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From Reform to Relativism: A History of Economists and Health Care

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SIGNIFICANT CHANGES HAVE OCCURRED during the past thirty years in the assumptions made by social scientists and particularly by economists interested in the organization and financing of health services. Social scientists who studied health and medical care earlier in the century were primarily concerned with promoting measures to reduce the financial burden of illness on individuals and families and to make services more accessible. In the past thirty years, scholars have increasingly separated their research, for which they claim objectivity, from their commitments on disputed public issues. Like other social scientists, health services researchers have exchanged advocacy for neutrality during the past generation. As a result of this exchange, social scientists who work on health issues have become both more respected within their disciplines and more acceptable to physicians but less openly concerned with equity and social justice.

This paper explores the changing assumptions of social scientists concerned with health services and medical care, by surveying the history of attention given to these subjects by professional economists in the United States during the past century. Most professional economists in this century have worked in colleges and universities; but many of them have been employed by government agencies, voluntary associations, research organizations, and, in a

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few cases, professional associations and pressure groups. The word "economist" in this paper is defined narrowly, to mean men and women with advanced academic training in economics who apply the theory and methods of the discipline in their work. The reasons for using this definition are explained and the sources used in research are described in the "Note on Methods and Sources" at the end of the paper.

A major theme of this paper is the uneasy relationship or tension between advocacy and objectivity as purposes for research in economics. Economists throughout the history of the discipline have espoused both purposes. What is examined here is not the desirability of one or the other purpose but rather the gradual change in economists' views of their starting assumptions in approaching the health sector of the economy and the link between these assumptions and their research. For roughly the first half of this century, most economists who studied health affairs assumed that most citizens needed more medical care. That is, they assumed that health services were, in general, beneficial and in insufficient supply. These assumptions made most of them advocates of compulsory health insurance and gradual reform to increase access to services.

Since the 1950s, economists studying health services and medical care have increasingly focused their research on questions about the allocation of resources to and within the health sector. They have generally not infused their work with strong convictions about the worth of these resources. Research that analyzes alternative ways to allocate resources produces a kind of economic literature different from that based on the premise that resources are insufficient, badly distributed, or both. This difference, and why it developed, is the principal theme of this paper. As an aid to communication, when arraying data and presenting my argument I shall refer to this gradual change in the purposes of economists' research as the difference between reform and relativism as professional stances.

The social sciences have become increasingly specialized in the past century. In the last third of the nineteenth century, American scholars who were trained in Germany, or according to German models, developed the modern disciplines of economics, sociology, and political science. By the first decade of the twentieth century, these disciplines had replaced moral philosophy or vaguely defined social science as the basis for organizing academic departments,

journals, and professional associations. German models of academic organization persisted in the twentieth century, despite the decline of German influence on work in the social sciences and especially in economics. Although the intellectual connections among members of the various disciplines were closer at the turn of the century than they are today, the trend toward increased specialization within the discipline was clear to contemporary observers. Within each of the disciplines, moreover, a tension between science and the advocacy of social reform was acknowledged early in the century.

The increasing specialization of social scientists, and of economists in particular, contrasts sharply with the broad subject matter physicians have associated with the term "medical economics." During this century, medical economics has meant such activities as gathering financial and social information about recipients of medical services, making more efficient the financing and administration of hospitals, promoting public and voluntary health insurance, describing the health problems of industry and labor and, perhaps most important, the proper conduct of the business aspects of the practice of medicine.

In the first half of this century, unlike the years since about 1960, there were few connections between the subjects called "medical economics" and the discipline of economics. A striking example in point is a survey of instruction in medical economics by medical colleges in the United States in 1937. At a time when professional economists were preoccupied with studies of business cycles and debating new theories of monopolistic competition and welfare economics, the following subjects were taught as "medical economics":

> Medical Ethics, Medical History, Public Health Administration and Relations, Medical Jurisprudence, Office Management, Cults and Quackery, Hygiene and Preventive Medicine, Relation of Physicians to Public, Psychiatry, Medical Insurance, Collections, Physician's Investments, Birth Control and Contraception, Abortion, Euthanasia, Eugenics, Pastoral Medicine, Hospital Appointments and Medical Journalism. (American Medical Association: 1937)

There are three distinct periods in the history of the relations between the disciplines of economics and medicine. Economics and medicine, though linked in intriguing ways in the seventeenth and eighteenth centuries, diverged in the nineteenth century. During the

first two decades of the twentieth century, however, economists, both academics and activists with graduate training in economics, became increasingly involved in health affairs, particularly in the issue of compulsory insurance. This involvement was demonstrated in research, articles in professional journals and popular magazines, and service on committees organized by public agencies, pressure groups, and philanthropic organizations.

In the second period, from the 1920s until just after World War II, professional economists were in general uninterested in research and reform relating to medical care. This lack of interest was a result of forces both within and external to the discipline of economics.

In the third period, which began in the 1950s, economists became increasingly active in research on health care issues. The origins and results of this increased activity are far from clear. Contemporary history is a treacherous subject. Many people still active have strong opinions about their own and others' contributions.

Medicine and Economics Before the Twentieth Century

More extensive formal relations between medicine and what is now economics existed in the seventeenth and eighteenth centuries than at any subsequent time until the present. Several physicians made important contributions to the development of knowledge about the production, distribution, and consumption of wealth. John Locke's work in politics and the theory of knowledge was seminal in the history of the social sciences and needs to be understood in the context of his experience as a physician. William Petty in England and François Quesnay in France, both physicians, participated in the development of modern economic doctrines. Bernard Mandeville, a London physician of Dutch origin, has a significant place in the history of social analysis foreshadowing the elaboration of classical economic theory. These men brought to their work in economics a profound sense of the value of individual human effort and of the social costs of illness (Clark, 1971; Hutchinson, 1964; Mini, 1974; Routh, 1975).

From the middle of the eighteenth to the early twentieth century, however, physicians and economists seem to have been members of intellectual networks that were segregated from each other.

Although the classical economists, notably Malthus, Ricardo, and the Mills, were deeply concerned with issues of subsistence, health, and disease, their work appears to have aroused little interest in the medical profession. Even where relations should logically have been close, in movements to reform sanitation and protect the public's health in England and Germany, for example, there was little connection between medical and economic ideas (Fox, 1979).

The influence of the English Benthamites, or Utilitarians, on public health legislation in the first half of the nineteenth century is an exception to this generalization. Jeremy Bentham and several of his disciples, especially Edwin Chadwick, developed plans to reorganize public health and medical care and to regulate medical practice. Benthamite influence was considerable on the establishment of legislative and administrative standards for public health. For a century, Benthamite principles dominated arguments for an expanded public role in the prevention of illness and for compulsory health insurance in England and in the United States. Particularly in England, but also in the United States, thorough reports about the condition of the poor, including their health status and access to services, were prepared as a result of the convergence of the Benthamite and the German Historical Schools of research in economics (Cowen, 1969; Cullen, 1975; Halévy, 1955; Roberts, 1960).

Despite the achievements of the Utilitarians, the histories of the development of modern medicine and of social science in the United States at the end of the nineteenth century are strictly parallel. Several thousand Americans studied social science in German universities from the 1870s to the 1890s. Many of them later became the first professional economists, sociologists, psychologists, and political scientists in American universities. During the same years, approximately fifteen thousand Americans received German medical degrees. Connections that could have existed between physicians and social scientists, because both groups were heavily influenced by German models of thought and education, were infrequent. Social scientists and physicians formed few significant alliances despite their common educational experiences and their subsequent employment by the same universities. They remained distant from each other while simultaneously advocating analogous changes in higher education, against strong resistance from entrenched academic and community interests. At such institutions as The Johns Hopkins University, the University of Pennsylvania, the

University of Wisconsin, and Harvard University, physicians and members of the social science disciplines had similar but separate concerns at the end of the nineteenth century (Bonner, 1963; Dorfman, 1949; Fox, 1967; Haskell, 1977; Herbst, 1965; Veysey, 1965).

Although the causes of the separation of medicine and the social science disciplines in the United States when both developed their modern theories, methods, and organizational structures are not clear, the effects were a series of missed opportunities. Physicians, with scattered exceptions, were not aware of the increased interest among social scientists from different disciplines in the behavior of groups and cultures and of their growing neutrality toward competing solutions for social problems. Similarly, many social scientists missed the implications of the emergence of an ethics of effectiveness among physicians, and of the increasing uncertainty, particularly among biomedical scientists, about the ease with which new scientific knowledge could be translated into improved health (Burns, 1977).

The Early Twentieth Century: Connections Begin

Although medicine and social science were, in general, segregated from each other, there were many promising connections early in the twentieth century. The number and variety of articles in medical journals on economic subjects increased steadily after the turn of the century. For the first time, physicians were citing economists' arguments when writing for each other about insurance and the relation of services to the standard of living of the population. Economists, writing in their own journals, were beginning to take note of the health industry. Moreover, economists and physicians concerned with social reform were connected through work in settlement houses, in campaigns to control tuberculosis, venereal disease, prostitution, and the use of alcohol, and in organizations pressing for public attention to eugenics, nutrition, child welfare, workmen's compensation, and social insurance.

Several well-known professional economists wrote about health issues affecting public policy; they included Richmond Mayo-Smith, Henry Seager, and Edwin R. A. Seligman of Columbia University, Richard T. Ely and John R. Commons of the University of Wiscon-

sin, Henry Farnam and Irving Fisher of Yale University, and Simon Patten of the University of Pennsylvania. Other economists, many of them students of these men, employed by public agencies, voluntary associations, and pressure groups, also applied the theory and methods of economics to such problems as paying for medical care, health and safety in industry, and the value of public health and preventive measures.

Economists interested in labor questions were among the first to pay attention to problems of health. As early as 1886, Ely, who with Patten and Edmund James had just written what became the call for the American Economic Association, discussed the relations of wages and health in his book, *The Labor Movement in America.* Ely and others were concerned with industrial accidents and legislation to regulate working conditions and provide compensation to victims. Labor economists' interest in health issues continued; in 1920 for instance, Carleton H. Parker, in *The Casual Laborer and Other Essays,* described the contributions of psychology, eugenics, and mental hygiene to understanding labor unrest (Dunlop, 1979).

Patten advocated the application of theories derived from both the German Historical School and neoclassical welfare economics to problems of social policy and the quality of life. Three of his students, William H. Allen, Edward T. Devine, and Henry R. Seager, wrote a great deal about what a later generation would call health economics (Fox, 1967). Allen, for example, as an employee of the Bureau of Municipal Research in New York City, applied economists' concepts of expense to problems of hospital efficiency and explored the implications of Patten's theories about potential abundance for health services (Allen, 1907; 1909). Devine, an economist with a seminal administrative role in professional social work, discussed issues of public health and entitlement to services in numerous books and papers. Seager, a professor of economics at Columbia University, published an influential book, *Social Insurance,* in 1912.

Other economists were deeply involved in the campaign for compulsory health insurance in the second decade of the century. John R. Commons, like Seager, was active in the American Association for Labor Legislation, which publicized workers' health risks and their limited access to care and was a major vehicle for the advocacy of reform. Another activist in the movement for social insurance, I. M. Rubinow, a physician, had studied economics at

Columbia with Seligman. Rubinow, a brilliant analyst of economic statistics, made an important contribution to the study of real wages and wrote a notable series of articles on health insurance published in 1915 in the *Journal of Political Economy* (Lubove, 1968; Nelson, 1969; Numbers, 1978; Rubinow, 1914; 1916).

The best known economist concerned with health issues was Fisher of Yale. A pioneer in the application of mathematics to economic analysis, he actively promoted changes in the health behavior of citizens, and advocated reform in the health policies of corporations and government agencies. In 1907 he founded the Committee of One Hundred on National Health to press for the creation of a department of health in the federal government. Two years later, he was the principal author of the *Report on National Vitality* issued by the National Conservation Commission appointed by President Theodore Roosevelt. He created the Life Extension Institute to persuade insurance companies that health education and physical examinations for policy holders would reduce untimely deaths and hence raise profits. Physicians began to promote his view that "health pays" in medical journals. Fisher was president of the American Association for Labor Legislation during the campaign for compulsory health insurance from 1912 to 1918 (Fisher, 1956).

This promising involvement of economists in health affairs soon ended. By the early 1920s, organized medicine was considerably more wary both of proposals for social reform and of nonmedical intellectual influence than it had been a decade earlier. Medical aloofness was, in part, a cautious response to professional success. Medical prestige and income were rising, in large part as a result of apparent scientific progress, growing public confidence in physicians, the gradual elimination of competition between "regular" physicians, and members of the numerous medical "sects" that lingered from the nineteenth century, and a declining ratio of physicians relative to population.

Moreover, the controversy over efforts to legislate compulsory health insurance in various states after 1912 deeply scarred both physicians and social scientists who advocated social reform. Throughout the first decade and a half of the century, most medical leaders, including those in the American Medical Association, believed that compulsory health insurance should be supported because it was inevitable. Many physicians also believed it was desirable. But medical opposition to compulsory insurance increased

and was organized to become politically effective in just a few years after 1912. As Ronald Numbers has recently argued, health insurance, under sharp attack by physicians who feared limitations on their ability to practice freely and on their incomes, suffered a "death by hysteria" after the United States entered World War I, when it was linked to pro-German sentiment or subversive radicalism by physicians opposed to it (Burrow, 1977; Numbers, 1978).

The absence of communication between medicine and social science in the 1920s was reflected in articles in both medical and economics journals. The broadening of the definition of medical economics to include the theories and methods of professional economists ceased abruptly. Although the number of articles published each year in medical journals on economic subjects remained about the same as before the war, the proportion devoted to medical income and business practices in existing journals increased sharply. The magazine *Medical Economics,* which began to publish in 1923, was unambiguously about physicians as businessmen and purchasers of expensive consumer goods. Several subjects that had begun to attract physicians' attention in the first decade of the century were excluded entirely from medical journals in the 1920s: for instance, the relation between services and the standard of living, insurance, and the role of medical care in industry.

Economists also turned their attention elsewhere. The *Index of Economic Articles* lists no papers during the 1920s on medical care or health insurance in the professional journals published by economists in the United States. Notable exceptions were the studies of the costs of illness to individuals and society, conducted by statisticians employed in the life insurance industry (Dublin and Lotka, 1930).

The separation of medicine and economics, however, cannot be ascribed entirely to physicians. Economists were not as rigorously analytical about the relation of research to policy in health care as they were about other areas in which they worked. The economists' contributions to discussions of health affairs, and their publications dealing with railroad rates, tariffs, wages, and the costs of agriculture, industry, and trade, show a striking difference in rigor. When Henry Farnam discussed the economic consequences of alcoholism or Irving Fisher the causes of national vitality, for instance, they used economists' analytical skills but justified their com-

mitments on matters of public policy on grounds other than those they derived from analysis. Farnam, advising the Committee of Fifty on the control of alcoholism in 1903, asserted that "economic forces" could become "effective allies of the moral agencies which are attacking the evils of the liquor habit" (Billings et al., 1905: 34). Similarly, Fisher, in the concluding chapter of *A Report on National Vitality,* quoted Ralph Waldo Emerson's statement that "Health is the first wealth" for authority and relegated to a footnote the names of fifteen economists who over a period of three centuries had "included health in the category of wealth" (Fisher, 1909: 124). In his major economic treatise, moreover, Fisher disparaged the arguments about the value of human beings he made in his polemical works as "of more theoretical than practical moment" (Fisher, 1906; 1930: 17).

This separation of professional and public roles can be explained only in part by the absence of a tradition of economic analysis of health services. Many economists' concern with health was deeply personal. Fisher, for example, believed that his father's long illness and his own experience with tuberculosis gave him special insight into how to improve vigor. Most of the scholars who advocated compulsory insurance were passionately opposed to the harsh labor practices in many American industries. The separation between professional and polemic roles, however, was more than personal; it also reflected the increasingly dominant professional goal of objectivity in research. After World War I, as new developments in economic theory and methodology reinforced the striving for objectivity, economic research for a time became distinct from inquiry in the broad fields of public health and medical care, which looked toward reform.

American public health physicians, who were also aware of European models and familiar with economists' writing on insurance, immigration, and municipal reform, were not particularly impressed by economic analysis applied to health issues. In the late nineteenth century, many public health physicians accepted the premise that, as Edward Jarvis of Massachusetts wrote in 1874, the State should assure the "power of the people to create value and capital" (Jarvis, 1874: 373). By the second decade of the twentieth century, some public health physicians were uneasy about such reliance on economics. To Charles Chapin, the influential superintendent of health of Providence, R.I., for example, economists were

naive about how society worked and what physicians could achieve. In 1912, Chapin challenged the practical value of the argument that the costs of preventive medical care and industrial safety would be repaid to society because workers would live longer and be more productive. Workers were not regarded as highly by industry as they were by economists. As a result of a deliberate policy of unrestricted immigration, there were more workers than jobs. This surplus of labor combined with exploitative conditions of work to produce in most citizens "an instinctive feeling that . . . a human being is not a very valuable machine." Moreover, philanthropy rather than tax revenue was a partial substitute for lost wages to families suffering untimely illness and death. Finally, Chapin warned against overconfidence in the power of medical science. Increased public investment in prevention might not produce results because the effectiveness of most preventive measures was "by no means certain" (Chapin, 1913: 104).

The Estrangement of Economists from Health Affairs, 1920–1940

In the 1920s and 1930s, the medical and economics professions became further estranged than they had been when Chapin paid sufficient attention to economists' arguments to dispute them. One result of the bitter controversy over compulsory health insurance was the assumption made both by leading physicians and by social scientists in health affairs that economics was pertinent mainly to the single issue of financing medical services.

The economists' relative lack of interest in medical care in this period, however, was a result of the internal history of the discipline as well as of the intellectual insularity of medicine. Important contributions to economic theory distracted professional attention from applications of the discipline. Beginning in England in the late 1920s, the dominant issue in economic thought became the establishment of what has been described as the macroeconomic viewpoint. As Donald Winch observed, the "central formal problems of economics, namely scarcity, value, choice, resource allocation and efficiency," ceased for a time to be the principal concerns of many leading economists (Winch, 1969; 18, 323–324). Only in retrospect

does theoretical work on microeconomic problems during this period bear on health and medical issues. The most important contributions during the interim years with later bearing on medical issues were the dethronement of perfect competition as the central generalization in the theory of value and the development of a new welfare economics. But these developments were not applied effectively to practical problems for some years.

Moreover, economists increasingly separated the advocacy of reform from research and analysis in their professional activities. Like other social scientists, although concerned with social problems, in their research they became both more specialized and increasingly neutral toward proposed reforms during the middle decades of the century. In Edward Purcell's words, the "instrument of social research came to overwhelm the goal of social reform" (Purcell, 1973: 25).

In large part because economists were the first social scientists to make use of sophisticated statistical techniques, methodology replaced moral purpose in their work more quickly than it did in other disciplines. In economics, as in other social and natural sciences, the growing sophistication in methodology both derived from and reinforced the concept of multiple causality. Many economists who entered the profession in the 1920s were uneasy about the research methods and the social reform interests of many of their teachers. Economists became relativists about ethics and public policy in their professional work, generally while retaining strong personal convictions. In contrast to sociology or political science, for example, sophisticated history can be written about modern economic thought on the assumption that "the philosophical beliefs of economists are not relevant to the validity of the economic hypotheses they advance" (Blaug, 1978: 5). However, such beliefs are relevant to the choice of questions for research and the use of ambiguous evidence when economists take positions on policy.

The research conducted for the Committee on the Costs of Medical Care (CCMC) in the early 1930s, though often called economics, had little in common with the mainstream of professional economics of the time. The staff of the CCMC collected data using methods developed by economists and statisticians in the insurance industry, at the National Bureau of Economic Research, and by social scientists in such federal agencies as the Children's Bureau, the Bureau of Labor Statistics, and the departments of

Agriculture and Commerce. Most of the analysis that appeared in the committee's publications was performed by men and women trained in other fields, or by economists acting in general rather than professional roles. I.S. Falk, for example, had taught bacteriology before joining the CCMC. Although C. Rufus Rorem and Maurice Leven had doctorates in economics, Rorem was listed as a "professor of accountancy" in the progress reports of the CCMC and Leven was identified only as a "statistician." Louis Webster Jones and Louis Reed, though economists, prepared mainly descriptive studies for the committee.

The chairman of the CCMC, Ray Lyman Wilbur, despite his experience as president of Stanford University and secretary of the interior in the Hoover administration believed, like most physicians, that economics was entirely a practical tool to improve the financing of medical services. Explaining the work of the committee to medical audiences, Wilbur claimed that his purpose was to devise "a financial system by which all members of society, regardless of economic status, may receive a full or even a reasonable share of the benefits possible through modern scientific medicine." Wilbur wanted research to provide the "evidence" to develop a "modern plan" to finance the cost of medical services (Wilbur, 1928: 1–2). Economics provided useful methods to gather this evidence for medicine, in the same way that "a modern business has its statisticians and its economists surveying the past and the present and preparing for the future" (Wilbur, 1929: 1411).

Both the goals of the CCMC and the commitments of its research staff inhibited critical questions about several important assumptions. The committee staff, like Wilbur, assumed that financing and organization were the central unresolved issues in health affairs. Most of them believed that medical care needed to be reorganized to replace individual with group practice and fee-for-service with prepayment in order to permit financing through insurance. These assumptions obscured a more basic belief: that more accessible medical care would lead to improved health and social progress. Economists could not accept these assumptions as legitimate bases for research.

Since the eighteenth century, most leading economists have asserted that the intrinsic worth of what is produced, distributed, and consumed is irrelevant for economic analysis. Beginning with classic arguments by Mandeville and Bentham about the independence of

morality and economic logic, members of the profession have generally ignored the social value of what is traded in any market. This aspect of economists' stance was reinforced after about 1870 when "economics . . . became largely a study of the principles that govern the efficient allocation of resources when both resources and wants are given" (Blaug, 1978: 4). With the exception of work by a small number of "institutional" economists, mainly at Columbia and the University of Wisconsin, the systematic assessment of the worth of allocations in the public sector by economists emerged, as cost-benefit analysis, only after World War II.

The authors of the studies published by the CCMC were anything but neutral about the social value of medical care. For most of them, medical science and technology were progressive and had a benevolent influence on society. This assumption permitted them to argue that reforms that made more medical care available to more people, with costs shared more equitably between individuals and society, were in the public interest.

The effects of these assumptions on the use of economics in research sponsored by the CCMC are worth examining as a case study in the application of the social sciences to health affairs. The history of the committee's recommendations for reform, and of the role of the staff and committee members in working on their behalf, is a different and important subject. There is no necessary connection between research and reform, particularly in the period since the 1920s.

The authors of research reports for the CCMC were explicit about their assumptions. Early in their study of *The Crisis in Hospital Finance,* for example, Michael Davis, a member of the committee who had trained in sociology and psychology at Columbia University, and Rorem asserted that changes in the "economic relations" between physicians and the public "are due mostly to the very advances in medicine which have so increased its power and its potentialities" (Davis and Rorem, 1932: 45). Changes in society, they asserted, were subordinate to changes in medical science as determinants of economic relations between physicians and patients. Since the eighteenth century, in contrast, most economists had regarded changes in the size and structure of the market as the principal determinants of economic relations.

Roger Irving Lee, a physician who had been deeply involved in the campaign for compulsory health insurance before World War I,

and Lewis Webster Jones, a statistician and economist, emphasized medical need in their influential CCMC study, *The Fundamentals of Good Medical Care.* Their criteria for measuring how much medical care should be available were based entirely on physicians' expert opinions. The Lee-Jones study was used for a generation as the standard source of criteria of medical need in research, planning, and, in the Hill-Burton program, for public policy on the construction of hospitals.

Lee and Jones distinguished but were not particularly concerned about the difference between need and demand. A purely medical definition of the need for care was valid, they argued, only in a "society which, like our own, believes in the desirability of health and the efficacy of scientific medicine in promoting and maintaining it." Unlike India, for example, "modern America . . . has accepted . . . medicine as the proper instrument" for the "advancement" of health. In India, by contrast, a medical definition of need "would bear no relation to the 'needs' of society." Need was relative only among societies. Within each society it was absolute and best determined by medical opinion, Lee and Jones implied. It followed that there was an intricate relationship between need and demand. Although they identified the problem, they did not pursue it (Lee and Jones, 1933: 12).

In *The Cost of Medical Care,* Falk, Rorem, and Martha D. Ring were ambivalent about the relevance of economics for the analysis of health services. They introduced the economic concept of effective demand as part of their argument in favor of redistributive justice in medical care. Moreover, they considered the dilemmas created by health care as "an esoteric economic commodity concerning which the buyer has no basis for critical judgment." But they later blurred this point, declaring that because health care is a "personal service" it is not entirely an "economic commodity" (Falk, Rorem, and Ring, 1933: ix, 384, 386).

This ambivalence needs further analysis. It may have been the result of inadequate understanding of economic theory. More likely it was the result of a clash of viewpoints among the collaborators. Their differing assumptions about economics and health care were explicit in later works. Falk had a profound belief in the potential contributions of medicine and science to human welfare. These contributions, he declared in 1936, meant that "life has been given a certainty and a safety and health and human vigor have been given a

reality such as were undreamed of before" (Falk, 1936: 4–5). This point of view made it difficult for Falk to be patient with economic analysis that assumed that relations between producers and consumers could be described without regard to the intrinsic value of what was exchanged.

Rorem, in contrast, perceived that the philosophical basis of economics provided insight into human behavior in health affairs just as it did in other transactions. In 1939, for example, he described and endorsed the pessimistic view of human nature on which economists' logic has been based since the eighteenth century. "Economists have known for some time," he asserted, that "emotion frequently transcends reason in the normal life and decisions of the so-called economic man" (Rorem, 1939: 84).

Louis Reed appears to have been the only staff member who doubted the strongly held beliefs of his colleagues in a CCMC publication. Concluding his monograph on *The Ability to Pay for Medical Care,* Reed (1933) expressed reservations about the context in which his data would be analyzed. "Adequate medical care and a minimum standard of living," he argued, "are . . . crude and inexact tools with which to work." The content of both concepts "depends upon and varies with the prevailing level of culture" (pp. 95–96). Moreover, ability to pay for medical care is "unsubstantial and intangible." This tentativeness stands in sharp contrast with most other general statements in the CCMC publications. To take just one, Falk asserted in *The Incidence of Illness and the Receipt and Costs of Medical Care Among Representative Families* that "the people need substantially larger volumes of medical service than they now receive; this applies equally, if not with equal force, to the well-to-do and the rich as to the poor and the very poor" (Falk, Klem, and Sinai, 1933: 247). Walton Hamilton, an academic economist who served as a member of the CCMC, exemplified the difference between the committee's staff and the economics profession in his personal statement at the end of the committee's final report. "A sharp distinction between the technology of medicine and its organization is essential to adequate analysis," he asserted. "The failure of the [Final] Report to make that distinction . . . obscures the lines of the argument" (*Medical Care for the American People,* 1932: 190). Hamilton, like Reed, believed that economists must separate the standards that governed research from those that determined their prescriptions for society.

Most of the writers on health affairs in the 1930s who had some familiarity with economics were not enthusiastic about economists' assumptions. Economists were regarded ambivalently as sources of both insight and error. Hugh Cabot, for instance, surgeon, medical school dean, and author of an influential book in 1935, *The Doctor's Bill,* both caricatured and embraced economics. Cabot, who despite his eminence was vilified within the medical profession for supporting compulsory health insurance, accused a typical economist of being, like "economic man," a "cold, detached person, apt to overlook the fact that the people affected by his plans are liable to be human beings." But Cabot also applied economic concepts, setting aside questions of the worth of medical services, to such problems as the adequacy of the supply of physicians and differential fees (Cabot, 1935: viii, 250).

An ironic result of the research and recommendations of the Committee on the Costs of Medical Care was the creation in the period 1931–1932 by the American Medical Association of the Bureau of Medical Economics. The bureau was the mirror image of the committee. Its staff, like the committee's, believed in the "overriding social importance of the nation's progress in conquering disease." The bureau, like the committee, produced thorough, quantitative reports. Bureau staff apparently cooperated with Falk and Edgar Sydenstricker, formerly on the CCMC staff, to prepare background papers for the Committee on Economic Security, appointed by President Franklin D. Roosevelt in 1934 to draft what became the Social Security Act. But the bureau staff believed that their research supported the views of organized medicine about the financing and organization of medical care. Even under the direction of a former professor of economics, Frank G. Dickinson, after 1946, the bureau issued forceful polemics as well as accurate reports. Like the CCMC staff, the bureau staff and most other medical care and public health researchers of the generation could not conceive of research that was independent of advocacy (Burrow, 1963: 184, 192, 202, 355, 360).

The only economic treatise in the 1930s to examine medicine without concern for the intrinsic value of health services was unpublished for nearly a decade. In 1937, Milton Friedman, working at first under the direction of and later as senior collaborator with Simon Kuznets at the National Bureau of Economic Research, took charge of a study of income from independent professional practice.

Friedman and Kuznets (1945) argued that physicians had a greater return on their services than other professionals, a difference that was explained only by the deliberate restriction of entry into the profession. The study was submitted as Friedman's doctoral dissertation, but it was not published until 1945. It is not clear why publication was delayed. Leonard Silk, paraphrasing Friedman, believes that the manuscript, despite elaborate statistical analysis, worried "some members of the Bureau [who] regarded this as an attack on the American medical profession" (Silk, 1976: 61). Another view is that publication was delayed first by a painfully slow review process, which required the board of directors of the bureau to approve all manuscripts for accuracy and technical merit, and then by the distractions of the war (Klarman, 1979).

Friedman and Kuznets regarded the effectiveness of physicians' services and the justice of their distribution as separate from economic analysis. Had the manuscript been published in the 1930s it would have dismayed both partisans of the CCMC report and their bitter opponents in the medical profession. The study, unique for its time, foreshadowed later developments: it became, in Herbert Klarman's (1979) words, the "dominant intellectual stream in academic economics about health." Nevertheless, the study contains the basis of Friedman's later advocacy of the abolition of state licensure of physicians in order to challenge the monopoly of organized medicine.

Economists' Involvement in Health Affairs, 1945–1960

Since World War II, most economists studying medical care and physicians' behavior have rejected a normative definition of the "economic problem" as the "wider distribution of medical care to the general population," as Sydenstricker (1935: 574) phrased it, in favor of a focus on alternative ways to allocate scarce resources to competing claimants. The Friedman-Kuznets study foreshadowed this change. By the time it appeared, however, a few economists were studying health and medical affairs as the source of unusual problems in welfare theory and microeconomics.

This change, like most historical themes, is clearer in retrospect than it was to contemporaries. Most of the medical profession, for example, even those involved in education and public health, con-

tinued to ignore economists. A paper on "Who Should Teach Health Economics?" and a lengthy discussion following it, given at a conference at the University of Michigan in 1946, did not even examine the possibility that economists should be involved, consulted, or even read (Proceedings, 1947).

Two panel discussions on the "Economics of Medical Care" at the 1950 meeting of the American Economic Association (AEA) signalled increased interest in the subject in the economics profession. According to Klarman (1979), the panels were organized by Friedman, at the request of Frank Knight, his colleague at the University of Chicago and president-elect that year of the AEA. Introducing the sessions, Eli Ginzberg understated the importance of the occasion for the study of health services by economists. He noted that for the "first time in the past two decades" the AEA was sponsoring sessions on medical care. The 1950 sessions, however, were the first in the history of the AEA since its founding in 1887 (Ginzberg, 1951).

The papers and discussions at the 1950 AEA sessions exemplify the tension between analysis of resource allocation and advocacy of reform as the focus of economists' work in health. Ginzberg argued that, although professional economists' interest in health services was stimulated by public concern with the cost of care, changes in the financing of personal health services would have little effect on the health of individuals. He told the AEA, as he had argued more forcefully in a study of hospital facilities in New York State a year earlier, that the "striking advances" of biomedical science created false optimism about the role of medical care in improving the well-being of individuals (Ginzberg, 1949). During World War II, he asserted, improvements in the standard of living of low-income groups led to improved health, despite the withdrawal of forty percent of the physicians from civilian practice. For Ginzberg, the study of health and medical issues was a problem in both economic analysis and the strategy of reform in social policy.

Several participants in the AEA sessions preferred analysis to advocacy. Klarman, writing on "Requirements for Physicians," challenged the assumptions about estimating needs for medical services in the Lee-Jones study for the CCMC. He advocated a standard of requirements for physicians that took into account "economic costs in the sense of alternatives foregone." Requirements for care were not exclusively determined by what medical

science could deliver if only the barriers of finance and organization were removed (Klarman, 1951: 644). Jerome Rothenberg (1951) of Amherst College applied welfare economics to the problems of financing medical care; his paper, with hindsight, foreshadows Kenneth Arrow's (1963) paper on medical care and the economics of uncertainty. C.A. Kulp (1951) of the Wharton School analyzed the potential effects of different combinations of compulsory and of voluntary health insurance.

Unlike Kulp, Klarman, and Rothenberg, the participants in the second AEA panel, "Alternative Solutions," assumed that the means to provide more and better health services were known, rather than that alternative ways to allocate resources needed further analysis. Seymour Harris of Harvard defended the achievements of the British National Health Services against its American critics (Harris, 1951). Frank Dickinson, of the American Medical Association Bureau of Economic Research, asserted that the existing organization and financing of medical services in the United States were appropriate because the productivity of physicians was increasing and their fees were rising more slowly than the rate of inflation (Dickinson, 1951).

The most prominent controversies about health issues in the economics literature of the late 1940s and 1950s involved advocacy of public policy rather than analysis of alternative interpretations of the behavior of the health industry and the allocation of resources to and within it. For instance, Ginzberg and Harris disagreed in the *American Economic Review* about the value of the recommendations of the 1952 report by the President's Commission on the Health Needs of the Nation (Ginzberg, 1954; Harris, 1954). Falk debated with Glen and Rita Campbell about the merits of compulsory health insurance, in the *Quarterly Journal of Economics*. The tension between advocacy and analysis as the primary goals of scholars who applied economic thought and methods to health services, first evident in the late 1930s, persisted two decades later.

Events in economics and in the health sector in the 1940s and 1950s seem, with hindsight, to account for the rapid expansion of interest among economists in research on the behavior of the health industry in the 1960s. It is plausible, though it cannot be demonstrated, that the size of the industry and the ferment within it attracted economists' attention. The health sector of the general economy expanded vigorously in the 1950s. Expenditures for new facilities and

for hospital services increased sharply. Physicians' incomes began to rise faster than those of other professionals. Moreover, information collected by public and private agencies in order to plan, regulate, and justify new programs created data resources that could be used for economic analysis.

Events particular to economics as a discipline contributed to the interest in health affairs. These events included the growing prestige of the economics profession, the application of economic analysis to problems of defense and foreign affairs, a growing professional interest in public finance as a field in which to apply new theories and methods in welfare economics, microeconomics and econometrics, and the interest of labor economists in medical care as a fringe benefit and in the health of the labor force. Although it is not clear how much importance should be attached to each of these events, they are evident in much of the economics literature on health services and medical care published in the 1960s.

The prestige of economists in public affairs increased in the 1940s and 1950s. Their theories and methods of research contributed in useful ways to such matters as mitigating business cycles, predicting and understanding changes in production and consumption, assisting in negotiations between management and labor, and clarifying problems of military strategy and tactics (Norton, 1969). By the 1970s, the distinction between macro- and microeconomics came to apply mainly to the problems economists engaged in rather than to a difference between the public and the private sectors.

The discipline of economics appeared to be expansive, affluent, and self-assured. Most economists who entered the profession after the 1950s have had little reason to inquire into the history of their discipline or to notice, for example, that the influence of economists on public policy has varied widely in different nations at different times over the past several centuries. Economists have developed enormous confidence in the power of the theory and methods developed since the 1920s to clarify choices among competing public policies. As Martin Feldstein (1967: 1), to take but one example, wrote in 1967, with more assurance than historical accuracy, only after World War II had economists developed "optimizing methods that indicate appropriate policies subject to behavioral and technical constraints." By limiting his historical view to formal mathematical methods of optimizing, Feldstein passed over considerable economic analysis applied to public policy.

The areas of public policy in which economists' involvement after 1945 had the fewest historical precedents were defense, health, and education (Fein, 1971; Dunlop, 1979). There are striking similarities between the economics of war and of health and education. In these fields, large public investment, in a period when the prestige of the discipline was high, created opportunities for economists to deal with issues that had previously been regarded as in the domain of other professions. In defense, health, and education, moreover, economists' involvement in public affairs began before the new subject matter achieved academic legitimacy. Economists in defense, health, and education agencies, employed mainly as staff generalists rather than as economists, wrote memoranda and reports for committees and public officials before they wrote papers on these subjects for their professional journals.

Mobilization for war made it respectable for scholars to write bureaucratic papers without being stigmatized by their peers for not producing scholarly work. Similarly, increased public investment in health care and frequent assertions of crisis since the 1960s helped to make an interest in health affairs acceptable among academic economists. The health care crisis was, in a way, the professional equivalent of the Cold War.

The issues faced by economists in health and in defense are similar. In both fields, economists become absorbed in a single industry in which life or death results from an output of services, and numerous situations occur in which the market paradigm operates imperfectly or not at all. Both fields require expertise in the analysis of externalities, of productivity, and of substitution. In the 1960s, these similarities became more than analogies useful for comprehending intellectual history, when a few economists began to work in both health and defense studies (Hitch and McKean, 1967; Smith, 1966; Schlesinger, 1963).

The analogy between the health care crisis of the 1960s and 1970s and war as stimuli for economic research should not be exaggerated. During the 1950s, economic research on health affairs was stimulated by earlier work by Friedman and Kuznets on professional income, encouraged by Seymour Harris's interest in public policy for financing services, and was beginning to emerge in the work of John Dunlop and his students at Harvard. Other economists whose contributions to the field began before health became a major focus of public attention and investment in the 1960s

included Robert Lampman, Tibor Scitovsky, and Burton Weisbrod. Selma Mushkin (1958) summarized some of these trends in research. In 1960, while a staff member of the Ford Foundation, Victor Fuchs commissioned the manuscripts that were published as Kenneth Arrow's (1963) paper, "Uncertainty and the Welfare Economics of Medical Care," and an overview of the field by Klarman (1965), *Economics of Health.*

The growth of interest in health affairs among economists was more strongly influenced by the study of public finance and by labor economics than by the study of military and defense issues. Students of public finance and labor, moreover, have long been aware of the tension between advocacy and analysis as purposes for economics. For the first four decades of this century, research both in labor economics and in the promotion of public policy to regulate collective bargaining and provide social insurance was identified with John R. Commons and his students at the University of Wisconsin. Two of Commons's colleagues who worked in public finance, Edwin F. Witte and Arthur Altmeyer, became central figures in the creation of the Social Security program in the 1930s and 1940s. Their relations with the medical care researchers from the CCMC research staff who joined the Social Security Board (later Administration)—Agnes Brewster, Falk, Margaret Klem, and Reed—was important to the development of interest in health economics and of government support for health services research using the methods of economics. The Wisconsin tradition in the study of public finance was reflected in the work of Klarman, Lampman, and Weisbrod, and was an important influence on such papers as "A Formula for Social Insurance Financing," by Selma Mushkin and Anne Scitovsky (1945) in the *American Economic Review.*

The growing importance of health care as a fringe benefit during and after World War II attracted the attention of economists as researchers and advisers to industry, unions, and government. Dunlop of Harvard, the most influential labor economist of his generation, was, through Sumner Slichter, an heir to aspects of the Wisconsin tradition. He recalled that "[my] interest in . . . medical care began when I found myself . . . in a position of having to propose whether to spend $250,000,000 of the railroad's money on health and welfare programs" (Dunlop, 1965: 1325). The problem Dunlop encountered as, in his phrase, a "neutral participant" in labor management disputes—how much money, spent for what ser-

vices, would produce what results—became a subject for research by other labor economists, and served as the basis for the creation of a loosely organized group of scholars at Harvard and elsewhere who worked on problems in the economics of health. As Joseph Garbarino, a student of Dunlop's who was teaching at Berkeley, wrote in 1960, to ignore the question of how medical care could be more effectively organized and financed meant using the "union's bargaining position to win benefits for the medical profession and the hospitals" (Garbarino, 1960: 35).

A number of economists concluded that medical fees and hospital income were rising in the 1950s as a result of the "pressure of a growing demand for medical care on an inelastic supply of services" (Garbarino, 1959). By the early 1960s, the optimistic proposition urged by economists employed by the American Medical Association, that medical productivity was increasing faster than fees, had been refuted by both labor economists and scholars, notably Reuben Kessel (1958), who extended the Friedman-Kuznets analysis to the problem of price discrimination by monopolies.

Other economists elaborated the contemporary variant of the theory of human capital. Mushkin, a leading promoter as well as an astute recent historian of the study of human capital, described the "primary question" in this field as "the contribution of changes in the quality of people to economic growth" (Mushkin, 1962: 93). More than any other area of economics involving health affairs, the study of human capital is linked to a long history of work in adjacent disciplines, notably statistics and epidemiology. Moreover, the implications of data on the amount, variety, distribution, and cost of illness for sanitation, preventive medicine, and social policy toward the poor have been matters of debate for several centuries.

The proposition that improvements in the standard of living and the availability of services increase the economic value of the average person was an attractive bridge between analysis and advocacy of reform in the 1950s and 1960s. This proposition, articulated by William Petty in the seventeenth century, had appealed to Benthamite reformers in early nineteenth-century England and to the economists who supported compulsory health insurance in the United States before World War I. For Mushkin and other economists employed by the federal government or by state and voluntary health agencies in the 1950s and early 1960s, the theory of human capital justified collaboration both with professional

economists and with medical care reformers who, like Falk and Davis, continued to press for compulsory health insurance, what Daniel Hirshfield (1970) called the "lost reform" of the 1930s.

The compatibility of concern about human capital and dedication to improved access to personal health services was demonstrated in numerous studies published by the Social Security Administration or presented at the annual meetings of the Medical Care Section of the American Public Health Association during the 1950s and early 1960s. Mushkin, surveying this work after the first national conference on health economics in 1962, was delighted with the growing interest in the "ways in which the improved health of the people contributes to enlarging the resources and output of an economy" (*The Economics of Health and Medical Care,* 1964: 3).

Studies of human capital made the application of economic analysis to health issues less controversial because they subsumed the controversial issue of how to finance medical care under the larger question of the benefits of improved health. In the first two decades of the century, Fisher, collaborating with statisticians, had taken advantage of a similar strategic opportunity to promote both research and compulsory health insurance. In the 1950s and early 1960s, economic writing in this tradition provided some of the intellectual justification for legislation to expand access to health services for the elderly and the poor, as well as a source of research problems that were widely respected among academic economists.

Rashi Fein, in a 1958 monograph for the Commission on Mental Illness, *The Economics of Mental Illness,* demonstrated both the application of the study of human capital to social policy and the ambiguity of the relation between research and advocacy of reform. For Fein, morality was both independent of and, in some circumstances, a deduction from economic logic. Moral principles had a major role in guiding the "institutions that society has established for the ultimate purpose of caring for and advancing the members of that society." But moral ends could be achieved by economic means under certain conditions. Introducing the concept of relative abundance, a notion explored by a handful of economists over the past several centuries, Fein conjectured a "world in which the using of resources in a particular way does not come . . . at the expense of other uses, but instead increases the total supply of resources available." In such a world, Fein argued, a moral act, such as increasing expenditures for the care of the mentally ill, could also be an

efficient act because it would "reduce the indirect costs by more than the direct expenditures were increased" (Fein, 1958: 127, 129–130).

Unlike Mushkin and Fein, however, economists, particularly in the twentieth century, have seldom considered changes over time in the human condition to be pertinent to theory and its applications. Economics has been viewed from within the discipline mainly as the rigorous study of the allocation of scarce resources among competing wants. Moral considerations have usually been regarded as relevant only when economists decided that the market had ceased to operate properly. When the market appeared to operate properly, economic principles, most economists have assumed, were the best rules a society could follow. Before the twentieth century, however, as Dunlop notes, it was "not possible so sharply to separate the policy prescriptions of economists which typically in part include normative elements and the technical and formal analysis of the discipline" (Dunlop, 1979).

Economists and Health Affairs Since 1960

When historians of economic thought study the recent application of economics to health affairs, they may regard the early 1960s as a period of ferment after which the traditional concerns of economists became increasingly dominant. Arrow's 1963 paper, "Uncertainty and the Welfare Economics of Medical Care," may be viewed as a symbolic event. Arrow connected the economics of health to mathematical economic analysis and the most sophisticated welfare economics. He advocated the paradigm of the market, modified by uncertainty that justified unusual intervention, as the basis for studying the differences between health and other industries.

The ascendancy of conventional economic analysis in health affairs can also be measured by the differences in the contributions to two national conferences on health economics, in 1962 and 1968. At the first conference, concerns about human capital and economic development framed the papers and discussions. The papers, which were presented by economists and people who worked more broadly in public health, discussed practical issues in organizing and financing care, the cost and efficiency of hospitals, and the evaluation of programs. The papers used mainly qualitative methods. In 1968, Klarman, who edited the papers presented at the second conference,

noted that the contributors worked with the dominant, mainly mathematical methods and concepts of the discipline. Only economists were invited to present papers. Moreover, the planning committee decided to ignore the "recent increase in health services costs . . . and the sources and mechanisms of financing health services" (Klarman, 1970: 12). Although some of the participants in the 1962 conference were present in 1968, none presented papers and several were critical of the complex methodology and the lack of relevance to public issues of the work presented.

Between 1962 and 1968 a larger number of professional economists, supported by increasing public and foundation funds, worked on problems of the health sector than ever before. A substantial amount of completed research and orderly data was available by the late 1950s, in large part as a result of work within the Social Security Administration and grants from other agencies in the federal government. In the early 1960s, research on economics was funded by the National Institutes of Health (NIH) and the Division of Community Health Services (DCHS) of the Bureau of State Services in the Public Health Service. Agnes Brewster, chief of the Health Economics Branch of the DCHS, had served with the CCMC staff and the research group in the Social Security Administration. Other research in health economics was funded by the Division of Hospitals and Medical Facilities in the Hill-Burton program. In 1968, these activities were consolidated in the new National Center for Health Services Research and Development (Sloat, 1978).

In 1965, Herman and Anne Somers, in a paper prepared for the Brookings Institution and the Public Health Service, argued that "professional economists, by and large, have not played a major role in the study of health care issues." By 1967, when their paper was published, this pessimism was no longer justified.

In that year, to take a significant example, the Committee on Chronic Kidney Disease created by the Bureau of the Budget adopted as a recommendation for policy the results of a paper by Klarman and Gerald Rosenthal, both members of the committee, applying cost-effectiveness analysis to competing methods of treatment for end-stage renal disease (Gottshalk, 1967). Moreover, the Gottshalk Committee and later the Congress accepted their recommendation that dialysis be financed by a variety of programs, with "major reliance" for operating costs on Title XVIII of the Social Security Act.

After about 1968, health economics was securely established within both the discipline of economics and the broader field of health research. Since that time, the history of economic analysis of health affairs has been less a study of landmarks than a record of increased interest in the subject among economists, of growing public investment in research and training, of the rapid growth of a scholarly literature, and of vigorous disputes about theory, methods, and applications similar to those in other areas of economists' concern. Moreover, largely as a result of increased economic research, economists have been consulted with growing frequency by officials of government and private agencies concerned with health policy. The tension between advocacy and analysis persists, although the balance of effort and investment has shifted to the latter.

Health economics benefited to some extent from events that affected social science in general. Government support for social science research increased in the 1960s as the result of a widely held assumption that research would make social policy more effective. The demand for faculty by new and expanding universities attracted an unprecedented number of people to graduate education. Professional economists and other social scientists in influential administrative and advisory positions in government advocated support for research and training and increased investment in testing the feasibility of new programs and evaluating existing ones. Discontent with United States involvement in Vietnam may have attracted some scholars, particularly graduate students, from defense to health studies, or at least to alternative service in the Public Health Service.

Health economics was less important than either the legacy of reform or electoral politics in framing the major health legislation of the 1960s. Klarman recalled in 1977 that "we all missed the effects of Medicare and Medicaid—wrong on use and on cost or price." This judgment may be too harsh. Medicare was a political victory for the medical care reform coalition originally organized in the 1930s. The victory was made possible by the Democratic landslide of 1964. After members of this group decided to move incrementally toward national health insurance, little new research, in contrast to the amount of political organizing activity, was required (Marmor, 1973).

Klarman (1970: 9), describing the participants in the 1968 conference, observed that "economists who work on health service problems" seem to have a "higher level" of interest in public policy

than "prevails in other applied areas of economics." This strong interest in public policy may not be unique to health economics. It seems characteristic of scholars who devote their careers to a single sector or industry. Agricultural economists have a long history of passionate involvement in farm policy and defense economists have engaged in bitter polemics about appropriate weapons and strategy. During the past two decades, however, economists working in the health field have increasingly adopted the attitude urged by Victor Fuchs in 1963: "The economists can suggest some of the questions that ought to be asked. They cannot give the answers. The answers have to come out of the health field itself" (Conference on Research in Hospital Use, 1963: 74).

Health economists' concern for public policy should be considered in the context of the development of broad political unity among social scientists in the past generation. Social scientists in general have become more concerned with research than with advocacy of reform since the 1920s. This shift was reflected in the dominance of pluralist ideology in the 1950s and 1960s. This viewpoint was exemplified by Odin Anderson, writing in 1966 on the "Influence of Social and Economic Research on Public Policy in the Health Field." Anderson advocated both a normative basis for applied research and a scholarly neutrality toward the organization of the health sector. On the one hand, he argued that useful applied research required a "consensus" among scholars, which provided a "framework for research bearing on policy." He found this consensus in the concept of the desirability of equal access to health services. On the other hand, writing autobiographically, Anderson claimed that he and his colleagues adopted a "strategy" of "accepting the prevailing health services and health insurance structure as given," and then examining "deviations from or innovations in the system." A consensus could be so broad, he implied, that social scientists could proceed as if what ought to be and what is were synonymous (Anderson, 1966: 11, 31, 39).

The pluralist view of American society, admittedly oversimplified here, assumes a broad social consensus about the goals of individuals and of groups. Various groups are viewed as contending according to generally accepted rules for a share of the nation's growing resources. Social imperfections yield, in time, to the pressures of intergroup competition. As critics on the Left have noted in recent years, pluralism encourages toleration of social im-

perfections as temporary. Injustice and inequality are regarded as normal; they can be ameliorated by group pressure over time. In Edward Purcell's (1973: 271–272) words, pluralism has provided a "logical passageway" that enables many scholars to accept "an ideology that in fact served to justify a quite imperfect *status quo*." Some critics believe that socialization within academic disciplines, by providing rewards to those who accept the pluralist vision, transforms graduate students from potential critics to faculty members who defend existing conditions. As Robert Lekachman (1976: 183) notes, criticizing higher education in economics, "It is not cynicism which turns social science critics and intellectuals into useful technicians, it is the human process which over time assimilates self-interest to larger social purposes."

The more strongly economists working in health affairs desire close connections with their disciplinary colleagues, the more likely they are to adopt pluralist views about alternative policies to finance and organize health and medical services. Unlike the researcher-reformers in medical care in the 1930s, who were detached from academic disciplines, the health economists of the 1960s and 1970s have increasingly conducted their careers in conventional academic settings, or in research organizations employing a staff of economists. In both settings, they are under strong pressures to be responsive to professional peers. The problems economists have selected for research have increasingly been derived from within the discipline or from priorities for research and policy set by regulators or observers of the health industry at the national level. Neutrality toward the claims of competing interest groups is instilled in them by their training and their relations with their peers. This neutrality, though it reinforces pluralist ideology, is generally viewed as non-ideological from within the discipline. Most professional economists agree with Mark Blaug that the study of "ruling scientific ideas" can be separated from the ideology in which they are inevitably embedded. Moreover, many scholars retain a strong conviction that neutrality about the merits of different policies is a practical fact, and that pluralism is the only useful set of assumptions about American society. As Dunlop (1979) says, "There are many competitive ideas as to 'reform.' Economic analysis may outline some of these alternative approaches . . . without advocacy of any one."

Pluralism became controversial in every social science during the 1960s. Sociologists, political scientists, psychologists, and

historians, for example, debated, often bitterly, the appropriate stance of their discipline toward American institutions and public policy. Although the long-term effects on research of the debate over pluralism remain unclear, in the short run among social scientists the conflict seems to have reinforced neutrality about solutions to social problems. In the 1950s and early 1960s, relativist views about the merits of competing groups and policies were mainly ideological. Contemporary relativism, in contrast, seems also to value neutrality on controversial issues because it reduces conflicts among scholars that interfere with the enterprise of research and teaching.

Whatever the influence of pluralism in limiting advocacy of social reform among scholars, it has contributed to what may be the beginning of a striking change in the relation between medicine and the social sciences in universities. The barriers between medicine and social science that have existed in the modern university since the nineteenth century have begun to be lowered. In recent years, a few social scientists and physicians are for the first time teaching each other's students and more of them are engaging in collaborative research. The separateness of academic physicians and social scientists, rooted in philosophical and practical issues a century old, was increased in the second and third decades of this century by the bitter controversy over compulsory insurance. Physicians' mistrust of economics, when it was defined as anything except the financial management of practice, persisted through the debates about health policy from the 1930s to the 1960s. Only in the 1960s did a small number of influential physicians and social scientists begin to discover their common interest. The development of research and training in the economics of health services at Harvard is perhaps the most celebrated example of this collaboration, but similar developments occurred at other major universities. These relations might have been impossible without widespread neutrality among physicians and economists in their attitude toward competing views of how health care ought to be delivered, and in their acceptance of plural arrangements for financing and organizing care.

Analysis and the advocacy of public policy became competing goals for social scientists during this century. The tension between analysis and advocacy in disciplinary research was perpetuated rather than resolved by the creation of a field of medical care or health services research. A similar process seems to have occurred in the activities called operations research and policy analysis.

However, the choices each scholar makes about the relation between analysis and advocacy, in his or her work, are influenced by personal values and by professional and philosophical commitments. Disagreements among scholars cannot be predicted by a formula or reduced to simple categories.

In part as a legacy of recent intellectual history, most economists, like other social scientists, are relativists about solutions to social problems. Most are intensely skeptical of any proposals for reform. This skepticism often irritates people outside academic disciplines who are committed to stimulating or preventing particular changes in public policy. However, relativism has made it easier for social scientists, and for economists in particular, to collaborate with physicians, health administrators, and public officials with whom they share an ideological commitment that ideology is dangerous. This collaboration has stimulated vigorous research and teaching in recent years. However, the integration of economics and medicine in our time has had, as yet, an indeterminate effect on public policy for health care.

Note on Methods and Sources

This paper is an essay in contemporary intellectual history. Intellectual historians interested in the natural and social sciences study what Thomas Kuhn calls the "interstices between the history of science and . . . the concerns of the cultural and socioeconomic historian" (Gilbert and Graubard, 1972: 179). The subject matter of intellectual history is "states of mind" (Higham, 1961: 220). According to Felix Gilbert, "The intellectual historian reconstitutes the mind of an individual or of groups at the times when a particular event happened (Gilbert and Graubard, 1972: 155). From the late nineteenth to the mid-twentieth centuries, most historians believed that contemporary events could not be studied objectively. Many historians now explore contemporary events, but they are cautious about their conclusions. As the editors of *The Journal of Contemporary History* wrote in their first issue, "it is not the only and perhaps not the major task of the historian to pass final judgment" (Editorial Note, 1966).

Although intellectual historians often study the same sources as historians of science or of economic thought, they study them for

different purposes. Like historians of science, intellectual historians are interested in the internal history of particular disciplines and in what Kuhn calls the "special role which that discipline's past always plays in its current evolution" (Gilbert and Graubard, 1972: 165, 167). But intellectual historians focus on the connections between internal history and the thought and behavior of the communities that surround workers in particular sciences. Applications of the results of scientific work, to public policy for example, are particularly useful for studying these connections.

A central analytical concept in this paper is tension. This concept is used to describe troubled or troubling relations among ideas or values. Tension is not the same as contradiction. Moreover, it is often not expressed in conflict. Rather it is a lack of coherence among ideas or values and is usually expressed as ambiguity or uneasiness. Tension can exist within disciplines, or between the theory and purposes of a discipline and ideas or values in the larger communities in which scholars work. The first use of the concept of tension analytically was by literary critics, particularly for what is generally called the "close reading" of poetry. The concept of tension was adapted to the purposes of intellectual history about forty years ago, mainly by scholars associated with the multidisciplinary field of American Studies.

In preparing this essay, I examined economists' views about the questions it was appropriate to ask and the relation between economic analysis grounded in research and advocacy of solutions to social problems. I took my definition of the work of economists from the profession itself, and from historians of economic thought. This definition permitted my research to build on existing knowledge.

Secondary sources for intellectual history and for the history of economic thought are plentiful for the years before World War II and scarce for the period since the 1940s. Particularly useful monographs describe the history of economic thought and of other social sciences in the United States and in Europe, the professionalization of the social sciences and the growth of universities, the history of medicine and of medical institutions, and the social, political, and intellectual history of political action to make health services more responsive to the conditions of industrial society.

There are several categories of primary sources. The literature of what is loosely called "medical economics" consists mainly of

journals, pamphlets, books, and reports to public and voluntary organizations. This literature is classified under a variety of headings in the standard bibliographic references, beginning with the *Index Catalogue of the Library of the Surgeon General of the United States* in the nineteenth century and including *Index Medicus* and, recently, various computerized bibliographies.

Primary sources for the history of economic thought are efficiently organized. The *Index of Economic Articles* is an essential starting point for economic thought in this century. Because of the long tradition of scholarship in this field, many monographs contain useful lists of published and unpublished sources.

The most difficult primary sources to locate and interpret for the study of the application of economic thought to health services and medical care are those bearing on public policy. The large collections of public papers relating to health affairs in the United States in the past half-century have not been systematically assessed. Much of the history written about the period since the 1930s still relies on personal recollections that have not been documented. The best monographs in this area, cited in the text of the paper, are appropriately cautious.

There is considerable primary source material for the study of the developing institutional framework for research in health economics. The summaries of grants and contracts awarded by federal agencies since the early 1960s for research in economics and related fields are particularly useful. These documents, if studied in combination with the results of peer review and the administrative history of health services research, will form the basis for useful monographs in the future.

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Readers who come upon this paper in another context than the issue of the *Milbank Memorial Fund Quarterly* in which it appears should be aware of its history. The paper was prepared at the suggestion of the Milbank Memorial Fund. An earlier version of the paper was circulated by the editor of the *Quarterly* for comment to a number of economists, experts in research on medical care, and an historian. The following procedure was followed when their comments were received: 1) the paper was modified to correct or clarify matters of fact and interpretation that I had gotten wrong, ignored, or underemphasized; 2) new data and alternative interpretations offered by the commentators were added, with attribution, when I was persuaded of their cogency; 3) I added new data from my own research when they clarified critical points of interpretation; 4) the comments were then edited to eliminate material now incorporated in the paper itself and published with the paper in the *Quarterly*. My rejoinder, appended to the comments, is limited to major differences in interpretation in order to avoid repetition of the paper.

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