

WORKERS WITHOUT HEALTH INSURANCE: WHO ARE THEY AND HOW CAN POLICY REACH THEM?

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BY

Bowen Garrett • Len M. Nichols • Emily K. Greenman



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EXECUTIVE SUMMARY

Most of the uninsured are either workers or family members of workers, and most Americans who are covered get their health insurance through the workplace. These facts motivate our study of two questions: Why do some workers have employer-sponsored health insurance while others do not? What policy initiatives are best suited to the specific conditions of most uninsured workers?

We survey the literature on the working uninsured and use 1999 Current Population Survey data to paint a more detailed portrait of the working uninsured that can inform policy discussions. We report some relatively familiar findings. Workers in small firms, and those who work in retail, construction, and service firms, are disproportionately likely to be uninsured. Workers who earn low wages, work part-time, have short job tenure, and who live in households with low incomes are also among the more likely to be uninsured. Single workers and workers married to non-workers are more likely to be uninsured than members of two-earner couples. Men are slightly more likely to be uninsured than women, and blacks and especially Hispanics are more likely than whites to be uninsured. More than half of uninsured workers (59 percent) work for an employer that does not sponsor health insurance, 21 percent are not eligible for their employer's plan, and 20 percent decline the coverage they are offered at work.

We explore deeper and more policy-relevant characteristics of the working uninsured through a series of two-dimensional cross-tabulations. The first important finding is that workers in larger firms have higher sponsorship, eligibility, and take-up rates in every industry. Thus, even though there is considerable inter-industry variation, firm size is more important than industry as a determinant of coverage possibilities for workers. Across industries, sponsorship rates vary more than take-up rates, which vary more than eligibility rates. Sponsorship and take-up are correlated, which implies that underlying worker demand—and willingness to pay—for health insurance is a key part of firm-sponsorship decisions. Inter-industry sponsorship rates vary more than coverage. This fact is mostly due to spousal coverage, which is extremely important for many low-wage and part-time workers.

Income is more important than family type as a determinant of sponsorship, eligibility, and take-up. Income and wages are highly correlated, though not perfectly, and more of either is associated with higher sponsorship, eligibility, and take-up. Eligibility is not contingent on race, suggesting that anti-discrimination laws appear to be working in this regard. Hispanics are less likely to have offers of health insurance from their employers (due to being less likely to work for a firm that sponsors a health plan), but conditional on offer, all races are equally likely to take-up the employer-sponsored health insurance offer they receive. Blacks are less likely than whites to have spousal coverage, which leads them to have lower overall coverage rates than whites despite being equally likely to have employer-sponsored insurance from their own employer.

We define an effective policy as one that would reach many uninsured workers, and an efficient policy as one that would extend eligibility to more uninsured than to the already insured. Workers who work in small firms, for low wages, and who live in households with low incomes are the natural targets of coverage expansion policies for the working uninsured. In general, we show that targeting subsidy dollars to low-income workers would be the most efficient policy, since they are the most likely to be uninsured. Although targeting low-wage workers is the most effective option, it is less efficient than targeting low-income workers because many low-wage workers are married to higher-wage workers, live in households with higher incomes, and are already insured. Targeting workers in small firms is the least efficient of the three options, since many high-wage, high-income, and already insured workers also work in small firms. Among low-income workers, all family types are similarly efficient to target, because low-income workers are much less likely to have coverage for all family types. Because nearly half of uninsured workers are single and without children, the most effective policies will need to include these workers.

Employer or individual subsidies could expand coverage considerably if designed and implemented properly, either through tax credits or direct subsidies or some combination. We discuss the major design issues and tradeoffs involved in all these policy choices. The most important policy implications we draw from our findings and others are: (1) employer tax credits are less efficient—because so many firms already offer and workers

are already covered—but may be easier to administer; (2) more efficient individual income-based subsidies require either the tax system or a state welfare agency to make income-eligibility determinations and thus a more elaborate bureaucratic apparatus; (3) subsidies must be large—relative to the price of an insurance policy—for low- and moderate-income workers to use them to purchase insurance; (4) subsidies should be usable for employer-sponsored as well as non-group insurance; and (5) tax credits must be refundable and prospective to be helpful to low-income populations. Health insurance subsidy dollars will go farther if administrative, risk pooling, and purchasing economies of scale can be taken advantage of through existing or new institutions.

I. INTRODUCTION

The number of people without health insurance fell by 1.8 million between 1998 and 1999, reversing an 11-year trend (US Census Bureau, 2000). Nevertheless, despite eight straight years of robust economic growth, 42.5 million people—over 15.5 percent of the total population—remain uninsured. The total number of uninsured is almost three million higher than when Bill Clinton took office in 1993. Many commentators, including the President and First Lady, thought that a compelling political case could be made for universal coverage with 39 million uninsured.

Since the Clinton administration's efforts towards comprehensive health reform ultimately failed in 1994, more incremental approaches to reducing the number of uninsured have come to the forefront. The largely federally funded State Children's Health Insurance Program (SCHIP) was enacted in 1996 with bipartisan support to reduce the number of uninsured children. More recently, the working uninsured have become the focus of policy debates to expand coverage. The case for focusing on uninsured workers rests on two facts. First, the vast majority of uninsured Americans—over 80 percent—are either workers or live with workers. Second, a majority of the U.S. population currently gets its coverage through the workplace. In 1999, 62.8 percent of the population was covered through employment-based insurance, compared to 13.2 percent with Medicare (a federal program which covers the elderly

and the severely disabled) and 10.2 percent with Medicaid (a joint federal-state program which enrolls the low-income population and some disabled individuals) (US Census Bureau, 2000). Thus, expanding coverage among workers and their dependents would reach most of the uninsured, while broadening the dominant system of health insurance coverage. Expanding health insurance among workers is also consistent with broader policy objectives of encouraging work (e.g., welfare reform and earned income tax credits).

Given the focus on uninsured workers and a political environment more receptive to incremental coverage expansions than sweeping reforms, two natural policy questions arise. Why do some workers have employer-sponsored health insurance while others do not? What policy initiatives are best suited to the specific conditions of most uninsured workers? This study tries to answer both questions.

Workers lack coverage for a variety of reasons. Some employers do not sponsor a health plan. Some employers offer coverage to some but not all workers, and some workers who are eligible for their employer's plan decline to take it, presumably, because they do not want to pay the employee premium required by the employer. Now it is difficult to test, definitively, whether those without employer offers deliberately sought out employers who did not offer, in expectation of higher cash wages, or whether they would prefer to work for a firm that did offer health insurance but did not get hired by one and had to take whatever job they could get. Similarly, those who declined offers may have not wanted an offer in the first place as much as cash wages, or perhaps they did not feel they could afford the out-of-pocket premium required by their employer. What we can do in this paper is identify all those characteristics—of workers and their jobs—that are associated with having an employer that sponsors a health insurance plan; being eligible for that employer-sponsored insurance; taking-up that insurance; and finally, being uninsured. Readers can make their own judgements about the relative importance of various potential causes and effects, from the patterns we observe and report.

The pattern of worker characteristics that emerges in what follows is fairly clear, but much more detailed than the literature has provided to date. Our findings point to some obvious policy inferences as well as some not-so-obvious policy tradeoffs. Subsidies will be necessary to

expand coverage significantly, and subsidies triggered by firm size, low wages, low incomes, or some combination of the three will have surprisingly different effects and cost per newly insured. The final third of the paper describes feasible policy options currently being discussed at both the federal and state levels, and filters “facts” about employment-related coverage opportunities through the policy options to identify specific coverage expansion tradeoffs.

II. BACKGROUND AND PRIOR RESEARCH

There is a well-established body of literature on the patterns of health insurance coverage among workers. Uninsured workers tend to be concentrated in particular kinds of jobs. They are found disproportionately in firms smaller than 25 employees; in the agriculture, construction, and trade industries; and in the private sector rather than the public sector. They are also more likely to work part-time and to earn wages below \$10 per hour (Fronstin, 2000). These studies have also shown how the personal characteristics of uninsured workers differ from those of workers overall. Uninsured workers are more likely to be black or Hispanic, to be male, to be under age 35, to be single, and to have incomes under 200 percent of the Federal Poverty Level (FPL).

Other literature has established links between these same personal characteristics and the likelihood of having an offer of employer-sponsored insurance (ESI). Younger workers are less likely to have an offer than older workers, and Hispanics are less likely to have an offer than workers of other races. Despite being less likely to be uninsured, women are also less likely than men to have an offer of ESI (Fronstin, 1999; Cooper and Schone, 1997; Quinn, 2000). These studies generally do not address whether differences in sponsorship or differences in eligibility might contribute more to these variations in offer rates.

Cunningham and colleagues (1999) examine variations in take-up rates between different groups of workers. They find that younger workers, nonwhite workers, and workers in poorer health are more likely to decline ESI and be uninsured. The poor health result is particularly surprising. Cunningham et al. suggest that income is an intermediary factor in all these results, but do not test this hypothesis directly.

It is well established that certain employer characteristics are related to the likelihood of sponsoring a health plan. Workers in industries such as manufacturing and the public sector are among the most likely to work for an employer that sponsors a health plan, while workers in industries such as agriculture and construction are among the least likely (Fronstin, 1999; Nichols et al., 1997). Large firms are much more likely than small firms to sponsor a health plan (Fronstin, 1999; Nichols et al., 1997; Cooper and Schone, 1997). Firm size is also related to take-up rates, with workers in small firms taking up offers of ESI at lower rates than workers in large firms (Fronstin, 1999). Fronstin also notes that workers in small firms have lower offer rates. None of these studies has addressed the influence of employer characteristics on eligibility separately from sponsorship.

The literature shows that job characteristics influence all three components of ESI coverage. Part-time workers are less likely than full-time workers to work for an employer that sponsors a health plan, to be eligible for that plan, and to take-up an offer of coverage (Farber and Levy, 2000; Thorpe and Florence, 1999). Farber and Levy also show that workers with more than one-year job tenure have higher sponsorship, eligibility, and take-up rates than workers with less than one-year job tenure. They break workers into two groups, based on a combination of job tenure and hours, called “core” and “peripheral.” Core workers are full-time employees with job tenure of more than one year, while peripheral workers are either part-time or recently hired employees. Although whether a worker is core or peripheral influences all three components of ESI coverage, they find the largest differences in eligibility. For example, they find that in 1997, 98 percent of core workers are eligible, compared to 36 percent of peripheral workers. For sponsorship, the corresponding numbers are 89 percent and 57 percent, respectively.

Farber and Levy (2000) also examine the national decline in employer-sponsored health insurance among private sector workers between 1979 and 1997. The decline was not influenced by any change in the proportion of peripheral workers, which remained steady at about 30 percent of the sample over the study period. They find significant differences in the causes for the decline in coverage between core workers and peripheral workers. The declines in coverage were primarily due to falling eligibility among peripheral workers, and to both

falling take-up and falling eligibility rates among core workers. By contrast, rates of sponsorship did not decline for either group and actually showed an increase for part-time workers. There were differences in the change in take-up rates between different types of peripheral workers (new full-time employees, new part-time employees, and old part-time employees). Overall, take-up rates for full-time workers declined while take-up rates for part-time workers increased slightly. Declines in eligibility were responsible for about 20 percent of the declines in coverage among core workers, with declines in take-up responsible for the remainder. Among new full-time workers, eligibility was responsible for about 50 percent of the decline, while for part-time workers it was responsible for all of the decline.

The present study fills several gaps in our current knowledge of uninsured workers. First, it profiles the population of uninsured workers in more detail than earlier studies. We examine the composition of the uninsured worker population across different dimensions simultaneously (e.g., by wages and employer size, by income and family status) in order to learn more about how policies might target groups of uninsured workers. Second, the literature that compares sponsorship, eligibility, and take-up across groups, as in Farber and Levy (2000) is relatively new. We extend this line of research by examining the different aspects of ESI by more detailed employer and worker characteristics, including the role of coverage through a spouse or another family member, which has not received sufficient attention in prior studies. This provides a more complete picture of why many workers lack coverage and how policies might address it, since the reasons are different for different types of workers. Third, we compare several policy options in terms of target effectiveness and target efficiency, which links the empirical analysis to several elements of policy design. These new findings have several implications relevant to the choice of different policy options and design issues within different classes of policies that would expand insurance coverage for workers, which we discuss.

III. DATA AND METHODS

We examine non-self-employed workers ages 18-64 from a combined sample of the February and March 1999 Current Population Survey (CPS).¹ Most of our variables of interest were from February, but a few key variables (such as more detailed marital and family status) were only available from March. Because the CPS interviews the occupants of a given housing unit for several consecutive months, about 75 percent of the households surveyed in February are also surveyed in March, and it is possible to match the overlapping observations between months.²

After merging and selecting non-self-employed workers ages 18-64, we discovered that about 6 percent of our sample had missing values for the series of February variables on health insurance and offer of ESI. Because these variables are central to our analysis, we dropped these observations from the sample. The observations we lost in the merge and because of missing values may not have been representative of the overall sample. Workers we could not merge were significantly more likely to be unmarried and in minority groups and tended to be younger and have fewer years of schooling than those in the overall sample, though the magnitude of these differences was small. We adjusted the original February CPS sample weights for the differences between the overall sample and the study sample.³ The weighting adjustment reduces any biases that might result from nonrandom selection into the study sample (which appear to be small to begin with), and also brings the nationally weighted worker totals for the study sample back up to that for the overall CPS sample.

The main variables of interest in our analysis are sponsorship, eligibility, and take-up rates of employer-sponsored insurance, and current insurance coverage. The sponsorship rate is the proportion of workers working for an employer that offers a health plan to any

¹Someone who is working in a small family business as the owner, or who is working in the family business without pay, is considered self-employed and is excluded from our sample.

²We were able to successfully merge about 96 percent of the observations theoretically possible to merge. Possible reasons for non-merging observations include housing units that were vacated between survey months.

³Technically, this was accomplished by estimating a logit model of the probability of being in the study sample using age, education, marital status, gender, and race/ethnicity categories (which were nearly always observed) as explanatory variables. The adjusted weight for each individual was computed as the original CPS person weight divided by the predicted probability of being in the study sample obtained from the logit model.

of its employees. The eligibility rate is the proportion of those workers whose employer does sponsor a health plan who are eligible to enroll in that health plan. The take-up rate is the proportion of eligible workers who accept coverage. Thus, the overall ESI coverage rate can be computed by multiplying together these three rates. In order to be consistent with our ESI offer information, we take our health insurance variables from February rather than from March.⁴ The health insurance coverage categories we examine are own-employer ESI, any ESI (own-employer or dependent), Medicaid, and any health insurance.⁵

In the findings section below, all of the comparisons we mention are statistically significant at the 5 percent level or higher unless stated otherwise. We caution that other comparisons the reader might make based on the tables are not necessarily statistically significant. Standard errors for all of the tables are available from the authors upon request.

IV. FINDINGS

Basic Facts About Uninsured Workers

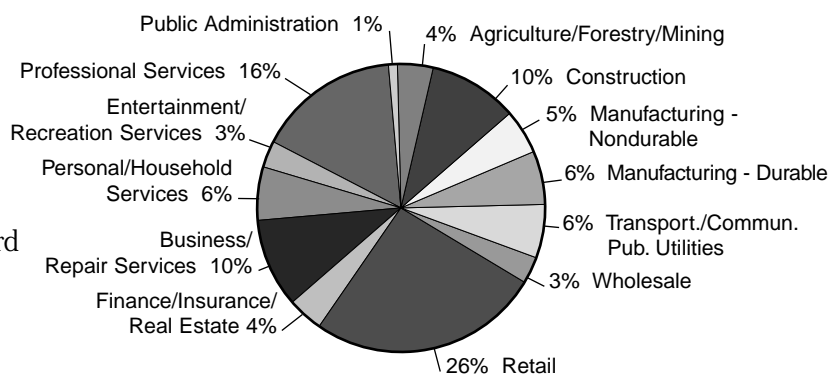
In this section, we provide a basic profile of uninsured workers from our study sample. Many of these findings have been reported in the literature already. We repeat them here both for background and to confirm that our data are consistent with what previous research has found.

Employer characteristics

Uninsured workers are concentrated in particular industries, reflecting both industry variation in coverage rates (which we discuss below) and the overall composition of the workforce by industry.⁶ As shown in **Figure 1** for example, about 26 percent of the uninsured work in retail, 10 percent work in construction, and 10 percent

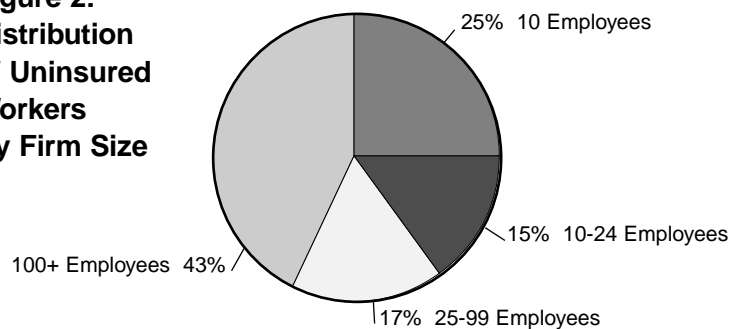
work in business and repair services, and it turns out that these industries have lower than average coverage rates. A substantial share of uninsured workers, 16 percent, is in the professional service industry, and while the rate of uninsurance is relatively low for such workers, they represent a large fraction of the workforce.⁷

Figure 1:
Distribution of Uninsured Workers By Industry



As shown in **Figure 2**, 25 percent of the uninsured work in firms with fewer than 10 employees. Prior research has shown that workers in small firms are less likely to have ESI (**also shown in Table 1**). But lacking insurance coverage is not exclusively a problem for smaller firms, since 43 percent of uninsured workers work for firms with 100 or more employees.

Figure 2:
Distribution of Uninsured Workers By Firm Size



⁴ In a small number of cases, reported coverage differs between February and March because the time frames of the questions are not identical. While the March survey asks about health insurance any time in the past year, the February survey gives a point-in-time estimate of insurance coverage at the time of the interview.

⁵ The structure of the health insurance questions on the February survey is such that respondents are first asked if they have own-employer ESI, and only if they say they do not are they asked about other types of health insurance. Therefore there is an automatic hierarchy in place that puts own-employer ESI ahead of other types of health insurance.

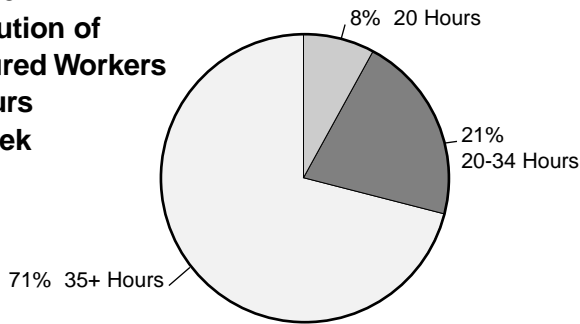
⁶ The industry groups we present differ from 1-digit 1987 Standard Industry Codes. We collapsed agriculture and forestry with mining, broke out manufacturing into durables and nondurables, and broke out service industries into business/repair, personal/household, entertainment/recreation, and professional services.

⁷ See Appendix Table 1 for all comparisons to the overall workforce mentioned in this section.

Job characteristics

Full-time workers make up the great majority of uninsured workers. In **Figure 3**, we find that 71 percent of uninsured workers are employed full-time and 29 percent part-time. Even though part-time workers are more likely to be uninsured than full-time workers (as we show in **Table 8**), full-time workers make up a much larger share of the overall work force.

Figure 3:
Distribution of Uninsured Workers By Hours Per Week



Workers with fewer than 6 months with their present employer represent 27 percent of uninsured workers, as shown in **Figure 4**. In addition, uninsured workers are largely low-wage workers. About 43 percent earn less than \$7 per hour and 26 percent earn from \$7 to \$10 per hour, as shown in **Figure 5**, for a total of 69 percent earning less than \$10 per hour. Nonetheless, uninsured workers are not exclusively low-wage workers, since 13 percent earn more than \$15 per hour.

Figure 4:
Distribution of Uninsured Workers By Job Tenure

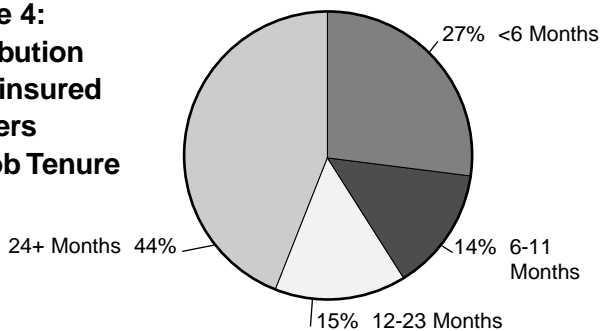
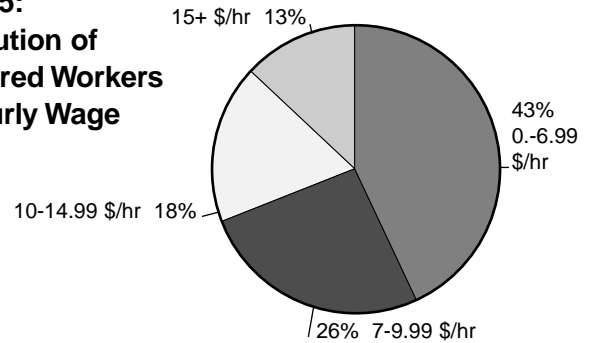


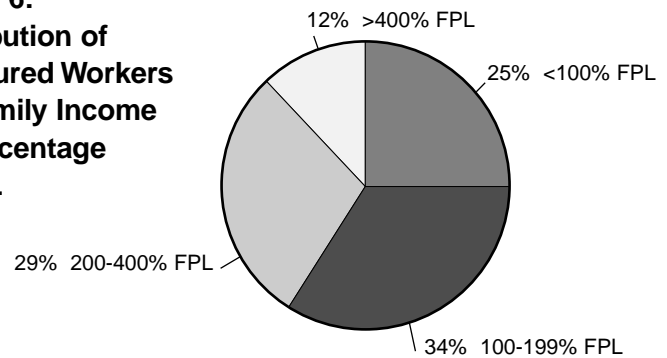
Figure 5:
Distribution of Uninsured Workers By Hourly Wage



Demographic characteristics

A quarter of uninsured workers have family incomes below the FPL (see **Figure 6**), which was \$13,650 for a family of three in 1998 (HHS, 2001). Those who are “near poor” with family incomes from 100-199 percent of the FPL represent 34 percent of the working uninsured. While the likelihood of being uninsured declines substantially with income (see **Table 6**), about 41 percent of uninsured workers have incomes that exceed 200 percent of the FPL.

Figure 6:
Distribution of Uninsured Workers By Family Income as Percentage of FPL



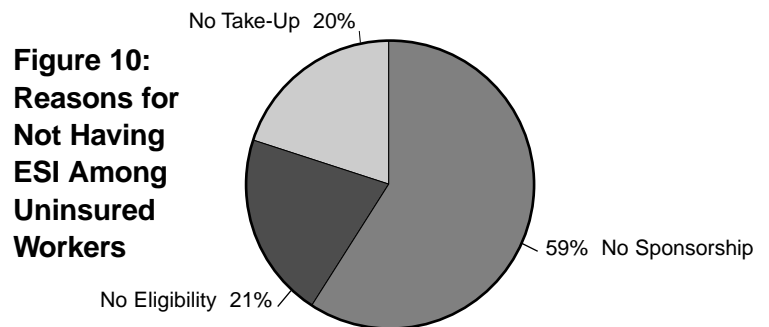
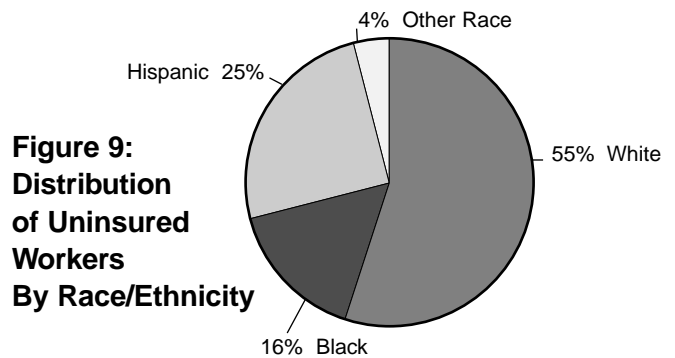
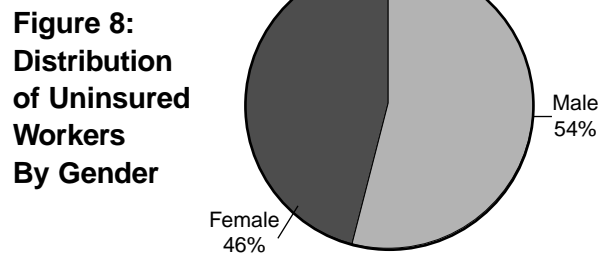
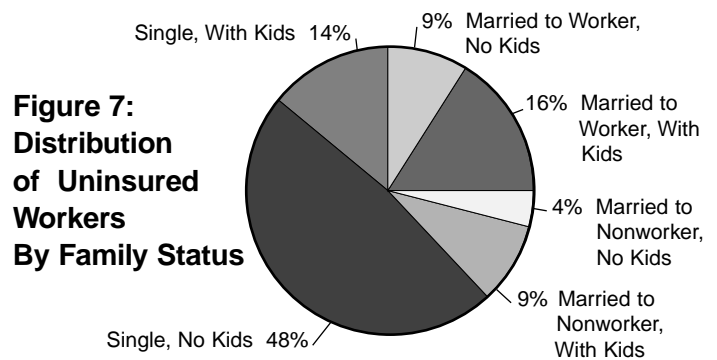
Among the marital/family status groups we examine in **Figure 7**, single workers without children are the largest group, making up 48 percent of uninsured workers. The three groups without children, combined, make up 61 percent of uninsured workers. This figure is important considering that Medicaid, the main form of publicly subsidized insurance coverage for non-elderly adults, is typically available only for some low-income parents, people with disabilities, or adults with sufficiently high medical expenditures (in certain states with medically needy programs), and therefore excludes the majority of uninsured workers.⁸

Men make up 54 percent of uninsured workers as shown in **Figure 8**, and are slightly more likely to be uninsured than women. Hispanics make up 25 percent of uninsured workers as shown in **Figure 9**, though they only represent about 11 percent of the workforce. Blacks are also disproportionately represented, making up 16 percent of the working uninsured, but only about 12 percent of the workforce.

Reasons for not having ESI among uninsured workers

A worker may lack ESI for one of three main reasons we can measure: 1) the employer does not sponsor a plan, 2) the employee is not eligible for the employer's plan (though the employee may later become eligible), and 3) the employee is offered ESI coverage, but turns it down. Workers fall into one of these three groups for a variety of more fundamental reasons (e.g., employer concerns about stability of profits, waiting periods imposed because of high worker turnover, lack of purchasing power). **Figure 10** shows that 59 percent of uninsured workers have employers that do not sponsor a health insurance plan. Many workers may have sought to work for an employer that sponsored ESI, but were unable to find such a job. We cannot know from available data how many of these workers would have taken coverage if it was offered to them.

About 21 percent of uninsured workers were not eligible for their employers' plan. Finally, 20 percent were offered coverage, but for various reasons, declined to take the offer. As subsequent findings will show, the relative importance of each reason for lacking ESI varies substantially across different types of workers.



⁸Note that workers married to self-employed workers are included in our sample as workers married to workers.

A Closer Look at ESI Sponsorship, Eligibility, Take-Up, and Coverage

In the following sets of tables, we turn attention to describing sponsorship, eligibility, and take-up rates of ESI in detail. By definition, the product of the three rates is the ESI coverage rate or probability of being covered through one’s “own” employer. In addition to “own” ESI coverage, we also report the ESI coverage rate from any source, the Medicaid coverage rate, and the coverage rate for any health insurance. When workers do not have ESI coverage from their own job, many obtain it through the spouse’s employer, and some obtain it through another relative or from a former employer. Some of those without any ESI coverage obtain coverage through other sources such as Medicaid, other forms of public coverage, and non-group coverage. All uninsured workers implicitly rejected non-group coverage since it is available to all at some price—suggesting that the price at which they could get it was too high.

Firm size and industry

In **Table 1** we find that sponsorship rates are higher for workers in larger firms, consistent with previous studies. The relationship to firm size is strong, with only 54 percent of those in the smallest firms (fewer than 10 employees) working for employers who sponsor, compared to 93 percent for firms with 100 or more employees. Eligibility and take-up rates also increase with firm size, but not by nearly as much. ESI coverage from other sources helps many workers in small firms get coverage,

but a large gap remains. Only 69 percent of workers in the smallest firms have health insurance coverage, compared to 91 percent for those working in the largest firms.

We examine variation by industry in **Table 2**. There is substantial variation in sponsorship rates by industry, ranging from 54 percent for personal/household services, to 98 percent for public administration. The lowest sponsorship rates were in personal/household services, agriculture, construction, business and repair services, and retail. We also find substantial variation in take-up rates, though somewhat less. The least amount of variation is in eligibility rates across industries.

For those working in industries least likely to sponsor ESI, other sources of coverage fill some, but by no means all, of the gap in coverage. For example, only 44 percent of those in retail have ESI from their own jobs, but 68 percent have ESI from some source and 74 percent have some form of coverage. Thus retail workers are more likely to be covered by their spouses, for example, than those in manufacturing—in comparison, 83 percent of those working in manufacturing of durables have own ESI and 92 percent have some health insurance coverage.

Another notable finding is that industries with higher sponsorship rates tend to have higher take-up rates. This positive correlation can be seen more clearly in **Figure 11**, which plots sponsorship rates against take-up rates for each industry. This finding is consistent with the notion that, to a large extent, firms’ decisions to sponsor coverage are driven by their employees’ desire for such

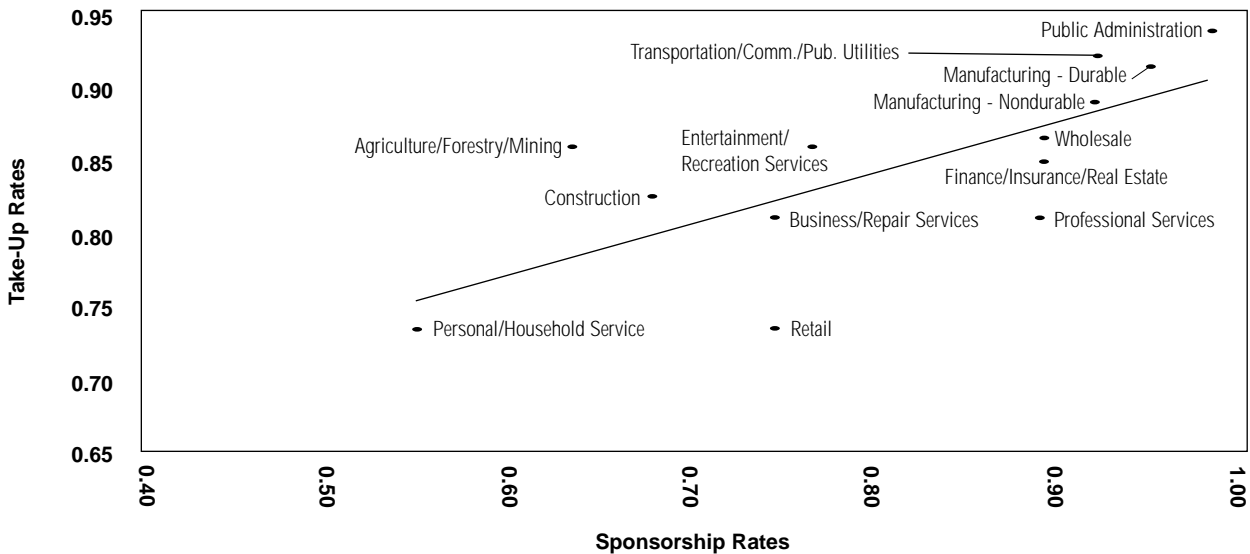
Table 1: Insurance Coverage Rates of Workers by Firm Size

	Firm Sponsors Health Plan	Eligible for ESI (conditional on sponsor)	Takes Up Offer (conditional on eligibility)	Own ESI Coverage	Any ESI Coverage	Medicaid Coverage	Any Health Insurance Coverage
Size of Employer at all locations							
10	0.54	0.87	0.76	0.36	0.61	0.01	0.69
10-24	0.71	0.89	0.78	0.50	0.70	0.01	0.77
25-99	0.83	0.92	0.82	0.62	0.78	0.01	0.83
100+	0.93	0.92	0.87	0.75	0.88	0.01	0.91

Table 2: Insurance Coverage Rates of Workers by Industry

	Firm Sponsors Health Plan	Eligible for ESI (conditional on sponsor)	Takes Up Offer (conditional on eligibility)	Own ESI Coverage	Any ESI Coverage	Medicaid Coverage	Any Health Insurance Coverage
Industry Code for Primary Job							
Agriculture/Forestry/Mining	0.64	0.94	0.86	0.52	0.63	0.00	0.67
Construction	0.68	0.93	0.83	0.53	0.64	0.00	0.72
Manufacturing - Nondurable	0.92	0.96	0.90	0.79	0.88	0.01	0.90
Manufacturing - Durable	0.94	0.97	0.91	0.83	0.91	0.00	0.92
Trans./Communication/Pub. Utilities	0.92	0.94	0.91	0.79	0.87	0.00	0.90
Wholesale	0.90	0.95	0.86	0.73	0.88	0.00	0.91
Retail	0.75	0.81	0.73	0.44	0.68	0.02	0.74
Finance/Insurance/Real Estate	0.90	0.95	0.85	0.72	0.88	0.00	0.91
Business/Repair Services	0.75	0.92	0.81	0.56	0.71	0.01	0.77
Personal/Household Services	0.54	0.85	0.73	0.34	0.56	0.02	0.66
Enter./Recreation Services	0.77	0.79	0.86	0.52	0.70	0.01	0.75
Professional Services	0.90	0.89	0.82	0.66	0.87	0.01	0.91
Public Administration	0.98	0.96	0.93	0.87	0.95	0.00	0.97

Figure 11: Relationship Between Sponsorship and Take-Up Rates Across Industries



coverage. For firms in industries that are generally less likely to sponsor coverage, when they actually do sponsor coverage, their workers are less likely to take it, indicating lower than average worker demand for ESI within the industry. These firms may be offering less desirable policies with lower than average actuarial value, but that too is largely reflective of relatively low underlying worker willingness to pay for health insurance in these industries. The link between worker preferences and employer demand for health insurance notion has been formally developed in economic models of firm health insurance offer decisions (Goldstein and Pauly, 1976; Feldman et al., 1997), and has important implications for public policies that seek to expand insurance coverage, as we discuss in more detail below.

Clearly, firm size and industry are related—workers in manufacturing tend to be in larger firms than workers in retail. Such relationships between firm size and industry, however, do not alter the conclusions that emerge from the tables above. In other results, which we have omitted here, we find that sponsorship and coverage increase with firm size within each industry category, and that there is still variation across industries within firm size categories.

Family structure

Table 3 reports that workers married to workers were the most likely to work for a sponsoring firm, and were the most likely to have ESI and coverage in general.⁹ Those with children were somewhat less likely to have coverage than those without children. Workers married to nonworkers had slightly lower sponsorship rates, but higher take-up rates. But overall, they were less likely to have coverage than workers married to workers.

Single workers were the least likely to work for a firm that sponsors coverage. They were less likely to be eligible for coverage than their married counterparts. Take-up among single workers who did not have children was about the same as for those married to nonworkers. Of all the groups, single workers with children had the lowest sponsorship rate, the lowest take-up rate (among those not married to workers), and were the least likely to have ESI (66 percent). They were also the least likely to have coverage from any source, despite the finding that Medicaid made up some of the gap, covering about 5 percent of working, single parents, far higher than any family status group of workers.

For workers who lack ESI from their own employers,

Table 3: Insurance Coverage Rates of Workers by Family Status

	Firm Sponsors Health Plan	Eligible for ESI (conditional on sponsor)	Takes Up Offer (conditional on eligibility)	Own ESI Coverage	Any ESI Coverage	Medicaid Coverage	Any Health Insurance Coverage
Marital/Family/ Work Status							
Married to Worker, No Kids	0.89	0.95	0.81	0.68	0.91	0.00	0.93
Married to Worker, With Kids	0.88	0.93	0.78	0.64	0.89	0.00	0.91
Married to Nonworker, No Kids	0.87	0.93	0.89	0.73	0.85	0.00	0.89
Married to Nonworker, With Kids	0.84	0.96	0.91	0.73	0.77	0.01	0.81
Single, No Kids	0.82	0.87	0.90	0.64	0.76	0.00	0.80
Single, With Kids	0.80	0.90	0.86	0.62	0.66	0.05	0.76

⁹ Because our unit of analysis is the worker, rather than the household, both partners in two-worker couples are treated as separate observations.

Table 4: Insurance Coverage Rates of Workers by Wages

	Firm Sponsors Health Plan	Eligible for ESI (conditional on sponsor)	Takes Up Offer (conditional on eligibility)	Own ESI Coverage	Any ESI Coverage	Medicaid Coverage	Any Health Insurance Coverage
Hourly Wage							
0-6.99	0.66	0.74	0.69	0.33	0.59	0.02	0.66
7-9.99	0.81	0.89	0.80	0.58	0.76	0.01	0.80
10-14.99	0.90	0.94	0.86	0.73	0.87	0.00	0.90
15+	0.94	0.97	0.90	0.82	0.93	0.00	0.95

dependent ESI is an important alternative source of coverage. Rates of coverage under family members' ESI plans vary a great deal by family status, with 25 percent of workers married to workers with children having dependent ESI (almost always from the spouse) and only 4 percent of workers married to non-workers with children having dependent coverage.¹⁰ Despite having the highest level of coverage, those who were married to workers had the lowest take-up rates, because when both spouses have offers, one typically declines. For example, while workers married to workers with children had the lowest take-up rate (78 percent), they had one of the highest overall ESI coverage rates (89 percent). In results not shown here that examined differences across family types by firm size and by industry, we found that obtaining coverage from other family members (primarily working spouses) was more important for workers in small firms compared to those in larger firms and workers in industries that are less likely to sponsor, such as retail and non-business services, compared to other industries.

Wages and family income

Sponsorship, eligibility, and take-up are all lower for lower wage workers and in roughly similar proportions, as shown in **Table 4**. Rates increase dramatically up to the \$10-15 level. Only 66 percent of workers earning less than \$7 per hour work for sponsoring firms—their eligibility rate is 74 percent and their take-up rate is 69 percent. As a result, only 33 percent receive ESI from their own jobs and 66 percent have some form of coverage. Medicaid makes up relatively little of this gap, covering 2 percent of such workers. These low coverage rates contribute to the finding from above that low-wage workers make up 43 percent of the working uninsured.

Research in labor economics has demonstrated a strong positive relationship between employer size and wages, which cannot be completely explained away by observable worker characteristics (Oi and Idson, 1999). There may be an as yet unobserved reason for higher average productivity in larger firms. It is possible, then, that the apparent effect of wages on sponsorship rates is partly attributable to firm size. We explore this possibility in **Table 5**. For workers who earn \$7 per hour or

¹⁰In results not reported here, we find that the source of dependent ESI coverage varies a great deal by family status group. Overall, about 70 percent of workers who have dependent coverage get it from a spouse. This figure is closer to 95 percent among those married to workers. Among single workers with children, more than half of those with dependent coverage also report getting this coverage from a spouse (presumably an ex-spouse). For single workers without children, by contrast, relatives other than spouses provide about 86 percent of dependent coverage (the data do not allow us to distinguish between different types of non-spouse relatives). Because single workers without children who have dependent coverage tend to be very young (with an average age of about 20 years), it is most likely that these workers are covered under their parents' ESI policies.

less, we still find that sponsorship increases substantially with firm size. For workers who earn \$15 or more, we also find that sponsorship increases with firm size. But for high wage workers, the variation by firm size is much more compressed. It is interesting to note that low-wage workers in large firms are more likely to have an employer who sponsors (80 percent) than high-wage workers in small firms (70 percent). Still, low-wage workers in large firms are less likely to be covered by their own employer than high-wage workers in small firms due to lower eligibility and take-up rates.

In other results not shown in table form, we find that the high-wage/low-wage gap in sponsorship, eligibility,

take-up, and coverage is the largest for workers married to nonworkers with children and single parents with children. Thus the large majority of low-wage workers in two-worker families (70 percent for those with children and 76 percent for those without) have ESI coverage due to the advantages and flexibility that two jobs allow.

When we examine workers by family income in **Table 6**, a pattern very similar to the wage pattern emerges.

Sponsorship, eligibility, take-up, and coverage all increase with income. About 5 percent of workers with incomes below the FPL are covered by Medicaid. Few of the poor workers are offered coverage. Only 61 percent have employers who sponsor, and of those, only 67 percent

Table 5: Insurance Coverage Rates of Workers by Wages and Firm Size

		Firm Sponsors Health Plan	Eligible for ESI (conditional on sponsor)	Takes Up Offer (conditional on eligibility)	Own ESI Coverage	Any ESI Coverage	Medicaid Coverage	Any Health Insurance Coverage
Hourly Wage	Size of Employer at All Locations							
0 - 6.99	<10	0.37	0.75	0.67	0.19	0.46	0.01	0.53
	10-24	0.51	0.70	0.62	0.22	0.51	0.02	0.59
	25-99	0.64	0.79	0.71	0.36	0.56	0.04	0.64
	100+	0.80	0.73	0.70	0.40	0.66	0.03	0.72
7 - 9.99	<10	0.49	0.86	0.71	0.30	0.56	0.01	0.65
	10-24	0.73	0.90	0.77	0.51	0.70	0.01	0.77
	25-99	0.80	0.91	0.78	0.56	0.74	0.00	0.78
	100+	0.91	0.89	0.82	0.66	0.82	0.01	0.85
10 - 14.99	<10	0.67	0.91	0.80	0.48	0.72	0.01	0.79
	10-24	0.77	0.93	0.82	0.59	0.75	0.00	0.80
	25-99	0.88	0.94	0.84	0.69	0.83	0.00	0.87
	100+	0.96	0.94	0.87	0.79	0.92	0.00	0.94
15+	<10	0.70	0.93	0.82	0.53	0.74	0.00	0.83
	10-24	0.83	0.96	0.83	0.66	0.83	0.00	0.90
	25-99	0.92	0.95	0.86	0.76	0.89	0.00	0.93
	100+	0.97	0.97	0.92	0.87	0.96	0.00	0.97

Table 6: Insurance Coverage Rates of Workers by Income

	Firm Sponsors Health Plan	Eligible for ESI (conditional on sponsor)	Takes Up Offer (conditional on eligibility)	Own ESI Coverage	Any ESI Coverage	Medicaid Coverage	Any Health Insurance Coverage
Family Income as Percentage of Poverty							
Under 100%	0.61	0.67	0.70	0.29	0.41	0.05	0.52
100%-199%	0.73	0.85	0.82	0.51	0.61	0.02	0.66
200%-400%	0.87	0.92	0.87	0.70	0.84	0.00	0.88
Over 400%	0.92	0.95	0.85	0.74	0.94	0.00	0.96

Table 7: Insurance Coverage Rates of Workers by Income and Family Status

		Firm Sponsors Health Plan	Eligible for ESI (conditional on sponsor)	Takes Up Offer (conditional on eligibility)	Own ESI Coverage	Any ESI Coverage	Medicaid Coverage	Any Health Insurance Coverage
Family Income as Percentage of Poverty	Marital/Family/ Work Status							
Under 100%	Married to Worker, No Kids	0.63	0.63	0.65	0.26	0.37	0.00	0.46
	Married to Worker, With Kids	0.57	0.84	0.73	0.35	0.48	0.01	0.56
	Married to Nonworker, No Kids	0.50	0.71	0.91	0.32	0.34	0.00	0.43
	Married to Nonworker, With Kids	0.54	0.82	0.75	0.33	0.34	0.08	0.43
	Single, No Kids	0.63	0.57	0.73	0.26	0.44	0.02	0.52
	Single, With Kids	0.64	0.74	0.63	0.30	0.36	0.13	0.57
100%-199%	Marital/Family/ Work Status							
	Married to Worker, No Kids	0.65	0.81	0.85	0.45	0.57	0.00	0.58
	Married to Worker, With Kids	0.72	0.84	0.78	0.48	0.66	0.02	0.71
	Married to Nonworker, No Kids	0.71	0.90	0.82	0.53	0.59	0.00	0.62
	Married to Nonworker, With Kids	0.74	0.95	0.89	0.63	0.66	0.02	0.70
	Single, No Kids	0.72	0.81	0.80	0.47	0.58	0.01	0.64
	Single, With Kids	0.76	0.88	0.83	0.56	0.61	0.04	0.69

Table 7: Insurance Coverage Rates of Workers by Income and Family Status (Continued)

		Firm Sponsors Health Plan	Eligible for ESI (conditional on sponsor)	Takes Up Offer (conditional on eligibility)	Own ESI Coverage	Any ESI Coverage	Medicaid Coverage	Any Health Insurance Coverage
Family Income as Percentage of Poverty	Marital/Family/ Work Status							
200%-400%	Married to Worker, No Kids	0.80	0.91	0.80	0.59	0.82	0.00	0.85
	Married to Worker, With Kids	0.88	0.91	0.78	0.63	0.89	0.00	0.91
	Married to Nonworker, No Kids	0.86	0.92	0.90	0.72	0.83	0.01	0.88
	Married to Nonworker, With Kids	0.91	0.97	0.92	0.81	0.87	0.00	0.90
	Single, No Kids	0.87	0.91	0.91	0.72	0.81	0.00	0.85
	Single, With Kids	0.91	0.96	0.94	0.83	0.84	0.01	0.89
Over 400%	Marital/Family/ Work Status							
	Married to Worker, No Kids	0.92	0.96	0.82	0.72	0.94	0.00	0.96
	Married to Worker, With Kids	0.93	0.95	0.79	0.69	0.95	0.00	0.97
	Married to Nonworker, No Kids	0.93	0.95	0.90	0.79	0.94	0.00	0.97
	Married to Nonworker, With Kids	0.96	0.99	0.95	0.90	0.95	0.00	0.98
	Single, No Kids	0.90	0.91	0.94	0.77	0.91	0.00	0.94
	Single, With Kids	0.95	0.98	0.96	0.89	0.90	0.00	0.95

are eligible, thus only 41 percent are offered coverage. The fact that 70 percent of poor workers who are offered coverage take it up would seem to indicate substantial demand for health insurance, since an average employee premium would be a considerable share of their income. It is important to recognize, of course, that low-income workers who have offers of coverage from their employers may well be the ones who are willing to pay the most for health insurance, since they may have chosen the job precisely because it provides coverage.

We find that there is less variation across family types when we look within income group in **Table 7**. For families with incomes below 100 percent of the FPL, overall coverage ranges from 43 percent to 57 percent across family types.¹¹ Overall coverage ranges from 58 percent to 71 percent across family types for those with incomes between 100 and 200 percent of the FPL. We find less variation in sponsorship rates by family type within each income category, ranging from 50 to 64 for families below the FPL. This is somewhat surprising. We might

¹¹We caution that there are few couples without children in the less than 100% of poverty income categories, therefore estimates for these groups are imprecise.

have expected those with children to be more likely to work for a firm that sponsors and those with a working spouse to be less likely to work for a firm that sponsors, within each income group, but this was often not the case. We infer that income is much more important than family type in explaining the health insurance options workers face and the choices workers make.

Work hours and job tenure

Those who work less than full-time (fewer than 35 hours per week) were less likely to have ESI, particularly through their own employment, as shown in **Table 8**. Sponsorship is lower for those working less than full-time, but the reason for low coverage is less tied to sponsorship than to eligibility and take-up. Only 63 percent

of those working 20 to 34 hours per week were eligible for coverage, and only 58 percent of those who were offered coverage took it. Spousal coverage is extremely important to part-time workers. Fifty-six percent of those who worked less than 20 hours a week were covered by a spouse, and 39 percent of those who worked between 20-34 hours were covered by an ESI policy outside their own employer as well.

The majority those who work part-time do so by choice—only about 12 percent of the workers we examine reported that they work part-time because they cannot find full-time employment.¹² But for those workers who would prefer to be working full-time, insurance coverage is much lower, as shown in **Table 9**. Sponsorship and eligibility are much lower among those working

Table 8: Insurance Coverage Rates of Workers by Hours Worked

	Firm Sponsors Health Plan	Eligible for ESI (conditional on sponsor)	Takes Up Offer (conditional on eligibility)	Own ESI Coverage	Any ESI Coverage	Medicaid Coverage	Any Health Insurance Coverage
Size of Employer at all locations							
<20	0.60	0.33	0.42	0.08	0.64	0.03	0.74
20-34	0.68	0.63	0.58	0.25	0.64	0.03	0.72
35+	0.89	0.96	0.87	0.74	0.85	0.00	0.88

Table 9: Insurance Coverage Rates of Workers by Voluntary/Involuntary Part-Time Status

Hours Per Week	Reason for Part-Time Status	Firm Sponsors Health Plan	Eligible for ESI (conditional on sponsor)	Takes Up Offer (conditional on eligibility)	Own ESI Coverage	Any ESI Coverage	Medicaid Coverage	Any Health Insurance Coverage
<20	Voluntary	0.61	0.34	0.41	0.08	0.67	0.03	0.77
	Involuntary	0.44	0.28	0.51	0.06	0.29	0.09	0.44
20-34	Voluntary	0.70	0.65	0.57	0.26	0.68	0.02	0.76
	Involuntary	0.61	0.51	0.62	0.19	0.38	0.05	0.47
35+	Voluntary	0.89	0.96	0.87	0.74	0.85	0.00	0.88
	Involuntary	0.70	0.45	1.00	0.31	0.53	0.00	0.53

¹² Survey information may underestimate the proportion of workers who would like to find full-time work, since some respondents may be reluctant to reveal that they are not satisfied with their jobs.

Table 10a: Insurance Coverage Rates of Regular Workers by Job Tenure

	Firm Sponsors Health Plan	Eligible for ESI (conditional on sponsor)	Takes Up Offer (conditional on eligibility)	Own ESI Coverage	Any ESI Coverage	Medicaid Coverage	Any Health Insurance Coverage
Months of Tenure – Regular Workers							
<6	0.76	0.70	0.65	0.35	0.58	0.02	0.64
6-11	0.82	0.86	0.77	0.54	0.74	0.01	0.79
12-23	0.81	0.88	0.79	0.57	0.76	0.01	0.81
24+	0.90	0.96	0.88	0.77	0.89	0.00	0.92

Table 10b: Insurance Coverage Rates of Contingent Workers by Job Tenure

	Firm Sponsors Health Plan	Eligible for ESI (conditional on sponsor)	Takes Up Offer (conditional on eligibility)	Own ESI Coverage	Any ESI Coverage	Medicaid Coverage	Any Health Insurance Coverage
Months of Tenure – Temp/Contract Workers							
<6	0.64	0.41	0.61	0.16	0.52	0.04	0.62
6-11	0.75	0.64	0.70	0.33	0.63	0.01	0.72
12-23	0.71	0.64	0.69	0.31	0.60	0.03	0.72
24+	0.75	0.70	0.82	0.43	0.70	0.02	0.79

part-time involuntarily than those who voluntarily work part-time (differences in take-up are not statistically significant). In either case, their take-up rates are low compared to those working full-time.

Job tenure is also strongly related to eligibility and take-up. We describe the relationship with job tenure for two groups: regular workers in **Table 10a** and contingent workers (temporary or contract workers) in **Table 10b**. We find that regular workers with fewer than 6 months working for their current employer were eligible for their employers' coverage about 70 percent of the time. Only 65 percent took up the coverage when it was offered. Contingent workers with less than 6 months tenure were less likely to work for a sponsoring firm (64 vs. 76 percent) and to be eligible (41 vs. 70 percent) than recently hired regular workers. Their take-up rates, however, were

similar (61 vs. 65 percent). It is also noteworthy that the difference in any ESI coverage between contingent and regular workers is quite large, even for those with two or more years with their employer (70 vs. 89 percent).

Gender and race/ethnicity

Male and female workers are equally likely to be covered by ESI, but women who work are less likely to have the ESI coverage through their own jobs, as shown in **Table 11**. Men are slightly more likely to work for an employer who sponsors coverage, are more likely to be eligible (94 vs. 88 percent), and are more likely to take-up their employers' ESI offer (89 vs. 80 percent). In tables not reported here, we find that the difference in eligibility rates between men and women largely disappears when we control for weekly hours worked.

Table 11: Insurance Coverage Rates of Rates of Workers by Gender

	Firm Sponsors Health Plan	Eligible for ESI (conditional on sponsor)	Takes Up Offer (conditional on eligibility)	Own ESI Coverage	Any ESI Coverage	Medicaid Coverage	Any Health Insurance Coverage
Sex							
Male	0.86	0.94	0.89	0.72	0.82	0.00	0.85
Female	0.84	0.88	0.80	0.60	0.82	0.01	0.86

Table 12: Insurance Coverage Rates of Workers by Race/Ethnicity

	Firm Sponsors Health Plan	Eligible for ESI (conditional on sponsor)	Takes Up Offer (conditional on eligibility)	Own ESI Coverage	Any ESI Coverage	Medicaid Coverage	Any Health Insurance Coverage
4 Level Race							
White	0.87	0.91	0.85	0.67	0.85	0.01	0.89
Black	0.86	0.90	0.85	0.66	0.77	0.01	0.81
Hispanic	0.72	0.90	0.85	0.55	0.64	0.01	0.67
Other Race	0.83	0.93	0.85	0.66	0.79	0.01	0.85

We examine race/ethnicity in **Table 12**, and find that of the groups we examine, Hispanics are significantly less likely to work for an employer who sponsors coverage. However, the race/ethnic groups are practically identical in eligibility rates and take-up rates. Hispanics are the least likely to have ESI coverage and the least likely to have any coverage, which is largely attributable to their low sponsorship rates. When available, however, Hispanics appear to demand coverage as much as the other groups, as measured by the take-up rate.¹³

Even though blacks and whites have very similar own ESI coverage rates, 81 percent of blacks have some form of coverage compared to 89 percent of whites. This is almost entirely due to the availability of coverage from a working spouse. In tables we do not report here, we find

that whites were more likely than blacks to be married to workers. Within family status groups, blacks were still less likely to be covered than whites, but the differences were somewhat smaller.

To summarize the most important conclusions from this closer look at the facts about the working uninsured, we offer the following:

- Firm size is more important than industry in explaining sponsorship, eligibility, and take-up rates.
- Income is more important than family type.
- High income and high wages are associated with higher rates of sponsorship, eligibility, and coverage.
- Income and wages are correlated, but not perfectly, since many low wage workers are married to someone with higher income.

¹³ Our results are similar to those of Quinn (2000), who also finds that sponsorship rates vary by race but take-up rates do not. Our results differ from his in that he also finds differences in eligibility rates conditional on sponsorship, while we do not.

- Lower coverage rates for Hispanics are mostly due to working in jobs with much lower offer rates than whites obtain.
- Lower coverage rates for blacks are mostly due to lower spousal coverage rates than those for whites.
- Given an offer, all races are equally likely to accept employer-sponsored insurance.

Effectiveness and Efficiency of Targeting Health Insurance Subsidies to Uninsured Workers

Various policy initiatives are being considered that would expand health insurance among workers. We describe

the specifics of such policies below but all such policies must establish who is and is not eligible for a particular subsidy, that is, they must be targeted at particular types of workers.¹⁴ For targeting to be effective in expanding coverage, it must indeed hit a meaningful share of uninsured workers. For targeting to be efficient, eligibility must extend to a large number of the uninsured relative to the already insured. There can be a tradeoff between efficiency and equity. If otherwise equally disadvantaged workers (e.g., low income) are already insured through considerable personal sacrifice, then a subsidy policy that renders them ineligible because they already have cover-

Table 13: Target Effectiveness and Efficiency by Wages and Firm Size

Wage	Firm Size	Target Effectiveness		Target Efficiency
		Percent of Uninsured Workers	Number of Uninsured Workers (1,000s)	Percent of Workers Who Are Uninsured
0-6.99 \$/hr	<10	11.2	1,800	47
	10-24	6.4	1,000	41
	25-99	6.7	1,100	36
	100+	19.2	3,100	28
	Subtotal	43.5	7,000	34
7-9.99 \$/hr	<10	6.4	1,000	35
	10-24	3.3	500	23
	25-99	4.3	700	22
	100+	11.5	1,900	15
	Subtotal	25.5	4,100	20
10-14.99 \$/hr	<10	3.9	600	21
	10-24	3.1	500	20
	25-99	3.5	600	13
	100+	7.4	1,200	6
	Subtotal	17.9	2,900	10
15+ \$/hr	<10	3.1	500	17
	10-24	1.7	300	10
	25-99	2.3	400	7
	100+	6.0	1,000	3
	Subtotal	13.1	2,100	5
Firm Size Subtotals	<10	24.7	4,000	31
	10-24	14.5	2,300	23
	25-99	16.8	2,700	17
	100+	44.0	7,100	9
Total		100	16,100	14

¹⁴Targeting effectiveness, as we use it here, only requires that targeted groups be eligible for a subsidy. Whether the subsidy is effective in actually changing coverage status is a separate issue which we discuss, but do not address in the empirical analyses.

Table 14: Target Effectiveness and Efficiency by Income and Firm Size

Income as Percent of FPL	Firm Size	Target Effectiveness		Target Efficiency
		Percent of Uninsured Workers	Number of Uninsured Workers (1,000s)	Percent of Workers Who Are Uninsured
Under 100%	<10	5.5	900	63
	10-24	3.1	500	55
	25-99	3.3	500	47
	100+	10.1	1,600	41
	Subtotal	22.0	3,500	48
100%-199%	<10	9.1	1,500	56
	10-24	5.0	800	42
	25-99	6.1	1,000	36
	100+	14.9	2,400	25
	Subtotal	35.1	5,700	34
200%-400%	<10	7.0	1,100	25
	10-24	4.4	700	20
	25-99	5.3	900	15
	100+	13.3	2,100	8
	Subtotal	30.0	4,800	12
Over 400%	<10	3.1	500	12
	10-24	1.9	300	9
	25-99	2.1	300	6
	100+	5.7	900	2
	Subtotal	12.8	2,100	4
Firm Size Subtotals	<10	24.7	4,000	31
	10-24	14.5	2,300	23
	25-99	16.8	2,700	17
	100+	44.0	7,100	9
Total		100	16,100	14

age may be technically efficient but reduce equity by subsidizing some but not all at the same income levels. On the whole, both effectiveness and efficiency are accomplished by targeting workers who are disproportionately likely to be uninsured, e.g., low-wage workers, low-income workers, workers in small firms. However, the most efficient targeting strategies may be precisely defined. For example, very few low-wage, single workers in small firms are insured. Providing subsidies to such a narrowly defined group may be extremely target efficient, but do little to effectively expand insurance coverage since it helps only a thin slice of the uninsured worker population. As expansions in subsidies are contemplated, there is a natural tension between target effectiveness and efficiency. Continuing the example, subsidies available to low-

wage single workers in larger firms are relatively effective but involve a loss in efficiency, since a larger fraction of those workers are already insured, as we saw in Table 7.

Wages and firm size

Table 13 examines target effectiveness (measured by the percent and number of uninsured workers in each cell) and efficiency (measured by the percent of all workers in each cell who are uninsured) by wages and firm size. Low-wage workers are the most target effective within each firm size group. In contrast, policies that target small firms will be relatively ineffective, because so many uninsured workers are in large firms (100+) in all wage groups (44 percent).

In terms of target efficiency, however, there is no clear

advantage or disadvantage to targeting wages relative to firm size. About 34 and 20 percent of workers in the lowest two wage categories, respectively, are uninsured, whereas about 31 and 23 percent of workers in the two smallest employer size categories, respectively, are uninsured.

Income and firm size

In **Table 14 (on page 19)**, we examine target efficiency and effectiveness by income and firm size. There are slightly more uninsured workers in the smallest firms (<10 employees) overall (25 percent) than there are

uninsured workers with incomes under the federal poverty line (22 percent), in part because there are relatively few workers with incomes under 100 percent of poverty and some of these workers may be covered by Medicaid. The picture changes when we examine the 100-199 percent of poverty group, which represents 35 percent of uninsured workers overall. Only about 15 percent of uninsured workers are in the next highest firm size group (10-24 employees). Once we consider those with incomes between 100-199 percent of the FPL (as many current proposals do), targeting income is more effective than targeting firm size.

Table 15: Target Effectiveness and Efficiency by Income and Wages

Income as Percent of FPL	Hourly Wage	Target Effectiveness		Target Efficiency
		Percent of Uninsured Workers	Number of Uninsured Workers (1,000s)	Percent of Workers Who Are Uninsured
Under 100%	0-6.99 \$/hr	17.2	2,800	49
	7-9.99 \$/hr	3.5	600	45
	10-14.99 \$/hr	0.7	100	33
	15+ \$/hr	0.5	100	40
	Subtotal	21.9	3,500	48
100%-199%	0-6.99 \$/hr	18.2	2,900	40
	7-9.99 \$/hr	11.5	1,900	30
	10-14.99 \$/hr	4.2	700	25
	15+ \$/hr	1.2	200	28
	Subtotal	35.1	5,700	34
200%-400%	0-6.99 \$/hr	6.4	1,000	21
	7-9.99 \$/hr	9.0	1,400	15
	10-14.99 \$/hr	10.5	1,700	10
	15+ \$/hr	4.2	700	8
	Subtotal	30.1	4,800	12
Over 400%	0-6.99 \$/hr	1.7	300	10
	7-9.99 \$/hr	1.6	300	6
	10-14.99 \$/hr	2.5	400	4
	15+ \$/hr	7.1	1,100	3
	Subtotal	12.9	2,100	4
Hourly Wage Subtotals	0-6.99 \$/hr	43.5	7,000	34
	7-9.99 \$/hr	25.6	4,100	20
	10-14.99 \$/hr	17.8	2,900	10
	15+ \$/hr	13.0	2,100	5
Total		100	16,100	14

Targeting income is also more efficient than targeting firm size. Forty-one percent of the poorest workers in the largest firms are uninsured. In contrast, only 25 percent of workers with incomes between 200-400 percent of the FPL who work for the smallest firms are uninsured. Targeting income or wages appears to be superior to targeting firm size, though for different reasons, as we see below.

Income and wages

Health insurance subsidy policies typically target income, but may target wages. As we describe in the next section, there are a variety of administrative reasons why one may be preferred as a policy target over the other (e.g., employers could readily administer wage-related policies, but income-related policies would require a public agency). The choice is more than a technical program design issue, but rather one with important implications for equity since wages and income, though closely tied, are not the same. Many low-wage workers are in higher-income families, and (to a lesser degree) there are workers with moderately high wages supporting large families such that their family income is not much above the federal poverty line.

Table 15 sheds light on these distinctions. Targeting workers with incomes below the FPL, regardless of wage, would catch about 22 percent of the uninsured, and targeting those with incomes 100-199 percent of the FPL would bring in another 35 percent for a total of 57 percent of uninsured workers. Targeting workers who earn less than \$7 per hour would include about 44 percent of uninsured workers, and extending to those who earn \$7 to \$10 per hour would bring in another 26 percent for a total of 70 percent. When we consider that the FPL for a family of three was \$13,650 in 1998, we find that, if this family was supported by a single full-time worker (40 hours per week), the income level translates to an hourly wage of \$6.56, so the lowest wage group and lowest income group are roughly comparable. Thus targeting wages is more effective than targeting income as a percentage of the FPL.

Targeting income is more efficient, however, than targeting wages. Target efficiency is 48 percent for those with incomes below the FPL and 34 percent for those with incomes from 100 to 199 percent of the FPL. By contrast, target efficiency is 34 percent for those earning

less than \$7 per hour and 20 percent for those earning \$7 to \$10 per hour. Targeting wages is less efficient because there are low-wage workers in higher-income families. In total, about 19 percent of the uninsured are above 200 percent of the FPL, and earn less than \$10 at work. The large majority of low-wage/higher-income workers, however, are insured. If subsidies were contingent on wages alone, then more than half of new subsidy dollars could flow to the low-wage but higher-income insured. There are 8 million insured workers who make less than \$7 an hour but live in households with incomes greater than 200 percent of FPL (figures not shown in table). There are only 5.7 million uninsured workers who make less than \$7 an hour and are in households with incomes below 200 percent of FPL.

Family status and income

As we saw above, single workers without children make up 48 percent of uninsured workers, and are, therefore, the most effective group to target by far, as shown in **Table 16 (on page 22)**. Social policies like Medicaid and cash welfare assistance have historically given priority to families over single adults. But if the goal is to reduce the number of workers who remain uncovered, single workers without children should not be excluded. Furthermore, 30 percent of uninsured workers are childless, single workers with incomes below 200 percent of the FPL.

The next two largest family groups among uninsured workers are two-worker families with children and single workers with children. The vast majority of uninsured singles with kids have incomes below 200 percent of poverty, comprising about 11 percent of uninsured workers. Most of the uninsured two-worker families with children have incomes above 200 percent of poverty, thus reaching these families would require subsidies that reach higher up the income scale and involve very high target inefficiency.

Limiting the focus to those with incomes below 200 percent of poverty, we find that all the family types are roughly equally efficient to target. Target efficiency ranges from 57 percent to 44 percent for those with incomes below the FPL and from 42 percent to 29 percent for those with incomes from 100 to 199 percent of the FPL. Because target efficiency is relatively homogeneous across family types once income is held fixed, this concept cannot help us prioritize one family type over another.

Table 16: Target Effectiveness and Efficiency by Family Status and Income

		Target Effectiveness		Target Efficiency
		Percent of Uninsured Workers	Number of Uninsured Workers (1,000s)	Percent of Workers Who Are Uninsured
Family Status	Income as Percent of FPL			
Married to Worker, No Kids	Under 100%	0.2	-	54
	100-199%	1.5	200	42
	200-400%	3.6	600	15
	Over 400%	3.8	600	4
	Subtotal	9.1	1,500	7
Married to Worker, With Kids	Under 100%	1.7	300	44
	100-199%	5.0	800	29
	200-400%	6.5	1,000	9
	Over 400%	2.9	500	3
	Subtotal	16.1	2,600	9
Married to Non-worker, No Kids	Under 100%	0.6	100	57
	100-199%	1.5	200	38
	200-400%	1.4	200	12
	Over 400%	0.6	100	3
	Subtotal	4.1	700	11
Married to Non-worker, With Kids	Under 100%	3.4	500	56
	100-199%	3.8	600	30
	200-400%	1.9	300	10
	Over 400%	0.3	-	2
	Subtotal	9.4	1,500	19
Single, No Kids	Under 100%	13.0	2,100	49
	100-199%	16.5	2,700	36
	200-400%	13.7	2,200	15
	Over 400%	4.5	700	6
	Subtotal	47.7	7,700	20
Single, With Kids	Under 100%	5.7	900	44
	100-199%	5.6	900	31
	200-400%	2.0	300	11
	Over 400%	0.4	100	5
	Subtotal	13.7	2,200	24
Income as % of FPL Subtotals	Under 100%	24.7	4,000	48
	100-199%	33.9	5,500	34
	200-400%	29.0	4,700	12
	Over 400%	12.4	2,000	4
Total		100	16,100	14

V. POLICY OPTIONS

The steady increase in the number of Americans without health insurance despite the strong economy throughout most of the 1990s has stimulated considerable debate and the development of a number of health insurance coverage expansion alternatives (Robert Wood Johnson Foundation, 2000; Glied, 2000; Feder and Burke, 1999).

Because universal coverage would require both mandates and a large increase in federal subsidies to soften the financial burden of those mandates, policymakers and analysts have come to focus on incremental reforms and targeted initiatives instead of comprehensive reform of the complex set of health care and health insurance systems in the U.S. Since a majority of Americans get their health insurance through the workplace, and since the vast majority of the uninsured are in households with at

least one worker, most incremental coverage expansion policies either focus on employment-related insurance or include provisions designed to avoid disrupting existing coverage arrangements. The most politically viable coverage expansion proposals—as judged by the number of similar proposals put forward by leading politicians in both major parties—can be categorized into three broad camps: (1) individual tax credits; (2) employer tax credits; and (3) public program expansions.

Individual Tax Credits: Rationale

A number of considerations make this approach to health insurance coverage expansion appealing to a number of groups. First, there is a glaring inequity in current tax law: employer premium contributions for employee health insurance are exempt from individual income taxes, but workers whose employers do not offer health insurance get no tax subsidy to purchase non-group insurance on their own. This federal tax preference encourages employer-sponsored health insurance, but workers in firms which still do not sponsor health insurance pay higher income taxes (to help finance the \$75 billion per year federal income tax expenditure for employer-sponsored health insurance that benefits most workers) (Office of Management and Budget, 2001), and yet still have to pay 100 percent out-of-pocket in after-tax dollars for health insurance in the non-group market. The self-employed can now deduct 60 percent of their non-group insurance premiums from their federally taxable income (this will rise to 100% in 2003), and thus employees who are not offered health insurance by their employers are truly the only workers without some kind of tax incentive to purchase health insurance.

Second, opponents of managed care—especially provider groups and indemnity insurers—blame the employer-driven search for cost-containment for the too-rapid spread of managed care. They argue that giving individuals more health insurance purchasing power outside the employment setting would likely preserve more freedom and heterogeneity in our health care system because it is essential for non-managed care providers and insurers to remain financially viable.

Finally, individual tax credits are appealing to those who philosophically prefer to let subsidized individuals choose which plan to buy rather than employers or the government. They generally oppose health care entitlement expansion, which Medicaid or Medicare expansion

would entail, because they want to limit the “first claim” status entitlements have upon limited public budgets. At the same time, tax credit proponents also know that many uninsured are uninsured because of lack of purchasing power. But individual tax credit proponents generally prefer to spend a fixed amount of total subsidy dollars by offering partial subsidies to the many rather than full subsidies to the poorest few. Some advocates prefer the general idea of using tax relief rather than direct cash vouchers to enhance purchasing power for the near poor, because it dovetails with their overall agenda of reducing the share of national income claimed in taxes, and thus, reducing the scope of the federal government.

Design features

All health insurance coverage expansion alternatives must address a number of key design issues. First in importance is eligibility: who will have access to the new subsidy or policy change? Most individual tax credit proposals have been targeted to those who do not have access to employer-sponsored health insurance, either through their own employer or their spouse's. The primary motivations here are to (1) make the tax system more neutral between purchasing non-group or group insurance; and (2) offer a tax break for health insurance to those workers who have none now. Both these goals represent steps toward horizontal equity, that is, treating those with equal incomes equally. Unless they are self-employed, workers without employer offers have no access to a tax break for health insurance today.

Eligibility is also frequently made contingent on income. Proposed tax credits are most often limited to low-income populations, since they make up a large fraction of those who are constrained from purchasing health insurance (as opposed to those who choose not to purchase despite relatively ample means). Eligibility for tax credits is also frequently contingent on not being eligible for an existing public program, e.g., Medicaid, though some proposals would allow low-income individuals to choose between types of subsidies. The size of the credit relative to the market price of a relevant insurance policy, the relative breadth of public coverage and the degree of cost sharing required in that policy, and the disposable income of the eligible person or family, will determine whether using the tax credit is preferred to remaining in the public program or uninsured. State Medicaid eligibility income cutoffs vary quite a bit across the country, and

since the vast majority of individual tax credit proposals call for partial—not full—subsidies, if choice were permitted, it is likely that the same federally determined income cutoffs for tax credits would lead to different choices among low-income populations in different states. Some states might actually tighten eligibility for their jointly funded Medicaid program if the federal government provided ample subsidies in the form of tax credits to those in the higher income ranges of current eligibility schedules. Finally, it should be noted that one major advantage of tax credits as a subsidy device for the low-income population is the natural ease of income verification, since income tax withholding law and procedures make income determination straightforward.

Other key design issues with tax credits are the size of the tax credit, refundability, end-of-year reconciliation, and the sources of health insurance that would be purchased with tax credits. Most analysts agree that for tax credits to substantially reduce the number of uninsured, they must be both large relative to the premium (Pauly and Herring, 2000) and refundable (Gruber and Levitt, 2000). This is because the vast majority of the low-income, uninsured population is not likely to pay as much as one-half the price of health insurance out of their own pockets, and 40 percent of the uninsured do not even file income tax returns, so a non-refundable credit against taxes owed is irrelevant to them.

Liquidity constraints make year-end reconciliation an important feature of tax credit design (Blumberg, 1999). The uninsured, compared to the insured population, is more likely to be in and out of the labor force and to have corresponding income fluctuations. In order to encourage participation by the low-income uninsured, tax credits must be made available prospectively if they are to expand coverage substantially. But prospective availability means that some who get jobs or better jobs during the year may no longer qualify for the same or any tax credit at year end. Knowing that their incomes fluctuate, if faced with large end-of-year cash penalties if their income turned out to be too large, many uninsured may forego using tax credits. On the other hand, the absence of reconciliation will clearly result in tax credits flowing to some with incomes that exceed statutory cutoffs, at least for some years. The choice one makes on this point primarily

depends on whether maximizing coverage expansion or target efficiency is the higher priority.

Finally, what insurance products will the holders of tax credits be able to buy? The first design step toward answering this question depends on whether the credits can be used for employee ESI premiums. This may be seen as a way to enhance horizontal equity, since low-income workers with ESI offers who decline them—in many cases, presumably, because of out-of-pocket cost—are just as low income as some workers without offers who would be eligible for the tax credits. About 20 percent of workers who are offered ESI decline it, so this design feature does make a large difference in the scope of any tax credit expansion policy. Of course, making the tax credit available for employee ESI premiums paid by low-income workers will also be much more costly, because many low-income workers do purchase health insurance at work.

The second question in deciding what kinds of products holders of tax credits will be able to buy is: shall the non-group health insurance market be reformed along with tax credit legislation or left to function as it does now? Reform of the non-group market—forcing insurers to sell to all willing buyers (guaranteed issue), restricting the variance in premiums that can be charged (e.g., community rating), creating purchasing pools to achieve administrative economies of scale and to maximize effective purchasing power for the newly subsidized—are sometimes advocated because administrative costs are 15–20 percentage points higher in the non-group market than they are in the group market. This is unavoidable because many administrative costs are fixed (or independent of the number of workers) and thus are subject to significant economies of scale, and this guarantees that non-group products are more expensive than group insurance for the same level of coverage. In addition, underwriting – the process of assessing health risks and assigning high premiums to high risks, or even refusal to sell to some risks at all – is widespread in the non-group market. This pricing strategy is efficient and arguably necessary to protect insurers from adverse selection¹⁵ in a world of voluntary insurance purchase, and some analysts have concluded that the non-group market spreads risks about as well as the group market (Pauly and

¹⁵ Adverse selection occurs when the people with greater than average health risk are more inclined to buy health insurance than the healthiest population. This is the classic danger in any voluntary insurance market wherein the insurer's ability to discern true health risk is limited.

Herring, 2000). Still, for administrative economy of scale reasons, as well as lingering doubts about efficient risk spreading, some analysts argue that if the non-group market is going to be the outlet for spending health insurance tax credits, then new purchasing institutions or access to existing institutions—like state or federal employees' plans or state Medicaid agencies—should be created so that the tax credit dollars go more toward health coverage and less toward high administrative costs (Blumberg, 1999).

Employer Tax Credits: Rationale

Although a majority of Americans are insured through the workplace, roughly 80 percent of uninsured workers either have employers that do not sponsor a health plan at all or they are not eligible for their employer's plan (Figure 10). Thus, it is natural to think of subsidizing employers so that they will be more likely to sponsor or expand eligibility to health insurance. In addition to employers of course, analysts who are persuaded that the employment-based system has numerous non-tax advantages (unbiased risk pooling, administrative efficiencies, ability to demand accountability from providers and health plans) support employer tax credits of various forms. Employer credits also avoid the incentives for some employers to drop ESI sponsorship that are implicit in individual tax credits that can only be used in the non-group market. Young, healthy, and lower-wage workers may very well get a larger percentage tax subsidy from tax credits than they do from the current employer contribution multiplied by their (relatively low) marginal tax rates.

Design features

It has long been established that small employers are less likely to offer health insurance to their workers. There are lots of reasons—administrative economies of scale being only one—why it is more costly for small firms to offer health insurance, all other things being equal. Employer tax credits can be a device to socialize the “extra” costs that small firms and their workers must bear to obtain health insurance of equal actuarial value to large firm choices. Thus, a natural policy response is to target small firms—typically with fewer than 50 workers—with tax credits. In addition, some industries are much more likely to offer than others, targeted tax credits directed at, for example, firms in the service and retail industries (see

Table 2). Firms with high percentages of low-wage workers are also much less likely to offer health insurance (Blumberg and Nichols, 2000), so tax credits might be targeted to firms with low average wages as well. Finally, many tax credit proposals limit their availability to firms that have not offered health insurance for at least a year. This enhances target efficiency but also creates incentives for firms to drop coverage for a year to get the credit. It also penalizes otherwise equal firms that decided to offer coverage to their workers.

Public Program Expansions: Rationale

Fifty-nine percent of uninsured workers have low incomes (below 200 percent of the FPL, Figure 6). Low-income workers are unlikely to be able or willing to pay substantial portions of a premium, as envisioned by most tax credit proposals, so the net impact of a coverage expansion policy will likely be greater with full or nearly full subsidies, and some analysts believe the easiest way to accomplish this is through expanding eligibility for existing public programs (Feder et al., 2001). They see Medicaid as an administratively efficient insurer with a decent track record of contracting with providers and health plans on behalf of vulnerable and low-income populations. Expanding public program eligibility up the income scale is seen as a way to broaden and deepen the political appeal of Medicaid, which will help it serve all better through greater and more stable resource commitments. People who support public program expansions tend to view an increase in the percentage of the population eligible for a health insurance entitlement as a step toward universal coverage and a good thing, not problematic. Some hold the view that health insurance markets are never going to work exceptionally well for the low-income population without an advocate/agent heavily involved in demanding accountability from providers and health plans alike, and that Medicaid can play that role better than individuals can on their own in the non-group marketplace.

Design features

Eligibility issues with public program expansions are complex due to the heterogeneity of existing law in each major program (Medicaid, SCHIP, Medicare). State-initiated expansions through existing federal law sometimes require approval and/or entail restrictions on the benefit package, co-payments, and premiums that can be charged

enrollees, and which types of people (e.g., parents of Medicaid-eligible children) may be enrolled. SCHIP is not an entitlement and has very strict limits about enrollment for those who have access to any form of ESI, including employer contribution levels. Minimum income level cut-offs for Medicaid eligibility (for example, for all those with family income below 100 percent of the federal poverty level for their family size) are different for families, children, pregnant women, and single adults in federal law, and few states have equalized these on their own (states are allowed to raise income cutoff levels beyond federal law at their discretion), though many states have exceeded the federal minimums for some groups (most typically, children and pregnant women). SCHIP usually adds another layer of complexity in conjunction with Medicaid, since SCHIP children are not Medicaid eligible. Given that Medicaid income eligibility cutoffs vary across states, the income level that is the starting point of SCHIP subsidies also varies from state to state. Medicare is a program for the elderly and severely disabled without income-related eligibility criteria.

One goal of most analysts who argue for public program expansion as the policy tool of choice for reducing the fraction of Americans who are uninsured is to make the income eligibility matrix much simpler in all states by creating one income eligibility cutoff level for all beneficiaries in one state. Public program advocates also often recommend allowing all individuals who want to—some perhaps with other kinds of subsidies including tax credits—to “buy in” to Medicaid or SCHIP by paying the de facto average cost or implicit community rate for public program enrollees. Thus, tax credits and public program expansions could work hand in hand, and could even be designed to target different sub-populations primarily. This buy-in to public insurance would provide a kind of “safety valve” product that could be available for all. The population that would choose to purchase it might be sicker on average than those who are currently able to purchase non-group insurance in an unregulated setting and even sicker than those who are currently enrolled in public insurance. If this were the case, premiums for those “buying in” could be set higher than the average public program enrollee cost, or public subsidies could be increased to cover the excess cost of these enrollees. Still, even the higher buy-in premiums set this way could be lower than the prices high-risk individuals may face in the non-group market.

VI. IMPLICATIONS OF POLICY OPTIONS AND FINDINGS

We learned in Section IV which types of coverage expansion policies are more target effective, which are more target efficient, and why in each set of cases. We also reported there that childless, single workers today are the single largest group of the working uninsured by far. Section V described the motivation for and major design features of three types of coverage expansion policies. This section draws some policy implications while remaining mindful of the context of the detailed findings from Section III.

Individual or Employer Subsidies

We showed how policies tied to wages dominate those contingent on firm size on both effectiveness and efficiency grounds. We also showed that while wage-based policies are somewhat more effective than income-based policies, income-contingent coverage expansion policies are the most efficient, by quite a margin. Still, final choices of policy design appropriately hinge on a number of other related criteria as we discuss below.

A major advantage of targeting wages is that employers could help administer these subsidies quite easily, since they know their own employees' wages. Income-based subsidies, by contrast, require collection and monitoring of household income data, and these data may legally reside only in public agencies like welfare or Medicaid agencies or in state and federal tax bureaus. Employers are likely to resist adding this layer of complexity to their health insurance related administrative burdens, even if laws mandating employee revelation of household income data to employers were passed. So, one major tradeoff that policymakers face is between the administrative ease of wage-based subsidies (plus the somewhat higher target effectiveness) and the superior target efficiency of income-based subsidies.

Once wage or income is chosen as the preferred targeting device, policymakers may still choose to direct subsidies to firms and let the benefits spill over to their workers. For example, one could imagine employer subsidies or tax credits for the purchase of health insurance being contingent on the fraction of a small firm's workforce that

is either low wage or low income. Or direct employer subsidies might be made for each low-wage worker or low-income worker that takes-up, or for whom the employer offers at least a certain percentage employer payment (Kahn and Pollack, 2001). All of these variants of employer subsidies are in place now in a few states (Silow-Carroll et al., 2000). Directing small employer subsidies to the lowest wage and/or lowest income employees is a way to maximize target efficiency, though as we stated above, all small employer subsidies alone risk ineffectiveness from the fact that so many uninsured workers work for larger firms.

There are other downsides to employer-based subsidies. For example, subsidies limited to small firms create incentives for larger firms to carve themselves into units of 50 or fewer workers. Similarly, if not sponsoring health insurance is a pre-requisite for obtaining substantial tax credits, then it might be worth it to constitute a “new” firm or spin off a unit that employs most workers or most low-wage workers. The cost of these re-organization activities are like deadweight loss, since they would not have been incurred but for the presence of the employer subsidy.

Furthermore, subsidizing employers may be a very blunt policy instrument since the benefits of the subsidies may be spread over all employees in a firm (including its higher wage, higher income workers) rather than the workers who need the subsidy the most. Instead, giving workers purchasing power through income-based subsidies or tax credits, and letting them then bargain with employers of all sizes on their own, would likely achieve more target efficiency in a coverage expansion policy, for if a critical mass of workers have a stronger demand for health insurance and the wherewithal to trade wages for tax-preferred employer contributions, then more firms will surely sponsor health insurance for all their workers. Again, policymakers must weigh their relative weights on effectiveness and efficiency while also considering the political appeal of helping employers and through them, the very neediest workers, vs. the appeal of helping needy workers directly while their employers watch and react or not as the case may be.

Though childless, single workers are the largest single group of uninsured workers, they have been heretofore ignored in most public program (Medicaid plus SCHIP) expansions. We saw how many of them have incomes under 200 percent of the FPL. But many also have incomes above 200 percent of the FPL, and thus the target inefficiency in targeting this group without income limits could be great. Similarly, it is difficult to imagine that employers would be able to accommodate the inherent conflict in directing a subsidy to workers with any single type of family status, given the tremendous effort to avoid discrimination along just these sorts of lines which permeates the rest of employer-employee relations today. Therefore, it seems likely that this kind of family type-targeting would have to be done by a publicly administered program, not an employer-administered one.

Tax Credits vs. Public Program Expansions

The tradeoffs here are somewhat technical—e.g., which are likely to engender greater take-up—and somewhat philosophical—which are more likely to encourage individual choice, diversity, and heterogeneity in health insurance arrangements? Implicit in the choices along these tradeoffs, of course, are the values policymakers place on coverage expansion effectiveness, horizontal equity vs. target efficiency, entitlements vs. contingent subsidies, as well as heterogeneity and maximum individual choice. Analysts cannot add much to the discussion of these relative values.

And while we have discussed the technical issues above, it bears repeating that for those with household incomes below 200 percent of FPL, about \$27,000 for a family of three, most federal tax credit proposals would still require them to pay more than 2/3 of the full cost of a family policy, or more than 15 percent of their pre-tax family income for health insurance.¹⁶ For household with less than \$27,000, the percentage of income required to be paid would be even higher, of course. This subsidized health insurance purchase would therefore require them to sacrifice quite a lot of other consumption, compared to higher income individuals and

¹⁶ The average family policy in the group market costs about \$6800 per year in 2001, and the maximum tax credit for low-income families proposed by President Bush is \$2000 when fully phased-in in 2003. Premium information is taken from Employer Health Benefits: 2000 Summary of Findings (<http://www.kff.org/content/2000/20000907a/SOF.pdf>), and from the Medical Expenditure Panel Survey data, (<http://www.meps.ahrpr.gov/MEPSDATA/ic/1998/Index198.htm>), inflated by growth rates projected by the Health Care Financing Administration (<http://www.hcfa.gov/stats/NHE-Proj/proj1998/proj1998.pdf>). All web sites verified June 18, 2001.

families who spend much lower fractions of their income on health insurance.¹⁷ Thus, take-up is likely to be rather limited among the low-income population unless subsidies are substantial or complete (Chernew et al., 1997). Of course, complete subsidies could be provided to the low-income population through tax credits, and this is exactly what former Senator Bill Bradley proposed during his 2000 Democratic primary campaign. However, that kind of expansive subsidy program is not what is being discussed in Washington today. The general point is that partial tax credits—or non-refundable tax credits of any size—are likely to be most effective in expanding coverage for the roughly 41 percent of uninsured workers with incomes above 200 percent of poverty.

This discussion in turn implies that coverage expansion is likely to be most effective for the low-income population if done with near complete subsidies through a fully refundable prospectively paid tax credit without strict year-end reconciliation or through public program expansions. The political debate over the wisdom of entitlement expansion is not settled, and cannot be settled by analysis alone. The issue of crowding-out of existing private insurance remains relevant for both approaches, but is much less risky for the lowest income workers with the least chance of securing a job with health insurance attached in the first place. Of course, with Medicaid managed care, public program expansion need not detract from the expansion of private health plans, and indeed could encourage delivery system transformation by providing purchasing power for state-sanctioned plans that continue to meet some minimal accountability and quality standards.

The prospect of newly subsidized low-income workers enrolling in private managed care plans through a Medicaid-financed subsidy helps us make one final point in the discussion of coverage expansion alternatives: administrative efficiencies and risk pool differences are real, and therefore pooling purchasing power into efficient institutions will enable a given amount of subsidy dollars to buy more health insurance coverage for more people. This concept too, however, comes with a tradeoff: organized purchasing institutions—whether state Medicaid agencies; state employee plans; or newly consti-

tuted purchasing agencies, perhaps in conjunction with the business community—counterbalance the market power of existing insurers and thereby threaten to remake the insurance market and marketed insurance products into a form chosen by the organized purchaser. This can be good or bad, depending on one's views of standard benefit packages and managed competition generally vs. unfettered insurance product heterogeneity and individual choice. Different policymakers are likely to reach different conclusions in their search for the most appropriate set of policies to be delivered to the newly subsidized working uninsured.

VII. CONCLUSION

The analyses of the working uninsured presented here have sought to provide a richer picture of uninsured workers that would inform the debate surrounding the numerous proposals currently being advanced to expand insurance coverage. Analysis can identify the merits and limitations of policy options and highlight key tradeoffs, but ultimately, the policies that will be implemented, if any, are choices that federal, state, and local policymakers must make, contingent upon their own values and analyses of the particular situation they come to care most about. Fortunately, there is no lack of options—and though some would likely accomplish more than others, most of the policy options presented in this paper would do much to expand coverage among the more than 16 million uninsured workers. We hope this collection of facts and perspectives will facilitate the implementation of coverage expansion policies in the very near future.

¹⁷An important point to note here is that health insurance coverage is not as "scalable" as many other things that families purchase, including food, clothing, entertainment, and transportation. Health insurance policies are lumpy in that there is a minimum benefit plan that the health insurance market supplies, and that benefit is expensive for all families.

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Appendix Table 1: Composition of Uninsured Workers vs. the Overall Workforce

	ALL WORKERS (%)	UNINSURED WORKERS (%)
INDUSTRY		
Agriculture/Forestry/Mining	1.8	4.1
Construction	5.3	10.4
Manufacturing - Nondurable	6.7	4.7
Manufacturing - Durable	11.3	6.0
Trans./Comm./Pub. Utilities	7.8	5.5
Wholesale	4.0	2.5
Retail	14.9	27.3
Finance/Insurance/Real Estate	7.0	4.3
Busniess/Repair Services	5.9	9.7
Personal/Household Services	2.4	5.8
Entertainment/Recreation Services	1.5	2.6
Professional Services	25.9	15.9
Public Administration	5.4	1.1
EMPLOYER SIZE		
<10	11.0	27.4
10-24	8.7	14.5
25-99	13.5	16.8
100+	66.9	44.0
HOURS WORKED PER WEEK		
<20	4.5	8.2
20-34	10.7	20.6
35+	84.8	71.2
JOB TENURE (MONTHS)		
<6	9.2	27.2
6-11	8.4	13.7
12-23	10.1	14.9
24+	72.3	44.2
WAGE (\$/HOUR)		
0-6.99	17.6	43.5
7-9.99	18.2	25.6
10-14.99	25.1	17.8
15+	39.2	13.0
FAMILY INCOME (% OF FPL)		
Under 100	7.3	24.7
100-199	14.5	33.9
200-400	33.3	29.0
Over 400	44.9	12.4
FAMILY STATUS		
Married to Worker, No Kids	19.3	9.2
Married to Worker, With Kids	25.6	16.0
Married to Nonworker, No Kids	5.1	4.1
Married to Nonworker, With Kids	7.2	9.3
Single, No Kids	34.8	47.7
Single, With Kids	8.0	13.7
GENDER		
Male	51.9	54.0
Female	48.1	46.0
RACE/ETHNICITY		
White	73.2	55.1
Black	11.6	15.8
Hispanic	10.8	24.7
Other	4.3	4.4



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