

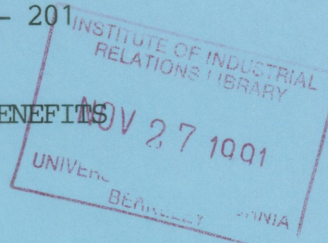
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SOCIAL INSURANCE AND BENEFITS

by

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All developed countries provide protection against economic risk through public and/or employer-administered programs. How much is provided, and the mix of public vs. private, vary substantially across national boundaries. In the U.S. there has been growing tension over the appropriate mix and the level of generosity. Recent debate about creating a system of national health care or about mandating employer-provided health care is but one symptom. What was the contribution in the 1980s of academic research - mainly in economics and industrial relations - to the debate over, and understanding of, social insurance and employee benefits?

It is argued below that while much useful research was undertaken, there were also deficiencies in the resulting literature. At times, narrow issues and narrow perspectives were unduly emphasized, thus widening the gap between research and application. However, the gap was two-sided. Practitioners and policy makers often failed to acquaint themselves, or to apply, research findings or perspectives. Public policy has addressed the issues piecemeal. The question of how social insurance and benefits fit into the changing employment relationship is seldom asked.

Truth in packaging requires the author to put forward his own views of the "why" of social insurance and benefits. Sections I and III, below, provide that perspective while Section II reviews the stylized facts of the benefit system with which researchers must be familiar. The remainder of this chapter is devoted to a review of the 1980s research literature on benefits and conclusions for public policy. In essence, it is argued that after a decade of modeling and theorizing, a greater emphasis on the study of institutions and history is warranted. Public policy would benefit from an end to the piecemeal approach.

I. The 1980s Research Perspective: A General Critique

Public policy debates regarding social insurance and benefits have always been mirrored in academic research. But the mirror is often distorted. Academics have frequently seen the issues from perspectives different than those of the policy makers, who create social insurance and provide incentives to install private benefits, and from those of the practitioners - employers and union officials - who administer benefits at the firm level. By themselves, views from a different perspective can be useful. But absent agreement on what the important questions are, and absent a means of adequate communication, the perspectives remain isolated. Research becomes enveloped in its own cocoon and practitioners and policy makers

remain unaware of its potential contributions.

i. The Questions Gap

Consider, as an example, research on Social Security. Economists who deal with Social Security spent the 1980s worrying a great deal about the impact of the system on national saving. (Bernheim & Levin, 1989; Briden & Zedella, 1986; Burkhauser & Turner, 1982; Feldstein, 1982, 1985; Hubbard, 1985; Hubbard & Judd, 1987; Koskela & Viren, 1983, 1986; Leimer & Lesnoy, 1982; Novos, 1989) In principle, less-than-fully-funded Social Security wealth might induce individuals to save less for their retirements than they otherwise would.¹ Yet the academic debate remained inconclusive due largely to a clear counterfactual model; what individuals would otherwise have done if there were no Social Security system is not known. If, for example, the elderly would have been supported by their children, then a pay-as-you-go Social Security system is merely a formal substitute for a traditional mechanism; saving could be unaffected. The rate of personal saving in 1929 - the first year an estimate from the national income accounts is available - was only 3.2%. Since the year 1929 predates Social Security, the intergenerational transfer model has plausibility as a counterfactual proposition.²

While there was no harm in principle in studying the saving effect, the inconclusiveness of the outcome could largely have been foreseen. Enough work had been done in the 1970s on the saving issue to suggest the ambiguous outcome. Moreover, members of Congress in the 1980s saw the tax and revenue side of the program as a question of budget balancing rather than of national saving. They tended to fine-tune Social Security taxes and benefits in response to accounting measures of surpluses and deficits and probably will continue to do so. (Aaron & Burtless, 1989; Doescher & Turner, 1988; Weaver, 1985) If researchers had come up with startling new findings on the saving issue, perhaps the standard budget-oriented approach of policy makers would have been altered. But there was little likelihood that that would have - or could have - occurred.

Congress was also worried about fairness and equity issues related to the Social Security system, e.g., the proposal by Senator Moynihan to cut Social Security payroll taxes in order to provide middle and lower income tax relief.³ Academic researchers may have had things to say about these issues but their views were often inaccessible.⁴ Generally, issues of fairness and equity either made researchers uncomfortable or was not of great interest to them in the 1980s. It was

left to the technicians within government, and to a few researchers in Washington think-tanks, to wrestle with such issues. The kind of institutionalist economists and industrial relations types who once contributed greatly to the establishment of Social Security seem to have vanished.

ii. The Communication Gap

Practitioners (employers, unions) worry about the cost and adequacy of the benefits they provide and negotiate and tend to be less concerned about social insurance on a day-to-day.⁵ Here again there was a gap between potential users of research and academic interests, one largely of abstraction vs. application. Academics in the 1980s often focused on employee behavioral responses to benefits, e.g., do pension plans function as long-term anti-shirking devices? Sometimes employee behavioral responses were linked to the cost side of benefit provision, especially with regard to health service usage. But the information channels between academic research and practitioner knowledge were often tenuous. To the extent that academics saw employee behavioral responses as simply interesting experiments capable of testing empirical methodologies, the communication gap was reinforced.

Perhaps the biggest divide between the academic perspective and the practitioner (and policy maker) view remained the question of who pays for benefits and social insurance. Where government programs are financed by payroll taxes or mandatory contributions, economists generally assume that some (if not all) of the incidence of the tax falls on labor, e.g., that wages are lower than they otherwise would be.⁶ (Brittain, 1972; Viscusi & Moore, 1987; Gruber & Krueger, 1990) Whether this effect has any impact on labor supply depends in part on the degree to which extra taxes are linked to receipt of extra benefits. (Thompson, 1983)

Where purely private benefits are involved, it is assumed that a compensating differential effect also lowers wages. (Allen, Clark, & Sumner, 1986; Schiller & Weiss, 1980; Smith, 1981; Woodbury, 1983) Thus, Chrysler chairman Lee Iacocca's much-quoted estimates of how much of each Chrysler car consisted of health insurance was a source of frustration to economists. (Pauly, 1988) Such estimates have meaning only if health insurance costs simply add to total compensation on a dollar-for-dollar basis (with no offsetting wage effect). Iacocca's estimates are examples of researchers, practitioners, and policy makers talking completely different languages about benefits. Lack of a translator frustrates a potentially useful

dialogue on all sides.

There are possible resolutions to the seemingly irreconcilable researcher-practitioner approaches. Consider again the incidence issue. It is important to note that not all econometric studies actually find a compensating differential for benefits, e.g., Smith & Ehrenberg (1983). There is also the historical evidence that employers sought to portray their benefit offerings as something extra, a "gift" above and beyond the market wage. The use of the word "fringe" to describe benefits conveys the idea of an addition to the wage, not a substitute for it. Employers fought against the inclusion of benefits as a mandatory subject of collective bargaining in the late 1940s (although they lost that battle as a legal matter). Bargaining over benefits along with wages lumped the two forms of pay together as part of the "pie" to be divided between labor and management. The lumping, in turn, made it harder for employers to continue the gift notion.

Mitchell, Lewin, & Lawler (1990) document that in connection with incentives such as bonuses and profit sharing, the standard wisdom in personnel management has been that these should be perceived by workers as a reward for special effort. Thus, the employer should take care to ensure that these payments were in fact "gravy" on top of the going wage. And, indeed, the limited evidence available suggests that gravy approach prevails for these types of incentive payments.

The purpose of this illustration is not to argue that benefits and social insurance are in fact just gravy. Indeed, this author's priors are that programs such as pensions, health insurance, and Social Security are largely paid for by workers in the long run. Rather the key point is that the issue is complex and not self-evident. Practitioner and policy maker perceptions need to be given some weight in these matters and not dismissed out of hand. Studying personnel practices and their origins might well pay dividends in reconciling the premises of practitioners and academics.

iii. Missing the Big Picture

Academics have often used narrow lenses in looking at benefits and social insurance. Often particular issues are debated to excess while others are left aside. Mention has already been made of the Social Security/saving issue. A more glaring example was research in the 1980s concerning the impact of unemployment insurance (UI) on unemployment rates. This stream of research has clearly reached diminishing returns. (Ben-Horim & Zuckerman, 1987; Benham, 1983; Burgess & Kingston,

1981; Cooke, 1981; Hills, 1982; Lardaro, 1985; Moffitt & Nicholson, 1982; Portugal & Addison, 1990; St. Louis, Burgess, & Kingston, 1986; Tannery, 1983; Topel, 1983, 1984) It is widely recognized now that although there may be conflicting incentives, UI does tend net to increase unemployment durations of recipients and to subsidize layoffs (due to incomplete experience rating). On the other hand, because the system covers only some workers, it also tends to rearrange the queue of job seekers so that the overall impact on unemployment is diminished - perhaps to zero. (Levine, 1991) A moratorium on this topic could usefully be declared.

In contrast to the overworked duration issue, the question of declining coverage of job losers by UI during the 1980s, an matter of interest to policy makers, received attention only from researchers close to the Washington scene (e.g., Burtless, 1991). Nitty-gritty issues such as UI system funding deficiencies also were mainly the province of those on the Potomac (e.g., Vroman, 1989). And even the favorite academic "problem," increased unemployment durations of UI recipients, seldom was targeted for research into solutions (other than the implicit one of cutting UI benefits).⁷

How can one interpret the academic preoccupation in the 1980s with "distortions" from social insurance (saving and Social Security; unemployment and UI) and the relative disinterest in solutions and operational questions? A woman from Mars might be forgiven if she concluded that the political shift to the right in the country influenced the academic perspective. But she would be only partially correct. A bigger problem is that research for many years has drifted towards narrow behavioral and methodological issues and away from making key social institutions work better. The issue is one of balance and focus.

iv. Adoption of Social Institutions

There are political and social reasons why countries adopt particular social insurance and private benefit structures. But interest in examining these reasons was not widely reflected in the economics and IR research of the 1980s. The wide variance in response to similar problems across countries was often overlooked, despite fashionable rhetoric about globalization. And even in the purely American context, lessons that could have been drawn from the historical evolution of benefit and social insurance provision were neglected.

Researchers presumably do (or should) understand the importance of the tax code in promoting adoption of private benefits in the U.S. (Long & Scott, 1982) But

wherever possible, they seemed anxious to develop models explaining why it was optimal (apart from tax considerations) for employers to be benefit providers. With regard to health benefits, it was difficult to come up with non-tax reasons for employers to provide them, using the standard economic model. So - as will be explored below - health benefits have been viewed critically as a tax-induced distortion. On the other hand, it was easier to come up with stories about pensions which do fit the economic model. So the possibility tended to be ignored that tax considerations were also a primary motivator regarding employer provision of retirement benefits. More generally, there has been a tendency to neglect the development of public policy (including tax law) and the evolution of workplace norms and expectations which surround the U.S. benefit system.⁸

v. Benefits and the Employment Relationship

Also overlooked - and this is surprising from a perspective of traditional industrial relations research - is the change in the nature of the employment relationship and what this shift implies for both employee benefits and social insurance. The American private benefit model was based in the 1950s on large stable and paternal enterprises which provided job security. But during the 1980s there developed new instability in the employment relationship. This instability showed up directly in such benefit issues as continuation of health insurance layoff or retirement. It also had ongoing implications for the mix of private benefits (which are often firm specific) and for economy-wide social insurance.

Employers, for many reasons, seem to be pulling back from prior commitments to employees and from stable workplace practices. As a result, pension plan termination in the context of corporate restructuring emerged as a policy issue in the 1980s and is likely to remain one. These economic changes are occurring against the background of an aging workforce whose demands for stability and benefits are likely to grow. How will these conflicting forces play out? How should they? Should public policies be altered? The academic literature was largely silent on these questions in the 1980s.

Similarly, there have been shifts in the U.S. labor supply toward greater demographic diversity. Again, the model of the senior male breadwinner in a long-term job increasingly does not fit the benefit preferences of the workforce. Consequently, calls for benefit "flexibility" are often heard. (Stelluto & Klein, 1990) One solution which was often cited - but proves difficult to implement in

practice - was the "cafeteria" approach to benefits. Under this approach workers allocate their benefit dollars among a menu of benefit alternatives. But although such plans grew in the 1980s, they still covered only a small fraction of the workforce by the end of the decade. (Meisenheimer & Wiatrowski, 1989)

Administrative and adverse-selection costs were usually cited as inhibitors of cafeteria programs. Employers and policy makers faced with continuing demographic diversification would undoubtedly have benefitted from research into making the cafeteria approach more feasible and less costly. However, there seems to have been little research on this issue.

Despite these deficiencies, significant research contributions were made in the 1980s. These contributions will be discussed below in Sections IV and V dealing with private health and retirement benefits. For reasons of economy, other benefits which are intimately related to working conditions (such as vacations and leaves) are omitted from the discussion. In any case, there has not been much academic work on such working-condition benefits. Also omitted are pure tax gimmicks for the higher paid (e.g., company cars) and elaborate executive compensation schemes.

II. Stylized Facts of Benefit Provision

What are the key characteristics of the U.S. system of benefits and social insurance? One way to respond to this question is statistically. Happily, efforts were made in the 1980s to expand the data sources available. Worthy of mention in this regard are the privately-produced EBRI Databook on Employee Benefits (Piacentini & Cerino, 1990), the U.S. Department of Labor's Trends in Pensions (Turner & Beller, 1989), and Health, United States (U.S. Department of Health and Human Services, 1991). Additionally of note were (and are) the Bureau of Labor Statistics' (BLS') regular surveys of medium to large firms and its expansion of the Employment Cost Index.⁹

A major data collection effort at the National Bureau of Economic Research (NBER) regarding pensions resulted in the statistical compendium Pensions in the American Economy (Kotlikoff & Smith, 1983). By the end of the decade, information in this NBER volume had become somewhat dated. However, included in the tables were historical data going back as far as 1950. Finally, data-oriented articles concerning benefits and social insurance often appeared in two official journals and will undoubtedly continue to be featured in their pages: the Monthly Labor Review and the Social Security Bulletin.

i. Benefit Coverage

Tables 1-4 summarize major characteristics of the private benefit system. On Table 1, size of establishment (and firm) is shown to be positively correlated with pay levels generally and with benefit provision for full-time workers. Employees in big establishments not only receive more total compensation than others; they also receive a larger proportion of their pay in the form of insurance and pensions. (Burke & Morton, 1990) Small establishments and firms are less likely to provide insurance or retirement benefits than large. The least likely person to receive benefits is a part-timer at a small enterprise.¹⁰

Unionization has an effect similar to size; union establishments feature higher compensation and are benefit-intensive. (Freeman, 1981) On the other hand, unionization is negatively correlated with the use of savings and thrift plans. Such programs tend to emphasize individual advance provision for retirement rather than collective entitlements. Not surprisingly, unions prefer the latter approach.¹¹

Although not shown on the table, public-sector employers - like unionized private employers - put more compensation into benefits than do private. (Belman & Heywood, 1991; Quinn, 1982) But the kinds of benefits offered may vary between the public and private sectors. For example, defined-benefit pensions are more popular (and defined-contributions less popular) in public vs. private employment. (Wiatrowski, 1988) Historically, both union employment and public-sector employment have been associated with long job tenures and the preferences of older workers.

With regard to legally-required social insurance, the size/cost relationship reverses. Larger establishments tend to spend less as a fraction of total compensation on Social Security and unemployment insurance than do smaller ones, probably because of the ceiling on taxable earnings.¹² The same is true of unionized establishments. Relative workers' compensation costs fall with size of firm, suggesting economies of scale in administration. Workers' compensation is mandated private insurance in most jurisdictions. The fact that smaller firms find it proportionately more expensive undoubtedly explains their general opposition to other proposed legal mandates such as compulsory health insurance.¹³ Workers' compensation costs also rise with unionization. Unions often refer their members to attorneys who handle claims under Workers' Compensation and could generally be expected to inform members of their legal rights. Hence, the positive correlation is entirely reasonable.

**Table 1: Hourly Expenditures for Employee Compensation: Private Sector,
March 1990**

		Establishment Size			Union Status	
	All	1-99	100-499	500 or more	Union	Nonunion
	Dollar Cost of Compensation					
Total Compensation	14.96	13.08	13.82	20.02	18.78	14.22
Wages & Salaries	10.84	9.77	10.02	13.90	12.47	10.52
Other Payments*	1.43	1.05	1.25	2.38	2.17	1.28
Insurance	.92	.69	.88	1.44	1.56	.79
Pensions	.36	.29	.29	.57	.78	.28
Savings & thrift	.09	.04	.10	.19	.07	.10
Social Security	.89	.80	.84	1.15	1.08	.86
Unemployment Ins	.12	.12	.13	.12	.13	.12
Workers' comp	.31	.32	.31	.27	.52	.27
	Percent of Total Compensation					
Total Compensation	100.0	100.0	100.0	100.0	100.0	100.0
Wages & Salaries	72.5	74.7	72.5	69.4	66.4	74.0
Other Payments*	9.6	8.0	9.0	11.9	11.6	9.0
Insurance	6.1	5.3	6.4	7.2	8.3	5.6
Pensions	2.4	2.2	2.1	2.8	4.2	2.0
Savings & thrift	.6	.3	.7	.9	.4	.7
Social Security	5.9	6.1	6.1	5.7	5.8	6.0
Unemployment Ins	.8	.9	.9	.6	.7	.8
Workers' comp	2.1	2.4	2.2	1.3	2.8	1.9

*Leaves, vacations, wage premiums, nonproduction bonuses, other.
Details need not sum to total due to rounding

Source: U.S. Bureau of Labor Statistics, press release USDL: 90-317, June 19, 1990;
Employer Costs for Employee Compensation in Private Industry, by Establishment Size,
March 1990, summary 91-5, April 1991.

For core employees in larger firms, insurance and pension provision is the norm, as Table 2 illustrates. Offering medical and life insurance has become standard practice. Pensions are somewhat less common, but still cover a heavy majority of full-time workers. Defined-benefit pensions - in which the benefit is typically determined by a formula relating to age, seniority, and final earnings - are the most common form. However, defined-contribution plans, which are basically employer-provided savings arrangements, are also quite common. And many workers now have both types of plans. Production and service workers are less likely than other categories to have defined-contribution plans. Union preferences for defined benefits and the lesser attractiveness of secondary tax-favored savings arrangements for blue-collar workers are significant factors in explaining the gap.

Since smaller firms are less likely than large to provide benefits, and since part-time workers are less likely to be eligible for benefits, Table 2 greatly overstates the coverage of private benefits for the overall wage and salary workforce. Consistent and reliable economy-wide data for the U.S. are surprisingly hard to come by, although they tend to be much better than those reported for other countries. One study, based on Current Population Survey data, found that only 46% of all full-timers in the private sector were covered by some kind of pension in 1988. When coverage is defined to include only basic pension plans (and not saving plans such as 401ks), for all workers (full and part time) the figure dropped to 34%. (Woods, 1989) Even for the full-timers, the data indicated a gradual decline in coverage since the 1970s. About two thirds of all persons with work experience in 1985 were reported covered by a work-related health insurance plan. (D. Mitchell, 1990)

The proportion of compensation received by workers in the form of direct wages and salaries has tended to fall historically, as can be seen from Table 3. Much of the decline, however, is due to increased costs of legally-required social insurance. Regarding the private benefits, the picture has been mixed in recent years, despite the widely-held belief that the benefit share of pay inexorably rises over time. As will be discussed below, employer contributions to pensions as a percent of total compensation fell in the 1980s, due to high rates of return on pension fund assets. In contrast, health care cost containment efforts failed to stop the relative inflation of employer-provided medical plans.

The final stylized statistical fact is the heavy government subsidy provided through the tax code to private employee benefits. As Table 4 shows, the federal

Table 2: Percent of Full-Time Employees Participating in Selected Employee Benefit Programs, Medium and Large Firms, Private Sector, 1989

	All Employees	Prof. & Admin.*	Tech. & Clerical**	Production & Service
Medical Care	92	93	91	93
Dental Care	66	69	66	65
Life Insurance	94	95	94	93
Pension***	81	85	81	80
Defined Benefit	63	64	63	63
Defined Contribution****	48	59	52	40

*Professional and administrative employees.

**Technical and clerical employees.

***Less than sum of defined benefit and defined contribution plans because some workers have both types of plans.

****Includes savings and thrift plans, deferred profit sharing, employee stock ownership, money purchase plans, and stock bonus plans.

Source: U.S. Bureau of Labor Statistics, Employee Benefits in Medium and Large Firms, 1989, bulletin 2363 (Washington: GPO, 1990), p. 4.

Table 3: Trends in Components of Compensation

	Percent of Total Compensation in Each Category by Year						
	1929	1939	1949	1959	1969	1979	1989
Wages & salaries	98.7	95.5	94.9	92.4	89.6	83.9	83.6
Legally-required	n.a.	n.a.	3.6	4.4	6.1	8.8	9.6
Pensions & profit sharing	n.a.	n.a.	.9	1.7	2.0	3.3	1.6
Health insurance	n.a.	n.a.	.4	1.1	1.7	3.4	4.7
Life insurance	n.a.	n.a.	.1	.3	.4	.4	.4
Other*	n.a.	n.a.	.1	.1	.1	.1	.2
Total Compensation	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*Consists largely of directors' fees and supplemental unemployment benefit insurance contributions.

Source: U.S. Bureau of Economic Analysis, The National Income and Product Accounts of the United States, 1929-82: Statistical Tables (Washington: GPO, 1986), Tables 6.4, 6.5, 6.12, 6.13; "The U.S. National Income and Product Accounts: Revised Estimates," Survey of Current Business, vol. 70 (July 1990), same tables.

**Table 4: Tax Expenditures for Selected Employer-Provided Benefits,
Fiscal Year 1990**

	Revenue Loss
	\$ billions
Pensions	\$45.4
Medical	26.4
Life insurance	2.6
Accident/disability insurance	.1
ESOPs	1.9
Note: Homeowner Mortgage Deduction	\$37.6

Source: U.S. Office of Management and Budget, Budget of the United States Government, Fiscal Year 1992 (Washington: GPO, 1992), Table XI-1.

tax revenue losses related to employer-administered retirement and insurance benefits far exceed the more widely discussed homeowner mortgage interest deduction. Beyond the federal costs, additional tax revenue losses accrue to state governments. The major role played by the tax system in establishing and sustaining the modern American system of employer-provided benefits simply cannot be ignored.¹⁴ Moreover, the wedge which the subsidy creates between employee value and employer cost complicates the area of benefit measurement. (Famulari & Manser, 1989) Even in the budget-conscious climate of the 1980s, only a few researchers were willing to suggest major cutbacks in the tax subsidy to core benefits. (Munnell, 1988) Perhaps this was because such suggestions seemed bound to be ignored, despite the regressive effects such subsidies often entail. (Wilensky, 1982)

ii. Decentralized Provision and Regulation

The most important stylized fact about the U.S. benefit system is not statistical. Rather it is the decentralized nature of the private (and some public) components of the system.¹⁵ Legally-required social insurance covers the vast majority of employees. Thus, only a small proportion of the workforce (mainly certain government employees) is not covered by Social Security. But private coverage of benefits such as pensions is at the discretion of employers. The result is a patchwork of variegated and often less-than-fully portable benefit programs. Layoffs, in particular, can put benefit coverage at risk.

A study of displaced workers who had health insurance coverage on their old jobs revealed that among those finding new jobs, about one sixth, had no coverage. Non-coverage rates were, of course, substantially higher for those remaining unemployed or out of the labor force. (Herz, 1991; Podgursky & Swaim, 1987) The conflict between employer-linked benefits and pressures for greater employee mobility (both voluntary and involuntary) has - not surprisingly - begun to express itself in public policy initiatives.¹⁶

There is a cross-national irony here. In the U.S. - where labor mobility rates have been relatively high - the private benefit system is designed for long-term job attachments. Put another way, it has an anti-mobility effect since job changing is effectively often penalized. (O. Mitchell, 1982; 1983) But in Europe, where mobility rates have long been low, the benefit system is consistent with job changing thanks to the tendency to use national benefit systems external to the firm. (D. Mitchell & Rojot, 1991)

U.S. benefits are also regulated on a decentralized and often uncoordinated basis. Thus, employers can escape from the rigors of state laws regulating insurance carriers by self-insuring their health benefits. Self insurance puts them under the coverage of weaker federal regulation under the Employee Retirement Income Security Act (ERISA). It might be expected that larger firms would be best equipped to administer self insurance. Indeed, seven out of 10 firms with 1,000 or more workers are self-insured. But the practice of self insurance has spread as well to over one fourth of those smaller firms which provide medical plans. Yet small firms do not have the law of large numbers in their favor when dealing with health risks. (Sanchez, 1991) Moreover, if a self-insured employer becomes financially unable to pay for promised benefits, adversely-affected employees have relatively little recourse.

Similarly, employers can rid themselves of the rigors of ERISA-related regulation and mandatory termination insurance of defined-benefit pensions by liquidating their pensions and giving employees annuities issued by private insurance carriers. Such liquidation typically amounts to a loss of pension wealth by employees, as will be discussed below. But it also leaves them with the lesser protection of state insurance regulators. And, again, should the insurance carrier encounter financial difficulties, retirement payments are put in jeopardy since federal termination insurance no longer applies.¹⁷

Academic research has not focused much on regulatory incentives and disincentives of this type. The basic stylized facts of Tables 1-4, in contrast, are well known to researchers specializing in the compensation area. But with no one looking at the overall regulatory structure - and with regulation reacting to perceived problems on a piecemeal basis - the U.S. benefit structure ends up requiring a substantial private bureaucracy. That is, apart from governmental regulators, there need to be benefit administrators, experts, and counselors within employers. A major benefit "industry" - employers, unions, management consultants, and insurance carriers - has sprung up to lobby and interface with government regulators and law makers. The result has been complexity and instability of regulation.¹⁸

III. A Brief History of U.S. Benefits

Analysis of historical documents from the period before the 1930s reveals a lack of clear distinction in that early era between public vs. private provision of

benefits. European systems, particularly early German social security and various collective "mutual benefit funds" in other countries, attracted considerable attention among social reformers in the U.S. Even within public provision, there was no clear line drawn between what would today be considered "welfare", e.g., programs such as AFDC which are means-tested, and those which would be viewed today as social insurance, e.g., retirement entitlements under Social Security. Proposed and actual state-run "widows' (or mothers') pension" schemes in the 1920s were an example of this ambiguity. Widows' pensions were financed out of general revenue rather than employee/employer contributions and were means-tested. Yet they eventually evolved into survivors' insurance under Social Security, which - in contrast - is funded out of employer/employee contributions and which is not means-tested.

As another example, the 41 so-called "state old-age pension acts" in existence when the Social Security Act was passed in 1935 were essentially relief laws, not pensions in the modern sense. (Parker, 1936) These programs - the earliest of which dated from 1915 - became the basis of federal-state means-tested old-age assistance which still continues. The use of the word "pension" during and prior to the 1930s to describe private company plans, government relief programs, and social insurance illustrates the blurry lines that once surrounded such programs.

Benefits provided by firms were termed "welfare work" in the early part of the twentieth century. The phrase had a connotation of doing Good Works. Employer welfare benefits were often seen as part of a continuum running from provision of such benefits by various fraternal, ethnic, or religious mutual aid societies to the beneficial programs of unions and to various embryonic government programs. Exactly what ideally was supposed to be in the employer's benefit "package" was also unclear. Medical insurance as it is understood today, i.e., reimbursement of doctor and hospital bills, was rare. Paid sick leave and disability was more likely to be viewed by employers as constituting the core of the health plan, perhaps combined with some kind of company clinic or "hospital." Workers' compensation - which states were increasingly mandating - was often seen as a health plan. In any case, health was not necessarily the focus of welfare work. Thus, housing, savings institutions (savings and loans, credit unions), and burial insurance might also be part of a corporate program of welfare work.

When government stepped in and provided a previously-existing private benefit, employers sometimes discontinued their programs or modified them. Thus, in a 1939

survey, about half of pension plans which had been discontinued during the previous decade were reported to have terminated due to the passage of the 1935 Social Security Act. Of 164 pre-1935 plans still active, the proportion reported to have been "revised" due to the Act was also one half. (BLS, 1940) Even today, many private pensions are formally "integrated" with Social Security.

i. Social Security

Social Security's political popularity resulted from careful sculpting by its initiators and proponents. The distinction between the program's redistributive aspects and its insurance aspects was left deliberately fuzzy, owing to popular aversion toward accepting charity and relief and to distrust of government. Failure of some private pension plans during the depression - even though such plans covered only a very small fraction of the workforce - helped justify government administration of Social Security. But, somewhat paradoxically, the existence of welfare programs within certain firms also served as a model for the new government program. (Jacoby, 1991)

Leverage from various social movements of the 1930s helped in the enactment of Social Security. Notable among these was the Townsend movement - a populist proposal aimed at ending the depression by providing the elderly with a guaranteed income conditional on both retirement and quick consumption. Social movements were again harnessed after enactment of Social Security to widen its coverage and increase benefits.

The growth of the trust fund surplus in the years immediately after the program's enactment was denounced by early Keynesians on the left as the root of the 1937 recession and by critics on the political right as a dangerous accretion of government resources. Program proponents took advantage of these charges to run down the surplus through expansion of benefits. They thereby locked in Social Security as the national pension system. (Achenbaum, 1986; Bernstein, 1985) The seeds for the notion that Social Security is an inviolable "compact with the people," in Wilbur Cohen's words 50 years later, were planted at that time. (Cohen, 1985, p. 127)

Technical complexities of the Social Security program were also used to expand benefits. Congress was persuaded to adopt an escalator formula in the 1970s which in fact produced benefit increases exceeding the rate of inflation. This "error" was eventually corrected, but not before benefits were significantly elevated

relative to wage levels. Today, even long-service workers with generous defined-benefit pensions in the private sector can expect to receive anywhere from a third to a half of retirement income from Social Security.¹⁹ Not surprisingly, Social Security enjoys strong support from the electorate. When the system's financial crisis began to unfold in the late 1970s and early 1980s, public confidence in the program's viability began to decline. Academic discussion turned toward fundamental changes in the system which were - in some cases - outside political realities. (Thompson, 1983) But politicians across a broad spectrum moved quickly to fix the problem within the existing framework. (Sherman, 1989)

ii. Substitution of Public for Private Benefits

For modern private, work-related benefits, the legal distinction concerning who pays for benefits - employer or employee - is important because of tax treatment.²⁰ In the late 19th and early 20th century, however, the tax element was of little significance. And since workers moved from job to job more frequently than today, the existence of many union-run benefit plans at the time was hardly surprising. (Johnson, 1898; Bemis, 1899; BLS, 1928) Such union plans were used as organizing tools, an idea which was revived in the 1980s by the AFL-CIO as it sought ways of offsetting membership losses.²¹ But there was also an ideological element of workers controlling their own economic fates which contributed to the establishment of union-run plans. Thus, at least 25 labor-affiliated banks were in existence in the mid-1920s. (BLS, 1924)

Today, unemployment insurance is seen as "naturally" a state-run program. Except for the few supplemental unemployment benefit (SUB) plans in certain unionized industries, private unemployment insurance is often thought to be impossible to provide due to moral hazard and - possibly - adverse selection. However, in the 1920s and early 1930s, there were in existence company, union, and joint company-union unemployment benefit plans. (BLS, 1931) These were later eclipsed by the state-federal UI programs created in 1935, not to mention the Great Depression. But had government not stepped in, the private plans might have revived and evolved more fully.

Moral hazard and adverse selection problems exist with virtually all forms of private insurance. Some people with fire insurance burn down their property to collect from their policies; individuals with terminal health problems may attempt to acquire life insurance. Yet sufficient controls can often be put in place to

make the offering of insurance feasible. The same might have been true regarding UI, particularly if offered through the employer. As in the case of other areas where public policy influenced private benefit offerings, researchers should not make the mistake of assuming that the observed outcome was inevitable.

iii. Looking Backwards: Private Benefits Without a Government Role

It is thus useful to ask what employee benefits looked like before the age of tax incentives, government-provided social insurance, and the general expansion of regulation. In addition, it is especially useful to look at a period prior to the eruption of a major threat of unionization during World War I. Since unions were potential benefit providers, employers suddenly had incentives to install benefits simply to compete with unions. But the pre-World War I period was "uncontaminated" by such influences. Data for the pre-World War I period are, of course, limited. Nevertheless, some information is available thanks to early work by the Bureau of Labor Statistics.

Table 5 presents data collected from a 1913 BLS survey of employer "welfare work".²² (Otey, 1913) Consistent with the style of BLS publications of that era, the study did not present statistical tabulations. Instead, to produce Table 5, a count was made of references to 18 particular types of benefits or programs described in the 50 case studies found in the report. Selection of the 18 programs was made on the basis of judgment; these were the arrangements which the BLS report's author seemed to feel were important forms of welfare work. The 50 firms were ranked by the proportion of benefits/programs provided and the top and bottom nine firms in the ranking were arbitrarily dubbed "high commitment" and "low commitment" firms, respectively, for their commitment (or lack thereof) to welfare work.²³

Apart from the data on the table, four characteristics of early welfare work can be ascertained from the report. First, there was a heavy overlay of paternalism at many firms. Thus, sickness benefits at one firm (which meant paid sick leave) were denied to those whose maladies were the result of indiscretions such as bicycle racing and intoxication. A variety of cultural activities - employee choirs, libraries, social clubs, etc. - were included at some firms to uplift the untutored immigrant workforces of the period. Welfare secretaries were sometimes appointed to serve as counselors to whom employees could take their problems. But these secretaries could also serve as monitors available to weed out those who did not fit

Table 5: Proportion of Firms in 1913 Study with Presence of Selected Welfare Practice

Practice	All Firms	High Commitment Firms	Low Commitment Firms
Formal welfare dept. or secretary	16%	44%	0%
Employee representation plan	2	11	0
Company housing	16	0	44
Training/apprenticeship program	18	33	22
General education facilities	10	11	0
Eating facility	68	78	44
On-site medical facility or attendant	42	78	22
Other recreational/cultural facility (a)	86	89	89
Special attention to lighting/ventilation	36	56	11
Other noteworthy health and safety policies	6	22	0
Sickness/disability pay	72	100	11
Pension plan	20	22	11
Stock or profit-sharing plan	8	11	0
Death benefits	56	89	0
Accident benefits (b)	10	33	0
Mutual benefit association	54	100	0
Paid vacation plan	18	22	11
Formal link to savings institution or plan	18	44	11

(a) Presence of a locker room is not counted.

(b) Plans providing compensation for loss of limbs and similar injuries excluding sickness/disability plans.

Note: The 50 firms described in the 1913 study were ranked by the proportion of the 18 welfare programs listed above which they provided. The top 9 firms on this ranking are reported as "high-commitment firms"; the bottom 9 are reported as "low-commitment firms."

Source: See text.

in with what would today be termed the "corporate culture."

Second, employers often saw themselves as catalysts helping employees help themselves. Thus, benefits were frequently provided through company-established and affiliated mutual aid societies to which employees paid dues. Connections with savings institutions might also be provided to encourage employees to learn the virtues of thrift. Employees would thus learn not to be overly dependent on employer beneficence for their illnesses or retirement.

Third, the benefits that today might be considered part of a core package were not so important then. Pensions existed only in about a fifth of the surveyed firms. And the rules for eligibility were such that few workers were likely ever to draw benefits. There may have been no vesting at all and no pre-funding of benefits. Payment to retirees might be discretionary with the employer. Indeed, a company might overtly proclaim that its pension system should not be regarded by workers as an entitlement.

No true medical insurance seems to have existed. It is difficult to know how much care workers might have received from the company medical facilities mentioned in the BLS report. However, these facilities appear to have been aimed mainly at on-site accidents. Death benefits were often found in welfare programs but for sums basically limited to burial insurance. In contrast, death benefits under modern employer-provided life insurance often exceed annual salary.²⁴

Fourth, although some employers claimed to obtain productivity advantages from providing welfare work,²⁵ there is little evidence in the report of any systematic attempt by employers to measure these purported gains. For those companies which engaged heavily in welfare work, there was a sense that the variety of services offered were all Good Things to be doing. All employers could produce some rationale for what they provided; none would say they were simply giving away money. But documentation of the alleged gains was scarce.

Although contemporary benefit administration has become more professional, it is likely that similar employer responses would be found if a comparable survey were taken today. Those firms which offered benefits would say that there are gains to morale or productivity. But few would have systematically endeavored to prove it. Indeed, many would dismiss the idea that their basic benefit package was designed to encourage any specific behaviors other than general appreciation of employer good will. As Lazear (1990, p. 273) has reported with regard to pensions:

"Human resource administrators often resist the idea that pensions can be used

to affect incentives. Even personnel people think of pensions and other deferred compensation as a fringe with few effects other than the enhancement of the recipients' income."

iv. Government as Employer, Provider, or Mandating Authority

In the early part of the 20th century, the question of how to provide benefits, through government or private arrangements, was less of an issue when government itself was the employer. As part of a study of possible pension arrangements for federal civil servants in 1916, BLS examined plans in foreign countries and at the state and local level. (BLS, 1916) Only four states at the time had comprehensive pension arrangements for their own workers. But 159 municipalities had pension plans. In contrast, the BLS listed only 117 private companies with pensions, 51 of which were railroads or utilities. Thus government, although servicing its own employees, was often viewed by reformers as providing a role model for private employers who, in turn, were seen as not doing enough.

The issue of government vs. private provision remains a live issue today, particularly with regard to medical insurance. There have been periodic pushes for government-run health plans going back to the period 1915-20 when a drive for state laws developed momentum (but ultimately failed).²⁶ At the time, the American Medical Association - whose later opposition to national health insurance was crucial in preventing the adoption of such a program - was still uncertain of its position. It contented itself with specifying desirable principles to be incorporated in a hypothetical program, should one be created. The AMA's ambivalence was understandable. After all, health insurance meant subsidizing the use of physicians' services. But it also might mean government regulation of what could be charged for those services.

Ultimately, AMA opposition arose from the fear of controls on fees and other matters. This opposition continued until 1990-91 when the AMA again began to look favorably at a national program of some type for the noninsured.²⁷ AMA opposition in the 1930s and 1940s eliminated health insurance from early proposals for the Social Security program and killed a plan pushed by President Truman after World War II. But the AMA could not kill the 1960s Medicare proposal because of the program's sympathetic targeting of the elderly and because of its sentimental link to recently-assassinated President Kennedy. (U.S. Social Security Administration, 1976) However, successful blockage of a federal medical program for the non-elderly left the field open to private health insurance.

The open field ultimately produced the preponderance of employer-provided health plans that exists today. Insurance carriers discovered in the World War I period - when welfare work crested - that they could sell life insurance in profitable volumes through certain large employers who provided it at no direct cost to workers. The carriers persisted in this marketing endeavor in the 1920s, even though in that era employers simply offered employees the opportunity to buy life insurance at their own expense. Eventually, medical insurance followed life insurance. And it ultimately became largely employer-provided thanks to the tax code. Gaps in employer-provided coverage, however, have given rise to recent calls for federal- or state-mandated programs. Under these proposals, all employers would be required to provide a basic health plan or to pay into some government-created program.

v. Benefits for Elderly Employees and for Retirees

For elderly workers over 65, the presence of Medicare requires coordination of employer-provided health insurance with the government's program. Legislative changes in the age discrimination area effectively have made employers provide the initial coverage for such workers, with Medicare acting as supplement. But for retirees, some employers provide supplemental retiree insurance, using Medicare as the primary insurer. Employers have recently been pulling back on their retiree coverage in part due to cost and in part due to new accounting standards requiring that future unfunded retiree health insurance coverage appear explicitly in corporate balance sheets. (O. Mitchell, 1987) This pullback, in turn, intensified pressure for an enhanced national program.²⁸

vi. Optimality or Historical Accident?

Economists might well be troubled with the vision of the U.S. benefit system as the product of a series of historical accidents, social movements, and regulatory currents, each building on one another in a rather haphazard fashion. There is a tendency to want to see a profit/utility maximizing strategy behind the system, at least as it operates at the firm level. Of course, sociologists and historians might have trouble viewing benefits as having any firm-level optimizing rationale behind them; the social interplay of forces might seem to them to be the more natural explanation. But the historical record suggests a blend of the two approaches.

The brief summary above reveals that a variety of complex influences has

brought forth the contemporary American system. Employee "tastes" have been conditioned by past practice and are not immutable. For example, about six out of ten Americans have employment-related health insurance. This coverage comes either from their own work experience or the work of spouses or parents. Of those covered by any form of private health insurance, i.e., not by Medicare or Medicaid, eight out of ten have it from an employment-related source. (U.S. Bureau of the Census, 1990, p. 100) Given this state of affairs, it seems natural today for workers to look toward employers as the source of health insurance. Indeed, those firms that do not provide such benefits to regular employees, especially if they are large companies, might be seen by job seekers as signaling that they are bad places to work. It thus becomes rational for firms to offer health insurance simply because others do so. What is the case for health insurance is also true for other benefits.

When benefits are not provided as expected, there is a tendency for policy makers to look for ways to induce or require recalcitrant employers to do their duty. The battle then becomes one of incentives - as through the tax code or via other forms of subsidy - or mandates. Thus, the issue of mandated health insurance (and other benefits such as family leaves) developed in the 1980s and continued into the 1990s. (O. Mitchell, 1990) Mandates also tend to be the compromise between liberals (who prefer public to private provision, but may grudgingly accept mandates) and conservatives (who prefer private to public provision, but may reluctantly accept mandates). (Summers, 1989) Finally, in an era of taxpayer resistance, mandates appear more attractive than direct government programs because they do not run through official budgets.

IV. Research on Employer-Provided Health Insurance

The interests of researchers, practitioners, and policy makers were most closely joined in the 1980s on the topic of health care cost containment.²⁹ By the end of the decade, the U.S. found itself spending substantially more on a per capita and percent-of-GNP basis than other advanced countries and yet achieving no obvious payoff in terms of such gross outcomes as life expectancy. (Newhouse, 1987; OECD, 1990) There are, of course, conceptual problems with the widely-used health expenditure/GNP ratio; the numerator is in gross terms while the denominator is essentially value added.³⁰ Nonetheless, the U.S. seemed to be doing more "caring" but without achieving more "curing".³¹

Employers complained bitterly about rising costs of their health plans, although - as noted earlier - they may not have fully considered the degree to which their workers may ultimately pay for these trends. Rising medical costs added to pressure on Congress to provide coverage for those individuals who did not have employer-provided or government-provided insurance. Academics were less helpful in exploring options for transforming the overall system of health insurance than they were in looking at specific cost containment options within the existing system. To the extent that Congress looked for guidance on systemic options, it was more likely to turn to the U.S. General Accounting Office and Washington types than to university academics.

i. Rising Health Costs

The ratio of national health expenditures to GNP rose from 4.5% in 1950 to 11.1% in 1988.³² Although there have been occasional pauses in the upward march of this ratio, no dramatic downturns have been observed. It is easy to find ingredients in the recipe for rising health costs. With co-payments ranging from zero to relatively small amounts, individuals are encouraged to consume more health services. It is difficult to provide insurance against medical risk without at the same time providing a de facto subsidy to the use of medical services.³³ Moreover, the tax code, it is often argued, leads to excessive insurance, particularly for first-dollar amounts (as opposed to "catastrophic" care).³⁴ (Feldstein, 1973; Feldman & Dowd, 1991) Rising costs raise the demand for insurance which in turn raises demand.

In addition, health consumers are at an information disadvantage in judging appropriate expenditures. They must rely on providers (physicians, hospitals, etc.) to tell them what they need. This reliance opens up a potential principal/agent problem, particularly if the agent is aware that the principal is insured and will carry little or none of the cost. (Phelps, 1986; Reinhardt, 1985; Sloan, 1982) Expectations of patients regarding outcomes are high and the threat of malpractice suits may produce further inducements for consumption of expensive tests. In addition, non-profit providers may have only limited incentives to hold down costs and may stimulate use of high-quality (expensive) procedures and seek to maximize use of professional services. (Feldstein, 1971)

The problem with these bits and pieces is that they all suggest that there should be more health services consumed as a percent of GNP, and probably at higher

prices, than an uninsured and unsubsidized market would provide. But they do not necessarily suggest indefinite relative inflation and a continually-rising share of GNP. Perhaps the analogy might be the union wage effect. The union differential in theory is thought to reach an equilibrium after the union fully exploits its bargaining potential. It is not expected to rise forever.

However, the empirical history of the union wage effect indicates that such theoretical steady-state equilibria are not necessarily found in practice. The U.S. union/nonunion wage differential has exhibited long waves of expansion and decline. Perhaps, something like that process is at work in determining the ratio of health care expenditures to GNP. If that is the case, however, the contractionary phase has yet to be observed, despite all of the efforts since the 1960s at health care cost containment. Indeed, rising health care costs may trigger additional expenditures on other types of collateral benefits. It has been argued, for example, that "wellness" programs, employee assistance program, and the like are a good investments for employers seeking to hold down the costs of their health care plans.³⁵ (BLS, 1987)

The sad fact is that it cannot be said on the basis of the empirical evidence that there is an equilibrium to the health expenditure/GNP ratio. There is even uncertainty about why individuals want health insurance, absent a tax subsidy. Is it just for the risk of catastrophic expenses? Or is there a "moral choice" element? It has been suggested, for example, that by having comprehensive insurance, individuals are spared having to trade off cost vs. benefit regarding possible treatments for loved ones. The moral choice - placing a value on someone's life - is avoided if there is insurance available that will pay for whatever treatment is available. (Reinhardt, 1980)

ii. Are There Cost-Containment Solutions?

Researchers have generally shied away from offering wholesale solutions for rising health costs. Some researchers have offered suggestions for improving particular elements of the system, e.g., malpractice litigation reform. (Danzon, 1985) Policy makers have also focused on specific system components. An obvious example is federal encouragement of health maintenance organizations (HMOs), beginning in the early 1970s. Under the federal HMO Act, employers must offer an HMO option if they offer any health plan at all, assuming there is an HMO in their area.

HMOs offer health care through their own facilities (or contracted facilities) on a flat, monthly-fee basis; they thus have incentives to hold down costs. Modern HMOs are modeled after the Kaiser Plan, a program initially established for Kaiser Steel workers which gained a major foothold in California. Even today, after years of federal encouragement of HMOs, these programs remain especially concentrated in the western region. (Bucci, 1991) Generally, both HMOs and a related innovation - preferred provider organizations (PPOs) - have expanded at the expense of conventional fee-for-service plans. (Burke & Jain, 1991) (PPOs require the insured to use a panel of selected providers or receive significantly-reduced reimbursements).

Both HMOs and PPOs have the effect of limiting consumer choice. This result seems to be part of the universal trade-off; less choice in exchange for cost containment. There is some evidence that constrained-choice plans do cut expenditures. (Manning & Wells, 1986) HMOs in part ration access to care via queuing as a substitute for marginal cost pricing. Time value of the insured then acts to hold down usage of HMO services. (Cauley, 1987) But since consumer tastes toward queuing and other aspects of service will vary, the HMO option will work best for a homogeneous consumer population, assuming there is enough competition to provide various "qualities" of HMOs. (Benjamini & Benjamini, 1986) Still, part of the apparent cost cutting effect of HMOs may simply result from their ability to "cream" the market of healthy persons. (Newhouse, 1982)

To the extent that employers believe that HMOs and PPOs will reduce costs, research does suggest that employees can be induced to shift toward these plans, especially if the HMO or PPO option involves some reduction in patient out-of-pocket expenses. (Feldman et al, 1989; Short & Taylor, 1989) Co-payments also reduce health expenditures in fee-for-service programs. (Manning et al, 1987; Scheffler & Watts, 1986) Employers have incentives to reduce costs even with full recognition of the incidence effect.³⁶ That is because a firm which can deliver a given set of health benefits at lower cost than competitors will be at an advantage in the labor market. Such a firm could, in principle, pay lower total compensation or recruit higher-quality workers.

Thus, in the 1980s, there was a proliferation of employer experimentation with second opinions, controls on hospital admissions, use of hospices, etc. (Frumkin, 1988) But there was also a strong element of faddism in these efforts, with "managed care" (typically hiring a consultant to review and screen prospective

expenditures) being the latest. American management has been prone to faddism in other labor areas - consider "total quality management" or "quality circles" as examples. Thus, it is not surprising that enthusiasm for particular health care cost containment strategies would sweep the marketplace from time to time.

In part, the faddism in health care cost containment occurs because the findings of academic researchers regarding particular approaches are modest and qualified. And what academics actually know about cost containment does not necessarily reach the practitioner market. However, consultants selling particular cost-constraining programs are as a rule unlikely to be modest or qualified about the promised results. And they have strong incentives to make themselves accessible.

Third-party payers (insurance companies, government authorities in programs such as Medicare) also have incentives to hold down expenditures. Private insurers who can offer given packages at lower cost will be naturally attractive to employers, for the reasons just cited. And government agencies face budgetary constraints. One common method of cost containment is to control reimbursement schedules for providers. (Sloan, 1981; Lee, 1989)

However, there is the potential for cost containers to work against one another or to shuffle costs to some outside party. Success by Medicare and Medicaid authorities in holding down costs for their patients may lead to cost shifting toward private patients and their insurers. (Dranove, 1988) But there are limits to this strategy, particular if there are profit-making providers in the market who can refuse patients and who will tend to use marginal cost pricing. The costs are then pushed to local public hospitals (which cannot turn away patients) and, thereby, to local taxpayers.

Screening potential new hires for health risks is rational from the viewpoint of employers. Thus, firms may exclude new hires with pre-existing conditions from their health plans. Apart from the anti-mobility effects this exclusion creates, it also has the effect of shifting costs directly to the new hire. In fact, even co-payments and deductibles have that effect. While these devices may tend to overcome the effects of overinsurance, part of the way they save money is simply by transferring costs directly to the patient. The shifting effect by itself does not reduce the national health bill, although the behavioral effect might.

Since there are incentives to screen high-risk workers out of health plans, there will undoubtedly be pressures to limit employer ability to do so through new

public policies. Futuristic possibilities of risk assessment - such as genetic testing for disease susceptibility - no longer seem so far off. Thus, if a mandated plan of employer-provided health care is adopted, it will almost certainly come with rules forbidding rejection of coverage on account of health status. However, unless financial transfers between insurance carriers are made (so that all employers pay a uniform premium based on average labor-force risks), there will then be temptation to discriminate in hiring against health risks. (O. Mitchell, 1990) Obviously, such actions would work against other public policies such as non-discrimination on the basis of handicap.³⁷

iii. A New Health Insurance System?

In the late 1970s, predictions were often made that national health insurance would soon be adopted. In the late 1980s, the predictions shifted toward mandated, employer-provided health insurance. Obviously, such programs are more likely to be adopted at the national level by Democratic administrations than Republican. The 1991 Economic Report of the President (U.S. President, 1991, pp. 136-143) described the misincentives inherent in health insurance and blamed overregulation at the state level for inability of private insurers to offer a "bare-bones, low-cost" policy to the uninsured. But mandates are not suggested.

However, with large employers beginning to look favorably at a national plan, and with the American Medical Association endorsing some kind of universal program, the federal political balance is moving toward a significant change in the national health system. And at the state level, it is quite possible that the political appeal of universal coverage could attract endorsements across the political spectrum.³⁸ Given these shifts, there is clearly a need for academics to add overall redesign of the health insurance and delivery system to their research agenda.

V. Pension Research

No review of pension research in the 1980s would be complete without formal reference to the major studies of pensions and retirement behavior sponsored by the National Bureau of Economic Research (NBER). Apart from the statistical compendium noted earlier, several symposium volumes have appeared, notably Bodie & Shoven (1983), Bodie, Shoven, & Wise (1987; 1988), and Wise (1985; 1989, 1990). In addition, current studies of pensions continue to appear in the NBER's important working paper series.³⁹ The NBER's sponsorship has attracted substantial attention

of economists to the pension area, an interest which was reflected in the standard journals, e.g., Bodie's 1990 pension review article, and books by other publishers, e.g. Kotlikoff & Wise (1989).

Pensions raise issues apart from the usual concerns of labor economists and industrial relations researchers. They have an important financial side due to the large portfolios involved. The financial approach to pensions spilled into the evaluation benefit side of pensions, too. Modern finance is intimately connected with the study of risk. And pensions can be viewed as financial instruments dealing with risk, not just as saving plans.⁴⁰ Beneficiaries are insured against the economic risk of living "too long" and thus exhausting their resources. Still, the accumulation of pension assets has become an important form of saving. Thus, pensions must be viewed as significant components of the macro economy. And finally, of course, there is the view of pensions as a micro-level personnel practice with possible consequences for employee behavior.

i. The Financial View of Pensions

Although it may seem natural to Americans that defined-benefit pensions should be backed by pension trust funds, there are alternative ways of handling corporate pension liabilities. In Germany, for example, it is common practice for companies simply to carry a bookkeeping reserve of accrued pension liabilities for tax purposes but not to set up independent pension funds. Effectively, the pensions of German workers then depend heavily on the economic viability of their employers. The system can work so long as government and financial institutions effectively operate to avert major bankruptcies.

In the early days of pensions in the U.S., unfunded plans were also not unusual. Formal pension trusts were commonplace, however, by the 1950s, but even then pensions were often not fully funded. And some pensions remained completely on a pay-as-you-go basis. (BLS, 1964) Where trusts were used, but insufficient funding was applied, reserves might nevertheless mount as long as there were many more active workers than retirees. But should the firm go bankrupt, adequate funds to pay accrued pension liabilities might be lacking. "Horror stories" of elderly workers losing expected benefits were instrumental in the passage of ERISA in 1974. The new act established funding standards and created a federal agency, the Pension Benefit Guarantee Corporation (PBGC) to insure private pensions against termination.

From the finance perspective, the felt need by Congress to compel employers to

fund their pensions, and to protect workers from breaches in funding, is peculiar. The returns on assets properly accumulated in pension trusts are not subject to taxation. Hence, if anything, firms should want to overfund pensions to take advantage of the tax shelter. (Tepper, 1981) The problem should be to keep them from overfunding. Indeed, regulators have assumed that firms might well want to overfund and have adopted tax regulations to prevent it. So why don't all employers automatically fully fund their pensions up to the legal limit?

One response has been that the existence of termination insurance makes it optimal to underfund and to shift some risk to the PBGC. (Bicksler & Chen, 1985) The difficulty with this explanation is that it neglects the historical background of underfunding that originally led to the passage of ERISA. Before creation of the PBGC, firms should have been funding to the maximum allowed by tax law. But they weren't. Were managers trying to fool shareholders by accumulating pension liabilities that they thought could not be seen through the corporate veil? Apparently not, since pension liabilities seem to be reflected in stock prices. (Feldstein & Seligman, 1981)

Corporate restructuring in the 1980s added to the puzzle. So-called corporate raiders sometimes took "excess" assets from pension funds and used them for other purposes. Or incumbent managers might take such assets as part of a defense against a raid.⁴¹ Pensions could be terminated and the employees given annuities which satisfied the legal requirements of ERISA but, for reasons discussed below, inflicted losses on employees. Possibly there was a transfer of wealth from workers to shareholders in such cases, although the premiums paid for firms which were taken over seemed larger than the asset reversion. (Pontiff, Shleifer, & Weisbach, 1990)

In short, the underfunding of pensions is a puzzle unless corporate managers view pension promises more lightly than public policy would like them to do. When unionized firms negotiated pensions in the late 1940s and 1950s, the defined-benefit form may have been chosen simply because it was compatible with immediate benefits to impending retirees. The long-term implications of pension promises may not have been fully appreciated. Firms at the time may have viewed these plans only as near-term promises to those close to retirement. They may not have seen them as absolute entitlements for workers whose retirements might lie 20 or more years in the future.

From the employer's perspective, fully funding those future retirements years in advance would have made the entitlements absolute. So, despite the tax advantages, firms may have been reluctant to make such contributions to trust funds.

Even if unions did understand the long-term liabilities they were negotiating, they may have gone along with the limited-funding approach as part of a bargaining compromise. Unions obtained near-term retirement packages for their members. The future would be dealt with when it arrived.

This fuzzy commitment by employers toward pension payments is a messier view of the pension promise than many would like. But it may well be the actual answer to the underfunding mystery. Public employers, it should be noted, are not covered by ERISA and do not have to meet federal funding requirements. Underfunding of pensions by governments is a common practice, again suggesting that employers do not like ironclad commitments if they can be avoided.⁴² (Smith, 1981)

ii. Social Investment

Unions played a major role in the passage of ERISA. But apart from that effort, they showed little interest in pension investment strategy until the late 1970s when the idea of "social investment" began to take hold. It was argued that pension investment policy could be used to punish anti-union employers. Related to that idea was the possibility of using pension investment for other purposes such as pressuring American multinationals to withdraw from South Africa. (Hayden, 1989)

Such strategies do not fit well into standard economic analysis. In principle, "bad" firms could be punished only if divestment by pension funds led to a decline in their stock prices. Unless most investors refrained from holding the stock of such firms, however, the main effect might be a portfolio shuffle; social investors would sell the shares but other investors would purchase them, leaving stock prices unchanged. There certainly were portfolio reshuffles in the 1980s involving union-influenced and certain public employer pension funds. However, evidence has not been produced showing such policies reduced share prices.

Nonetheless, divestment strategies can be linked to public relations campaigns, protests at stockholder meetings, and support by pension trustees for positions and slates not favored by management. The general issue of corporate campaigns by unions was studied in the 1980s (Perry, 1987) but the particular effects of social investment could stand more research. It would be useful to disentangle the pure disinvestment threat effect from the impact of bad PR.

Closely related to social investment strategies were attempts to use pension funds to stimulate demand for union labor, particularly during periods of depressed labor markets. Pension investments were channeled in some cases to unionized

construction projects. (Blakely, Lynch, & Skudrna, 1985) In principle, ERISA standards require that pension trustees not invest in projects with below-market returns.⁴³ And in theory, if the projects could produce market returns, they would not need to obtain loans from particular pension funds; other lenders would be happy to provide the funding. However, the range of returns observable in the market and the difficulty in assessing risk leave a range of discretion and the possibility of a hidden subsidy to favored projects. Again, it would be useful for researchers to examine cases of job creation via pensions. There are significant public policy issues here regarding permissible pension investment standards.

iii. Pensions as Saving

The importance of pensions as a component of personal saving is often not well understood. Indeed, many people who look at the personal saving rate reported in the national income accounts probably do not realize that pension saving is included. In effect, pension saving is treated as merely another private decision by individuals despite the formal administrative arrangements surrounding pensions. This methodology is in keeping with a view that saving via pensions substitutes perfectly for other forms of saving over which there is more direct individual control. It also assumes that any pension saving beyond the overall level the individual would undertake can be undone through borrowing.⁴⁴

Figure 1 shows a dramatic shift in the ratio of pension benefits paid out to contributions paid in during the 1980s. The sharp rise in the ratio was due to movements in both contributions and benefits. Returns on assets rose during the 1980s. In effect, as higher earnings pushed up funding ratios, employers cut back on contributions.⁴⁵ Nonetheless, Figure 1 shows that net pension saving (contributions + earnings - benefits) fell dramatically. The acceleration of benefit payouts was an important factor in the drop. While some of the benefit increase may have been due to a maturing of pension plan liabilities, much of it was due to cash distributions to relatively young workers. ERISA vesting standards may have played a role; with lower vesting standards workers who quit or were laid off were more likely to have some pension entitlement. In addition, termination and liquidation of defined-benefit pensions in the 1980s may have played a part in raising total pension distributions.

The drop from a net pension saving rate of close to 4% of personal disposable income down to zero by the late 1980s which is shown on Figure 2 is only a rough

Figure 1

Ratios: Earnings/Contributions & Benefits/Contributions

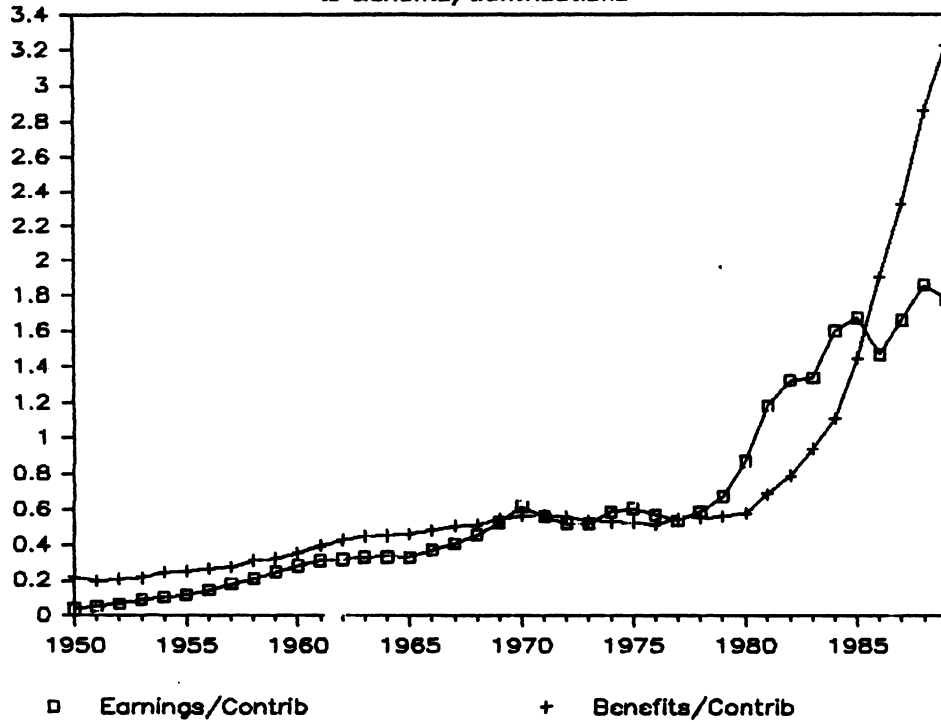
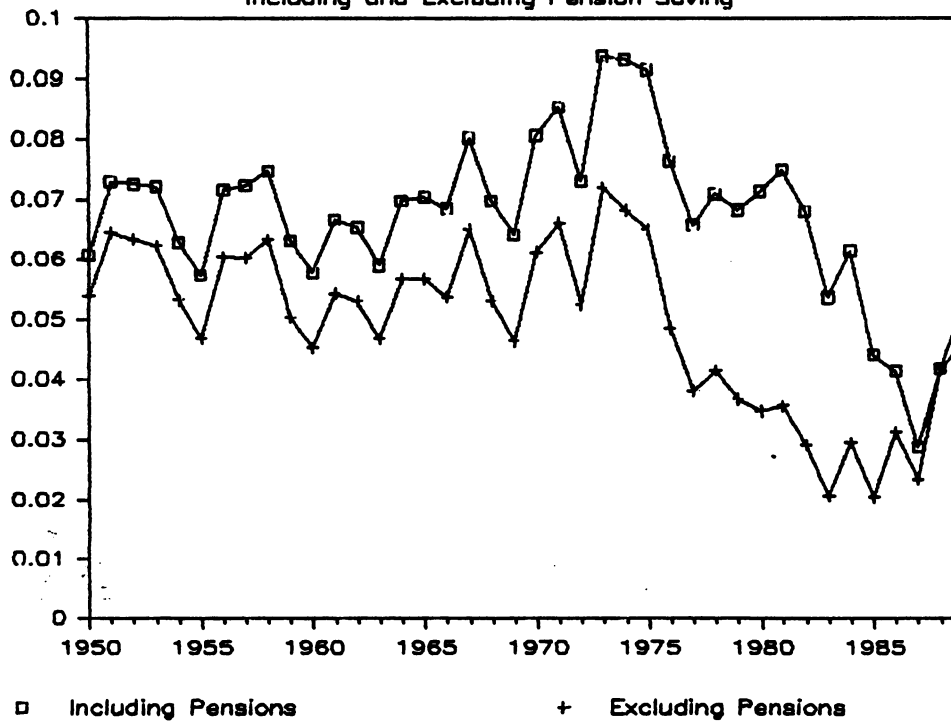


Figure 2

Personal Saving/Disposal Income: Including and Excluding Pension Saving



estimate of the actual movement.⁴⁶ However, as Figure 2 demonstrates, the removal of the estimated pension effect from the official personal saving rate changes the magnitude and timing of reported personal saving decisions. In particular, the drop in saving after the Reagan tax cuts in 1981 appear to have been largely concentrated in pensions. The tax cuts, it may be recalled, were supposed to stimulate private saving. While there is no sign of that, the cuts do not seem to have perversely reduced the saving directly controlled by individuals.⁴⁷

There has been some recognition of the pension-saving effect in the literature.⁴⁸ However, the effect clearly deserves more study. Pension saving behavior, for example, might have a bearing on the saving-interest rate elasticity or on the structure of interest rates. (Makin & Couch, 1989; Friedman, 1980) Finally, pensions and Social Security may have played an important role in the declining labor force participation of the elderly, especially males. (Anderson, Burkhauser, & Quinn, 1986; Duggan, 1984; Ippolito, 1990; O. Mitchell & Fields, 1984) Even if these programs had no effect on balance on total saving, they tilt wealth toward an asset which can only be used by retiring or - in the case of a pension - at least quitting.⁴⁹ Moreover, the asset cannot generally be directly bequeathed (except to a spouse). Thus, the saving, finance, and labor force perspectives ultimately come together. Long-term macro policy relating to growth and productivity needs to take account of the pension effect.

iv. Regulatory Issues

ERISA influences both the financial side of pensions and the benefit side. On the financial side, it establishes funding and investment standards and also creates a termination insurance mechanism through the PBGC. That the two should go together is fairly obvious (although perhaps not to those who deregulated savings and loans in the 1980s while continuing to insure their deposits!). Nonetheless, there are misincentives - particularly in the cases of firms near or in bankruptcy - to push their pension liabilities to the PBGC.

As a result of these misincentives, pension insurance began to show the same strains as deposit insurance in the 1980s. (Marcus, 1985) As liabilities are dumped at the PBGC, premiums for termination insurance are raised and regulations become more onerous. Thus, the decline in use of defined-benefit plans (which are insured) relative to defined-contribution plans (which are not) should not be surprising. (Gustman & Steinmeier, 1989; Employee Benefit Research Institute, 1989) Economists

associated with the PBGC have looked, almost wistfully, at private solutions. (Ippolito, 1988) Risk-adjusted premiums seem a logical solution but they do not appeal to Congress, in part because in the transition high premiums might push precariously-perched plans over the edge.

Thus, the system has a dynamic towards more regulation and more discouragement of defined-benefit plans. For reasons unrelated to the PBGC's problems, such a shift would not necessarily be such a bad thing. It would deal with the labor mobility/pension portability issues discussed below.

On the benefit side, the most visible ERISA impact is on vesting. In 1986, the general vesting rule was cut from 10 to 5 years.⁵⁰ This shift was a binding one for most defined-benefit plans, although many defined-contribution plans already met the rule. (Graham, 1988) By itself, vesting might be expected to reduce the anti-mobility effects of pensions, although those employees just short of the vesting period standard might delay outward mobility until they qualified. But the effect is complex because, for older workers, being vested probably also means having significant potential equity in the plan. For the median worker, who won't be very senior, the amount which is vested (or will soon be vested) is quite small.⁵¹ Hence, the pure impact of vesting is not likely by itself to be large. (Schiller & Weiss, 1979; Allen, Clark, & McDermed, 1987).

Financial rules and benefits may come together in the case of funding standards and escalator clauses. Very few private defined-benefit pensions provide formal indexation of retiree benefits. Of course, relatively few active workers have formal indexation of their wages. Nonetheless, those that do are in the union sector, the home of the big expansion of defined-benefit plans in the 1950s. Indeed, the widespread use of escalation in the union sector came at about the same time that the pension expansion occurred. Hence, the lack of private pension escalator clauses is surprising.

State and local government pension plans - which are not covered by ERISA - often do have formal indexation. (Lovejoy, 1988) This public/private discrepancy suggests that ERISA may be a significant factor in holding down pension escalation. Moreover, it is not unusual in private plans to give retirees ad hoc inflation adjustments from time to time, although these typically do not fully compensate for inflation.⁵² (Allen, Clark, & Sumner, 1986) Hence, there seems to be a worker demand for inflation protection. It appears that the non-use of formal escalation avoids strict funding standards under ERISA. Making a practice of ad hoc

adjustments requires no funding, so long as it is discretionary. Given that employers seem to prefer not fully funding their pensions, an issue discussed earlier, lack of pension escalation is probably linked to ERISA.

v. Employee Behavior

Implicit contract theory suggests looking at the employment relationship as an ongoing one. In one version of the theory, workers are "underpaid" at the beginning of the contract and "overpaid" at the end (relative to productivity), as a kind of substitute for a performance bond. If workers do not perform to an adequate standard, they risk being terminated and losing the premium earnings later in their careers. At the end of their careers, since workers are overpaid, firms in this model will want to use a mandatory retirement rule to end the contract. (Lazear, 1979)

Within this framework, pensions fit in two ways. First, the value of the pension benefit under a defined-benefit plan is typically a curve that slopes upward at an accelerating rate with tenure. Indeed, large capital losses face long-service workers who exit employment as they enter the final years of their careers. So, pensions could be the means by which the theoretical under- and overpayment is accomplished.

Second, mandatory retirement was made illegal for most workers in 1986. As a result, pensions could be used as substitutes for mandatory retirement rules by placing kinks in the benefit schedules at the desired retirement age.⁵³ Indeed, workers who stay beyond normal retirement age in defined-benefit plans typically begin losing effective pension value. In short, there are various characteristics of pensions which seem to fit nicely into the implicit contracting model. A number of studies have been done suggesting that pensions are in fact part of implicit contracts. (Dorsey, 1987; Hutchens, 1987; Ippolito, 1991)

There are two sides of the implicit contract to be looked at: the worker side and the employer side. Workers probably do look at their pensions as long-term commitments from the employer. A symptom of this view has been anger when, as part of corporate restructurings, pensions were terminated and workers given legally-required substitute annuities. The legal requirement for funding and annuities is the shutdown value of the plan. In effect, the employer, to terminate a pension, is allowed to treat each employee as if he/she had suddenly quit. Those who are not vested receive nothing, even though many likely would have vested eventually. Those

who were riding up the accelerating benefit curve associated with defined-benefit plans are knocked off before the curve peaks. In any implicit contract view, workers are shortchanged. (Pesando, 1985)

On the other hand, there is some question about how much workers know about their own pension plan provisions. (O. Mitchell, 1988) Unions may increase workers knowledge concerning pension entitlements, although the evidence is unclear on this point. (Ghilarducci, 1990; Leigh, 1981) Still, it is a common complaint among personnel managers that workers do not understand their benefits. Without clear knowledge, the implicit contract model's anti-shirking effect is compromised.

Defined-benefit pensions do have the effect of tying workers - especially as they approach early retirement age - to the firm. Despite vesting, the accelerating benefit curve means less-than-full portability. Is this immobility effect something employers really want? One response is simply to say that if they didn't want it, they would have used defined-contribution plans instead. Possibly. But it is also possible, as noted earlier, that the defined-benefit plans were installed in the past as a way of providing quick retirement incomes to those close to retirement, something hard to provide under defined-contribution plans. There may not have been clear planning about the future.

In this view, the anti-mobility and imperfect portability effects of defined-benefit pensions are merely side products of decisions taken long ago. Indeed, employers finding themselves in need of downsizing in the 1980s - both public and private - often incurred the extra costs of compensating workers for the anti-mobility effects of their pensions by offering them expensive early retirement bonuses. (Bell & Marclay, 1987; Hogarth, 1988; O. Mitchell & Luzadis, 1988) Those who do retire early are as likely to have pensions - which often bridge them until Social Security cuts in - as those who retire later. But most plans do not normally have such features. (Wiatrowski, 1990) Hence, creating special incentives for early retirement, even when there are early retirement options already in the plan, can be costly to firms.

The phenomenon of employers inducing early retirements voluntarily rather than simply laying off excess workers can be taken as a sign of an implicit contract. But the need to bribe workers to give up quasi-entitlements also illustrates the difficulty employers face in figuring out what incentives they will need over periods of 20-30 years. Employers may have a general stake in being viewed by workers as "fair"; offering early retirement incentives in place of layoffs may be

part of maintaining that image. That is a long way, however, from the carefully targeted, career-based anti-shirking pension postulated in the implicit contract model.

Similarly, firms may have used mandatory retirement rules in the past - and may now use pensions which decline in value after normal retirement age - simply to avoid the unpleasantness of sacking older workers. It's tough to look old Harry in the eye and tell him that his performance appraisal ratings are down and that it's time to go. It is even tougher if Harry strikes back with an age discrimination suit. Recourse to elaborate models of career under- and overpayment may not be needed to explain pension retirement incentives.

VI. What is Needed in the Future?

Research in the social insurance and benefits area resembled research in other aspects of economics and industrial relations. Models became more sophisticated. Researchers became more willing to consider issues which had previously been left to the personnel journals. All of that was to the good.

But economics also faced a crisis in the 1980s, the outlines of which are still only dimly perceived. At one time, the simple micro model of the firm, worker, and consumer was just that - simple. It started with a few strong assumptions about rationality and proceeded in a context of frictionless markets and perfect information to strong conclusions. Sometimes the conclusions seemed silly. Economists were not naive, however; they just didn't have the mathematical skills needed to play with more complicated approaches.

Now that phase in economic research has ended. And it turns out that rationality is not very constraining. The recipe is simple: Add an information cost here, a menu cost there, and a transactions cost somewhere else. Stir in some market imperfections and uncertainty. Virtually any observed outcome can then be explained as a rational response. The problem, therefore, is not insufficient modeling; it is instead too many plausible models. And since empirical investigation often starts with known stylized facts, econometric techniques do not necessarily sort out which models are correct.

In the future researchers will need to talk more with practitioners. The asking of practitioners what they are doing, and why, can no longer be scorned as a research tool. Examination of historical evidence and responses of other countries to similar problems is also necessary. At the same time, practitioners in the human

resource field need to begin thinking more rigorously about their own policies. Too many dollars are at risk to do otherwise. Perhaps personnel managers didn't design their pensions with specific behavioral effects in mind. But such effects may well occur and they need to be considered. Why, for example, set up benefit systems which impede mobility when, in an era of economic instability, the ability to shed employees may be crucial?

The same is true for policy makers. They need to look at consequences of programs and rules and academics can help in that endeavor. Is it really surprising that the PBGC is running into financial difficulties when the law creates incentives for employers to dump their pension liabilities? Were such things impossible to foresee in 1974? If small employers are added by legal mandate to the patchwork of employer-provided health plans, will that not add to the demand for medical services? And if so, what is the implication for health care cost containment? And what should be done about it?

Finally, the U.S. benefit system must be viewed as a whole. Efforts to solve problems on a one-by-one basis miss the Big Picture. The employment relationship is changing; in the future than relationship is likely to look more like a spot market and less like an implicit, long-term contract. In a world of corporate restructuring, exchange rate shifts, and de-regulated competition, employees are put at excess risk if their health care and retirement income is tied to the fate and beneficence of a single employer.

Social insurance schemes, which are portable, fit well into this new economic order. Company-specific benefits, when they are not fully portable, do not. The latter can be made more portable through appropriate public policies. Moves are being made in some European countries to achieve this objective. (Andrews, 1990) The U.S. needs to begin moving in the same direction.

Footnotes

1. Although Social Security taxes and benefits were revised during the 1980s to provide advance funding for the baby boom's retirement, this shift away from pay-as-you-go financing seems often to have escaped the more abstract researchers in the field.
2. The personal saving rate was always higher than the 1929 rate in the post-World War II period. However, see the later discussion on pension saving. A survey of family expenditure habits immediately after World War I suggests a rate of saving in the 5-8% range, depending on the degree to which insurance purchases can be counted as saving. Such a rate range is comparable in magnitude to the personal saving rate during much of the post-World War II period. Moreover, it can be assumed that much of the insurance purchased went for risk coverage and administration rather than saving. Source: BLS (1924, p. 4-5, 447). Unfortunately, computational methods in the early survey and the definition of personal saving in the national income accounts are not strictly comparable.
3. A related proposal was to place the accruing reserves in privatized, worker-owned individual retirement accounts rather than keep them in the Social Security trust funds. See U.S. General Accounting Office (1990).
4. Employers in the 1930s were greatly concerned about the new Social Security system and what it might imply for the economy and their businesses. But by the 1980s they seemed little concerned with Social Security except to the extent that it might impinge on the private benefits they offered. Union officials, in contrast, played the role of system defenders in the 1980s when efforts were made to reduce Social Security benefits. Their concerns were closer to those of the system's defenders in Congress.
5. An exception is Workers' Compensation, a programs whose costs have been rising in response to general health care inflation (see Johnson & Burton, 1989) and to creative new claims areas such as occupational stress.
6. This idea is a very old one which was discussed by economists as far back as the World War I era if not before. The issue of that time was whether there was any practical difference between a contributory and noncontributory pension plan. See Conyngton (1926).
7. An exception is a paper by Woodbury and Spiegelman (1987) dealing with an experiment in which bonuses were paid to early job finders.
8. However, "Washington-type" researchers do worry about the tax revenue loss and potential distortion of the pay package for tax avoidance. See Munnell, 1988.
9. The Chamber of Commerce of the United States has for many years published a survey of benefit costs. After the BLS discontinued a similar survey in the late 1970s, the Chamber of Commerce survey was often cited regarding such costs. Unfortunately, it is difficult to obtain information concerning the Chamber's sampling practices. And the data are not readily made available to researchers. Thus, academic researchers have more typically used data from the Current Population Survey or from tax-related records of the Internal Revenue Service.
10. Source: U.S. Bureau of Labor Statistics, press release, USDL: 91-260, June 10, 1991.
11. For other evidence on the firm size and union effects, see Mellow (1981).
12. The ceiling on UI is much lower than for Social Security. With lower turnover, there will be less tax liability since the probability that an employee will work long enough to hit the ceiling increases. Characteristics associated with low turnover (large size, unionization) will tend to reduce UI and - to a lesser extent - Social Security costs. See Brechling, 1980.
13. Pension plan administration has also been found to exhibit economies of scale. See O. Mitchell & Andrews (1981); Andrews (1989, pp. 78-81).

14. Long & Scott (1982) find that the tax code is a major determinant of U.S. compensation practices. But some researchers have argued that if the tax subsidy were eliminated, the impact would be relatively modest. For example, Chernick, Holmer, and Weinburg (1987) estimate that demand for employer-provided health insurance would fall by 16-27% absent the subsidy. The difficulty is that once an employer-provided system has been put in place for many years, the immediate effect of a subsidy withdrawal might well be modest. But this need not mean that the impact of the subsidy in creating the system was modest. Moreover, the kind of offering might well be different. In Britain, where no tax subsidy is available for private employer-provided insurance, those employers who do offer plans do so on a take-it-or-leave-it basis, typically for higher-income employees.

15. Although the UI system was created originally by federal legislation, each state has its own set of laws and administrative procedures. Workers' compensation is almost entirely a state-run system.

16. Examples include a Bush administration initiative to enhance pension portability in 1991 (the "POWER" proposal) and so-called "COBRA" rules adopted in the 1980s allowing continuation of health benefits (at employee expense) after layoff.

17. The U.S. Department of Labor filed suit in 1991 attempting to force employers who terminated defined-benefit plans and replaced them with annuities to take responsibility for the failure of bankrupt insurance carriers to service these annuities.

18. Perhaps the worst example of this instability was the enactment and then repeal of Section 89 of the Internal Revenue Code in the late 1980s. Section 89 was supposed to spread benefits to lower-paid workers and certain part-timers.

19. Higher-income workers will tend to receive relatively less from Social Security and more from their private pensions than lower-income workers. This shift in mix is due to the tilt toward the lower paid in Social Security benefit schedules and to the integration of private pensions with Social Security. For data, see BLS (1990, p. 96).

20. However, employers can use salary reduction options largely to negate the distinction.

21. The modern prevalence of employer-provided plans makes - and the tilt in the tax code toward such plans - makes it difficult for the AFL-CIO to offer competing benefits. However, it can offer such items as discount credit cards which have no tax significance and thus are not generally offered by employers.

22. A later BLS study looked at corporate welfare work immediately after World War I. (BLS, 1919)

23. The term "high commitment" should not be taken to imply any company interest in worker participation in decision making. Indeed, only one of the 50 firms had an employee representation plan.

24. Employer-provided life insurance commonly comes in two varieties: flat dollar amounts and programs linked to earnings. In medium-to-large firms, over two thirds of covered full-time employees have the latter type which is typically more generous. Median flat-dollar coverage was generally in the \$15-20,000 range in 1989; earnings-related coverage usually exceeded annual earnings, especially for high-income professional and administrative workers. Source: BLS, 1990, pp. 74-77.

25. Thus, one telephone company said it provided lunches to its operators so that they would not have indigestion from their own poorly-selected meals and thus would not inflict wrong numbers on callers in the afternoon.

26. Several states created commissions to study the issue and make recommendations regarding the establishment of a state plan. The verdicts of these commissions varied from positive to negative but no state plans were created.

27. This reversal of position may have stemmed in part from a reading of public opinion and a sense that it would be better to influence whatever changes were coming rather than oppose them. The AMA's own polling efforts suggested considerable support for a universal system of health insurance. See AMA (1991).

28. It might be noted that there is evidence of a pulling back by employers from provision of life insurance to retirees as well as health insurance. (Simons, 1990) The idea that having to report retiree health care liabilities on the balance sheet causes businesses to withdraw such benefits does not comport with notions of perfect financial markets. Mere balance-sheet reporting should not affect market valuation if market transactors already knew of the liabilities. To the extent that reporting standards are a factor, therefore, models of markets based on perfect assumption are called into question. About 5 million retired workers, mainly from large firms, were estimated to have retiree health plans in 1990. However, the number expected to draw such benefits (unless they are cancelled) was expected to grow rapidly. (U.S. General Accounting Office, 1990)

29. Many of the topics discussed in this section are reviewed in Pauly, 1986.

30. Thus, it would be technically possible for health expenditures to exceed GNP. The ratio of health services gross product to GNP was just under 5% in 1987, while the ratio of total health expenditures to GNP was just under 11%. Yet health services constituted about 80% of total health expenditures (with the remainder being for drugs, equipment, research, etc.). Source: U.S. Department of Health and Human Services (1991); national income accounts.

31. It has been noted that high-income countries may require more expenditure to produce a given amount of curing. Hence, the curing vs. caring conclusion may not be appropriately drawn from cross-national data. (Parkin, McGuire, & Yule, 1987)

32. Source: U.S. Department of Health and Human Services, 1991, p. 184. See the earlier note concerning the conceptual problems surrounding this measure.

33. Even with catastrophic health insurance, once expenses reach the point of coverage, the marginal cost of consuming services is substantially reduced to the patient.

34. However, de Meza (1983) notes that the moral hazard effects of overinsurance may be exaggerated. Insurance transfers income from the healthy to the sick. So some of the increased use of health services by the sick can be viewed as an income effect.

35. Health status is known to have significant effects on labor supply. (Chirikos & Nestel, 1985; Lambrinos, 1981) Thus, in some cases, it might be argued that employers have an incentive to invest in providing health insurance to their employees to keep them healthy. This point is not evident, however, since presumably it would pay the employee to make the investment to avoid costly periods of absence or non-participation in the workforce.

36. However, firms do not have the same incentives to seek remedies that would lower costs across all employers since no competitive advantage is then derived.

37. There is not much research available on differential health care costs by sex. Some research suggests that women's health expenditures substantially exceed men's, although some of this differential is said to be due to substitution of home care by men (by their spouses) for market-provided medical care. (Sindelar, 1982) However, women in the workforce are more similar to men in the workforce than all women are to all men regarding health service usage. (Wilensky & Cafferata, 1983) More work is needed in this area to determine the potential for sex-based discrimination on the basis of health care costs, especially as occupational segregation diminishes.

38. The administration of conservative Republican Governor George Deukmejian in California began publicly exploring mandated health care in 1990. The governor pulled back from the plan when opposition began to arise. However, polls at the time suggested that the proposal would have been quite popular.

39. For a review article on pensions in this series, see Gustman & O. Mitchell (1990).
40. Thus, Lazear (1990) uses the language of options in describing pension incentives.
41. The employees might have been given an ESOP in place of a pension; ESOP shares might then dilute the proportion of outstanding shares held by the raider. Changes in the law have now made it more difficult than it was in the 1980s for firms to terminate pensions and capture the excess funding.
42. Of course, public employers receive no tax benefits from placing assets in a pension trust. On the other hand, for-profit law firms often maintain unfunded pension plans for their partners.
43. There have been cases in which the U.S. Department of Labor has challenged what it considered to be sweetheart arrangements between developers and construction union pension funds.
44. When this view was tested by Hubbard (1985), however, the degree to which individuals "undid" pensions with other asset decisions turned out to be somewhat ambiguous.
45. Earnings are imputed by summing the difference between contributions and benefits since 1948 and applying the yearly Aaa corporate bond yield to estimate the rate of the return on the pension asset stock.
46. The roughness of the estimate comes from the procedure used to determine pension earnings. See the previous footnote for details.
47. Again, the reader is reminded that the separation of individual from pension saving violates the notion that the two are close substitutes and that individuals can offset pension decisions.
48. See the chapter by Bernheim and Shoven in Bodie, Shoven, & Wise (1988).
49. Social Security "taxes" earnings of retirees aged 62-69 beyond a limited level, thus restricting labor supply. See Honig & Reimers (1989).
50. Multiemployer plans have a laxer standard. In 1991, the Bush administration proposed bringing them under the same 5-year rule.
51. Median (interrupted) tenure on the job in 1987 was 4.2 years. Source: BLS press release, USDL 87-452, October 22, 1987.
52. Social Security benefits are indexed. So retirees will receive partial escalation of their total retirement incomes (Social Security + pension) even in the absence of ad hoc pension inflation adjustments.
53. But see Clark & McDermed (1986). They find that wage profiles often worked against pension benefit profiles rather than as complements to them.

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