

Work, Offers, and Take-Up: Decomposing the Source of Recent Declines in Employer-Sponsored Insurance

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The National Bureau of Economic Research (NBER) determined that a recession began in March 2001 (NBER 2001). And while NBER also determined that the recession officially ended in November of 2001, the economy continued to be sluggish well past that time, particularly in employment. Evidence showed that the rate of insurance coverage also decreased during that period, primarily because of a drop in the rate of employer-sponsored insurance (ESI) coverage (Holahan and Wang 2004). Previous research has not explored, however, the factors underlying the decline in ESI that occurred during this economic downturn.

Although the employment rate clearly declined for the population as a whole during this time period, the probability of being offered health insurance and the probability of taking up the coverage offered are also factors affecting the likelihood of ESI coverage. This analysis assesses how these components of coverage changed during the economic downturn. We examine how these changes varied for unmarried adults, married adults, and dependent children, and assess how much of the decline in coverage that coincided with the downturn was attributable to changes in employment rates versus changes in offer rates versus changes in take-up rates. We also determine how the changes over this period differed for low-income and higher-income populations, and how changes in the components of coverage varied by employer size.

The next section describes the data used for this study and defines the key analytic variables. The third section provides a detailed explanation of the methodological approach taken. The fourth section presents the empirical results, and the fifth provides a summary of the results and conclusions of the analysis.

The key results from this analysis are summarized in the table and bullets below.

Summary of Main Results (percent)

	Change in ESI coverage	Share due to changes in work	Share due to changes in offer rates	Share due to changes in take-up	Share due to other factors
All	-2.2% ^{**}	27.8%	7.2%	64.4%	0.6%
< 200% of FPL	-4.6% ^{**}	26.1%	24.2%	48.1%	1.7%
> 200% of FPL	-1.3%	-8.9%	12.2%	91.0%	5.6%

1. There was a sharp drop in ESI coverage between 1999 and 2002. In 1999, 69.2 percent of the nonelderly population had employer-sponsored insurance coverage. In 2002, the ESI coverage rate had fallen to 66.9 percent, a change of 2.2 percentage points. Had the rate of ESI coverage stayed at 1999 levels, 5.9 million more individuals would have had coverage in 2002 than was actually the case.

2. All three groups—dependent children, unmarried adults and married adults—experienced declines in ESI. Dependent children had the largest declines (3.1 percentage points), followed by unmarried adults (2.3 percentage points) and married adults (1.7 percentage points).
3. Almost two-thirds of the decline in ESI for the overall population was attributable to the decrease in the likelihood of taking up an employer offer. Take-up rates declined by 1.7 percentage points for unmarried adults, 1.0 percentage point for married adults, and 3.5 percentage points for dependent children.
4. Most of the remaining loss of ESI was the result of a reduction in the likelihood of work, which accounted for almost 30 percent of the decline. The probability of not working increased by 1.9 percentage points for unmarried adults. The probability that a child had no working parent increased by 1 percentage point.
5. Declines in ESI coverage were particularly sharp for the low-income population. ESI coverage for the low-income nonelderly population fell by just under 5 percentage points. This amounts to a decline of about 12 percent, substantially larger than the drop (less than 2 percent) experienced by the higher-income nonelderly population.
6. The low-income population was affected by a reduced likelihood of work, fewer offers, and lower take-up rates. For the low-income population as a whole, the decline in take-up accounted for about 48 percent of the decrease in the rate of ESI. The drop in work accounted for about 26 percent of the change and reduced offer rates for about 24 percent.
7. The share of low-income people with at least one adult in the immediate family employed by an establishment fell by 3.1 percentage points. Low-income unmarried adults experienced the largest decline in establishment-based work (3.7 percentage points, compared with roughly 2.5 percentage points for married adults and children).
8. The share of low-income persons with at least one employer offer in the family fell by 2.7 percentage points. The largest decline in offer was experienced by married adults (4.8 percentage points). The declines in take-up rates for low-income Americans were even more dramatic, falling by 5.8 percentage points. Take-up rates by unmarried adults fell by 4.7 percentage points, and for children by 8.9 percentage points.
9. The decline in ESI coverage for higher-income individuals fell by just over 1 percentage point between 1999 and 2002. Only take-up declined significantly for this income group overall, dropping by 1.5 percentage points. Unmarried adults in this income group experienced a decline in offers, whereas married adult and children's take-up rates declined.
10. There was a shift in work from large to small employers, where the likelihood of ESI coverage is lower. The probability of working for a small employer increased and the probability of working for a large employer declined for unmarried adults. There was also a modest increase in the probability of working in government for this group. At the same time, offer rates declined in small establishments. Thus, while employment of unmarried adults was shifting to small establishments and government, the offer rates for those workers were falling. For those working in small establishments, there were also declines in take-up rates of over 5 percentage points.

These results suggest that increased unemployment, reduced offers of coverage, and declining take-up rates all contributed to the decline in employer-sponsored insurance. Declines

in employment will directly affect the share of the population with employer-sponsored insurance. Declines in employer offers occur primarily within small firms, but also reflect shifts from full-time to part-time work and from employment in large establishments to small establishments. The declines in take-up are consistent with the reductions in employer contributions to employee health insurance premiums shown in the National Survey of America's Families and surveys of health benefits sponsored by the Kaiser Family Foundation (Holahan 2003; Gabel et al. 2003). Declines in take-up rates are also consistent with earlier studies that have shown declines in take-up of employer offers from the late 1980s to the late 1990s (Farber and Levy 2000; Cooper and Schone 1997).

Data and Variable Definition

This analysis uses the 1999 and 2002 National Surveys of America's Families (NSAF). The NSAF is a household survey that provides information on more than 100,000 children and nonelderly adults representing the noninstitutionalized United States population under age 65. Low-income populations in 13 states are oversampled. Detailed information is collected for adults and up to two children in each family. The survey includes information on employment status, health insurance coverage, employer sponsorship of health insurance plans, and income. Detailed information on demographic characteristics, access to health care services, and family well-being are also collected.

Issues Related to Variable Definition

Two issues related to defining variables deserve discussion in some detail. The first is the nature of the NSAF variable indicating the presence of an employer offer, which is different from offer variables in other nationally representative data sets. The second is the computation of the income variable used to determine income relative to poverty. Because the NSAF provides total income for the year before the survey (1998 and 2001), but the offer information relates to the job held at the time of the interview (1999 or 2002), we imputed survey year income to each individual in the analysis.

Employer Offer. The NSAF question about the existence of an employer offer reads, "Does your current employer offer health insurance to workers in the same position as yours?" It does not ask whether the respondents themselves are directly offered employer insurance. The question was worded in a way to elicit information about the type of job that the person held, not about the person's own experience. Consequently, individuals can answer "yes" to the question even if they are not eligible to enroll in an employer plan. It is important to keep this in mind, because offer rates produced using the NSAF will be higher than those based on other data sets that focus on whether a particular individual received an offer. Additionally, offer rates based on the NSAF will be lower than those computed from surveys that ask if an individual's employer offers health insurance to *any* workers at the firm where the individual is employed.

Most important for these purposes, however, the offer question was asked consistently in the 1999 and 2002 surveys. Consequently, the question should accurately reflect the change in offer probabilities over time. Decomposing the source of the change in employer-based coverage over this period is precisely the goal of this analysis, making the use of the NSAF offer variable in this context appropriate. It should be noted, however, that a decline in the NSAF data in the probability of taking up an offer could reflect an increase in the rate of worker declines, an increase in the likelihood that employers are offering coverage to some workers but not others holding similar positions, or a combination of both. Unfortunately, no data can be used to assess whether a change in the probability of eligibility has occurred during this period. Although the

Current Population Survey was conducting an employee benefits supplement to their February survey in odd-numbered years that could have answered this question, the supplement has been discontinued. The last available data are from 2001.

Income. Ideally, the measure of income used in this analysis would correspond to the period referenced in the employer offer and coverage questions. Respondents are asked about current offer and coverage status; however, total income is computed based on the previous calendar year. The NSAF does include information on current (i.e., time-of-survey) earnings and current number of hours a week worked. We use this data, along with that on unearned income in the year before the survey to impute survey-year total income for each individual. This imputed income variable is then used to categorize individuals by income relative to poverty.

We use the current earnings information to construct earnings per hour, and multiply this value by the number of hours worked per week. For those individuals who have not changed jobs in the last 12 months, we assume that their current weeks worked per year is the same as that reported for the previous year. For those who have changed jobs, we impute number of weeks worked per year based on those individuals who did not change jobs. We use a regression-based statistical matching approach for this imputation. Number of weeks per year is estimated on the sample of individuals who have not changed jobs in the last 12 months (“donors”), using independent variables for self-employment status, gender, hourly earnings, occupation, industry, and an interaction between occupation and industry. The results of this regression are used to predict weeks per year for those with recent job changes or those starting employment after a period without work (“imputees”) *and* for the donors. The predicted values of the imputees are compared to the predicted values for the donors. Each imputee is assigned the *actual* number of weeks worked in the last year from the donor whose predicted value is closest to the imputee’s own predicted value.

Current earnings per week are then multiplied by the number of weeks per year for each worker to compute current-year annual earnings. Unearned income for the current year is assumed to be largely consistent with past-year unearned income. The exceptions are that we do not carry forward those components of unearned income that were either unlikely to be available in the following year because of time limits or are by their nature unstable (unemployment compensation, emergency/one-time cash payments from a welfare program, vouchers or coupons to help pay for special expenses, financial support from friends/relatives outside household) or are associated with having extremely low income (general assistance, TANF/AFDC, food stamps).

In addition, to take into account the volatility of the stock market during this period, we adjusted interest from sources such as bank accounts, money markets or certificates of deposits, dividends from stocks, or mutual funds for average changes between 1998 and 1999 and between 2001 and 2002. We computed the average value of unearned income from these sources for those with some income using the 1999, 2000, 2002, and 2003 files of the March Current Population Survey (CPS). These survey years represent data years 1998, 1999, 2001, and 2002, respectively. We applied the percentage change in the means between the 1999 and 2000 CPS surveys (9.35 percent) to the unearned income of this type for individuals in the 1999 NSAF, and the change between the 2002 and 2003 CPS surveys (-23.30 percent) to the unearned income of this type for individuals in the 2002 NSAF.

Total income in the survey year for each individual was then computed by adding the imputed values of survey year earned and unearned income. Family income was computed by summing total survey-year income over members of the same family.

Methodological Approach

This analysis examines the components of the change in ESI between 1999 and 2002. In a simple world, an individual's probability of having ESI can be defined as $E\hat{S}I = \hat{W} * \hat{O} * \hat{T}$, where \hat{W} is the probability of being a worker, \hat{O} is the probability of having an employer offer of health insurance, conditional on being a worker, and \hat{T} is the probability of taking up an employer offer, conditional on receiving such an offer. This framework is complicated, however, by married adults and dependent children. Married adults may obtain ESI through their own place of employment or through their spouse's employment, and dependent children's access to ESI is through a parent. In addition, for each subpopulation (unmarried adults, married adults, and dependent children), some individuals report having ESI coverage but do not have a current offer of coverage, either through their own or an observable family member's place of employment. These individuals may have coverage through a former employer or through a family member not present in the household.

We address these complications in the following ways. First, each of the three subpopulation groups is treated separately. The rate of ESI coverage for unmarried people is defined as $E\hat{S}I_{unmarried} = (\hat{W}_{unmarried} * \hat{O}_{unmarried} * \hat{T}_{unmarried}) + \hat{A}_{unmarried}$, where W , O , and T are computed for the unmarried adult population, and $A_{unmarried}$ is the share of unmarried adults reporting alternative sources of ESI coverage (e.g., through a former employer, through a family member not present in the household).

For married adults, we compute:

$$E\hat{S}I_{married} = (\hat{W}_{married} * \hat{O}_{married} * \hat{T}_{married}) + \hat{A}_{married}$$

where $W_{married}$ refers to the probability that at least one spouse is a worker; $O_{married}$ is the probability that at least one of the employed spouses works for an offering employer, and $T_{married}$ is the probability of the worker taking up coverage through their own or a spouse's employer, given that at least one of them works for an offering establishment.

For dependent children, the probability of ESI coverage is computed as:

$$E\hat{S}I_{child} = (\hat{W}_{parent} * \hat{O}_{parent} * \hat{T}_{child}) + \hat{A}_{child}$$

where \hat{W}_{parent} is equal to the probability that the child has at least one working parent; \hat{O}_{parent} is equal to the probability that at least one parent (given s/he works) is offered health insurance, and \hat{T}_{child} is the probability that the child has ESI coverage through a parent with an offer.

For purposes of this analysis, work (W) is defined as being employed in some type of establishment, and where employment is compensated with cash wages. Self-employment is not included in W , and is grouped together with nonworkers and those working without pay in A , since these individuals cannot receive offers of employer-sponsored insurance. The change in the probability of nonwork, self-employment, and informal work over this period are examined separately.

For each subpopulation (unmarried adults, married adults, and dependent children), the share working, the share offered ESI (given work), the share taking up ESI (given an offer), and

the share with alternative sources of ESI were computed in 1999 and 2002. In addition to the overall changes in each component of ESI coverage, we decomposed the change in ESI for each subpopulation and for the population as a whole into its components.

The decomposition was computed for each subpopulation i in the following way.

1. A hypothetical probability of ESI coverage in 2002 was computed, holding the probability of work at the 1999 level— $E\hat{S}I_{hyp1,i} = \hat{W}_{1999,i} * \hat{O}_{2002,i} * \hat{T}_{2002,i} + \hat{A}_{2002,i}$;
2. A hypothetical probability of ESI coverage in 2002 was computed, holding the probability of offer at the 1999 level— $E\hat{S}I_{hyp2,i} = \hat{W}_{2002,i} * \hat{O}_{1999,i} * \hat{T}_{2002,i} + \hat{A}_{2002,i}$;
3. A hypothetical probability of ESI coverage in 2002 was computed, holding the probability of take-up at the 1999 level— $E\hat{S}I_{hyp3,i} = \hat{W}_{2002,i} * \hat{O}_{2002,i} * \hat{T}_{1999,i} + \hat{A}_{2002,i}$;
4. A hypothetical probability of ESI coverage in 2002 was computed, holding the probability of alternative ESI coverage at the 1999 level— $E\hat{S}I_{hyp4,i} = \hat{W}_{2002,i} * \hat{O}_{2002,i} * \hat{T}_{2002,i} + \hat{A}_{1999,i}$
5. $Delta_{hyp1} = E\hat{S}I_{hyp1,i} - E\hat{S}I_{1999,i}$; $Delta_{hyp2} = E\hat{S}I_{hyp2,i} - E\hat{S}I_{1999,i}$;
 $Delta_{hyp3} = E\hat{S}I_{hyp3,i} - E\hat{S}I_{1999,i}$; and $Delta_{hyp4} = E\hat{S}I_{hyp4,i} - E\hat{S}I_{1999,i}$ were each computed for each subpopulation i . These figures represent the rate of ESI coverage for a given subpopulation, if a particular component (W , O , T , A) of coverage had not changed from its 1999 level.
6. Each value of $Delta_{hyp}$ was then subtracted from the actual change in ESI over the period ($ESI_{2002,i} - ESI_{1999,i}$), to compute the portion of the actual change attributable to each component (W , O , T , A) of insurance coverage.¹
7. The amount of the change attributable to each component was then divided by the total change in ESI for the applicable subpopulation over the period, to compute the percentage of the change attributable to each component.
8. The share of the change in the rate of ESI coverage for the whole population attributable to each component was computed using the calculations described above, as well as the share of the population attributable to married adults, unmarried adults, and dependent children. For this computation, the amount of the ESI change attributable to change in the distribution of the 3 subpopulation groups is also included.

In addition to computing the overall changes, changes in the components of ESI coverage are also broken down by firm size and within income relative to poverty groups. The change in ESI coverage within each income group was also decomposed to demonstrate the relative importance of each component of the change.

¹ The sum of the portions of the ESI change attributable to each component do not add up precisely to the actual overall change in each subpopulation because of small interactive effects of the components. However, these interactive effects are very small (in all cases less than one-tenth of a percentage point); consequently, the interactions are ignored, and the differences are normalized away.

Results

Changes in Work, Offer, and Take-Up for the Nonelderly

In 1999, 69.2 percent of the nonelderly population had employer-sponsored insurance coverage. In 2002, the ESI coverage rate had fallen to 66.9 percent, a change of 2.2 percentage points, and a relative decline of over 3 percent. Had the rate of ESI coverage stayed at 1999 levels, 5.9 million more individuals would have had coverage in 2002 than was actually the case. Table 1 shows how each component of ESI coverage (the probability of work, the probability of having access to an offer given a working family member,² and the probability of taking up coverage given an offer) changed between 1999 and 2002 for each subpopulation (unmarried adults, married adults, and dependent children).³ The table also shows how the probability that an individual has ESI through an alternative source has changed over time as well as how each subpopulation has changed as a share of the entire population.

Looking at the percentage point changes in the bottom section of the table, dependent children experienced the largest decline in ESI during this period, 3.1 percentage points. Unmarried adult ESI declined by 2.3 percentage points, and married adult coverage fell by 1.7 percentage points. Each change was statistically significant.

Across the full population, only the probability of taking up ESI (conditional on the existence of an offer) changed significantly, declining by 1.9 percentage points. Consistently, for each subpopulation, the component with the largest percentage point decline, and the only one that is statistically significant, is take-up. Take-up declined by 1.7 percentage points for unmarried adults, 1.0 percentage point for married adults, and 3.5 percentage points for dependent children. Because of the specific offer question included in the NSAF and described above, the decline in take-up calculated here could be attributable, at least in part, to a change in the likelihood of eligibility for an employer offer. We presume that the vast majority of the change in take-up was actually attributable to an increased probability that workers were actually declining offers, probably because of increased employee contributions (Holahan 2003), but we cannot test this assumption empirically for this time period.⁴

For the full population, the probability of having a working adult in the immediate family declined by .7 percentage points, but that change was not significant. Unmarried adults saw a decrease in the likelihood of employment of 1.4 percentage points, also a statistically insignificant change. Unmarried adults saw larger declines than married adults in the likelihood of receiving an offer given employment (1.5 percentage points compared with .1 percentage points for married adults), although this decline was not statistically significant either.

The probability of having ESI through an alternative source did not change appreciably over the period. The subpopulation distribution was also quite stable over the period, however; the .4 percentage point decline for children as a share of the nonelderly population was statistically significant.

² Family, as used here, refers to members of the same health insurance unit. Health insurance units include those individuals in a family who typically can purchase insurance under a single policy—married adults, their children up to age 18, and children younger than 23 who are full-time students.

³ For purposes of this analysis, being married is defined as having a spouse present in the household. Consequently, the unmarried category in these tables includes some married adults who are separated or otherwise have a spouse not currently residing in the home.

⁴ It is worth noting, however, that author tabulations of the 1999 and 2001 Contingent Worker Supplements to the Current Population Survey showed that at least between 1999 and 2001, the rate of eligibility given that an employer sponsored an insurance plan did not decline.

Decomposition of the Sources of Change in ESI Coverage

Table 2 shows the share of the change in ESI attributable to each component for each subpopulation and the nonelderly population as a whole. Row 1 shows that the decline in coverage for unmarried adults was roughly evenly split between work, offer, and take-up. Coverage through alternative sources actually increased slightly over the period studied, very modestly offsetting some of the decline, hence the negative value in column A of the table.

The majority of the change (69 percent) in ESI for married adults is attributable to a decline in take-up. A decline in the probability of work was less than half as important as the decrease in take-up, and a decline in the probability of having an alternative source of ESI coverage was also of less importance, but still notable. The probability of offer (through at least one spouse) actually increased for married people, offsetting the decline for this group to a modest extent.

A decline in the probability of take-up was also the most important factor for the decline in ESI coverage among children, accounting for 74 percent of the decline. The second most important change for this group was the decline in the probability of work for at least one parent, which accounted for about 18 percent of the drop in ESI. The probabilities of offer and alternative ESI coverage also fell, but were of relatively little importance to the overall decline in ESI for children.

Taken together, almost two-thirds of the decline in ESI for the nonelderly population was attributable to the decrease in the likelihood of taking up an employer offer, with the decline in the probability of work accounting for less than 30 percent of the decline. The modest shift of the population distribution actually offset a slight amount of the decline.

The Decline in Establishment-Based Work

Table 3 provides detailed information on the changes underlying the decline in work within establishments. As shown in table 1, the probability of work in establishments declined between 1999 and 2002. We separated this decline in establishment work into its component parts: nonwork, self-employment, and other work (defined as temporary work or work without pay). As table 3 shows, there was a significant increase in nonwork among unmarried adults and married adults during this period and a modest (statistically insignificant) decline in self-employment. While there was also some change in the other work category, the category is persistently very small, so we do not discuss it here.

The probability of not working increased by 1.9 percentage points for unmarried adults and by 1.0 percentage point for married adults between 1999 and 2002.⁵ The probability that a child had no working parent grew as well, by 1 percentage point, although this change was not statistically significant. While some have assumed that self-employment would have grown in the period, somewhat compensating for the loss of employment-based labor market during the recession, these data do not bear that assumption out. Self-employment remained essentially constant within each subpopulation.

⁵ To be precise, this 1 percentage point increase reflects the change in probability that a married person does not work and does not have a working spouse.

Change in Work, Offer, and Take-Up for the Low-Income Population

Table 4 shows the changes in the components of ESI coverage for the low-income population, defined as those in families with incomes below 200 percent of the federal poverty level (FPL) in each year. In 1999, the FPL for a family of four residing in the continental United States was \$16,895; in 2002, it was \$18,244.⁶ As row 4 of the bottom section of the table shows, ESI coverage for the low-income nonelderly population fell by 4.6 percentage points. This amounts to a relative decline of about 12 percent. This drop is substantially larger than that experienced by the higher-income population, who saw ESI coverage fall by 1.3 percentage points (not significant), a relative decline of under 2 percent (figures for the higher-income population are shown in table 7, and will be discussed further below).

Virtually every component of coverage declined between 1999 and 2002 for the low-income population. The probability of having an adult in the immediate family employed by a firm fell by 3.1 percentage points, the probability that at least one of the working adults in the family was employed by an offering firm fell by 2.7 percentage points, and the probability of taking up employer coverage given an offering employer fell dramatically, by 5.8 percentage points.

The share of unmarried low-income adults working in establishments fell by 3.7 percentage points, while the share of married adults where at least one spouse was working fell by 2.5 percentage points (not significant). The probability that a child had at least one working parent declined by 2.3 percentage points. The offer rate declined significantly for low-income married adults (4.8 percentage points) and for low-income children (2.8 percentage points). Take-up rate declines were quite dramatic for unmarried adults and dependent children. Take-up among unmarried adults fell by 4.7 percentage points and take-up for children dropped by 8.9 percentage points. (The large decline in ESI for children in this income group could reflect public expansions, but this would not explain the drop for unmarried adults.) Taken together with changes in the share with coverage from alternative sources, ESI coverage rates of low-income unmarried adults fell by 1.5 percentage points, and ESI coverage rates of low-income married adults and children fell by 6.6 and 5.5 percentage points, respectively. These results mean that 3.6 million low-income adults and children did not have ESI in 2002 that would have had it if coverage rates had remained at 1999 levels.

Decomposition of the Sources of Change in ESI Coverage for the Low-Income Population

Table 5 shows how the decline in ESI coverage for the low-income population can be attributed to each component of coverage. Row 1 of the table shows that the decline in work and take-up are the most important factors accounting for the decline in ESI for low-income unmarried adults. Offer stayed virtually constant for this group, and alternative sources of coverage increased, accounting for the negative value in column A.

For married low-income adults, 37 percent of the decline is attributable to the decreased probability of offers, 20 percent is attributable to the decline in work, and about 17 percent to the decline in take-up. Interesting for this group is the importance of the decline in ESI coverage through alternate sources, which accounts for 27 percent. Given that both spouses are present for this subpopulation, this change likely signifies decreased coverage through COBRA during this period.

⁶ Income relative to poverty varies by the number of family members. We provide the FPL for a family of four for illustrative purposes.

The decline in ESI for low-income dependent children, however, is most attributable to decreased take-up of parental offers. The decline in the probability of having a working parent and in the probability of offer were about equally important as contributors to the decline for children. There was a small increase in the probability of children having an alternative source of ESI, which slightly offset the declines in the other components.

Taking all three subpopulations into consideration, the decline in take-up accounted for about 48 percent of the decrease in the rate of ESI, the drop in work accounted for 26 percent of the change, and decreased offer accounted for 24 percent.

Table 6 provides details on the decline in the probability of working in an establishment setting for the low-income population. The increase in the probability of not working—about 3–4 percentage points for each subpopulation—is solely responsible for the decline in establishment-based work. Self-employment did not change significantly for this population.

Change in Work, Offer, and Take-Up for the Higher-Income Population

Table 7 provides detailed information on the changes in the components of ESI coverage for those individuals with incomes at or above 200 percent of FPL. As already noted, the decline in ESI coverage for this higher-income group was much smaller over this period than was the case for the low-income group. Their probability of coverage fell by 1.3 percentage points (not significant) between 1999 and 2002. This implies that 2.4 million higher-income people would have had ESI in 2002 if the ESI coverage rates had remained at 1999 levels. Across all subgroups of the higher-income population, only take-up declined significantly, by 1.5 percentage points.

There was no significant change among the higher-income group in the probability of work. Offer rates fell by 2.3 percentage points for higher-income unmarried adults and stayed virtually constant for married adults and dependent children. The probability of taking up coverage (given an offer) fell for dependent children and married adults. Overall, dependent children in higher-income families saw the largest decline in ESI, 2.5 percentage points. Adult ESI coverage in this income group fell, but the change was not statistically significant for the unmarried or the married subpopulations.

Decomposition of the Sources of Change in ESI Coverage for the Higher-Income Population

Table 8 provides the results of the decomposition of the decline in ESI coverage for the higher-income population as a whole and separately for unmarried adults, married adults, and dependent children. The decline in coverage for unmarried adults was attributable in large part to lower rates of employer offers. The declines in take-up were also important, but they accounted for roughly a third as much of the decline as did offer. The declines in coverage for married adults and for dependent children, however, were clearly dominated by declines in take-up. Both married adults and children experienced a decrease in the probability of receiving ESI coverage through an alternative source, although this factor was of modest importance compared with the decline in take-up. Across all three subpopulations, decreased take-up accounted for the vast majority of the coverage decline among the higher-income population.

Because the probability of working in an establishment did not decline during this period for the higher-income population, we do not present a separate table decomposing that change, as we did with the low-income population.

Changes in Work, Offer, and Take-Up by Establishment Size

Table 9 allows us to examine how the changes in the components of ESI varied by size of employer. For these purposes, small is defined as an establishment of fewer than 25 workers. Information on government workers is kept separate from the small and large employers because the NSAF does not ask government workers for the size of their establishment.

Over the course of this period, the probability of working for a small employer increased and the probability of working for a large employer decreased. These changes were statistically significant for unmarried adults and, with regard to the decrease in large employer work, for the parents of dependent children.⁷ The most notable change was a decrease of 3.4 percentage points in the probability of an unmarried adult working for a large employer. There was also a modest increase in the probability of unmarried adults working in government. The change in the probability of government work was not significant for either married adults or the parents of dependent children.

Percentage point changes in the probability of offer were greatest for unmarried adults. While the probability of offer decreased by almost 5 percentage points for unmarried adults working in small establishments, and almost 3 percentage points for those in government work (although the latter was not statistically significant), the probability of offer for those in large establishments increased by over 2 percentage points (this change was not significant either). So while employment of unmarried adults was shifting to small and government employers, the probability of offer for those workers was falling.

Changes in the probability of receiving an offer through small establishments also decreased for married adults and dependent children, although the percentage point decline in offer for those groups was considerably smaller than for unmarried adults and were not statistically significant.

This table also shows that the percentage point declines in take-up during this period were greatest for unmarried adults and children in small establishments and for married adults in government. The take-up of unmarried adults employed by small establishments fell by 5 percentage points, compared with only 1 percentage point for large establishment workers, and virtually no change for government workers. Take-up of coverage for dependent children fell by 7.5 percentage points when the only employed parents worked for small employers, compared with 2–3 percentage point declines for those with parents employed in government or large establishments. Contrary to the pattern exhibited by unmarried adults and children, married adult take-up rates fell by 4.2 percentage points in the government and declined only very modestly among small and large employers.

These dramatic differences in the probability of taking up over this period may reflect larger relative increases in health insurance premiums for small employers between 1999 and 2002. While take-up had already been somewhat lower for workers employed by small employers than for those employed by large and government employers, recent changes have clearly exacerbated those differences. It is a signal that ESI is getting more difficult to afford through small employers, and that their premium increases may be relatively larger than those of large employers. This hypothesis is also consistent with the evidence that small employers are

⁷ Children with at least one parent working for a government employer were classified in that group; children with no parent working for the government, but at least one parent in a large establishment, were classified as large; and those with parents only employed in small businesses were grouped in small.

becoming less likely to offer coverage, and that that decline in offer is greater than is the case for large employers and for government employers.

Summary and Conclusions

This paper has found that the sharp drop in employer-sponsored insurance between 1999 and 2002 for the nonelderly population as a whole was the result of a combination of reduced employment levels and lower take-up rates. Overall, about two-thirds of the decline in ESI coverage was attributable to lower take-up rates. This could reflect changes in the nature of the coverage offered (e.g., increased employee contributions and fewer benefits) or competing demands on family budgets. The declines in rates of employer sponsored insurance were particularly sharp for lower-income populations. This population experienced important declines in all components of ESI coverage: employment, offer, and take-up. This is consistent with the low-income population being more greatly affected by the recession in terms of job loss and premium increases. Finally, there was a shift in work from large to small employers, where the likelihood of ESI offers is lower.

The important question is whether any of these changes are likely reverse as the economy improves. Thus far, increased rates of economic growth have not led to a significant increases in employment, but this is likely to change eventually. To the extent that lower take-up rates are the result of higher premiums and/or higher employee contributions, the lower likelihood of taking up employers' offers may be slower to change because the double-digit premium inflation of recent years is unrelated to the economic downturn. To the extent the market for low-wage workers remains depressed because of slow economic growth and global competition, increases in overall compensation are likely to be slow. If growth in health insurance premiums continues faster than the growth in wages, take-up rates among low-income populations, particularly those working in small firms, could remain depressed and possibly fall even further.

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Table 1. Changes in the Components of Employer-Sponsored Insurance Coverage Rates, 1999-2002 (percent)

	S	W	O	T	A	C
	Share of population	Share who work	Share with offer	Share who take up offer	Share with alt. ESI source ^a	ESI coverage
Survey Year: 1999						
1) Unmarried adults	26.8%	70.3%	70.8%	87.9%	13.7%	57.5%
2) Married adults	41.2%	85.1%	90.0%	92.9%	8.7%	79.9%
3) Dependent children	32.0%	76.7%	84.6%	86.5%	9.0%	65.1%
4) Total	100.0%	78.4%	83.7%	89.9%	10.2%	69.2%
Survey Year: 2002						
1) Unmarried adults	26.7%	68.9%	69.3%	86.2%	14.0%	55.2%
2) Married adults	41.7%	84.7%	89.9%	91.9%	8.3%	78.2%
3) Dependent children	31.6%	75.9%	84.3%	83.0%	8.9%	62.0%
4) Total	100%	77.7%	83.3%	88.0%	10.0%	66.9%
Change						
1) Unmarried adults	-0.1%	-1.4%	-1.5%	-1.7% *	0.3%	-2.3% **
2) Married adults	0.5%	-0.4%	-0.1%	-1.0% *	-0.4%	-1.7% **
3) Dependent children	-0.4% **	-0.8%	-0.3%	-3.5% **	-0.1%	-3.1% **
4) Total		-0.7%	-0.4%	-1.9% **	-0.1%	-2.2% **

Source: Urban Institute analysis of the 1999 and 2002 National Survey of America's Families (NSAF).

a. Alternative sources of ESI refers to those individuals who report having ESI coverage, but who do not have a current offer of coverage, either through their own or an observable family member's place of employment. This includes those with coverage through a former employer or a family member not present in the household.

* p -value between .05 and .1

** p -value less than or equal to .05

Table 2. Share of Change in Employer-Sponsored Insurance Attributable to Each Component (percent)

	DC	W	O	T	A	S
	ESI coverage	Share who work	Share with offer	Share who take up offer	Share with alt. ESI source^a	Share of population
1) Unmarried adults	-2.3%	38.4%	38.8%	35.8%	-13.0%	
2) Married adults	-1.7%	29.3%	-18.9%	68.5%	21.0%	
3) Dependent children	-3.1%	17.8%	5.7%	74.0%	2.4%	
4) Total	-2.2%	27.8%	7.2%	64.4%	4.2%	-3.6%

Source: Urban Institute analysis of the 1999 and 2002 National Survey of America's Families (NSAF).

a. Alternative sources of ESI refers to those individuals who report having ESI coverage, but who do not have a current offer of coverage, either through their own or an observable family member's place of employment. This includes those with coverage through a former employer or a family member not present in the household.

Table 3. Probability of Nonwork, Self-Employment, and Other Types of Work, 1999-2002
(percent)

	Nonwork	Self-employed	Other ^a	Total
Survey Year: 1999				
1) Unmarried adults	21.9%	7.2%	0.6%	29.7%
2) Married adults	6.3%	8.5%	0.2%	14.9%
4) Dependent children	15.4%	7.9%	0.0%	23.3%
Survey Year: 2002				
1) Unmarried adults	23.8%	7.0%	0.3%	31.1%
2) Married adults	7.3%	7.8%	0.2%	15.3%
4) Dependent children	16.4%	7.5%	0.2%	24.1%
Change				
1) Unmarried adults	1.9% **	-0.2%	-0.3% **	1.4%
2) Married adults	1.0% **	-0.7%	0.0%	0.4%
4) Dependent children	1.0%	-0.4%	0.2% *	0.8%

Source: Urban Institute analysis of the 1999 and 2002 National Survey of America's Families (NSAF).

a. "Other" includes those working temporarily or without pay. Such workers were not asked whether their employers offered health insurance.

* p -value between .05 and .1

** p -value less than or equal to .05

Table 4. Changes in the Components of Employer-Sponsored Insurance Coverage Rates, < 200% of the Federal Poverty Level, 1999-2002 (percent)

	S	W	O	T	A	C
	Share of population	Share who work	Share with offer	Share who take up offer	Share with alt. ESI source^a	ESI coverage
Survey Year: 1999						
1) Unmarried adults	31.6%	49.0%	50.0%	75.3%	13.2%	31.6%
2) Married adults	27.8%	67.2%	70.8%	77.8%	15.3%	52.3%
3) Dependent children	40.5%	64.9%	68.0%	67.5%	8.2%	38.0%
4) Total	100.0%	60.5%	64.2%	72.6%	11.7%	39.9%
Survey Year: 2002						
1) Unmarried adults	33.1%	45.2%	50.0%	70.6%	14.1%	30.1%
2) Married adults	27.7%	64.7%	66.0%	75.3%	13.6%	45.7%
3) Dependent children	39.2%	62.6%	65.2%	58.6%	8.5%	32.5%
4) Total	100%	57.5%	61.5%	66.8%	11.8%	35.3%
Change						
1) Unmarried adults	1.4% **	-3.7% **	0.0%	-4.7% **	0.9%	-1.5%
2) Married adults	-0.1%	-2.5%	-4.8% **	-2.5%	-1.7%	-6.6% **
3) Dependent children	-1.3% **	-2.3% **	-2.8% **	-8.9% **	0.4%	-5.5% **
4) Total		-3.1% **	-2.7% **	-5.8% **	0.0%	-4.6% **

Source: Urban Institute analysis of the 1999 and 2002 National Survey of America's Families (NSAF).

Note: Poverty thresholds reflect income in calendar years 1999 and 2002. See text for details.

a. Alternative sources of ESI refers to those individuals who report having ESI coverage, but who do not have a current offer of coverage, either through their own or an observable family member's place of employment. This includes those with coverage through a former employer or a family member not present in the household.

* p -value between .05 and .1

** p -value less than or equal to .05

Table 5. Share of Change in Employer-Sponsored Insurance Attributable to Each Component, < 200% of the Federal Poverty Level (percent)

	DC	W	O	T	A	S
	Share of population	Share who work	Share with offer	Share who take up offer	Share with alt. ESI source^a	ESI coverage
1) Unmarried adults	-1.5%	90.6%	-0.1%	74.2%	-64.7%	
2) Married adults	-6.6%	19.5%	36.6%	17.1%	26.9%	
3) Dependent children	-5.5%	17.2%	19.6%	70.0%	-6.9%	
4) Total	-4.6%	26.1%	24.2%	48.1%	0.6%	1.1%

Source: Urban Institute analysis of the 1999 and 2002 National Survey of America's Families (NSAF).

Note: Poverty thresholds reflect income in calendar years 1999 and 2002. See text for details.

a. Alternative sources of ESI refers to those individuals who report having ESI coverage, but who do not have a current offer of coverage, either through their own or an observable family member's place of employment. This includes those with coverage through a former employer or a family member not present in the household.

Table 6. Probability of Nonwork, Self-Employment, and Other Types of Work,
< 200% of the Federal Poverty Level, 1999-2002

	Nonwork	Self-employed	Other ^a	Total
Survey Year: 1999				
1) Unmarried adults	43.3%	6.9%	0.9%	51.1%
2) Married adults	20.1%	12.2%	0.5%	32.8%
4) Dependent children	25.8%	9.0%	0.3%	35.1%
Survey Year: 2002				
1) Unmarried adults	47.2%	7.1%	0.5%	54.8%
2) Married adults	23.8%	10.6%	0.8%	35.3%
4) Dependent children	28.6%	8.3%	0.5%	37.4%
Change				
1) Unmarried adults	3.9% **	0.1%	-0.4%	3.7% **
2) Married adults	3.7% **	-1.6%	0.4%	2.5%
4) Dependent children	2.8% **	-0.7%	0.2%	2.3% **

Source: Urban Institute analysis of the 1999 and 2002 National Survey of America's Families (NSA)

Note: Poverty thresholds reflect income in calendar years 1999 and 2002. See text for details.

a. "Other" includes those working temporarily or without pay. Such workers were not asked whether their employers offered health insurance.

* *p*-value between .05 and .1

** *p*-value less than or equal to .05

Table 7. Changes in the Components of Employer-Sponsored Insurance Coverage Rates,
= 200% of the Federal Poverty Level, 1999-2002 (percent)

	S	W	O	T	A	C
	Share of population	Share who work	Share with offer	Share who take up offer	Share with alt. ESI source^a	ESI coverage
Survey Year: 1999						
1) Unmarried adults	24.4%	83.9%	78.5%	90.8%	14.1%	73.9%
2) Married adults	47.8%	90.1%	94.1%	95.3%	6.9%	87.7%
3) Dependent children	27.8%	85.0%	93.6%	94.1%	9.6%	84.5%
4) Total	100.0%	87.2%	90.3%	94.0%	9.4%	83.5%
Survey Year: 2002						
1) Unmarried adults	23.7%	84.7%	76.3%	89.8%	14.0%	72.0%
2) Married adults	48.4%	90.2%	94.6%	94.2%	6.8%	87.1%
3) Dependent children	27.9%	84.9%	93.8%	91.4%	9.2%	82.0%
4) Total	100%	87.4%	90.2%	92.6%	9.2%	82.1%
Change						
1) Unmarried adults	-0.7%	0.8%	-2.3% *	-1.0%	-0.1%	-1.9%
2) Married adults	0.6%	0.1%	0.5%	-1.1% *	-0.1%	-0.6%
3) Dependent children	0.1%	-0.2%	0.2%	-2.7% **	-0.4%	-2.5% **
4) Total		0.2%	-0.1%	-1.5% **	-0.2%	-1.3%

Source: Urban Institute analysis of the 1999 and 2002 National Survey of America's Families (NSAF).

Note: Poverty thresholds reflect income in calendar years 1999 and 2002. See text for details.

a. Alternative sources of ESI refers to those individuals who report having ESI coverage, but who do not have a current offer of coverage, either through their own or an observable family member's place of employment. This includes those with coverage through a former employer or a family member not present in the household.

* *p*-value between .05 and .1

** *p*-value less than or equal to .05

Table 8. Share of Change in Employer-Shared Insurance Attributable to Each Component,
= 200% of the Federal Poverty Level (percent)

	DC	W	O	T	A	S
	ESI coverage	Share who work	Share with offer	Share who take up offer	Share with alt. ESI source^a	Share of population
1) Unmarried adults	-1.9%	-29.8%	90.3%	33.3%	6.2%	
2) Married adults	-0.6%	-9.3%	-70.3%	166.3%	13.3%	
3) Dependent children	-2.5%	6.0%	-7.1%	85.3%	15.8%	
4) Total	-1.3%	-8.9%	12.2%	91.0%	13.2%	-7.6%

Source: Urban Institute analysis of the 1999 and 2002 National Survey of America's Families (NSAF).

Note: Poverty thresholds reflect income in calendar years 1999 and 2002. See text for details.

a. Alternative sources of ESI refers to those individuals who report having ESI coverage, but who do not have a current offer of coverage, either through their own or an observable family member's place of employment. This includes those with coverage through a former employer or a family member not present in the household.

Table 9. Changes in the Components of Employer-Sponsored Insurance Coverage Rates, by Establishment Size, 1999-2002

	S	W			O			T			A	C
	Share of population	Share who work			Share with offer			Share who take up			Share with alt. ESI source^a	ESI coverage
		<i>Small</i>	<i>Large</i>	<i>Gov't</i>	<i>Small</i>	<i>Large</i>	<i>Gov't</i>	<i>Small</i>	<i>Large</i>	<i>Gov't</i>		
Survey Year: 1999												
1) Unmarried adults	26.8%	22.8%	37.4%	10.1%	53.9%	77.9%	82.5%	82.2%	88.9%	92.8%	13.7%	57.5%
2) Married adults	41.2%	16.2%	46.9%	22.0%	71.3%	93.7%	96.0%	93.2%	94.1%	87.7%	8.8%	79.9%
3) Dependent children	32.0%	17.0%	42.3%	17.4%	63.2%	89.5%	93.4%	76.1%	88.7%	88.5%	9.0%	65.1%
4) Total	100.0%	18.2%	42.9%	17.3%	63.0%	88.7%	93.1%	82.6%	91.3%	91.6%		69.2%
Survey Year: 2002												
1) Unmarried adults	26.7%	23.7%	34.0%	11.1%	49.0%	80.1%	79.6%	77.2%	87.9%	92.6%	14.0%	55.2%
2) Married adults	41.7%	16.6%	45.9%	22.2%	68.7%	94.6%	95.9%	92.2%	93.9%	83.5%	8.3%	78.2%
3) Dependent children	31.6%	17.5%	40.5%	17.9%	61.9%	89.9%	93.4%	68.5%	85.7%	86.5%	8.9%	62.0%
4) Total	100.0%	18.8%	41.0%	17.9%	60.1%	89.9%	92.4%	77.2%	90.2%	90.4%		66.9%
Change												
1) Unmarried adults	-0.1%	0.9% **	-3.4% **	1.0% *	-4.9% **	2.2%	-2.9%	-5.0% **	-1.0%	-0.2%	0.3%	-2.3% **
2) Married adults	0.5%	0.4%	-1.0%	0.2%	-2.6%	0.9%	-0.1%	-1.0%	-0.2%	-4.2% **	-0.5%	-1.7% **
3) Dependent children	-0.4% **	0.5%	-1.9% **	0.6%	-1.3%	0.4%	0.0%	-7.5% **	-3.0% **	-2.1%	-0.1%	-3.1% **
4) Total	0.0%	0.6%	-1.9% **	0.6%	-2.9% *	1.2% *	-0.7%	-5.4% **	-1.1% *	-1.2%		-2.2%

Source: Urban Institute analysis of the 1999 and 2002 National Survey of America's Families (NSAF).

Notes: Small firms are those with fewer than 25 workers. For two-earner families, if at least one earner is employed in government, all family members are categorized as government. Otherwise, if at least one worker is employed in a large establishment, all family members are categorized as large. All other individuals in working families are categorized as small.

a. Alternative sources of ESI refers to those individuals who report having ESI coverage, but who do not have a current offer of coverage, either through their own or an observable family member's place of employment. This includes those with coverage through a former employer or a family member not present in the household.

* *p*-value between .05 and .1

** *p*-value less than or equal to .05