternative rules regarding the eligibility of spouse for coverage and premium assistance.

WHO WOULD BE ELIGIBLE?

Approximately 302,300 workers would be eligible for the proposed MCHCP product. These workers are employed in small firms (of 2-50 employees) that do not offer health insurance; they comprise 48 percent of all small-firm employees in Missouri. Just one-third of all eligible workers (99,300 workers) are uninsured.

However, eligible workers would account for most of the target population: that is, they comprise 83 percent of the 119,100 uninsured small-firm workers in Missouri. The remaining 17 percent of uninsured small-firm workers would be ineligible.

An estimated 68 percent of eligible workers are young adults under age 45—reflecting the low rate of employer offer to young workers in Missouri. Nearly 60 percent have family income below 300 percent of federal poverty level (FPL), compared with 47 percent of all small-group workers. In addition, eligible workers are more likely to report good, fair or poor health status (versus excellent or very good health status), and to live in rural areas.

WHO WOULD ENROLL?

An estimated 104,000 workers would receive an offer of the proposed MCHCP product from their employer. Most workers with an offer would take up the coverage; as a result, an estimated 97,700 workers would enroll in the proposed MCHCP product—approximately one-third of all eligible workers. If both workers and their spouses were eligible, an estimated 126,000 to 129,000 Missourians would enroll, depending on whether spouses in low-income families were eligible for premium assistance.

Not all employees are equally likely to be offered coverage by their employer. However, when offered coverage, most workers take it up. Workers estimated to receive an offer of coverage, and therefore to enroll in the proposed MCHCP product, would include older workers, workers with relatively high earnings and family income, and workers with better health status.

Although the large majority of uninsured small-firm employees would be eligible, we estimate that the proposed MCHCP arrangement would reduce the number of uninsured

Missourians by approximately one-fifth. That is, among the 119,100 eligible small-group workers who are uninsured, 21.9 percent (26,100 workers) would have gained coverage in the proposed MCHCP product.

HOW MUCH WOULD IT COST?

In 2006 dollars, the estimated average premium for single coverage among workers who would enroll would range from \$423 to \$499 per month. Workers in small groups that pay higher premiums are likely to be older; women; in good, fair or poor health; and/or living in rural areas.

Nearly one in five of the 97,700 workers who would enroll in the proposed MCHCP product would have family income less than 200 percent FPL and therefore would receive premium assistance. These workers would pay just 13 to 14 percent of the premium, while the state would pay 36 to 37 percent of the premium. Unsubsidized workers would share the premium equally with employers, each paying 50 percent.

If only workers were eligible for premium assistance, the estimated annual state cost would be \$2,004 per subsidized worker (\$167 per member per month, in 2006 dollars). The estimated total cost, aggregated across all subsidized workers for 12 months, would be \$39.6 million. If spouses also were eligible for premium assistance, the state's estimated cost would approximately double, reaching an estimated \$82.8 million.

CONSIDERATIONS FOR MISSOURI

The proposed MCHCP product could cover approximately one-fifth of uninsured adults in Missouri. A larger number of Missourians would enroll if the spouses of small-group workers also were eligible for premium assistance, but the increase in enrollment would be relatively low. Just one-third of workers eligible for the proposed MCHCP product and 26 percent of workers and spouses who would enroll are currently uninsured.

These estimates highlight at least two important considerations for Missouri in pursuing a strategy to expand coverage among small-group workers:

First, while the proposed MCHCP product would reach a significant number of uninsured workers and their spouses, it would be unlikely to reach the chronically uninsured—simply because it would not significantly change employer incentives to offer coverage. Chronically uninsured individuals arguably comprise the majority of uninsured Missourians, and to reach them would require some adjustment to the proposed strategy. Such an adjustment might include a further reduction in the required employer contribution to coverage and/or application of moderately reduced premium assistance to a larger number of workers at somewhat higher incomes.

Together with a reduction in the minimum employer contribution and expansion of subsidies, the state might also consider changing the rating rules that would be applied to small groups who enroll in the proposed MCHCP product—that is, reducing rate variation for employee characteristics such as age, health status, and gender. This adjustment would target small employers with workers who are most disadvantaged in the market and, therefore, are the least likely either to be offered insurance through an employer or to afford individual coverage. A number of the features that are envisioned for this new small-group product—including the requirement that the firm could not recently have offered coverage, the implicit subsidy to employers, and the explicit subsidy to employees—could successfully offset the potential for adverse selection, while easing the rating rules that now discourage coverage of so many low- and middle-income workers employed in small groups.

Second, targeting small groups that do not offer coverage could reach the majority of workers who are uninsured. However, it also would reach a large number of workers who are already insured, usually as the dependent of a working spouse. Some policymakers may view the offer of premium assistance to low-income workers who are already insured as inefficient on its face. However, it may in fact be an efficient strategy if it stabilizes coverage among those who are at greatest risk for losing coverage.

In considering the value of offering premium assistance to low-income workers who are already insured, it would be useful to understand more clearly the number and circumstances of workers in Missouri who lose employer-sponsored coverage and become uninsured. Such circumstances may include a change in employment or family income; a change in premiums associated with the rating factors that insurers in Missouri may use; or a change required premium contributions or the benefits offered, so that the combination of premium contributions and out-of-pocket expenses becomes unaffordable. A better understanding of how many workers in Missouri lose coverage and why could be of great value in understanding whether the proposed strategy is in fact efficient in stabilizing coverage among low-income Missourians, or whether it might be altered to reach more workers at the same cost to the state.

I. INTRODUCTION

The Missouri State Planning Grant (MSPG) Policy Workgroup requested that Mathematica Policy Research (MPR) investigate whether a subsidized state health insurance purchasing arrangement for small employers could be useful in reducing the high and growing number of uninsured workers and dependents in Missouri.[1] As in other states, Missourians employed in small firms are less likely to be offered group coverage as a benefit than those in larger firms. Consequently, small-firm workers and their dependents comprise a significant share of the uninsured—and a segment of the uninsured that might be encouraged to purchase health insurance with premium assistance.

MPR partnered with the State Health Access Data Assistance Center (SHADAC) at the University of Minnesota to develop the Workgroup's vision for such an arrangement in the course of a number of Workgroup meetings in May through November 2006. This report summarizes the concept that the Workgroup developed and the methods used to produce estimates of coverage and cost. We report the estimated number and characteristics of workers eligible for coverage in the proposed arrangement, the projected number and characteristics of workers who would gain coverage, and the public cost of offering premium assistance to encourage worker take-up.[2]

[1] Corrected U.S. Census estimates indicate that approximately 680,000 Missourians were uninsured in 2004-2005, equal to 11.8 percent of the total population and 13.7 percent of the population under age 65. U.S. Census Bureau, Current Population Survey, 2005 and 2006 Annual Social and Economic Supplements (http://www.census.gov/hhes/www/hlthins/usernote/table4usernote.xls, accessed May 1, 2007).

[2] We are grateful to Paula Nickelson in the Missouri Department of Health and Senior Services, Ron Meyer at the Missouri Consolidated Health Care Plan (MCHCP), and to Lynn Blewett at SHADAC for their expertise and suggestions offered throughout the project.

II. PROPOSED STRATEGY TO COVER SMALL-FIRM WORKERS

The strategy developed by the Workgroup would use the Missouri Consolidated Health Care Plan (MCHCP) as a purchasing arrangement for small groups. MCHCP currently operates as a purchasing arrangement to offer coverage to state employees, and also offers coverage to county and municipal employees in Missouri. Carriers bid on these segments of MCHCP separately and rate coverage according to the rules that generally govern health insurance rating in the state.

The strategy to offer coverage to small employers in Missouri was outlined at the beginning of the project. In meetings with the Workgroup the following parameters were developed:

- Small employers with 2-50 employees and no prior offer of health insurance benefit are eligible; employees, however, need not be currently uninsured to be eligible.
- The premium base price point (or "index rate") would be $350 (in 2006 dollars) per member per month. As with other MCHCP business, carriers would bid rates constrained only by the rules that govern rating for groups of 3-25 in Missouri (as well as competition among carriers).
- Employers would be required to pay 50 percent of the premium for employees, but would not need to contribute to premiums for dependent spouses. Employees would be responsible for the balance of the premium. Children would not be eligible for coverage under the plan, but might qualify for Medicaid or SCHIP coverage.
- Employees with family income below 200 percent of the federal poverty level (FPL) would qualify for premium assistance from the state. This assistance would pay 35 percent of the premium for all workers with income below 200 percent of poverty—leaving them, at most, liable for 15 percent of the premium. In addition, they could draw premium assistance dollars to cover the difference between the 15 percent of the premium they would otherwise need to pay and 3 percent of family income (if below 150 percent FPL) or 5 percent of family income (if 151 to 200 percent FPL).
- Spouses (if eligible for coverage) would pay the full premium ($350 per month, assuming no employer contribution). If also eligible for premium assistance, they would pay the same subsidized rates as the employee.
- Additional assistance would be available to households below 200 percent FPL, so that out-of-pocket expenditures for covered services would not exceed 5 percent of family income. This aspect of the strategy was not modeled.

Table 1 summarizes the contribution requirement proposed for employer, employee and the state, respectively.

TABLE 1

EMPLOYER, EMPLOYEE, AND STATE CONTRIBUTIONS TO PREMIUM
FOR THE PROPOSED MCHCP PRODUCT

	Family Income	Coverage for Worker	Coverage for Spouse
Employer	All	50% of premium	No contribution
Employee	Below 150% FPL	15% of premium, capped at 3% of family income	If eligible for premium assistance, 65% of premium, capped at 3% of family income
			If not eligible for premium assistance, 100% of premium
	151 – 200% FPL	15%, capped at 5% of family income	If eligible for premium assistance, 65% of premium, capped at 3% of family income
			If not eligible for premium assistance, 100% of premium
	Above 200% FPL	50% of premium	100% of premium
State	Below 200% FPL	35% of premium	If eligible for premium assistance 35% of premium
	Above 200% FPL	No contribution	No contribution

Source: Mathematica Policy Research, Inc.

MPR was asked to estimate the coverage and cost results of three alternative rules with respect to eligibility for coverage and premium assistance:

(1) The employee only would be eligible for coverage and, if income-qualified, also would receive premium assistance.

(2) Both the employee and spouse would be eligible for coverage, but only the employee could qualify for premium assistance.

(3) Both the employee and spouse would be eligible for coverage and for premium assistance.

All other aspects of coverage would be the same among the three scenarios.

III. METHODS

In order to estimate the coverage and cost outcomes of each scenario, we developed a microsimulation model for Missouri. A microsimulation model relies on a primary database—in this study, the 2004 Missouri Health Care Insurance and Access Survey (MHCIAS), conducted by SHADAC. The primary database was enhanced (as described below) and projected forward to 2006 to form the "base case"—that is, a picture of current offer and take-up of coverage among small-firm workers in Missouri. The "base case" data were then passed through a microsimulation logic program to produce each simulation. The sections that follow describe the data sources and methods used to develop the base case and simulations of the three scenarios.

A. DEVELOPMENT OF THE BASE CASE

As indicated above, the MHCIAS was the primary database for the model and also the basis for estimating the offer of coverage among workers who are not insured by their own employer. The MHCIAS is a telephone survey of Missouri households conducted between March 2004 and July 2004. In each household, one person (the target respondent) was randomly selected to respond to the survey questions. If the target respondent was a child, an adult was asked to respond on behalf of the child. In total, 6,995 target respondents completed the survey; the respondents were weighted statistically to represent Missouri's total population.[3]

We selected all targets aged 0-64 (a) who worked for a private firm with 1 to 50 employees, or (b) whose spouse or parent worked for a private firm with 1 to 50 employees. We identified 1,725 such target respondents. These respondents, when weighted, represented 1,622,833 workers and dependents in Missouri.

1. Current Employer Offer and Take Up

For each target, we estimated the probability of having an employer offer at the baseline. To do this, we estimated a probit regression model among adult target respondents in the MHCIAS who were workers in small private firms. The model considered the workers' socio-demographics (age, gender, marital status), health status, family characteristics (the presence of children and level of family income), employment characteristics (firm size, industry, whether self-employed, and whether working full-time), and geographic location (in each of eight regions of the state).[4] The coefficient estimates were used to predict the probability of employer offer for each target worker in the MHCIAS, and (based on the spouse's or parent's characteristics) the probability of employer offer for targets with a spouse of parent employed in a small private firm.

[3] Additional information is provided in the survey report prepared by SHADAC, and available at: http://www.dhss.mo.gov/DataAndStatisticalReports/Missouri_Final_Report.pdf (accessed May 1, 2007).

[4] Because a number of these variables (employee age, gender, firm size, and industry) determine the premium quoted to the employer, this is in effect a reduced form specification of employer demand, including price.

Having predicted offer in the base case allowed us to observe whether the worker took up coverage when offered. Obviously, all workers (and dependents) who reported coverage from their employer had taken up an offer of coverage. However, a number of workers did not take up coverage, when we predicted that their employer did offer coverage to them. Failure to take up coverage when offered related to their demand for coverage (given their personal and family characteristics, which we observed in the MHCIAS) as well as the contribution that they were required to pay (which we did not observe).

2. Base Case Premiums

Because the proposed coverage strategy would rely on voluntary purchase of coverage, it was necessary to understand both employer and employee responses to price. Because the MHCIAS did not ask about either the employer or employee contributions to health insurance premiums paid, we looked to a second database—the 2004 Missouri Employer Health Benefits Survey (MEHBS)—to estimate total health insurance premiums in the base case.

Sponsored by the Missouri Foundation for Health, the MEHBS was based on interviews with a random sample of 404 employee benefit managers in private Missouri firms with three or more workers conducted from October to December 2004.[5] Survey responses were weighted to represent all private-sector employers and workers (respectively) in Missouri.

Using the MEHBS, we estimated a simple regression model to calculate total insurance premiums for single coverage among employers that offered health insurance.[6] Total premiums were estimated as a function of the health insurance plan characteristics (plan type, coinsurance rate, copayment amounts, deductible amounts, covered benefits, and whether self-insured) and employer characteristics (firm size, urban/rural location, industry, whether unionized, rate of employee turnover, percent of employees that are low-wage and percent of employees that are part-time).

In order to predict employers' reservation price (that is, the price they would have been willing to pay for a more limited benefit package, but did not), we set the plan characteristics (such as deductibles and copayment amounts) at the 75 percentile. Other employer characteristics were set to the mean in each of the 20 groups (defined by firm size, industry and urban/rural location)—so that employers' predicted reservation prices varied by location, industry, and firm size. Based on a review of the literature, we assumed firms that did not offer coverage faced a premium that was 20 percent higher price than firms that did offer coverage (Hadley and Reschovsky 2002). Employer reservation prices then were assigned to workers and dependents in the enhanced primary database, based on their location (urban/rural), industry, firm size, and whether their employer offered coverage.

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[5] Additional information about the survey and a summary of the survey results are available from the Missouri Foundation for Health at http://www.mffh.org/MFFH-HRET.pdf, accessed May 1, 2007.

[6] The model was specified in linear form and estimated as ordinary least squares (OLS).

B. SIMULATION OF NEW COVERAGE

Having identified small-firm workers and dependents who were offered employer-based coverage, we then identified those who would be eligible for the proposed MCHCP coverage. Eligible workers (and their spouses) included only those employed in private firms with 2-50 employees who had no offer of coverage. The MHCIAS sample included 341 target workers that met these criteria, representing (when weighted) 302,297 workers (and 182,671 spouses) in Missouri.

1. Simulated Premium Quotes

The rating of small-group coverage in Missouri is complex. Insurers may use any of a number of rating factors, constrained within aggregate rate bands for firms of 3 to 25 workers. [7] Insurers typically underwrite individual workers in small groups (up to at least 25 employees) and sum the individual rates to produce the total premium quoted to the employer. Because insurers would rate the proposed MCHCP coverage according to general market rating rules, it was necessary to establish a schedule of premiums that were representative of the rating that insurers actually would use.

Based on conversations with MCHCP, we developed a rate schedule that reflected the "case characteristics" that insurers in Missouri can use to rate groups of 3-25, and applied those factors to groups as large as 50. The rating factors varied from 50 percent to 220 percent of the index rate, depending on the worker's age, gender, industry and health status. An adjustment factor of 1.3 was assumed for spousal coverage.

As indicated earlier, the 2006 index rate for the proposed MCHCP product was $350. To model offer and take-up in our database, we adjusted this amount to $307 in 2004 dollars, based on the annual private health insurance growth rates projected by the Centers for Medicare and Medicaid Services (CMS).

Because eligible workers could enroll in the proposed MCHCP product only through their employers, it was necessary to develop a premium quote for each worker's firm. To estimate group premium quotes, it was necessary to create a "virtual firm" for each eligible worker in the MHCIAS sample. To do this, we assigned to each eligible worker a set of feasible coworkers. Co-workers were assigned proportionate to their weighted occurrence in the MHCIAS within cohorts having the same firm size, industry, and location as the worker. We then developed an average group premium quote by rating each worker in the virtual firm, summing the individual rates, and averaging them across the number of workers in the firm.

[7] See Appendix A for an expanded discussion of small-group rate regulation in Missouri.

2. Simulated New Offer

No data available to this study included information sufficient to estimate Missouri employers' price elasticity of offer.[8] Consequently, we borrowed elasticity estimates from the published literature. Based on estimates developed by Hadley and Reschovsky (2002), we assumed that the price elasticity of offer was -0.63 for firms with 10 employees or fewer, -0.30 for firms with 11 to 24 employees, and -0.24 for firms with 25 to 50 employees.[9]

We compared the estimated group premium quote per member per month with the estimated baseline premium and used a standard elasticity formula to solve for the new probability of offer (given the assumed elasticity of offer for each firm size).[10] Using a standard stochastic process (comparing the new probability of offer to a random number between zero and one), we assigned a new offer of coverage to each eligible worker.

3. Simulated New Take-up

We next simulated whether the eligible worker would take up coverage when offered. Because the 2004 household survey lacked information about levels of premiums or employee contributions, we borrowed estimates from Blumberg et al. (2001) to simulate the probability that each worker would take up coverage when offered. The probability of take up varied by (1) the level of the employee's required contribution; (2) demographic, socioeconomic, and family characteristics and health status; and (3) geographic location. The employee's contribution was calculated by distributing the simulated premium between the employer and employee, and calculating the employee's net contribution after premium assistance based on his or her level of family income. By convention, take-up was assigned stochastically, comparing the simulated probability of take-up by each worker with an offer of coverage to a random number between zero and one.

Finally, we ran a separate simulation for eligible workers with a spouse. We first calculated the probability that the worker would take up family coverage when offered, and then stochastically determined family take-up among workers who were offered family coverage.

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[8] Such information would include the premiums that were quoted to firms that did not offer coverage as well as detailed information about benefit designs in firms that did offer coverage.

[9] Price elasticity is defined as the percent change in the probability of an employer offering insurance coverage as a result from a one percent change in price. A price elasticity of –0.24 suggests the probability of employer offer would reduce by 2.4 percent in response to a 10 percent increase in the price of health insurance.

[10] Price elasticity was calculated as $[(q_1 - q_0) / q_0] / [(p_1 - p_0) / p_0]$,), where p_0 is the premium available to non-offering employers in the market, p_1 is the quoted premium for the proposed MCHCP product, q_0 is the probability of offer in the base case, and q_1 is the probability of offer of the proposed MCHCP product.

IV. ESTIMATED ELIGIBLE POPULATION

A. NUMBER OF ELIGIBLE WORKERS

As proposed, eligibility for MCHCP coverage would be conditional on firm size and whether the employer had recently offered coverage, but not on whether the worker was actually uninsured. As a result, workers who would be eligible could be currently insured, but from a source other than their own employer. Conversely, some uninsured workers would not be eligible for the proposed MCHCP coverage, if their employer offered coverage for which they were ineligible or that they had not taken up.

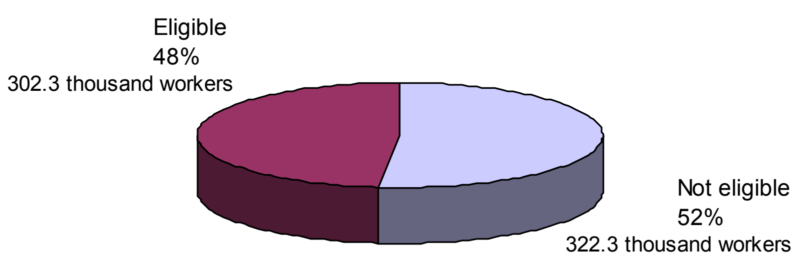
Among nearly 625,000 Missourians working in firms with 2-50 employees, an estimated 48 percent (approximately 302,300 workers) are employed in small firms with no offer of health insurance (Figure 1). All of these workers would be eligible for the proposed MCHCP coverage. However, only one-third of them (99,300 workers) are uninsured (Figure 2). Two-thirds are currently insured, presumably from spousal coverage or (rarely) a public program such as Medicare, but could switch to the proposed MCHCP coverage if it is less expensive for them.

As depicted in Figure 1, 52 percent of all small-firm workers in Missouri (approximately 322,300 workers) have an offer of coverage from their employer, and therefore would not be eligible for the proposed MCHCP product. Of these, 6 percent (19,800 small-group workers) would remain uninsured (Figure 2).

Overall, 83 percent of the 119,100 uninsured small-firm workers in Missouri (99,300 workers) would be eligible for the proposed MCHCP coverage. Seventeen percent of uninsured workers would be ineligible.

FIGURE 1

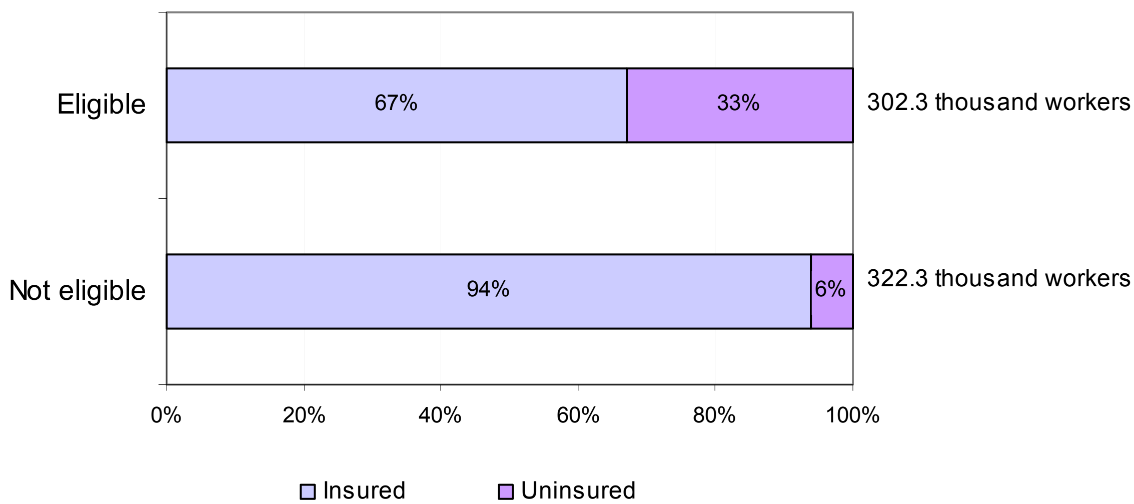
ESTIMATED DISTRIBUTION OF WORKERS IN FIRMS OF 2-50
BY ELIGIBILITY FOR THE PROPOSED MCHCP COVERAGE



Source: Mathematica Policy Research, Inc.

FIGURE 2

ESTIMATED CURRENT COVERAGE OF WORKERS IN FIRMS OF 2-50
BY ELIGIBILITY FOR THE PROPOSED MCHCP COVERAGE



Source: Mathematica Policy Research, Inc.

B. CHARACTERISTICS OF ELIGIBLE WORKERS

Workers who would be eligible for the proposed MCHCP product differ from the average among all small-group workers in a number of ways (Table 2). An estimated 68 percent of eligible workers are young adults under age 45—reflecting the low rate of employer offer to young workers in Missouri. Nearly 60 percent have family income below 300 percent of federal poverty level (FPL), compared with 47 percent of all small-group workers. Finally, eligible workers are more likely to report good, fair or poor health status (versus excellent or very good health status), and to live in rural areas.

Eligible workers who are uninsured differed from those who are insured already, despite working for an employer that does not offer coverage (Table 2). Relative to insured workers, those who are uninsured (and would newly gain coverage) are more likely to be:

- Older men (age 45-64)
- In families with income less than 200 percent FPL, and without children
- In good, fair, or poor health (not excellent or very good)
- Living in rural areas

Thus, the average level of risk and cost of the proposed MCHCP plan would depend not only on employer offer of coverage and take up among uninsured workers, but also on switching behavior among workers who already are insured from another source.

TABLE 2

NUMBER AND SELECTED CHARACTERISTICS OF SMALL GROUP WORKERS ELIGIBLE FOR THE PROPOSED MCHCP PRODUCT, BY CURRENT COVERAGE STATUS

	All Small Group Workers	Eligible Workers		
		Total	Currently insured	Currently uninsured
Total	**624,500**	**302,300**	**203,000**	**99,300**
Percent of all workers by:				
Gender and age				
Men 18-44	34.7%	36.5%	38.4%	32.5%
Men 45-64	18.4%	18.0%	13.3%	27.9%
Women 18-44	27.9%	31.0%	34.9%	22.9%
Women 45-64	19.0%	14.5%	13.4%	16.7%
Family income				
Under 100% FPL	10.2%	16.4%	12.3%	24.6%
101-200% FPL	15.4%	19.2%	11.2%	35.6%
201-300% FPL	21.3%	24.3%	25.8%	21.3%
Over 300% FPL	53.2%	40.1%	50.6%	18.5%
Family status				
No children	55.1%	54.0%	48.0%	66.2%
Children	44.9%	46.0%	52.0%	33.8%
Health status				
Excellent/very good	67.2%	63.2%	65.2%	59.0%
Good/fair/poor	32.8%	36.8%	34.8%	41.0%
Location				
Urban	65.6%	59.4%	64.2%	49.4%
Rural	34.4%	40.6%	35.8%	50.6%

Source: Mathematica Policy Research, Inc.

V. SIMULATION RESULTS

A. ESTIMATED INSURANCE PREMIUM QUOTES

Among all eligible workers, the average estimated premium quote for single coverage would be $443 per month in 2006 dollars. This premium quote is based on an index rate of $350 per month adjusted to worker characteristics in eligible groups. Based on this premium quote, employers would decide whether to offer the proposed MCHCP product and workers would decide whether to take up coverage when offered. Workers with family income below 200 percent FPL would decide whether to take up coverage based on their required contribution after premium assistance.

Reflecting the rating factors used to calculate small group rates in Missouri, the estimated premium quote generally reflects eligible workers' personal characteristics. Specifically, workers in small groups that would be more likely to receive a high premium quote are older; female; in good, fair or poor health; and/or living in rural areas (Table 3). *De facto*, such characteristics vary systematically (and inversely) with family income. That is, the average group premium quote would be higher among eligible workers with family income below 200 percent FPL than among higher-income eligible workers. However, after premium assistance, these workers' required contributions would be much lower.

B. OFFER AND ENROLLMENT

For each eligible worker, we simulated separately the probability of receiving an offer and the probability of taking up coverage when offered. Approximately 104,000 workers are simulated to receive an offer of the proposed MCHCP product from their employer—just more than one-third of the 302,300 workers who are eligible (Table 4).

Reflecting the application of subsidies for low-income workers, most workers with an offer are simulated to take up the coverage. Approximately 97,700 workers would be offered and enrolled in the proposed MCHCP product—just less than one-third (32.3 percent) of all eligible workers. Workers in small firms with a premium quote that was less than the median among all eligible firms ($435 per member per month) would be more likely to be offered coverage and therefore more likely to enroll in the proposed MCHCP product.[11]

[11] Whether a small employer would offer the proposed MCHCP plan depended on the difference between the proposed MCHCP product quote and the price of coverage that was otherwise available in the market. A larger difference made it more likely that a small employer offered coverage when he or she did not before. The difference between the MCHCP premium quote and the price of market coverage was not systematically related to the level of the proposed MCHCP premium.

TABLE 3

SIMULATED AVERAGE PREMIUM QUOTE FOR THE PROPOSED MCHCP PRODUCT
(WORKERS ONLY, IN 2006 DOLLARS)

	Average simulated group premium quote (worker only, per member per month)	Percent of the average premium quote among all eligible workers
Overall	**$443**	**100.0%**
Age		
18-44	$427	96.4%
45-64	$475	107.2%
Gender		
Female	$458	96.4%
Male	$430	97.2%
Family income		
Under 100% FPL	$450	104.5%
101-200%	$455	102.8%
201-300%	$428	96.7%
Over 300%	$443	100.0%
Family status		
No children	$449	101.3%
Children	$435	98.2%
Health status		
Excellent/very good	$434	99.7%
Good/fair/poor	$459	103.6%
Region		
Urban	$406	88.6%
Rural	$495	111.8%

Source: Mathematica Policy Research, Inc.

TABLE 4

SIMULATED OFFER AND TAKE-UP OF PROPOSED MCHCP COVERAGE AMONG ELIGIBLE WORKERS, BY SIMULATED PREMIUM QUOTE FOR SINGLE COVERAGE (IN 2006 DOLLARS)

Premium quote (per member per month)	Percentile	Number of workers (thousands)	Workers offered coverage		Workers who take up coverage	
			Number (thousands)	Percent	Number (thousands)	Percent
All eligible workers	--	302.3	104.0	34.40%	97.7	32.30%
\$509-\$939	80-100th percentile	63.0	19.6	31.20%	18.9	30.00%
\$457-\$508	60-80th percentile	56.8	15.1	26.60%	14.5	25.50%
\$435-\$456	Median-60th percentile	31.0	9.9	32.00%	9.4	30.50%
\$418-\$434	40th percentile-median	30.9	15.3	49.70%	15.0	48.60%
\$363-\$417	20-40th percentile	62.5	27.4	43.90%	23.3	37.20%
\$186-\$362	0-20th percentile	58.2	16.6	28.60%	16.6	28.60%

Source: Mathematica Policy Research, Inc.

C. ESTIMATED COVERAGE BY ELIGIBILITY RULE

The Workgroup requested enrollment and cost estimates based on three alternative rules regarding the eligibility of spouses for coverage and premium assistance. We assumed that the worker's decision to enroll when offered coverage is independent of whether their spouse is eligible for coverage and, if so, whether their spouse is eligible for premium assistance. Consequently, regardless of the rules governing spouses' eligibility, worker take-up rate in each simulation was the same—32.3 percent of eligible workers would enroll in the proposed MCHCP product (Table 5). However, the percentage of workers enrolled in single or family coverage differs when spouses are, respectively, eligible for coverage and eligible for the same premium assistance as the worker.

Specifically, when the spouse is eligible for coverage but not premium assistance, nearly 29 percent of enrolled workers (approximately 28,000 workers) choose family coverage. However, when the spouse is also eligible for premium assistance, nearly as many—32 percent of enrolled workers (approximately 31,600 workers)—choose family coverage. Including both workers and their spouses who enroll in coverage, the proposed MCHCP product would enroll 125,700 Missourians (the sum of 97,700 workers and 28,000 spouses) to 129,300 Missourians (the sum of 97,700 workers and 31,600 spouses), depending on whether spouses in low-income families were eligible for the same premium assistance as workers (Table 6).

TABLE 5

SIMULATED NUMBER AND PERCENT OF ELIGIBLE WORKERS ENROLLED IN SINGLE OR FAMILY COVERAGE IN THE PROPOSED MCHCP PRODUCT

		Enrolled workers		Workers enrolled in single coverage		Workers enrolled in family coverage	
Eligibility and premium assistance rule	Eligible workers (000s)	Number (000s)	Percent of eligible workers	Number (000s)	Percent of enrolled workers	Number (000s)	Percent of enrolled workers
Worker eligible, not spouse	302.3	97.7	32.3%	97.7	100%	--	--
Spouse eligible for coverage but not premium assistance	302.3	97.7	32.3%	69.7	71.3%	28.0	28.7%
Spouse eligible for coverage and premium assistance	302.3	97.7	32.3%	66.1	67.7%	31.6	32.3%

Source: Mathematica Policy Research, Inc.

TABLE 6

SIMULATED NUMBER OF LIVES ENROLLED IN THE PROPOSED MCHCP COVERAGE AND CURRENT COVERAGE STATUS, BY ALTERNATIVE ELIGIBILITY AND PREMIUM ASSISTANCE RULES

	Number of enrolled lives (in thousands)			Number currently uninsured (000s)	Percent currently uninsured
	Total	Workers	Spouses		
Worker eligible, not spouse	97.7	97.7	--	26.1	26.7%
Spouse eligible for coverage but not premium assistance	125.7	97.7	28.0	30.3	24.1%
Spouse eligible for coverage and premium assistance	129.3	97.7	31.6	34.0	26.3%

Source: Mathematica Policy Research, Inc.

Notes: Insured lives include workers and spouses. Coverage status of spouse was not observed; estimates assume that workers and their spouses have the same current coverage status.

Some workers and their spouses who would enroll in the proposed MCHCP product are already insured; the simulation showed these individuals switching into MCHCP coverage as the lower-cost alternative. Three-fourths of workers and their spouses who would enroll in the MCHCP product are insured, but would switch coverage when their employer offers the MCHCP product (Table 6). However, one-fourth of enrollees are uninsured and, therefore, would gain coverage. Specifically:

- If only workers were eligible for coverage and premium assistance, an estimated 26,100 uninsured Missourians would gain coverage.
- If spouses were eligible for coverage but not for premium assistance, an estimated 30,300 uninsured Missourians would gain coverage.
- If spouses were eligible for the same premium assistance as the worker, an estimated 34,000 uninsured Missourians would gain coverage.

D. CHARACTERISTICS OF ENROLLED WORKERS AND FAMILIES

Because the proposed MCHCP product would use current market rating rules, small employers who offer the plan generally resembled currently insured small groups in Missouri. Since most workers take up coverage when offered, the characteristics of workers who enrolled in the proposed MCHCP product are largely determined by whether their employer offers it to them. Such workers would include older workers, workers with high family income (and higher earnings), and workers with better health status (Table 7). Specifically:

- Older males (age 45 to 64) would account for 18 percent of all eligible workers and for 21.4 percent of workers who enroll in the proposed MCHCP product; by comparison, younger females (age 18 to 44) would account for 31 percent of all eligible workers but only for 25.6 percent of enrolled workers.
- Just 40 percent of eligible workers have family income above 300 percent FPL, but they would account for 59 percent of workers who enroll.
- An estimated 70 percent of workers who would enroll the proposed MCHCP product are in excellent or very good health, reflecting the lower premiums quoted to the firms that employ them.
- Urban workers would be more likely to enroll, again reflecting the lower cost of medical care and coverage in urban centers compared with rural areas in Missouri.

The offer of family coverage, however, would serve to diversify the pool of covered lives in the proposed MCHCP product (Table 7). If spouses are eligible for coverage, workers who would choose family coverage are more likely to be male or older female, in families with children, and living in rural areas. Furthermore, if spouses also were eligible for premium assistance, many more workers with family income below 300 percent FPL would choose family coverage.

TABLE 7

SELECTED CHARACTERISTICS OF WORKERS SIMULATED TO ENROLL IN THE PROPOSED MCHCP PRODUCT

		Enrolled workers				
		Worker eligible for coverage and premium assistance	Spouse eligible for coverage, but not premium assistance		Spouse eligible for coverage and premium assistance	
	Eligible workers		Single coverage	Family coverage	Single coverage	Family coverage
Total (000s)	**302.3**	**97.7**	**69.7**	**28.0**	**66.0**	**31.6**
Percent of workers by:						
Gender and age						
Men 18-44	36.5%	35.1%	34.7%	36.2%	36.6%	32.0%
Men 45-64	18.0%	21.4%	20.3%	24.1%	19.1%	26.3%
Women 18-44	31.0%	25.6%	30.4%	13.6%	29.0%	18.5%
Women 45-64	14.5%	17.9%	14.6%	26.2%	15.4%	23.2%
Family income						
101-200%	35.6%	19.9%	19.7%	20.4%	15.3%	29.5%
201-300%	24.3%	21.1%	22.7%	17.3%	24.0%	15.3%
Over 300%	40.1%	58.9%	57.6%	62.3%	60.7%	55.2%
Family status						
No children	54.0%	54.6%	57.3%	47.8%	60.5%	42.3%
Children	46.0%	45.4%	42.7%	52.2%	39.5%	57.7%
Health status						
Excellent/very good	63.2%	70.0%	64.7%	83.4%	65.9%	78.8%
Good/fair/poor	36.8%	30.0%	35.3%	16.6%	34.1%	21.2%
Location						
Urban	59.4%	63.1%	70.2%	45.6%	70.9%	46.9%
Rural	40.6%	36.9%	29.8%	54.4%	29.1%	53.1%

Source: Mathematica Policy Research, Inc.

E. UNINSURED WORKERS

While many uninsured small-group workers would gain coverage in the proposed MCHCP product, most would remain uninsured because their employers would still be unlikely to offer them coverage. Among the estimated 119,100 eligible small-group workers who are uninsured, 21.9 percent (approximately 26,100 workers) would gain coverage in the proposed MCHCP product (Table 8).

TABLE 8

NUMBER AND SELECTED CHARACTERISTICS OF CURRENTLY UNINSURED SMALL-GROUP WORKERS, BY SIMULATED ENROLLMENT IN THE PROPOSED MCHCP COVERAGE

	Uninsured small group workers	Eligible small-group workers who are currently uninsured		
		Total	Newly covered	Remain uninsured
Number of eligible workers (in thousands)	119.1	99.3	26.1	73.2
Percent of eligible workers	100.0%	83.4%	21.9%	61.4%
Percent of workers by:				
Gender and age				
Men 18-44	33.8%	32.5%	42.1%	29.1%
Men 45-64	18.6%	27.9%	33.7%	25.8%
Women 18-44	29.8%	22.9%	11.1%	27.1%
Women 45-64	17.8%	16.7%	13.0%	18.1%
Family income				
Under 200% FPL	58.1%	60.2%	51.2%	63.4%
201-300%	22.3%	21.3%	15.8%	23.3%
Over 300%	19.6%	18.5%	33%	13.3%
Family status				
No children	65.0%	66.2%	64.9%	66.6%
Children	35.0%	33.8%	35.1%	33.4%
Health status				
Excellent/very good	59.4%	59.0%	59.5%	58.8%
Good/fair/poor	40.6%	41.0%	40.5%	41.2%
Location				
Urban	54.8%	49.4%	59.5%	45.8%
Rural	45.2%	50.6%	40.5%	54.2%

Source: Mathematica Policy Research, Inc.

In general, the characteristics of these workers—in combination with the rating practices of insurers in Missouri—are such that employers that currently do not offer them coverage would not offer them the proposed MCHCP product either. Compared with eligible workers who would remain uninsured, those who would gain coverage are more likely to be men and less likely to be women (particularly women under age 45 and at risk for maternity). Even with premium assistance, workers who would remain uninsured are more likely to be low-income (below 200 percent FPL), without children; in good, fair or poor health (versus excellent or very good); and to live in rural areas.

VI. ESTIMATED COST

A. STATE FISCAL EXPOSURE

Nearly one in five of the 97,665 workers who would enroll in the proposed MCHCP product have family incomes less than 200 percent FPL, and therefore would receive premium assistance (Table 9). While not modeled here, the state's estimated cost for premium assistance might be reduced, if the program qualified for federal Medicaid matching under a demonstration waiver.[12]

TABLE 9

SIMULATED ANNUAL COST OF PREMIUM ASSISTANCE (IN 2006 DOLLARS)
BY ALTERNATIVE ELIGIBILITY AND PREMIUM ASSISTANCE RULES

	Enrolled workers (000s)	Percent with premium assistance		Annual premium assistance per subsidized worker		Total state cost for premium assistance (millions)
		Single coverage	Family coverage	Single coverage	Family coverage	
Worker eligible, not spouse	97.7	19.9%	--	$2,004	--	$39.6
Spouse eligible for coverage but not premium assistance	97.7	14.0%	5.9%	$2,004	$2,004	$39.6
Spouse eligible for coverage and premium assistance	97.7	10.3%	9.6%	$1,800	$9,012	$82.8

Source: Mathematica Policy Research, Inc.

When only workers are eligible for premium assistance, the estimated annual state cost would be $2,004 per subsidized worker ($167 per member per month, in 2006 dollars). The estimated total cost, aggregated across all subsidized workers for 12 months, would be $39.6 million.

If spouses were eligible for coverage and premium assistance, the estimated state cost would be $1,800 per subsidized worker for single coverage and $9,012 for family coverage. The state's estimated fiscal exposure would approximately double: including both workers and their spouses, the state would pay an estimated $82.8 million for premium assistance, compared with $39.6 million if only workers were eligible.

[12] For example, Arkansas, New Mexico and Oklahoma have Section 1115 demonstration waivers under the Medicaid Health Insurance Flexibility and Accountability (HIFA) demonstration initiative; each of these states targets assistance to uninsured workers and their employers. The HIFA demonstration initiative is intended to encourage new comprehensive state approaches to increase the number of individuals with health insurance coverage within current-level Medicaid and SCHIP resources. To date, the program has put a particular emphasis on approaches that maximize private health insurance coverage options and target resources to populations with income below 200 percent FPL [http://www.cms.hhs.gov/HIFA/].

B. ESTIMATED BURDEN ON EMPLOYERS AND WORKERS

The characteristics of workers who would choose family coverage differ from those of workers who would choose single coverage. As a result, the average single premium would vary depending on the take up of family coverage, as would employer and employee contributions to premium and the amount that the state would pay to support premium assistance. In Table 10, workers who would enroll in the proposed MCHCP product are divided into two groups—those who would receive premium assistance (that is, with family income below 200 percent FPL) and those who would not qualify for premium assistance. Only premiums for covering workers (not their spouses) are considered here; contributions to premium are compared under the alternative eligibility and premium assistance rules.

For workers taking up single coverage without premium assistance (that is, those with family income above 200 percent FPL), the average premium would be $433 when the spouse is not eligible, and $423 when the spouse is eligible. These workers and their employers each would pay half of the single premium. Among workers who choose family coverage without premium assistance, the average monthly premium for the worker only would be $456, again with the employer and employee each contributing half ($228 per month).

Among workers who would enroll with premium assistance (those with income below 200 percent FPL), the single premium would range from $419 to $461 per month, depending on the eligibility rule in effect. Of this amount, the employer again would pay 50 percent, but the employee share of the premium would be heavily subsidized. Subsidized workers would pay just 13 to 14 percent of the premium, while the payments would cover 36 to 37 percent of the premium.

Among workers who choose family coverage with premium assistance, the average premium for the worker only would be $450 per month if spouses were not eligible for premium assistance and $499 per month if spouses were eligible for premium assistance. After the employer contribution to premium, workers who enroll in family coverage with premium assistance would pay, on average, 13 percent of the premium and the state would pay 37 percent.

TABLE 10

SIMULATED CONTRIBUTIONS TO PREMIUM AMONG WORKERS
ENROLLED IN THE PROPOSED MCHCP COVERAGE (IN 2006 DOLLARS)

		Employee contribution		Employer contribution		State contribution	
	Average premium (worker only)	Average amount	Percent of premium	Average amount	Percent of premium	Average amount	Percent of premium
Unsubsidized workers							
Single coverage:							
Worker eligible, not spouse	$433	$216	50.0%	$216	50.0%	$0	0.0%
Spouse eligible for coverage but not premium assistance	$423	$212	50.0%	$212	50.0%	$0	0.0%
Spouse eligible for coverage and premium assistance	$423	$212	50.0%	$212	50.0%	$0	0.0%
Family coverage:							
Spouse eligible for coverage but not premium assistance	$456	$229	50.1%	$229	50.1%	$0	0.0%
Spouse eligible for coverage and premium assistance	$456	$229	50.1%	$229	50.1%	$0	0.0%
Subsidized workers							
Single coverage:							
Worker eligible, not spouse	$458	$61	13.4%	$229	50.0%	$167	36.6%
Spouse eligible for coverage but not premium assistance	$461	$63	13.6%	$230	49.9%	$167	36.3%
Spouse eligible for coverage and premium assistance	$419	$59	14.1%	$209	50.0%	$150	35.9%
Family coverage:							
Spouse eligible for coverage but not premium assistance	$450	$58	12.9%	$225	50.1%	$167	37.2%
Spouse eligible for coverage and premium assistance	$499	$64	12.8%	$249	50.0%	$186	37.2%

Source: Mathematica Policy Research, Inc.

Note: Detail may not add to 100% due to rounding.

VII. CONSIDERATIONS FOR MISSOURI

The proposed MCHCP product could cover approximately one-fifth of uninsured adults in Missouri. A larger number of Missourians would enroll if the spouses of small-group workers also were eligible for premium assistance, but the increase in enrollment would be relatively low. However, just one-third of workers eligible for the proposed MCHCP product and 26 percent of workers and spouses who would enroll are currently uninsured.

These estimates highlight at least two important considerations for Missouri in pursuing a strategy to expand coverage among small-group workers:

First, the employer offer of coverage is the most important factor in the success of any strategy targeted to small groups. When offered coverage, most workers would take it up—even without premium assistance.

The proposed MCHCP product would offer employers reduced cost by reducing the percentage of premium that the employer would pay relative to prevailing standards in the market. While this implicit subsidy would probably succeed in inducing some employers to offer coverage when they had not before, most still would not offer coverage. Moreover, because the rating rules that prevail in the market would be applied to the proposed MCHCP product, workers who currently are unlikely to receive an offer of coverage—those who are older, low-income, in worse health status, and located in rural areas—would still be unlikely to receive an offer.

Thus, while the proposed MCHCP product would reach a significant number of uninsured workers and their spouses, it probably would reach relatively few Missourians who are chronically uninsured. These individuals arguably comprise the majority of uninsured Missourians, and to reach them would require some adjustment to the proposed strategy. Such an adjustment might include a further reduction in the required employer contribution to coverage. It might also include an offer of moderately reduced premium assistance to a larger number of workers at somewhat higher incomes, for whom health insurance is still unaffordable.

In addition, the state might also consider changing the rating rules that would be applied to small groups who enroll in the proposed MCHCP product—that is, reducing rate variation for employee characteristics such as age, health status, and gender. This adjustment would target small employers with workers who are most disadvantaged in the market and, therefore, are the least likely either to be offered insurance through an employer or to afford individual coverage.

Obviously, any program that operates with rating rules that vary from those that prevail in the market risks experiencing adverse selection—that is, enrollment of higher cost individuals who are able buy insurance in the program at a lower price than in the market. However, a number of the features that are envisioned for this new small-group product—including the requirement that the firm could not recently have offered coverage, the implicit subsidy to employers, and the explicit subsidy to employees—could successfully offset the potential for adverse selection. Requiring that employers participate for in multiple-year contracts (as now required of county government units that enroll in MCHCP) could further limit the opportunity for adverse selection, while easing the rating rules that now discourage coverage of so many low- and middle-income workers employed in small groups.

Second, targeting small groups that do not offer coverage could reach the majority of workers who are uninsured. However, it also would reach a large number of workers who are already insured, usually as the dependent of a working spouse. Some policymakers may view the offer of premium assistance to low-income workers who are already insured as inefficient on its face. However, it may in fact be an efficient strategy if it stabilizes coverage among those who are at greatest risk for losing coverage.

In considering the value of offering premium assistance to low-income workers who are already insured, it would be useful to understand more clearly the number and circumstances of workers in Missouri who lose employer-sponsored coverage and become uninsured. Such circumstances may include a change in employment or family income; a change in premiums associated with the rating factors that insurers in Missouri may use; or a change required premium contributions or the benefits offered, so that the combination of premium contributions and out-of-pocket expenses becomes unaffordable. A better understanding of how many workers in Missouri lose coverage and why could be of great value in understanding whether the proposed strategy is in fact efficient in stabilizing coverage among low-income Missourians, or whether it might be altered to reach more workers at the same cost to the state.

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APPENDIX A

SMALL-GROUP RATING IN MISSOURI

MISSOURI'S SMALL-GROUP STATUTES THAT GOVERN INSURANCE RATING APPLY ONLY TO GROUPS OF 3 TO 25. CARRIERS MAY RATE GROUPS SMALLER THAN 3 OR LARGER THAN 25 OUTSIDE OF THESE RULES.

Under Missouri's insurance statutes, the MCHCP small-group program likely would be considered a separate "class of business" for the purpose of developing rate quotes for small employers who would apply for coverage. Missouri restricts the extent to which insurers may vary small-group rates among and within classes of business, and also establishes allowable rate factors. Relevant provisions in statute are as follows:

- Index rates between classes of business cannot vary by more than 20 percent for case characteristics, health status, or other rate factors (Sec. 379.936(1)). Carriers may not further adjust rates to reflect selection bias that may differ among otherwise identical groups (Sec. 379.936(8a)).
- In general, allowed case characteristics are age, sex, industry, geographic area, family composition, and group size (Sec. 379.936(10)). Of these, industry is the only case characteristic that is banded. Carriers can vary rates among industry groups +/-10 percent (equal to 1 to 1.22) (Sec. 379.936(6)).
- Rates within a class can vary +/-25 percent of the index rate. That is, the cumulative effective rate factor that the carrier may apply to the index rate cannot vary more than 0.75 to 1.25 (equal to 1.00 to 1.67) [Sec. 379.336(2)]. However, in practice, carriers allegedly vary rates around a mark-up on the index rate (preserving a maximum spread of 1.00 to 1.67).[1] No small group can have a rate factor less than the lowest factor or greater than the highest factor.
- Annual rate increases to a small employer cannot exceed the sum of: (1) medical trend across all small groups that the carrier insures; (2) unusual claims experience or health status (not to exceed 15 percent); and (3) any adjustments due to changes in the benefit design or case characteristics.

Considering all of these factors, any one carrier may vary initial rates for small groups by as much as 2.4 to 1.0 for the same product in the same geographic area.[2] For renewal business, the spread in rates may expand, but would probably never be less than the spread in initial rates.

[1] In general, small-group carriers in Missouri allegedly vary rates between -17.5 and +37.5 percent of the index rate (Dan Pribe, personal communication, January 30, 2007).

[2] For example, a group in the carrier's lowest class of business (1.00), lowest industry group (1.00), and at the lowest rate band (1.00) would have a factor of 1.00. In comparison, a group in the highest class (1.20), highest industry (1.22), and at the highest rate band (1.67) would have a factor of 2.4 (equal to 1.20 x 1.67 x 1.22).