

## THE SYNTHESIS PROJECT

NEW INSIGHTS FROM RESEARCH RESULTS

RESEARCH SYNTHESIS REPORT NO.2

SEPTEMBER 2002

Jason Lee

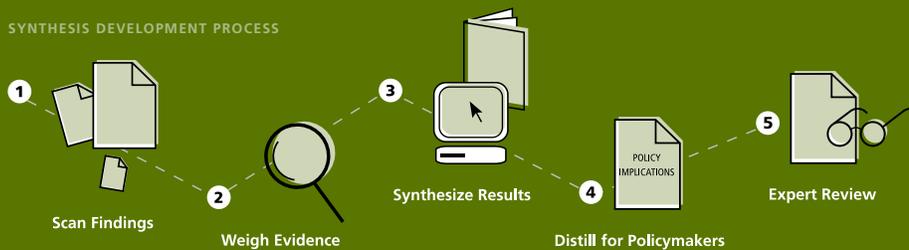
# Are Health Insurance Premiums Higher for Small Firms?

## TABLE OF CONTENTS

- 1 Introduction
  - 3 Findings
  - 13 Implications for Policymakers
  - 15 The Need for Additional Information
- APPENDICES
- 16 References
  - 17 Shortcomings of Benefit Mandate Studies

THE SYNTHESIS PROJECT (Synthesis) is a new initiative of the Robert Wood Johnson Foundation. It aims to produce relevant, concise, and thought-provoking briefs and reports on today's important health policy issues. By synthesizing what is known, while weighing the strength of findings and exposing gaps in knowledge, Synthesis products give decisionmakers reliable information and new insights to inform complex policy decisions. This 16-page Research Synthesis Report, prepared as part of The Synthesis Project, summarizes key research on the relationship between firm size and health insurance premiums. A related 4-page Policy Brief presents an even more concise summary of the research on these topics. The information contained in both reports is available online at [www.policysynthesis.org](http://www.policysynthesis.org).

### SYNTHESIS DEVELOPMENT PROCESS



## INTRODUCTION

In 2000, about one in seven people—or about 14 percent of the U.S. population—did not have health insurance. The current economic downturn is likely to increase this problem <sup>(18)</sup>. Contrary to popular belief, fully 80 percent of the uninsured are wage earners or members of working families.<sup>1</sup> Most were not offered insurance at their own or a family member's place of employment <sup>(12)</sup>.

Small firms are much less likely than large firms to offer coverage to their workers.<sup>2</sup> In 2001, almost two-thirds of all small firms (with 3–199 employees) cited high premiums as the reason for not offering coverage.<sup>3</sup> Although good estimates of premium cost differences between small and large firms (for comparable benefit packages) are lacking, the best available evidence suggests that small firms face higher health insurance costs for the same benefits than large firms for a variety of reasons.

1. Sixty percent are wage earners. See Institute of Medicine, 2001. *Coverage Matters. Insurance and Health Care*, p.68.

2. Almost all firms with more than 200 employees offer health insurance, but only about 60 percent of the smallest firms (with 3–9 workers) do. The Henry J. Kaiser Family Foundation and Health Research and Educational Trust. *Employer Health Benefits. 2001 Annual Survey*, p.36. (Hereafter: KFF/HRET, 2001 Annual Survey.)

3. Sixty-four percent of all firms with under 200 employees cite high premiums as the reason for not offering coverage. KFF/HRET: 2001 Annual Survey, p.41.

The purpose of this synthesis is to analyze the differences in health insurance costs between small and large firms. We weigh available research findings, draw conclusions based on those findings, and note where the evidence on a particular issue is lacking or inconclusive. The synthesis draws most heavily on studies that meet professionally accepted social scientific standards for valid and reliable data analysis and hypothesis testing. However, this synthesis also evaluates some studies that are not as methodologically strong but have widely influenced thinking on cost differences by firm size.

The synthesis addresses three broad questions. First, how do premiums paid by small and large firms compare? Are simple comparisons misleading? If so, why? Second, do administrative costs, state mandates for benefits, and other factors like cycling in and out of the market, employee turnover,

and firm failure result in higher health insurance costs for small firms than for large firms? And third, what are the research and policy implications of our findings?

Note that a major challenge in addressing these questions is the lack of valid data on premiums (or health plan costs) paid by firms of different sizes. Insurers are the best potential source of this information for fully-insured firms, but their data generally are proprietary. Moreover, they do not have data on the health care costs of firms that self-insure. In addition, available surveys of employee benefits do not usually obtain information on the premiums faced by small employers who do not offer insurance, and the surveys' low response rates (50 percent or less) could limit the generalizability of the findings if the non-responding and responding firms differ with respect to outcomes of interest.<sup>4</sup> These surveys also lack common definitions for basic terms such as firm size and administrative costs.

The sections that follow address these specific questions:

- q1: Are health insurance premiums higher for small firms?
- q2: Are offer rates different for small and large firms?
- q3: Are the administrative costs of health insurance higher for small firms?
- q4: Do benefits mandated by states increase insurance costs for small firms?
- q5: Have purchasing pools reduced small firms' premium costs?
- q6: What other factors might drive up premiums for small firms relative to large firms?

4. KFF and HRET have conducted an annual survey of employer health benefits since 1999. KPMG conducted the survey from 1992 to 1998, though only large employers were sampled in three of those years. The Health Insurance Association of America (HIAA) conducted the survey in 1990 and 1991. These are the employer surveys referred to in the text.

## FINDINGS

# Are Health Insurance Premiums Higher for Small Firms?

Many observers believe that small firms must pay higher premiums than large firms, and that this factor accounts for small firms' lower propensity to offer coverage. However, national survey data—which show that small and large firms pay similar premiums—challenge this view.

### Q1: ARE HEALTH INSURANCE PREMIUMS HIGHER FOR SMALL FIRMS?

The Henry J. Kaiser Family Foundation and Health Research and Educational Trust (KFF/HRET) conduct an annual survey of employers (called the Employer Benefits Survey) which asks detailed questions about plan design and benefits. The most recent survey estimated that the annual average premium for single coverage for all small firms (3–199 employees) was \$2,735 and for all large firms ( $\geq 200$  employees) was \$2,610, resulting in a small cost difference of \$125<sup>(13)</sup>. Conversely, the average annual premium for family coverage in 2001 was lower for small firms (\$6,902) compared to large firms (\$7,124).

Simple comparisons of premiums can, however, be misleading. First, there are differences in the underlying benefit packages offered by small and large firms. Second, simple premium comparisons do not include prices faced by firms that do not offer coverage. Third, average prices mask the different premium distributions for small and large firms.

Premium data do not reflect differences in covered benefits.

- The comparison of average premiums by firm size provides no information about the relative generosity or economy of the benefit packages purchased. Two plans with the same premium but unequal benefits are clearly not equivalent, and evidence suggests that some small firms do, indeed, offer less generous benefit packages. Drawing from the 1999 KFF/HRET survey, the General Accounting Office (GAO) concluded that "...compared with plans offered by large employers, very small firms paid premiums that averaged about 10 percent higher *for plans that covered fewer benefits, and required deductibles twice as high*" (italics added)<sup>(8)</sup>. In October 2001, GAO reported to Congress that workers covered through small firms are less likely to receive coverage for prescription drugs, prenatal care, outpatient and inpatient mental health, well-baby care, adult physicals, chiropractic care, oral contraceptives, and acupuncture<sup>(9)</sup>.

Premium costs faced by firms that do not offer coverage are not captured in simple premium comparisons.

Further, the data do not capture the extent of variability in premiums for small firms.

Small firms are medically underwritten more frequently than large firms.

- ▶ The KFF/HRET survey does not include small firms that did not offer insurance (35 percent of all firms with 3–199 employees in 2001). The premiums that insurers quoted to these firms may have differed significantly from the premium quotes received by firms that offered coverage. Those with high-risk work forces, for example, may have faced considerably higher premiums than the average. Without the full complement of data, conclusions for all small firms cannot be drawn.
- ▶ A comparison of average premiums reveals nothing about the *distribution* of premiums across the market for small or large firms. Although some state laws limit the extent of premium variation, small firms might still experience more premium variation as a group.
- ▶ One cause of premium variability is medical underwriting, which is more common for small firms. Medical underwriting is the practice of setting a firm's premiums based on a calculation of expected medical costs as determined by an assessment of the health status of enrollees. If small insurers were certain they would attract a representative sample of enrollees from small firms, they would not medically underwrite in the small group market. But of course, insurers have no such guarantee. Therefore, they protect against the risk of attracting less healthy enrollees by medically underwriting small firms. They charge healthier-than-average firms lower premiums and less-healthy firms higher premiums (to the extent allowable by state law).

Using the 1993 Robert Wood Johnson Foundation (RWJF) Employer Health Insurance Survey, Cantor found that firms with one to four employees that offered coverage were underwritten 42 percent of the time compared to 21 percent of the time for firms with more than 50 employees (2). Medical underwriting increases premium variation since it ties premium cost to expected claims. Many rating reform laws limit medical underwriting and a small number of states prohibit it by requiring community rating. However, where it is allowed and used, it creates more premium variability for small firms.

#### Q2: ARE OFFER RATES DIFFERENT FOR SMALL AND LARGE FIRMS?

While almost all large firms ( $\geq 200$  employees) offer insurance coverage, only about 60 percent of the smallest firms (with 3–9 employees) do (13). As it turns out, almost all *high-wage* small firms offer insurance (FIGURE 1). In addition, although small and large firms differ with respect to offer rates, those that provide health insurance have similar eligibility, take-up, and coverage rates (FIGURE 4).

Wage rate affects small employers' decision to offer coverage.

- ▶ Among small firms, the decision to offer coverage is influenced by wage rates. Schone<sup>(21)</sup> found that the likelihood of offering insurance among small firms increases with wage rates (FIGURE 1). High-wage small firms tend to have offer rates closer to those of large firms (both in 1987 and in 1996, when offer rates were higher).

FIGURE 1. Offer Rates for Small Firms (<26 workers), by Wage Rate, 1987 and 1996\*

Wage Rate**	Offer Rates (percent of firms)	
	1987	1996
Low Wage (<\$7 per hour)	29	33
Middle Wage (\$7-15 per hour)	61	66
High Wage (>\$15 per hour)	72	85

\* 1987 National Medical Expenditure Survey and 1996 Medical Expenditure Panel Survey data are weighted to be nationally representative.

\*\* Wages are in 1996 dollars.

Source: Schone

Small firms that offer health benefits are similar to large firms with respect to employee eligibility, take-up, and coverage rates, but their employees' premium contributions are lower for single coverage and higher for family coverage.

- ▶ For single coverage, the average annual premium contribution among small firm employees is less than the premium contribution of large firm employees. However, employees of small firms pay more for family coverage than do employees of large firms (FIGURE 2). Although small firms are much more likely than large firms to pay 100 percent of single and family premiums for their employees, they also are slightly more likely to pay less than 50 percent of single premiums and more than twice as likely to pay less than 50 percent of family premiums for their employees (FIGURE 3).

FIGURE 2. Employee Contribution to Single and Family Premium (dollars), by Firm Size, 2001

Firm Size (number of employees)	Average Annual Employee Premium Contribution	
	SINGLE COVERAGE	FAMILY COVERAGE
3-199	296	2,265
200-999	357	1,770
1,000-4,999	443	1,811
≥5,000	378	1,410

Source: KFF/HRET

FIGURE 3. Percent of Single and Family Premium Paid by Employer, by Firm Size, 2001\*

Percent of Premium Paid by Employer	Single Coverage		Family Coverage	
	PERCENT OF SMALL FIRMS (3-199 EMPLOYEES)	PERCENT OF LARGE FIRMS (≥200 EMPLOYEES)	PERCENT OF SMALL FIRMS (3-199 EMPLOYEES)	PERCENT OF LARGE FIRMS (≥200 EMPLOYEES)
<50	4	2	29	11
50-99	38	81	49	80
100	57	17	23	9

Source: KFF/HRET

\* Totals do not sum to 100 due to rounding.

Small and large firms that offer insurance cover about the same percentage of workers; the share of employees who are eligible for health insurance differs by only five percentage points; and the take-up rate is virtually the same (FIGURE 4).

FIGURE 4. Employee Eligibility, Take-up, and Coverage Rates (percent), Among Firms Offering Coverage, by Firm Size, 2001

	Eligibility Rate	Take-up Rate	Coverage Rate
<b>Small Firms</b> (3–199 employees)	83	84	70
<b>Large Firms</b> (≥200 employees)	78	83	66

Source: KFF/HRET

Premium volatility is greater in small firms and can affect their decisions to offer coverage.

- ▶ Long and Marquis speculated that “one likely factor behind the greater change in coverage decisions by small employers is exposure to greater variability in prices”<sup>(17)</sup>. Indeed, a RWJF survey showed that small firms are much more likely to experience premium volatility. In 1997, over one-third of small firms reported annual premium changes greater than 10 percent, compared to only 19 percent of large firms<sup>(17)</sup>. (Of small firms, three times as many reported premium increases as decreases.) In a survey of small employers, Morrisey found that “uncertainty in premium costs” was an important reason cited for not offering health insurance<sup>(19)</sup>. Cutler found that premium variance is negatively related to the percentage of high-wage employees and positively related to a firm’s turnover rate<sup>(4, 20)</sup>.

Q3: ARE THE ADMINISTRATIVE COSTS OF HEALTH INSURANCE HIGHER FOR SMALL FIRMS?

Administrative costs for insurers include those associated with billing, claims payment, enrollment, risk charges, underwriting, overhead, commissions, premium taxes, and profit. Per capita costs are probably lower for some of these categories in large firms because of economies of scale. That is, an insurer would find it less costly to sell coverage to one firm with 10,000 workers than to 200 separate firms with 50 workers each. Not only are direct transactions costs and commissions lower on a per capita basis, but large firms also are more likely to have their own personnel and legal departments to handle benefits and compliance issues. Large firms also are more likely than small firms to be self-insured, and hence to be exempt from premium taxes because of their ERISA status. Although reasonable (and, to many, convincing) arguments can be made about why administrative costs are higher for small firms, little empirical evidence exists to support this belief.

Actuarial estimates indicate that administrative costs are higher for small firms but the size of the difference is unknown.

- ▶ Perhaps the most widely cited estimates of administrative costs by firm size were published in a 1988 Committee Print entitled *Cost and Effects of Extending Health Insurance Coverage* (3).<sup>6</sup> Prepared in consultation with the Hay/Huggins Company actuarial firm (now The Hay Group), those estimates indicated that, as a percentage of claims, the administrative costs of the smallest firms were almost eight times as high as the administrative costs of the largest firms (FIGURE 5). These estimates reflected an actuary’s practical experience with various insurers, not empirical research. Although still cited today, they are often criticized as lacking empirical rigor; being grounded, largely, in pre-managed care experience; and overstating administrative costs for “micro” firms.

FIGURE 5. Estimates of Administrative Costs, by Firm Size, 1988

Firm Size (NUMBER OF EMPLOYEES)	Total Administrative Costs (AS A PERCENT OF INCURRED CLAIMS)
1–4	40.0
5–9	35.0
10–19	30.0
20–49	25.0
50–99	18.0
100–499	16.0
500–2,499	12.0
2,500–9,999	8.0
≥ 10,000	5.5

Source: House Committee on Education and Labor, House Committee on Energy and Commerce, Special Committee on Aging

Other estimates in the fairly dated and limited literature show the same general relationship, although the methods and basis of comparison (claims versus premiums) differ from study to study. GAO’s 2001 analysis indicates that small firms pay about 20–25 percent of premiums for administrative costs compared to about 10 percent for large employers (9). Based on 1991 survey data, the Health Insurance Association of America (HIAA) concluded that administrative costs for mid-size employers (100–499 employees) were 14 percent of premiums, but for small firms (<25 employees), administrative costs were 25 percent of premiums.<sup>7,8</sup> In the late 1990s, Mark Hall conducted an extensive case study involving interviews in seven states and reported that independent agents’ commission rates (one component of administrative costs) for small groups were typically two to three times higher than for large groups (11).

6. A *Committee Print* is a research report commissioned by one or more Congressional Committees.

7. We have not evaluated the methodological criteria used in the GAO or HIAA reports.

8. Health Insurance Association of America, 2000. *Why Do Health Insurance Premiums Rise?* See also Marder, William. 1993. *Administrative Costs and the Debate about U.S. Health System Reform: A Review of the Literature*. Cambridge, Massachusetts: Abt Associates, Inc.

All states require health insurers to cover certain benefits (e.g., screening for chronic illnesses, mental health and substance abuse treatment, *in vitro* fertilization), but these benefit mandates vary substantially from state to state. Many states also require health insurers to include certain providers in their networks (e.g., nurse anesthetists or chiropractors), or to cover certain persons (e.g., adopted children, dependent students). All states require immediate coverage of newborns. This synthesis is limited to the literature on benefit mandates.

The number of mandates has soared since 1970, when the total in all states was only 35<sup>(15)</sup>. The BlueCross BlueShield Association reports in its *2001 Survey of Plans* that between them, states had a total of 690 benefit mandates in place, as well as 423 provider mandates and 241 “person covered” mandates.<sup>9</sup>

Mandated benefits have a disproportionate effect on small firms.

- ▶ Because most large firms are self-insured, they are exempt from state benefit mandates by virtue of their ERISA status. However, most small firms do not self-insure and are generally required to comply with state mandates.<sup>10</sup> Benefit mandates may raise premiums and, in turn, affect small firms’ decisions to offer coverage.

Referring to the potential for benefit mandates to drive small employers out of the insurance market, Gruber has observed that “the magnitude of this ‘displacement effect’... is at the crux of the policy debate over mandated benefits... Losing all insurance coverage could have much larger consequences for the individual, and society, than gaining coverage for a specific benefit”<sup>(10)</sup>.

The strongest available research shows that existing benefit mandates do not substantially increase costs or reduce coverage.

- ▶ Several researchers have studied the effects of mandated benefits on the costs of insurance (FIGURE 6). Among them, only Gruber concluded that benefit mandates did not add substantially to the cost of insurance. His is also the only study that satisfactorily addresses a number of major methodological concerns. Gruber examined 12 states with laws that waived mandates for some small firms,<sup>11</sup> and found that health insurance coverage rose by less than two percent. More to the point, he conducted a series of analyses and failed to find statistically significant reductions in coverage due to mandates for firms with fewer than 100 employees. Reasoning that any effects of mandates on coverage would be strongest among *very small* employers, he then demonstrated the same finding (no relationship between mandates and reductions in coverage) among firms with fewer than 25 employees.

9. BlueCross BlueShield Association. 2001. *State Legislative Health Care and Insurance Issues. 2001 Survey of Plans*. In addition, states have passed 77 laws that require choice of benefits, 37 laws that require choice of providers, and three laws that require choice of persons covered. These are “optional rider” mandates. An enrollee can purchase such coverage but it is not built into the benefit package and premium as a matter of fact.

10. In 2001, 21 percent of covered workers in small firms were enrolled in partly or completely self-insured plans, as compared to 60 percent of covered workers in jumbo (≥5,000 employees) firms. See KFF/HRET: *2001 Annual Survey*, p.132.

11. Gruber notes that waivers are limited to firms with less than 25 employees and firms who did not offer insurance for the previous year.

Other authors have produced different findings. Some found that mandated benefits raised the cost of insurance. Others found that mandates reduced coverage or the likelihood of coverage (FIGURE 6 AND APPENDIX II).

While these authors found greater effects than Gruber, their studies were methodologically weaker—relying on nonrepresentative samples, omitting important variables, or failing to assess causality (APPENDIX II). Thus, although the argument that mandates raise premiums has logical appeal, the evidence to date is not compelling. It should be noted, however, that almost a decade has passed since Gruber’s analysis and the number of enacted benefit mandates has greatly increased since the early 1990s, when he conducted his research. There may be a threshold at which additional mandated benefits increase premium costs for small firms, but the best available evidence suggests it had not been reached at the time of his study.

FIGURE 6. Effect of State Benefit Mandates on Health Insurance Costs and Coverage: Summary of Selected Literature

Source	Data Used	Research Questions	Summary of Major Findings
Gabel and Jensen (1989)	Bureau of Labor Statistics (BLS) Employee Benefits Survey, 1981–1984 National Federation of Independent Business (NFIB) mail survey, 1985	Do mandates add to the price of insurance? Are small firms less likely to offer insurance in states with more mandates?	Each new mandate enacted between 1982 and 1985 lowered the likelihood that a small firm would offer coverage by 1.5 percent.
Jensen and Gabel (1992)	NFIB mail survey, 1985 HIAA telephone survey, 1988	Are small firms less likely to offer insurance in states with more mandates?	The 1985 survey showed that 19 percent of sampled small firms did not offer coverage due to state benefit mandates. The 1988 survey showed that 43 percent of sampled small firms did not offer coverage due to state benefit mandates.
Gruber (1994)	May Current Population Survey (CPS) supplements, 1979, 1983, and 1988 March CPS, 1990 and 1992	What is the impact of mandates on the overall rate of insurance?	Taken together, benefit mandates reduced coverage by .3 percent to 1.3 percent. At most, state benefit mandate waiver laws increased coverage by less than 2 percent.
GAO (1996)	Interviews with National Association of Insurance Commissioners (NAIC) officials, state insurance regulators, health insurance executives, benefit managers, representatives from trade associations, and literature review	What are the costs associated with benefit mandates?	The cost impact of state benefit mandates varied by state because all mandates are not alike. Moreover, the cost impact of a mandate is influenced by implementation and enforcement efforts. Finally, the extent to which a mandated benefit was already covered affects its cost impact.
Sloan and Conover (1998)	March CPS, 1989–1994	Did the number of mandates enacted decrease the probability that an individual had employer-sponsored insurance?	Between one-fifth to one-fourth of the uninsured can be attributed to benefit mandates. Benefit mandate-exempt plans did not increase coverage.

Sources: Gabel and Jensen, Jensen and Gabel, Gruber, GAO, Sloan and Conover

Pooling small firms into purchasing cooperatives is a much-debated strategy to reduce premium costs. Ideally, the objective of such cooperatives is “to enable small groups to purchase insurance with the same administrative efficiencies and bargaining power that large groups can achieve” and to gain other purchasing advantages related to large size (1). But observers disagree about whether pooling arrangements can meet these objectives. Some believe it will always be cheaper to sell to one large employer than to many small employers, even if the latter form a collective. Others believe that under the right conditions, small employer purchasing pools can achieve economies of scale in administration, reduce claims variation, and exert the same degree of power in negotiations with health plans as large employers. As yet, no cooperatives have achieved such outcomes.

Wicks found that about 20 cooperatives have been established since states passed enabling legislation, but none has made health insurance cheaper for small employers than it would otherwise be or attracted substantial employer enrollment (24). He argues that no purchasing pool has grown large enough to measure the extent to which it may achieve these goals. Only one or two cooperatives have captured even five percent of the small group market. At its highest enrollment, the California small employer collective purchasing arrangement enrolled 150,000 workers. Florida’s peaked at 92,000 workers. Wicks concluded that “there is nothing much wrong with [cooperatives] ...that having larger market share would not cure. Their biggest barrier to success is not being big” (24).

One way to reach a critical mass would be to require all small employers who choose to offer insurance to participate in large pools. Those pools would then have significant negotiating power to set prices, especially if they could selectively contract with insurers (i.e., if they were not required to contract with “any willing insurer”). If an insurer refused to sell coverage at an established price or to comply with other contract requirements, the pool could prevent the insurer from doing business in the small group market. To date, there has been neither the popular nor political will to impose such a mandate.

It should be noted, however, that the debate about purchasing pools is not purely one about size. No matter how large a cooperative of small firms may grow, *under current law* it operates within a regulatory context that is different from that experienced by most large firms. State insurance laws regulate small firms, whereas most large firms are preempted from state regulation by virtue of self-insurance and federal ERISA law.<sup>12</sup> As long as this state of affairs holds, then the regulatory context in which most small firms operate limits the extent to which they can

12. Tollen and Crane (23) observe that insurers selling to small firms (2–50 employees), whether in purchasing pools or not, are subject to states’ small group reform laws (known as “rating bands”) which limit the extent of premium variation based on specific factors such as age, geography, industry, and, in some cases, health status. A broader rating band is more favorable to healthier/younger groups because it allows their rates to more fully reflect their lower risk. A narrower rating band is more favorable to sicker groups because it limits the extent to which their rates reflect their higher risk. As a result, if insurers inside the pool used a narrower rating band than insurers outside the pool, healthier groups would leave the pool because they could get lower rates in the outside market, and sicker groups would join the pool because they would face higher rates in the outside market. Therefore, in the current regulatory environment, large size may be a necessary but insufficient condition for cooperatives to lower costs for small employers.

collectively act (i.e., obtain lower premium prices) like large firms. However, small group market dynamics could change significantly if federal law extended pre-emption from state laws to insurance products sold *inside* cooperatives (but not to such products sold *outside* cooperatives.) Congress has debated legislation that would create an uneven regulatory context inside and outside cooperatives for years. Advocates believe such legislation would enable cooperatives to purchase less expensive insurance, lead to greater consumer choice, and reduce the number of uninsured. Opponents believe such an “uneven playing field” would lead to market segmentation and destabilization (as described in footnote 12) and ultimately render insurance least affordable to those who need it most.

Other barriers to cooperatives’ success have included limited marketing (16, 24, 25), the lack of participation by agents and brokers (11), and poor relationships with health plans (24). Wicks questions whether the initial cooperative concept might be somewhat flawed. Advocates of cooperatives may have overestimated the administrative cost savings, underestimated the impact of small group reforms in reducing pressure for cooperative-type solutions, and (like most others) failed to anticipate the smaller increases in premiums that occurred during the mid 1990s (24).

#### Q6: WHAT OTHER FACTORS MIGHT DRIVE UP PREMIUMS FOR SMALL FIRMS RELATIVE TO LARGE FIRMS?

The cycling of firms in and out of the health insurance market, firm failure, and frequent turnover of employees are factors that tend to drive insurance costs higher for small firms.

Cycling in and out of the insurance market is more prevalent among small firms and may contribute to higher administrative costs.

- According to Long and Marquis, “instability in offering insurance is much greater among smaller employers than larger ones” (17). Using data from the 1997 RWJF Employer Health Insurance Survey, they found that 22 percent of the smallest firms ( $\leq 10$  employees) that offered coverage two years prior to the survey did not continue to offer coverage at the time of the survey. In contrast, among employers of 100 or more, only four percent no longer offered coverage. The authors concluded that increased cycling results in higher administrative costs for small firms, as signing up a small firm involves considerable initial marketing and service costs. If the employer leaves the insurer soon after enrolling—either because the firm drops coverage or goes out of business—the fixed start-up costs must be recouped in a shorter time.

Failure of small firms and turnover of their employees creates instability—and greater risk uncertainty—for insurers.

- ▶ Empirical research consistently shows that labor turns over faster in small firms than in large firms. Nichols reviewed numerous empirical studies and concluded that “the preponderance of evidence supports the claim that [employee] turnover is greater among small firms than large”<sup>(20)</sup>. He also concluded that firms with rapid employee turnover might experience higher administrative costs of health insurance from enrolling and disenrolling employees and from repeatedly underwriting new employees.

A second type of turnover occurs when firms themselves fail. The failure rate among small firms is substantially higher than for large firms. One study, which excluded “firms” with payroll below \$2,500, examined four-year survival chances (from 1982–1986). It found a 17 percent failure rate for small firms (1–4 workers), a 12 percent failure rate for firms with five to nine workers, and a three percent failure rate for firms with over 50 workers<sup>(20)</sup>. Nichols interpreted this evidence to suggest that “smaller firms have some objective reason to be more cautious than larger firms about making quasi-fixed expense commitments like health insurance coverage for workers”.

## IMPLICATIONS FOR POLICYMAKERS

A key finding in this synthesis is that cost is a barrier for some but not all small employers. High-wage small firms are about as likely as large firms to offer coverage. Therefore, a policy intervention to increase offer rates among small firms might focus on those that are predominantly low-wage.

Any policy intervention will probably be successful in lowering small firms' health insurance costs to the degree that it reduces or offsets any of the following characteristics they tend to share:

- Higher administrative costs,
- Premium variability due to medical underwriting,
- Cycling in and out of the market,
- Relatively high firm failure, and
- Relatively high employee turnover.

We know that when small firms offer coverage, their premiums are, on average, similar to those of large firms. However, this is not an “apples-to-apples” comparison because the benefit packages offered by small firms typically are less generous than those offered by large firms.

Moreover, whereas almost all large firms offer insurance coverage, 35 percent of small firms do not. There is reason to believe that health insurance is more costly for those firms that do not offer coverage.

Also, even though small and large firms that offer coverage have similar premiums, small firms experience greater premium variation due to medical underwriting (which is more common in the small group market).

Although small and large firms that offer coverage have similar average premiums, small firms generally pay more *for the same benefits package*. Why? First, they don’t benefit from the same economies of scale as large firms. A larger share of the small firm’s premium is spent on administrative costs. Second, the health insurance market for small firms is less stable (i.e.,

experiences more premium variability) than the large group market. Cycling in and out of the market in response to the need for medical services contributes to instability in the small group market. Adding to this instability, small firms and employees of small firms turn over faster than large firms and their employees. Taken together, these factors tend to drive up health insurance costs for small firms.

High-wage small firms are about as likely to offer coverage as large firms. But, low-wage small firms are much less likely to provide health coverage. When small firms offer coverage, they are like large firms with respect to the percentage of workers eligible for health insurance (eligibility rate); the percentage of eligible workers that get insurance from their employer (take-up rate); and the percentage of workers covered by health insurance (coverage rate).

Notwithstanding these similarities, employees’ contributions to premiums differ by firm size. For single coverage, small firm employees contribute *less* on average to premiums than employees of large firms. Conversely, for family coverage, small firm employees contribute *more* on average to premiums than employees of large firms.

High premiums are the primary reason small employers cite for not offering insurance coverage. Interventions to reduce health care costs for small employers have been attempted, with disappointing results. Reducing state benefit mandates does not appreciably reduce the cost of insurance for small firms. (However, the evidence supporting this conclusion is somewhat dated, as the best study was published in 1994 using data from 1992.) Current, high-quality research is needed to keep pace with the rapid rise in benefit, provider, and eligibility mandates enacted by the states. Purchasing pools might reduce small firms costs somewhat, but none has achieved sufficient scale to be adequately evaluated.

## THE NEED FOR ADDITIONAL INFORMATION

The evidence base for this topic is relatively weak and better empirical work is needed to answer almost all of the major questions raised. In particular, employer surveys assessing health insurance costs should be based on more representative samples; use clearer, agreed-upon definitions of administrative costs; and include firms that do not offer coverage. Although available studies ask important policy questions, they often fall short of providing needed information because they omit critical analytic variables (which, it must be granted, can be difficult if not impossible to collect).

Improvements in measurement and model specification are needed. Problems related to variable definition have clearly weakened studies on benefit mandates—which, for example, often use total cost of benefits provided rather than the marginal cost of an additional benefit to measure their impact. This synthesis has shown that the core question of how health insurance costs vary by firm size cannot be answered unless researchers and decisionmakers look beyond simple price comparisons among firms to differences in covered benefits and premium variation within firms over time and between firms at a point in time.

### QUESTIONS FOR FURTHER RESEARCH

Research areas in need of further investigation include:

#### Premium Differences

- What is the difference in average health insurance premiums between small and large firms when the data incorporate: a) the premium costs faced by small firms not offering coverage, and b) a standard benefit package?
- What are the interrelationships among small firm size, wage levels, health status, and health insurance costs?

#### Administrative Costs

- How do administrative costs, and their components, vary by firm size?

#### Healthcare Purchasing Cooperatives

- What is the effect of pooling (through purchasing cooperatives) on administrative costs?

- Can cooperatives with a specific number of participating employees experience the same premiums as single employers with the same number of employees?
- How have state laws affected the formation of purchasing pools?

#### State Mandates

- Should adoption and enforcement considerations be factored into measures of state mandates?
- What is the impact of benefit mandates on premiums?

#### Firm Characteristics

- How much of the premium differences between small and large firms are due to such firm characteristics as health status, churning in and out of the market, premium volatility, employee turnover, firm failure, and medical underwriting?

## APPENDIX I: REFERENCES

1. Blumberg L and L Nichols. First, Do No Harm: Developing Health Insurance Market Reform Packages. *Health Affairs*. 1996; 15(3):35–53.
2. Cantor J, et al. Private Employment-Based Health Insurance in Ten States. *Health Affairs*. 1995; 14(2):197–211.
3. Committee on Education and Labor (Serial No.100-EE), Committee on Energy and Commerce (Serial No. 100-CC), and Special Committee on Aging (Serial No. 100-P). *Cost and Effects of Extending Health Insurance Coverage*. Committee Print. Congressional Research Service, Library of Congress. October 1988.
4. Cutler D. *Market Failure in Small Group Health Insurance*. Working Paper No.4879. Cambridge, Massachusetts: National Bureau of Economic Research, Inc., 1994.
5. Fronstin P. *Sources of Health Insurance and Characteristics of the Uninsured*, Issue Brief No.228. Washington, DC: Employee Benefit Research Institute, December 2000.
6. Gabel J and G Jensen. The Price of State Mandated Benefits. *Inquiry*. 1989; 26:419–431.
7. General Accounting Office. *Health Insurance Regulation: Varying State Requirements Affect Cost of Insurance*. GAO/HEHS-96-161. Washington, DC, 1996.
8. General Accounting Office. *Private Health Insurance: Cooperatives Offer Small Employers Plan Choice and Market Prices*. GAO/HEHS-00-49. Washington, DC, 2000.
9. General Accounting Office. *Private Health Insurance: Small Employers Continue to Face Challenges in Providing Coverage*. GAO-02-8. Washington, DC, 2001.
10. Gruber J. State-Mandated Benefits and Employer-Provided Health Insurance. *Journal of Public Economics*. 1994; 55:433–464.
11. Hall M. The Role of Independent Agents in the Success of Health Insurance Market Reforms. *The Milbank Quarterly*. 2000; 78(1).
12. Henry J. Kaiser Family Foundation. *The Uninsured: A Primer*. Menlo Park, California, 2001.
13. Henry J. Kaiser Family Foundation and Health Research and Educational Trust. *Employer Health Benefits. 2001 Annual Survey*. Menlo Park, California and Chicago, Illinois, 2001.
14. Jensen G and J Gabel. State Mandated Benefits and the Small Firm's Decision to Offer Insurance. *Journal of Regulatory Economics*. 1992; 4:379–404.
15. Jensen G and M Morrissey. Employer-Sponsored Health Insurance and Mandated Benefit Laws. *The Milbank Quarterly*. 1999; 77(4):425–459.
16. Long S and S Marquis. Have Small-Group Health Insurance Purchasing Alliances Increased Coverage? *Health Affairs*. 2001; 20(1):154–163.
17. Long S and S Marquis. *Trends in Offering Employer-Sponsored Coverage*. Data Bulletin No.15. Washington, DC: Center for Studying Health System Change, 1998.
18. Mills R. *Health Insurance Coverage: 2000*. Washington, DC: U.S. Census Bureau, September 2001. [www.census.gov/hhes/hlthins](http://www.census.gov/hhes/hlthins)
19. Morrissey M, et al. Small Employers and the Health Insurance Market. *Health Affairs*. 1994; 13(Winter): 149–161.
20. Nichols L, et al. *Small Employers: Their Diversity and Health Insurance*. Washington, DC: The Urban Institute, 1997. Studies cited: Anderson P and B Meyer. *The Extent and Consequences of Job Turnover*. Brookings Papers on Economic Activity NSI:177–236. Washington, DC: Brookings Institution, 1994; Campbell C. *The Determinants of Dismissals: Tests of the Shirking Model with Individual Data*. *Economics Letters*. 1994; 46:89–95.; Groothuis P. Turnover: The Implications of Establishment Size and Unionization. *Quarterly Journal of Business and Economics*. 1994; 33 (2):41–53.; Haber S. *Aspects of Labor Market Turnover and the Impact of Fringe Benefits in Small and Large Firms*. Small Business Administration Report SBA-3052-OA-88. Washington, DC: U.S. Small Business Administration, December 1993.
21. Schone, B. Agency for Healthcare Research and Quality, personal communication, June 21, 2002.
22. Sloan F and C Conover. Effects of State Reforms on Health Insurance Coverage of Adults. *Inquiry*. 1998; 35:280–293.
23. Tollen L and R Crane. *The Role of Health Care Purchasing Pools*. Oakland, CA: Kaiser Foundation Health Plan, Inc. Institute for Health Policy, 2001.
24. Wicks E, et al. *Barriers to Small-Group Purchasing Cooperatives. Purchasing Health Coverage for Small Employers*. Washington, DC: Economic and Social Research Institute, 2000.
25. Yegian J, et al. The Health Insurance Plan of California: The First Five Years. *Health Affairs*. 2000; 19(5): 158–165.

## APPENDIX II: SHORTCOMINGS OF BENEFIT MANDATE STUDIES

The gold standard study of the effect of state benefit mandates on health insurance price and coverage has not yet been conducted, but Gruber’s 1994 article stands out as the least flawed. An important strength of his analyses is the use of so-called “fixed effects.” He avoided omitting important explanatory factors by including state and year variables that served as proxies for omitted but relevant determinants of insurance coverage. Sloan and Conover used the same approach, but their methodology raises other concerns.

The shortcomings of the benefit mandate literature fall into four categories: 1) unrepresentative samples, creating generalizability problems; 2) incompletely specified models (i.e., important variables are omitted); 3) counting the effect of a mandate as the *total cost* of claims submitted for the benefit, which will overcount costs if the benefit was covered to *any degree* prior to the mandate; and, 4) using the number of mandates a state has enacted, or the average number across all states, to estimate the effect of mandates, rather than evaluating the differential effect of different mandates.

The studies reviewed here revealed some of these shortcomings (FIGURE 7).

While other authors’ studies were affected by some of these methodological shortcomings, Gruber’s work avoided the four mentioned above. Moreover, he “replicated” his findings for firms under 100 employees with a separate analysis of firms with less than 25 employees, focused on five mandates accounting for about 50 percent of mandate costs, and conducted a “reverse experiment” in 12 states with mandate waivers in which he found an increase of coverage of less than two percent.

FIGURE 7. Shortcomings of Benefit Mandate Studies

	Unrepresentative Samples	Incomplete Models	Overcounting the Cost of Mandates*	Number of Mandates as Explanatory Variable	Type of Mandate(s) Examined (BENEFIT, PROVIDER, COVERAGE)
Gabel and Jensen (1989)	X	X			Benefit
Jensen and Gabel (1992)	X	X			Benefit, Coverage**
Sloan and Conover (1998)				X	Benefit, perhaps others
Gruber (1994)					Benefit

\* Although overcounting the cost of mandates is not a shortcoming of the studies listed here, it is a limitation found in the larger body of research reviewed and thus is listed here.

\*\* Coverage mandate: continuation of coverage for terminated or laid off workers.

Source: Author

## THE SYNTHESIS PROJECT

NEW INSIGHTS FROM RESEARCH RESULTS

The Robert Wood Johnson Foundation  
Route 1 & College Road East  
P.O. Box 2316  
Princeton, NJ 08543-2316  
[www.policysynthesis.org](http://www.policysynthesis.org)

For more information about The Synthesis Project, visit The Synthesis Project's Web site at [www.policysynthesis.org](http://www.policysynthesis.org). For additional copies of Synthesis products, please go to the Project's Web site or send an e-mail request to [publications@rwjf.org](mailto:publications@rwjf.org).

### PROJECT CONTACTS

Linda T. Bilheimer and Jean J. Lim,  
The Robert Wood Johnson Foundation  
Claudia Williams (project consultant),  
AZA Consulting