

Keeping the Unemployed Healthy: The Effect of Means-Tested and Entitlement Benefits in Britain, Germany, and the United States

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A wealth of research about the health effects of economic insecurity has provided important evidence of the mental and overall health effects of unemployment.¹⁻¹⁴ However, there is a lack of information on the possible protective effects of various social interventions on health outcomes. Further, the impact of various forms of public assistance in ameliorating the health effects of unemployment has yet to be fully examined.^{15,16}

Epidemiologic studies have shown that unemployment often precedes adverse health effects.¹⁷ Studies have also found that in Germany people in poor health are more likely to lose their jobs,^{18,19} and in the United States people in better health are more likely to be reemployed.²⁰ Additionally, increases in unemployment levels have been related to increases in mortality rates in the United States and the United Kingdom,²¹ but not in Finland.²²

As with any epidemiologic research short of a clinical trial, it is virtually impossible to control for all of the variables that could determine both unemployment and health simultaneously.²³ Despite the sometimes contradictory evidence of studies conducted in different countries, however, it would be precipitous to conclude that differences are due simply to a better or worse adjustment for the effects of selection. A key factor in understanding the sometimes contradictory studies conducted in different countries could be that the distribution of socioeconomic resources and the level of social benefits and institutional support available to unemployed people differ from country to country. It is therefore necessary to adjust for these differences to compare the effects of unemployment on health status among countries.

The purpose of this study was to broaden understanding of the role that different formal systems of support may have in protecting the health of individuals during periods of unemployment and economic insecurity. It examines the impact that different social pro-

Objectives. Although considerable evidence about the health effects of unemployment exists, little is known about the possible protective effects of various social interventions. This study examined the role that means-tested and entitlement programs could have in ameliorating the health impact of unemployment in Britain, Germany, and the United States.

Methods. Logistic regression models were used to analyze panel data from Britain (1991-1993), Germany (1991-1993), and the United States (1985-1987) available in the Household Panel Comparability Project database. The analysis included 8726 respondents from Britain, 11 086 from Germany, and 11 668 from the United States. The health-dependent variable used was a single measure of perceived health status.

Results. Evidence was found of differences in perceived health status between groups of unemployed people characterized by the types of benefits they receive. When socioeconomic characteristics and previous health and employment status are controlled for, means-tested benefits do not seem sufficient to reduce the impact of unemployment on health.

Conclusions. Monitoring the possible health effects of changes in public assistance benefits should be given priority in the research and political agenda. (*Am J Public Health.* 2001;91:1403-1411)

grams (i.e., means-tested and entitlement programs) could have in ameliorating the health impact of unemployment in Britain, Germany, and the United States.

In line with recent research in the study of income inequality, social capital, and health,²⁴⁻²⁸ I argue that systems of formal support and social benefits could have an impact on maintaining the health status of people exposed to stressful life events and economic insecurity. In fact, a study of 18 industrialized countries has already shown that a combination of high unemployment rates and low unemployment benefits is associated with an increased infant mortality rate.²⁹

Previous research provided evidence of health status differences among groups of unemployed people according to the type of benefits they receive.^{17,30,31} The authors of these studies argued that to have a protective effect on health, formal social support systems not only should provide sufficient economic provisions but should do so while alleviating the additional sociologic and psychologic impacts of unemployment and the stigma associated with receiving means-tested benefits.³²

Accordingly, they hypothesized that the health protection provided by means-tested benefits would be less than that provided by social insurance or entitlement benefits. The underlying assumption is that material benefits are not enough to ensure health.

In this study, I explore the impact that types of social programs (i.e., entitlement and means-tested benefits) have in ameliorating negative health impacts among the unemployed while controlling for different employment arrangements. In each country, the benefits received by the respondents were classified as social insurance or entitlement-type benefits vs welfare or other means-tested benefits. This allows one to assess whether receiving entitlement or means-tested benefits has an impact on preserving health during periods of unemployment in 3 countries with different economic performances, employment rates, and social benefit dynamics.

The strategy employed for this analysis was to use health levels for fully employed workers as reference points and then to compare health levels associated with different types of benefits with the health levels among fully employed workers. The alternative strategy

would be to compare the 2 benefit types without reference to the fully employed. I have pursued the first strategy because I was interested in the policy question, namely, “What type of benefit will maintain the worker’s health level?” When this is the primary concern, as it tends to be in modern industrial countries, then the relative efficacy of the benefit types, although important, can be left for future research.

METHODS

To test the hypotheses, I analyzed the most recent 3 years of panel data from Britain (1991–1993), Germany (1991–1993), and the United States (1985–1987) available in the Household Panel Comparability Project (PACO) database.³³ PACO, a project funded in part by the European Commission, is a harmonized and standardized microdatabase created from existing longitudinal studies of household living conditions. The British data come from the British Household Panel Study, the German data from the ongoing Sozio-Oekonomisches Panel, and the US data from the Panel Study of Income Dynamics. The technical specifications of the PACO database (including imputation of missing values,³⁴ weighting methods employed by the different panel studies,³⁵ and a comparative analysis of attrition in PACO household panel studies) are reported elsewhere.³⁶

Only respondents who were older than 16 years in the first wave of the selected data were included in the analysis. The total numbers of respondents included in this study were 8726 from Britain, 11 086 from Germany, and 11 668 from the United States.

The health-dependent variable used in this analysis was a single measure of perceived health status in 1993 (for Britain and Germany) and in 1987 (for the United States). Respondents in Britain and Germany described their health status on a 5-point scale (from excellent to very poor). US respondents used a 4-point scale (from excellent to poor). While a single measure has limitations and more sophisticated measures of perceived health status exist,³⁷ these were not readily available in comparative databases that also collected comprehensive employment and socioeconomic information. Additionally, the

single global health question has been examined from different angles, including the prediction of health outcomes such as mortality, morbidity, physical functioning, use of health care, sick days, and disability pension.³⁸ Most studies have found that a single 5-level self-rated health status item is a good predictor of long-term survival.^{39,40}

To compare different employment situations in Britain (in 1992), Germany (in 1992), and the United States (in 1986), I divided employed individuals into 3 groups: (1) those working full-time, (2) those working between 20 and 30 hours per week, and (3) those working less than 20 hours per week. The unemployed respondents were also divided into 3 groups: (1) those receiving any type of entitlement benefits (including unemployment insurance and other types of social insurance), (2) those receiving means-tested benefits (including welfare and other types of public means-tested assistance), and (3) those who did not receive any income from public funds. The third group of unemployed respondents included people looking for a first job and others who did not qualify for assistance. The typology of employment situation was operationalized as a dummy variable.

I followed the same approach with individuals who reported being a housewife or househusband. I divided them into groups based on whether or not they received public assistance benefits. Students and retired people were kept in separate categories. An additional category covered individuals in disability status or other situations not included in the previous employment groups. Although showing how these groups compare with fully employed respondents does not elucidate the main question, I decided to include them, for several reasons. Primarily, since the report deals with somewhat new territory, it is important to show how a range of groups differ (or do not differ) from the fully employed. Additionally, such findings may stimulate further research. Unfortunately, of the respondents who define themselves as housewives or househusbands but receive government benefits, I do not know how many are housepersons by choice vs discouraged workers no longer in the labor market.

The same classification approach was used for each of the 3 countries analyzed. How-

ever, for the German population, the category of housewife or househusband receiving means-tested benefits was omitted, because means-tested benefits not directly associated with unemployment were assigned to the household as a whole and not to a specific individual. Housewives and househusbands in Germany were divided into 2 groups: those receiving entitlement benefits and others.

To test the hypothesis that entitlement benefits have a positive impact on maintaining health status as well as providing financial support during periods of unemployment, I ran 3 different analyses. One analysis consisted of performing a generalized linear model test using the unmodified health scale. The second analysis consisted of a logistic regression in which the outcome variable was divided into 2 groups, one comprising reports of good or excellent health and the other comprising reports of fair, poor, or very poor health. Dichotomizing the global health question has been used to predict mortality⁴¹; this is a useful technique in cases where the number of observations is too small to test comprehensive explanatory models by using the 5 levels of the original health measure.

The third analysis was a logistic regression limited to unemployed respondents only, for the purpose of modeling the impact of reemployment or change in unemployment status on health. The same dichotomized health status rating was used as the dependent variable. In this analysis, unemployed individuals in 1992 in Britain and Germany and in 1986 in the United States were divided into 3 groups based on whether they (1) were already employed in 1993 (in 1987 for the United States), (2) were still unemployed and receiving any types of benefits, or (3) were not employed and not receiving any unemployment benefits. The third group consisted mostly of respondents who had moved into retirement. Also included were those who had moved into the housewife or househusband category as discouraged unemployed, had become students, or had moved into disability status. Unfortunately, the numbers were too small to differentiate the types of benefits that were received by those who remained unemployed in 1993 in Britain and Germany and in 1987 in the United States, or to differentiate be-

tween the groups of respondents included in the other nonemployed category described above.

Both the generalized linear model and logistic regression analyses were performed with the SPSS statistical package (SPSS, Inc, Chicago, Ill). The logistic regression analysis used a dynamic model appropriate for the analysis of longitudinal data that incorporated the time elapsed between data collection points by modeling events in discrete time. For Britain and Germany, I analyzed the impacts of the 1992 employment situation and receipt of entitlement and means-tested benefits on 1993 health status. For the United States, I analyzed the protective effect of 1986 employment status and receipt of benefits on the 1987 health level.

The analytic model controlled for individual characteristics such as age, sex, marital status, and years of education and for household characteristics such as type of housing (rental vs ownership), total household income, and number of household members (Table 1). More important, to control for a possible reverse causation effect and the fact that people with poorer health could be more likely to lose their jobs, the model included adjustments for previous health status (i.e., health status as reported the year before).

In addition, to control for previous experience with job instability, the model included unemployment status in 1991 for the Britain and Germany and in 1985 for the United States. In this way, I could adjust for possible differences in the length of time people experienced unemployment, a factor associated with the health outcomes of unemployment^{34–39} and also a possible determinant of the types of benefits people are entitled to receive. Finally, to assess whether the impact of receiving different types of benefits during unemployment would persist after adjustment for possible changes in employment status (between 1992 and 1993 for Britain and Germany and between 1986 and 1987 for the United States), I ran a separate analysis among unemployed respondents.

To deal with outlying values, I used a log₁₀ transformation of the income variable for both British and US data. These transformations were sufficient to produce reasonable residual plots. The correlations among the

TABLE 1—Explanatory Model to Predict Perceived Health Status in 1993 (Britain and Germany) and 1987 (United States)

Fixed personal characteristics
Age
Sex
Other individual and household characteristics
Education
Marital status
Household income
Number of household members
Home ownership
Background risk factors
Previous health status (1991 for Britain and Germany, 1985 for US)
Previous unemployment (1991 for Britain and Germany, 1985 for US)
Employment status (1992 for Britain and Germany, 1986 for US)
Working
Full-time, 20–30 h/wk, <20 h/wk
Unemployed
With entitlement benefits
With means-tested benefits
Other unemployed
Housewives/-husbands
With entitlement benefits
With means-tested benefits
Other housewives/-husbands
Students
Retired
Others

variables included in the analytic models were reasonable.

RESULTS

Table 2 displays the means of the original 5- and 4-level health status measures by employment status, adjusted for the sex and age of the respondents by a generalized linear model procedure. The mean differences between full-time employed and unemployed people are significant in all 3 countries. Tables 3 and 4 describe the results of the logistic regression models used in the analysis.

The 2 models in Table 3 show the likelihood of reporting fair, poor, or very poor health (vs good or excellent), in 1993 for

Britain and Germany and in 1987 for the United States, among individuals reporting different employment situations and receipt of benefits during the previous year. Model A controls only for the sex and age of the respondent. Model B controls for sex, age, years of education, marital status, household income, number of household members, home ownership, previous health status (measured in 1991 for Britain and Germany and in 1985 for the United States), and previous unemployment history.

Table 4 shows the likelihood of reporting poor health (in 1993 for Britain and Germany and in 1987 for the United States) among individuals who were unemployed during the previous year (receiving and not receiving benefits) depending on changes in their unemployment status. Models A and B control for the same factors as are shown in Table 3.

British Findings

For Britain, in Model A, all the occupational groups were different from the reference group of full-time employed, except those who were working 30 hours or less per week in 1992 and those who were full-time students (Table 3). All other occupational groups were more likely to report fair or poor health than the full-time employed comparison group. Specifically, the odds were highest among unemployed people and housewives or househusbands who were receiving means-tested benefits (odds ratio [OR]=2.01 and 3.14, respectively) and people classified as “other” (OR=7.82), a category that could have included individuals with disabilities.

When the factors included in Model B were controlled for, only 2 groups had a significantly higher likelihood of reporting poor health than full-time employed people: those who were unemployed and received means-tested benefits (OR=1.59) and those included in the “other” category (OR=2.86). The confidence intervals for the higher odds ratios of other occupational categories are too wide to infer statistical significance.

Table 4 shows change in employment status among respondents who were unemployed in 1992. In 1993, people who in 1992 were included in 1 of the 3 unemployment groups (receiving entitlement benefits,

TABLE 2—Average Perception of Health in 1993 (Britain and Germany) and 1987 (United States), by Employment Status in 1992 (Britain and Germany) and 1986 (United States)

	No. of Respondents	Mean Health ^a (SE)
Britain		
Full-time employed (comparison group)	3324	1.99 (0.02)
Working 20–30 h/wk	376	2.00 (0.05)
Working <20 h/wk	1292	1.99 (0.02)
Unemployed and receiving entitlement benefits	127	2.30 (0.08)**
Unemployed and receiving means-tested benefits	229	2.23 (0.06)**
Other unemployed	98	2.14 (0.09)
Housewife/-husband receiving entitlement benefits	781	2.19 (0.03)**
Housewife/-husband receiving means-tested benefits	37	2.60 (0.14)**
Other housewife/-husband	183	2.33 (0.07)**
Retired	1482	2.30 (0.03)**
Student	451	2.06 (0.05)
Other	346	3.13 (0.05)**
Total	8726	
Germany		
Full-time employed (comparison group)	5578	1.97 (0.01)
Working 20–30 h/wk	446	2.00 (0.05)
Working <20 h/wk	529	1.91 (0.04)
Unemployed and receiving entitlement benefits	545	2.15 (0.04)**
Unemployed and receiving means-tested benefits	55	2.50 (0.14)**
Other unemployed	444	2.13 (0.05)**
Housewife/-husband receiving entitlement benefits	82	1.85 (0.11)
Other housewife/-husband	740	1.96 (0.04)
Retired	1966	2.18 (0.03)**
Student	136	1.83 (0.09)
Other	635	1.99 (0.04)
Total	11 086	
United States		
Full-time employed (comparison group)	6542	1.88 (0.01)
Working 20–30 h/wk	446	1.85 (0.03)
Working <20 h/wk	315	1.95 (0.04)
Unemployed and receiving entitlement benefits	118	2.14 (0.06)**
Unemployed and receiving means-tested benefits	149	2.19 (0.06)**
Other unemployed	434	2.03 (0.04)**
Housewife/-husband receiving entitlement benefits	419	2.25 (0.04)**
Housewife/-husband receiving means-tested benefits	204	2.29 (0.05)**
Other housewife/-husband	1019	1.96 (0.02)**
Retired	935	2.16 (0.03)**
Student	707	1.96 (0.06)
Other	381	2.98 (0.04)**
Total	11 668	

^aHealth status for Britain and Germany: 1 = excellent, 2 = very good, 3 = fair, 4 = poor, 5 = very poor. Health status for the United States: 1 = excellent, 2 = very good, 3 = fair, 4 = poor. Means and standard errors adjusted for age and sex of the respondents (generalized linear model procedure).

***P* < .01.

means-tested benefits, or no benefits) could be (1) employed part-time or full-time, (2) still unemployed and receiving benefits (the groups were too small to differentiate the type of benefits received in 1993), or (3) included in the category “other nonemployed” (mostly including respondents who moved into retirement but also those who moved into the disabled category and other discouraged unemployed people who became housewives/househusbands or students). Compared with people who were unemployed and receiving entitlement benefits in 1992 but were employed in 1993, all other groups of respondents unemployed in 1992 reported worse health status. Those who received means-tested benefits in 1992 and were still unemployed and receiving benefits in 1993 were 5 times more likely to report fair or poor health than the reference group of 1993 employed. For those who were unemployed and not receiving any benefits in 1992 and who were still not employed and not receiving benefits in 1993, the odds ratio was 7.45. Those who were already working in 1993 or who were unemployed but receiving benefits were not significantly more likely than the reference group to report fair or poor health.

German Findings

For Germany, in Model A, all unemployed and retired people were more likely to report poor health than the full-time employed comparison group (Table 3). The odds were higher among unemployed people who received means-tested benefits (OR=2.98) and unemployed people who received entitlement benefits (OR=1.62). Full-time students reported good or excellent health about 35% more often than full-time working people.

In Model B, with health, employment history, and other individual and socioeconomic circumstances included, the only group remaining significantly more likely to report worse health status than the full-time employed was unemployed people who received means-tested income (OR=2.23).

Table 4 shows the analysis of change in employment status among respondents who were unemployed in 1992. As in Britain, compared with people who were unemployed and receiving entitlement benefits in 1992 and employed in 1993, all other groups of

TABLE 3—Likelihood of Reporting Fair, Poor, or Very Poor Health in 1993 (Britain and Germany) and 1987 (United States) by Employment Status in 1992 (Britain and Germany) and 1986 (United States): Logistic Regression

	No. of Respondents	Model A, Odds Ratio (95% CI)	Model B, Odds Ratio (95% CI)
Britain			
Full-time employed (comparison group)	3324	1.00	1.00
Working 20–30 h/wk	376	0.91 (0.70, 1.19)	0.85 (0.63, 1.14)
Working <20 h/wk	1292	0.95 (0.81, 1.12)	0.88 (0.73, 1.06)
Unemployed and receiving entitlement benefits	127	1.88 (1.28, 2.75)	1.33 (0.84, 2.11)
Unemployed and receiving means-tested benefits	229	2.01 (1.50, 2.70)	1.59 (1.08, 2.35)
Other unemployed	98	1.61 (1.03, 2.52)	1.32 (0.77, 2.26)
Housewife/-husband receiving entitlement benefits	781	1.44 (1.19, 1.74)	0.95 (0.76, 1.19)
Housewife/-husband receiving means-tested benefits	37	3.14 (1.63, 6.06)	1.88 (0.83, 4.30)
Other housewife/-husband	183	1.99 (1.45, 2.75)	1.33 (0.91, 1.95)
Retired	1482	1.75 (1.42, 2.14)	1.21 (0.96, 1.53)
Student	451	1.03 (0.78, 1.36)	0.81 (0.56, 1.18)
Other	346	7.82 (6.12, 10.01)	2.86 (2.08, 3.92)
Total observations	8726		
–2 log likelihood		9731.7	7703.6
χ^2 model		637	2051.4
Model <i>df</i>		14	27
$P > \chi^2$.0000	.0000
Germany			
Full-time employed (comparison group)	5578	1.00	1.00
Working 20–30 h/wk	446	1.04 (0.83, 1.30)	1.11 (0.86, 1.42)
Working <20 h/wk	529	0.94 (0.76, 1.16)	0.91 (0.72, 1.16)
Unemployed and receiving entitlement benefits	545	1.62 (1.34, 1.96)	1.09 (0.86, 1.37)
Unemployed and receiving means-tested benefits	55	2.98 (1.73, 5.16)	2.23 (1.14, 4.35)
Other unemployed	444	1.47 (1.18, 1.83)	1.16 (0.89, 1.50)
Housewife/-husband receiving entitlement benefits	82	0.99 (0.57, 1.73)	0.93 (0.49, 1.79)
Other housewife/-husband	740	1.03 (0.86, 1.23)	0.91 (0.74, 1.12)
Retired	1966	1.79 (1.51, 2.12)	1.20 (0.98, 1.47)
Student	136	0.65 (0.36, 1.16)	0.70 (0.37, 1.35)
Other	635	1.27 (0.99, 1.62)	1.07 (0.76, 1.51)
Total observations	11 086		
–2 log likelihood		12 535.8	10 076.1
χ^2 model		1232.7	2762.3
Model <i>df</i>		13	26
$P > \chi^2$.0000	.0000
United States			
Full-time employed (comparison group)	6542	1.00	1.00
Working 20–30 h/wk	446	0.96 (0.68, 1.36)	1.05 (0.70, 1.56)
Working <20 h/wk	315	1.36 (0.94, 1.96)	1.16 (0.74, 1.83)
Unemployed and receiving entitlement benefits	118	3.12 (1.95, 4.96)	1.70 (0.98, 2.94)
Unemployed and receiving means-tested benefits	149	5.45 (3.62, 8.21)	2.41 (1.43, 4.06)
Other unemployed	434	2.26 (1.64, 3.11)	1.57 (1.03, 2.39)
Housewife/-husband receiving entitlement benefits	419	2.89 (2.22, 3.77)	1.43 (1.02, 1.99)
Housewife/-husband receiving means-tested benefits	204	5.05 (3.56, 7.14)	1.73 (1.09, 2.72)

Continued

TABLE 3—Continued

Other housewife-/husband	1019	1.61 (1.30, 1.99)	1.18 (0.91, 1.52)
Retired	935	2.39 (1.91, 2.97)	1.29 (0.97, 1.70)
Student	707	0.59 (0.31, 1.12)	1.46 (0.67, 3.15)
Other	381	9.17 (7.23, 11.64)	3.35 (2.33, 4.83)
Total observations	11 668		
-2 log likelihood		7947.7	5699.6
χ^2 model		1800.7	3113.5
Model <i>df</i>		14	26
$P > \chi^2$.0000	.0000

Note. CI = confidence interval. The models compare the likelihood of reporting very poor, poor, or fair health vs reporting good or excellent health in 1993 (Britain and Germany) and 1987 (United States). Model A adjusts for the sex and age (R^2) of the respondent; Model B adjusts for, in addition to sex and age, previous health status (in 1991 for Britain and Germany and 1985 for the United States), previous reporting of unemployment (1991 for Britain and Germany and 1985 for the United States), household income, number of household members, home ownership, years of education, and marital status.

1992 unemployed respondents reported worse health status regardless of 1993 employment status. After all the factors included in Model B were controlled for, those who were unemployed and receiving means-tested benefits in 1992 and who were still unemployed and receiving benefits in 1993 were about 3 times more likely to report poor health than the 1993 employed respondents who were unemployed and receiving entitlement benefits in 1992. Those individuals who were unemployed and not receiving any benefits in 1992 and who were still unemployed but receiving benefits in 1993 were 4 times more likely to report poor health than the reference group. However, there was no significant difference among those who were already working in 1993.

US Findings

In the United States, the pattern is different. In Model A, all groups were more likely to report fair or poor health than the full-time employed comparison group (Table 3). In Model B, those significantly more likely to report fair or poor health status than the full-time employed were unemployed people receiving means-tested benefits (OR=2.41), housewives and househusbands receiving means-tested benefits (OR=1.73), and those included in the “other” category (OR=3.35).

As in the other countries, all the other groups of 1986 unemployed respondents, compared with people who were unemployed and receiving entitlement benefits in 1986 and who were employed in 1987, reported worse

health status regardless of employment status in 1987 (Table 4). The groups with higher odds ratios (i.e., a higher likelihood of reporting fair or poor health) were (a) those who received entitlement or means-tested benefits in 1986 and were still unemployed in 1987 and receiving benefits and (b) those who received benefits in 1986 and were still unemployed but not receiving benefits in 1987. The number of respondents was too small to infer any statistical significance for the group of respondents who received entitlement benefits in 1986 and who were still receiving benefits in 1987. As in the other countries, those who were already working in 1987 were not statistically more likely to report fair or poor health than the reference group.

DISCUSSION

One of the main findings of this study is that in all 3 countries, the negative health effects observed among unemployed people who received means-tested benefits persist after previous health and unemployment status, as well as education and household income, are controlled for. When the equation includes a range of controls, health perception among other groups of unemployed people is not significantly different from that of full-time working people. However, means-tested benefits do not seem sufficient to reduce the impact of unemployment on health status. This result holds for all 3 countries despite their different levels of social services, including health insurance coverage.

A possible explanation is that means-tested benefits are not sufficient to compensate for other factors to which this group of especially vulnerable individuals is exposed. Factors unaccounted for in the model include exposure to different forms of physical and psychological abuse, chronic material deprivation over the life span, and other factors that could also have an impact on personality characteristics and unhealthy behaviors. There is evidence that people who need means-tested benefits bear a heavier weight of disadvantage than those who do not need them.⁴²

Additionally, the stigma that is associated with means-tested benefits may add more stress to the recipients and may exacerbate their vulnerability to health deterioration. Stigma is typically associated with social exclusion, and that implies multidimensional disadvantage.⁴³ People who are unemployed may feel socially excluded,⁴⁴ and the social welfare services they use may also carry a stigma.⁴⁵

The stigma interpretation is explicitly pursued in a study by Colton et al.⁴⁶ with respect to recipients of child welfare. Their study parallels this one in that the researchers surveyed 3 industrial countries (the United Kingdom, the Netherlands, and Spain), but it differs in that they were able to formulate and include questions designed to measure stigma. The researchers concluded that despite the different policies and practical actions of child welfare services in the 3 countries, stigma remains very significant in the experience of those directly concerned with the encounters through which services are provided. Users report that

TABLE 4—Likelihood of Reporting Fair, Poor, or Very Poor Health in 1993 (Britain and Germany) and 1987 (United States) by Change in Employment Status Among People Unemployed in 1992 (Britain and Germany) and 1986 (United States): Logistic Regression

	No. of Respondents	Model A, Odds Ratio (95% CI)	Model B, Odds Ratio (95% CI)
Britain			
Unemployed, receiving entitlement benefits in 1992			
Employed full- or part-time in 1993	49	1.00	1.00
Unemployed, receiving either entitlement or means-tested benefits in 1993	32	2.65 (0.92, 7.62)	2.79 (0.76, 10.30)
Other nonemployed ^a in 1993	44	3.90 (1.48, 10.28)	5.11 (1.51, 17.33)
Unemployed, receiving means-tested benefits in 1992			
Employed full- or part-time in 1993	60	1.37 (0.49, 3.80)	2.45 (0.68, 8.78)
Unemployed, receiving entitlement or means-tested benefits in 1993	126	3.23 (1.36, 7.64)	5.27 (1.64, 16.89)
Other nonemployed ^a in 1993	42	3.53 (1.32, 9.46)	6.28 (1.74, 22.59)
Unemployed, not receiving income in 1992			
Employed full- or part-time in 1993	34	1.15 (0.36, 3.70)	2.23 (0.53, 9.46)
Unemployed, receiving means-tested or entitlement benefits in 1993	19	1.10 (0.26, 4.72)	1.78 (0.34, 9.20)
Other nonemployed ^a in 1993	44	3.71 (1.39, 9.86)	7.45 (2.11, 26.28)
Total observations	450		
-2 log likelihood		527.5	373.5
χ^2 model		30.4	121.1
Model <i>df</i>		10	23
$P > \chi^2$.0007	.0000
Germany			
Unemployed, receiving entitlement benefits in 1992			
Employed full- or part-time in 1993	148	1.00	1.00
Unemployed, receiving either entitlement or means-tested benefits in 1993	224	1.53 (0.95, 2.46)	1.63 (0.93, 2.83)
Other nonemployed ^a in 1993	150	1.88 (1.12, 3.15)	1.57 (0.85, 2.88)
Unemployed, receiving means-tested benefits in 1992			
Employed full- or part-time or other ^a in 1993 ^b	17	1.52 (0.51, 4.52)	2.06 (0.58, 7.23)
Unemployed, receiving entitlement or means-tested benefits in 1993	38	3.48 (1.62, 7.51)	3.34 (1.27, 8.78)
Unemployed, not receiving income in 1992			
Employed full- or part-time in 1993	154	0.97 (0.53, 1.58)	1.25 (0.66, 2.37)
Unemployed, receiving means-tested or entitlement benefits in 1993	30	3.26 (1.41, 7.55)	4.30 (1.62, 11.47)
Other nonemployed ^a in 1993	241	1.45 (0.91, 2.33)	1.52 (0.87, 2.67)
Total observations		1002	
-2 log likelihood		1263.8	981.9
χ^2 model		102.9	268
Model <i>df</i>	10	23	
$P > \chi^2$.0000	.0000
United States			
Unemployed, receiving entitlement benefits in 1986			
Employed full- or part-time in 1987	68	1.00	1.00
Unemployed, receiving entitlement or means-tested benefits in 1987	11	3.40 (0.65, 17.72)	8.99 (1.35, 59.93)
Other nonemployed ^a in 1987	31	6.43 (2.03, 20.37)	3.25 (0.80, 13.17)
Unemployed, receiving means-tested benefits in 1986			
Employed full- or part-time in 1987	25	2.02 (0.45, 9.13)	1.45 (0.23, 8.91)
Unemployed, receiving entitlement or means-tested benefits in 1987	61	3.61 (1.24, 10.47)	1.81 (0.45, 7.21)
Other nonemployed ^a in 1987	59	4.85 (1.68, 13.94)	3.99 (1.07, 14.85)

Continued

TABLE 4—Continued

Unemployed, not receiving income in 1986			
Employed full- or part-time in 1987	191	1.95 (0.75, 5.08)	2.09 (0.68, 6.45)
Unemployed, receiving means-tested or entitlement benefits in 1987	10	2.03 (0.21, 19.65)	2.51 (0.17, 35.87)
Other nonemployed ^a in 1987	167	1.96 (0.73, 5.28)	2.52 (0.73, 8.77)
Total observations		623	
-2 log likelihood		464.0	291.1
χ^2 model		84.8	149.7
Model <i>df</i>		10	22
$P > \chi^2$.0000	.0000

Note. CI = confidence interval. The models compare the likelihood of reporting very poor, poor, or fair health vs reporting good or excellent health in 1993 (Britain and Germany) and 1987 (United States). Model A adjusts for the sex and age (R^2) of the respondent. Model B adjusts for, in addition to sex and age, previous health status (in 1991 for Britain and Germany and 1985 for the United States), previous reporting of unemployment (1991 for Britain and Germany and 1985 for the United States), household income, number of household members, home ownership, years of education, and marital status.

^aOther nonemployed includes mostly retired respondents, but also discouraged unemployed people not receiving benefits who moved into the housewife/-husband or student categories or into the disabled category.

^bIn the German sample, these 2 groups were too small to separate and so were analyzed together.

participation in these services evokes feelings of stigmatization.

Although the data sets used in the study did not permit an explicit test of the hypothesis that stigmatization causes negative health effects, the research was motivated by the belief that some types of unemployment benefits are more biased regarding social status than are others. Recent research has focused on the health impact of a number of societal variables, such as racial/ethnic discrimination,⁴⁷ sex, gay/lesbian discrimination, disability, age, and social class.⁴⁸ Yet, little attention has been given to the stigmatizing effect of means-tested programs that offer financial support but do not typically engender public acceptance.

A second major finding focuses on the analysis of unemployed respondents as separate units. For these individuals, the analysis of the impact of change in unemployment status used as the reference (or comparison) group those who received entitlement benefits in one year and were employed the following year. All the other groups reported worse health status. In general, those who reported significantly worse health status in the 3 countries are those who were unemployed and receiving means-tested benefits in one year and were still unemployed, with or without benefits, the following year. The length of unemployment has been studied as a variable that can influence the health impact of joblessness.^{49–54} Our study indicates that not

only the length of unemployment but also the type of benefits that people receive may have an impact in predicting health status.

People who received means-tested benefits one year and were employed the following year were more likely to report fair or poor health than those who received entitlement benefits one year and were employed the following year. However, the difference was not statistically significant. The lack of statistical significance could be due to a small sample effect or could indicate that reemployment has a similar positive effect for all unemployed individuals regardless of the type of benefits they collected the previous year. This issue deserves further investigation.

Safety nets have been shown to play an important role in helping people during critical periods in their lives and in preventing an accumulation of disadvantage that could have adverse health effects.⁵⁵ Both employment dynamics and the availability of social benefits during periods of joblessness differed greatly among the 3 countries analyzed. A detailed description of these characteristics is outside the scope of this report but can be found elsewhere.^{56–58} An important aspect of this study is that despite differences between the countries analyzed, we observed similar patterns in the role of entitlement and means-tested benefits in terms of influencing health status.

The analyses provide evidence of differences in perceived health status between groups of unemployed individuals character-

ized by the types of benefits they receive. Although entitlement benefits can be effective in maintaining the health status of the unemployed, means-tested benefits do not seem sufficient to accomplish that goal. This issue, largely ignored in previous studies, is increasingly relevant in the current sociopolitical environment, an environment in which public assistance is being scrutinized and is undergoing significant changes. Monitoring the possible health effects of these changes should be given priority in the research of the next decade. ■

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This article was accepted February 27, 2001.

Acknowledgments

A research award from the Alexander Von Humboldt Foundation made this study possible. The research was cofunded by the European Commission TMR Programme for Access to Large Scale Facilities, hosted by IRISS-C/I at CEPS/INSTEAD, Luxembourg.

I would like to thank Guenther Schmaus for his assistance with the PACO database and Alan Mathios, June Mead, Rolf Rosenbrock, Guenther Schmid, and Frank Young for their comments. Thanks are also due to the participants of the Arbeitsmarktpolitik Seminar at the Wissenschaftszentrum Berlin, May 1999, and the Policy Analysis and Management Seminar at Cornell University, December 1999, for their comments during the presentation of previous versions of this paper, and to 2 anonymous readers.

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