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BOOK REVIEWS AND NOTICES

Ashby Bladen, How to Cope with the Developing Financial Crisis, pp. 192, McGraw-Hill Book Co., 1221 Avenue of the Americas, N.Y. 10020, 1979, \$8.95.

Ashby Bladen, senior vice-president of investments for the Guardian Life Insurance Company of America, gave a good preview of this book in his appearance as a panelist for a session on inflation during the 1974 annual meeting of the Society of Actuaries. The remarks that he made at that time can be found on pages D581-D586 of Volume XXVI, Part II, of the *Transactions*.

How to Cope with the Developing Financial Crisis is the distillation of many years of observation and study, and the book strikes one as an intensely personal and deeply felt expression of his views. While Bladen is his own man and not the mouthpiece for any group, he is obviously more attuned philosophically to the economic conservatives than to the liberals. He says early in the book that he expects to offend "contemporary liberals of the social democratic variety," and proceeds to make certain that he does just that by praising the gold standard, the value-added tax, and former Secretary of the Treasury William E. Simon's book A Time for Truth. Of more interest, however, is the wide-ranging array of people and institutions that Bladen brings down a peg or two—firmly but seldom with any apparent malice or bile.

In addition to contemporary liberals, he gives the back of his hand to transcendentalists; economists in general but mathematical economists in particular and, above all, the high priests entrusted with the care and feeding of econometric models; Keynesians and monetarists (skewered in the same sentence!); housing subsidies for the middle class; transfer payments in general and social security in particular; John Kennedy; Lyndon Johnson; central banks wherever they may be but especially the Federal Reserve; and all the M's so dear to the monetarists—with the possible exception of M7. Even the casual reader will find additions to this list.

When it came time to title his book, the author (or his publishers) chose to heat up the rhetoric from the careful "Living with Worldwide Inflation" chosen by the Program Committee of the Society of Actuaries for their discussion topic to the more dramatic How to Cope with the Developing Financial Crisis. However, this is not just hype to sell books, and Bladen does not use the word crisis lightly or carelessly. When he says "crisis" that is precisely what he means, and it is easy to find passages in this eminently quotable book that illustrate his deep concern; for example, "The course we are presently embarked upon leads ultimately to disaster so that a change of direction is absolutely essential." Or, "If we continue to abuse it [the current financial system] as badly as we have been doing during most of the last two decades, it is entirely possible that it will collapse and disappear from the human scene."

Despite the doomsday tone of the passages just quoted, the author has not written a book that is intended to capitalize on the current bull market for disaster stories. It would be doing Bladen a great injustice to lump him with Harry Browne, Howard Ruff, or other opportunistic authors of their stripe, and the reader would be ill-advised to look here for facile tips on how to profit personally from the coming bad years.

There is a full chapter, however, dealing with recommendations for personal policy. After flirting with an obvious temptation to join the apocalyptic school and look for "a farm in a cove far back in the hills... above a bridge that can be defended and, if necessary, destroyed," Bladen elects instead to give sound if unexciting advice. Among the things he recommends for consideration are the following: deferring retirement; continuing to save in the face of endemic inflation; following a contrariant approach to personal investing; and, above all, voting in 1980 for the most fiscally responsible candidates for office that one can locate. Bladen is referring specifically to 1980 elections because he is convinced that time is growing short for most countries of the free world to alter the course of their economies before irreparable damage is done.

He can take heart from the evidence that the people of the world are beginning to sense the same need. If one were a cynic, he could see this evidence in the recent rightward drift of the rhetoric of our typical politician. As our cynic might say, "When the people move, their leaders are seldom far behind." On a more substantial plane, there is evidence of increased conservative influence in representative governments around the world—from West Germany to Israel, from Venezuela and Mexico to Finland and Sweden, and from England and Canada to New Zealand and Australia.

We shall see whether this is a tide or just an eddy when, and if, some of the recommendations for national policy outlined in Chapter 8 of Bladen's book are implemented. If the conservative tide is indeed a mile wide and an inch deep, as some suspect, we will never take what Bladen sees as the essential first step—that is, "cold turkey Central Bank policy of refusing to create all the liquidity that the market demands." The author is properly skeptical that the Federal Reserve will have the resolution to take this necessary but unpleasant action in view of its record since the mid-sixties of three times pushing the nation to the edge and then backing away. His argument for dramatic action to break inflationary expectations is appealing in the abstract but very difficult politically, since some people would be badly hurt.

After facing up to the need for an administered credit crunch as probably the only alternative to uncontrolled panic, Bladen turns his attention to longer-range remedies. He is much too responsible and genuinely concerned to point out problems in our society without addressing himself to possible solutions—unpleasant as the solutions may be. The author considers persistent federal government deficits to be largely responsible for the inflationary expectations that pervade our nation, and feels that it is essential to do something about them. He therefore advocates cutting back some socially desirable programs to a level at which the nation will be willing to finance them by levying and paying the requisite taxes.

Since federal tax policies in this country have long favored consumption and discouraged saving, it is natural that the author looks to tax reform as a possible way to change this bias in favor of consumption. It is consistent with his basic conservatism that Bladen elects to advocate the value-added tax, but only as a substitute for the federal income tax and not as an additional source of revenue. It is consistent with his thoroughness that the author is aware of the usual objections to the value-added tax (regressive, complicated, inflationary) and attempts to deal with these objections.

Many readers will be surprised, however, by Bladen's espousal of the federalization of all transfer payments, and by how close he comes to recommending fundamental changes in our constitutional framework—presumably to a parliamentary form of government—before backing away from advocacy of such a radical measure.

The fact that this book is easy to read and almost totally devoid of mathematics and technical jargon should not obscure the fact that it is a provocative and serious treatment of a subject that should be of paramount interest to all thoughtful citizens—most assuredly including actuaries.

ROBERT O. MARTINELLI

Martha Derthick, Policymaking for Social Security, pp. xiv, 466, Brookings Institution, 1775 Massachusetts Avenue, N.W., Washington, D.C., 1979, cloth \$17.95, paper \$6.95.

This is an important and most timely book. The author, who is director of governmental studies at Brookings, seeks to explain how social security was successfully institutionalized in the four decades since its initial enactment in 1935. She asks why a program of such widespread importance to our citizens has, until recently, stirred so little conflict and discussion.

She finds the answer in the nature of the policymaking process and the program itself. As for the latter, social security promised the taxpayers a fair return for their taxes and, as it happened, gave nearly all the early taxpayers very much more. Policymaking was dominated and controlled by a dedicated and expert few. In this regard, it is noteworthy to mention the extraordinary influence on the evolution of the program of three insiders: Arthur J. Altmeyer, who was chairman of the Social Security Board from 1937 to 1953; Robert M. Ball, who was commissioner from 1962 to 1973 and is still actively involved; and Wilbur J. Cohen, who joined the staff of the Committee on Economic Security in 1934 and has maintained his interest in the subject and his standing as an expert since then. From the outset, the exponents and promoters of social insurance demonstrated exceptional managerial and political competence in achieving their objectives. Taking advantage of the Great Depression, they knew precisely what they were after—namely, comprehensive European-style social insurance. They knew, too, that an important first step in that direction would be to insulate social security from outside control or effective oversight prevalent among other governmental spending programs.

Potential competitors within the executive branch were neatly finessed.

Public assistance, the system's principal and natural rival for money and bureaucratic turf, was confined to the Social Security Administration initially and thus kept under control. An early provision that would have had the Treasury Department audit the program was diluted by assigning the task to a board drawn from a number of government departments. The net result was that no other government agency developed the expertise to check on the proposals of the social security staff or to examine the cost of alternative approaches to social insurance.

Financing was made to appear painless. On the pay-as-you-go basis, revenues from today's workers are intended to be sufficient to cover the cost of current benefit payments. Current taxes do not come close to taking care of the expected future costs of the system. This problem has recently become more severe because the growth in the size of the work force has not kept pace with the increasing number of retirees, and the health status of Americans has improved considerably so that those who reach retirement age live significantly longer on the average and collect more in the way of benefits than was the case heretofore.

The book is especially valuable in view of the widespread weakening of confidence in the system that has come to the surface in the past few years and should be must reading for students of social security now and in the future. In addition, it will be of considerable help in furthering the long-overdue debate that appears to be developing over the proper role of the social security system in our economy, the extent of its benefits, and the manner of its financing. The source material for the book was carefully researched by the author, who had access to the Oral History Collection at Columbia University as well as to the materials in the files of the Social Security Administration, the AFL-CIO, and the American Life Insurance Association (now American Council of Life Insurance) and the Lyndon Baines Johnson and John F. Kennedy libraries. Many of the references are specifically cited. Among the actuaries drawn upon were Dorrance C. Bronson, Reinhard A. Hohaus, M. Albert Linton, Robert J. Myers, A. Haeworth Robertson, Charles A. Siegfried, Charles L. Trowbridge, and W. Rulon Williamson.

After a short introduction posing the question of "Social Security as a Political Puzzle," the book is divided into four major sections. Part I, "The Participants," examines the role of the first program executives, how Congress functioned, the influence of the politically oriented executives, the use of advisory councils, the continued advocacy and collaboration of labor, the resistance of conservatives and expert critics both within and outside Congress, and the limited effect of public opinion.

The author identifies a number of factors that permitted the system to evolve as it did. An underlying dynamic was what she terms "the electoral connection," namely, the desire of politicians to secure election and reelection. Another was the purposefulness and adroitness of the program executives in a situation where their expertise was much in demand and they had something very attractive to sell.

Part II relates to "The Program" and analyzes the balance between benefit equity and adequacy, the financing of the system, who wins and loses, and the level of benefits. In this part, the author points to the fact that the program grew incrementally, which meant that costs could start low and grow gradually. Also, taxpayers were promised specific benefits in return for their taxes, and the many compromises and ambiguities in the program introduced an element of nonspecificity that enabled diverse interests to coalesce in its support.

Part III deals with "The Politics of Expansion" and discusses the enactment of disability coverage, of medicare, and of cash benefit increases out of proportion to price level increases.

The author observes that these changes were made partly because they were advanced as add-ons to an extremely popular program but that they were not made without sowing the seeds of conflict and controversy to an extent not previously experienced, particularly with respect to disability insurance and medicare. Each of the three additions soon turned out to be far more costly than it had been represented as being during the consideration of its enactment. Together, they can be said to have provided the beginnings of the feeling of malaise in relation to the system that has become so prevalent today.

The fourth and final section, entitled "The Rising Conflict," brings us up to date and discusses the deficit that developed in the early 1970s and the need to keep society's options open. Rapidly rising disability claims, a declining fertility rate with the prospect of a marked increase in the proportion of the elderly in our population, and adverse changes in the economy account for the sudden and unexpected appearance of a long-run deficit in the financing of the program. The situation was complicated further by the provision for automatic increases in the benefits with changes in the cost of living that was introduced in 1975. No safety margins for error were built into the cost estimates. A third complicating factor was the advancing maturity of the system, which seriously limited the room for maneuver.

The political response was immediate, and for the first time public debate widened and aspects of the system and its financing began to come under serious examination, to the point where Congress, late in 1977, responded to the deficit by increasing taxes and revising the benefit formula through decoupling. This was done in order to correct an unintended anomaly in the formula, which had had the effect of increasing benefits for active workers both by cost-of-living changes due to inflation and by the degree to which average wages increased. In a highly inflationary time such as 1974 or the current period, benefits for active workers could become absurdly high. The revised formula stabilized the benefit level for active workers by limiting the application of indexing of their benefits to the average increases in wages alone. At the same time, the maximum payroll base for the calculation of benefits and the collection of social security taxes was raised. It is significant that, at the time, Ways and Means Committee Chairman Al Ullman said, "There are not going to be any more easy votes on Social Security."

Whatever political analysts may prescribe or executive leaders of the program

strive for, more conflict over social security is on the way. In fact, it is here already. One reason is that the program is changing. It has become much more costly, both in absolute tax rate and in the ratio of costs to benefits for individual participants. A second reason for the rising conflict is that the economic and social context of policymaking generally is changing. Economic growth, with which expansion of government activity could be financed, has slowed, and popular resistance to government expansion appears to be rising.

The author concludes that "Social Security is a government program, as its coercive character demonstrates; that for the coercion embodied in it to be legitimate, mechanisms for consent and renewal of consent must be provided; and that competition with other government programs is an indispensable condition of consent."

MORTON D. MILLER

U.S. Congress, 1979 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, pp. 137, Government Printing Office, Washington, D.C., 1979.

The 1979 report is the thirty-ninth annual report to Congress from the Board of Trustees of the funds. The trustees are the secretaries of the Treasury, of Labor, and of Health, Education, and Welfare.

The primary purposes of the trustees' report are to provide financial information on the latest fiscal year (ending September 30, 1978) for the two funds and to furnish actuarial projections of expected receipts and disbursements as percentages of taxable wages. Three sets of economic and demographic assumptions are used to produce three sets of projections, Alternatives I, II, and III, which are "optimistic," "intermediate," and "pessimistic," respectively. The intermediate projections are intended to guide planning and legislation.

The report also provides supplemental demographic projections, historical data, and information on pertinent aspects of the law covering social security and the operations of the funds.

This review of the trustees' report covers the material on the current financial status of the trust funds, the intermediate projections, and the actuarial assumptions. The review draws heavily upon the Report of the Panel of Consultants to the 1979 Advisory Council on Social Security. Table 1 of this review shows actual 1978 figures and projected intermediate short-term figures year by year through 1983. The consultants' report, which was prepared before the 1979 trustees' report, provides similar figures. The consultants' intermediate short-term projected fund ratios are compared in Table 2 with the corresponding figures from the 1978 and 1979 trustees' reports.

The consultants' report and the 1979 trustees' report also agree closely in their projections further into the future. Table 3 compares the fund ratios beginning with 1985. The differences between the estimated seventy-five-year

¹ Dated March, 1979. The consultants are Walter Shur (coordinator), Yung Ping Chen, Ronald Lee, Rudolph Penner, Claude R. Poulin, and Charles L. Trowbridge.

deficits as percentages of covered wages are remarkably close: for 1978-2052, the consultants' report's deficit is 1.18 percent and the 1978 trustees' report's deficit is 1.40 percent, while the 1979 trustees' report's deficit for 1979-2053 is 1.20 percent.

Although the consultants' report closely supports the 1979 trustees' report's projections, there nevertheless are some important differences in the respective actuarial assumptions. Table 4 compares selected actuarial assumptions. The consultants did not rubber-stamp those assumptions of the 1979 annual report that are similar to or identical with theirs. It appears rather that the trustees accepted the consultants' recommendations to increase the rates of mortality

TABLE 1*
ESTIMATED OPERATIONS, INTERMEDIATE ASSUMPTIONS, 1978-83
(Dollar Amounts in Billions)

Calendar Year	Income	Disburse- ments	Net Increase	Funds at Year-End	Ratio of Funds at Beginning of Year to Disbursements		
1978	\$ 91.9	\$ 96.0	-\$4.1	\$31.7	0.37		
1979	106.4	107.6	- 1.2	30.5	0.30		
1980	120.5	121.5	-1.0	29.5	0.25		
1981	140.3	135.2	5.0	34.6	0.22		
1982	156.9	148.9	8.0	42.6	0.23		
1983	170.8	162.1	8.7	51.3	0.26		

^{*} From Table 14 of the 1979 trustees' report.

TABLE 2

COMPARISON OF REPORTS: RATIOS OF FUNDS AT BEGINNING OF YEAR TO DISBURSEMENTS, 1978-84

V	Con-	TRUSTEES' REPORT			
YEAR	SULTANTS' REPORT*	1978*	19791		
1978	0.37‡	0.37‡	0.371		
1979	0.30	0.28	0.30		
1980	0.24	0.24	0.25		
1981	0.21	0.21	0.22		
1982	0.23	0.25	0.23		
1983	0.26	0.30	0.26		
1984	0.30	0.35	0.29		

^{*} From Table 8 of the consultants' report.

[†] From Table 29 of the 1979 trustees' report.

[‡] Actual ratios.

improvement, the spread in fertility rates between Alternatives I and III, and the disability rates used in the 1978 report. On the other hand, the trustees did not follow the consultants' recommendations on increasing the inflation rates assumed, on increasing the spread in these rates, and on reversing their order among the alternatives. The consultants pointed out that higher inflation means lower payroll tax rates because of the greater lag in benefit increases compared with payroll increases. As we have seen, however, the differences in

TABLE 3
COMPARISON OF REPORTS: PROJECTED RATIOS, 1985-2030

	Consultants'	TRUSTEES' REPORT			
•	Report*	1978*	1979†		
Ratios:					
1985	0.34	0.40	0.32		
2000	2.32	2.15	2.28		
2015	3.09	3.09	3.23		
2030	0.46		0.59		
Year in which fund is exhausted	2031	2028	2032		

^{*} From Table 8 of the consultants' report.

TABLE 4
SELECTED ACTUARIAL ASSUMPTIONS

Assumptions	Consultants Report Alternative			1979 TRUSTEES' REPORT ALTERNATIVE		
	1	II	111	I	II	III
Demographic: Mortality (average annual rate of improvement) Fertility (ultimate average number of children born per woman) Disability (ultimate average incidence rate) Proportion of women in work force (ultimate) Economic (ultimate percentage): Rate of increase in CPI Rate of increase in real wages Rate of increase in covered wages Unemployment rate Interest rate Real rate of return	0.0051 2.5 0.0059 0.43 8% 2.25 10.25 4.5	2.1 0.0065 0.43 5% 1.75 6.75	1.5 0.0071 0.43 2% 1.25	2.5	2.1	0.0092 1.5 0.0071 0.43 6% 1.25 7.25 6.0 8.1 2.0

^{*} Not stated.

[†] From Table 29 of the 1979 trustees' report.

assumptions under Alternative II produce only minor differences in the projections.

It is unlikely that any set of reasonable-appearing assumptions will produce a projection closely depicting future events. Certainly, long-range demographic and economic projections made in the past have not predicted the current demographic and economic situations very well. Therefore, some of the 1979 assumptions that may be more doubtful than others will be discussed.

First is the matter of proper correlation of assumptions. The consultants' report and the 1979 trustees' report correlate unemployment with inflation in opposite ways, the former report following the Phillips curve prescription of high inflation, low unemployment. Another possible lack of appropriate correlation is evident in both reports: the proportion of women workers in the labor force is the same for all three sets of projections, while fertility rates vary considerably. It could be argued either that the variation in fertility rates should be smaller or that a lower proportion of women should be assumed to work under Alternative III. In addition, perhaps the assumed proportions of women workers should vary in some way with the size of the work force relative to the dependent population.

Second, not only should assumptions be properly correlated, but their values in absolute terms should reflect all the pertinent information now available. The economic assumptions should recognize the high probability that the use of energy will decline per capita and, therefore, that it will not contribute further to productivity improvement. However, the rates of growth assumed for real wages appear not to take into account the likely decline in the amounts of energy available for industrial and other productive activities. Another factor that may not have been considered sufficiently in establishing assumptions is the change in rates of retirement by age as the population matures. The assumptions in other respects appear to be as soundly based as current information permits.

The reports project "dependency ratios," namely, old-age dependency (65+), young dependency (under 20), and total dependency ratios of "dependents" to people aged 20-64. The discussions of these ratios hinge on the amounts of public expenditures for old and young dependents. The public expenditures for the old are triple those for the young. Even though the projected total dependency ratio increases only moderately (from 75.0 percent to an ultimate 83.5 percent in 2055), the decrease in the young dependency ratio combined with a large increase in the aged dependency ratio (19.4 percent in 1980 to 35.0 percent in 2055) therefore makes these demographic changes more serious financially. Consideration of the high per capita private expenditures for children as well as private support for the aged might moderate these findings.

Both these reports are recommended to actuaries. They should assist our understanding of the social security system, of the broad forces molding our society, and of the factors to consider in establishing economic and demographic assumptions for many purposes.

Donald S. Grubbs, Jr., Integration of Plans with Social Security and Funding, pp. 32 and 35, ALI-ABA Committee on Continuing Professional Education, Philadelphia, Pa., 1978, \$6.00 each.

These two pamphlets are part of "Pension and Profit-sharing Plans," a comprehensive set of references on the laws applicable to qualified pension and profit-sharing plans, prepared under the auspices of the American Law Institute—American Bar Association (ALI-ABA). According to its editor, David C. Rothman, the series is aimed primarily not at pension lawyers but at the many corporate and tax lawyers, accountants, actuaries, plan administrators, pension consultants, bank trust officers, insurance agents, brokers, corporate personnel department employees, and others whose frequent contact with the pension laws would make such a reference tool useful.

The genesis of "Pension and Profit-sharing Plans" was in a pension practice handbook written by Mr. Rothman in the mid-1960s. With the advent of the Employee Retirement Income Security Act of 1974 (ERISA), the scope and complexity of pension regulation caused a shift in emphasis from an abbreviated handbook to a series of folios, or separate pamphlets, on specific pension topics. At present, the series consists of seven major sections subdivided into forty-four folios. It was prepared by some forty contributing authors, the editor being by far the most prolific contributor. The folio system should facilitate future revisions and amendments when new rulings or statutory and regulatory changes occur.

The two folios that constitute the subject of this review deal with the topics of social security integration (Series C folio) and funding (Series D folio). Both folios were prepared by Donald S. Grubbs, Jr., a former director of the Actuarial Division of the Internal Revenue Service, who is now a consulting actuary. His extensive actuarial experience makes him well suited to discuss these issues.

The integration folio is a 32-page pamphlet that presents a concise overview of the legal requirements attaching to a plan that attempts to correlate private sector pension benefits with those provided by the social security system. Since the folio is addressed to a general pension audience, it is written in a conversational style utilizing simple examples to illustrate technical mathematical formulas. Little or no attention is devoted to the philosophy behind integration or to possible future trends. Despite the limited space available to him in the folio, the author has been successful in producing a thorough, readable introduction to the principles of integration. This work achieves its objective in that it constitutes a basic text explaining the rudiments of integration to pension generalists, although it would be considered too elementary for those actuaries steeped in the mechanics of integration.

The funding folio is a 35-page brochure providing an easily understandable summary of the highlights of the funding standards of ERISA. It is presented in the form of a narrative description of the numerous factors to be considered in determining how much to contribute to a pension fund. About one-third of the article is devoted to defining certain actuarial terms. The author is adept

at defining complex actuarial terminology and in presenting the reader with statutory and regulatory citations. Particularly helpful to the pension generalist is the use of a sample Schedule B ("Actuarial Information") of a pension plan's annual report on Form 5500. In short, this booklet is an intelligent and literate summary of funding standards, but practitioners faced with complex technical funding problems can use this folio only as the starting point of their research.

The two folios are worthwhile introductions to the subjects of integration and funding for those interested in acquiring an overview of a pension plan's actuarial requirements. The works will be most helpful to those readers who are not actuaries, and each contains a complex index for easy reference.

The subjects dealt with in "Pension and Profit-sharing Plans" have obviously been chosen with great care to cover all the important aspects of pension planning, and I believe that the series will serve as a good basic reference tool for pension plan practitioners. The contributing authors are experts in the pension field and can bring in-depth knowledge and a variety of viewpoints to the reader. Numerous new pension publications have flooded the market since the enactment of ERISA. "Pension and Profit-sharing Plans," while not a substitute for the multivolume pension treatises prepared by Prentice-Hall and Commerce Clearing House, is nevertheless an informative and useful review of the fundamentals of pension planning.

JEANNE CULLINAN RAY*

Jeffrey D. Mamorsky, Pension and Profit Sharing Plans—a Basic Guide, pp. 293, Executive Enterprises Publications Co., Inc., New York, N.Y. 20023, 1977, \$9.95.

The pension actuary will find this book particularly helpful for the following reasons: (1) the references from the 267 pages of text to the Code, Regulations, revenue rulings, and so on, are extensive (in fact, there are 765 such references); (2) the numerous examples considerably clarify some of the subjects; (3) the current government regulatory practices and attitudes may be discerned, particularly in the areas of plan qualification, partial termination, reporting and disclosure, and plan termination; and (4) helpful insights into the ongoing plan administrative questions are provided. The author, a practicing employee benefits attorney, offers perhaps the best post-ERISA legal review of the subject that we have seen.

The reviewer found it especially helpful that pensions, profit sharing, ESOP, TRASOP, and other subjects were discussed (albeit some scantily) under one cover; the income, estate, and gift tax consequences of plan distributions were also presented.

Many actuarial readers will be disappointed with the treatment the author affords jointly maintained plans, integration with social security, current

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accounting/actuarial/financial analyst/regulatory views on reporting or disclosure questions, and funding questions.

The author informs me that the book is being updated and enlarged with chapters on mergers, fiduciary responsibility, and employment discrimination.

CARLTON HARKER, F.S.A.

Daniel F. McGinn, Joint Trust Pension Plans, pp. xvi, 345, Richard D. Irwin, Inc., Homewood, Ill. 60430.

Practitioners in the pension field have come to recognize that there are four broad subspecialties: small plans (also known as tax shelters), larger corporate plans, governmental plans, and Taft-Hartley jointly trusteed programs. Knowledge and even expertise in one specialty are not necessarily transferable to the others.

Fortunately, a growing body of book-length literature has appeared in the first three areas, often contributed by employee benefit consultants or actuaries. This has not been the case in the Taft-Hartley jointly trusteed field, so that Dan McGinn's Joint Trust Pension Plans must be viewed as something of a milestone.

The approach taken by Mr. McGinn is an ambitious one, since he hopes to provide the nonspecialist (including the general public) "with practical insight into the operations of these plans." Thus he examines the establishment and operation of these plans, eligibility requirements, benefit structure, plan administration, actuarial considerations, reporting and disclosure, and investment practices. The experienced pension actuary may be tempted to avoid these chapters, feeling that prosaic subjects such as these are not worth reviewing one more time. While much of the material is familiar, there are problems unique to the Taft-Hartley plan field. For example, the appropriate recognition of past service is much more elusive in the Taft-Hartley field than in most corporate plans, and minimum funding problems can be more real in the Taft-Hartley jointly trusteed plan arena than for most common corporate plans. These issues are well treated by Mr. McGinn.

Most pension practitioners who do not work in the jointly trusteed field will find three chapters dealing with specific Taft-Hartley practices of greatest interest. One treats the issues involved with the adoption of an existing plan by a new group, while a second considers the question of reciprocity—portability between and among entirely separate plans. The final chapter—"Critique: A Look into the Future"—also is of interest, for Mr. McGinn here gives his views on the future of jointly trusteed plans. Some readers may disagree with some of his recommendations. For example, the solution to the contingent liability problem in the event of plan termination may not be its repeal (for that merely transfers risk to the employee) or government (i.e., taxpayer) guarantees. The solution lies in sounder benefit design and funding practices by the affected joint boards.

The book also contains a number of specimen documents and forms, includ-

ing most specifically the Pension Trust Agreement—Declaration of Trust and sample plan. One can only wonder how many of these will be seized upon by practitioners who have become instant experts by reading Mr. McGinn's book. Even for experienced professionals in the field, these forms and documents may prove a fruitful source for possible in-house changes in standardized approaches. For this alone, the book could be deemed valuable.

Invariably there are difficulties with the first edition of any book. One problem for the technical reader is that the broad scope of the assignment Mr. McGinn has given himself and the approximately 215 pages of actual text allow little in-depth treatment of some key issues. For example, the advantages and disadvantages of the "shortfall" funding method receive less than a page of perfunctory treatment, presumably because the subject matter is too complex for the lay audience. Yet this method is an alternative that confronts or will confront virtually every Taft-Hartley plan. There is also, at most, skeletal treatment of such pressing issues (for some plans) as coverage of self-employed union members and the use of union membership to determine past service. The neophyte may not recognize that both of these smack of illegality.

The extremely important and complex topic of the withdrawal of contributing employers is covered in only three pages. Unfortunately, this broad-brush treatment leads to some apparent errors. The statute indicates that all withdrawing employers—not just substantial ones—may be liable if a plan terminates within five years after an employer's withdrawal. Similarly, the July 1, 1979, date cited by Mr. McGinn as the potentially "dangerous" withdrawal date appears erroneous. The five-year "recapture" could apply to any withdrawals, even though mandatory coverage for Taft-Hartley plans is scheduled to begin only as of July 1, 1979. In light of the proposals by PBGC, statutory revision may result in significant change in the entire problem.

Two other troublesome items could be corrected in later editions. It would be extremely helpful if there were greater specificity in the text. Including an example of an industry or plan that has followed a particular approach being discussed would add greater practical authority. Even more important, where Mr. McGinn indicates that statutory law or judicial decision forces a certain approach, the statute or case should be included in a footnote. At present there are more footnotes to other sections of the book than to outside sources.

Finally, a relatively quick reading of this book reveals a number of apparent contradictions, cryptic statements, and minor errors. Perhaps the most obvious is on page 87, where, as part of an otherwise excellent analysis of the social security adjustment option, Mr. McGinn observes that "if an employee selects age 65 [as the date of adjustment], the plan's benefits both before and after age 65 will be lower than if age 62 is selected."

This confusing statement does not detract from an otherwise sound and valuable text. Perhaps the primary effect of errors of this sort is that they allow reviewers to cluck in sorrow.

Dan M. McGill (ed.), Financing the Civil Service Retirement System: A Threat to Fiscal Integrity, pp. 170, published for the Pension Research Council by Richard D. Irwin, Inc., Homewood, Ill. 60430, 1979, \$11.00.

This book is a compilation of recent documents (mostly 1977 reports), or excerpts therefrom, concerned with the financing of the civil service retirement system (CSRS). The principal question addressed in these documents is whether or not future inflation should be recognized in determining the government's current contributions to the system.

The current method of financing the CSRS is based on Public Law 91-93, enacted in 1969. This law provides for employee contributions generally at 7 percent of salary, and for four types of government payments:

- Agency contributions, generally at 7 percent of salary, to match employee contributions.
- 2. Thirty-year amortization payments to amortize increased liabilities created by legislation enacted after October 20, 1969. This covers general salary increases, new or liberalized benefits, or extension of coverage to new groups. Notably, it does not cover increases in liabilities resulting from cost-of-living increases to retirees.
- 3. Payments for certain military service credits.
- 4. Interest on the unfunded liability.

To avoid sudden large budget impacts, the law provided that the payments described in items 3 and 4 would be graded in at 10 percent per year, reaching 100 percent for 1980 and later.

As of September 30, 1978, the retirement fund consisted of \$56.3 billion invested in federal debt securities. Employee contributions for fiscal 1978 were \$3.1 billion. Government contributions of about \$11 billion consisted primarily of \$3.1 billion to match employee contributions, \$4.7 billion toward interest on the unfunded liability, and \$2.6 billion of thirty-year amortization payments. Interest earned on the fund in fiscal 1978 was \$3.4 billion, and benefit payments were about \$11 billion.

The unfunded liability as of September 30, 1978, based on static (no inflation) valuation assumptions, was \$124.1 billion. The normal cost, based on the same valuation, was 13.77 percent. Thus, employee and matching employer contributions, totaling about 14 percent of payroll, just covered the static normal cost.

Calculations based on reasonable inflation assumptions suggest that the true normal cost is in the neighborhood of 25 percent of payroll. Recognizing this, the Office of Management and Budget has proposed guidelines for government agencies making cost comparisons with private firms for purposes of contracting out, requiring the use of a 20.4 percent retirement cost factor (27.4 percent normal cost less 7 percent employee contributions). Thus the government, on the one hand, says that the normal cost of the plan is 27.4 percent of payroll but, on the other hand, makes contributions of only 14 percent.

The primary document in the book is a comprehensive memorandum on the financing of the CSRS prepared by the staff of the Bureau of Retirement,

Insurance, and Occupational Health of the Civil Service Commission, under the direction of Chief Actuary Edwin C. Hustead. It is an excellent review of the entire subject, covering the history of CSRS financing, the role of the Board of Actuaries, some general theory on valuation methods and funding criteria, and funding criteria of other systems, as well as the effects of several alternative funding criteria for the CSRS. The basic conclusion in the report is expressed in the following two extracts:

The current P.L. 91-93 funding system meets a major objective: employees and annuitants can be assured that there will be a fund to pay benefits when they come due. It does not, however, adequately show the total future cost of the system, and it falls far short of ERISA standards. Since CSRS financing under the current budget is only a paper transaction, however, it might be argued that current criteria are sufficient for financing purposes.

On the other hand, it can be argued that the financing should be changed to directly reflect the level cost of the system to avoid having cost measures different from financing levels. Either the Board of Actuaries level cost or the projected level cost system would achieve this. The projected level cost system is preferable if it uses adequate funding goals, since it would be more easily understood by the public. To avoid watering down the goals and endangering the fund, specific adequate funding levels should be included in any legislation.

The book contains the report of three private-sector consultants, Park R. Davidson, Dan M. McGill, and Marc M. Twinney, and a report prepared at the direction of the consultants by Dr. Howard E. Winklevoss and Glenn D. Allison of the Wharton School. The latter report consists of a series of fifty-year projections of future experience under the plan, using dynamic assumptions and a variety of funding methods. The dynamic assumptions were 4 percent cost-of-living increase, 5 percent general salary increase, and a 6 percent interest rate.

The conclusion of the consultants is that inflation should be reflected in determining actuarial costs and liabilities. In particular, the expected cost of future cost-of-living adjustments for retirees should be reflected in the normal cost of the system and funded in advance as are all other components of normal cost. The consultants also recommend that all actuarial liabilities of the system, whether associated with benefits accrued in the past or those that accrue in the future, ultimately be funded.

The funding method recommended by the consultants is the "forecast method"—that is, an asset accumulation objective is set for some future year and the funding set at a level percentage of payroll that will achieve that objective if actual experience conforms to assumptions. In particular, the recommended objective is termination-of-plan liability at the end of forty years. On the basis of the Winklevoss-Allison projections, the total level cost to the government under this funding method would be about 37 percent of payroll. This compares with actual government contributions in fiscal 1978 of about 25 percent of payroll. The increase would require \$5 billion of additional government contribution.

The book contains a valuable critique of the various study documents, prepared by Andrew E. Ruddock, former director of the Bureau of Retirement, Insurance, and Occupational Health. Notwithstanding the fact that Mr. Ruddock generally agrees with the approach recommended by the consultants, the most interesting part of his discussion is a listing of reasons why future inflation should not be reflected in advance and included in current cost figures. For example, one objection is that each pay raise and each cost-of-living increase will no longer have a retirement price tag attached to it. Rather, the event will have been assumed and financing arrangements made in advance and independent of the event.

Finally, the book contains excerpts from a 1977 General Accounting Office (GAO) report, and excerpts from the Fifty-second Annual Report of the Board of Actuaries, issued in July, 1975. The position of the GAO is clear from the following paragraph extracted from their report:

Funding of federal retirement systems remains a serious, growing problem that needs further attention. We believe that retirement costs for all systems should be determined and funded on a dynamic basis. The Congress, employees, and the tax-payers should not be misled by unrealistic estimates of retirement costs. When the full costs are not recognized, there may be a tendency to adopt added benefits which could jeopardize the eventual affordability of the retirement systems. Lack of full cost recognition also results in the understatement of the cost of government programs, including subsidies to agencies whose operations are intended to be self-supporting. Furthermore, without full funding, the government's retirement system liabilities are not totally reflected in the public debt.

The financing of the CSRS involves a complex blending of actuarial, accounting, and economic considerations. All the pieces of the puzzle are well set forth in the various reports in this book. It seems to me—and to most others who have studied the problems—that in the final analysis cost disclosure is essential if informed decisions are to be made, and cost disclosure will be achieved only if costs are fully reflected in the actual funding.

The 1977 report of the Board of Actuaries, which should be available by the time this review is published, will recommend a specific funding system. The McGill book, together with the board's report, probably will lead to congressional review of the issue in 1980.

WALTER SHUR

Committee on Education and Labor, House of Representatives, *Pension Task Force Report on Public Employee Retirement Systems*, pp. v, 935, U.S. Government Printing Office, Washington, D.C., 1978.

One of the frequently expressed criticisms of the Employee Retirement Income Security Act of 1974 (ERISA) is that Congress did not have sufficient information about private pension plan practices, with the result that much of ERISA is impractical. Apparently hoping to avoid this problem in the event of federal legislation in the public plan area, Congress directed an in-depth study of public plans. In March, 1978, the Pension Task Force of the Committee on

Education and Labor of the House of Representatives announced its conclusions based on the three-year study. While that relatively brief summary received wide publicity, publication of the report itself was postponed almost six months and, perhaps unfortunately, has not received substantial publicity.

The report, which is almost 950 pages long, can be divided into two (by no means equal) parts. The first 42 pages are comparable to an encyclopedic law review article analyzing in substantial, detail the various federal laws that presently affect public employee retirement systems. The basic conclusion of this review is that there is a myriad of federal laws (and possible state and federal constitutional guarantees) that have potentially major effects on public systems. However, this portion of the analysis also concludes that there are many uncertainties with regard to the scope of these laws. (The potential of IRS disqualification of many public plans as discriminatory in favor of key employees is a most obvious one.) This section also includes a detailed legal analysis of the potential constitutionality of direct federal legislation concerning public employee plans. This question became particularly important in light of the 1976 Supreme Court decision in National League of Cities v. Usery, which found that congressional action subjecting state and local governments to the minimum wage and overtime provisions of the Fair Labor Standards Act was unconstitutional.

The study finds four separate ways that Congress could adopt federal standards for public employee retirement systems without running afoul of the restriction developed in *National League of Cities*. In fact, the report concludes that even if the approach used under the ill-fated Fair Labor Standards Act amendment were to be used, only full and immediate ERISA-type funding standards potentially could be considered unconstitutional. In addition, the report suggests use of Congress's taxing power, or of the Fourteenth Amendment, or even imposition of pension-related "strings" on revenue sharing—all of which could accomplish the desired result constitutionally.

The first section of the committee's report thus is an excellent if somewhat biased primer on present constitutional and statutory law as it may apply to public retirement programs, and a constitutional justification for potentially wide-sweeping legislation.

This "legal basis" review also includes some of the appendixes. For example, Appendix V is a 75-page analysis of state statutory provisions, with special emphasis on general fiduciary requirements. Presumably, this material should be invaluable for comparison purposes; unfortunately, at least some state administrators have indicated that the information is inaccurate, outdated, or incorrectly interpreted. The credibility of the entire report is hurt by charges of inaccuracy in this section.

By far the bulk of the report is an in-depth analysis of the nature and scope of the characteristics and operation of public employee retirement systems. The basic source of the information was a 22-page questionnaire that was completed in mid-1976 by representatives of plans covering the vast majority of public employees. The Pension Task Force developed the extensive tables and analysis contained in the report from the responses to the questionnaire.

The magnitude of the assignment and the originality of some of the approaches utilized to solve perennially difficult comparisons among plans are impressive. At the same time, it must be recognized that the overwhelming amount of material available will permit different conclusions with regard to apparent facts, both by the task force itself and by commentators.

It is clear that one underlying (if unstated) principle in the report is that abuses exist in the public plan arena in virtually all areas covered by ERISA for private plans—and hence that remedial federal legislation is desirable. It is not clear whether this was a preconceived notion that subsequently could be supported by factual information or whether the factual information indicated such widespread abuses that legislation appeared to be the only solution.

Since it has been assumed generally that this is the definitive analysis of public plans, it is important to recognize some of the report's difficulties. Perhaps most basic is the fact that comparisons are made far too frequently on the basis of number of plans rather than by number of plan participants. This problem is perhaps best illustrated by examining the sixty-eight federal plans, which cover 9.5 million active and inactive members. The report notes that 9.3 million of these members, or 97.5 percent of them, are covered by only two plans—the civil service retirement system or the military retirement system. Of the remaining sixty-six plans, ten cover ten or fewer members, including a pension plan for United States presidents (one active and two inactive members) and a separate plan covering widows of United States presidents.

Quite clearly these smaller plans could have been ignored, but many tables give as much weight to each of these small programs as to the civil service program. While the situation is not so dramatic for state and local plans, it must be noted that a full 40 percent of the plans had fewer than twenty-five active members—again skewing the validity of comparisons based on numbers of plans.

Another problem with the report is that many of the examples cited to prove the need for legislation tend to be trivial or attempt to impress by large numbers. A leading example of this approach (which is, in fact, cited twice in the report) is the statistic that an estimated 338,000 former federal employees aged 62 and over have potential unclaimed benefits of \$26 million dollars. This appears an impressive reason for better communications to participants until simple division reveals that the average unclaimed benefit is a lump sum of \$77.

One final common difficulty with the report should be added. The report frequently compares present public plan practices with post-ERISA requirements for private plans. Measured by this yardstick, many public employee retirement system provisions are inadequate, particularly in nonsubstantive areas. Two of the more obvious areas cited are the failure of many public plans to cover part-time employees who work at least 1,000 hours and the fact that few public systems meet disclosure-to-participant standards of ERISA, particularly with respect to summary annual reports.

The report implies that these are "failures" of public systems, although prior to ERISA the vast majority of private plans did not meet at least these two

rather arbitrary standards. ERISA standards may make a handy benchmark; failure to meet these standards does not, however, indicate inadequacies.

The report does provide much statistical information that probably should be deemed definitive. Among the more interesting facts uncovered by the study are the following (literally thousands of additional statistical facts can be gleaned from the report):

Seventy percent of all state and local employees are subject to social security, while fewer than 46 percent of present federal employees are covered by it. Eighty-five percent of state and local plan members are covered by public plans that require employee contributions, as compared with 56 percent of active federal employees.

About 9 percent of full-time public employees have no pension coverage except social security, and 2 percent have neither public pension plans nor social security coverage. These approximately 200,000 full-time employees thus are accumulating no retirement benefits of any sort.

Ten states have permanent retirement commissions in order to attempt to establish coherent pension practices within a particular state.

Over 75 percent of the public plans have not sought formal IRS qualification letters. A majority of the plans that have sought and received these letters have not done so in the last five years.

Eighty-two percent of the state and local plan members are covered by plans permitting some form of portability.

Ninety-five percent of all federal, state, and local government employees are in plans that have made postretirement cost-of-living adjustments. This statistic must be approached with caution, however, since at the state and local levels the majority of the adjustments are not automatic but rather are undertaken on an ad hoc basis.

Only 16 percent of the public plans (covering an unrevealed number of employees) are explicitly integrated with social security. Very few large public plans have utilized the "offset" approach, by subtracting a portion of social security benefits. The more common integrated plan for larger employers is of the "step rate" variety, where larger benefits are provided for pay in excess of certain levels.

Despite the obvious danger, almost 33 percent of police and fire plans utilize either final day's or final year's pay for computing pensions. One cited case of abuse was that of a city that had four police chiefs in six days in order to permit maximum utilization of the final day's rate in the plan formula.

Over 70 percent of all public plans and 60 percent of the larger programs do not compute market value of assets. This is a particularly surprising fact, in light of increasing recognition that market-value rates of return are more meaningful than those based on book value.

Twenty-four percent of public plans (presumably almost all of them smaller programs) have not had an actuarial valuation in at least ten years. Slightly more than 17 percent of the plans (including the military retirement system covering over three million active and inactive employees) are operated on a pay-as-you-go basis, with no assets set aside to protect pensions.

One area of the report deserves detailed attention, although it has no direct relationship to potential federal legislation. While it has been widely believed that benefit levels in public plans are substantially larger than those in private programs, there has not been sufficient information available to verify this assertion. The study provides this information, through development of replacement ratios of pension benefits to earnings in the final year of employment. It is difficult to summarize these results succinctly, but they do suggest that large retirement benefits are not an isolated phenomenon. For example, 12 percent of career public employees retiring at age 65 have 125 percent or more of final year's preretirement net income replaced by a combination of social security and the public employee retirement system.

It is also interesting to note that there is an inverse relationship between benefit levels and funding levels. Almost without exception, the higher the benefits, the lower the funding of the plan. The extreme case is the federal judges' retirement program, where benefits are equal to 100 percent of pay (with twenty years of service) but where no assets have been accumulated.

Somewhat surprisingly, the report apparently has not been used as a basis for potential legislation. PERISA seems farther away now than when the report was released. It may have more immediate effect at the state and local levels. With detailed (if not always definitive) information available under the auspices of a congressional committee, it is likely that many plans will compare their procedures and provisions with the national norms. Undoubtedly pressures will mount for plan improvements where employees (particularly organized employees) can show clearly that their benefits are less than those of their counterparts across the country. Attempts to modify or reduce benefits will encounter increasing difficulty if a substantial portion of comparable employees has equal or better benefits.

Less certain is the degree to which state legislatures and local governing bodies also may take a greater interest in retirement plan practices. The recent history of New York City may be instructive, since long-outdated actuarial assumptions generally have been modified as a result of increased pressures caused by greater publicity and information. The report significantly increases the amount of material available for all types of analysis. Greater publicity may cause changes in some questionable practices.

Despite its faults, the report clearly belongs on the shelf of every actuary working on public pension plans.

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SELECT CURRENT BIBLIOGRAPHY

In compiling this list, the Committee for the Review of Literature has digested only those papers that appear to be of direct interest to members of the Society of Actuaries; in doing so, the Committee offers no opinion on the views that the various articles express.

SOCIAL SECURITY

Actuarial Notes may be obtained free of charge from the Office of the Actuary, Social Security Administration, 6401 Security Boulevard, Room 707, Altmeyer Building, Baltimore, Maryland 21235.

Joseph A. Applebaum, Some Effects of Fully Funding OASDI, pp. 5, Actuarial Note No. 97, Social Security Administration, Baltimore, Md., September, 1979. This note presents some calculations based on a hypothetical full-funding approach to social security, to highlight the enormous trust funds that would be built up. The normal cost is assumed to be 13.72 percent of covered payroll. This is roughly the value of all future OASDI benefits for future covered workers and their families, based on calculations for those now aged 19–23. Amortization payments as a level percentage of payroll over seventy-five or thirty years would pay the balance of the cost for those now over age 23, amounting to 4.63 and 10.68 percent of payroll, respectively. The result after seventy-five years would be a fund of 28 times the annual payout, or 160 percent of gross national product, ignoring possible side effects on OASDI and the economy.

Joseph A. Applebaum and Joseph F. Faber, The Concept of Replacement Ratios under Social Security, pp. 6, Actuarial Note No. 96, Social Security Administration, Baltimore, Md., July, 1979.

This note is a conceptual study of replacement ratios for evaluating the social security program. These ratios relate earnings before retirement or disability to benefits. The note suggests criteria with which to construct measures of both lost income and income replaced that should prove useful to analysts in defining replacement ratios.

HEALTH STATISTICS

Publications of the National Center for Health Statistics may be obtained from:

U.S. Department of Health and Welfare Public Health Service Health Resources Administration National Center for Health Statistics Center Building 3700 East-West Highway Hyattsville, Md. 20782

- U.S. National Center for Health Statistics, Plan and Operation of the HANES I Augmentation Survey of Adults 25-74 Years, pp. iii, 110, Programs and Collection Procedures, Series 1, No. 14, Hyattsville, Md., June, 1978.
- U.S. National Center for Health Statistics, On the Mathematics of Competing Risks, pp. iii, 58, Data Evaluation and Methods Research, Series 2, No. 77, Hyattsville, Md., January, 1979.

This report reviews the sources and origins of competing risk theory and presents the probability theory of competing risks and statistical estimation techniques and tests of hypotheses.

U.S. National Center for Health Statistics, A Reason for Visit Classification for Ambulatory Care, pp. iii, 63, Data Evaluation and Methods Research, Series 2, No. 78, Hyattsville, Md., February, 1979.

This report presents a classification system developed to code reasons for seeking ambulatory medical care.

U.S. National Center for Health Statistics, Patterns of Aggregate and Individual Changes in Contraceptive Practice, pp. iii, 23, Analytical Studies, Series 3, No. 17, Hyattsville, Md., June, 1979.

An analysis of aggregate changes in contraceptive methods used by American couples in their first marriages over the decade 1965-75 and an analysis of changes in individual choices of contraceptive methods between 1970 and 1975, based on interviews with the same women in the two years.

U.S. National Center for Health Statistics, Limitation of Activity due to Chronic Conditions, pp. iii, 65, National Health Survey, Series 10, No. 111, Rockville, Md., June, 1977.

Statistics on persons limited in activity due to chronic conditions by age, sex, color, family income, educational attainment, usual activity status, living arrangements, geographic region, and place of residence. Statistics also are presented on chronic conditions reported as causing limitation of activity by demographic characteristics. Based on data collected in household interviews during 1974.

U.S. National Center for Health Statistics, *Disability Days*, pp. iii, 53, National Health Survey, Series 10, No. 118, Hyattsville, Md., June, 1978.

Statistics are presented on the number of days of restricted activity and bed disability per person per year, days lost from work per currently employed person per year, and days lost from school per school-age child 6-16 years old per year. The rates of disability days are presented by age, sex, race, place of residence, geographic region, family income, usual activity status, employment status, industry, and occupation. This report is based on data collected in household interviews during 1975.

U.S. National Center for Health Statistics, Characteristics of Persons with Hypertension, pp. iii, 76, National Health Survey, Series 10, No. 121, Hyattsville, Md., December, 1978.

Statistics are presented on the estimated number of adults in the civilian non-institutionalized population with and without hypertension, by selected demographic and health characteristics. Data on health and medical care practices and medical procedures used by the hypertensive and nonhypertensive population according to age, sex, and race are shown. Data on use of antihypertensive medicine, dietary habits, and other health items applicable to the hypertensive population by age, sex, and race also are included. Based on information collected in health interviews during 1974.

U.S. National Center for Health Statistics, Personal Out-of-Pocket Health Expenses, pp. iii, 58, National Health Survey, Series 10, No. 122, Hyattsville, Md., November, 1978.

Statistics on the proportion of persons with no out-of-pocket health expenditures, those with expense by selected expense intervals, and per capita annual expense by age, sex, family income, color, education of head of family, place of residence, and geographic region. Based on data collected by self-enumeration during January-March, 1976 on out-of-pocket spending for 1975. Also provided are summary data by age of out-of-pocket spending for earlier years.

U.S. National Center for Health Statistics, Prevalence of Chronic Skin and Musculo-skeletal Conditions, pp. iii, 57, National Health Survey, Series 10, No. 124, Hyatts-ville, Md., November, 1978.

Statistics on prevalence of chronic skin and musculoskeletal conditions by measures of impact of the conditions and selected demographic characteristics. Based on data collected in the Health Interview Survey during 1976.

U.S. National Center for Health Statistics, Acute Conditions Incidence and Associated Disability, pp. iii, 66, National Health Survey, Series 10, No. 125, Hyatts-ville, Md., September, 1978.

Statistics on the incidence of acute conditions and the associated days of restricted activity, bed disability, and time lost from work or school, by age, sex, calendar quarter, place of residence, and geographic region. Based on data collected in household interviews during the period July, 1976-June, 1977.

U.S. National Center for Health Statistics, Current Estimates from the Health Interview Survey, pp. iii, 98, National Health Survey, Series 10, No. 126, Hyattsville, Md., September, 1978.

Estimates of incidence of acute conditions, number of persons reporting limitation of activity, number of persons injured, hospital episodes, disability days, and frequency of dental and physician visits. Based on data collected in the Health Interview Survey during 1977.

U.S. National Center for Health Statistics, Family Out-of-Pocket Health Expenses, pp. iii, 60, National Health Survey, Series 10, No. 127, Hyattsville, Md., March, 1979.

Statistics on the annual out-of-pocket health expenses during 1975 of families and unrelated individuals, by type of expense, type of family unit, proportion of family units with no expense, and intervals of expense. Total family unit expenses are distributed by color and family income. Based on data collected by self-enumeration during January-March, 1976.

U.S. National Center for Health Statistics, Physician Visits Volume and Interval since Last Visit, pp. iii, 53, National Health Survey, Series 10, No. 128, Hyattsville, Md., April, 1979.

Statistics on the time interval since last physician visit, volume of physician visits, and number of visits per person per year by selected demographic characteristics. Statistics on number of physician visits by place of visit, type of service, and condition causing visit for diagnosis and treatment. Percentage distribution of persons by frequency of visits in a year. Based on data collected in health interviews during 1975.

U.S. National Center for Health Statistics, Medical Care of Acute Conditions, pp. iii, 48, National Health Survey, Series 10, No. 129, Hyattsville, Md., February, 1979.

Statistics on medical attention status, advice from nonphysicians (such as relatives and friends) about the condition, time interval before consulting doctor and reason for waiting to consult one, site of medical attention, objective and perceived access to the doctor, satisfaction with treatment for the condition, and compliance with doctor's advice, by social and demographic characteristics (sex, age, color, own education, family income, and residence), perceived seriousness of condition, and other selected variables. Based on data collected in supplements to the Health Interview Survey in calendar years 1973 and 1974.

- U.S. National Center for Health Statistics, Blood Pressure of Persons 18-74 Years, pp. iii, 23, National Health Survey, Series 11, No. 150, Rockville, Md., April, 1975. Preliminary findings for systolic and diastolic blood pressures of adults by age, sex, and race, from the first Health and Nutrition Examination Survey during 1971-72.
- U.S. National Center for Health Statistics, *Blood Pressure Levels of Persons 6-74 Years*, pp. iii, 103, National Health Survey, Series 11, No. 203, Hyattsville, Md., September, 1977.

Survey methods and findings from single readings of systolic and diastolic blood pressure of the civilian noninstitutionalized population by age, sex, race, and selected demographic and socioeconomic variables, based on data from the first Health and Nutrition Examination Survey of 1971–74.

U.S. National Center for Health Statistics, Refraction Status and Motility Defects of Persons 4-74 Years, pp. iii, 124, National Health Survey, Series 11, No. 206, Hyattsville, Md., August, 1978.

National prevalence estimates of refraction status, refraction potential, and motility defects among the United States civilian noninstitutionalized population 4-74 years of age, including motility defects among children 1-3 years of age, with their demographic and socioeconomic distribution, based on the ophthalmology and medical history findings from the Health and Nutrition Examination Survey of 1971-72.

U.S. National Center for Health Statistics, Food Consumption Profiles of White and Black Persons Aged 1-74 Years, pp. iii, 103, Data from the National Health Survey, Series 11, No. 210, Hyattsville, Md., May, 1979.

Presents graphs and tables from the Health and Nutrition Examination Survey on the percentage of persons consuming foods from selected food groups for specified intervals in a probability sample of the white and black United States population aged 1-74 years, by age, sex, race, and income levels, 1971-74.

U.S. National Center for Health Statistics, Weight and Height of Adults 18-74 Years of Age, pp. iii, 49, National Health Survey, Series 11, No. 211, Hyattsville, Md., May, 1979.

Weight and height measurements of white and black adults 18-74 years of age in the United States, 1971-74, are presented and discussed by age, sex, and race and are also compared with measurements of adults of similar ages in the United States, 1960-62.

U.S. National Center for Health Statistics, Basic Data on Dental Examination Findings of Persons 1-74 Years, pp. v, 33, National Health Survey, Series 11, No. 214, Hyattsville, Md., May, 1979.

Estimates of tooth loss; decayed, missing, and filled (DMF) permanent teeth and decayed, nonfunctional-carious, and filled (def) primary teeth; periodontal disease and unmet dental treatment needs for persons 1-74 years, by age, sex, and race.

U.S. National Center for Health Statistics, *Profile of Chronic Illness in Nursing Homes*, pp. iii, 66, National Health Survey, Series 13, No. 29, Hyattsville, Md., December, 1977.

Statistics on reported chronic conditions and impairments; primary diagnosis at last examination and at admission; behavioral problems; impairments in vision, hearing, and speech; and use of dentures and special aids. Based on information collected in the 1973-74 National Nursing Home Survey. Comparisons made with data from previous nursing home surveys and from surveys of the noninstitutional population.

U.S. National Center for Health Statistics, Charges for Care and Sources of Payment for Residents in Nursing Homes, pp. iii, 69, National Health Survey, Series 13, No. 32, Hyattsville, Md., November, 1977.

Data are presented on charges for care and sources of payment for nursing home residents in relation to certification, service, ownership, size, geographic region of the nursing home, and age, sex, primary reason for admission, length of stay since current admission, primary source of payment, and health status of the resident. Health status was measured by primary diagnosis at last examination, reported chronic conditions and impairments, number of chronic conditions, and level of patient care received. Data on charges and sources of payment for 1973–74 are compared with those for 1964 and 1969 to examine changes during the ten-year period.

U.S. National Center for Health Statistics, Inpatient Utilization of Short-Stay Hospitals by Diagnosis, pp. iii, 72, National Health Survey, Series 13, No. 35, Hyattsville, Md., April, 1978.

Statistics are presented on the utilization of nonfederal short-stay hospitals based on data abstracted in the Hospital Discharge Survey from a national sample of hospital records of discharged inpatients. The number of discharges, discharge rates, and average length of stay are shown for the classes and categories of first-listed diagnoses, by demographic characteristics of inpatients discharged and by geographic region and bed size of the hospitals. For these patient and hospital characteristics, this report also presents the number and percentage distribution of all-listed diagnoses (up to five diagnoses per patient) reported for inpatients discharged.

U.S. National Center for Health Statistics, The National Ambulatory Medical Care Survey: 1975 Summary, pp. iii, 62, National Health Survey, Series 13, No. 33, Hyattsville, Md., January, 1978.

Using data obtained from a national sample of office-based physicians, this report presents statistics that describe ambulatory medical care rendered in physicians' offices. Statistics are presented on the volume of office visits and annual visit rate by age, race, and sex of the patient and by selected physician characteristics. Data describing the clinical substance of these visits include the patient's problem or complaint, prior-visit status, seriousness of the problem, physician's diagnosis, diagnostic and therapeutic procedures, disposition, and duration of the visit.

U.S. National Center for Health Statistics, Office Visits to Internists, pp. iii, 70, National Health Survey, Series 13, No. 36, Hyattsville, Md., December, 1978.

Using data obtained from a national sample of office-based internists and other specialists, this report presents statistics that describe ambulatory medical care rendered in the offices of specialists in internal medicine. Data are given on physician utilization patterns developed from selected physician and patient characteristics.

Data describe patients' demographic characteristics and principal problems, as well as physicians' diagnoses, in terms of visit status, diagnostic and therapeutic services rendered, and seriousness, disposition, and duration of visit. Characteristics of visits to internists are compared with those of general and family practitioners and other specialists.

U.S. National Center for Health Statistics, *Utilization of Short-Stay Hospitals*, pp. iii, 70, National Health Survey, Series 13, No. 37, Hyattsville, Md., June, 1978.

Statistics are presented in this report on the utilization of nonfederal short-stay hospitals, based on data collected by means of the Hospital Discharge Survey from a national sample of the hospital records of discharged inpatients. Estimates are provided by the demographic characteristics of patients discharged and by geographic region, bed size, and ownership of hospitals that provided inpatient care, conditions diagnosed, and surgical operations performed. Measurements of hospital utilization are given in terms of frequency, rate, percent, and average length of stay. To identify trends, some comparisons are made of the 1976 discharge data by diagnoses and surgical operations with similar data for 1970 and 1975.

U.S. National Center for Health Statistics, Nursing Home Costs—1972, pp. iii, 115, National Health Survey, Series 13, No. 38, Hyattsville, Md., November, 1978.

Data on 1972 costs are related to selected facility, staff, and resident characteristics. Cost components are presented according to ownership, certification, size, geographic region, and their interrelationships. The distribution of facilities, resident days, admissions, live discharges, deaths, occupancy rates, selected service characteristics, full-time equivalent employees, full-time equivalent employees per 100 beds, labor cost per full-time equivalent employee, reported chronic conditions and impairments, primary diagnosis at last examination and at admission, measures of activities of daily living, primary reasons for admission, level of patient care, and primary source of payment are presented by facility-cost intervals. Based on data collected in 1973-74 National Nursing Home Survey.

U.S. National Center for Health Statistics, Ambulatory Care Utilization of Children and Young Adults, pp. iii, 43, National Health Survey, Series 13, No. 39, Hyattsville, Md., August, 1978.

Using data obtained from a national probability sample of office-based physicians, the report presents statistics on the utilization of ambulatory care by children and young adults under 22 years of age. Ambulatory care visits are described in terms of demographic utilization patterns and in terms of physician utilization patterns. Also shown are distributions of office visits according to the patient's prior-visit status, the patient's problem or complaint, seriousness of the problem, physician's diagnosis, diagnostic and therapeutic services ordered or provided, disposition, and duration of visit.

U.S. National Center for Health Statistics, Office Visits for Diseases of the Circulatory System, pp. iii, 60, National Health Survey, Series 13, No. 40, Hyattsville, Md., January, 1979.

Based on data obtained from a national sample of office-based physicians, statistics are presented that describe ambulatory medical care during visits for treatment of diseases of the circulatory system. Physician utilization patterns are described in

terms of patient characteristics, patient condition and management, and practice characteristics. Highlighted diagnoses include essential benign hypertension, coronary heart disease, symptomatic heart disease, cerebrovascular disease, arteriosclerosis, and selected diseases of veins.

U.S. National Center for Health Statistics, *Utilization of Short-Stay Hospitals*, pp. iii, 62, National Health Survey, Series 13, No. 41, Hyattsville, Md., March, 1979.

Statistics are presented in this report on the utilization of nonfederal short-stay hospitals, on the basis of data collected by means of the Hospital Discharge Survey from a national sample of the hospital records of discharged inpatients. Estimates are provided by the demographic characteristics of patients discharged and by geographic region, bed size, and ownership of hospitals that provided inpatient care, conditions diagnosed, and surgical operations performed. Measurements of hospital utilization are given in terms of frequency, rate, percent, and average length of stay.

U.S. National Center for Health Statistics, Podiatry Manpower: A General Profile, pp. iii, 45, National Health Survey, Series 14, No. 18, Hyattsville, Md., November, 1978.

From information collected in a national survey of podiatrists conducted by the National Center for Health Statistics in 1974, statistics are presented on selected demographic and professional characteristics of active and inactive podiatrists. Podiatrists are statistically described in terms of such characteristics as age, sex, race, geographic distribution, principal form of employment, and hours worked.

U.S. National Center for Health Statistics, Trends in the Podiatric Profession, pp. iii, 43, Data on National Health Resources, Series 14, No. 21, Hyattsville, Md., November. 1978.

Information on all licensed podiatrists was collected in 1970 and 1974 through mailed questionnaires. The two questionnaires addressed essentially identical data elements and were coded and tabulated in comparable ways. Trends in the podiatric profession are discussed in this report by dealing with issues that impact on the general demographic characteristics of podiatrists, the characteristics of their clinical practice, and the volume and nature of patient care administered during the week preceding the survey.

U.S. National Center for Health Statistics, Employees in Nursing Homes in the United States, pp. iii, 44, National Health Resources, Series 14, No. 20, Hyattsville, Md., February, 1979.

Statistics on nursing home employees, including hourly wages, work experience, education, age, sex, and race, according to certification, ownership, bed capacity, and regional location of the homes. Based on data collected in the 1973-74 National Nursing Home Survey.

U.S. National Center for Health Statistics, Characteristics of Births, pp. iii, 49, National Vital Statistics System, Series 21, No. 30, Hyattsville, Md., September, 1978.

A presentation of characteristics of live births, including educational attainment of parents, birth weight, period of gestation, prenatal care, sex ratio, month of birth, attendant at birth and place of delivery, plurality, illegitimacy, and interval since

last live birth and last pregnancy, and outcome of last pregnancy. Emphasis is on births occurring in 1973; however, data for 1974 and 1975 are included in the summary and in the discussion of trends.

U.S. National Center for Health Statistics, Congenital Anomalies and Birth Injuries among Live Births, pp. iii, 58, National Vital Statistics System, Series 21, No. 31, Hyattsville, Md., November, 1978.

Describes variations in the incidence of congenital anomalies and birth injuries as reported on birth certificates, by selected socioeconomic, demographic, and health characteristics of the mother and child.

U.S. National Center for Health Statistics, Wanted and Unwanted Childbearing in the United States, pp. iii, 56, National Vital Statistics System, Series 21, No. 32, Hyattsville, Md., September, 1978.

An analysis of legitimate live births and whether they were wanted at the time they occurred, wanted later, or not wanted at all, as reported by the mother. Discusses trends and variations in relation to race, live-birth order, age of mother, expectation of future births, age at marriage, duration of marriage, education, income, and religious preference.

U.S. National Center for Health Statistics, *Prenatal Care*, pp. iii, 40, National Vital Statistics System, Series 21, No. 33, Hyattsville, Md., September, 1978.

An analysis of recent trends and differentials in prenatal care, based upon data reported on birth certificates. Discusses variations in care received by different groups of mothers and the outcome of pregnancy as related to month of pregnancy in which prenatal care began and number of prenatal visits.