

medicaid and the uninsured

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The Fraying Link Between Work and Health Insurance: Trends in Employer-Sponsored Insurance for Employees, 2000-2007

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Key Findings

Although most Americans continue to obtain their health insurance through employers, the percent of employees with employer-sponsored insurance (ESI) has fallen. Using data from the 2007 Health Tracking Household Survey and the 2000-01 and 2003 Community Tracking Study Household Surveys, this analysis examines the factors driving the decrease in ESI since 2000.

- **ESI coverage for employees declined steadily from 80.4% in 2000-01 to 75.7% in 2007.** Decreases were steepest among low-income employees (in families with incomes less than 200% of poverty)—falling from 53.0% to 40.8%.
 - *The percent of employees with access to ESI declined from 83.6% in 2000-01 to 80.5% in 2007, with most of the decrease occurring between 2000-01 and 2003. Access declined between 2000-01 and 2003 primarily due to a decrease in family income and employment shifts to jobs that often do not provide ESI, including part-time work and employment in small firms and certain industries like retail trade.*
 - *Between 2000-01 and 2007, ESI take up rates fell from 84.5% to 80.7%, with most of the decrease occurring after 2003. Between 2003 to 2007 employer offers of coverage continued to fall, but there was an offsetting shift of employees into jobs more likely to offer coverage. As such, declines in take-up account for a larger share of the decrease in ESI after 2003 than the earlier period.*
- **Between 2000-01 and 2007, the uninsured rate for employees increased from 12.8% to 14.9%, as ESI declines were not fully offset by increases in other types of coverage.** Even with some offsetting increases in Medicaid, the uninsured rate among low-income employees increased substantially from 33.5% in 2000-01 to 41.3% in 2007.
- **ESI rates also fell among children of employees, leading to an increase in the uninsured rate among low-income children with access to ESI.** ESI coverage for children of employees decreased from 73.4% in 2000-01 to 65.9% in 2007, with even sharper declines for low-income children. Increases in Medicaid and SCHIP coverage fully offset the decreases between 2000-01 and 2003. However, after 2003, the uninsured rate for low-income dependent children with access to ESI increased from 5.9% in 2003 to 11.5% in 2007, as their ESI losses were not fully replaced with Medicaid or SCHIP coverage.

ESI is likely to continue to decline as increasing premiums and the souring economy will likely lead more employers to drop coverage, and increasing unemployment and shifts to part-time and temporary work will reduce access to ESI. Additionally, employees will probably have greater challenges taking up ESI when it is available as they face increasing contribution amounts and growing strains on family budgets. In the absence of other affordable health coverage options, these trends can be expected to result in further growth in the number of uninsured employees.

INTRODUCTION

Most nonelderly Americans still obtain health insurance coverage through an employer. Nevertheless, the percent of nonelderly persons with ESI coverage has declined steadily during this decade, from 68.4 percent in 2000 to 62.2 percent in 2007 (Fronstin 2008). The decrease in ESI coverage during this decade represents a marked change from prior years. Between 1996 and 2000, ESI coverage increased due to strong economic growth, lower unemployment, and a tight labor market that made employers reluctant to either drop coverage or substantially increase employee cost-sharing, despite rapidly increasing premium costs (Reschovsky, Strunk, and Ginsburg 2006).

However, ESI coverage began declining after 2000 due to an economic downturn between 2001 and 2004 that saw rising unemployment, declining family incomes, and more workers moving into temporary work, part-time work, and other employment situations where health benefits were not provided (Reschovsky, Strunk, and Ginsburg, 2006). In addition, ESI premiums continued to increase much more rapidly than incomes, rising to an annual increase of 13.9 percent by 2003 and contributing to declines in both the percent of employers offering coverage and the percent of employees taking up available coverage (Claxton et al., 2007 and Clemans-Cope and Garrett 2006). Aggressive efforts by states to expand Medicaid and SCHIP coverage during this period were critical for offsetting some of the losses of ESI coverage for children, preventing increases in their uninsured rates.

ESI coverage continued to decline after 2003 despite improvements in the general economy and slower growth in health care costs. Both family incomes and employment increased after 2004 as the economic downturn of the preceding years gave way to stronger economic growth, albeit not at the high levels seen during the late 1990's (DeNavas-Walt, Proctor, and Smith 2007; Bureau of Labor Statistics 2007). In addition, annual increases in ESI premiums—while still rising faster than family incomes—decreased from the high of 13.9 percent in 2003 to 6.1 percent by 2007 (Claxton et al. 2007). Also, there was little or no growth in Medicaid and SCHIP enrollment between 2004 and 2006, as some states cut back on eligibility or imposed restrictions on program enrollment in order to contain rising program costs (Smith et al., 2008).

Despite these changes in the economic and policy environment, little is known about the reasons for the decrease in ESI coverage in recent years. Recent employer surveys indicate that employer offer rates declined between 2003 and 2007 (Claxton et al., 2007). However, surveys of employers do not capture the full story of how ESI availability and enrollment has changed for workers. First, with the increase in dual-worker families, there is more opportunity for a loss of ESI coverage through one employer to be offset by obtaining ESI coverage through a spouse's employer. In other words, the key issue is whether ESI coverage is available through any worker in the family.

Also, changes in the types of employment and employers can affect the availability of ESI coverage. For example, a decrease in "job quality" (i.e. more workers in lower-wage, temporary, or part-time work, and retail or service sector industries that don't offer ESI coverage) during the economic downturn in the earlier part of this decade contributed to a decrease in the availability of ESI coverage to workers (Reschovsky, Strunk, and Ginsburg 2006). By the same token,

stronger economic growth after 2003 may have led to an improvement in job quality and a higher percentage of workers with jobs that include health benefits, despite a declining percentage of employers who were offering coverage during this period.

Using data from three large nationally representative surveys, this report examines the decline in ESI coverage among employees and their dependent children between 2000-01 and 2007, comparing changes occurring between 2003 and 2007 with those occurring between 2000-01 to 2003. All three time points in the analysis take into account health benefits available at the employee's own job, as well as health benefits available at their spouse's job. The analysis also quantifies the extent to which decreases in ESI coverage during the current decade have resulted primarily from decreases in access to ESI coverage vs. decreases in take-up of ESI coverage, and whether this differs for the period before and after 2003. The implications of changes in ESI coverage on overall coverage of employees and their dependent children are also examined.

ABOUT THE ESTIMATES

The estimates in this report are based on analyses of the 2007 Health Tracking Household Survey, and the Community Tracking Study Household Surveys from 2000-01 and 2003. All three surveys are telephone-based surveys and include nationally representative samples of the civilian, noninstitutionalized population. Questionnaire design, survey administration, and the question wording of all measures in this study were virtually identical across the three surveys. Sample sizes of employees and their family members are about 44,000 for the 2000-01 survey, 32,000 for the 2003 survey, and 11,000 for the 2007 survey. The Appendix describes the data sources in more detail and provides key variable definitions and the methods used to derive estimates.

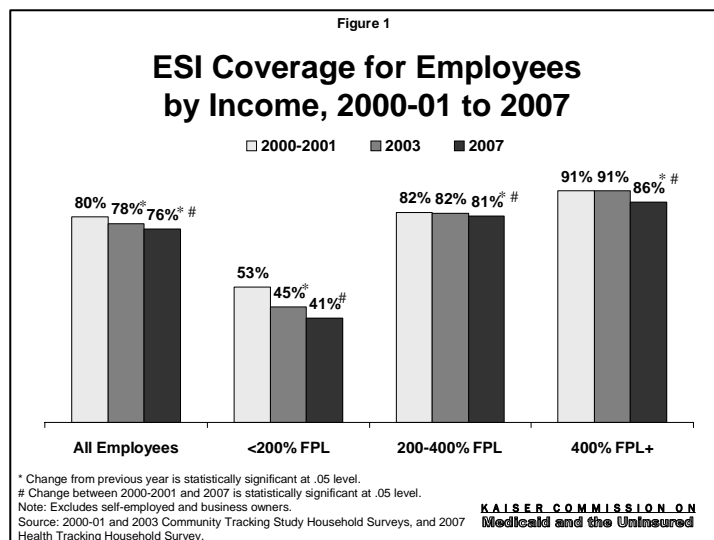
The estimates in this report are based on workers who are employed by business establishments or government agencies (hereafter referred to as employees). The analysis excludes self-employed workers and those who are owners of their own businesses. The surveys did not ask self-employed workers and owners whether ESI coverage was available at the workplace. Children include dependents of employees age 17 or under.

Estimates in this report include the percent of employees who are offered and eligible for ESI coverage through their or their spouse's employer and the percent who enroll or "take-up" ESI coverage offered through their or their spouse's employer. Estimates combine ESI offer and eligibility rates (referred to as access to ESI coverage), as the vast majority of those working for an employer who offers coverage are also eligible, and this did not change over the study period. The report also considers access to ESI for dependent children of employees. For dependent children, access to ESI coverage reflects whether one or both parents has access to ESI coverage through their job. ESI "take-up" reflects enrollment in ESI coverage available through either parent's job in the case of dependent children.

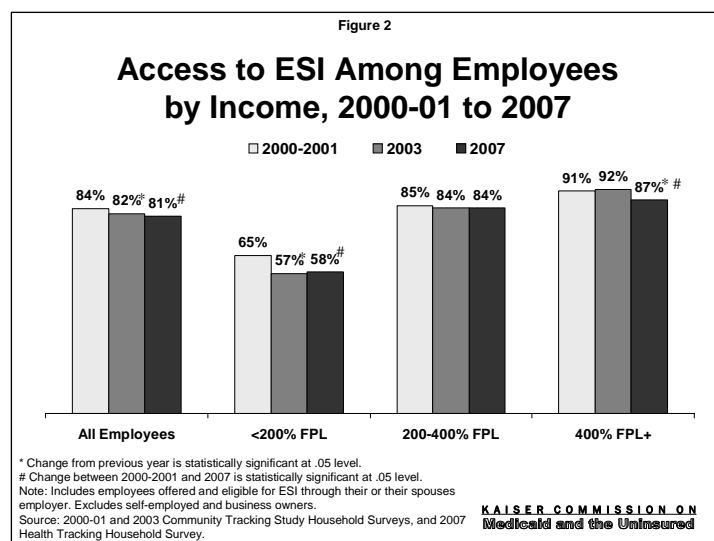
FINDINGS

Changes in ESI Coverage of Employees, 2000-01 to 2007

ESI coverage declined among employees throughout the study period. Among employees of firms, ESI coverage declined from 80.4 percent to 75.7 percent (Figure 1). The overall decrease in ESI coverage among employees is about evenly split between the 2000-01 to 2003 and the 2003 to 2007 period. ESI decreased across all family income levels, but the largest decreases were among low-income employees (with family incomes below 200% of poverty), falling from 53.0 percent in 2000-01 to 40.8 percent in 2007.



Decreases in access to ESI account for some of the decline in ESI coverage, especially during the earlier part of this decade. Overall, 80.5 percent of employees were offered and eligible for ESI coverage through their own job or their spouse's job in 2007 (Figure 2). This represents a decrease from 83.6 percent in 2000-01, with most of the decline occurring between 2000-01 and 2003. The decrease in access to ESI primarily occurred among low-income employees, who generally have much lower access to ESI coverage compared to higher income workers. Among low-income employees, the percent with access to ESI coverage decreased from 64.5 percent in 2000-01 to 57.7 percent in 2007, with all of the decrease occurring between 2000-01 and 2003.



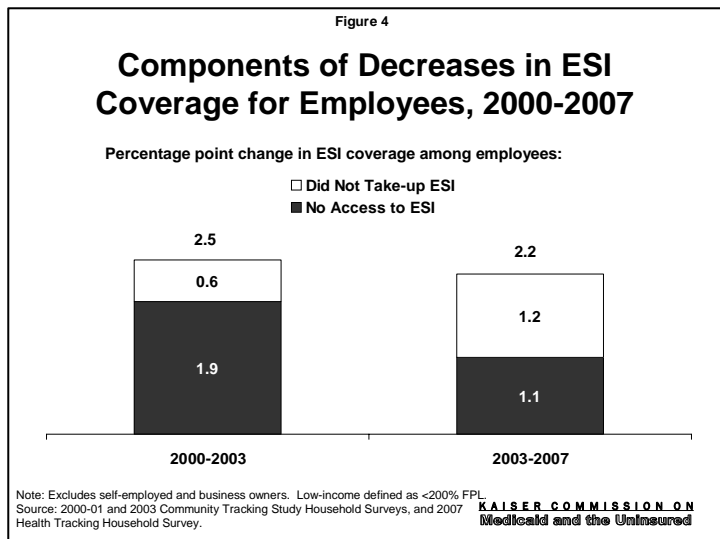
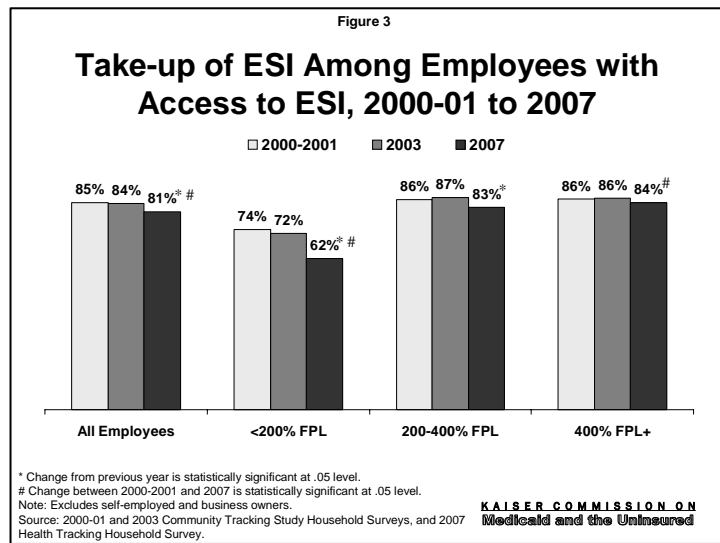
Decreases in ESI access reflect changes in income and employment characteristics. Further analysis (see Appendix Table 1) shows that changes in the characteristics of employees and their jobs primarily explain the decline in ESI access between 2000-01 and 2003. Specifically, there were decreases in family income and increases in job characteristics less favorable to ESI coverage between 2000-01 and 2003, including an increase in part-time jobs and employment in small firms. Part-time workers and those employed by smaller firms (e.g. less than 25 workers) are much less likely to be offered and eligible for ESI coverage.

By contrast, the lack of change in access to ESI coverage between 2003 and 2007 reflects changes in employee circumstances more favorable to ESI coverage, which offset a sharp decrease in the percentage of employers offering coverage to workers. Specifically, family incomes and the percent employed in larger firms increased between 2003 and 2007. Although these changes should result in an increase in employees with access to ESI, surveys of employers show a sharp decrease in the percentage of employers offering coverage to workers between 2003 and 2007 (Claxton et al., 2007). Thus, while fewer employers were offering coverage, there was no net change in the percentage of employees with access to ESI coverage because an increasing percentage of employees were moving into the types of jobs that tend to offer ESI.

ESI take-up rates declined, and accounted for a greater share of the decreases in ESI over the latter half of the study period. Among employees with access to ESI, take-up rates

declined from 84.5 percent in 2000-01 to 80.7 percent in 2007 (Figure 3). The decline in ESI take-up was even greater for low-income employees, from 73.6 percent to 61.8 percent. Declines in take-up account for a larger share of the decrease in ESI coverage after 2003 than the earlier period. About half of the 2.2 percentage point decline in ESI coverage between 2003 and 2007 was due to declines in take-up, with fall offs in ESI access accounting for the other half (Figure 4). This contrasts with the period between 2000-01 and 2003, where decreases in ESI access accounted for 1.9 of the 2.5 percentage point decrease in ESI coverage (or 76 percent).

The differences before and after 2003 are even sharper for low-income employees (Table 1). Between 2003 and 2007, the decrease in ESI take-up accounted for all of the 4.3 percentage point decrease in ESI coverage. Between 2000-01 and 2003, decreases in ESI access accounted for all of the 7.9 percentage point decrease in coverage.



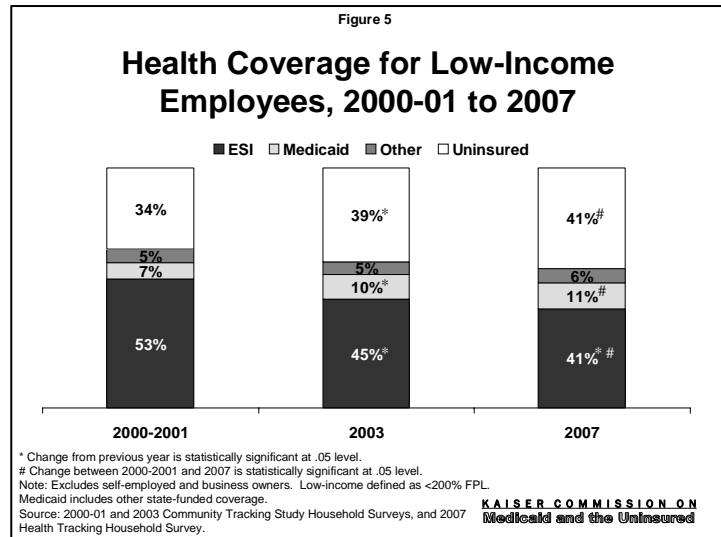
**Table 1:
Source of Decrease in ESI Coverage Among Employees, 2000-01 to 2007**

	Percent of employees			Percentage point change		
	2000-01	2003	2007	2000-01 to 2003	2003 to 2007	2000-01 to 2007
All employees						
Enrolled in ESI coverage	80.4	77.9	75.7	-2.5	-2.2	-4.7
Not enrolled, no access to ESI	13.1	15.0	16.1	1.9	1.1	3.0
Not enrolled, has access to ESI	6.5	7.1	8.2	0.6	1.2	1.8
Low income employees						
Enrolled in ESI coverage	53.0	45.1	40.8	-7.9	-4.3	-12.2
Not enrolled, no access to ESI	33.0	40.9	40.6	7.9	-0.3	7.6
Not enrolled, has access to ESI	14.0	14.0	18.6	0	4.6	4.6

Source: 2000-01 and 2003 Community Tracking Study Household Surveys, and 2007 Health Tracking Household Survey.

Increases in other coverage did not fully offset the decreases in ESI coverage, resulting in an increase in the uninsured rate for employees. Small increases in other types of health insurance coverage between 2000-01 and 2007 offset some, but not all of the decrease in ESI coverage among employees. As a result, the percentage of employees who were uninsured increased from 12.8 percent in 2000-01 to 14.9 percent in 2007, with most of the increase occurring prior to 2003 (Table 2). Among those with access to ESI coverage, however, the increase in the percent uninsured was not statistically significant.

Among low-income employees, increases in Medicaid and other state coverage between 2000-01 and 2003 offset some of the much larger decrease in ESI coverage. Nevertheless, the percent of low-income employees who were uninsured increased substantially, from 33.5 percent in 2000-01 to 41.3 percent in 2007 (Figure 5). Among low-income employees with access to ESI coverage, the decrease in ESI take-up rates between 2003 and 2007 resulted in a large increase in the percent uninsured.



**Table 2:
Health Insurance Coverage of Employees, 2000-01 to 2007**

	2000-01	2003	2007
All employees (age 18-64)			
% ESI coverage	80.4	77.9*	75.7+##
% nongroup coverage	2.2	2.4	2.7
% Medicaid/state coverage	1.9	2.9*	2.8#
% other coverage	2.2	2.4	3.2#
% uninsured	12.8	14.1*	14.9#
Low-income employees			
% ESI coverage	53.0	45.1*	40.8*##
% nongroup coverage	2.7	2.0*	2.7
% Medicaid/state coverage	6.7	10.0*	10.9#
% other coverage	2.7	3.4	3.1
% uninsured	33.5	38.8*	41.3#
All employees with access to ESI			
% ESI coverage through own or spouse's job	84.5	84.2	80.7*##
% other private coverage	8.6	8.0	10.7*
% with Medicaid, state or other coverage	2.5	3.1	3.4
% uninsured	4.4	4.7	5.2
Low-income employees with access to ESI			
% ESI coverage through own or spouse's job	73.6	71.9	61.8*##
% other private coverage	6.3	5.1	8.7*
% with Medicaid, state, or other coverage	5.6	7.7	9.4#
% uninsured	14.5	15.3	20.1+

*Change from previous year is statistically significant at .05 level.

#Change between 2000-01 and 2007 is statistically significant at .05 level.

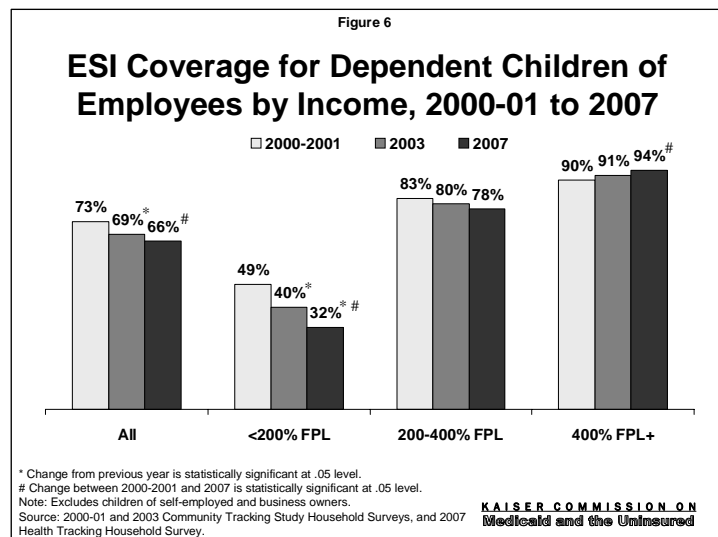
Low-income defined as less than 200% of the federal poverty level.

Analysis excludes self-employed workers and their families.

Source: 2000-01 and 2003 Community Tracking Study Household Surveys, and 2007 Health Tracking Household Survey.

Changes in ESI Coverage for Dependent Children of Employees

ESI coverage also fell among dependent children of employees due to declines in both ESI access and take-up rates. ESI coverage among dependent children of employees decreased from 73.4 percent in 2000-01 to 65.9 percent in 2007, with even sharper declines for low income children (Figure 6). Both ESI access and take-up rates declined for children during the study period (Table 3). The declines in ESI access and take-up were somewhat more evenly distributed throughout the study period compared to employees. This was especially the case for low-income



children of employees. While access to ESI coverage for low-income employees was unchanged between 2003 and 2007, it decreased from 71.1 percent to 63.6 percent for low income children.¹ Also, while there was little change in ESI take-up among employees between 2000-01 and 2003, ESI take-up rates declined from 65.9 percent in 2000-01 to 57.4 percent in 2003 for low income children.

**Table 3:
ESI Access, Take-up, and Coverage Among
Dependent Children of Employees, 2000-01 to 2007**

	2000-01	2003	2007
All dependent children			
% with access to ESI coverage	88.1	86.6+	84.0#
% ESI take-up	83.9	80.6*	79.4#
% with ESI coverage	73.9	69.8.*	66.7+#
Low income dependent children			
% with access to ESI coverage	74.8	71.1*	63.6*#
% ESI take-up	65.9	57.4*	50.6#
% with ESI coverage	49.3	40.8*	32.2*#

*Change from previous year is statistically significant at .05 level.

+Change from previous year is statistically significant at .10 level.

#Change between 2000-01 and 2007 is statistically significant at .05 level.

Source: 2000-01 and 2003 Community Tracking Study Household Surveys, and 2007 Health Tracking Household Survey.

Of the 7.2 percentage point decline in ESI coverage among children between 2000-01 and 2007, the share attributed to decreases in ESI access and take-up rates was about evenly split (Table 4). Among low-income children, about 63 percent of the decline in ESI coverage was due to declines in ESI access rates (10.7 of the 17.1 percentage point decline). As with employees, declines in ESI access rates accounted for a larger share of the decrease in coverage between 2000-01 and 2003, while decreases in take-up rates were more important in the later period.

**Table 4:
Source of Decrease in ESI Coverage Among Dependent Children of Employees, 2000-01 to 2007**

	Percent of children			Percentage point change		
	2000-01	2003	2007	2000-01 to 2003	2003 to 2007	2000-01 to 2007
All dependent children						
% enrolled in ESI coverage	73.9	69.8*	66.7#	-4.1	-3.1	-7.2
% not enrolled, no access to ESI	12.5	14.6*	16.0#	2.1	1.4	3.5
% not enrolled, has access to ESI	13.7	15.6*	17.4*#	1.9	1.8	3.7
% employee enrolled in ESI	7.4	8.8	8.5	1.4	-0.3	1.1
% employee not enrolled in ESI	6.3	6.8	8.9#	0.5	2.1	2.6
Low income dependent children						
% enrolled in ESI coverage	49.3	40.8*	32.2*#	-8.5	-8.6	-17.1
% not enrolled, no access to ESI	26.3	32.7*	37.0#	6.4	4.3	10.7
% not enrolled, has access to ESI	24.4	26.4*	30.9*#	2.0	4.5	6.5

*Change from previous year is statistically significant at .05 level.

+Change from previous year is statistically significant at .10 level.

#Change between 2000-01 and 2007 is statistically significant at .05 level.

Source: 2000-01 and 2003 Community Tracking Study Household Surveys, and 2007 Health Tracking Household Survey.

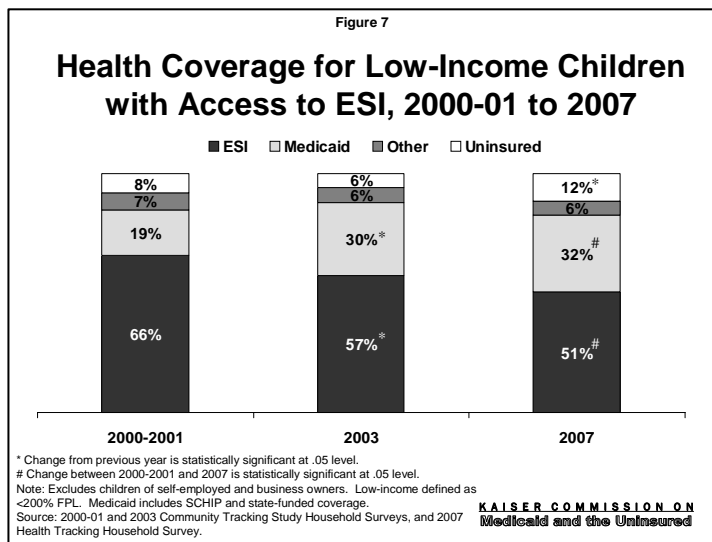
¹ The discrepancy in trends between employees and dependent children in part reflects an increase in the percentage of employees without children, which offset a decrease in ESI access rates among employees with children.

Further analysis shows that about three-fourths of the decline in ESI take-up rates between 2000-01 and 2003 was due to family workers dropping ESI coverage for dependents but maintaining it for themselves (i.e., 1.4 of the 1.9 percentage point increase in children with ESI access but not enrolled occurred among children with a parent still enrolled in ESI). The remaining one-fourth was due to declines in family coverage (i.e. both worker and children not enrolled in ESI coverage they had access to). However, between 2003 and 2007, declines in family coverage accounted for all of the decline in ESI take-up rates for children.

That ESI coverage increasingly declined for the entire family likely reflects the fact that family ESI coverage became increasingly unaffordable over the period. Between 2000 and 2007, the average employee share of premiums for both employee-only and family coverage more than doubled, with employee-only coverage increasing from \$334 to \$694, and family coverage increasing from \$1,619 to \$3,281 (Claxton, et al., 2007). Although the rate of increase was similar for both employee-only and family plans, the absolute cost of family coverage likely became prohibitively expensive for many families during the later years.

Recent declines in ESI for children were not offset by increases in Medicaid/SCHIP, resulting in an increase in the uninsured rate among low-income children with access to ESI.

In contrast to the period prior to 2003, the decrease in ESI coverage among low-income children of employees between 2003 and 2007 was not offset by a corresponding increase in Medicaid/SCHIP coverage (Table 5). Among low-income children with access to ESI coverage, this resulted in an increase in the percent uninsured, from 5.9 percent in 2003 to 11.5 percent in 2007 (Figure 7). This contrasts dramatically with the period between 2000-01 and 2003, when sharp declines in ESI among low-income children were offset by equally large increases in Medicaid and SCHIP, resulting in no statistically significant change in the percent uninsured.



During the earlier period between 2000-01 and 2003, many states were still moving forward with steps to expand their Medicaid and SCHIP programs, enabling the programs to enroll children losing ESI coverage who would otherwise become uninsured. This included children losing access to ESI as well as some children no longer taking-up ESI who transitioned from private to public coverage (otherwise known as “crowd-out”) (Davidson, Blewett, Thiede-Call 2004). As noted, employee contribution amounts for family ESI coverage became increasingly expensive over the period, making it increasingly difficult for families, particularly low-income families, to take-up coverage even when it was available.

However, after 2003, states began cutting back on their Medicaid and SCHIP programs as a result of escalating program costs that were creating financial pressures on state budgets. Many states reduced eligibility levels, implemented more stringent eligibility requirements and enrollment procedures, and began requiring some enrollees to pay monthly premiums or fees (Smith et al., 2008). States began to restore program cutbacks and resumed a focus on expanding coverage in 2006 and 2007, but Medicaid and SCHIP were not able to fully offset losses in ESI, resulting in an increase in low-income uninsured children with access to ESI between 2003 and 2007.

**Table 5:
Health Insurance Coverage of Dependent Children of Employees, 2000-01 to 2007**

	2000-01	2003	2007
All children (<age 18)			
% ESI coverage	73.4	68.6*	65.9#
% nongroup coverage	1.4	2.0	2.3
% Medicaid/state coverage	12.6	19.2*	19.2#
% other coverage	3.0	3.4	3.5
% uninsured	7.5	6.5	7.1
Low-income children			
% ESI coverage	49.0	40.0*	32.1*#
% nongroup coverage	1.3	1.3	2.2
% Medicaid/state coverage	28.7	43.3*	43.5#
% other coverage	3.9	4.3	4.8
% uninsured	13.9	11.1	14.5
All children with access to ESI			
Percent ESI take-up	83.9	80.6*	79.4#
Percent with other private coverage	2.2	1.5	3.0*
Percent with Medicaid/state coverage	7.1	10.8*	10.8#
Percent with other coverage	2.8	3.4	2.3
Percent uninsured	4.0	3.6	4.5
Low-income children with access to ESI			
Percent ESI take-up	65.9	57.4*	50.6#
Percent with other private coverage	2.8	1.0*	3.2
Percent with Medicaid/SCHIP coverage	18.9	30.4*	32.0#
Percent with other coverage	4.3	5.3	2.7
Percent uninsured	8.2	5.9	11.5*

*Change from previous year is statistically significant at .05 level.

#Change between 2000-01 and 2007 is statistically significant at .05 level.

+Change between 2000-01 and 2007 is statistically significant at .10 level.

Source: 2000-01 and 2003 Community Tracking Study Household Surveys, and 2007 Health Tracking Household Survey.

Discussion

Despite improvements in the economy between 2003 and 2007, ESI coverage continued to decline for employees and their family members. As in the past, declines in ESI coverage were most dramatic for low-income employees. As a result of the steady decrease in ESI coverage during this decade, the percentage of employees who are uninsured increased.

While declines in ESI coverage between 2000 and 2003 were due primarily to fewer employees having access to ESI coverage, decreases in take-up of ESI played a more important role in the period after 2003. The relative roles of changes in access and take-up rates on ESI declines over the study period is largely driven by employment shifts, with more employees moving into jobs less likely to offer ESI in the earlier part of the decade, and fall-offs in employer offers of coverage being offset by positive employment shifts between 2003-2007. Further, the distinctions of the relative impacts of changes in access and take-up rates may mask growing affordability problems for employees over the entire time period. Between, 2000 and 2007, the average employee annual share of premiums for both employee-only and family coverage more than doubled, with employee-only coverage increasing from \$334 to \$694 and family coverage increasing from \$1,619 to \$3,281 (Claxton et al., 2008).

Since the period of study for this report, economic conditions in the U.S. have worsened considerably, including much slower economic growth; rising unemployment, fuel costs and other inflation; and a home foreclosure and financial market crisis. As in prior periods of slow economic growth or recession, ESI coverage is likely to continue to decline due to a combination of increasing unemployment, as well as increases in part-time and temporary work, and other jobs less likely to include health benefits (Dorn et al., 2008). Further, as both employers and workers face rising expenses related to fuel and other costs as well as stagnant or declining revenue and incomes, they may be increasingly unable to afford ESI coverage. While annual increases in health care and private health insurance costs are unlikely to return to the double-digit levels experienced earlier in the decade, they are nevertheless expected to continue to exceed GDP and general inflation (CMS 2008).

Some of the decreases in ESI may be offset by recent state initiatives to expand coverage. The most far-reaching of these is the move towards universal coverage in Massachusetts, as well as efforts to expand Medicaid and SCHIP coverage to all children in Illinois through the "All Kids" program. However, state efforts can only go so far in covering the uninsured, particularly given the impact of the economic downturn on state budgets. Further, the failure of SCHIP reauthorization and recent Administrative policies that restrict the use of federal funds to expand coverage also limit states' ability to offset continuing losses in ESI coverage.

In the absence of broader national health reform, these trends will likely lead to increasing numbers of uninsured. The link between work and insurance coverage will be a critical component of any national debate over health care reform. The fraying link between coverage and work is unlikely to be repaired on its own, and action is becoming increasingly necessary to halt and reverse the continued erosion in coverage.

APPENDIX

Description of data sources

The estimates in this report are based on analyses of the 2007 Health Tracking Household Survey, and the Community Tracking Study Household Surveys from 2000-01 and 2003. All three surveys were sponsored by the Robert Wood Johnson Foundation and conducted by the Center for Studying Health System and Mathematica Policy Research, Inc. All three surveys are telephone-based surveys and include nationally representative samples of the civilian, noninstitutionalized population. Questionnaire design, survey administration, and the question wording of all measures in this study were virtually identical across the three surveys. Sample sizes of employees and their family members are about 44,000 for the 2000-01 survey, 32,000 for the 2003 survey, and 11,000 for the 2007 survey.

The 2007 survey included important sample design changes from the earlier surveys that are accounted for in this report. Most notably, the samples for the 2000-01 and 2003 surveys were based on samples in 60 randomly selected communities, while the 2007 survey was based on a strictly random sample of the nation. These differences in sample design are reflected primarily in differences in the construction of survey weights and standard errors of the estimates. Survey weights and standard errors of the estimates for the 2000-01 and 2003 surveys – while designed to be nationally representative -- take into account the complex survey design, i.e. the clustering of the sample into 60 sites, a feature that was not required for the 2007 survey. The impact of the “design effect” due to the clustered samples in the 2000-01 and 2003 surveys is to reduce the “effective” sample size of the surveys, i.e. resulting in larger standard errors and less precise estimates than would be the case in a simple random sample. Since there is no design effect due to the clustered sample for the 2007 survey, differences in “effective” sample sizes between the 2007 survey and the earlier surveys are considerably smaller than indicated by the large differences in nominal sample sizes.

The other change in sample design is that the 2000-01 and 2003 surveys included a field component to provide coverage of people in households that did not have landline telephones or that had substantial interruptions in telephone service. For reasons of cost, the field sample was limited to 12 “case study” communities, and the construction of survey weights for national estimates adjusted for the absence of a field sample in the other 48 communities (based on information obtained from RDD respondents concerning significant disruptions in their phone service in the prior 12 months). The 2007 survey included no field sample, which would be prohibitively expensive for a random sample of the nation. Because the percentage of households without landline telephones has been increasing rapidly during this decade (due to an increasing number with cell-phones only), survey weights for 2007 were post-stratified to population totals from the 2006 National Health Interview Survey, which includes detailed information on households without landline telephones, as well as the Current Population Survey.

Survey weights in all three surveys were also post-stratified to account for survey nonresponse based on age, sex, race/ethnicity, and education. As with all surveys using random-digit-dialing methods, survey response rates declined during the study period, from about 56 percent in the 2000-01 survey to 43 percent in the 2007 survey. Much of the decline in survey response rates

between the 2007 survey and earlier surveys reflects a change in sample design, specifically in that part of the samples for the 2000-01 and 2003 surveys that included respondents from prior rounds, which typically have higher response rates than respondents who are new to the survey. By contrast, the sample for the 2007 survey included only new sample, and did not include respondents interviewed in prior rounds. Although the decline in survey response rates increases the concern about “coverage bias”, and that changes in estimates between the 2007 survey and earlier rounds may reflect an increase in coverage bias rather than actual changes, methodological studies on earlier rounds of the survey indicates that coverage bias is not increasing along with the decline in response rates (Carlson and Strouse, 2005). In addition, estimates of health insurance coverage for the 2007 survey are very similar to the 2007 National Health Interview Survey.

Definition of key measures

Health insurance coverage. All measures of health insurance coverage in this report (including ESI coverage) reflect coverage on the day of the interview.

ESI offer, eligibility, access, and take-up. For survey respondents who reported that they or other family members had ESI coverage, followup questions ascertained whether this coverage was obtained through a current employer. For nonelderly persons who were employed but did not have ESI coverage, questions ascertained whether their employer offered coverage to any employees, and whether they were eligible to receive such coverage.

ESI “offer” rates reflect the percentage of employees who work at a firm that offers health benefits to at least some its employees. ESI “eligibility” reflects whether employees themselves are eligible for health benefits, if offered by the employer. ESI “access” is defined as employees offered and eligible for coverage through their own employer, or through the employer of a spouse. For dependent children, ESI access reflects whether either or both parents are offered and eligible for coverage at their place of work. Estimates of ESI “take-up” are based on employees (and dependents) being enrolled in ESI coverage they are offered and eligible for.

Explaining changes in offer rates/eligibility rates among employees

Additional analysis examined the reasons for the decline in ESI offer rates among employees between 2000-01 and 2003, as well as the lack of change between 2003 and 2007. Prior research has shown that employees are much less likely to be offered and eligible for ESI coverage if they are lower wage or lower income; work part-time vs. full-time; in a small private firm vs. larger firms or government employment; and in certain “low ESI coverage” industries, such as agriculture, construction, retail trade, and parts of the service sector.

Related to the economic downturn between 2000-01 and 2003, job characteristics less favorable to ESI coverage increased, including an increase in part-time vs. full-time work; more employees in small firms and fewer in the largest firms (1000 or more workers); and an increase in employees in “low ESI coverage” industries (Appendix Table 1). Also related to the economic downturn was a decline in family income. Between 2000-01 and 2003, the percent of employees in low income families (less than 200% of family income) increased from 19.7 percent to 22

percent, while the percent in moderate income families (between 200-400 percent of poverty) decreased from 33.2 percent to 31 percent.

However, the increase in jobs that are less favorable to ESI coverage halted after 2003, and more favorable trends developed as the economy strengthened. Most notably, more employees were in higher income families (400% of poverty or higher) in 2007 compared to 2003, and fewer were in moderate income families. Also, the share of employees in the smallest firms decreased, while the percent in government and larger firms (more than 100 workers) increased.

To account for changes in characteristics of workers and their jobs in explaining changes in ESI offer/eligibility rates, OLS regression analyses were conducted using pooled samples from the three surveys. Pooled samples of employees from the 2000-01 and 2003 surveys were used in regression analysis to examine changes in offer/eligibility rates between 2000-01 and 2003, while pooled samples from the 2003 and 2007 surveys were used to examine changes in offer/eligibility rates between 2003 and 2007.

The dependent variable in each of the regressions is the probability of an employee being offered and eligible for ESI coverage through their own job. Independent variables in the analysis include type of employment (part-time, full-time, multiple jobs), firm type and size, industry, family income, educational attainment, age, gender, race/ethnicity, family type (single person, married, no kids, family with children), has spouse offered/eligible for ESI coverage, metro vs. nonmetro, census region. In addition, binary variables indicating survey year are included. The coefficients for the measures of survey year essentially reflect the “adjusted change” in ESI offer/eligibility rates, controlling for changes in all other variables in the model.

Accounting for these and other changes in employee characteristics explains virtually all of the change – as well as the lack of change – in ESI availability between 2000-01 and 2007. While the actual decrease in ESI offer/eligibility rates among employees was 3.3 percentage points between 2000-01 and 2003, accounting for changes in employee and job characteristics reduces the change in ESI offer/eligibility rates to 0.7 percent, a change that is not statistically significant (Appendix Table 2). These results suggest that virtually all of the decline in the availability of ESI coverage to employees between 2000-01 and 2003 was the result of changes in job characteristics—likely related to the economic downturn during this period—rather than employer actions to reduce their offerings to employees.

In contrast, while the actual decrease in ESI offer/eligibility rates between 2003 and 2007 was only 0.4 percent (and not statistically significant), accounting for the more favorable changes in employee and job characteristics during this period resulted in a decrease of 2 percentage points in the ESI offer/eligibility rate, a change that is statistically significant. These results suggest that ESI offer/eligibility rates would have declined between 2003 and 2007 if not for the strengthening of the economy during this period, and the improvement in incomes and other job characteristics favorable to ESI coverage.

**Appendix Table 1:
Changes in Job Characteristics of Employees, Ages 18-64, 2000-01 to 2007**

	2000-01	2003	2007
All employees			
Family income relative to poverty			
Less than 200% of poverty	19.7	22.0*	20.1
200-400% of poverty	33.2	31.0	25.8*#
400% of poverty and higher	47.1	47.0	54.2*#
Type of employment			
% one job, full time	76.3	74.4*	74.4#
% one job, part-time	11.8	14.5*	14.0#
% multiple jobs	11.9	11.0	11.5
Type of employer			
% government	18.2	18.6	20.2#
% private, LT 25 workers	18.4	20.5*	18.3*
% private, 25-99 workers	12.8	12.5	14.0
% private, 100-249 workers	8.6	8.9	8.8
% private, 250-999 workers	9.6	9.4	10.1
% private, 1000+ workers	32.4	30.1*	28.6*#
Industry			
% Low ESI coverage firms	28.1	29.2	30.0#
% High ESI coverage firms	71.9	70.8	70.0#
Low income employees			
Type of employment			
% one job, full time	69.0	66.0	69.0
% one job, part-time	19.6	24.2*	21.8
% multiple jobs	11.4	9.8	9.2
Type of employer			
% government	15.0	14.2	14.1
% private, LT 25 workers	28.9	33.8*	28.7
% private, 25-99 workers	15.4	15.3	18.1
% private, 100-249 workers	8.2	8.2	8.9
% private, 250-999 workers	8.8	7.2	12.3*
% private, 1000+ workers	23.7	21.4	18.0
Industry			
% Low ESI coverage firms ¹	40.6	44.1	48.5#
% High ESI coverage firms ²	59.4	55.6	51.5#

¹Low ESI coverage industries include agriculture, forestry, fishing, construction, retail trade, and personal, business and repair services.

²High ESI coverage industries include all industries not counted as "low ESI coverage".

*Change from previous year is statistically significant at .05 level.

#Change between 2000-01 and 2007 is statistically significant at .05 level.

Source: 2000-01 and 2003 Community Tracking Study Household Surveys, and 2007 Health Tracking Household Survey.

**Appendix Table 2:
Changes in the Percent of Employees with Access to ESI Between 2000-01 and 2007,
Adjusted for Changes in the Characteristics of Workers and their Jobs**

	Change in Percent Offered and Eligible for ESI	
	2000-01 to 2003	2003 to 2007
All employees		
Unadjusted change	-3.3*	-0.4
Adjusted change	-0.7	-2.0*

*Change is statistically significant at .05 level.

Estimates of adjusted change based on OLS regression, with the probability of being offered/eligible for ESI coverage through own job as the dependent variable, and the following independent variables: Type of employment (part-time, full-time, multiple jobs), firm type and size, industry, family income, educational attainment, age, gender, race/ethnicity, family type (single person, married, no kids, family with children), has spouse offered/eligible for ESI coverage, metro vs. nonmetro, census region.

Source: 2000-01 and 2003 Community Tracking Study Household Surveys, and 2007 Health Tracking Household Survey.

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