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Trends in Racial Inequality and Exposure to Work-related Hazards, 1968–1986

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THE ISSUE OF RACIAL DIFFERENCES IN EXPOSURE to risk of work-related injury and illness lies at the juncture of two important areas of public policy: equal employment opportunity and occupational health. While emanating from the same general spirit of social reform, public programs in the areas of equal opportunity and occupational health have evolved independently of each other. The goal of affirmative action and equal opportunity programs since the 1960s has been to increase employment and occupational advancement of minorities and women, with occupational advancement measured largely in terms of wages received rather than working conditions faced. The target of occupational health policy since 1970 has been improvement in working conditions, without undue concern for the demographic mix of workers employed in particular jobs. The potential gains for both sets of objectives from collaboration among equal opportunity and occupational health programs were evident from the beginning: racial differences in risk of injury and illness were at least as great as racial differences in earnings. Improved working conditions in the riskiest occupations would thus lead to a narrowing of overall racial differences in job market opportunity.

This article examines trends in the risk of work-related injury and acute illness of blacks relative to whites from the late 1960s to the mid-1980s. Large files on individual workers from the U.S. Census Bureau's Current Population Survey are used to calculate ratios of

black to white injury risks, both in absolute terms and after controlling for racial differences in education and potential work experience. A single cohort of approximately 4,000 workers was tracked over the 1971 to 1984 period to obtain insights into the experiences faced by particular black and white workers over the course of their working lives. The findings are quite mixed, with a convergence being observed in injury rates for black and white men but a slight divergence being observed for black and white women. Since injury rates as a whole were rising over most of this period, these various trends in racial risk ratios were accompanied by an absolute increase in risk of injury for both blacks and whites. The article concludes with a discussion of the implications of these findings for policy initiatives in equal opportunity and occupational health.

Equal Opportunity and Occupational Health

Trends in racial inequality with respect to work-related injuries and illness can be expected to reflect the influence of policy initiatives in the areas of equal opportunity and occupational health. They will also reflect the underlying dynamics in the economy, particularly changes in technology and changes in labor force participation. Before discussing the available evidence on the effects of these factors on employment and working conditions in general, it will be useful to examine the point of departure: relative hazard exposure levels for blacks and whites in the 1960s.

There exists one published study that examines the distribution of black and white workers across jobs with different types of working conditions in the 1960s. Using data on 28,135 workers from the 1967 Survey of Economic Opportunity, Lucas (1974) computed proportions of sampled black and white men and women who were employed in occupations containing safety or health hazards. The measures of working conditions were derived from the *Dictionary of Occupational Titles*, which is based on job-site reviews by job evaluators (who generally lack formal training in safety engineering and industrial hygiene). Among men, blacks were found to face a 29 percent greater chance than whites of facing safety hazards and a 64 percent greater chance of facing health hazards. Among women, blacks were found to face a 106 percent greater chance than whites of facing safety

hazards and a 91 percent greater chance of facing health hazards. These figures exceed the race-related differences in earnings levels during this period (Freeman 1973).

Given the complex mixture of events influencing the labor market in the 20 years since Lucas's data were collected, it still is not possible to postulate the magnitude or even direction of change in relative exposure levels. Equal opportunity and affirmative action programs aimed at increasing employment of minorities and women in firms with federal contracts, and also at improving their chances for promotion and occupational advancement. The criterion for judging occupational advancement was generally improvements in wages; the relation between this job characteristic and the risk the job poses to worker safety and health is not obvious. Economists tend to argue that jobs with hazardous working conditions pay extra high wages (Thaler and Rosen 1975; Viscusi 1978); to the extent hazard pay is an important factor in the labor market, improvements in wage rates might signify a deterioration in working conditions. The bulk of the statistical evidence, however, indicates that hazardous occupations are generally low- rather than high-wage positions, due mainly to the low levels of education and on-the-job training they require (Robinson 1986). If equal opportunity and affirmative action programs were, in fact, successful in narrowing racial differences in wage rates, they would probably exert an indirect salutary impact on relative levels of exposure to injury and illness.

The impact of equal opportunity and affirmative action on the distribution of employment and wages has been the subject of a large number of studies. This literature indicates that, after a weak initial period in the late 1960s, governmental programs have been remarkably successful in achieving their stated goals. Employment of minorities and women has increased substantially faster at firms subject to federal regulations than in unregulated firms (Brown 1982; Leonard 1985). Within-firm occupational advancement has also been more rapid in regulated than in comparable unregulated firms (Leonard 1984). The magnitude of these effects appears generally to have been stronger for minorities than for women. The relatively poor performance of these programs in improving the job prospects for white women relative to white men is probably due to the substantial increase in labor force participation among women during this period.

The evidence on the effectiveness of governmental efforts to reduce occupational injuries and illnesses is substantially weaker. Studies

using data from the early years of the Occupational Safety and Health Administration's programs find either no effect or only small effects (Smith 1979; Viscusi 1979; Mendeloff 1979). The most recent study, which uses data from the late 1970s and early 1980s, finds OSHA to have exerted a statistically significant though modest-sized reduction in disabling injury rates in the manufacturing sector (Viscusi 1986). Any tendency for OSHA's efforts to reduce injury rates in the firms inspected for standards violations over the past 15 years has been swamped, however, by long-standing and powerful trends toward increasing injury rates. Injury rates in manufacturing rose rapidly during the 1960s (thereby contributing to the enactment of federal policy initiatives) and continued to do so throughout most of the 1970s. Injury rates dropped precipitously during the first years of the 1980s, when the recession of 1981–1982 reduced employment in hazardous industries. They began rising again in 1984 (Robinson 1988). No studies have examined OSHA's impact on rates of chronic disease related to work-place exposures.

The impact of OSHA on the racial mix of employment in hazardous jobs is not predictable. To the extent that blacks are disproportionately employed in the most hazardous occupations and to the extent that OSHA targets its efforts at these occupations, one would expect a narrowing of racial differences in injury and illness rates. The indirect effect of OSHA enforcement could work in the opposite direction, however. One main effect of OSHA's efforts has been an increasing awareness on the part of workers and members of management of the extent of health and safety hazards in particular jobs. As previously unrecognized or unappreciated hazards come to be a focus of attention, the status of jobs containing those hazards declines relative to the status of jobs not containing them. This decline will, over time, lead to a flight from those jobs on the part of workers with other good employment opportunities. In the absence of conscious efforts by equal opportunity programs to counteract this process, hazardous jobs will over time become increasingly filled with the least advantaged members of the working population.

Data and Methods

The primary source of statistical data used in this study is the Current Population Survey (CPS), an ongoing household survey conducted by the U.S. Bureau of the Census which serves as the source of employment and unemployment figures published by the government. The CPS does not contain information on working conditions, but it does code the occupation and industry in which each respondent works, whereby working condition data from other sources can be matched to individual workers. The CPS provides basic demographic information, including race, sex, years of education, and age. This article uses the March 1968 file, the first CPS file available on computer-accessible tapes, plus the March 1986 file, the most recent available. The May 1977 file is used in order to examine relative hazards at the midpoint of the period under consideration. The main advantage of the CPS for the purposes of this article is the large sample size: 35,564 usable records for 1968, 32,860 for 1977, and 65,266 for 1986. Approximately 9 percent of each year's sample is black. Recent years of the CPS code Hispanics separately from non-Hispanic whites. Hispanics cannot, however, be distinguished from other whites in the 1968 CPS; this article thus focuses on differences between working conditions faced by blacks on the one hand and both Hispanic and non-Hispanic whites on the other.

The CPS samples are chosen to be representative of the entire United States population and, with their large sample sizes, permit valid estimates to be made of risks faced by blacks and whites across all occupations and industries. Independent "snapshots" of risks for the entire population at successive points in time do not, however, allow inferences to be drawn concerning the experiences over time of a particular cohort of individuals. The experiences of a particular cohort would be expected to differ from that of the population as a whole, since the cohort members accumulate education and on-the-job experience over time in a manner that the general population does not. Wage rates earned by individual workers tend to rise with their levels of education and experience, producing the well-documented positively sloped "age-earnings profile." The wage rates earned by blacks have been found to rise much less quickly with increases in education and experience than those of whites, however.

The one published study of education and experience effects on the

probability of facing risks of injury and illness at work found that more educated and experienced workers were employed in substantially safer jobs on average than less educated and less experienced workers (Robinson 1984). That study was based on data from one point in time and thus could not examine racial differences in age-hazard profiles.

In order to obtain insights into the relative hazard levels faced over the course of their working lives by blacks and whites during the period since the enactment of the equal opportunity and occupational health legislation, this study uses data from the Panel Study of Income Dynamics (PSID). The PSID is a longitudinal study of approximately 6,000 individuals interviewed yearly since 1968 by the Institute for Social Research at the University of Michigan. Of these 6,000 individuals, approximately two-thirds are employed at the time of any given interview. Blacks are systematically oversampled by the PSID, and constitute approximately one-third of the cohort. While interviewing of the PSID cohort began in 1968, respondents were not asked their field of employment until the 1971 interview. As industry information is crucial for the matching of information on working conditions, this study starts with the 1971 PSID interview year. While PSID interviewing continues, the production of publicly available data tapes lags considerably. The most recent PSID interview tape is from 1984. As in the case of the CPS, this article examines the 1977 PSID tape as constituting a midpoint for the time period under consideration.

Results obtained using the PSID must be interpreted with caution due to the nonrandom manner with which cohort members move in and out of the labor force over time. This movement in and out of the labor force will tend to make the PSID results nonrepresentative of the working population as a whole. The direction of the bias with respect to risk of work-related injury or illness is not clear. Economic theories of labor force participation argue that participation rates will be lower and more irregular for workers who, if employed, would be at the bottom end of the wage scale. These "marginal" workers find the value of time spent at work low relative to the value of time spent doing other things (including work at home). Although workers in hazardous jobs may receive some compensation for the extra risks they face, they are generally less skilled and hence lower paid than the rest of the working population. This train of thought would imply that examination of the PSID cohort over time would yield an overly

optimistic estimate of the population "age-hazard profile," since those
workers experiencing the fewest improvements would be those most
likely to leave the sample. Workers in particularly hazardous jobs are
also, by definition, most likely to leave the work force due to work-
related injury or illness. On the other hand, the probability of retirement
increases strongly with age, other things being equal, and older workers
have generally been able over time to move to safer occupations than
those in which they started their working careers.

Data on working conditions was derived from two sources: the
annual establishment surveys conducted by the Bureau of Labor Statistics
(BLS), which yield injury and acute illness rates by detailed industry,
and state Workers' Compensation claims records, which yield information
on probability of injury or illness by occupation. BLS injury rates are
matched with individual workers in the CPS and PSID surveys via
the industry codes included in those surveys. Data from 1972 are
used with the 1971 PSID survey; 1971 injury rate data are unreliable
since the BLS was reorganizing its statistical data system during that
year. Injury rates for 1986 were not available at the time this study
was conducted; 1985 injury rates were thus used with the 1986 CPS.
In all cases the figures used were from the BLS data on injuries that
result in at least one day lost from work. The figures from 1968 are
not directly comparable with those from later years due to the changes
in reporting methods imposed as part of the 1970 Occupational Safety
and Health Act. These changes do not affect inferences concerning
relative injury rates for blacks and whites in any one year.

There are two major problems besetting any study that employs
the BLS figures. First, these data reflect only experiences with injuries
and acute occupational illnesses and do not count work-related chronic
diseases such as cancer. Second, these data are tabulated at the industry
level and provide no insights into differences in risk levels faced by
workers in different occupations within the same industry.

There is, unfortunately, no way around the first limitation to the
BLS data; it is impossible to obtain from any source historical data
on exposure to risk of chronic occupational disease for the working
population as a whole. The BLS data do provide a consistent historical
source of information on rates of injuries. The lack of occupation-
specific information, however, constitutes a very serious limitation to
the BLS data even as a source of information on risks of work-related
injury. This study adjusted the industry figures using occupation data

from state Workers' Compensation records. The BLS has published indexes of relative risks of injury by broad occupational classification for each of the major industrial sectors. The indexes were calculated using 1978 data from the 25 state Workers' Compensation programs participating in the Supplementary Data System of the BLS (Root and Sebastian 1981). Occupations accounting for the same fraction of total injuries as of total employment were assigned an index of 1. Occupations accounting for proportionately more injuries than employment were assigned indexes greater than 1; occupations accounting for proportionately fewer injuries than those for total employment, conversely, were assigned indexes lower than 1. For purposes of this study, therefore, the risk of work-related injury faced by each individual CPS and PSID worker was calculated as the injury rate prevailing in his or her detailed industry and year, weighted by the hazard index for his or her major occupational classification (i.e., craft worker, operative, laborer), with occupational weights varying by major industrial sector.

Each of the three CPS and PSID files were first sorted into black and white subfiles, and mean injury rates were calculated for each ethnic group. Rates for men and women were analyzed separately. Adjusted injury rates by ethnic and gender group were then calculated controlling for individual differences in age and educational attainment. Educational attainment was measured in terms of three possible levels: no high school diploma, high school diploma but no further education, education beyond high school. The differentiation of workers according to high school record was judged to be more relevant for purposes of predicting differences in exposure to work-related injury than differentiation of those workers who continued past high school into groups according to extent of college education. It was not possible to measure directly the extent of on-the-job experience held by individual CPS and PSID workers. Following the standard approach taken by studies of earnings (Mincer 1970), this study included years of age and the square of years of age. Economic studies of age-earnings profiles typically find that earnings increase with age, due either to accrual of skills or seniority rights, but that the rate of increase declines over time. This nonlinear relationship can be captured using the quadratic form of the age variable.

Changes in risk of occupational injury were calculated for each member of the PSID cohort for the periods of 1971–1977, 1977–

TABLE 1
Rates of Disabling Injuries per 100 Workers: The Current Population
Survey, 1968–1986

	Men	Women
1968		
Blacks	5.7 (N = 2,039)	2.3 (N = 1,247)
Whites	3.2 (N = 21,306)	1.4 (N = 10,972)
1977		
Blacks	8.3 (N = 1,510)	3.0 (N = 1,428)
Whites	5.2 (N = 18,071)	2.3 (N = 11,851)
1986		
Blacks	6.5 (N = 2,822)	4.5 (N = 3,030)
Whites	4.6 (N = 31,676)	2.3 (N = 27,739)

1984, and the entire period of 1971–1984. This second set of calculations
was restricted to those members of the cohort employed in each pair
of years, and thus the sample size varied for each time period. Workers
employed in 1971 and 1984 were included in the calculations for the
1971–1984 period even if they were not in the labor force in 1977.
These year to year changes in injury risk by definition control for the
effects of increasing age on job opportunities, since all workers age
at the same rate. To control for differences among workers in extension
of education over this time period, changes in injury risks were also
calculated controlling for changes in total years of educational attainment.

Results

Table 1 presents rates of work-related injuries resulting in at least
one day lost from work for black and white CPS workers in 1968,
1977, and 1986, plus the sample sizes upon which the rates were
estimated. Risks of injury on the job are higher for blacks than for
whites for both genders for all three time periods. In each year and
gender group, blacks faced risks of on-the-job injury approximately
one and one half times those faced by whites.

The most interesting feature of the data in table 1 concerns trends
over time in the risks faced by blacks relative to the risks faced by
whites. The racial risk differential has narrowed substantially among

men, from a ratio of 1.78 in 1968 to 1.60 in 1977 and then to 1.41 in 1986. This 50 percent reduction in the excess risk faced by black men is a remarkable and important fact, and a considerable tribute to the success of society's general efforts to reduce racial inequality over the years since the Great Society programs in the 1960s. The record with respect to racial differences among women is substantially less encouraging, however. After narrowing from 1.64 to 1.30 between 1968 and 1977, the ratio of black to white female injury rates increased to 1.96 in 1986. This divergence was due to the rise in injury rates in the industries and occupations where black women are concentrated; injury rates for white women stayed constant over the 1977–1986 period.

It is indeed tempting to focus on the trends in injury rates themselves over time, in addition to the trends in black-white injury ratios. This should be done only with caution, however. Comparison of the 1968 rates with those from 1977 and 1986 pick up the effects in the change from voluntary to mandatory injury reporting effected as part of the Occupational Safety and Health Act of 1970. Comparison of figures from 1986 with those from 1977 (and interpretation of the apparent decline in injury rates between those two years) is rendered problematic by the serious questions raised concerning increased underreporting of injuries by employers. In recent years the Occupational Safety and Health Administration has used employer injury reporting as the basis for establishing the priority of inspections, giving strong incentives for firms to minimize the number of injuries they report. Several cases of systematic underreporting have come to light, and the Bureau of Labor Statistics is currently conducting a major review of reporting procedures (U.S. Department of Labor 1986).

Table 2 presents adjusted rates of disabling injuries for black and white CPS men and women after controlling for individual-specific differences in age and education. To the extent that age and education differences capture differences among workers in skill level, these adjusted injury rates reflect the residual impact of racial discrimination per se. Needless to say, years of age and education constitute only crude measures of worker skill, missing the effects of differences in quality of education and number of job changes over the course of a working career. Controlling for years of education produces underestimates of the true impact of racial discrimination, on the other hand, if educational achievement (generally higher among whites than

TABLE 2

Adjusted Rates of Disabling Injuries per 100 Workers, Controlling for
Differences in Education and Age: The Current Population Survey,
1968–1986

	Men	Women
1968		
Blacks	4.9	2.1
Whites	3.3	1.5
1977		
Blacks	7.3	2.6
Whites	5.3	2.3
1986		
Blacks	5.9	3.3
Whites	4.6	2.2

Note: These rates were calculated based on least squares regressions that controlled
for educational attainment, age, and the square of age. Full regression results are
presented in appendix tables 1 and 2.

blacks) is used as a rationale for racial differentiation in job assignments
to an extent not justified by skill requirements.

The racial differences in injury rates are narrower in table 2 than
in the unadjusted figures in table 1, but the trends over time are
similar. The ratio of black to white injury rates among male workers
has declined steadily since 1968; among female workers, on the other
hand, the ratio increased between 1977 and 1986 and currently exceeds
the 1968 ratio. The overall similarity between tables 1 and 2 implies
that the trends reported in the first table are not due merely to racial
differences in the accumulation of education and experience in the
period since 1968.

Table 3 presents relative injury rates over time for black and white
members of the PSID cohort. The figures in this table are not adjusted
for age and education and thus are comparable to the CPS figures in
table 1. They differ from the CPS figures, however, in representing
the experiences of one group of workers over a 13-year period rather
than three independent snapshots of the working population as a
whole. These figures permit inferences concerning racial differences
in occupational mobility over the course of the life cycle. The risk
ratio among PSID women is very similar over time to that reported

TABLE 3

Rates of Disabling Injuries per 100 Workers for One Cohort: The Panel
Study of Income Dynamics, 1971–1984

	Men	Women
1971		
Blacks	5.8 (N = 920)	3.8 (N = 468)
Whites	3.3 (N = 2,444)	2.5 (N = 377)
1977		
Blacks	6.8 (N = 886)	4.3 (N = 492)
Whites	3.8 (N = 2,405)	3.5 (N = 392)
1984		
Blacks	7.0 (N = 739)	5.8 (N = 418)
Whites	4.2 (N = 2,160)	3.6 (N = 302)

for the much larger CPS samples in table 1: a marked convergence of injury rates between 1971 and 1977 followed by an equally marked divergence between 1977 and 1984, with consequentially no substantial trend over the 1971–1984 period as a whole. The male PSID cohort experienced a considerably different trend in relative injury rates than did the CPS population, however. The ratio of work-related injury rates for black and white PSID workers stayed almost constant, rising slightly from 1.67 in 1971 to 1.79 in 1977 and then settling back to 1.67 in 1984. This suggests that the trend observed in the CPS data was due to the narrowing of injury risks faced by new entrants to the labor force rather than to the experiences of those blacks and whites already in the labor force at the beginning of the period.

The experiences of individual members of the PSID cohort are portrayed more precisely in table 4. These figures portray the changes in injury rates for individual PSID workers, controlling for changes in educational attainment. Owing to movement in and out of the labor force on the part of particular individuals, these figures are not simply the differences in adjusted injury rates between pairs of years, equivalent to those that could be calculated from the CPS figures in table 2. In this instance, the mean of the differences is not equivalent to the difference of the means. This distinction is, however, of more theoretical than practical import, since most members of the PSID cohort did remain in the labor force over the time period under consideration.

TABLE 4
Changes in the Rate of Disabling Occupational Injury per 100 Workers in
One Cohort, Controlling for Changes in Education: The Panel Study
of Income Dynamics, 1971–1984

	Men	Women
1971–77		
Blacks	1.00 (N = 677)	0.16 (N = 328)
Whites	0.47 (N = 1,939)	0.74 (N = 277)
1977–84		
Blacks	0.48 (N = 550)	1.33 (N = 266)
Whites	0.06 (N = 1,672)	0.22 (N = 248)
1971–84		
Blacks	1.69 (N = 523)	1.48 (N = 214)
Whites	0.65 (N = 1,580)	0.81 (N = 204)

Industrial injury rates were generally rising over the 1971–1984 period; the figures in table 4 permit insights into how an individual's race influenced the fraction of that general increased risk he or she would have to bear, controlling for changes in the amount of education he or she gained over those years. Comparison of injury rates across time periods is acceptable with these data in a manner not possible with the CPS data in tables 1 and 2 since these PSID data relate to the period after the change in injury reporting in 1970 and before the major concerns about systematic underreporting were raised with respect to the injury rate data for 1985 and 1986.

While injury rates increased for all race and sex groups for each of the time periods under consideration, the pattern varied extensively. Among PSID men, injury rates increased among blacks much faster than among whites: twice as fast between 1971 and 1977 and eight times as fast between 1977 and 1984. Among PSID women, on the other hand, injury rates increased substantially faster among whites than among blacks between 1971 and 1977; the opposite occurred between 1977 and 1984. For the 1971–1984 period as a whole, the risk of work-related injury increased 160 percent faster for black men than for white men and 83 percent faster for black women than for white women, controlling for changes in education level.

Discussion

The data presented in this article provide new insight into a heretofore neglected area of overlap between two important topics of social concern: racial inequality and occupational health. While too crude to permit the detailed evaluation of any one policy initiative, they do permit a measurement of society's overall movement in the direction of its stated goals.

The most important numbers are the simplest: between 1968 and 1986 the excess risk of disabling occupational injury faced by blacks relative to whites declined by 50 percent among men but increased by 20 percent among women. Given the exceptionally high overall risk faced by black men, the decline in their excess risk is especially important. Black men continue, however, to face the highest risk of any major group; in 1986, 6.5 percent of black male workers suffered a work-related injury resulting in at least one day lost from work. The increase in injury risks of black compared to white women reflects a different and disturbing trend. In 1986, black women faced nearly the same injury risk as white men.

The statistical evidence from the PSID cohort is similar to that for the larger CPS files in the case of women, but considerably less encouraging in the case of men. Black male workers followed by the PSID experienced an increase in injury risks two and one half times greater over the 1971–1984 period than did white male workers, controlling for changes in educational attainment. This finding is analogous to those wage studies where blacks are found to experience a considerably "flatter" age-earnings profile than whites.

The overall record for social concern and public policy in this area of overlap between equal opportunity and occupational health appears to be positive, with important qualifications. The excess risks faced by those at highest initial risk have been substantially reduced. No equivalent statement may be made in the case of female workers, but here the public policy emphasis has been on gaining entry for women into previously all-male jobs in manufacturing, mining, and construction. Many of these jobs present substantial risks to worker health and safety.

The least encouraging dimension of these data is the absolute increase in occupational injury rates for both blacks and whites. The overall trends have been examined in detail elsewhere (Robinson 1988) but

are reflected in these figures as well. Rates of work-related injuries are high and are not falling. Occupational safety appears to be the neglected stepchild of an occupational health policy focused primarily on chronic disease and of injury prevention policies focused primarily on the home and the highway.

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APPENDIX TABLE 1

Demographic Determinants of Employment in High-risk Positions for Male Workers: The 1968–1986 Current Population Surveys (Dependent Variable: Occupation-adjusted Industry Injury Rate)

	1968	1977	1986
Worker is black	16.08	20.02	12.09
	(0.91)	(1.67)	(1.01)
No high school	37.84	56.44	47.91
diploma	(0.65)	(1.18)	(0.79)
High school diploma	19.13	34.13	32.22
but no college	(0.64)	(1.02)	(0.62)
Years of age	− 0.748	− 2.618	− 0.445
	(0.136)	(0.204)	(0.115)
Years of age squared	0.0059	0.0234	− 0.0002
	(0.0017)	(0.0025)	(0.0014)
Intercept	31.27	87.79	42.70
	(2.63)	(3.95)	(2.25)
Adjusted R^2	0.15	0.14	0.14
N	23,345	19,581	34,498

APPENDIX TABLE 2
Demographic Determinants of Employment in High-risk Positions for
Female Workers: The 1968–1986 Current Population Surveys
(Dependent Variable: Occupation-adjusted Industry Injury Rate)

	1968	1977	1986
Worker is black	6.83	3.41	10.28
	(0.52)	(0.84)	(0.59)
No high school	18.62	33.73	29.66
diploma	(0.43)	(0.76)	(0.56)
High school diploma	5.08	11.85	11.76
but no college	(0.38)	(0.57)	(0.38)
Years of age	0.294	−0.349	0.141
	(0.078)	(0.118)	(0.074)
Years of age squared	−0.0036	−0.0028	−0.0027
	(0.0010)	(0.0015)	(0.0009)
Intercept	1.55	20.53	13.05
	(1.42)	(2.23)	(1.42)
Adjusted R^2	0.17	0.13	0.10
N	12,219	13,279	30,768