# Universal Health Insurance and High-risk Groups in West Germany: Implications for U.S. Health Policy

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IN THE LAST DECADE, RESEARCH ON THE WEST GERMAN health system has been increasingly useful in considering health-systems reform in the United States. Several scholars have provided informative conceptual and empirical overviews of the system (Stone 1980; Eichhorn 1984; Light 1985; Light and Schuler 1986). Most, however, have focused on various aspects of the financing and structure of the West German health-insurance system, and have drawn a variety of significant health-policy lessons for the United States (Reinhardt 1981; Landsberger 1981; Glaser 1983; Schulenberg 1983; Henke 1986; Altenstetter 1987; Kirkman-Liff 1990). Others have provided insightful comparisons on psychological distress, health status, health lifestyles, and utilization for U.S. and West German populations (Cockerham, Kunz, and Lueschen 1988a,b).

The West German experience is, in our view, especially relevant to the design of a universal health-insurance program for the United States, and, in particular, to questions of how such a program should be financed and administered. Many of the most prominent proposals for universal health insurance in the United States have argued or assumed that universal insurance should be primarily financed by employer–employee contributions, and administered by private insurers, with a limited role for federal and state governments in financing and

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administering programs for the poor, elderly, and the otherwise uninsurable (Davis 1975; Feder, Hadley, and Hollahan 1981; Enthoven 1980; Pauly 1980). This formula for financing and administration has achieved special prominence in recent discussions and proposals (Reinhardt 1987; Battistella and Weil 1989; Enthoven 1990a), in legislation proposed for Hawaii, Massachusetts, and New York, and in legislation in the Congress by Senator Edward Kennedy and Congressman Henry Waxman (Thorpe 1989; Enthoven 1990b).

Financing and administration of the West German health-insurance system is both pluralistic and decentralized, as in the United States. Financing occurs primarily through mandatory contributions from both public and private employers, which provide 42 percent of the revenues, as well as mandatory contributions (payroll taxes) and direct payments from employees (37 percent). Federal, state, and local governments play an even smaller role (21 percent) than in the United States (Henke 1986). These multiple sources of financing are, in turn, used to purchase insurance from a large and diverse group of insurers, more than 1,200 sickness funds, which administer benefits for approximately 91 percent of the insured population, and a small but growing number of private insurance companies, which insure approximately 9 percent (Statistiches Bundesamt 1987). Unlike the American case, however, the German employer-based insurance system includes pensioners and the unemployed, a distinction we discuss in the following section, the section on distribution of risk groups among sickness funds, and in our conclusion.

The federal government's role in administering the insurance system is significant in terms of the basic legislation and regulations that underlie the system, but neither federal nor state (Lander) governments are actively involved in the day-to-day administration of benefits. The financing and administration of the system will be described in greater detail below. This overview is sufficient, however, to suggest that the experience of the West German system may be quite suggestive in examining proposals for the financing and administration of universal health insurance in the United States.

West Germany's health-insurance system is widely regarded as successful in providing comprehensive benefits and nearly universal coverage. Further, since the early 1980s, West Germany, whose total health-care spending now consumes approximately 9.4 percent of the gross na-

tional product (GNP), has been more adept than the United States in containing increases in health-care costs (Abel-Smith 1985; Pfaff 1988). These substantial achievements bear serious examination, and have already received considerable attention. The argument of this article, however, is that although the financing and administration of the system have been effective in terms of benefits, coverage, and costs, they have also produced an increasingly serious problem in the segmentation of certain high-risk groups, especially the unemployed and disabled.

In our view, two major structural characteristics of the insurance system have led to an increasing concentration of high-risk groups in those sickness funds that are organized on a local community basis (Ortskrankenkassen). In the first place, the West German system is occupationally based, and thus is a stratified system in which health-insurance affiliation is substantially influenced by social-class membership. Manual workers and other employees whose earnings are below a ceiling established by the West German parliament are *required* to be insured in one of the statutory sickness funds. On the other hand, white-collar workers, civil servants, and those earning above the ceiling are entitled to choose alternative funds or private insurance. These regulations also mean that stratification of health-insurance membership is affected by changes in the economy and the structure of the job market. Thus, as the economy becomes less oriented toward agriculture and manufacturing, and more service oriented, an increasing proportion of employees should become exempt from the mandatory provisions of the insurance law.

In the second place, the existence of multiple insurers has, predictably, led to competition among them for members. The alternative or substitute funds (Ersatzkrankenkassen) and private insurance companies compete with the statutory funds for members by offering better benefits, keeping their premiums lower, and paying higher fees to physicians for many procedures. For all of these reasons, West German workers often perceive the alternative funds to be more desirable, and are inclined to join them as soon as they are exempt from the statutory system. In contrast to the United States, the federal insurance regulations preclude deliberate medical underwriting or risk selection by insurers, but competition in terms of benefits, premiums, and physicians' fees is widespread.

The major purpose of this article, then, is to examine the effects of

stratification and competition on health-insurance coverage in Germany. In a national health-insurance system in which virtually all citizens are guaranteed access to comprehensive care, the most serious effects of stratification and competition—having no insurance or having inadequate insurance—are not a problem. On the other hand, given the evolution of the job market toward a service-based system and the economic incentives to insure low-risk groups and avoid high-risk ones, we do expect that pursuit of cost control and competition will increasingly affect the distribution of risk groups among sickness funds, will lead to significant financial problems for some funds, and will partly erode the principle of solidarity on which the West German health-insurance system is based. In its most fundamental sense, solidarity means that the costs *and* benefits of health care and other social services are broadly shared among all the groups and members of the society.

In this perspective, then, distribution of risk groups among insurers is seen primarily as a product of the social processes of stratification and competition. As Deborah Stone has argued, the concept of "risk" has become significant in modern welfare states as new sociomedical technologies are increasingly employed to identify people who are likely to develop disease or disability (Stone 1989). In epidemiological terms, risk refers to the probability of the occurrence of disease in a defined population over a specific time period. Because the risk of disease is profoundly influenced, not only by genetic and biological factors, but also by life style and environment, the degree of risk for any particular group depends upon their relationship to the larger social structure, and especially their socioeconomic status. In general, higher risks, and higher morbidity and mortality, are associated with lower socioeconomic status (Stone 1989), whether measured in terms of income, employment and occupation, and/or minority-group membership. The correlation between risk of disease, recognition of illness, and use of health services is complex; in general, however, high-risk groups are more likely to need and to use a greater volume of health services, particularly the more costly ones. In addition, because of the association between risk and socioeconomic status, high-risk groups are often unable to pay their full share of insurance costs, or may be completely uninsured.

As Stone argues, identification of those who are "at risk" becomes important for employers, insurance companies, and government agen-

cies who are socially and financially responsible for their health and welfare. Further, whereas the concept of "risk" may be most significant for profit-oriented commercial insurance companies, not-for-profit companies or sickness funds also have a powerful economic incentive to minimize their financial risks and control costs in order to remain financially viable. Morone has suggested that increasing competition among insurers in the United States "has given every health actor the same incentives: seek the healthy, shun the sick. The result is a swift erosion of the medical commons, of the very principle of a community" (Morone 1988, 22).

We begin our analysis with a brief review of the development and structure of the West German health-insurance system, emphasizing structural characteristics that influence stratification and competition. The second section, in turn, examines how changes in the economy and job market have affected the stratification of the insurance system in terms of social-class membership in the various funds. The third reviews both the recent history of competition between the sickness funds and recent changes in membership, utilization, and expenditures. The fourth presents national survey data on the distribution of risk factors among the major sickness funds and summarizes a recent study on differences in membership costs and contribution rates in one of the most economically depressed regions. In the conclusion, we consider the implications both for reform of the insurance system in Germany and for design of a universal health-insurance program for the United States.

## Health Insurance in West Germany

Since its inception in 1883, the German health-insurance system has been based on employment, occupational status, and limited competition among multiple insurers. National health insurance was first established for blue-collar workers by the Bismarck government to counter the growing influence of the Socialist party and the trade unions. In effect, the mutual-aid societies that had been organized to provide health care for manual workers were incorporated or coopted into the state plan; in 1883 there were almost 4,000 sickness funds. By 1911, at the height of sickness-fund development, there were more than 23,000 (Stone 1980). In the next 30 years, the program was expanded to include dependents, other occupational groups, pensioners, and the un-

employed. Further, because the federal regulations permitted employee groups to have considerable power in governing the funds, the industrial and trade unions and the Social Democratic Party quickly gained considerable influence within them, successfully lobbying for a continual expansion of benefits and membership. Well before World War II, then, the German system had taken its basic shape as a universal and comprehensive program based on occupational status and multiple insurers (Light and Schuler 1986).

Health insurance in West Germany is provided under a "corporatist" model in which sickness funds and physicians' associations operate as semipublic bodies of public law that are given substantial authority over the financing, organization, and delivery of health services (Light 1985; Stone 1980). Physicians who serve patients under the national health-insurance system must join a regional association of sickness-fund physicians; 90 percent of the office-based physicians in the country belong to such an association. In turn, these associations are responsible for negotiating fee schedules with the sickness funds. Legislation on cost containment passed in 1977 requires that fee schedules be based on a common catalogue in which every medical service or procedure is assigned a relative point value that expresses its worth compared with other services and procedures. In practice, however, the actual monetary values attached to particular point values in the catalogue are still established through negotiations between regional physicians' associations and local sickness funds in the various states. Thus, there are still significant differences between the actual fees paid for identical services by the various funds (Eichhorn 1984, 295).

Health insurance is organized in a complex structure that now includes approximately 1,200 sickness funds. Virtually all manual workers and other employees whose incomes fall below a changing exemption level have been obligated to enroll in Reichsversicherungsordnung (RVO) sickness funds. The exemption level, currently 4,575 Deutsche marks (DM) per month, is adjusted on an annual basis to the average increase in wages and salaries. RVO funds are regulated by state insurance regulations dating from 1911, and amendments to them, such as those in the 1977 cost-control law. Premium costs, or dues, are generally shared equally between employee and employer, but can vary substantially between funds and regions because dues are determined on an actuarial basis according to the illness experience and geographic lo-

cation of the insured population. For RVO funds, members' benefits are specified in federal regulations, and must include comprehensive benefits for medical, hospital, and rehabilitation services; prevention and early detection of illness; medical and financial assistance during pregnancy, sterilization, and abortion; income maintenance (sick pay); and financial benefits to households with dependent children (Eichhorn 1984, 311). Death benefits were reduced or eliminated in the legislation of January 1, 1989. However, RVO funds, like all other sickness funds, are permitted to offer additional benefits to all members, or to individual members on a case-by-case basis.

Altogether, six types of RVO funds are governed by the state insurance regulations. The largest of these are the Ortskrankenkassen (local community funds), which primarily serve blue-collar workers. As figure 1 indicates, 16.1 million members were enrolled in 1987, although they were divided among almost 300 local associations. Other blue-collar workers are primarily enrolled in Betriebskrankenkassen (factory funds) or in Innungskrankenkassen (organized by crafts). Smaller funds also serve coal miners, farmers, and seamen. Figure 1 does not include coinsured family members.

White-collar employees whose incomes exceed 4,575 DM per month must also be insured through the sickness funds, but may choose to enroll in an RVO fund or a so-called substitute fund (Ersatzkrankenkassen). In general, these funds provide not only those benefits offered by the RVO funds, but also supplementary benefits in dental and optical care, physical therapy and rehabilitation, and for hospital services. Here too, as with the RVO funds, substitute funds may exercise considerable flexibility. They also differ significantly from RVO funds in terms of structural characteristics. First, whereas RVO funds are governed by joint employer–employee boards, substitute funds are exclusively governed by their members. Second, membership in the substitute funds is concentrated in seven relatively large associations, whereas the RVO membership is dispersed in well over a thousand smaller groups. And finally, because substitute funds are not subject to the same legal constraints as the RVO funds, they engage in separate negotiations with the physicians' associations, and have routinely agreed to higher reimbursement rates for the centrally negotiated point values. In West Germany, then, physicians usually receive a somewhat higher fee for a routine office visit, and for most other procedures, when the patient is

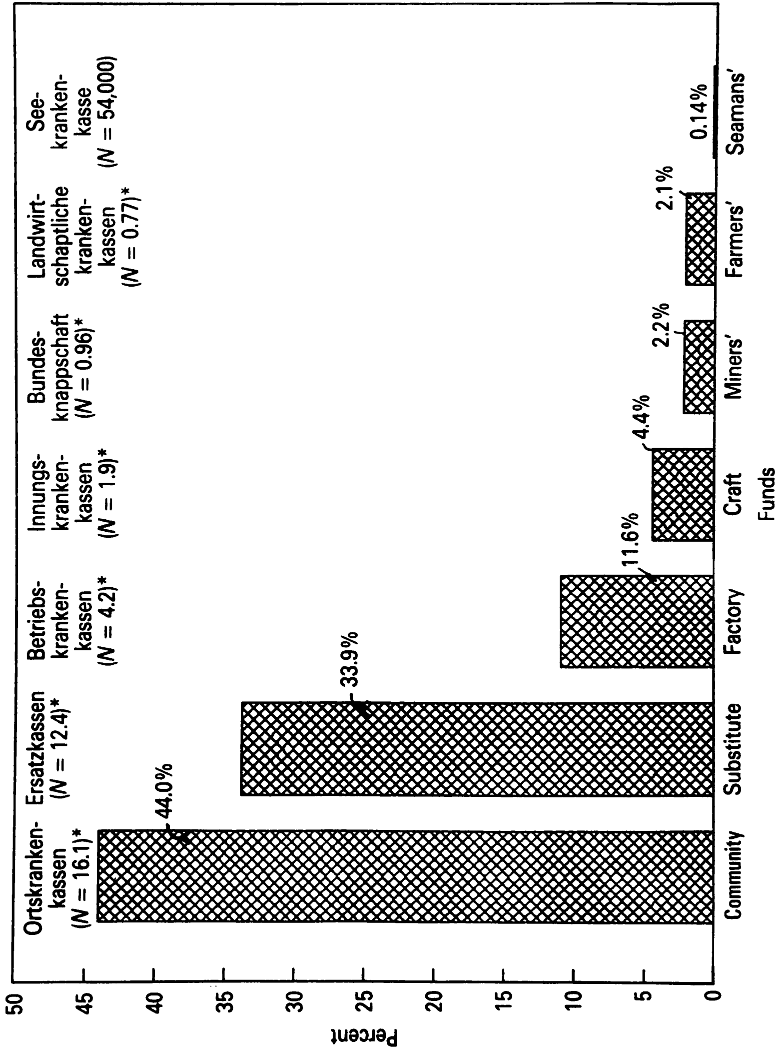


FIG. 1. Membership of West German sickness funds, 1986 (*numbers [*N*] in millions).
*Source:* Bundeminister fur Arbeit und Sozialordnung 1987.

enrolled with a substitute fund rather than a RVO fund. As figure 1 indicates, total membership of the substitute funds is 12.4 million, or approximately three fourths of the local community-funds membership.

The insurance system also includes a special arrangement to serve pensioners, and to ensure that the high cost of their care does not fall disproportionately on any sickness fund. The Krankenversicherung der Rentner (KVdR), established in 1941, initially required that all pensioners be automatically enrolled in a community fund, which of course led to much higher costs for these funds. The health-care legislation of 1977, however, now allows all pensioners to remain enrolled with the sickness fund they were served by when they were employed. Because many of the original group enrolled in the regional funds are still living, pensioners are still over-represented in the regional funds. As this cohort dies, this over-representation will diminish and disappear. Since the 1982 reforms, the system has also been modified to redistribute and balance expenditures for pensioners among all funds. Revenues for the KVdR are provided, first, by a deduction from the pensioners' monthly check, with 50 percent contributed by the government pension fund and 50 percent contributed by the pensioner from his or her current pension income. Other revenues (about 50 percent) are provided through a 3 percent payroll tax paid by all employed members of all the sickness funds. The total revenues are, in turn, redistributed by the KVdR to the sickness funds through a complex formula based primarily on their enrollment of and expenditures for pensioners. Thus, the very high cost of care for the elderly is broadly shared among the government, pensioners, the actively employed, and all of the sickness funds. In his recent study, Paquet (1987) concludes that this complex system has, in general, successfully eliminated the structural disadvantages of insuring pensioners. Because problems of risk distribution associated with pensioners are already substantially resolved through the KVdR, we will not discuss them further.

Private health insurance is also an option for those who are exempted from compulsory insurance, especially civil servants. Private health insurance is a small but growing market. In 1986, 5.35 million were fully insured by private companies, while 4.5 million used private insurance to supplement their coverage under the sickness funds. This insurance is especially attractive to civil servants, who receive a refund from their employer of up to 80 percent after they have paid privately out of their pocket; it also appeals to other relatively affluent and low-

risk groups who are self-employed. For many white-collar employees, private insurance is used as a supplement to their sickness fund to finance additional optional services such as private hospital rooms, access to care by prestigious specialists, and higher physician and provider fees. In 1986, the Association for Private Sickness Insurance listed 2.04 million with insurance against loss of income, 4.33 million for other supplementary insurance, 7.61 million for hospital day-pay insurance, and 9.69 million for sickness costs (Bundesverband der Pharmzeutischen Industrie 1988).

In general, then, the structure of the West German health-insurance system and its underlying regulations have led to an occupationally stratified system in which multiple insurers engage in limited competition for members. Sickness funds can and do compete by offering lower employer–employee contribution rates and the supplementary benefits mentioned above. They cannot, however, alter the basic package of benefits, or engage in explicit risk selection or medical underwriting.

The next section examines how changes in the economy and job market have affected the stratification of the insurance system, while the following one reviews, in considerable detail, the recent history of competition among the sickness funds.

## Social Change as a Cause of Stratification in the Sickness Funds

In West Germany today, as in 1883, federal legislation and regulation closely tie membership in the health-insurance system to employment and occupational status. This fundamental characteristic has persisted, in fact, through two world wars, the allied occupation, and enormous social, economic, and political change, including a succession of reform-oriented and liberal governments. Given the class-based structure of the insurance system, the composition of the various sickness funds has been substantially influenced by long-term changes in occupational structure, including recent trends in unemployment.

Table 1 presents an historical overview of changes in the occupational structure since the inception of the national health-insurance system. The pattern is a familiar one in modern Western societies. In 1882, blue-collar workers constituted the dominant occupational group by far (56 percent), and the self-employed (28 percent) were a consid-

TABLE 1
Changes in Occupational Status, 1882–1985

| Total employed | | Self-employed | Employed in family business | Civil servants and white-collar workers | Blue-collar workers |
|---|---|---|---|---|---|
| Year[a] | *N* | (%) | (%) | (%) | (%) |
| 1882 | 18,957 | 28.0 | 10.2 | 6.1 | 55.8 |
| 1895 | 22,110 | 25.2 | 9.4 | 8.3 | 57.2 |
| 1907 | 28,092 | 19.6 | 15.3 | 10.3 | 54.9 |
| 1925 | 32,009 | 16.5 | 17.0 | 17.3 | 49.2 |
| 1933 | 32,296 | 16.4 | 16.4 | 17.1 | 50.1 |
| 1939 | 35,732 | 13.4 | 15.8 | 21.6 | 49.1 |
| 1950 | 23,489 | 14.5 | 13.8 | 20.6 | 51.0 |
| 1957 | 26,084 | 12.7 | 10.8 | 25.1 | 51.4 |
| 1960 | 26,653 | 12.4 | 9.8 | 28.1 | 49.7 |
| 1965 | 27,157 | 11.4 | 8.2 | 38.5 | 47.8 |
| 1970 | 26,617 | 10.4 | 6.7 | 36.2 | 46.6 |
| 1975 | 26,878 | 9.2 | 5.0 | 42.9 | 42.9 |
| 1980 | 26,328 | 9.0 | 3.6 | 45.4 | 42.0 |
| 1985 | 25,534 | 9.4 | 3.3 | 47.8 | 39.3 |

*Sources:* Ballerstedt and Glatzer 1979; Statistisches Bundesamt 1987. (Computations were performed by the authors.)
[a] Data for 1950–1985 refei only to West Germany.

erably more significant group than civil servants and white-collar workers with only 6 percent. By the beginning of the second world war, the population of civil servants and white-collar workers has tripled (22 percent), but blue-collar workers were still the dominant class (49 percent). Between 1933 and 1957 there was, because of the war, relatively little change in this structure. Since 1957, however, in the context of West Germany's economic miracle, the changes have been profound and dramatic. By 1985, the Federal Republic clearly had become a middle-class society, with almost 48 percent of its population in the white-collar ranks, and 39 percent classified as blue-collar.

Table 2 illustrates the recent effects of these changes in the occupational structure on average monthly incomes of the constituent groups. The 1980s were remarkably lucrative years for independent professionals and small businessmen, with relatively substantial increases in median income from 8,428 DM per month in 1980 to 11,019 DM in

TABLE 2
Average Monthly Disposable Household Income for Various Social Groups[a]

| | Self-employed[b] | | Blue-collar workers | | White-collar workers | | Civil servants | | Unemployed[c] | | Pensioners | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | DM | % change | DM | % change | DM | % change | DM | % change | DM | % change | DM | % change |
| 1980 | 8,428 | +0.0 | 2,855 | +5.6 | 3,537 | +5.0 | 3,863 | +6.0 | 1,607 | +3.5 | 2,082 | +5.9 |
| 1981 | 8,040 | −4.6 | 2,993 | +4.8 | 3,712 | +4.9 | 4,079 | +5.6 | 1,725 | +7.3 | 2,166 | +4.0 |
| 1982 | 8,720 | +8.5 | 3,037 | +1.5 | 3,800 | +2.4 | 4,133 | +1.3 | 1,716 | −0.5 | 2,248 | +3.8 |
| 1983 | 10,221 | +17.2 | 3,106 | +2.3 | 3,984 | +2.7 | 4,228 | +2.1 | 1,714 | −0.1 | 2,269 | +0.9 |
| 1984 | 11,019 | +7.8 | 3,166 | +1.9 | 4,009 | +2.7 | 4,289 | +1.6 | 1,660 | −3.2 | 2,344 | +3.3 |

*Source:* Paquet 1987.
[a] Disposable household income includes all income received from any source: employment, interest, business investments, rent, social transfer payments (minus taxes), and deductions, but not including tax refunds.
[b] Profits reinvested in nonincorporated businesses are also included as independent income. Thus, variations in the rate of change are more marked.
[c] Households in which the main income earner was unemployed.

1984. Civil servants and white-collar workers experienced more modest increases in income, but by 1984 had achieved 4,289 DM and 4,009 DM per month, respectively. Blue-collar workers lost some ground vis-a-vis the two white-collar groups, with a median income by 1984 of 3,166 DM. By 1983–1984 rates of increase in monthly income had slowed for virtually all of these groups. Most significant for this argument, however, is the growing segment of white-collar workers and the increasing incomes of white-collar workers and civil servants. By the mid-1980s, half of all those insured by the sickness funds could choose between the RVO funds and the substitute funds (Pfaff 1986; Altenstetter 1987). Thus, long-term changes in the class structure have created a substantial market for both the substitute funds and private health insurance. Given the nature of the exemption provisions, this market is, by definition and in fact, largely composed of white-collar groups with more education, higher incomes, and lower risks of illness.

Table 2 suggests, however, that the recent income experience of the unemployed is especially significant and striking. Although the unemployed experienced modest increases in average income in 1981–1982, they actually lost substantial ground in the next three years, especially vis-a-vis other groups. By 1984, average incomes were 1,660 DM per month, almost one-half of average income for blue-collar workers, and less than one-fifth of the income of independent professionals and small businessmen. Because the unemployed are a relatively high-risk group both medically (Schwefel 1987) and in terms of reduced absolute contributions, their recent experience in the occupational structure bears closer examination.

West Germany's rising unemployment is significant in this regard. A long period of low unemployment in the 1960s was followed by a relatively rapid increase in the mid-1970s to approximately 1 million, with a very rapid increase to approximately 2.3 million by 1986. Further, the composition of the unemployed labor force is especially striking and important. In September 1977, unemployment rates for white-collar and blue-collar workers were both relatively low (3.4 and 4.6 percent). By September 1987, the gap had progressively widened to 11.0 percent for blue-collar, and 6.0 percent for white-collar workers. Lowest rates in 1987 were among male white-collar workers (3.6 percent) and highest rates were among female blue-collar (14.0 percent) and foreign workers (14.0 percent). The age structure of this unemployment is also noteworthy, with the highest rates in the 55 to 60 age group (12.2 per-

cent) and the 25 to 30 group (10.2 percent). Further, among the total unemployed, unskilled workers represent the largest proportion (45 percent) of all unemployed and, altogether, number more than 950,000 (Statistiches Bundesamt 1987).

The RVO funds have a local as well as an occupational base. As a result, regional differences in economic development and unemployment are also relevant to this analysis. There are 11 states in the Federal Republic, ranging from Bavaria, the largest, in the South to Schleswig-Holstein and the city-states of Hamburg and Bremen in the North. Over the last ten years, economic development has been uneven, with economic problems and unemployment concentrated in the older industrial, ship-building, and coal-mining areas. Thus, unemployment in July 1987 was only 5.4 percent in Southern Bavaria, and between 13 and 15 percent in Hamburg and Bremen. Such variations are not surprising, of course, but they do have significant implications for both the revenue and expenditures of the funds, especially for local funds, like the Ortskrankenkassen.

Table 3 illustrates the occupational and social-class composition of the funds, and of private sickness-insurance associations. In 1985, 93.7 percent of all blue-collar workers were enrolled in the RVO funds, a reflection of the mandatory provision of the insurance law. A relatively small proportion of blue-collar workers (6.2 percent) are exempted from these provisions, and are almost exclusively enrolled in the substitute funds. White-collar workers are predominantly found in the substitute funds (59.7 percent), although a considerable minority (35.5 percent) are enrolled in the RVO funds. Civil servants, on the other hand, have relatively low representation in the RVO funds (16.5 percent) and substitute funds (9.8 percent), but are especially likely to have private insurance (73.7 percent). These occupational differences in membership are, of course, also accompanied by very substantial differences in income distribution. As table 4 indicates, the proportion of middle- and higher- income groups (2,200 DM+ per month) with private health insurance (64.3 percent) is more than twice as large as the proportion participating in substitute funds (30.2 percent), which in turn is over twice as large as the proportion in the RVO funds (14.8 percent).

Table 5 provides information on the distribution of unemployment for the RVO sickness funds and substitute funds, and private insurance companies in June 1985. As expected, the vast majority (61 percent) is concentrated in the RVO funds. More important, because the funds re-

TABLE 3
Occupation and Health Insurance Enrollment, 1985 (in thousands)

| Occupation | Statutory funds (RVO) | Substitute funds | Private insurance | Total insured[a] |
|---|---|---|---|---|
| Self-employed | 1,200 | 567 | 649 | 2,416 |
| | (49.7)[b] | (23.5) | (26.7) | (100) |
| Employed in family business | 594 | 71 | 37 | 702 |
| | (84.6) | (10.1) | (5.3) | (100) |
| Civil servants | 228 | 171 | 1,287 | 1,746 |
| | (16.5) | (9.8) | (73.7) | (100) |
| White-collar workers | 3,728 | 6,271 | 499 | 10,948 |
| | (35.5) | (59.7) | (4.8) | (100) |
| Blue-collar workers | 9,915 | 657 | 5 | 10,577 |
| | (93.7) | (6.2) | (0.1) | (100) |

*Sources:* Statistiches Bundesamt 1987: Fachserie 13; Bundesverband der Pharmazeutischen Industrie 1988. (Computations were performed by the authors.)
[a] Does not include persons who do not have health insurance or other insurance protection.
[b] Numbers in parentheses indicate percent.

ceive lower absolute contributions for their unemployed members, employed RVO members carry a substantially larger burden in subsidizing the unemployed than do employed members of the substitute funds or private insurance companies. While the ratio of employed to unemployed members is 87 to 1 in the private insurance companies, and 22 to 1 in the substitute funds, the rate for the RVO funds is 14 to 1.

## Competition as a Source of Stratification in the Sickness Funds

Competition among sickness funds in West Germany has existed to some degree since the inception of the system, and has been widely recognized and documented (Stone 1980; Light 1985; Rosenberg 1986). In Rosenberg's view, the class differences introduced into the German system from the very beginning are the primary source of competition. He argues, in fact, that "this weakness in German social legis-

TABLE 4
Health-insurance Enrollment and Income Distribution for All Employees, 1985 (in percent)

| Monthly net income (DM) | All income earners | Statutory funds (RVO) | | Substitute funds | | Privately insured | |
|---|---|---|---|---|---|---|---|
| Under 600 | 9.5 | 10.3 | | 9.1 | | 1.9 | |
| 600–1,000 | 8.3 | 8.7 | | 9.9 | | 2.0 | |
| 1,000–1,400 | 12.3 | 13.4 | | 12.9 | | 4.6 | |
| 1,400–1,800 | 18.3 | 21.5 | | 16.0 | | 7.5 | |
| 1,800–2,200 | 17.5 | 19.6 | | 15.6 | | 12.8 | |
| 2,200–3,000 | 13.1 | 11.0 | 14.8% | 14.3 | 30.2% | 23.0 | 64.3% |
| 3,000–4,000 | 6.5 | 3.2 | | 8.7 | | 21.0 | |
| 4,000+ | 5.0 | 1.6 | | 7.2 | | 20.3 | |
| No income reported | 9.6 | 10.8 | | 6.4 | | 7.0 | |
| Total | 100.0 | 100.0 | | 100.0 | | 100.0 | |

*Source:* Statistiches Bundesamt 1987: Fachserie 13. (Computations were performed by the authors.)
[a] Including pensioners and covered family members.

TABLE 5
Insurance Coverage and Employment Status, June 1985 (in thousands)[a]

| | Type of insurance[b] | | |
|---|---|---|---|
| | Statutory funds | Substitute funds | Private insurance |
| Employment status | | | |
| Employed | 14,954 | 7,563 | 2,430 |
| Unemployed | 1,057 | 349 | 28 |
| Ratio of unemployed to employed | | | |
| In percent | 7.1 | 4.6 | 1.2 |
| In absolute numbers | 1:14 | 1:22 | 1:87 |

*Sources:* Statistiches Bundesamt 1987: Fachserie 13; Bundesverband der Pharmazeutischen Industrie 1988. (Computations were performed by the authors.)
[a] Does not include pensioners or family members.
[b] Does not include otherwise insured or not insured.

lation has led each group to pursue their [sic] own interest" and to increased competition for members between the substitute and RVO funds. In this process, he suggests, the substitute funds have tried to give their members the status—and some of the benefits—of private patients. In the final analysis, he concludes, this competition has hindered cost containment (Rosenberg 1986, 114). Herder-Dorneich refers to this aspect of the competition among funds as the "snob-value" effect: the assumption that substitute-fund membership will bring potential members better benefits, more attention from providers, and higher status (Herder-Dorneich 1985).

Stone's assessment of the weakness of the funds as a countervailing force to the physicians' associations is similar. She concludes that competition usually begins with private health-insurance companies extending new benefits to affluent subscribers. In order to compete, substitute funds offer similar benefits, and pressure is placed on RVO funds to offer what is now becoming the new standard of care (Stone 1980). Competition then leads to an expansion of benefits and overall costs. In a similar vein, Landsberger (1981) concludes that the local community funds have faced an especially competitive situation. Because members of local funds are likely to be lower-paid blue-collar workers, even relatively high contribution rates lead to lower absolute monetary contributions per member, and less money to spend per member. As a consequence, such funds have to limit their benefits primarily to services mandated by statute, and are thus less attractive to potential new members, who are able to obtain more benefits at the same cost from other funds. In 1981, Landsberger suggests, the local community funds were responding to this competition by increasing benefits, expenditures—and contribution rates (Landsberger 1981, 7).

Competition between funds and private health-insurance companies may have negative effects on access to primary care, as well as costs. Substitute funds and private insurance companies have usually paid substantially higher fees to office-based physicians for identical services and procedures. Stone reports that by 1973 and 1974, physicians' fees from non-RVO funds were from 60 to 80 percent higher than statutory fees (Stone 1980, 149). Rosenberg and Ruban (1986) report similar, but smaller, differences in higher physicians' fees. As Schulenberg suggests, such economic incentives to physicians encourage them to give priority to individuals insured by private health insurance and substitute funds, leading to longer waiting times in physicians' offices for

members of the local community funds (Schulenberg 1983; Neubauer and Birkner 1980). Studies have shown that higher social classes use more specialty care than lower classes, which may be a reflection not only of their social position, but also of their insurance coverage (Thiele 1981). Local community funds may be less attractive in terms not only of lower benefits and status, but also perceived as bringing less access to and personal attention from physicians.

In the competition among sickness funds over the last 20 years, the substitute funds also appear to have been the dominant force influencing the basic structure of the insurance system. Until the early 1960s, for example, the RVO funds used a capitation system of reimbursement, which was increasingly unpopular among physicians. In response, the substitute funds adopted a fee-for-service system, which was more acceptable to doctors, and enough pressure was created on the RVO funds to change to the fee-for-service system as well (Stone 1980, chap. 6). The local community funds, for example, initially resisted the change to fee for service, but finally adopted it because they hoped to get rid of their image as "funds for the poor" and become more competitive against the substitute funds (Rosewitz and Webber 1990).

The substitute funds have also had a substantial influence on the catalogue of services and point values for the RVO funds. In 1965, when the government's catalogue was regarded as out of date, and no agreement could be reached between the RVO funds and government, the compromise reached was to adopt the catalogue and monetary values used by the substitute funds. A similar pattern developed in the negotiations over the list of services and relative point values established in 1977. At this time, the objective of the federal government was to establish a single catalogue and common relative values for both RVO funds and substitute funds. Between 1965 and 1977, however, the list of services and fee schedules for the substitute funds had again increased substantially beyond those of the RVO funds. The decision, again, was to use the list of services and point values of the substitute funds as the standards for the cost-control Act of 1977, and henceforth for all statutory funds. In the process of competition among funds, the substitute funds have consistently exercised a dominant influence over patterns of reimbursement, benefits, and fee schedules (Landsberger 1981, 14–15).

The relative dominance of the substitute vis-a-vis other funds is also

revealed through a comparison of trends in membership, utilization, and expenditures. Since 1960, membership in the local community funds has increased by approximately 800,000, to a total of 16.2 million in 1987. Similar increases have occurred in the factory funds, from 3.6 million in 1960 to 4.25 million in 1987. In the same period, however, the substitute funds have almost tripled their membership, from 4.7 million in 1960 to more than 12 million in 1987.

Differences among the sickness funds in utilization and expenditure over the last 25 years are also striking. Trends in hospitalization are especially revealing because increases in hospital costs are the largest and fastest-growing component of the overall increases in health-care costs. Table 6 summarizes recent trends in both hospital admissions and hos-

TABLE 6
Changes in Hospital Admissions and Days for Various Sickness Funds, per 100 Members, 1965–1985 (excluding pensioners)

| | Admissions/days | | | |
|---|---|---|---|---|
| Year | Total | Local community funds | Factory funds | Substitute funds (white collar) |
| 1965 | 8.2 | 8.5 | 8.8 | 7.5 |
| | 181.3 | 199.0 | 174.9 | 153.3 |
| 1970 | 8.6 | 9.0 | 8.6 | 8.5 |
| | 178.7 | 187.9 | 178.8 | 168.4 |
| 1975 | 9.7 | 10.1 | 9.0 | 9.9 |
| | 193.5 | 205.2 | 185.3 | 185.6 |
| 1980 | 11.6 | 13.0 | 11.1 | 10.6 |
| | 187.3 | 207.1 | 185.0 | 170.6 |
| 1985 | 12.6 | 14.7 | 11.4 | 11.1 |
| | 183.8 | 214.3 | 171.3 | 161.1 |
| Percent changes in rates: | | | | |
| 1965–1985 | | | | |
| Hospital admissions | +53 | +73 | +30 | +48 |
| Hospital days | +1 | +8 | −2 | +5 |

*Source:* Bundesverband der Pharmazeutischen Industrie 1988. (Computations were performed by the authors.)

pital days. For the sickness funds as a whole, there have been modest but systematic increases in admissions during the entire period, from 8.2 admissions per 100 members in 1965 to 12.6 in 1985. The admissions gap between the various funds has, however, become progressively larger. From 1965 to 1985, hospital admission rates increased 30 percent in the factory funds, 48 percent in substitute funds, and 73 percent in the local funds. By 1985, admission rates for the local funds (14.7 percent) were more than one-third higher than those in the substitute funds (11.1 percent).

Trends in hospital utilization are also revealing when measured in terms of hospital days per 100 members. The overall pattern for the sickness funds is lower hospital days in the 1960s, followed by a rapid increase in the early 1970s (193.5 days per 100 members), and then another decline in the 1980s, to 183.8 in 1985. The specific patterns for the various funds, however, were very different. The substitute funds experienced a 5 percent increase in hospital days in the 1965–1985 period to a rate of 161.1 per 100, whereas the factory funds experienced an actual decrease in hospital days to 171.3. In contrast, the local funds experienced an 8 percent increase to a level of 214.3 hospital days per 100 members. In fact, the gap in hospital days between the funds was greater in 1985 than in 1965, especially between the factory and local funds.

These differences in hospital utilization are dramatically expressed in the increasing gap between the funds in hospital expenditure per member (see table 7). The general cost explosion in health care is underlined by the enormous increases in overall hospital expenditures for all funds, from 91.57 DM per member in 1965 to 677.44 DM per member in 1985. However, the cost explosion has been much more significant for the local funds. Between 1965 and 1985, average hospital expenditures per member increased by 600 percent in the substitute funds and 675 percent in the factory funds, but by 710 percent in the local funds.

In the last 25 years, then, the substitute funds have greatly improved their competitive position vis-a-vis the other funds, not only in very large membership gains, but also in terms of utilization expenditures and more benefits to offer potential members. In the following section, we clarify that the trends and differences among funds identified here are also reflected in substantial differences among funds in the distribution of risk groups.

TABLE 7
Changes in Expenditures for Hospital Treatment for Various Sickness Funds, per Member (in DM), 1965–1985

| Year | Total | Local community funds | Factory funds | Substitute funds (white collar) |
|---|---|---|---|---|
| 1965 | 91.57 | 92.39 | 94.86 | 81.25 |
| 1970 | 171.15 | 175.16 | 175.94 | 151.63 |
| 1975 | 440.98 | 464.19 | 470.24 | 383.65 |
| 1980 | 548.71 | 596.80 | 601.14 | 462.14 |
| 1985 | 677.44 | 749.57 | 734.51 | 569.79 |
| Percent increase per capita: 1965–1985 | | | | |
| Hospital expenditures per member | 640 | 710 | 675 | 600 |

*Source:* Bundesverband der Pharmazeutischen Industrie. (Computations were performed by the authors.)

## Distribution of Risk Groups among Sickness Funds

Two recent studies have examined the distribution of risk groups among the major sickness funds. The first uses the German Cardiovascular Prevention Study (DHP), a national survey ($N = 4,769$) conducted in 1986, to compare health status and experience with chronic disease for members of the local community, factory, and substitute funds, and for those privately insured (Infratest 1988). Table 8 indicates that, among those who are insured privately or through the substitute funds, substantially higher proportions see themselves as having good or very good health than those in the factory or local community funds. For the insured aged 25 to 49, for example, 48 percent of community-fund members perceive themselves to be in good health while 57 percent of the substitute-fund members and 67 percent of those privately insured do so. Among those aged 50 to 69, only 24 percent of the local community members report good health, whereas 33 percent of the substitute-

TABLE 8
Distribution of Perceived Health Status among the Insured, by Sickness Fund, Age, and Sex

| Sickness funds | Percent responding that health status is very good or good | | | | |
|---|---|---|---|---|---|
| | | | | Age | |
| | Total | Men | Women | 25–49 | 50–69 |
| Local community funds | 38.1 | 43.4 | 34.5 | 48.0 | 23.6 |
| Factory funds | 39.8 | 44.2 | 34.9 | 50.1 | 26.5 |
| Substitute funds | 49.1 | 50.6 | 48.1 | 56.7 | 33.2 |
| Private insurance | 59.7 | 62.1 | 56.2 | 66.6 | 39.7 |
| All insured | 44.2 | 47.9 | 40.7 | 54.0 | 27.5 |

*Source:* Infratest 1988.

fund members and 40 percent of those privately insured enjoy a higher health status.

Similar differences among insured groups are also found for a number of cardiovascular risk factors, such as smoking, obesity, and high blood pressure, and for a variety of chronic illnesses, including heart disease, diabetes, and arthritis. Table 9 summarizes the insureds' experience with chronic illness. Persons with three or more chronic illnesses

TABLE 9
Distribution of Chronic Illnesses among Insured, by Sickness Fund

| Number of chronic illnesses | Percent responding by sickness fund | | | | |
|---|---|---|---|---|---|
| | Total | Local community funds | Factory funds | Substitute funds | Private funds |
| None | 46.3 | 43.7 | 43.0 | 49.8 | 56.5 |
| One or two | 37.8 | 37.2 | 38.5 | 37.9 | 33.3 |
| Three or more | 15.9 | 19.1 | 18.5 | 12.3 | 10.2 |
| Average number of chronic illnesses | 1.17 | 1.34 | 1.31 | 1.02 | 0.84 |

*Source:* Infratest 1988.

are twice as common, in fact, in the local community funds (19 percent) as among the privately insured (10 percent), while substitute-fund members are very similar to the privately insured (12 percent). In a similar vein, community-fund members are much more likely to report that health problems have interfered with their daily role performance (12 percent) than are the privately insured (3 percent) or members of the substitute funds.

In general, data from the DHP survey provide considerable evidence for the thesis that a class-based insurance structure and competition among sickness funds have a significant effect on the distribution of risk factors among the major funds. Although the evidence is limited, it suggests that the higher rates of hospital utilization and overall expenditure for the community funds may be explained, in part, by the underlying distribution of health risks of its members. In fact, however, there is also considerable evidence that the distribution of especially high-risk groups may be an even more significant factor. The high-risk group of primary interest is the unemployed, but some data are also available from local governments on individuals receiving welfare assistance (including health care), on disabled workers, and on workers receiving rehabilitation services. Unfortunately, most regional sickness funds do not maintain detailed utilization and cost data on various groups within their membership. Consequently, definitive comparisons among funds are not possible. Whenever possible, data on risk groups are presented for all of West Germany; in several instances, comparisons are limited to one of the most economically depressed regions in West Germany (the Ruhr region) and in particular to the experience of one of the local community funds (Duisburg).

Table 10 describes the national distribution of three important risk groups in various sickness funds. The largest group, with more than 1.5 million unemployed, is concentrated in the community funds (61 percent), although more than a quarter (27 percent) are found in the substitute funds. Table 10 also summarizes the national distribution for two smaller, but significant groups: young and/or disabled individuals who are institutionalized and workers receiving rehabilitation services. In these instances, the gap between the community (69+ percent) and the substitute funds (13+ percent) is even greater than for the unemployed. These smaller risk groups are important because intensive use of expensive technology and services by relatively small, seriously ill groups accounts for a very substantial proportion of all health-care

TABLE 10
Distribution of Risk Groups in Various Sickness Funds, 1986

| Risk group | Total (*N*) | Percentage insured: Community funds | Factory funds | Craft funds | Substitute funds |
|---|---|---|---|---|---|
| Unemployed workers | 1,558,951 | 61.3 | 4.5 | 6.7 | 26.5 |
| Young and disabled workers | 98,543 | 69.6 | 9.4 | 4.0 | 13.7 |
| Workers receiving rehabilitation services | 28,703 | 69.4 | 2.8 | 13.5 | 13.2 |
| | | As a proportion of generally insured | | | |
| Total | 1,685,597 | 9.8 | 2.9 | 7.2 | 4.6 |

*Source:* Bauer and Pick 1988.

costs, and because of their relatively low contributions to the insurance system (Bauer and Pick 1988). Table 10 also reveals that the three high-risk groups identified account for almost 10 percent of the community-fund membership, and 7.2 percent of the craft fund membership, but only 4.6 percent of the substitute funds and 2.9 percent of the factory funds.

Table 11 illustrates how the distribution of specific risk groups is further affected by differences among regions, with emphasis on the Ruhr region and Duisburg. Both jurisdictions experienced much higher unemployment in the four-year period examined than the country as a whole, and both have especially high proportions of two higher risk groups: the long-term unemployed and the unemployed who are over 45. In 1986, almost 32 percent of the unemployed in West Germany had been unemployed longer than one year; the figures for the Ruhr region and Duisburg were 41.5 percent and 42.9 percent, a substantial increase from 1983. Unemployed workers over 45 are also overrepresented in both the Ruhr region (34.7 percent) and Duisburg (37.8 percent) although the figures are also high for West Germany. Health restrictions that interfere with work are common among almost one-fifth of all the unemployed in West Germany, and only slightly higher is Duisburg (20.2 percent) and the Ruhr region (23.1 percent). Severely disabled members are more commonly found in Duisburg (10.3 percent) and

TABLE 11
Distribution of Selected Risk Groups Among the Total Unemployed in Duisburg, the Ruhr Region, and West Germany

| Location | 1986 | 1985 | 1984 | 1983 |
|---|---|---|---|---|
| Unemployed with health restrictions | | | | |
| Duisburg | 20.2 | 23.4 | 20.2 | 19.3 |
| Ruhr Region | 23.1 | 23.0 | 22.7 | 23.7 |
| West Germany | 19.9 | 19.0 | 19.5 | 19.8 |
| Severely disabled | | | | |
| Duisburg | 10.3 | 11.4 | 11.2 | 9.0 |
| Ruhr Region | 10.1 | 11.0 | 11.0 | 10.6 |
| West Germany | 6.0 | 6.2 | 6.5 | 6.3 |
| Unemployed over 45 | | | | |
| Duisburg | 37.8 | 39.8 | 37.4 | 31.0 |
| Ruhr Region | 34.7 | 34.7 | 32.9 | 29.8 |
| West Germany | 30.5 | 29.6 | 28.0 | 27.9 |
| Long-term unemployed (over 1 year) | | | | |
| Duisburg | 42.9 | 42.5 | 44.7 | 27.4 |
| Ruhr Region | 41.5 | 40.9 | 38.3 | 31.1 |
| West Germany | 31.9 | 31.0 | 28.8 | 24.9 |
| Overall unemployment rates | | | | |
| Duisburg | 15.6 | 15.5 | 15.5 | 15.1 |
| Ruhr Region | 14.7 | 14.7 | 14.3 | 13.2 |
| West Germany | 8.2 | 8.7 | 8.6 | 8.6 |

*Source:* Bauer and Pick 1988.

the Ruhr region (10.1 percent) than in the country as a whole (6.0 percent) in 1986.

The community funds in Duisburg have analyzed the relative cost of serving the various risk groups identified in the previous analysis. Table 12 summarizes the average contributions and expenditures for members in various risk groups, and in the right-hand column lists the contribution rates that would prevail for those groups if their members were required to pay the cost of their care, compared with the overall insured population. For the unemployed, which has the most members, the difference is relatively large (12.5 percent) in terms of the normal variation of contribution rates; the difference is especially great in

TABLE 12
Calculations of the Duisburg Local Community Fund on Their Financial Burdens for Special Risk Groups

| Membership group | Proportion of total membership | Income (DM per member) | Expenditures (DM per member) | Estimated contribution rates necessary to pay for actual cost of health care |
|---|---|---|---|---|
| Generally insured | 100.0 | 2,991 | 2,926 | 10.0 |
| Unemployed | 22.5 | 2,662 | 3,172 | 12.5 |
| Disabled who are compulsorily insured | 0.6 | 730 | 2,293 | 30.5 |
| Disabled who are voluntarily insured | 0.4 | 1,337 | 5,023 | 32.7 |
| Welfare recipients | 3.1 | 1,247 | 3,580 | 25.2 |

*Source:* Bauer and Pick 1988.

terms of aggregate expenditures because of the group's large size. For those receiving social welfare, contributions would be more than twice as high (25.2 percent), and for the disabled, 30.5 percent.

These statistics on contributions and expenditures associated with various risk groups are not complete or definitive. The limited evidence available, however, is striking. It suggests that the very structure of the insurance system and the competition among sickness funds mean that the high costs of care associated with high-risk groups is disproportionately borne by the lowest-paid manual workers in the most economically depressed industries and regions. In fact, one of the most telling facts about the West German health-insurance system is the very substantial variation in the contribution rates paid by employers and employees.

Figure 2 illustrates differences between and within the sickness funds for the 1978–1988 period. Average contribution rates for the local community funds (13.46 percent) are not only substantially higher than for other funds in 1988, but were increasing almost twice as fast in the ten-year period as most other funds. Even more striking, however, is that in some regions, usually in the northern cities, RVO members are paying rates of 15.5 percent (factory funds) and 16 percent (community funds), whereas in other regions workers contributed rates as low as 7.0 to 7.5 percent. As for the substitute funds, which are national associa-

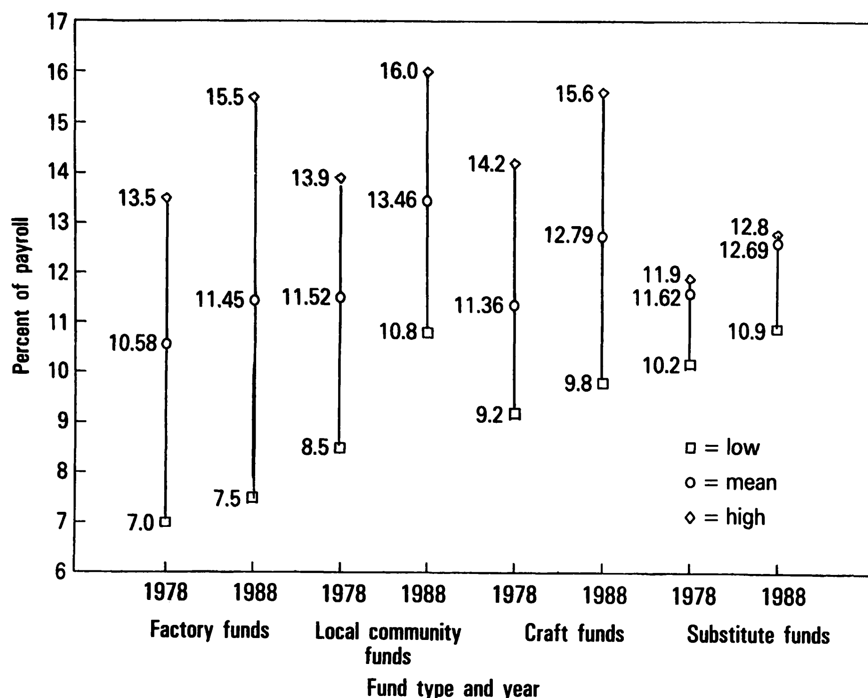


FIG. 2. Contribution rate—high, mean, and low: West German sickness funds, 1978 and 1988.
*Source:* National Association of Factory Sickness Funds 1988.

tions whose members are predominately white-collar or higher-paid manual workers, there is relatively little variation in contribution rates.

## Implications for Germany and the United States

The place of competition in a universal health-insurance system is a significant health-policy concern in both Germany and the United States. Since the health-care cost explosion of the mid-1970s, policy makers and economists in West Germany have been preoccupied with reforming the health-insurance system to control costs (Reiners 1987). In the process, many of them, like their counterparts in other European countries and in the United States, have been attracted to market-oriented reforms. In this context, there have been increasing calls for less regula-

tion and more privatization, and for more cost-sharing and competition (Beske 1982; Hamm et al. 1984; Henke 1986). The most far-reaching proposals, in fact, have called for changing from the current system of income-based contributions to one of risk-based premiums. Henke (1986) and Scheuch (1989) argue for a "dual" system of uniform basic coverage for everyone financed by income-related payroll taxes, with elective additional coverage available on a risk-oriented premium basis. Their rationale is that an increasingly educated and affluent population can and should make their own individual choices on the level of insurance they want, and that a more direct link between costs and benefits will make both consumers and providers more cost conscious. A similar proposal for adopting a system of risk-based premiums has, in fact, been made to the West German parliament by their council of economic advisors (Altenstetter 1987).

To date, these market-oriented proposals have had relatively little impact on the insurance system. There has been, since 1977, some modest cost sharing by patients for prescriptions, dental and optical services, hospital care, and rehabilitation and after-care services, but cost containment has proceeded primarily through an annual cap on expenditures for ambulatory care, regulation of physicians' fees, and prospective budgeting and reimbursement for hospital care (Landsberger 1981; Eichhorn 1984; Kirkman-Liff 1990). In fact, West Germany has been relatively effective in containing health-care costs without extensive market-oriented reforms, more so overall than the United States (Abel-Smith 1985; Pfaff 1988). Germany's relative success to date suggests, in fact, that proposals for more privatization, competition, and cost sharing cannot be justified in terms of recent economic outcomes.

In our view, these market-oriented proposals would further threaten the principle of solidarity: the concept of shared responsibility for the health and welfare of the whole nation on which the insurance system is based. Even the limited evidence available suggests that existing stratification and competition between insurers already have produced a very substantial problem in the segmentation of high-risk groups. This has meant, in turn, that the higher cost of their care is disproportionately borne by lower-paid manual workers in economically depressed areas.

Several recent developments are likely to increase, rather than resolve, these problems. First, several large firms are now establishing new factory funds for their own employees as a means of avoiding the

high contribution rates prevailing in the local community funds. Second, a recent change in the insurance law (January 1, 1989), which allows higher-income manual workers (4,575+ DM) to enroll in the sickness fund of their choice, is estimated to affect 735,000 blue-collar workers, and is likely to lead to more lower-risk groups leaving the RVO funds (Zipperer 1989). Finally, among the 16 million East Germans who will be integrated into the insurance system, there will be a substantially higher proportion of low-income and underemployed persons who may have substantially greater health risks. If the concept of solidarity is to remain as a central assumption of the insurance system, the new German government will need to examine carefully alternative approaches to sharing the cost of paying for the health care of high-risk groups. In this respect, the arrangement for pensioners (KVdR) is a tested model that could be adapted for use with other high-risk groups, and potentially could provide an effective mechanism for redistributing the very high costs of their care among the sickness funds.

In our view, too, the German experience has significant implications for the United States, and especially for those proposals for universal health insurance based on employment and administration by multiple insurers (Battistella and Weil 1989; Thorpe 1989; Enthoven and Kronick 1990). In the first place, the recent history of fierce competition among managed-care plans and other insurers in the United States should raise serious questions about the possibility of managing broad risk sharing and cost sharing across social classes in the U.S. health-insurance market. The U.S. market is characterized by a number of competitive strategies that undermine efficiency and fairness, including product differentiation, biased information, discontinuities in coverage, major marketing efforts to enroll low-risk groups, and policies of avoiding and/or refusing insurance for high-risk groups and individuals (Enthoven and Kronick 1990a,b; Stone 1989). Even under the German system of limited competition, where explicit risk rating and risk selection are prohibited, competition among insurers on the basis of contribution rates and benefits still leads to some serious problems in the segmentation of risk groups. In the competitive environment of the United States, risk sharing and cost sharing would be even more drastically undermined.

The German experience suggests in fact that a universal health-insurance plan for the United States should contain two important features to ensure that broad risk sharing and cost sharing are maintained. The first is that competition among insurers would have to be even

more severely limited or "managed" than even Enthoven and Kronick propose (1990a,b). From our perspective, their version of "managed" competition and "risk rating" would not eliminate risk selection or the economic incentives that underlie it, although their proposal would place substantially greater controls on risk selection. We believe, in fact, that broad risk sharing and cost sharing will not be achieved unless explicit risk selection is entirely prohibited, and insurance plans are required to practice community rating, as Enthoven proposed in his original plan (Enthoven 1980).

The second lesson to be learned from Germany is that the United States should consider development of a mechanism similar to the German arrangement for pensioners (KVdR). This would allow high-risk groups to be enrolled in and served by the same insurance plans that serve the rest of the population, but would both distribute the costs of their care among various groups and levels of government and protect insurance plans that enrolled a disproportionate concentration of high-risk groups. Although this approach has been used in Germany to date only for pensioners, the model is appropriate for any situation in which the financing of care needs to be broadly shared and costs need to be balanced among multiple insurers. Such an approach, of course, could ultimately be substituted not only for the Medicaid and Medicare programs, but also for any publicly sponsored program in which the poor, elderly, or other high-risk groups were enrolled in separate insurance plans. Given the continued vulnerability of both Medicare and Medicaid to enormous economic and political pressures to reduce public expenditures, this may be an especially significant time to examine the German experience.

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