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Author
Showstack, Jonathan A.

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The Social Framing of Strategic Planning
in Academic Health Centers

by

Jonathan A. Showstack

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Abstract

Academic health centers (AHCs) are highly institutionalized organizations with substantial social legitimacy. Much of the success of AHCs has been due to the abundant public resources that have derived from this social legitimacy. These resources are now threatened, however, by a changing health care marketplace. In response, AHCs are identifying and implementing new organizational strategies. Based on social theory, it was hypothesized in this study that strategic planning in AHCs is influenced largely by a social framing of issues and that the strategies identified and ultimately chosen are both a product of, and limited by, this social construct.

The University of California, San Francisco (UCSF) was studied as a case. Data were collected from historical and current reports and documents and from interviews with key participants in the strategic decision-making process at UCSF. A quantitative analysis of the hospital marketplace in the San Francisco Bay Area was also performed to compare with the perceptions by decision makers of this marketplace.

Prior to the early 1990s, the primary social frame used by decision makers at UCSF was the effective management of expanding resources. Beginning in 1993, admissions and revenues decreased significantly at UCSF, threatening the financial basis of the organization. In response to this perceived crisis, a new social frame was constructed, which was influenced strongly by existing power structures and based on an assumption that managed care organizations were diverting patients away from UCSF. The analysis of admission patterns showed a general decrease in admissions to most hospitals and no evidence of admissions being shifted toward managed care facilities, suggesting that a strategy of down-sizing might be most appropriate. The social framing of the crisis constrained both the identification and assessment of potential strategies.

A major product of UCSF's strategic planning process was the conversion of its clinical activities to a private enterprise, a strategy similar to that chosen by a number of other AHCs. Strategies that emphasize competitive solutions, however, may have several unintended effects, including threatening the social legitimacy of AHCs and the public support derived from this legitimacy.

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Chapter I
The Crisis Confronting Academic Health Centers

Academic health centers in the United States have achieved substantial public support and legitimation for their mission of the education of health professionals, provision of medical care, and conduct of research. Changes in the health care environment, particularly increased competition in the medical care marketplace and severe fiscal constraints at the federal and state levels, have put academic health centers, and their education, patient care, and research programs, at increasing risk.

The medical care system as a whole, and academic health centers as leading institutions in this system, have expanded rapidly over the past 50 years. This growth has produced significant results in the development of biomedical knowledge, the application of this knowledge in new technologies, and the delivery of technological and specialized services. The public willingness to provide generous funding for this growth has been due to the high value society places on medical care in general and on technological solutions to problems in particular. There is increasing disquiet, however, among the public, state policy-makers, and business community about whether the benefits continue to be worth the high costs, whether there is too much emphasis on technological, tertiary, hospital-based care and not enough on primary and population-based care, and whether it is acceptable that 20 percent of the population does not have adequate health care insurance or access to care. These social and financial concerns are threatening the basis of the legitimacy of the medical care system, of health professionals, and of health care organizations.

As the medical care system evolves at an increasingly rapid pace, the leadership of academic health centers have to reassess their organizational strategies and tactics in light of diminishing resources, increased competition, and a changing public perception of the

value of the products of these institutions. This is a study of how social processes affect the way that academic health center leaders identify, assess, and select organizational strategies to cope with these changing circumstances. The perception of crisis and the strategic planning process in reaction to this recognition were studied in the context of social theory. It was hypothesized that strategic planning in academic health centers is influenced largely by a social framing of issues and that the strategies identified and ultimately chosen are both a product of, and limited by, this social construct. In turn, this social construction is determined in large part by power relationships and conflicts among sectors of the medical care system and by organizational and environmental influences.

The University of California, San Francisco (UCSF) was studied as a case to assess the reasons for, and degree of, the cultural framing of strategic planning. This is a study of the influence of social processes on strategic planning, not of the outcomes of this planning process. Major outcomes, such as the likely success of the merger of the UCSF clinical services with Stanford Health System, are addressed only to the extent that the strategic planning process itself may have included social constructs that might affect the ultimate success of the strategies chosen.

Academic Health Centers and Their Environment

The Expansion of the Medical Care Sector

The social legitimacy of the medical care sector, and academic health centers in particular, has been translated into substantial financial resources and growth (Starr, 1982). With the problem defined as inadequate access to the services and technologies of medicine, the primary policy solution has been an expansion in the medical care infrastructure. The basic health policy over the past five decades might be called "If you build it, they will come;" that is, the way to solve the perceived central problem of access to medical care was to add to the available medical care resources. The medical care

sector has achieved such a hegemonic ideological dominance that there has been, until recently, little debate about the basis of this social policy.

Private health insurance expanded rapidly during World War II when benefits were exempted from wartime wage and price controls (Showstack, Blumberg, Schwartz, & Schroeder, 1979). This expansion continued during the 1950s with many companies offering health insurance benefits as a way to attract employees in a booming economy and tight labor market. Partly as a result of this expansion of health insurance to the general working population, a new social and political issue arose during the 1950s. As workers with health benefits aged and retired from their jobs, they lost their health insurance and, due to their age and relatively high risk, found it difficult, if not impossible, to buy health insurance in the general marketplace. A parallel, but less socially and politically visible, effect of employment-based health insurance was the increasing gap between those with health insurance, generally the employed middle class, and both elders and the poor who had little financial access to medical care. The political "framing" of lack of access as a problem was that it was due primarily to lack of ability to pay for services, with little emphasis on, or realization of, the social, cultural, and organizational issues that were also hindering access to care.

By the 1960s, the real problem of the loss of health insurance benefits by elders, a politically powerful group, contributed to substantial pressure for the enactment of a government insurance program for the elderly. As part of President Johnson's Great Society programs, a federally financed program for health insurance for elders became a reality with the passage of the Medicare law in 1964. Medicaid, a federally financed, but state run, program for paying for care of the poor, was also enacted (almost as an afterthought) as part of the Great Society programs. The effect of the general expansion of private health insurance, and particularly the enactment of the Medicare and Medicaid

programs, was to provide ever increasing amounts of resources for the medical care system.

Medicare and Medicaid had profound effects on academic health centers, which had traditionally provided much charity care, often charging insured patients more to cover the lack of payment from other patients. With Medicare and Medicaid paying for care of the elderly and poor, academic health centers saw both their patient care services and revenues expand rapidly. Another change also occurred, however; as one of the study informants pointed out, academic health centers in general and UCSF in particular had to compete for patients who, because of payment by Medicare and Medicaid, now could choose to be treated at other hospitals.

The increase in resources in the medical care system resulted in both a tremendous expansion of the system and an increasing cost to federal and state budgets. During the 1970s, in reaction to a perceived crisis in medical care costs, several programs were proposed. The Nixon administration proposed a national health insurance program that was strikingly similar to the plan proposed by the Clinton administration 25 years later (and not far from the proposal 25 years earlier by the Truman administration). Primarily because of the political problems of the Nixon administration, this ambitious program was not enacted.

The medical care sector has grown much more than other contributors to health, such as the public health and education sectors of the economy (Burner & Waldo, 1995). The relative expansion of the medical care sector is illustrated in Figure 1. In 1970, three major sectors of the economy (health, public education, and defense) each accounted for relatively equal proportions of the Gross Domestic Product (GDP) of the United States. The portion accounted for by education declined steadily between 1970 to 1992, from 5.3 percent to 4.9 percent of GDP. Defense expenditures started at 8.3 percent of GDP, fell during the wind-down of the Vietnam War, rose somewhat during the Reagan

administration, and in 1992 were 5 percent of GDP. Health care expenditures, on the other hand, rose steadily and substantially during this period, starting at 7.4 percent of GDP and rising to 13.6 percent of GDP in 1992. Today, health expenditures are approaching 15 percent of GDP and are expected to rise to close to 20 percent of GDP by early in the next decade (Burner & Waldo, 1995).

The United States spends considerably more than other industrialized countries on health care. In 1990, the United States spent almost 50 percent more per capita on health care than did Canada, and almost triple what was spent in Great Britain (Figure 2) (World Bank, 1993). Despite these comparatively large expenditures, data suggests that the health of the average American is no better, and may be worse, than that experienced in these other countries. For example, in 1992 the infant mortality rate in the United States was 9 per 1,000 live births compared to 7 in both Canada and the United Kingdom, (World Bank, 1994) and life expectancy at birth was 77 years in the United States compared to 78 in Canada and 76 in the United Kingdom (World Bank, 1994).

Federal government policy has been especially important in the growth of the medical care sector. After World War II, there was a substantial expansion in public funding for the training of health professionals, the construction of health care facilities, the expansion of biomedical knowledge (through the growth of the National Institutes of Health), and the development of new diagnostic and treatment technologies. In 1965, the government began a major contribution to the payment for medical care services through the implementation of the Medicare and Medicaid programs. The government role has continued to grow substantially, through discrete additions to government programs (such as the addition of the end-stage renal disease program to Medicare) and through the expansion of funding for health professions training. For example, most graduate medical education (residency and fellowship training after graduation from medical school) is now funded through the Medicare program.

Along with the growth of the medical care sector, there has been a concentration of resources in highly specialized care, often at the expense of primary care. Several commissions and other entities have proposed an increase in the training of health professionals, usually noting the trend toward specialty care, and suggested the promotion of primary care training. Despite some discrete funding programs for the expansion of primary care training, however, the number and proportion of medical specialists has grown substantially. In 1960, there was a relatively equal proportion of specialists and primary care physicians (family physicians, general internists, and pediatricians) in the United States (Figure 3). Of note is that this "50:50" ratio is similar to the ratio in other industrialized countries and in health maintenance organizations in this country. Today, however, specialists account for approximately two-thirds of all physicians in practice. If the 50:50 ratio is appropriate for the United States, which many now argue it is, then there are too many specialists. Among the reasons for this possibly inappropriate ratio are incentives toward specialization that include greater prestige and income. Policy makers seem reluctant to intervene directly to change these incentives. Theoretical reasons for the phenomenon of a concentration of resources in highly specialized services and in specialized physicians are discussed below in the section on political economy.

The health care system in the United States continues to perform poorly in addressing the major causes of illness and disability. Potentially preventable conditions cause over half of the premature deaths in the United States (McGinnis & Foege, 1993). Traditional personal medical care services have had little success in addressing these determinants of health, perhaps due to their focus on individuals rather than populations and on treatments rather than prevention. Medical care services have also received a disproportionate share of resources; only three percent of health care spending is devoted to public health. (Burner & Waldo, 1995) Because of its focus on populations, at least to

the extent that capitated payment provides an incentive for keeping enrollees healthy, managed care has the potential to correct some of this imbalance (Showstack, *et al.*, 1996).

As more resources are concentrated in the medical care sector, there is growing concern among both policy analysts and the public that we may not be getting our money's worth from the medical care system. Initially, resources devoted to medical care result in a large increase in the benefits derived, but as expenditures rise the benefits per dollar often diminish. For example, in poor countries the introduction of a relatively inexpensive antibiotic may have produced large increases in the general health of the population. In more developed countries, low cost/high benefit services might include immunizations and prenatal care. The social question is whether it is best to spend, for example, the $250,000 that it may cost for one organ transplantation or to use the resources for prenatal care for 400 women (which has been shown to reduce the likelihood of costly low birthweight infants). There may even be a reduction in the general state of health and welfare as health care costs start to divert resources away from public health, housing, nutrition, and other programs that have a positive impact on the population's health. It is largely the social concern about both high costs and "lost opportunity" costs that has produced the current debate over health care spending.

Academic Health Centers

Academic health centers in the United States play a vital role in the health of the public through the education of health professionals, provision of patient care, and conduct of research (Schroeder, Zones, & Showstack, 1989; Inui, 1992). As the health care delivery system changes over the next decade due to competition in the marketplace and possible reforms in public policies, academic health centers are likely to bear the brunt of these changes, particularly as payers for health care become less willing to support the vital, but costly, teaching, research, and patient care missions of these

institutions (Epstein, 1995). Changes in the health care environment have the potential to affect the missions of academic health centers, the distribution of resources among teaching, patient care, and research programs, as well as relationships with the community (White & Connelly, 1992; Goldman, 1995). These changes in the environment are likely to force the leadership of academic health centers to reassess the roles and missions of their organizations, and implement changes that are perceived to be needed to assure the survival of these institutions. Both the changing environment and changes within academic health centers may have the effect of lessening the legitimacy of these organizations as institutions, and thereby threatening the resources available for their central missions.

According to the Association of Academic Health Centers, an academic health center is an institution that includes a medical school and an affiliated teaching hospital, and may include one or more other health professions training schools (Rubin, Larson, & Griffith, 1995). Based on this definition, there are 125 academic health centers in the United States, with about one-half publicly owned (generally by state governments) and the other half privately owned. Whatever type of ownership, however, the majority of funding for academic health centers (for teaching, research, and patient care) is derived from public sources.

Most academic health centers own a teaching hospital and may have affiliation agreements for teaching and research with other local and distant hospitals. An example of a state-owned academic health center of this type is UCSF, which owns Long-Moffitt hospital and Mt. Zion hospital and has affiliation agreements with San Francisco General Hospital (a county-owned facility), the local Veterans Administration Hospital, and community hospitals in Fresno and Santa Rosa, California. Other academic health centers also have affiliation agreements for teaching and research programs. The most prominent example of the latter group is Harvard Medical School, which does not own a hospital but

has affiliated teaching hospitals, including Beth Israel Hospital, Brigham and Women's Hospital, and Massachusetts General Hospital. Other academic health centers, by design, do not own a hospital (e.g., Michigan State), and some have sold their hospitals to for-profit chains, while others have relied mainly on public hospitals for teaching programs (e.g., University of Southern California and Wayne State University).

The Structure and Financing of Academic Health Centers

The governance structures and financing of academic health centers can be extremely complex. Generally, medical schools and hospitals have separate administrations and their own sources of funding. Often there is separate ownership and governance of medical schools and hospitals. Historically, these separate organizational structures have produced relatively little tension within academic health centers, primarily because of the expansion in both clinical and research revenues. These complex organizational structures have come under increasing strain, however, as the growth of managed care in the private sector and cutbacks by public payers produce new competitive economic pressures. These pressures are felt in a variety of ways, including a reduction in referrals to academic health centers for tertiary care services and a need to compete in the local market for primary care services, an area of historical weakness for many academic health centers. The result of these trends has been a sharp drop in faculty practice revenues, which in the past have been a major source of support for educational functions.

The missions of academic health centers are multifaceted and sometimes conflicting. The three principal areas of mission recognized by all academic health centers are teaching, research, and patient care. The relative weights given to each mission area vary considerably among academic health centers, although most academic health centers have at least one substantive area in which they have a leadership role. Teaching leads the missions of most academic health centers. Research is a major activity for a relatively

limited number of academic health centers (with Harvard, Johns Hopkins, and UCSF as the top three institutions). At least until the recent decline in utilization and revenues at academic health centers, patient care has often been viewed more as a necessary activity to support the teaching and research functions than as a mission element that should be supported on its own merits. Academic health centers must respond to their own internal governance structures, changes in the environment such as the growth of managed care, and to a variety of public and private certifying and regulating entities.

The typical structure of academic health centers includes two primary organizational units, a medical school and a hospital (often with an accompanying outpatient clinic) within a university organization (Figure 4). As Culbertson, Goode, and Dickler point out, "The pivotal issue (in achieving success) is attaining balance between the academic and clinical interests of the organization" (Culbertson, Goode, & Dickler, 1996). The university authority (often a Vice President for Health Affairs) generally has relatively little power and authority over either the medical school or hospital. In the past, academic health centers have contributed substantial sums (profits) to their parent universities.

The medical school is based on an academic structure, with a Dean overseeing department chairs. The authority within schools of medicine, however, usually rests with the chairs of departments who oversee departmental budgets in which the most flexible funds are derived mainly from clinical revenues. The department of medicine is often the largest department, both in number of students and in clinical and research revenue; thus, compared to other chairs and the dean, the chair of the department of medicine often has the most effective power within a medical school. As is the case with most school structures (Scott, 1983), the evaluation of the medical school is generally based on process measures (e.g., number of students graduated) rather than on outcomes (e.g., career success or effectiveness of care).

In contrast to the medical school, a hospital usually has a relatively hierarchical organizational structure, with a chief operating officer who oversees associate directors for functional departments such as nursing, housekeeping, clinical laboratory, etc. (Figure 4). The goal of the hospital is to make a "profit" through the services provided to patients. To attract patients, however, a hospital must provide the service and technological needs of physicians. Thus, a hospital is run much more like a typical business than is a medical school, a business that needs to attract customers who can pay their bills.

Physicians are a third structural feature within academic health centers. Revenues for services provided by full-time faculty (that is, physicians who are employees of the medical school, often salaried) flow through a practice plan, which is usually a separate organizational unit, and then into the coffers of the various departments. Physicians generally negotiate for these revenues to supplement their basic salaries. Community physicians also admit patients to academic health centers, although they have little commitment to the organization other than perhaps general loyalty and the privilege of having a "clinical faculty" title within the medical school. The differences among medical schools, hospitals, and physician practice plans in goals and objectives, in structure, and in outcomes results in uneasy alliances within the overall structure of academic health centers.

After medical school, most physicians enter into graduate medical education, that is, residency training in various specialties, generally three years for medicine to five years for some surgical specialties. Medical schools supervise the training process, but the revenues to support this training are paid to the hospital as part of payment for patient care. Prior to the introduction in 1984 of prospective payment by the federal Medicare system, payment for graduate medical education was obtained by adding a "tax" onto payments by all insurers. With the implementation of prospective payment, however, Medicare began to pay for graduate medical education through direct payments for

resident salaries and faculty, with an "indirect" add-on because teaching hospitals generally have sicker patients and there are some additional operational costs in a teaching hospital. Medicare is now by far the largest payer for graduate medical education.

The governance structure of the graduate medical education system is quite complex (Gerbert, *et al.*, 1987). There are many layers of evaluation, licensing, and certification, most run by non-governmental agencies. The governing groups, and the individuals that are represented within these groups, consist of vested interests in physician training, ranging from representatives of medical schools to representatives of the American Medical Association (that is, practicing physicians). In addition, the graduate medical education system controlled by these groups and individuals is funded almost entirely by public moneys. This structure is an example of a "power elite" (Mills, 1956) that controls substantial resources and can dominate the structure of graduate medical education and, as a result, dominate the marketplace through controlling, among other things, the types of physicians in practice. Although the Federal Trade Commission has warned the individual specialties against controlling entry into training and practice, there has been little actual legal action against either individual specialties or the governance structure of the graduate medical education system in general.

The dimensions of the environment of academic health centers are shown in Table 1.[1] These dimensions include material and economic incentives, socio-cultural norms and ideology, politics and the state, and the structure and organization of the broader health care system. For each dimension, the characteristics (and measures of characteristics) of three levels of the environment are described: Macro (national or geographic region), Meso (institutional); and Micro (patients and providers). For example, at a Macro level

[1] This model of an academic health center's environment was developed in collaboration with Carroll Estes, Ph.D.

material and economic incentives affect both the type of systems that pay for health care at academic health centers and federal and state regulations regarding payment for services; at the Meso level, this dimension affects institutional finances and faculty practice income; and, at the Micro level, the income of individual providers is influenced. This complex set of environmental factors has multiple and shifting effects on the core missions of academic health centers.

Of special importance have been material/economic incentives, particularly changes in the way providers are reimbursed for services. For example, a major effect of the introduction of the failed health care reform legislation in the last Congress was an increase in the movement of private-sector health care toward a more competitive system. The emerging system is based on a consolidation of resources into "managed care organizations" that contract prospectively for the care of specific populations (Miller & Luft, 1994). This shift toward managed care organizations, as a way of both constraining the rising costs of care and reorganizing the provision of care, has had an especially important impact on academic health centers.

The Growth of Academic Health Centers

The Flexner Report in 1910 signaled the start of the modern age of medicine. This report was, in part, a reaction to the numerous proprietary medical schools then in operation and to the more basic question of how to standardize medical training, particularly in light of new scientific discoveries (Flexner, 1910). As is the case with many other reports of the condition of the medical care sector, the Flexner Report did not effect a change in the system as much as it recorded changes that had already occurred or were then occurring. During this period, the number of medical schools dropped dramatically and most adopted the model of medical education developed by Osler at The Johns Hopkins University that included much more "hands-on" and bedside training than

earlier more didactic models of medical education. It is the Hopkins Model that still dominates in U.S. medical schools.

Academic health centers became important health care and social institutions largely as the result of the general growth in the medical care infrastructure that began after World War II and public funding that was specifically intended to expand health professions education and research. During the 1950s and 1960s, there was a dramatic transformation of the environment that produced profound changes in the financing and priorities at academic health centers. Federal policies encouraged an overall expansion of the medical care system. Funding for the National Institutes of Health expanded substantially and federal programs (e.g., the Hill-Burton Act) provided resources for construction of hospitals and other health facilities.

Academic health centers increased in both number and size with the creation of new medical schools, particularly in the 1960s and 1970s, as a result of public policies to address a projected future shortage of physicians and other health professionals. Because of a perceived shortage of physicians cited by several major commissions, the government provided increased funding for undergraduate and graduate medical education (Howe, Osterweis, & Rubin, 1994; Jolly & Hudley, 1995). Between 1965 and 1993, there was a 49 percent increase in the number of medical schools in the United States (from 84 schools to 125, Table 2). During this period, the number of medical students doubled due to both the larger number of schools and an increase in average class size, as did the number of medical residents and fellows. The number of full-time faculty increased five-fold; this was due to a large increase in the amount of clinical work performed by faculty at medical schools.

The growth of academic health centers has also been aided by an expansion in research funding due to the rapid growth of the National Institutes of Health, and to an increase in clinical income, in large part due to the implementation of the Medicare and

Medicaid programs in 1965. This growth has produced not only significant successes in biomedical research and the development of new medical technologies, but also a doubling in the number of graduates of schools of medicine, and an even greater expansion of hospital-based residency programs (Schroeder, Zones, & Showstack, 1989).

In 1995, the average revenues at medical schools in the United States was approximately $200 million, derived primarily from professional fees for clinical care provided by faculty and from federal research funding (Figure 5) (Jolly & Hudley, 1995). (Note that these figures do not include revenues generated by the school's affiliated teaching hospital[s]). As shown in Figure 6, in 1960-61 clinical revenues at medical schools accounted for only 3 percent of total revenues, with research funding accounting for 30 percent. By 1992-93, however, clinical revenues accounted for fully one-third of medical school budgets. Clinical income is an especially important source of funding for medical schools since it is highly flexible money; that is, these funds can be used with considerable discretion by deans and department chairs.

The Effect of Managed Care and Increased Competition

In 1974 a law was enacted that was intended to promote "health maintenance organizations" (HMOs) and provide an impetus toward a new form of payment, "capitation," paying a provider a fixed amount per month for each enrollee.[2] Based on the Kaiser model in California, the Health Insurance Program in New York, and others, HMOs were conceived of as organized systems of care that would provide both preventive care and coordinated acute care, positive characteristics of care for which there was little incentive in the current health insurance system. In addition, because HMOs were capitated, there was expectation that costs would be lower. The law required

[2] In fee-for-service payment, the more services provided the greater the payment. In contrast, the fixed payments of capitation provide incentives for fewer services. A potential benefit of capitation is to create more cost-effective clinical decision-making and, at least in theory, to keep the insurer's population healthier.

that all large employers in an area must offer a "federally-qualified" HMO, if available, a potentially powerful incentive for the creation and growth of HMOs. The wide range of services that must be offered for federal-qualification were quite stringent, however, which was a major reason for the much slower growth of this type of organization than had been hoped.

In recent years, however, managed care systems have achieved remarkable growth. Membership is rising more than 11 percent per year and is projected to approach 65 million persons by the end of 1996 (Association of American Medical Colleges & Group Health Association of America, 1994; Johnsson, 1996). The return on investment for many of these systems has been substantial. At the end of 1994, nine of the largest publicly traded systems had $9.5 billion available in cash assets (Anders, 1994). Responsibility for the health of an important subset of Americans, those who are poor and/or disabled but publicly insured, is being shifted from the state and federal government to managed care systems. In 1994, 7.8 million (or about one in four) Medicaid beneficiaries were enrolled in managed care, double the number a year earlier, and the future growth of Medicare managed care seems assured (Iglehart, 1995).

At the same time that major changes have occurred in market-driven health care reform, access to care for many Americans has clearly worsened. The number of uninsured persons has risen approximately 30 percent from 1988 to 1995, from 33 to 43 million persons below the age of 65 (Bradsher, 1995). Much of the rise in the number of uninsured is among children (Newacheck, *et al.*, 1995). Some observers predict that the number of uninsured will rise to at least 55 million as a result of changes in access to employer-based insurance and federal budget cuts.

A more conservative leadership in Congress and the failure of health care reform legislation are likely to create an increasingly difficult environment for academic health centers. Health care reform is accelerating through the private sector, however, with a

shift from fee-for-service payment to managed care systems and the movement of Medicaid populations into managed care arrangements. Medicare, a major revenue source for teaching hospitals, has moved more cautiously in placing the elderly in managed care. These changes are resulting primarily from marketplace economic pressures, although a number of states have enacted their own reform legislation and/or received permission from the federal government to move their Medicaid populations into managed care.

A competitive market-based solution for problems in the health care system is likely to differentially affect academic health centers, which have higher costs because of their teaching programs, their provision of charity care, and their care of severely ill patients. All of the recent major proposals for health care reform legislation included subsidies for academic health centers to compensate for these increased costs. The combined effects of the lack of reform legislation, private-sector trends, increased market-based competition, and federal budgetary constraints, are causing considerable economic strain at academic health centers.

Changes in the medical care market have affected all types of health care providers, although the impact has, to date, been focused primarily in California and several other states that have large concentrations of managed care systems. Because of their reliance on public funding and referrals of particularly sick patients, the impact of medical care competition has been particularly great on academic health centers in these states.

As increased competition results in changes in the type and amount of revenues at academic health centers, there may be a substantial effect on health professions training programs and on activities related directly to the success of training programs, such as the organization and delivery of clinical services. Much of the discretionary resources available within academic health centers is derived from patient care revenues generated disproportionately from inpatient and technological services. As revenues are affected by managed care, there is likely to be a substantial reduction in the resources available for

health professions education and changes in the mandates for the types of training provided. To maintain their leadership position in health professions training, academic health centers will have to develop new training locations and methods and diversify their sources of funding.

Current trends in the health care system are expected to hasten shifts of teaching programs to the ambulatory setting, increase costs of care in ambulatory settings, require new institutional collaborations and associations for both clinical and teaching programs, necessitate new organizational arrangements among health professionals, and may profoundly influence the care received by patients. Academic health centers must respond to the many financial, social, and political forces that are having an impact on their strategic planning and operations. These trends are causing all academic health centers to reassess the ways and means by which they fulfill their multiple missions (Barondess, 1991).

Until recently, the major decisions that faced leaders of academic health centers were related to the management of growth. With ever-expanding resources, critical resource-allocation decisions may be postponed or avoided, thus masking structural problems in organizational decision-making. One result may be institutional complacency regarding the definition of institutional mission.

Schroeder, Zones, and Showstack (1989) describe the challenge to academic health centers that has resulted from the changes in the health of the population and in the structure of the health care system. Although not written as a sociological analysis, the paper can be understood in sociological terms, particularly if the term, "legitimation," is substituted for the term, "public trust." The essence of this argument is that although academic health centers have been highly successful and productive institutions, they risk losing their social legitimacy and, therefore, their substantial share of public resources if they do not make changes to accommodate changing social and health care conditions.

Chapter II
Social Theory

Social Constructions of Reality

> The perceptions of what is possible become what is real. The "constructions" of reality emerge within the context of legal, economic, and political institutions, which legitimate the dominance of certain interests. (Estes, 1979, p. 4)

> Meaning is constructed in the context of becoming committed to action. Individuals organize arguments and information to create and sustain a belief in the wisdom of the action chosen, thus in the enthusiasm required to implement it. (March and Olsen, 1989, p. 40)

This study is based on theory that suggests that the definitions of, and solutions to, problems confronting academic health centers are social constructions. These constructions are derived from values and conceptions that are determined in large part by the political economy of medical care and the resulting structure of and power relationships within the medical care system. Social constructions also play a central role in the definition of institutional legitimacy. These definitions and power relationships influence and interact with academic health centers' organizational structures and relationships with their environments. Of particular importance in this equation are the social legitimacy of academic health centers, the social construction of "crisis," and the dominance of physicians in the decision-making structure of academic health centers. Social theory that informs these issues is reviewed below.

The Political Economy of Health Care

Domination, Legitimacy, and Ideological Hegemony

The growth of the health care system in the United States has been due, in large part, to the social legitimation of the role of the health care system and its major institutions and health care professionals. This legitimation has produced public and private policies that have assured a continual flow of resources into health care. Although the process and policies that have produced this growth can be seen as benign socially and economically, a large body of social theory suggests that this growth has been the result of a process of domination by vested interests, particularly monopoly capital and professionals. This section describes the theoretical basis for this view of the health care system.

Weber's fundamental assumptions were about the roles of power and domination in society. The development of complex organizations, in Weber's view, was a function of, and a method to use, power and enforce domination. The legitimation process is particularly important in the development of social institutions and the effect of institutions on organizational content and design (Weber, 1978). A major tenet of Marxism is that the social construction of reality depends in large part on the material means of production. Marx suggests that the social definition of a given problem is a product of the system in which the issues and ideas originated (Tucker, 1978).

Following and expanding upon a Marxist view of social constructions, Gramsci described the role and importance of ideology and "ideological hegemony," and possible ways to effect changes in ideologies and structures. Boggs describes a key outcome of Gramsci's concept of ideological hegemony as, "...certain immanent processes within capitalist development itself whereby the majority of people tend to internalize the dominant ideological and cultural values." (Boggs, 1984) The essence of Gramsci's concept of ideological hegemony is that ideas and their normative rationalization cannot

be separated from either practices implementing those ideas or the characteristics of the ruling class.

Gramsci's conception of hegemony goes beyond the idea of the dominance of a particular ideology; it is rather both a function of the ideology of the ruling class *and* part of the means by which the dominant class rules. Gramsci emphasizes the importance of the link between intellectual knowledge and social structures and values. "Gramsci argues...advanced discoveries only have permanent, effective historical significance in relation to a structure of knowledge and learning, a web of institutions and the level and complexity of education, knowledge and culture in society at large." (Sassoon, 1985)

Ideologies reinforce practices and practices reinforce ideologies. In health care, the ideology of individualism is a case in point. It is in the interest of all of the sectors in the health care system to ensure continuing and increasing resources devoted to health care. The best way to achieve this goal is the retention of certain characteristics of the health care payment system that discourage a constraint on resource utilization. These characteristics include fee-for-service payment and freedom of choice of providers. Both of these characteristics are supported by an ideology of individualism, and are presumed (without much empirical supporting evidence) to lead to high quality medical care. Based on this argued (and arguable) foundation of quality care, the dominant classes in health care have been able to deflect policy changes that would make the health care system more rational and efficient.

Professional Authority and Legitimacy

The traditionally high social and economic status that physicians enjoy today derives, in part, from the particular knowledge and skills of their profession. This status may be translated into authority based on charisma, as suggested by Weber (1978). Medicine attempts to address problems ranging from the easing of discomfort and the amelioration

of disability to the prevention of death. The strength of the charismatic authority of physicians may arise out of the despair and hope associated with threats to health (Weber, 1978). Weber suggests that failure of charismatic authority to prove and validate itself, however, can lead to a withdrawal of the acceptance of this authority by the laity (1978).

In contrast to the magical and symbolic practices of early "physicians," such as shamans, modern medical knowledge is based primarily on empirically derived data and analyses. According to Weber, symbolic acts are more powerful than empirical methods (Weber, 1978). This implies that it is important for the laity to endow medical care with a more powerful symbolic force than mere empirically-derived treatments.

The social definition and context of medical care place the physician in a unique position of power, a position that is not likely to be forfeited voluntarily. To the degree that this position rests on particular knowledge and roles, physician specialists are accorded greater power than generalist physicians (who in turn have more power than the laity). These are potent, and often implicit and symbolic, social forces supporting specialization.

Similar to Weber, Durkheim emphasizes the religious basis of the social value and belief placed in modern science (Durkheim, 1912/1915). Among the many factors affecting the choice of social role, Durkheim suggests that survival, in both an economic and a biological sense, is among the most important (Durkheim, 1893/1933). Durkheim saw this competition as a positive influence toward man's individuation. He argued against Spencer's more gloomy view of the "survival of the fittest" (Durkheim, 1893/1933). The key role of the division of labor, according to Durkheim, was to create social solidarity (in part through an easing of social and economic tensions (Durkheim, 1893/1933). Not only does the division of labor derive from a basic biologic force, but the very fabric of society is both composed of, and depends on, the division of labor (Durkheim, 1893/1933).

Contemporary Political Economy

The contemporary political economy perspective grows out of the Weberian and Marxist tradition of conflict theory that posits that society is organized through power and domination. In the medical care sector, this domination occurs through the control of key aspects of the system by the medical profession and major corporate actors. The state has also contributed to this domination by the profession of medicine and corporate interests due to the state's own weakness and "legitimation crisis."

Private Sector Control and Domination

Capitalism, technology, and private foundations were key factors in laying the groundwork for today's health care system. According to Brown, the evolution in American medicine between 1890-1925 was due to three factors:

> ...First, industrial capitalism created a new role for science and its application. ...Universities became the main vehicles for training this new stratum of managers, professionals, and scientists and for organizing scientific research. ...Second, physicians who were dissatisfied with the state of their profession recognized the economic and political, as well as technical, advantages of applying science to their rather crude art.... Third, mobilizing the power of corporate wealth in the social sphere, foundations brought unprecedented aid to the promotion of scientific medicine and to the reform of medical education. (Brown, 1979)

In contrast to most other industrialized countries, where health services are generally funded through public mechanisms, control of the health care sector in the United States is primarily private. The state has expanded its role, primarily through the provision of resources to the system and the performance of complementary functions (e.g., securing regulations to protect the private marketplace), but the private sector still dominates key

attributes of the system, such as definition of appropriate services and products. The private character of the health care sector is described by Estes.

> ...U.S. public policies and programs in health and social services...have retained a distinctly private character though performing many essentially public functions. The development of health programs in the United States has evolved in three phases: (1) private dominance, primarily individual contracts between patients and physicians, hospitals, and other providers, particularly for charity hospital care, up until the 1890s; (2) limited public provision of necessary health care services that were not being provided either by voluntary effort or private contract (between the Great Depression and World War II); and (3) the substituting of public financing...of health services for private and voluntary efforts (following World War II). (Estes & Alford, 1990)

Medical care has traditionally been practiced by independent physicians who make most allocation resource decisions based on their own judgment and interests. Recently, however, there has been a growth in corporate medicine; that is, in the provision of medical care through private sector systems of care that control reimbursement and within which physicians share financial risk for the services provided. Starr describes five separate dimensions of the growth of corporate medicine: 1) Change in type of ownership and control: the shift from nonprofit and governmental organizations to for-profit companies in health care; 2) Horizontal integration: the decline of freestanding institutions and rise of multi-institutional systems, and the consequent shift in the locus of control from community boards to regional and national health care corporations; 3) Diversification and corporate restructuring: the shift from single-unit organizations operating in one market to "polycorporate" conglomerate enterprises; 4) Vertical integration: the shift from single-level-of-care organizations, such as acute-care hospitals, to organizations that embrace the various phases and levels of care, such as HMOs; and,

5) Industry concentration: the increasing concentration of ownership and control of health services in regional markets and the nation as a whole (Starr, 1982).

Health care is dominated by small business (the competitive sector, in O'Connor's terms) and by large capital (the monopoly sector) (O'Connor, 1973). Although the traditional "small business" in the health care sector was the individual physician in his or her office, the advent of managed care may be leading to a permanent change in the way physicians do business. There are basic contradictions in the large capital sector that are also leading to change. While insurance companies and other fiscal intermediaries have benefited from the increasing resources devoted to medical care (by profiting from the administration of these resources), other large capital, such as automobile companies, are seeing medical care eat into their profits. These contradictions have provided much of the fuel for the recent debate about, and changes in, payment for medical care.

The shift in the medical care system toward managed care and corporate medicine has disturbed the traditional relationship between provider and patient. This disturbance of system equilibrium is one of the reasons for the renewed interest in system reform, although reform of the medical care system faces powerful interests that wish to maintain the status quo.

There has been a general perception that the health care system needs reform, with legislative proposals for reform of the American health care system appearing periodically over the past century. There has been little movement, however, toward a true revision of the power structure of the medical care system. Alford has called this process "dynamics without change" (Alford, 1972). Dynamics without change refers to the continuing battles among "structural interests" that attempt to fashion the health care system according to their own interests. These struggles are occurring in the context of a market society that includes professional monopolists controlling the major health resources, corporate rationalizers challenging their power, and the community population

seeking better service. Alford suggests that strategies of reform based on bureaucratic or market solutions are not likely to succeed in changing the basic goals and structures of the health care system. Alford postulates that the reason for this failure is that both strategies neglect the powerful role of groups that represent key functions of the health care system (i.e., within both the market and bureaucratic sectors) and in whose interest it is to maintain the status quo (Alford, 1972).

Another reason for the political reluctance to modify the structure of the health care system is that, although the public apparently wants system reform, the expansion of the medical care system has produced a public perception of the need for, and dependency upon, medical care and a fear of losing access to that care. Ehrenreich and Ehrenreich describe three major areas of expansion of the medical care system that have led to a deepening public dependency on medical care: first, an expansion in the jurisdiction of the system to include new types of services (e.g., family planning, marriage counseling); second, expansion in the number and kinds of services available and a marked increase in the efficacy of these services (e.g., antibiotics for infections); and, third, an expansion in the availability of medical care (Ehrenreich & Ehrenreich, 1978).

Professional Control and Domination

The power and domination of the medical profession has been a key reason for the lack of system reform. Light describes the historical roots of the professional control of the health care system. Though appearing fragmented and disorganized, the health care system, "has in fact been meticulously designed through mechanisms of social control to maximize the legal, economic, and organizational autonomy of physicians." (Light, 1989)

An example of the private sector domination of the medical care system is the mechanisms that control entry into medical practice through the graduate medical education system. Although he was discussing primarily a political phenomenon, Mills'

(1956) "power elite" describes accurately the structural relationships within the health care sector in general and the graduate medical education system in particular. The state has ceded almost complete control of the graduate medical education system, which provides specialty training for physicians after medical school, to the private sector.

As described by Gerbert and colleagues, the participants in the graduate medical education system (academic health centers, and licensing, accreditation, certification, and funding agencies) form a complex web of control of this system (Gerbert, *et al.*, 1987). It is highly likely that there is overlap in membership of the various boards, committees, and agencies, with a core group of perhaps 50 to 100 persons who have multiple memberships and roles. This core membership group derives primarily from the power centers of the medical care system, including, for example, the American Medical Association, the Association for American Medical Colleges, and the leading academic health centers and hospitals. This system is designed to monitor and control the process of the graduate medical education system to both assure product quality as well as maintain the social legitimacy of the system. From a political economy perspective, the private sector control of this system by a relatively small group of agencies and persons also allows and contributes to a political and economic domination that produces anti-competitive practices, such as defining and limiting membership in the profession of medicine as well as indirectly controlling the marketplace of medical practice through the definition of, and entry to, specialized practice.

McKinlay and Arches suggest that, in contrast to other workers, physicians have until recently been able to postpone proletarianization (that is, physicians have been able to remain independent practitioners rather than employees of corporate providers) (McKinlay & Arches, 1985). Today, however, particularly as the result of the bureaucratization of medical care, which is a product of capitalist expansion, physicians are being reduced to a proletarian function and their self-interests subordinated to the

requirements of the capitalist control of medical production. McKinlay and Arches also point out that specialization among physicians may, in fact, be aiding in this proletarianization through, "the breakdown of the now diffuse and generally mystical medical arena into discrete and manageable components. ...The result of this segmentation and codification of the medical arena creates...a basis for the eventual exclusion and replacement of physicians altogether." (McKinlay and Arches, 1985)

The Role of the State

The role of the state in the economy in general, and in the development, structure, and control of organizations, is a key sociological issue. Sociologists theorize the role of the state in a variety of ways, although a prevalent view is that the state is at least an active participant in social relations, with the primary debate being the goals or intentions of this participation. According to Fligstein, "Perhaps the most pressing theoretical issue in political sociology today is the relative autonomy of the state. This issue basically turns on the question of how and in whose interests policy is made." (Fligstein, 1995) Estes describes a political economic view of the role of the state, "...the state has power to: 1) allocate and distribute scarce resources to ensure the survival and growth of the economy, 2) mediate between the different segments and classes of society, and 3) ameliorate social conditions that could threaten the existing order." (Estes, 1991)

The primary role of the federal and state governments in the health care system has been to create the legal and economic basis for the implementation of structures and processes based on the ideology of individualism and for the economic stabilization of the health care system. Government in the United States has intervened in the health care system only reluctantly, generally to solve contradictions in the marketplace that have produced political discontent, such as the (potential) loss of health insurance benefits because of unemployment. In part, government intervention and programs have reflected

what Smelser calls weak states that, "tend to solidify their existence by conferring on the public realm a structure that makes it easier for people to find a voice" (Smelser, 1994).

The historical developments leading to the enactment of the Medicare program (the federal program that pays for health care for persons over 65 years old and the disabled) illustrate the typical rationale for intervention by a weak government. The number of persons covered by employment-based health insurance grew dramatically during and after World War II. Generally these plans were "community-rated," with the cost of the insurance spread among all employees of a company and with the employee having few out-of-pocket costs. Insurers were more than willing to write this type of policy as the actuarial risks were relatively low because of the pooling of risk and the typically young age of the enrolled population. When employees retired, however, most lost their employment-based insurance and were confronted with having to purchase health insurance in the open market where the price would be based on their (high) individual risk. This difficulty in obtaining affordable health insurance was not easily resolved by the market because, as a person ages, her or his risk of needing health care rises at the same time that earnings typically decline. The resolution of this dilemma has followed closely O'Connor's description of the roles of the different economic sectors. "Capital normally opposes the establishment of state industry that competes with monopoly capital—that is, it opposes any program that socializes profits. Thus, it supports national health insurance but not socialized medicine....In other words, it urges that capital costs be socialized and that profits be contractually guaranteed by the state. (O'Connor, 1973)

With elders being a powerful political force, the state found it necessary to address this perceived crisis by establishing the Medicare program in 1965 to purchase care for elders. The Medicare program was designed to maintain and support the dominant ideology by being limited to the role of purchaser of care (at "usual and customary" rates) through current health insurers (predominantly Blue Cross and Blue Shield plans), with

no attempt to intervene in, or rationalize, the health care system. Thus, the (weak) government became essentially a health insurer, with the costs of the system socialized and the profits allowed to reside in the private sector. O'Connor also predicted correctly the outcome of this type of government action. Describing the health care debate in 1973 and the probable outcome, O'Connor wrote, "This contradiction between social production and private ownership almost guarantees that state health and medical expenditures, far from leveling off, will continue their unrelenting rise." (O'Connor, 1973) Thus, the state's relative weakness has led to a passive economic role, with government intervention intended to support the operation of the private sector and the ideology of individualism.

The Legitimation Crisis

Government in the United States has generally intervened in the health care sector only in response to a perceived crisis. As argued by Habermas about general socio-economic conditions, crises in the health care system are becoming more common as the general economy struggles. A "legitimation crisis" is occurring as the state finds it increasingly difficult to intervene successfully while satisfying ideological and political needs (Habermas, 1975).

The American health care system has been going through a basic rationality crisis for decades. Even as more resources have been devoted to health care, the basic problems of lack of equity and access, soaring costs, and inconsistent quality have not been solved. The state has attempted to address these issues, but with little long-term success. The principal reason for this lack of success is the failure of the state to address the contradictions in the economic and health care systems that have caused the crisis. For example, supply-side solutions have failed for both general economic and health care problems. Despite increasing state intervention in the health care sector, there continues to be a concentration of resources in the general economy and within the health care

sector that has placed large portions of the population at economic and health risk. A legitimation crisis has developed because of the state's inability to establish policies and programs that address these issues adequately (Habermas, 1975).

The legitimacy of the health care sector has come under increasing threat. In discussing the threat to the nonprofit sector, Estes describes the ideological struggle.

> Two contemporary ideological currents reflect elements of the struggles around issues of the legitimacy and rationality of nonprofit-sector health and social service institutions: (1) the resurgent ideology of the market that proclaims that competition and efficiency are the major (or only) criteria that justify state expenditures, and (2) the ideologies of individualism, neo-conservatism, and self-help that justify reductions in or the elimination of state expenditures altogether. (Estes & Alford, 1990)

The basic mechanisms used by the state to address economic crises are designed for relatively minor economic downturns, are intended primarily to solve economic distribution problems of the middle class, and are inadequate to the task of managing major economic crises. The primary mechanism used to manage the problem of unemployment, for example, is insurance to pay workers during short periods when they are not working. Only relatively insignificant attempts are made to address problems of long-term or structural unemployment, where entire industries, and the jobs of their workers, become obsolete. Economic downturns are compounded by a decrease in tax revenues at a time when increased resources are needed for unemployment insurance and basic stimulation of the economy. The dominant ideology argues that structural unemployment must be solved through market mechanisms (the same mechanisms that created the problem) and not through major initiatives such as job retraining programs (let alone industrial policies).

The example of unemployment is used because it is one of the most important political issues in western industrialized countries and because most health insurance in the United States is provided as a benefit of employment. Thus, basic economic problems in the United States, such as unemployment, have major consequences for the funding of health care. The political consequences of this linkage are also significant. As jobs are lost, even employed persons fear losing their jobs. Loss of income is compounded by loss of health insurance. During these times of crisis in the economic system, the state is seen as a villain for letting the economic crisis occur, and political discontent rises. In Habermas' terms, legitimation is withdrawn when it is needed most.

The class structure of the health care system conforms with the class structure of the general economy. Politically powerful elements in the economy, particularly the middle class and the elderly, generally have good health insurance coverage, while the poor and chronically unemployed have little political influence and must depend on government largess for (often inadequate) coverage. Given this class structure, legitimation of state action is given primarily by the dominant, politically powerful, classes. Thus, the definition of economic and health care problems, and policies for their solution, are based on the conditions and perceptions of the middle and upper classes. General economic and health care problems of the lower classes are addressed only as a byproduct of the latter policies.

According to Habermas, " ...a legitimation crisis can be avoided in the long run only if the latent class structures of advanced-capitalist societies are transformed or if the pressure for legitimation to which the administrative system is subject can be removed." (Habermas, 1975) This prescription suggests that to address the basic problems in the health care system, and for the state to regain legitimation, the connection must be broken between the middle class definition of system crisis and the policy interventions used to resolve those crises. Put in other terms, the goals for the health care system (and perhaps

the economic system in general) should be developed through a public discussion that considers the broader goals and needs of society.

Organization Theory

There are three broad traditions in organization theory: economic, managerial, and sociological. The economic tradition, which focuses on the efficient workings of markets, asks the question, how can organizations increase efficiency? The managerial tradition focuses on organizational design and the question of how to transmit the goals of the organization throughout the organizational infrastructure, with worker compliance as a key issue. Stemming in large part from the writings of Max Weber, the sociological tradition emphasizes the role of power within organizations and of the power of organizations within society.

What is an Organization?

Organizations can be defined in a variety of ways, depending on the context and reason for the definition. Weber provides a somewhat concrete definition of organizations and their social structure, which should be understood in the context of Weber's concepts of power and domination (Weber, 1978). Most organization theorists today would agree with general definitions of organizations proposed by Parsons and Scott (Parsons, 1960; Scott, 1987). Of particular importance is the assumption of goal direction. As Parsons states, organizations exist to "get things done." Organizations are not merely groups of individuals pursuing personal goals, they are social structures designed to achieve collective ends.

The Internal Structure of Organizations

Bureaucracy

To Weber, the development of complex organizations was a function of a rationalization process in society that was a central component of modernity. Weber saw bureaucracy as one of the most important mechanisms used to rationalize social relations and enforce power and domination. "Bureaucracy is *the* means of carrying 'community action' over into rationally ordered 'societal action'" (Weber, 1946/1958).

The structure and functioning of bureaucracy, according to Weber, are based on rules, laws, or administrative regulations. Within a bureaucratically-governed structure, regular activities are defined as official duties, authority is given to officials of the bureaucracy through rules that govern their actions, and only persons with certain qualifications are employed to carry out organizational tasks. Weber defines the latter three elements as constituting "bureaucratic authority" in public and state enterprises; they are bureaucratic management in "private economic domination" (Weber, 1946/1958).

Weber's description of bureaucracy is, however, an "ideal case" that is meant to be used to compare real organizations and bureaucracies. Perrow cites three reasons that an "ideal" bureaucracy may never be achieved. First, it is impossible to eliminate all unwanted extra-organizational influences on the behaviors of members of the organization. Second, rapid changes in tasks upset bureaucratic equilibrium; bureaucracies are designed for stable, routine tasks, which are the basis of organizational efficiency. Third, the capacities of actors in the bureaucracy are limited, as "people are only indifferently intelligent, prescient, all-knowing, and energetic." (Perrow, 1979)

Internal Control of Organizations and Satisficing Behavior

The work of Simon is in the managerialist tradition, which assumes a fixed environment. The central question to Simon is whether organizational leaders can solve

their internal organizational problems given objective environmental constraints. Simon is interested in the use of motivation as a way to internalize roles in an organization, particularly to constrain actors in an organization to not operate too opportunistically. Simon's analysis is, at least partially, in the sociological tradition of functionalism; that is, organizations have to organize to achieve goals and minimize opportunism and operational variation among actors in the organization. Perrow points out that Simon's theory of influence in organizations stresses the, "unobtrusive control of participants: training and channeling of information and attention play a larger role in producing dependable behavior than do commands or sanctions" (Perrow, 1979).

Simon's primary interest is in the control of behavior of individuals in organizations through the process of socialization. According to Simon, control of the environment of decision allows both the integration and socialization of choice. "Social institutions may be viewed as regularizations of the behavior of individuals through subjection of their behavior to stimulus-patterns socially imposed on them." (Simon, 1961)

Simon describes five mechanisms of organizational influence: first, an organization divides work among its members; second, the organization establishes standard practices; third, the organization transmits decisions through its ranks by establishing systems of authority and influence; fourth, information for decision-making flows through channels of communication that flow in all directions; and, fifth, an organization trains and indoctrinates its members (Simon, 1961).

In contrast to the "optimizing" actor assumed by economists, a key concept in Simon's work is "bounded rationality," that is, there is no optimal way to minimize constraints. The chief problem is to build organizations that work in which goals are used as constraints, standard operating procedures are created to monitor and control actions, and rules and files are created to produce organizational memory. Finally, and pragmatically, if organizational problems exist, organizational actors should satisfice by

choosing solutions from simple and known choice sets. Simon says that it is not possible for the behavior of a single, isolated individual to reach a high degree of rationality because of the great number of alternatives and amount of information that would need to be assessed. "Individual choice takes place in an environment of 'givens' – premises that are accepted by the subject as bases for his choice; and behavior is adaptive only within the limits set by these 'givens'." (Simon, 1961)

According to Simon, there are three principal ways that actual behavior falls short of objective rationality. First, rationality requires a complete knowledge and anticipation of the consequences of choices, but knowledge of consequences is always fragmentary. Second, imagination, rather than experience, must supply value to future consequences, but values cannot be anticipated perfectly. Third, while rationality requires a choice among all possible alternative behaviors, in reality relatively few possible alternatives can be anticipated (Simon, 1961).

Simon suggests that the decision-making mechanism in organizations is "a loosely coupled, partially decentralized structure in which different sets of constraints may impinge on decisions at different organizational locations" (Simon, 1964). To be acceptable, actions and decisions made by either individuals or organizations must satisfy a whole set of requirements or constraints, which then become the goal of the action (Simon, 1964). Given a general lack of accurate information about the environment and the future, Simon suggests a satisficing, rather than optimizing, decision-making process. These decision-making processes have the objective of identifying courses of action that are feasible or satisfactory in the light of multiple goals and constraints. Decisions reached in any one part of the organization enter as goals or constraints into the decisions made in other parts of the organization (Simon, 1964).

Power in Organizations

How do organizational actors achieve their goals and objectives? Using a Weberian argument, Pfeffer suggests that power is a major mode of control. Within organizations, power is determined by the importance of what actors do in the organization and their skill in doing it. Pfeffer points out that power can also be derived from the ability of participants to convince others that their specific tasks and abilities are substantial and important (Pfeffer, 1981). Power can be organized around a number of different sources, including "money, prestige, legitimacy, rewards and sanctions, and expertise, or the ability to deal with uncertainty." (Pfeffer, 1981) Pfeffer also suggests that discretionary control by an actor over a relatively small portion (as little as 10 percent) of an organization's total resources can produce control over the organization (Pfeffer, 1981).

Pfeffer uses educational institutions to illustrate sources of power in organizations. In contrast to the general impression that universities are collegial and egalitarian organizations, power in universities has been shown to be associated with obtaining extramural funding. In a study of power and decision-making at the University of Illinois, there was a correlation of .72 ($p<.001$) between the proportion of all restricted funds brought in by a department and the interview-based measure of power, and a correlation of .36 ($p<.05$) between the restricted funds and representation on all the university committees that were studied. In a study of power at two University of California campuses, there was a correlation of .46 ($p<.01$) between the proportion of outside funds obtained and an identical interview-based measure of power, and a correlation of .39 ($p<.05$) between grant and contract funds and departmental representation on important university committees (Pfeffer, 1981, citing Salancik & Pfeffer, 1974, and Moore, 1979).

Conceptions of Control

Fligstein describes how the organization of firms has shifted over time due to changes in "conceptions of control" that define how the largest firms should achieve the goals of

growth and profitability (Fligstein, 1995). This theory is particularly relevant to the health care sector today, as conceptions of control often differ within the components of health care organizations, such as academic health centers, and new forms of health care organizations, with different conceptions of control, compete with older forms of organization.

> Actors who control organizations, be they in the employ of the state or firms, must interpret their organizational fields and then make policy based on their reading of those fields. This policy, by necessity, will be bounded by the internal logic of their organizations, what those actors know, how they perceive the world, and what they define as appropriate organizational behavior. The perspective that managers and entrepreneurs develop can be called a conception of control. (Fligstein, 1995)

Relations with the Environment

Organizations are dependent on the external social world for their existence; this dependence can potentially have a large effect on the organization's structure, internal processes, and, as described above, the goals of the organization as the environment produces constraints. Environments are particularly important in the context of organizational change. Fligstein describes three institutional contexts in which organizational change occurs: "First, organizations are embedded in larger groups of organizations which are called organizational fields that may be defined in terms of product line, industry, or firm size. The other organizations are frequently competitors, although sometimes they are suppliers, distributors, or owners. Second, the state sets the rules that define what organizations can do and the limits of legal behavior. Third, organizations have in place a set of strategies, structures, technologies, and physical limits that shape and constrain their patterns of growth and change." (Fligstein, 1995)

Pfeffer and Salancik address the problem of the match between objective and socially constructed environments and describe how the control of resources is a particularly important factor affecting organizations. An organization's influence over another organization derives from its discretionary control over resources needed by the other organization and the other organization's dependence on the resource and lack of countervailing resources or access to alternative sources (Pfeffer & Salancik, 1982).

Contingency Models

Organizations exist in environments. The degree to which the internal structures and processes of organizations are affected by environments is, however, much debated. Miles describes a *structural contingency model*, in which an organization's structure is contingent upon characteristics of the organization's environment.

In reference to health care organizations, Scott states the basis of the environmental argument. "The field of organizations research has for too long excluded consideration of the larger environmental forces that push and constrain the structures and processes characterizing its individual units. Artificially to restrict attention to the internal workings of such units ... entails—to use the technical terms of the trade—a misspecification of the causal processes at work." (Scott, 1983)

The process of interacting with the environment becomes manifest in the structure of the organization. Scott suggests that organizations tend to map the complexity of environmental elements into their own structures (Scott, 1983). Special roles, committees, and task forces are created to develop applications for funding from, prepare progress reports and develop comprehensive plans for, and maintain liaison with, environmental units.

Miles defines organizational adaptation as the "process whereby the organization modifies its structure and operation, or manipulates the environment itself, in order to

maintain or improve performance." (Miles, 1984) At the center of Miles' theory are process models that focus on the dynamics of management choice and emphasize the subjective environment, or managerial perceptions of the outside world, as the immediate cause of strategic choices. Citing contingency studies of the Harvard Group, Miles suggests that the cognitive and skills limitations of their members cause organizations to cope with environmental complexity by division and specialization of labor, thereby matching the complexity of their external environments with internal structural differentiation. Dynamic environments create uncertainty for organizational decision makers as fixed and routine structures do not cope adequately with environmental conditions that change rapidly and unpredictably.

Organizations that operate in diverse and dynamic environments will be more effective if they possess basically organic (flexible) and complex (highly differentiated and integrated) structures. For organizations operating in simple and stable environments that pose little decision-making uncertainty, structure should be more mechanistic and less differentiated to achieve high performance (Miles, 1984).

Ecological models

Most of the theories of the relationship between organizations and their environment view the interaction as one of adaptation. In the adaptation model, actors within the organization gather information about the environment, including threats and opportunities, and adjust organizational structure and systems in response. In contrast, ecological theory suggests that only the "fittest" organizations survive and prosper (Hannan & Freeman, 1977). In this model, disturbances of organizational structure can threaten the organization's political equilibria and therefore survival. In addition, inertial pressures can generate isomorphism among organizations. Hannan and Freeman suggest that isomorphism can result either because non-optimal forms are selected out of a community of organizations or because decision makers learn optimal responses and

adjust organizational behavior accordingly. They argue that selection processes dominate (Hannan & Freeman, 1977).

Hannan and Freeman also point out that attempting radical organizational change can threaten legitimacy, with the loss of social support being devastating to the organization (Hannan & Freeman, 1984). They use a university's curriculum as an example. "The curriculum is difficult to change, then, because it represents the core of the university's organizational identity and underlies the distribution of resources across the organization." (Hannan & Freeman, 1984)

Ecological models suggest that a prerequisite for reliable and accountable performance is the ability to reproduce a structure, which produces structural inertia. Therefore, if selection of reliable, accountable organizations is favored, then organizations with high levels of inertia have better survival potential (Hannan & Freeman, 1984).

Isomorphism in Organizational Fields

As organizations mature, they tend to become similar to other organizations within an organizational field. DiMaggio and Powell (1983) contend that this process of isomorphism creates similarity without, however, necessarily increasing efficiency since organizations are rewarded for being similar to other organizations in their fields. They describe three types of isomorphism: coercive, mimetic, and normative. Coercive isomorphism results from both formal and informal pressures exerted on organizations by other organizations upon which they are dependent and by cultural expectations. When organizational technologies are poorly understood, when goals are ambiguous, or when the environment creates symbolic uncertainty, organizations may use mimetic processes to model themselves on other organizations. Normative processes stem primarily from professionalism, defined as the collective struggle of members of an occupation to define

the conditions and methods of their work and to establish a cognitive base and legitimation for their occupational autonomy (DiMaggio & Powell, 1983).

Referring to the similarity among organizational forms, Scott (1987) suggests that normative isomorphism is carried primarily by professionals. The authority of professionals rests primarily on their claims to specialized knowledge and skills. He suggests that professionals seek to impose their own normative standards on the organizations in which they operate—encouraging them to embrace their definitions of the problems, their standards, and their solutions (such as the same assortment of disciplines in colleges or the same set of services in most hospitals).

Similarly, DiMaggio and Powell describe two aspects of professionalism that are important sources of organizational isomorphism. The first source is the resting of formal education and legitimation on a cognitive base produced by university specialists; the second is the growth and elaboration of professional networks that span organizations. Universities, professional training institutions (such as academic health centers), and trade associations are important centers for the development of organizational norms. Citing Perrow (1974), DiMaggio and Powell suggest that these mechanisms "create a pool of almost interchangeable individuals who occupy similar positions across a range of organizations and possess a similarity of orientation and disposition that may override variations in tradition and control that might otherwise shape organizational behavior." (DiMaggio & Powell, 1983)

Professionalism in Organizations

According to Stinchcombe, a large share of social activity is governed by bodies of systematic abstract doctrine. Professions dominate in modern society because they have unique competence in specialized bodies of abstract knowledge, which is taught by professional schools. Science, education, bureaucratic administration, the professions

(such as education, medicine, and business administration) have power and govern through the development and use of bodies of systematized intelligence. Stinchcombe suggests that the study of modernization is, in large measure, the study of the social role of systematized intelligence and its application to daily affairs (Stinchcombe, 1974).

Describing the influence and role of professionals in bureaucracies, Weber suggests that it is in the interest of bureaucracy to keep secret the knowledge and intentions of professionals. This is the reason that bureaucracies depend on private and secret meetings to hide and protect both knowledge and rationales for action from criticism (Weber, 1946/1958). It might also be noted that today's professionals (both individuals and groups of individual professionals, and organizations, such as hospitals and medical schools) use these Weberian methods to protect their mystique, influence, and, perhaps most importantly, legitimacy.

Scott suggests that as complexity, uncertainty, and interdependence increase, professionals are more likely to move their work into organizational structures and take advantage of a more explicit division of labor and formalized coordination mechanisms. In this way, complex performers enter into and are supported by complex organizational structures (Scott, 1987). Scott describes two types of professional organizations, "heteronomous" and "autonomous." In heteronomous professional organizations, exemplified by public agencies, such as libraries and social welfare agencies, professional employees are subordinated to an administrative framework and subject to routine supervision. In autonomous professional organizations, responsibility for defining goals and for setting and maintaining performance standards is delegated to professional employees who, "...organize themselves—as "staff" in hospitals, as an "academic council" in universities—to assume these responsibilities." (Scott, 1987)

Describing the power of professionalized occupations, Scott maintains that, to a greater extent than most organizations, health care systems are occupationally, rather than

administratively, structured. The great majority of more than 100 health care professional, technical, or vocational specialties are licensed, certified, registered, or in other ways regulated and authorized, with the division of labor and the procedures to be followed carefully prescribed. Because employing organizations are expected (often by law) to honor these arrangements, "administrators exercise relatively little control over what types of occupational groups are to be hired, how work is to be divided among them, or what work routines they are to follow." (Scott, 1983)

A major tension in the evolving medical care system is the degree to which individual professionals and professionalized organizations maintain their autonomy. Many managed care systems are based on a heteronomous model of organization. As academic health centers compete in the medical care market, and merge with or develop their own managed care systems, this tension will likely become manifest.

Institutionalized Organizations

Institutions are legitimated and defined activities; they are social constructions that are "taken-for-granted" in society. Institutions consist of generally abstract concepts such as norms, cognitive structures, and meanings, although institutions can also be created by concrete rules and laws. In the latter case, the rules and laws are often based on previously socially legitimated activities. Meyer and Rowan (1983) describe how education is an example of an important social institution that has become legitimated and dominant in most countries in the world.

Meyer & Rowan (1977) suggest that many organizations in postindustrial society reflect the myths of their institutional environments instead of the demands of their work activities. They define institutionalization as a condition in which social processes, obligations, or actualities come to take on a rule-like status in social thought and action. "So, for example, the social status of doctor is a highly institutionalized rule (both

normative and cognitive) for managing illness as well as a social role made up of particular behaviors, relations, and expectations." (Meyer & Rowan, 1977)

DiMaggio and Powell describe the importance of legitimacy to organizations: "Organizations compete not just for resources and customers, but for political power and institutional legitimacy, for social as well as economic fitness." (DiMaggio & Powell, 1983)

Zucker argues that the organizational form has itself become institutionalized. The adoption of the organizational form, first by manufacturing and utilities, succeeded in legitimating formal, rational structure. The organizational form became institutionalized as organizations came to be seen in objective, non-personal terms, and as exterior, taken-for-granted elements of the social system. The organizational form then diffused throughout the social and economic system. Once institutionalized, organizations become highly stable. The initial adoption of the organizational form is often because of a perception of the form's increased productivity; later, productivity becomes less important compared to the legitimation the form brings (Zucker, 1983). As discussed below, the result of this process can be organizational inertia due, in part, to the threat to legitimacy that change may bring. This effect is particularly important for academic health centers, where organizational resources depend to a large extent on institutional legitimacy.

Meyer and Scott (1983) theorize that two different types of environments, technical and institutional, have a differential effect on organizations. Technical environments foster the development of rationalized structures that coordinate technical work, such as manufacturing and service organizations. Institutional environments are characterized by rules and requirements to which organizations must conform to receive legitimacy and support (Scott, 1987). Of note is that institutional environments, according to Scott, do not depend primarily on evaluations of outputs in a competitive market. Hospitals have

both strong institutional environments (that is, they have elaborate rules and regulations, many of which are externally imposed) and strong technical environments (that is, they must coordinate and produce technical work efficiently) (Scott, 1987). Schools, in contrast, have a strong institutional environment, but a weak technical environment (process, not output, is measured).

In a seminal work, Meyer and Rowan (1977) describe the importance of institutions to organizations and organizations themselves as institutions. They suggest that organizations that incorporate the practices and procedures defined by prevailing rationalized concepts of organizational work and institutionalized in society increase their legitimacy and their survival prospects, independent of the immediate efficacy of the acquired practices and procedures (Meyer & Rowan, 1977).

Prevailing theories, according to Meyer and Rowan (1977), focus on the management of complex relational networks and the exercise of coordination and control. These theories neglect an alternative Weberian source of formal structure: the legitimacy of rationalized formal structures.

> Many of the positions, policies, programs, and procedures of modern organizations are enforced by public opinion, by the views of important constituents, by knowledge legitimated through the educational system, by social prestige, by the laws, and by the definitions of negligence and prudence used by the courts. Such elements of formal structure are manifestations of powerful institutional rules, which function as highly rationalized myths that are binding on particular organizations. (Meyer & Rowan, 1977)

Formal activities in organizations are also institutionalized in society. Ideologies define the function appropriate to an organization, and classifications of functions (such as hospital departments of surgery and internal medicine) and the specifications for

conducting each function, are prefabricated formulae available for use by any given organization (Meyer & Rowan, 1977).

Independent of productive efficiency, organizations that exist in highly institutional environments, and succeed in becoming isomorphic with these environments, gain the legitimacy and resources needed to survive (Meyer & Rowan, 1977). Meyer and Rowan also suggest that, "Because attempts to control and coordinate activities in institutionalized organizations lead to conflicts and loss of legitimacy, elements of structure are decoupled from activities and from each other." (Meyer & Rowan, 1977) This decoupling process is illustrated by the delegation of activities to professionals, and goals are kept ambiguous or vacuous and categorical ends are substituted for technical ends. (Hospitals treat, not cure, patients. Schools produce students, not learning.) Decoupling allows organizations to maintain standardized, legitimating formal structures while their activities vary in response to practical considerations (Meyer & Rowan, 1977).

The more an organization's structure is based upon institutional myths, the more it maintains elaborate displays of confidence, satisfaction, and good faith, internally and externally. Therefore, institutionalized organizations minimize and ceremonialize inspection and evaluation because evaluation can produce illegitimacy. External agencies also avoid inspecting and controlling institutionalized organizations, accepting credentials, ambiguous goals, and categorical evaluations. In elaborate institutional environments these external constituents are themselves likely to be corporately organized agents of society (Meyer & Rowan, 1977).

Educational Organizations

Educational organizations depend heavily on legitimation as a resource. Meyer and Rowan describe the structure of an organization that results from a social myth that

becomes institutionalized and legitimated. "*The formal structure of an organization is in good part a social myth and functions as a myth, whatever its actual implementation.* In small part, it is the mythical account that the organization attempts to institutionalize in society. ...Incorporating the environmental myth of the organization's activities legitimates the organization both externally and internally..." (Meyer & Rowan, 1983).

Educational institutions depend on a "logic of confidence" that maintains their legitimacy by, in part, avoiding direct evaluation of the products of the educational process. Higher levels of the system organize on the assumption that what is going on at lower levels makes sense and conforms to rules, but avoid inspecting it to discover or assume responsibility for inconsistencies and ineffectiveness (Meyer & Rowan, 1983). Meyer and Rowan describe the *schooling rule*: "Education is a certified teacher teaching a standardized curricular topic to a registered student in an accredited school" (Meyer & Rowan, 1983).

Meyer and Rowan describe the decoupling process in educational organizations.

> Instruction tends to be removed from the control of the organizational structure, in both its bureaucratic and its collegial aspects. This property of educational organization, among others, has led March and Olsen (1976) and Weick (1976) to apply the term "loosely coupled" to educational organizations. By this they mean that *structure is disconnected from technical (work) activity, and activity is disconnected from its effects.* (Italics in original) (Meyer & Rowan, 1983)

Health Care Organizations

Scott describes the influence of environmental factors on health care organizations. Many of the most important factors affecting the operation of health care organizations are external to organizations. Many aspects of organization structure and functioning, including the division of labor, the modes of coordination and control, the locus of

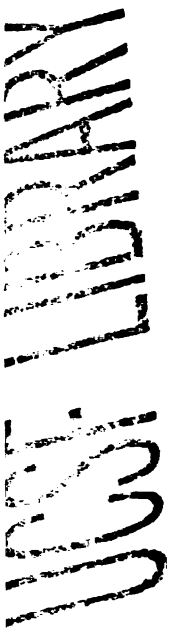
discretion, are determined by professionals. Technological innovations create new occupations, shape patterns of practice and interdependence, and help to drive demand. And health care rationalizers, such as federal officials (see discussion of Alford, 1972, above), "employ changing combinations of incentives and regulations in an attempt to improve the equity, efficiency, and effectiveness of health care services. Although all of these forces penetrate and permeate the health care system, each is also independently organized and external to any specific health care organization." (Scott, 1983)

In a discussion of the rise of public programs in health care, Scott describes the de-coupling of government authority over the content of health care systems. The government can only specify what types of care will be paid for, not the types of care that will be delivered. This has produced an increase in the administration and accounting staffs in health care organizations (Scott, 1983). Unlike that exercised over military matters or welfare concerns, government authority in the health care arena is similar to that exercised over educational institutions. In both education and medical matters, government intervention has been justified primarily in terms of equity considerations. (Scott, 1983)

Chapter III
Research Questions and Methods

Research Questions

It is hypothesized that strategic planning in academic health centers is influenced largely by a social framing of issues and that the strategies identified and ultimately chosen are both a product of, and limited by, this social construct. Additional questions include: What are the influences and roles of professional dominance, social hierarchy, and the definition of "crisis" in strategic planning in an academic health center? and, How does the leadership of academic health centers identify, evaluate, and choose institutional strategies in an uncertain and rapidly changing environment?



The changing health care environment is affecting academic health centers in a variety of ways. Organization theory suggests that institutions identify and choose strategic options based on both internal structural factors and perceptions of environmental conditions and organizational models. The organization and structure of academic health centers are highly complex, with each major organizational unit (e.g., the hospital and the school of medicine) having different (but often overlapping) goals, decision-making processes, revenue sources, and products. This study addressed the question of how organizational characteristics and perceptions by decision-makers of resource dependency and environmental threats affect the social framing of a crisis and the subsequent identification and choice of organizational strategies.

The strategic decision-making process at UCSF was studied as a case. Key analytic issues included the function of, and changes in, UCSF's strategic decision-making process; the methods used to identify and choose among alternate institutional strategies; the impact of actual and projected changes on the availability of resources and on the demand for services; the perceptions of key decision-makers about the ways that

increased competition in the health care environment may affect the teaching, patient care, and research missions at UCSF; and the responses of these decision-makers to changes in policy and to other elements in the institutional environment.

Methods

Case Study Methodology

This study is multifaceted in both hypotheses and methodology. The basic methods include what Stake has called an instrumental case study, where "a particular case is examined to provide insight into an issue or refinement of theory." (Stake, 1994) Thus, the particular case is chosen to test several theoretical constructs that have applicability beyond the individual case. Although some aspects of the case chosen are unique to the organization, place, and time studied, many similar organizations are confronted with the same internal characteristics and environmental constraints.

Data for the case study were collected from historical and current reports and documents and from interviews with key participants in the strategic decision-making process at UCSF.

Documents

All documents reviewed for the case study and cited in the text are on the public record. Sources of these documents included the UCSF Medical Center, the UCSF School of Medicine, the University of California Office of the President, the office of the Regents of the University of California, and the Office of the Legislative Analyst of the California state legislature. Although in my role as a participant in the UCSF strategic planning process I may have had access to and/or reviewed confidential information, no confidential documents were used in the study reported here.

Interviews

Twenty-six possible key informants were approached to be interviewed for this study. Each was first sent a letter informing him or her of the nature of the study, stating that no confidential information would be sought or used, and asking for their agreement to be interviewed. This letter was followed-up by a telephone call to schedule the interviews. Twenty-two persons agreed to be interviewed, 2 declined to be interviewed, and 2 were not available due to travel or other circumstances. Interviews were conducted during the fall 1996 and winter 1997.

The goals of the interviews were to elicit factual information and to gain an understanding of the informants' views of the strategic decision-making process at UCSF. Informants were selected through a purposive sample of key persons in the decision-making structure at UCSF. Informant selection was based on the location of the informant in the organizational structures of the hospital and medical school and on that individual's role in the strategic planning process. Within UCSF, the interviewees included the hospital director, the dean of the School of Medicine, chairs of a number of departments within the School of Medicine, faculty who had particular knowledge of UCSF and of the health care system, and other administrators within both the hospital and medical school.

In addition, a number of persons outside of UCSF, who had either knowledge about aspects of UCSF's strategic planning and/or were indirectly involved in the planning process, were also interviewed. These included administrators in the University of California Office of the President, members of two consulting firms that had provided advice to UCSF during the strategic planning process, and a physician-administrator in the California Pacific Medical Group.

A semi-structured interview instrument was designed (Fontana & Frey, 1994) (Appendix). The interviews focused on three primary areas: 1) What events and/or

circumstances were the impetus for the start of the strategic decision-making process that culminated in the mergers with Stanford Health Systems and with the California Pacific Medical Group? 2) How were potential strategies identified and evaluated? and, 3) On what basis were strategies ultimately chosen? The interview instrument provided a general focus on these issues, with much room for more in-depth questioning on specific areas.

Interviewees were assured of the confidentiality of the information that they provided. To respect this confidentiality, when information is reported from the interviews, I refer to the source of the information only in general terms. My basic operational rule was that information that was provided by two or more sources is cited as being derived from the interviews in general, and that a sole source is noted when only one person reported a particular piece of information.

Quantitative Study of Bay Area Admissions

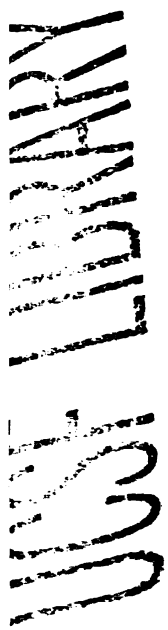
A key issue in this study is the cultural framing of strategic issues, including the choice of the type and amount of information about the environment to use in the strategic planning process. To compare objective data with the perceptions by decision makers of the health care marketplace, I conducted an empirical examination of changes in hospital admission patterns in the San Francisco Bay Area.

Source of Data

The primary source of data was discharge abstracts submitted by all hospitals in California to the California Office of Statewide Health Planning and Development (OSHPD). Every hospital in California is required to submit uniform discharge abstracts to OSHPD (State of California Office of Statewide Health Planning and Development, 1996). Data were obtained from OSHPD for the five years, 1990 – 94. (1994 is the most recent year for which data were available.) These years were chosen because a major

shift toward managed care had apparently occurred during this period. It was hypothesized that by comparing admission patterns early in this period with patterns later in the period, the impact of the growth of managed care would be detected. (The OSHPD data that were analyzed were based on year of discharge. Because the number of admissions to a hospital equals the number of discharges from a hospital, although not necessarily exactly within a given year, the terms "admissions" and "discharges" are used interchangeably in this discussion.)

The Office of Statewide Health Planning and Development has three versions of the discharge abstract data (A, B, and C), which differ primarily in the amount of information available, such as exact patient age and admission date, that may help identify an individual patient, with Version A being the most detailed and most restricted in use by OSHPD (requiring special permission). Version C was used because only a limited number of patient characteristics (such as zip code of residence and age category) were needed.



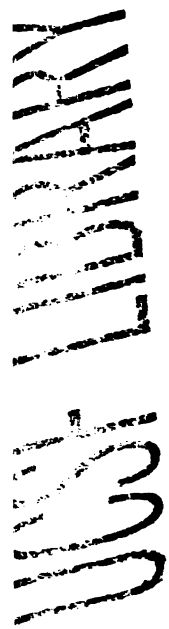
The data were received on multiple tapes including approximately 4 million discharges in each year. The initial data processing was performed on the UCSF library mini-computer running Unix and the Statistical Analysis System (SAS) (SAS Institute, Inc., 1989). All acute care admissions in California hospitals during the period 1990–1994 were studied. On the minicomputer, the data were aggregated into a table with approximately 10,000 cells as defined by hospital, patient origin (within or outside the nine Bay Area counties), diagnosis, and transfer status into and out of the index hospitalization. Data tables for each year were then transferred to a microcomputer on which Microsoft Excel was used to perform final analyses.

The nine Bay Area Counties were defined as: Marin, Sonoma, Napa, Solano, Alameda, Contra Costa, Santa Clara, San Mateo, and San Francisco. This definition was used because these nine counties represent essentially a separate market area, with

relatively few persons living in exterior contiguous counties. Patient home zip codes, listed on the discharges abstract, were used to define the origin of a patient.

Diagnoses

In order to assess changes in admission patterns, several control and study diagnoses were selected. It was hypothesized that there would be a differential effect of managed care on different diagnoses, primarily because of the emergent or non-emergent nature of a diagnosis. For example, if a patient presents at an emergency department with an emergent condition, that patient is likely to be admitted to the hospital associated with that emergency department. In contrast, if a patient presents at an emergency department with a non-emergent condition, managed care organizations often require that non-emergent patients be transferred for admission to a hospital associated with the managed care organization rather than the hospital associated with the emergency department. Thus it was hypothesized that, if managed care had an effect on admission patterns, this effect would be more likely seen in non-emergent admissions compared to emergent admissions. A secondary hypothesis was that managed care would have an effect on tertiary and quaternary care procedures through the diversion of these costly procedures to managed care facilities or to other specific facilities with which a managed care organization contracted for the care of these patients.



For each diagnosis and procedure, specific inclusion and exclusion criteria were defined based on the International Classification of Diseases (ICD) codes listed and other criteria, such as source of admission (United States Public Health Service, Health Care Financing Administration, 1980). These criteria were then applied to the OSHPD data to select patients that met the criteria. The specific diagnoses and procedures, and their criteria for selection, are shown in Table 3. It was hypothesized that the first four diagnoses (acute myocardial infarction, gastrointestinal hemorrhage, cardiac arrest, and acute appendicitis) were unlikely to have a change in admission patterns over the period

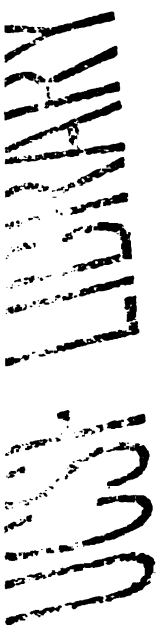
studied due to their relatively emergent nature. To limit these diagnoses to emergent conditions, in addition to requiring the specific ICD codes, the source of admission must have been the emergency department, which would exclude transfers from another hospital.

The final two diagnoses (pneumonia and asthma) are generally urgent but not emergent conditions that can often be transferred to a managed care hospital after stabilization in an emergency department. For pneumonia, specific ICD codes were used to identify and eliminate conditions (such as acute MI, respiratory failure, or shock) that may be emergent in nature. For asthma, exclusion criteria eliminated patients with pneumonia (to differentiate from the previous study diagnosis) and patients with chronic obstructive pulmonary disease. (During the period studied, Children's Hospital Medical Center in Oakland had a large increase in the number of admissions for asthma, the only Bay Area hospital in which this was the case. The inclusion in the analysis of admissions of children with asthma to Children's Hospital Medical Center tended to skew the results of measures of market concentration and obscure the overall relationships for asthma admissions. The results reported below for numbers of asthma admissions include Children's Hospital Medical Center, but the analyses of market concentration exclude these admissions.)

Four procedures were selected for study: coronary artery bypass graft surgery (CABG), kidney transplantation, cholecystectomy, and surgical repair of hip fracture. CABG and kidney transplantation were selected for study because they are tertiary and quaternary care procedures, respectively, for which selective contracting by managed care organizations might be detected. Cholecystectomy was selected because it is commonly an elective procedure that might be shifted by managed care organizations to their own hospitals. Operative repair of hip fracture in elderly patients presents often as

an emergency, but patients are usually stable enough to be transferred from the emergency department to another hospital if required by a managed care organization.

For CABG, the intent was to select patients who had elective surgery (and may have been directed to specific hospitals by their physician and/or managed care organization). Therefore, patients were excluded who had an acute MI and/or were admitted through the emergency department. Also excluded were patients who had angioplasty during the hospitalization, which may indicate the need for an emergency CABG. Because admissions for hip fracture for younger persons are usually due to trauma (and admitted to the relatively few hospitals with trauma units), while hip fractures for older persons are usually due to falls (and can be admitted to most acute care hospitals), hip fracture was analyzed according to two age groups (with a specific cutoff point of 55 years being defined by the OSHPD data age groups). Patients were excluded from both hip fracture groups who had indications of reasons for the fracture that were emergent or that might have confused the interpretation of the findings. Excluded were patients with major trauma from a motor vehicle accident (who would always go to a trauma center), those with an acute MI or syncope (who would not be transferable), or with a pathological fracture due to cancer, which might require special care.



Data Processing and Reduction

Data tapes were obtained from OSHPD for each study year, with each tape containing approximately three million discharges. For each year, the following steps were taken in data reduction:

First, OSHPD defines a hospitalization as acute or non-acute, with the latter cases comprising less than one percent of the admissions to acute care hospitals in California in a given year. Only cases defined as acute care were kept in the dataset.

Second, using the zip code of patient residence, each discharge record was assigned a marker for being either a Bay Area resident (that is, zip code of residence in one of the nine Bay Area counties) or a non-Bay Area resident (that is, living outside of the nine Bay Area counties).

Third, markers were placed on each record that matched one of the six diagnostic or five procedure categories, with an additional marker put on records that matched none of these categories. In order to determine the diagnostic category of a discharge, the principal and secondary procedures and principal and secondary diagnoses fields on the discharge abstract were searched for the definitions described above.

Finally, each discharge was associated with its individual Bay Area hospital or placed into a single group for discharges from non-Bay Area hospitals.

Herfindahl-Hirschman Index

The Herfindahl-Hirschman Index (Herfindahl Index) is a measure of the concentration of sales, services, or customers in a specific geographic market area, such as the nine Bay Area counties (Baker, 1988; Elzinga & Hogarty, 1973, 1978; United States Department of Justice, 1982a, 1982b, 1984). In June of 1982, the US Department of Justice officially adopted the Herfindahl Index as a guideline in the pursuit of antitrust action (United States Department of Justice, 1982a). The Department of Justice defines three levels of market/industry "concentration" as measured by the Herfindahl Index: below 1000 ("unconcentrated"), 1000-1800 ("moderately concentrated"), and over 1800 ("highly concentrated") (United States Department of Justice, 1982a).

The Herfindahl Index is computed as,

$$\sum_{i-k}\left((x_i \div N)\times 100\right)^2$$

where i is a specific hospital, x is the number of discharges in that hospital, and N is the

total number of discharges in a market area. Thus, the Herfindahl index is the sum of the squared proportion (times 100) of the total number of discharges in the Bay Area accounted for by each individual hospital. (The multiplier of 100 is used to produce a number between 0 and 10,000.)

It was hypothesized that, should there be a changing distribution of admissions over the period studied, particularly a concentration of admissions in hospitals with a large number of managed care contracts, that this could be detected in an increasing Herfindahl Index for hospitals in the nine Bay Area counties. The Herfindahl Index was used in this study to measure the *relative* change in concentration of admissions, not necessarily the absolute degree of market concentration (as it might be used in an anti-trust inquiry).

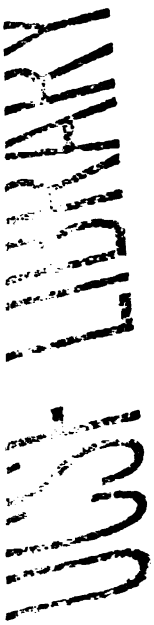
Participant Observation

I can make no claim to being an "objective" observer during this study (if that goal were even possible or desirable [Guba & Lincoln, 1994]). I was involved in, and contributed to, many of the strategic discussions that I am now studying. My "insider" status had both benefits and costs. The primary benefits were that I was able to interact with most of the interviewees as a peer and I could interpret the information that they provided through my own experience and knowledge. The potential cost is that my ability to provide an unbiased interpretation of the information gathered may be hindered.

Because of my participation on many of the committees that were involved in the strategic planning process, and my familiarity, and often friendship, with many of the key informants, I was careful not to "lead" the interviewee, particularly when discussing judgments about the importance of persons, ideas, and processes. In general, my knowledge and "insider" status were an asset in these interviews, although I also realize that my prior knowledge may have affected my judgment about and interpretation of events. I have attempted to identify in the text where my prior knowledge of, and/or

participation in, the particular circumstances may have potentially affected my reporting or interpretation of the results of this investigation.

To avoid an idiosyncratic interpretation of events, I triangulated the information gathered. According to Stake, "Triangulation has generally been considered a process of using multiple perceptions to clarify meaning, verifying the repeatability of an observation or perception." (Stake, 1994) Triangulation is a method that brings together various types of information about the same event(s) in order to avoid relying on just one source of information and to increase the chance that another observer would see and conclude essentially the same as the researcher. The use of multiple sources of data (including interviews, written reports, and empirically derived information) helps to triangulate this study, as do the multiple observations of the same events as reported by the interviewees.



Finally, I make few judgments about the correctness of the ultimate strategies chosen. This study was about the strategic planning and decision-making process within an organizational context. Whether the strategies chosen will be successful is an empirical question in itself, but not one studied here.

Human Subjects Approval

The study methods were approved on August 7, 1996 by the UCSF Institutional Review Board, Committee on Human Research (approval number H1108-13116-01).

Chapter IV
Admissions to Bay Area Hospitals, 1990 — 1994
(or, Where have all the patients gone?)

Rationale and Hypotheses

For institutionalized organizations, such as academic health centers, the social environment must be reflected in their organizational structures and processes (Meyer & Rowan, 1977). Particularly for organizations that derive most of their resources as a result of a social judgment of the organization's legitimacy and benefit to society, the strategic decision-making process needs to take into account changes in the environment. The measurement and weighing of external conditions is, however, an imprecise process, especially in a rapidly changing environment.

The effects of the changing health care environment on an organization can be ascertained from internal, locally-available data. To understand the causes of the internal effects, such as changes in admission patterns, the strategic decision-maker must use information about the external environment (Miles, 1984). Information about the external environment might consist of the use of internal data to study the origin of patients admitted to a hospital, anecdotal information received by hospital clinicians from referring physicians and hospitals, or empirical information derived from analysis of marketplace data.

Information about the environment can be critically important in an organization's strategic decision-making process. The internal reality at most academic health centers in recent years has been a general reduction in hospital admissions, with relatively severe reductions in certain services. The success of strategies and tactics to increase admissions may depend, in large part, on why the admissions were decreasing in the first place. For example, two different, but not necessarily mutually exclusive, hypotheses may explain

why admissions at academic health centers are decreasing. First, the advent of managed care may be diverting patients away from non-managed care facilities toward managed care facilities.[3] For non-emergent admissions, a managed care entity may require that the patient be admitted to its own managed care facility, which would result in a shift of patients from some hospitals to other hospitals in an area, possibly to the great disadvantage of hospitals and academic health centers that are not part of a major managed care organization. A second hypothesis is that admissions have decreased for most, if not all, hospitals in the academic health center's market area, and that the academic health center is simply experiencing a decrease similar to other hospitals.

The implications of the two hypotheses, however, are quite different. If the first hypothesis is correct (that patients are being diverted to managed care facilities), an appropriate strategy might be to strive to retain managed care patients by one of several tactics, including contracting with managed care entities for referrals, developing one's own managed care patient base, and becoming the primary, if not sole, provider of particular tertiary and quaternary care services in a market area. If, on the other hand, the second hypothesis is primarily correct (that there is a general decrease in hospital admissions for most providers, including managed care), an appropriate strategy might be to decrease the size of the organization. The various possible strategies have significantly different effects, however, with down-sizing perhaps being the most politically and socially difficult.

This empirical study was designed with the intent of testing which of the above two hypotheses about the reasons for declining admissions was correct. Knowing the actual patterns of admissions to hospitals in the nine Bay Area counties over the five-year

[3] A managed care facility is one that is owned by a managed care organization or with which a managed care organization contracts for the care of a managed care organization's enrollees.

period would help to assess the accuracy of the perception of the external environment in the strategic decision-making process at UCSF.

Overall Admission Patterns

In 1990, there were 3,565,521 acute care discharges in California hospitals, with 720,304 (20%) from hospitals within the nine Bay Area counties (Table 4). In 1990, UCSF, including Mt. Zion Hospital, had 29,009 discharges. The number of discharges in all of California, in the Bay Area, and at UCSF decreased over the period studied (Tables 4 and 5). For example, the number of discharges from Bay Area hospitals decreased to 678,904 in 1994 (a reduction of 6%), with UCSF/Mt. Zion declining 10% to 25,997 discharges (Tables 4 and 5). The decline in admissions to UCSF alone was 14% (Table 5). There were similar patterns for other major hospitals such as Stanford University, California Pacific Medical Center (CPMC), the 13 Kaiser hospitals (a major managed care organization in the Bay Area), and a group consisting of all other Bay Area hospitals.

These changes in admission patterns for Bay Area hospitals, non-Bay Area hospitals, UCSF/Mt. Zion, and other selected hospitals are shown in Figure 7. As can be seen, there was a general decrease in admissions at all major San Francisco hospitals over the time period covered, including San Francisco Kaiser hospital and at the 12 other Kaiser hospitals (not shown). Although some hospitals, located primarily in relatively outlying areas such as in the southern portion of Santa Clara County and in Sonoma and Napa Counties, had relatively modest increases in discharge during the period studied, the vast majority of hospitals had either little change or decreases in admissions.

Shown in Figures 8 and 9 are the number and source of patients for selected hospitals. Although Stanford Hospital had a slight increase in admissions in 1994, the general trend was for admissions to decrease at UCSF, Stanford, and CPMC (Figure 8). As shown in

Table 6 and Figure 9, UCSF had by far the highest proportion of patients with origins outside of the Bay Area counties. Approximately 26% of UCSF patients during the five study years came from outside of the Bay Area. In comparison, approximately 14% of patients at Stanford University, 7% of patients at CPMC, and 4% of patients at Kaiser hospitals came from outside of the nine Bay Area counties. As shown in Figure 9, the changes in numbers of patients hospitalized in the Bay Area differed little between patients who resided in the Bay Area compared to patients referred from outside of the Bay Area. In other words, the decline in admissions to UCSF and to other Bay Area hospitals was due to a general decrease in admissions, whether patients lived in the Bay Area or were referred from outside of the Bay Area.

The decline in admissions to Kaiser San Francisco (11%) and the 12 other Kaiser hospitals in the Bay Area (6%), were similar to the decrease in admissions experienced by UCSF/Mt. Zion (10%) (Tables 4 and 5). At UCSF, the proportion of Bay Area patients compared to non-Bay Area patients stayed relatively steady during the period studied, despite an overall reduction in admissions of approximately 14%.

As was the case for the overall number of patients admitted in California and in Bay Area hospitals, the number of patients with the study diagnoses and procedures admitted to Bay Area hospitals generally either changed little or decreased over the period studied. For example, there were 7,726 admissions in 1990 to Bay Area hospitals for acute myocardial infarction compared to 8,219 in 1994 (Table 7). The number of admissions for gastrointestinal hemorrhage stayed approximately the same, with 5,147 discharges in 1990 compared to 4,914 in 1994, as did admissions for cardiac arrest and acute appendicitis. Admissions for pneumonia increased, from 14,903 in 1990 to 15,978 in 1994, and decreased for asthma, from 6,335 to 5,157 (including Children's Hospital, Oakland).

There was little change in number of admissions over the period studied for the surgical procedures, except for cholecystectomy. Parallel to the experience in the rest of the country, there was a major shift in 1992 in the way that cholecystectomies were performed from an open laparotomy performed in the hospital to a laparoscopic procedure performed in an ambulatory surgery center. This change is reflected in the data shown in Table 7, with a 73% decrease in admissions to Bay Area hospitals for open cholecystectomy between 1991 and 1992.

The changes between 1990 and 1994 in number of discharges from non-Bay Area hospitals for the specific diagnoses and procedures were very similar to patterns experienced in Bay Area hospitals.

Analyses of Market Concentration

It was hypothesized that, if managed care organizations were diverting patients with elective and other non-emergent conditions to certain hospitals and away from hospitals that were not part of a managed care organization, this effect would be seen as an increase in the concentration among hospitals of admissions of elective and non-emergent cases. As a measure of market concentration, the Herfindahl Index was used to quantify this hypothesized redirection of admissions.

For all diagnoses, and each specific study diagnosis, Herfindahl Indexes were computed for each study year. Herfindahl Indexes were also computed for patients from both inside and outside the Bay Area, and for patients from Bay Area counties only. Indexes were computed for all Bay Area hospitals individually, and also for individual hospitals plus logical combinations of hospitals. Hospitals were also grouped for the purposes of studying changes in Herfindahl Indexes according to their status, or hypothetical status, in 1996-97. For example, because of the expected merger of UCSF and Stanford, Herfindahl Indexes were computed based on an assumption of that merger,

considering the combined hospitals of that merger as one individual hospital for the purposes of this analysis. In one set of analyses UCSF and Mt. Zion were combined into one hospital group; in another, UCSF, Mt. Zion and Stanford Health Systems were combined; in a third analysis, an additional grouping of CPMC (including Children's Hospital, San Francisco) was added to the Herfindahl computations; and finally, the 13 Kaiser hospitals as a group were added.

For all California patients and all diagnoses (including the diagnoses and procedures studied individually), the Herfindahl Index for 1990 was 189 and 187, 190, 189, and 189 for years 1991-1994, respectively (Table 8). The percent change in Herfindahl Indexes for all patients in Bay Area hospitals is shown in Figure 10. As can be seen, the percent change in Herfindahl Indexes appears to have been relatively random over the period studied.

It was hypothesized that if managed care had been diverting patients to its own hospitals, this effect would be observed in patients with elective or non-emergent admissions, such as for patients with asthma or pneumonia, compared to those admitted for emergent conditions, such as acute myocardial infarction, gastrointestinal hemorrhage, or acute appendicitis. Contrary to the hypothesis of an increased concentration of non-emergent admissions, asthma tended to have a slightly lower Herfindahl Index over the period studied, with pneumonia having a slightly higher Index, but neither changed substantially. Only one study diagnosis, kidney transplantation, had a Herfindahl Index indicating an increased concentration of admissions among hospitals, which was not unexpected given its quaternary care nature. Even within kidney transplantation and the other procedures studied, however, there was little difference across the years studied.

Herfindahl Indexes for all diagnoses and each of the eleven diagnoses and procedures studied increased only slightly as hospital groups were added to the Herfindahl

computations (Table 9). For example, in 1990, the Herfindahl Index of 189 for all diagnoses in individual Bay Area hospitals increased to only 238 when UCSF and Stanford were combined and Pacific Presbyterian Medical Center and Children's Hospital, San Francisco were combined. Even with the addition of the combination of 13 Kaiser hospitals, the Herfindahl Index rose to only 644, which is substantially below what might be considered a concentrated economic market.

Similar minor changes in Herfindahl Indexes were seen for the individual diagnoses. The largest increase was seen for asthma patients, where, in 1990, the Herfindahl increased from 183 for individual hospitals to 941 including all of the combinations of hospitals. Herfindahl Indexes for the individual diagnoses and procedures also changed little over time (Table 8, Figure 10). For example, for all patients in 1990, the Herfindahl Index for acute myocardial infarction was 179, and for asthma it was 183, while in 1994 the Indexes were 186 and 169, respectively.

For certain diagnoses and procedures, such as CABG and kidney transplantation, which are performed at a relatively limited number of hospitals, the initial Herfindahl Indexes are somewhat higher. For CABG surgery, for example, the Herfindahl for all individual hospitals in 1990 was 731, and for kidney transplantation it was 3,724, with these Indexes in 1994 being 702 and 3,453, respectively. Because these services are performed in a relatively limited number of hospitals, the additional Herfindahl analyses that included combinations of hospitals had little effect on the Herfindahl Indexes for CABG and kidney transplantation. For example, the Herfindahl Index in 1990 for CABG surgery was 731, which rose to only 763 when all of the individual combinations, including the 13 Kaiser hospitals, were added.

The results of the Herfindahl analyses for Bay Area patients only (that is, patients who lived outside of the Bay Area were excluded) were similar to those when we included patients from all over California. The Herfindahl Indexes for this analysis were

almost exactly the same as those analyses that included patients from outside of the Bay Area.

Implications of Changing Patterns of Admissions

The results of these analyses suggest that there was an overall reduction in the number of patients admitted to hospitals throughout California and at most Bay Area hospitals. There is little evidence in the data of a shift of patients from one hospital to another due to the effect of managed care. The Herfindahl Indexes changed little across the time studied for admissions for all diagnoses, for diagnoses for which it was hypothesized that managed care would have little effect (acute MI, GI hemorrhage, and appendectomy), or for diagnoses for which it was hypothesized that managed care might have a substantial effect (pneumonia, asthma, cholecystectomy, and hip fracture for older patients). The rejection of the hypothesis that managed care had a substantial effect on admissions patterns is also shown by the similar decreases in admissions at hospitals that are relatively independent of managed care (e.g., UCSF and Stanford) and hospitals that have a substantial penetration of managed care (e.g., CPMC and Alta Bates), and hospitals that are entirely managed care (e.g., Kaiser hospitals) (Table 9, Figure 7).

These data suggest that the decrease in admissions at UCSF (described in detail below) was due to a general decrease in admissions of all types of patients, with perhaps a greater decrease in admissions for certain specific referral services at UCSF, such as neurosurgery. Thus, although certain services at UCSF may have had a greater decrease in admissions than might have been expected by simply an overall decrease in admission patterns across the state, in general it appears that the decrease in admissions at UCSF was parallel to and consonant with an overall decline in admissions at other facilities. This also suggests that the impression among the leadership at UCSF that managed care was diverting patients to other hospitals may have been due in large part to the dramatic declines in admissions to specific services, such as neurosurgery, with the assumption

that this presumed effect was also the cause of the decline in admissions for other (less tertiary) services.

What was the cause of the general decline in admissions that was observed in this analysis? Although the specific reasons for this decline remain somewhat unclear, and this study was designed to address only whether, not why, a decline occurred, it is possible to speculate about the reasons. As is discussed in greater detail below, the early 1990s followed a period of rapid changes in the way hospitals were paid, with increased incentives for treating patients outside of hospitals. Over the previous decade, the number of hospital admissions had ceased to rise and the average length of stay had shortened considerably. The large decline in admissions began, both generally and at UCSF, in approximately 1993. With the indication by the new Clinton administration in 1993 that health care reform would be high on its domestic agenda, with limitations on payments a key policy direction for this reform, there appears to have been a reaction in the marketplace that accelerated the trend toward reducing costs through the limitation of admissions to only those patients who were acutely and severely ill. Other factors that contributed to a reduction in hospital admissions may have included improved treatments, especially in surgery and anesthesia, that allowed many types of surgery to be performed on a same-day basis, and a likely healthier population, due to both healthier lifestyles and better preventive measures (e.g., control of cholesterol levels and blood pressure). Whatever the causes, there was a sea change in the hospital marketplace in the early 1990s that continues to affect all types of health care organizations and providers.

Chapter V
The Definition of, and Response to, Crisis

The Social Framing of a Crisis

> ...crisis defined as a "turning point" exists when new power centers confront existing structures of domination, when individual identity is split between contradictory premises, when it is generally unknown what can be taken for granted or expected from existing or emerging roles, institutions, and social practices. (O'Connor, 1987, p. 145)

Social theory suggests that administrative control and decision-making, and the definitions of crises faced by organizations, are in large part social constructions. The term "social construction" is not a pejorative, rather it is a normal and necessary practice in the social process of evaluating and defining reality. Social constructions of reality, however, are influenced by and based on a variety of social forces, including economics, politics, and norms and ideologies (Table 1). It is the interplay among and impact of these influences on strategic planning that is the focus of this study.

This chapter discusses the background to, and social construction of, a major economic crisis that occurred at UCSF in the mid-1990s. The ways that the UCSF administrative structure and decision-makers dealt with this crisis are also described and analyzed. To guide an understanding of the description that follows, several key social influences that affected this process are discussed first: the professional dominance of physicians; the way that physicians are trained to make decisions; the social hierarchy at UCSF and conflicts among dominant groups; the definition and use of a "crisis" to affect and change the social dominance within an organizational hierarchy; and a "conception of control" changing from one of management of expanding resources to one based on competition for resources within a market ideology.

Physicians as Decision-Makers

The occupational structuring of health care organizations leads to professional dominance of many of the key decision-making processes (Scott, 1983). Among health professionals, physicians are clearly dominant, both over other health professions and generally in their relationships with hospital administrators. Key aspects of the results of this study are the roles played by physicians in the social construction of crisis, in the way that information was used, and in how decisions were made.

Physicians learn clinical decision-making primarily in the practice of medicine caring for patients in hospitals, not in the classroom. Physicians must deal with uncertainty in the diagnosis and care of every patient. The interpretation of diagnostic tests and the choice of treatments depends on many implicit calculations about ranges of normality, prior probabilities of disease, and likelihood of benefit from specific treatments. The care of emergent conditions often cannot wait for additional information and less urgent conditions must often be addressed during a brief office visit. Because of the impossibility of an individual physician having enough time or expertise to calculate all of the probabilities and possible costs and benefits of care, there is usually considerable reliance on the advice of other experts, on knowledge based on experience, and on basic intuition. Particularly as hospital stays have shortened and as health care resources become more constrained, rarely do physicians have the luxury of time and exploration of alternative explanations for illness or prescriptions for care. All of these information processing and decision-making characteristics were exemplified in, and had an affect on, the social construction of the problems that faced UCSF.

Social Hierarchy

The medical care system in general, and the hospital power structure in particular, is extremely hierarchical among physicians and other health professionals. This hierarchical

structure produces circumstances and social rules that have a direct effect on how physicians interact with others, process information, and make decisions. The uncertainty involved in physician decision-making and the hierarchical structure of medical care result in another characteristic that affects physician decision-making: the reluctance of physicians to question the judgment of those more senior in the hierarchy and/or with more "expert" knowledge.

Similar to other social processes with strict hierarchies, such as the military (and, perhaps, most bureaucracies), there are significant sanctions for those who violate this hierarchy, such as by questioning the perceptions or decisions of superiors. These sanctions include a possible decrease in income and amenities and exclusion from participation in the power structure. A hierarchical environment may ease the process of strategic decision-making by reducing conflict and dissonance, but it may also increase the likelihood of insufficient analysis of alternatives. The hierarchical nature of the social structure at UCSF may explain part of the apparent reluctance of most participants to question publicly the emerging definition of the crisis and the identified solutions.

The Use of "Crisis" as a Change Agent

Within academic health centers there are several social groups that compete for key resources, such as office and laboratory space and funds to support new programs. These divisions often roughly approximate the three central missions of academic health centers: research, teaching, and patient care. Because of the success of UCSF's faculty in attracting research funding, biomedical scientists have played an important role in decisions about resource allocation and academic programs. As clinical care, and revenues, grew during the 1970s and 1980s, there was increasing tension and conflict between the competing priorities of basic scientists and clinicians/teachers, particularly about space for laboratories and for teaching and clinical programs. Whether it was part of a conscious attempt to address the conflict between the basic scientists and clinicians,

the definition of the crisis and the resulting administrative changes at UCSF had the effect of increasing and consolidating power within the clinical side of the equation.

From Managing Resources to Competing in the Market

A "conception of control" in an organization is the perspective of managers about the internal and external environments that defines the range of appropriate actions and strategies (Fligstein, 1995). While conceptions of control can be based on quite complex assumptions and knowledge, similar to the physician decision-making processes described above, there is a necessary simplification of (or perhaps, more positively, prioritizing) information, choice sets, and achievable goals and objectives. Most importantly, a number of implicit as well as explicit social and economic incentives affect the conception of control that is used by organizational managers.

Throughout most of their history, academic health centers were able to buffer themselves from the ebbs and flows of the marketplace, relying primarily on the high value and legitimacy placed on their products by society and a continual stream of financial resources. The conception of control used by the decision-makers at most academic health centers and at UCSF was, until the early 1990s, one that was based on the relatively plentiful resources that resulted from this social legitimization. The crisis of the US economy of the 1970s and 1980s, however, was ultimately felt within the medical care sector. The resulting increased competition for scarce economic resources caused a change in conception of control to one that was based on the marketplace, which placed relatively lower social value on the products of academic health centers.

All of these factors (physician dominance and decision-making, the social hierarchy at UCSF and conflicts among dominant groups, the use of crisis as an agent in these conflicts, and changing conceptions of control) interacted with each other in the strategic decision-making process at UCSF. The product was a major change in direction for the

medical center, the re-assertion of clinicians (particularly specialists) as the dominant social group, and the acceptance of a social construction of the role of UCSF that allowed a more aggressive competitive stance in the marketplace and the conversion of its hospital to a private enterprise.

Prologue to Crisis

The University of California, San Francisco

The University of California has five medical schools, four of which are part of larger non-health science campuses (Davis, Irvine, Los Angeles, and San Diego). Toland Medical College, a proprietary medical school, was founded in San Francisco in 1864 (University of California, San Francisco Library and Center for Knowledge Management. 1996). Toland Medical College became a department within the University of California in 1873 and was initially affiliated with the Berkeley campus. The University of California, San Francisco was established as an autonomous campus within the University in 1964. UCSF consists of four health sciences schools (dentistry, medicine, nursing, and pharmacy) and is governed separately under its own chancellor.

UCSF owns Moffitt-Long hospital, where it conducts much of its clinical teaching, and Mt. Zion hospital, a long-established community hospital. Moffitt-Long hospital, Mt. Zion hospital, and their affiliated outpatient clinics and facilities are jointly administered and referred to as the Medical Center. Two other local hospitals, San Francisco General Hospital (the county hospital) and the Department of Veterans Affairs hospital, are also major training sites for UCSF clinical trainees. Similar to other academic health centers, the health sciences schools and the Medical Center operate as separate administrative units, with the deans of the health science schools and the Medical Center director each reporting to the chancellor, who in turn reports to the president of the University of California.

By the 1980s, UCSF had become both a nationally recognized leader in biomedical research and health professions education. Research dollars, patient care revenues, and state support were all rising and seemed assured. The chief problems facing UCSF were those of growth: infrastructure, and space in particular, to accommodate all of the new research and clinical programs.

During the mid-1980s, one minor crisis occurred. While most hospitals in San Francisco had occupancy rates of 50 to 60 percent, UCSF had always been able to maintain an occupancy rate in excess of 80 percent. In the mid-1980s, however, this rate declined briefly to the low 70s, causing some concern. UCSF hospital Director William Kerr was "sounding alarm bells" about the fiscal security of the Medical Center (Woodard & Miller, 1994). Although it is not clear why the rate declined, it soon rose again to the more normal mid-80s, partially as a result of the emergence of HIV and AIDS and the central role that UCSF played in the care of these patients. Thus, despite some bumps on the road, the cultural "frame" at this time continued to be the expectation of an ever-expanding infrastructure, with its effective management as a primary institutional objective.

Increasing Specialization

As the clinical enterprise expanded at academic health centers, there was also a shift in power toward the departments and services that produced increasing revenue. Health insurance has always paid a premium for surgery and technological services (Schroeder & Showstack, 1978). The services that benefited most from the increased clinical revenue tended to be surgical or technological medical care, such as cardiology. The general trend in medicine toward specialization, for which the reimbursement system provided a significant incentive, ultimately resulted in an increasing proportion of specialists in the medical care system. As the primary sites for technological hospital-based tertiary and quaternary care, academic medical centers were in the forefront of this shift in both their

teaching and clinical programs. By the mid-1980s, specialists constituted the large majority of faculty at most academic medical centers. UCSF was no exception, with approximately 90 percent of its full-time faculty designated as specialists. Particularly because of the revenue generated by their services, specialists were at the top of the clinical power structure.

As medical care became more oriented toward specialization, however, there was an increasing concern among health manpower policy experts that primary care was an endangered species. Particularly in internal medicine, which was the largest specialty and had become increasingly sub-specialized, there was a concern that this quintessential "primary care" specialty was becoming not only too specialized, but was losing the battle as the principal generalists with its traditional rival, family medicine (Schroeder, Showstack, & Gerbert, 1986). The UCSF School of Medicine took the lead in developing a new specialty: primary care internal medicine. In 1980, the Department of Ambulatory and Community Medicine was split into the Department of Family Medicine and the Division of General Internal Medicine (DGIM) within the Department of Medicine. DGIM soon became a nationally recognized leader in the development of primary care internists. Notwithstanding the national recognition and the excellent reputation of its clinicians internally at UCSF, by 1990 DGIM was training only a small minority of internal medicine residents at UCSF, with most participating in the more hospital-based categorical internal medicine program. Despite limited efforts to develop and expand the training of generalists at UCSF, generalists remained at the bottom of the clinical hierarchy.

The Change from Fee-for-Service to Prospective Payment

Due to the ever-increasing costs of medical care, and the effect of these costs on federal and state budgets, a number of significant federal and state policy changes were initiated in the 1970s and 1980s. Most importantly, due to the essentially open-ended

nature of the fee-for-service system of payment, the costs of the Medicare program were rising substantially more than predicted and were assuming a significant portion of the entire federal budget. In 1984, Medicare enacted the Prospective Payment System (PPS) for hospitals, which changed the basic rules of payment and gave a huge impetus to a process that was to lead to the crisis of the 1990s.

Instead of paying for each individual service provided to a patient, under PPS Medicare pays a fixed amount for each hospitalization, depending on a patient's diagnosis (and certain hospital characteristics). The system is called Diagnosis-Related Groups (DRG) payment. The change in incentives was dramatic; instead of "more is better," hospitals now had strong incentives to provide less care for each Medicare patient. This also produced a confusing situation for both clinicians and administrators. Incentives for Medicare patients were to limit services and length of stay, while incentives for fee-for-service patients were to provide everything that was deemed to be needed, with little concern for total cost. The situation increased in complexity as other payers revised their payment systems. These new systems included a fixed daily amount (the method used by the California Medicaid program starting in the early 1980s) and contracts for the care of specific types of patients (such as for open heart surgery and organ transplants). The tactical problem was one of managing this complexity, and, despite the complexity, UCSF and other academic health centers managed well and continued to prosper.

An additional feature of PPS had a significant impact on teaching hospitals in particular. Prior to PPS, teaching hospitals paid for their residency, and some fellowship (post-residency), programs by charging all payers for the additional "overhead" of residents' salaries and faculty supervision. As part of the PPS program, Medicare started to pay for most graduate medical education costs, with little limitation on the numbers or types of trainees. As a result, graduate medical education training programs expanded

rapidly, both within and outside of academic health centers, partly because residents were seen as relatively low cost substitutes for staff physicians. By the 1990s, at UCSF and at other teaching hospitals, residents and fellows had become necessities in providing physician coverage for many important clinical services.

Hospital Expansion and Acquisition

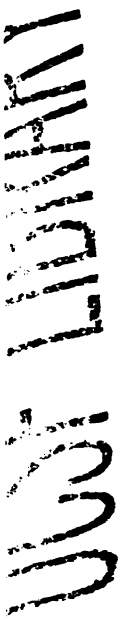
In 1990, UCSF acquired Mt. Zion hospital, a general community hospital with strength in care of the elderly and a loyal primary care patient base. Perhaps as a presage of things to come, what became the acquisition of Mt. Zion started as a series of discussions about possible collaboration between Mt. Zion and UCSF. "This was not an acquisition or partnership that was planned from start to finish. We started with very specific discussions about specific services like obstetrics, and then it took on a life of its own," explained one informant. This informant said that the "Mt. Zion strategy" bought time for UCSF and increased access to primary care and beds, and said, "an interesting side-effect, however, was [the acquisition] raised some concern among the tertiary care providers at UCSF that we were taking a primary and secondary care path, leaving out tertiary care."

The Mt. Zion acquisition is an example of the relative autonomy and power of the individual University of California campuses. One interviewee said that the University of California Office of the President, "first learned of the negotiations for this acquisition from an article in the newspaper."

With the completion of Long Hospital in 1983, which was a replacement for the aging Moffitt Hospital, and the acquisition of Mt. Zion in 1990, UCSF had solidified its inpatient facilities with the expectation of a continuing strength in admissions and an expansion in services from primary care through high technology quaternary care.

The University of California Office of the President and the Regents

Prior to the early 1980s, the hospitals at the University of California medical centers were good financial investments, generally contributing more to the University than they received from the University. As University hospital finances were threatened by changes in payment mechanisms, there was an increasing awareness by the UC Office of the President and the Regents that the hospitals could potentially become a financial drain on the University. In May 1982, the Regents established a standing Committee on Hospital Governance, replacing an informal body with one holding more defined powers and responsibilities in managing the medical centers (The Regents of the University of California, Special Committee on Hospital Governance, 1982). The Regents also began to look seriously into the idea of either creating a separate governance structure for, or "spinning off," the UC hospitals. Apparently at the time (and in every subsequent discussion of the idea over the next 12 years) the consensus among administrators of the UC hospitals was that there would be too many costs involved in creating a separate governance structure for hospitals to make it worthwhile (The Regents of the University of California, 1995).



By 1983, the Regents were forced by circumstances to grapple with the medical centers and their position within the increasingly complex and competitive health care market. At meetings of the Committee on Hospital Governance in 1985, UC Vice President for Health Affairs Cornelius Hopper and UC San Diego Vice Chancellor Petersdorf discussed the threat that penetration by HMOs into the California health care market represented for academic medical centers (The Regents of the University of California, Committee on Hospital Governance, 1985a, 1985b). Petersdorf asserted that he thought it "inevitable" that all UC Medical Centers would soon have to develop capitated plans, as occupancy rates continued to fall at academic medical centers across the state. In 1986, UCLA Hospital Director Schulze indicated that UCLA was below its

"optimal" occupancy of 75-80%, and that he believed the average hospital occupancy rate across the state to be 60-62% (The Regents of the University of California, Committee on Hospital Governance, 1986).

UCSF was certainly not immune to these environmental factors, nor was its leadership blind to them. As he delivered the 1986 UCSF Annual Report before the Committee on Hospital Governance, UCSF Medical Center Director Kerr pointed to what he believed to be the two most crucial issues facing the Medical Center at that time: organizing provision of physician and hospital services into competitive units and making the necessary structural changes in accordance with UCSF's teaching and public service missions (The Regents of the University of California, Committee on Hospital Governance, 1986). (It is interesting to contrast this perception with the one expressed just three years later by UCSF Chancellor Krevans when he declared to the Committee on Hospital Governance that the "greatest problem facing the campus [in 1989] is the lack of space." [The Regents of the University of California, Committee on Hospital Governance, 1989]) By 1987, UCSF had begun capitation contracting with Health Net and other payers (Woodard & Miller, 1994).

On June 16, 1988, the full Board of Regents convened a special meeting devoted entirely to the subject of UC teaching hospitals. UCSF Chancellor Krevans presented an overview of academic medical centers, and UCLA Medical Center Director Raymond Schulze delivered a report on how academic medical centers might best remain competitive in the health care market. Among Schulze's strategic recommendations were: to continue to emphasize advanced (tertiary) care, the UC Medical Centers' "greatest asset." (The Regents of the University of California, 1988)

In 1992, UC president-elect Jack Peltason formed a Transition Team, comprised of several Task Forces; one of these, the Task Force on Clinical Enterprise Activities, was designed specifically to investigate the continuing role of academic medical centers

within the UC system. The Task Force was established on June 16, 1992, and delivered a draft of its report on September 18, 1992. This draft contained 22 specific recommendations for clinical enterprise activities at UC, and also "determined that the cultural interface between the medical centers and the University must be managed, recognizing that the medical centers represent the equivalent of a separate line of business; the operational demands represent a line of work that is different from the work that is carried on in much of the rest of the university, although there are goals shared with the rest of the academic program." (The Regents of the University of California, Committee on Health Services, 1995)

The leadership of UCSF also changed at this time. In 1993, Joseph Martin, M.D., Ph.D., dean of the School of Medicine, succeeded Julius Krevans, M.D. as chancellor. Haile Debas, M.D., a general surgeon and chair of the Department of Surgery succeeded Dr. Martin as dean of the School of Medicine.

Managing the Expansion

By the late 1980s and early 1990s, the leadership at UCSF was concerned primarily with managing the expansion that had continued for several decades. With its past successes, solid leadership, and talented faculty and staff, continued prosperity seemed assured. UCSF continued to have great success in obtaining research funding, which rose to over $100 million per year to make the School of Medicine one of the three leading NIH grantees (along with Harvard and Johns Hopkins). The shift to DRGs had been managed well, particularly since DRGs tend to pay relatively well for surgery, and general and specialty surgery were among UCSF's leading services. The ever-increasing flow of hospital reimbursement and professional fee payments allowed both expansion and retention of key faculty and staff. UCSF continued to expand, with little threat by either internal or external forces.

Some clouds, however, were beginning to gather on the horizon. UCSF's accounting systems were not keeping up with the rapid rise in revenues. Cross-subsidization of revenues and expenses among the various hospital and medical school departments was becoming increasingly difficult to track. The separate and multiple hospital and medical school information systems were rapidly becoming obsolete, particularly since they were designed primarily for billing purposes and were not able to track individual patients across multiple sites and encounters (a necessity for a capitated population). It was recognized that the physical plant was both aging and not particularly "user-friendly" for patients (compared, for example, to patient access to physicians located in convenient and modern private offices who were associated with California Pacific Medical Center, one of UCSF's main rivals). The necessities of medical education with tenured faculty and the separate financing of each medical school department by its own revenues, were also becoming burdensome in a competitive market where economic nimbleness and the ability to make rapid changes in products and offer competitive package pricing were necessities.

Increasing Environmental Change

The external environment in the early 1990s was changing dramatically and at an ever-increasing pace. In late summer 1992, California Assemblyman Phil Isenberg (D-Sacramento) introduced AB 3953 in the Legislature; this bill would have enacted strict requirements for distribution of residency programs at health science campuses throughout the UC system, with the ultimate goal of decreasing the training of specialists and tertiary care physicians. The administration of UC rallied in opposition to AB 3953 (Arditti, 1992; Gardner, 1992; University of California, Office of the President, 1993). Governor Wilson vetoed the bill, in return for which the University promised to "undertake a comprehensive, expeditious study of the issues surrounding the need for primary care physicians and the University's role in fulfilling that need." (Wilson, 1992,

cited in University of California, Office of the President, 1993) In addition to issuing a report in July 1993 (and annually thereafter) entitled "Changing Directions in Medical Education: A Systemwide Plan for Increasing the Training of Generalists," the Health Sciences campuses implemented changes in their training programs, shifting some residency positions from specialty care to primary care.

The 1993 proposal by the Clinton administration to reform the health insurance system included key incentives toward health insurance purchasing cooperatives and capitated care. Perhaps in anticipation of the plan's passage, a general shift in the marketplace toward managed care accelerated during this period. Particularly in California, Minnesota, New York, and a few other areas, this shift toward managed care gained a momentum that continued after the demise of the Clinton legislation.

As the various administrative structures at the University of California struggled to deal with these issues, the competitive marketplace around UCSF continued to evolve. In September 1992, Children's Hospital of San Francisco and Pacific Presbyterian Medical Center merged to form California Pacific Medical Center (CPMC); four Independent Practice Associations (groups of physicians organized for payment purposes) associated with the two hospitals merged to form California Pacific Medical Group (CPMG). These mergers further consolidated the health care provider market in the Bay Area.

The University also attempted to address the changes in the environment that were affecting all of the UC medical centers. Two statewide meetings were conducted by the University in 1993. On March 11, 1993, the University-wide Committee on Primary Care Medical Education held an all-day forum in Sacramento. On April 12-13, the Office of the President held a University-wide health sciences colloquium at UCLA on the Future Directions of Health Sciences Education at the University of California. On September 23, 1993, the UC San Diego Medical Center reported an unexpected year-end operating loss of $3.3 million for FY 1992-93.

Crisis: A Stable Environment Becomes Unpredictable and Threatening

The end of 1992 and beginning of 1993 brought a rapid and unexpected change to UCSF. During FY1990, the occupancy rate at Moffitt/Long hospital had been 79 percent. This rate declined slowly over the next several years to an occupancy rate of 74 percent in FY1993 (Figure 11). In FY1994 the occupancy rate at Moffitt/Long Hospital was 66 percent, with a further decline to 58 percent in FY1995 and FY1996. Thus, a significant decrease in service use at UCSF began in late 1992 or early 1993, with an acceleration of this decline over the subsequent years. The 58 percent occupancy rate in FY1995 and FY1996 were not only the lowest that UCSF Medical Center had experienced in recent memory, but was a drop of almost 27 percent in less than five years.

The lower occupancy rates at UCSF were a combination of both fewer admissions and shorter lengths of stay. The number of discharges dropped from 157,701 in FY1990, to 115,525 in FY1996, a decline of 17 percent (Figure 12). The overall decline in number of admissions at UCSF, however, was not evenly distributed across all services, as can be seen in Figure 13, which shows discharges from selected inpatient services at UCSF. The most dramatic, and possibly important, declines in admissions occurred in medicine, neurosurgery and general surgery. Between FY1990 and FY1993, the medicine service admitted approximately 2,500 patients per year. Admissions to the medicine service declined 23 percent between FY 1993 and FY1994, however, and continued to decline slowly through FY1996. Neurosurgery experienced a growth in admissions through FY1992, but thereafter a sharp decline in admissions of over 46 percent between FY1992 and FY1996. Admissions to the general surgical service dropped almost 30 percent between FY1990 and FY1996.

Along with an overall decline in admissions, average length of stay also declined for most services at UCSF during the period FY1990 to FY1996. As can be seen in Figure 14, this decline occurred for most of the major services, such as medicine (27 percent

decline), general surgery (15 percent), neurosurgery (46 percent), orthopedic surgery (40 percent), cardiology (41 percent), and kidney transplantation (42 percent). Thus, the decline in average length of stay was fairly general throughout the hospital, with similar declines occurring on both medical and surgical services. (The increase in average length of stay for ophthalmology was likely caused by most cataract surgery being shifted to the outpatient setting starting in approximately 1993.)

The combination of fewer discharges and shorter average length of stay produced dramatic drops in patient days, as described above, for UCSF as a whole. Few major clinical services were immune to this drop in total patient days (Figure 15). Of the three largest services at UCSF, medicine, general surgery, and neurosurgery, the declines were 39 percent, 40 percent, and 66 percent, respectively. These data on number of discharges and patient days for neurosurgery, general surgery, and medicine are illustrated in Figures 16, 17, and 18. (Note that the left and right axes have different scales on these figures.) Even visits to the UCSF and Mt. Zion emergency departments declined between FY1990 and FY1996 by 12 percent and 27 percent, respectively (Figure 19).

Same-day surgery visits rose over 50 percent between FY1990 and FY1996. Comparing the increase in same-day surgery visits (Figure 20) to the decline in the number of discharges from selected UCSF inpatient services (Figure 17), it appears that some, if not all, of the decline in admissions to UCSF general surgery services was due to a shift of surgery to the outpatient setting. In contrast to inpatient care and emergency visits the number of ambulatory care visits at UCSF/Mt. Zion rose continuously between FY1990 and FY1996, a total increase of 39 percent (Figure 21).

This dramatic change in the fortunes of many of the most respected, and highest revenue-generating, inpatient clinical services at UCSF caused both anxiety and alarm among clinicians and administrators. The steadily increasing revenues of the previous decades had apparently come to an end, at least temporarily. The uncertainty of the

situation was underscored by the political turmoil that the Clinton health care reform plan engendered and by word-of-mouth from colleagues about declining admissions at prestigious centers around the country. Downturns had occurred in the past, however, and it was assumed by most that the decrease in admissions in 1992-1993 could be addressed by making relatively minor adjustments.

While revenues were most threatened by the decline in admissions, there was also a concern that the teaching and research programs would be affected adversely. Over the previous decade, particularly as lengths of stay had shortened, the average acuity of patients in the hospital had risen substantially. Because patients were being discharged as soon as possible, residents no longer had the opportunity to observe patients in the late recovery stages of their acute illness. In addition, partly because of staffing requirements, residents were now spending more time in highly specialized services, such as the liver transplant unit. To prevent this shift in educational content from becoming even more extreme, it was deemed important to recruit an adequate number of patients who needed primary and secondary care, in addition to the "core business" of highly specialized care.

By early 1993, the potential seriousness of the decline in admissions was beginning to be understood by key persons in the leadership at UCSF. With the growth in managed care in California, and President Clinton's proposals that would likely encourage even more competition in the health care system, it was apparent that UCSF would have to exist in the future in a newly competitive environment. Yet, as the leadership was aware, UCSF was ill-prepared to compete for patients head-on with major managed care entities. The lack of a base of primary care patients, the relatively unattractive physical plant, and accounting and information systems that desperately needed upgrading, suggested strongly that UCSF needed to implement more than technical fixes.

Short-Term Management versus Long-Term Planning

The expansion over the previous several decades had required good internal management practices and tactics. Because the environment had been so stable for so long, there had been little need for long-term strategic planning. The primary issue was how an expanding pie would be divided; planning for a decrease in the size of the pie was never considered.

For several decades, UCSF's leadership had provided excellent management in the era of expanding resources. There was little need to look beyond tactical issues such as whether to expand a certain clinical service or start a new division in the Department of Medicine. Rarely did the leadership feel the need to look beyond the management issues of the day to the assessment of, and planning for, basic changes in the organization and economics of medical care. If one is successful and has little reason to believe that the basic reasons for that success will change, why risk engaging in a process that may produce untested solutions for a difficult-to-predict environment? In a stable environment, strategic long-term planning itself was looked-upon with some disdain. One person in the leadership at UCSF said that, "I am not a planner and I have little use for planning processes. Most formalized planning processes do not produce good decisions or are not effective."

Thus, UCSF's management practices were pragmatic, conservative, and very successful. When the environment started to change, however, there was suspicion of, and little experience with, assessing the long-term effects of different strategies. The situation at UCSF in this regard was similar to what was occurring at other academic health centers. The informant quoted above, for example, went on to say, "There is very little learning going on by academic health centers about what other academic health centers are doing. One of the most important reasons for this is that most centers have put off as long as they can processes to initiate change until they are forced by any variant

from the status quo." This is a basic "If it ain't broke, don't fix it" philosophy that had been very successful at most academic health centers, at least until the rapid changes in the environment of the 1990s.

Other Internal and External Challenges

A number of other challenges to the status quo occurred in the UCSF environment in the late 1980s and early 1990s. These challenges included substantial reductions in funding from the state, increased competition for research funding, and major changes in accounting practices required by the federal government that substantially reduced the amount of payment for indirect costs. The reductions in state funding had multiple effects on UCSF's academic mission and administration, including freezes on academic appointments and early retirement of some of UCSF's most experienced non-physician administrators.

The increased competition for research funding, substantial declines in clinical revenue, and significant changes in federal indirect cost accounting requirements, potentially threatened the research enterprise and basic administrative structure of UCSF's health sciences schools. These issues were considered serious, if not immediate, problems by the leadership, and were generally assigned to mid-level administrators and faculty committees. The full impact of the changes in accounting practices, in particular, were not likely to be felt for several years. Perhaps as an indication of the dominance of the cultural framing of the "crisis" at UCSF, none of the informants interviewed for this study mentioned any of these issues as having been important in the overall strategic planning process.

The Development of a New Cultural Frame

The framing and social construction of a new definition of the issues facing UCSF was the result of a process of education of the leadership, and then the rank and file,

about the changing health care marketplace and its probable effects on UCSF. One component of the process was a form of "self-study" and a second significant element was the analysis provided to the leadership by consultants who were engaged to provide an outside expert perspective. The internal educational process focused on developing a new understanding by the leadership of the issues facing UCSF. It is probably the case that the leadership of the hospital and clinics was already aware of the changing situation; the educational process was most vital to the academic leadership, including the Chancellor, Dean of the Medical School, and chairs of the most important and powerful departments. Once this educational process had been accomplished, the next step was to disseminate this new framework to the chairs and faculty.

The framework changed from one that defined the central issues that UCSF must address as managing overall growth in a complicated, but relatively benign, environment to a framework that defined the external environment as threatening the very basis of UCSF's goals and programs. Clinical care was always important to provide "teaching and research material" and the resultant clinical income. The new framework defined the clinical enterprise as the foundation of, and central to, UCSF's mission. The extreme swing of this pendulum occurred in part because of the surprise, and shock, that the fiscal integrity of UCSF, which had been taken for granted, was now perceived to be not only under attack but also threatened to bring down the whole teaching and research enterprise.

The economic threat also had the effect of making more overt the conflicts among different groups in the UCSF power structure, particularly as specialists were losing patients and seeing a shift toward the greater support of generalists. The strategic planning process was initiated, in large part, because of this concern among specialists. To the extent that new forms and systems of care at UCSF were considered, the dominant goal was to increase referrals to specialty services.

The general perception among the leadership was that the loss of patients was due to restrictions on referrals by managed care organizations. One informant said that, "because of managed care, patients were not being sent to UCSF. We used to get patients from Northern California and the Western States..." (with the implication that some of these patients are no longer coming to UCSF). The interviewee went on to say that, "...This has had a devastating impact on certain specialties, for example, neurosurgery. The ability of physicians to refer [to UCSF] changed because of managed care." This perception was supported by word-of-mouth accounts of problems in referrals and by the threats by major managed care organizations, such as Sutter Health Care, to divert patients away from UCSF unless there was a contractual agreement between the two entities to provide care for Sutter patients at reduced rates.

The perceived attack on the clinical enterprise put many of the problems of infrastructure into a new light. The ambulatory care center, for example, had previously been seen as an effective site for teaching and outpatient care even though it was crowded and difficult for patients to negotiate. With increased competition for patients by private physicians in modern and comfortable offices the problems in the ambulatory care center were recognized as a serious, if not fatal, flaw in UCSF's ability to compete. Similarly, UCSF's information systems were somewhat antiquated, but were generally effective for their central purpose of billing for hospital services. (The physician billing systems, in contrast, were seen as barely adequate to provide even the most basic accounting information.) The many separate systems for hospital and physician billing and recording clinical information and encounters, however, were woefully inadequate to function in a managed care environment that required highly coordinated information for critical functions such as patient care, accounting, and scheduling.

Perhaps most importantly, in the strategic planning process the perception of the reasons for the decline in admissions was not tested by the collection of marketplace

empirical data. This latter issue is discussed in more detail below, but suffice it to say that there was a relative disdain for "objective" information in favor of the subjective perceptions of the decision makers. It was assumed that the same decision-making structures and skills that had been useful in managing UCSF over the past several decades of large successes and few external threats would continue to be useful in a much more complex and less predictable environment.

The Key Decision-Makers

Several individuals were particularly significant in the development, assessment, and choice of new strategies for UCSF. The organizational importance of these persons derived generally from their location in key positions in the structural hierarchy of UCSF. Other factors that were associated with the influence of certain individuals include the importance of their clinical services and/or their reputation for leadership among the faculty. Brief sketches are provided here of these persons and their roles in the structure of decision-making.

Joseph Martin, M.D., Ph.D., was dean of the School of Medicine from 1989 to 1993, when he succeeded Julius Krevans, M.D. as Chancellor of UCSF.

William Kerr, has been the administrator of the UCSF hospitals and clinics for almost 20 years. One of the most respected hospital administrators in the country, Mr. Kerr co-chaired the Clinical Strategies Committee (with Haile Debas, M.D.) and was a member of the Clinical Services Executive Board (described below).

Haile Debas, M.D., a general surgeon, was named chair of the Department of Surgery in 1985. In 1993, Dr. Debas succeeded Dr. Martin as dean of the School of Medicine. Dr. Debas co-chaired the Clinical Strategies Committee (with Mr. Kerr) and was a member of the Clinical Services Executive Board.

Charles Wilson, M.D., was chair of the Department of Neurosurgery from 1968 to 1994. A highly respected clinician, Dr. Wilson directed one of the most efficient clinical services at UCSF. In large part because of his reputation and because of the importance of neurosurgery to the hospital (it is the highest revenue clinical service), Dr. Wilson is a leader among UCSF's clinical specialists. Dr. Wilson chaired the Tertiary Care Task Force, was a member of the Clinical Strategies Committee, and in 1994 stepped down as chair of the Department of Neurosurgery to become Director of Tertiary Services and a member of the Clinical Services Executive Board.

Lee Goldman, M.D., joined UCSF as Chair of the Department of Medicine in February 1994. Dr. Goldman is a cardiologist who is noted for both his clinical skill and his research. Prior to joining UCSF, he was Professor of Medicine at Harvard Medical School and Harvard School of Public Health and the Chief Medical Officer at Brigham and Women's Hospital in Boston. In addition to his responsibilities as Chair of the Department of Medicine, in May 1994 Dr. Goldman was named to a newly created position, Associate Dean for Clinical Services, and became a member of the Clinical Services Executive Board.

Bruce Wintroub, M.D., was chair of the Department of Dermatology from 1986 to 1995 and Associate Dean for UCSF/Mt. Zion from 1990 to 1995. Dr. Wintroub became Executive Vice Dean of the School of Medicine in 1995, and was a member of the Clinical Strategies Committee. He was also named Director of Primary Care and a member of the Clinical Services Executive Board.

Russell Laros, M.D., a Professor of Obstetrics, Gynecology, and Reproductive Sciences, was the Director of the Clinical Practice Organization and a member of the Clinical Services Executive Board.

Ronald Arenson, M.D., joined UCSF as Chair of the Department of Radiology in 1991. He was a member of the Tertiary Care Task Force and the Clinical Strategies Committee. Pursuing an interest in information systems, Dr. Arenson became the Co-Chair of the Subcommittee on Information Systems of the Clinical Strategies Committee.

The Education of the Medical School Leadership

In January 1994, the School of Medicine held its yearly Leadership Conference at Asilomar in Carmel, California. The theme of the meeting was changes in the health care marketplace and their effect on academic health centers. Among the speakers were Philip Lee, M.D., a former UCSF Chancellor and, at the time, Assistant Secretary for Health in the Clinton Administration, and Steven Schroeder, M.D., formerly Chief of General Internal Medicine at UCSF and currently President of the Robert Wood Johnson Foundation. Other speakers included David Lawrence, M.D., the Chief Executive of the national Kaiser Health Plan, Molly Coye, M.D., former head of the California State Department of Health Services, and Assemblyman Philip Isenberg. Most department chairs and directors of Organized Research Units in the School of Medicine attended.

According to a member of the leadership of UCSF, this meeting served as a "wake-up call for the faculty, especially to the basic scientists." The messages delivered by the speakers were heard as warnings that if UCSF did not respond adequately to changes in the marketplace its very existence might be threatened. In particular, the need to build and develop a primary care capacity at UCSF was a clear message taken away from the meeting. (The Integrated Practice Group was formed soon after as a "prototype UCSF HMO," with sites at Lakeshore Plaza, UCSF/Mt. Zion, and the Ambulatory Care Center on Parnassus [Woodard & Miller, 1994]).

The Tertiary Care Task Force

Two processes occurred that were particularly important in the development of a new cultural frame for the UCSF leadership. The first was the formation of the Tertiary Care Task Force, a committee constituted to assess the problem of declining admissions to the specialty services of the hospital, and the second was the consultation by Coopers & Lybrand about the competitiveness of UCSF.

In early 1993, the chair of the Department of Neurosurgery, Charles Wilson, M.D., became concerned with what appeared to be a modest decline in neurosurgery admissions. Dr. Wilson presided over one of the most important and successful clinical services at UCSF, with neurosurgery routinely contributing more revenues to the hospital than any other service. Adding to Dr. Wilson's concern were the general discussions among national neurosurgery policy makers about the large surplus in the number of neurosurgeons in the country. Similar to other leaders in graduate medical education programs around the country, Wilson had no intention of down-sizing his program, but the recognition of the national surplus of neurosurgeons was the first step in what several interviewees referred to as the "conversion" of Dr. Wilson.

In the Spring of 1993, Dr. Wilson attended several national meetings during which alarm bells were rung about the changing marketplace for academic medical centers and neurosurgery programs in particular. Upon returning from these meetings, Dr. Wilson contacted William Kerr and others in the UCSF leadership. A meeting was held that included the dean of the School of Medicine and a number of department chairs. During this meeting it was made clear that the chairs were becoming increasingly concerned about both the decline in admissions and a perceived over-emphasis by the leadership on primary care. The chairs felt that not enough was being done about the decline in admissions and the general competitiveness of UCSF. The formation of the Tertiary Care

Task Force, which Dr. Wilson was asked to chair, was in large part a result of the discomfort and anxiety felt by UCSF's specialists and expressed at this meeting.

It was "At the request of the Chairs of Departments providing tertiary care at (UCSF)" that the Tertiary Care Task Force was appointed by Dean Debas, Hospital Director Kerr, and Russell Laros, M.D., Director of the Clinical Practice Organization (University of California, San Francisco Tertiary Care Task Force, 1993). The charge to the Tertiary Care Task Force was, "to consider the factors related to tertiary services and their role in the institution's organizational structure...," and particularly the relationship of tertiary services with, and functioning of, the Clinical Practice Organization (University of California, San Francisco Tertiary Care Task Force, 1993). As is described below, however, the final report of the Task Force went well beyond its initial charge.

The Tertiary Care Task Force consisted of representatives of a relatively broad range of interests (the membership is listed in Table 10), including specialists, generalists, administrators and others. Starting in July 1993, the Task Force met weekly, usually including presentations from speakers invited (primarily by Dr. Wilson) from within and outside of UCSF. The meetings were run as seminars with Dr. Wilson as the organizer and facilitator of the discussions. Included among the speakers were Steve McDermott, M.D., Executive Director, Hill Physicians Group; William Gertner, M.D., Senior Vice President of Health Care Management for California Blue Cross; Frank Riddick, Jr., M.D., Chief Executive Officer, Ochsner Medical Clinic, New Orleans; Kurt Sligar, M.D., Vice President, Catholic Hospitals West; David Skinner, M.D., President, New York Hospital-Cornell Medical Center; David Bradley, President, The Advisory Group; William Kerr, Director, Medical Center; Patricia Perry, Associate Director, Medical Center, and Director of Program Planning and Marketing; and myself, at the time Associate Adjunct Professor of Medicine and Health Policy.

The selection of Dr. Wilson as the chair of the Task Force and the representation of the range of interests of the members were substantively and politically astute. The meetings had the effect of both educating and, to an extent, alarming the committee as they heard first-hand about the state of competition in the health care marketplace. The presentations were a highly specific set of views, selected in part because of the speakers' location and participation in highly competitive environments. Thus, the picture painted at these meetings was, perhaps, an accurate portrayal of the knowledge and perceptions of individuals who were participants in the competitive aspects of the market and of the associated risks to academic health centers. As such, however, the information was very subjective and provided a less than perfect "snapshot" of the environment.

The effect of the presentations and discussions at the Tertiary Care Task Force was to educate, raise the anxiety, and perhaps confirm the worst fears of the members of the committee. The perceived inefficiency of the current administrative structure in the School of Medicine was discussed at many of the meetings, particularly the inability to respond quickly to both opportunities and threats. The general consensus was that, given the portrayal of a very threatening environment, and the reality of rapidly declining admissions, something had to be done quickly.

The result was a report that suggested a departure from the current separate administrative organizations of the School of Medicine, the Hospital, and the Clinical Practice Organization to increase their coordination. Other recommendations included the development of a de facto health maintenance organization to compete with managed care, the creation of a committee and task forces to address a set of issues (such as quality improvement and outcomes research), and the development of a long-range strategic plan. Many of these recommendations were eventually implemented, for example, with the designation of the Clinical Strategies Committee and the formation of the Integrated Practice Group (described in more detail below). Thus, while the initial charge of the

Task Force was directed narrowly at the reasons for, and possible responses to, the decline in admissions to specialty services, the final product was a set of wide-ranging recommendations for the overhaul of the UCSF administrative structure. Whether it was perceived or intended, the effect of these recommendations was to consolidate power in the clinical and hospital leadership and to support the basic social frame of gearing-up for increased competition with no indication of any need for down-sizing clinical services.

Consultants

Another characteristic of the strategic planning process at UCSF was the reliance on outside consultants to provide strategic advice. As described above, in their decision-making processes physicians often seek and place great importance on the advice of "experts." Given both uncertainty and the hierarchical nature of decision-making, this type of advice is rarely challenged. The choice, and questions asked, of consultants, however, are determined in large part by the social framing of the issue. When the problem is defined in economic terms, economic consultants will be chosen and their answers are unlikely to address broader issues of, for example, institutional mission and strategies to achieve mission-defined goals and objectives. Perhaps because they do not want to alienate their client, consultants have an incentive to let the basic premise of the questions remain unchallenged. A number of different consultants were employed by UCSF and the Regents to address issues related to UCSF strategic decision-making. All of these consultants were asked to address, and did not go beyond, questions related to the basic economic definition of the situation.

At approximately the same time as the meetings of the Tertiary Care Task Force, the health care consulting component of Coopers & Lybrand, a national accounting firm, was asked to provide advice on the competitiveness of UCSF and on whether the administrative and financial structure of the medical school, hospitals and clinics, and Clinical Practice Organization were appropriate in the newly competitive environment.

The consultants interviewed a wide variety of persons in the administrative and clinical structure. Since these meetings involved an exchange of information and opinions, they provided a general education to the UCSF participants about the external environment.

The report to the UCSF leadership by Coopers & Lybrand portrayed a fairly dismal picture of the ability of UCSF to respond to outside competition. UCSF's competitiveness was compared quite unfavorably with that of an integrated managed care organization. The need for a large enrollee population to support the clinical and teaching programs was emphasized. It was recommended that UCSF needed a managed care population of at least 150,000 persons to satisfy its basic primary and secondary care teaching and revenue needs. (This was in light of the then current UCSF managed care population of approximately 15,000.) The consultants also suggested major changes in UCSF's infrastructure, particularly in information systems, and cited the known patient dissatisfaction with the physical facilities.

While the consultation by Coopers & Lybrand may have provided an accurate portrayal and analysis of UCSF's internal structure, the analysis of UCSF's competitiveness and place in the evolving medical care system was based on the consultants' knowledge and their own social construction of reality, which in turn was affected greatly by their experience in advising academic health centers that were in trouble. Thus, the framing of the issue by the consultants was based, in large part, on a fairly subjective view of the relationship of UCSF with its environment. The message delivered was one of an institution at great economic risk unless it made significant and substantial changes in its structure and programs.

The Identification, Evaluation, and Choice of Strategies

Creation of the "Clinical Enterprise"

At most academic health centers, the hospital provides the "hotel and equipment" portion of care (and bills for hospital care) while physicians provide the clinical services (and bill separately for professional services, with the revenues going to the physician's home department). This results in two separate administrative and economic structures for clinical services, with different goals, objectives, and decision-making processes. The perception by the leadership at UCSF was that this diffuse structure could not develop a consistent strategy and react quickly enough to compete with the emerging threat from managed care.

Due to doubts about UCSF's decision-making structure and based on the recommendations of the Tertiary Care Task Force, in early 1994 a major administrative reorganization was implemented. The clinical services of the Hospitals and Clinics and School of Medicine together became the "Clinical Enterprise." Two major results of the formation of the Clinical Enterprise were the consolidation of power within a relatively small group of individuals and the re-assertion of the dominance of physicians, particularly specialists, in the power structure.

This shift was formalized in the Clinical Strategies Committee, with the hospital administrator, William Kerr, and the Dean of the School of Medicine, Haile Debas, M.D., as its co-chairs. The committee consisted of a carefully selected group of chairs of departments in the School of Medicine, directors of key clinical services, and heads of several hospital and university offices (see Table 11 for a list of the membership in this committee). The membership was not meant to be a "democratic" representative of the two entities, but rather the leadership of the most important patient care services.

Shortly after formation of the Clinical Strategies Committee, the leadership of the Clinical Enterprise was formalized in the Clinical Services Executive Board. This board consisted of Hospital Director Kerr, Dean Debas, Chair of the Clinical Practices Organization Laros, and two new positions, the Directors of Tertiary Care (Charles Wilson, M.D.) and Primary Care (Bruce Wintroub, M.D.), with Chancellor Martin as an *ex officio* member. This "Gang of Five" was soon expanded to the "Gang of Six" with the arrival of Lee Goldman, M.D., as the chairman of the Department of Medicine. The Clinical Services Executive Board became the key decision-making entity at UCSF.

The Clinical Services Executive Board, which met twice weekly, had responsibility for major strategic and tactical decisions, with the Clinical Strategies Committee acting as a sounding board at its 6:30 a.m. meetings every Monday morning. To address specific issues, in late 1994 a set of subcommittees was constituted from the membership of the Clinical Strategies Committee and others in the Clinical Enterprise. These subcommittees addressed a variety of issues including upgrading UCSF's information systems, making the hospital and clinics more "user-friendly," improving UCSF's process for contracting for specialty services, and developing systems to measure outcomes of care provided at UCSF. The flow of information was expected to be from the subcommittees to the Clinical Strategies Committees and then to the Clinical Services Executive Board.

The new administrative structure for the Clinical Enterprise was much more hierarchical than the previous horizontal, diffuse structure, although it retained many of the latter's characteristics. The use of committees, and subcommittees, to develop (and sometimes implement) strategies and tactics is a basic method of operation in academia (but one that also produces the traditional endless discussions and lack of action in academic settings). This type of committee structure serves several functions. First, by gathering together parties with a mutual interest in particular subjects, new ideas can be generated and a consensus developed about courses of action. Second, although the most

powerful members of a committee will still tend to hold sway, other members of the committee may feel that their interests and views are being addressed. Third, (as exemplified by the Tertiary Care Task Force) committees can be an educational seminar for participants, particularly as a means of communicating new information and strategies. A perhaps less benevolent characteristic of a committee structure is that it maintains a diffusion of power while a central decision-making body (such as the Clinical Services Executive Board) can proceed with its own decisions and directions. Finally, almost all of the these committees were chaired by physicians, even those (e.g., the subcommittee on public relations and marketing) where physicians do not necessarily have any expertise, another example of physicians' belief in their leadership and decision-making acumen. This, of course, also maintained physician control of the process.

The effect of this committee structure was as one might predict. Relatively few of the subcommittees did much more than discuss issues and identify tactical changes to address specific issues. The major task of strategic identification and development remained centralized in the Clinical Services Executive Board. Perhaps the most important effect of these new committees was to disseminate the idea that times were changing and that a new problem definition and framework had been developed.

Strategy Identification and Assessment

The Clinical Services Executive Board had the primary responsibility for the identification and assessment of strategies and tactics. This process was described as one where the exigencies of the moment force continual tactical reactions to the changing environment, with little time or effort spent in discussing and evaluating long-term strategies. One interviewee said, "Things were changing faster than my wildest dreams. We felt we were in a totally reactive situation with survival at stake."

The general perception was one of immediate threat to the future of UCSF and that something had to be done quickly to address these threats. Most of the strategies considered were either fairly self-evident (such as the need to improve the institutional infrastructure) and/or recommended by consultants. Little or no effort was expended in assessing the environment beyond word-of-mouth descriptions or in quantifying the potential impact of the identified strategies. The pervasive view most often articulated in the interviews with key informants was that the rapid drop in admissions to UCSF was due primarily to the loss of patients to managed care organizations and the inability of doctors to refer their patients to UCSF. The basic goal of these strategies was to compete for, and win back, those patients. At no time was a strategy of down-sizing UCSF's clinical enterprise seriously considered.

The first strategies chosen were to "grow our own" primary care capacity, to establish relationships with managed care organizations to increase referrals for specialty services, to improve the institution's infrastructure, and to make UCSF more user-friendly for patients.

Expanding Primary Care

A primary care capacity was needed both to support the teaching missions of the institution, especially with the increased primary care teaching necessitated by the Isenberg bill, and to provide for a flow of patients to the hospital for secondary care. Primary care was still seen, however, as somewhat peripheral to the core tertiary and quaternary care activities of the institution. The few examples across the country of strategies of other academic health centers toward increasing their primary care capacity were not perceived to be applicable or possible for UCSF. The purchase of physician practices, a tactic employed by the University of Pennsylvania, was too expensive and not seen as a viable alternative in the Bay Area where the vast majority of physicians were already attached to some form of managed care. Similarly, a "hub and spoke"

system, where UCSF would buy or develop partnerships with other individual hospitals in the Bay Area, was seen as impractical due to the dominance of managed care.

The newly formed Integrated Practice Group (IPG) was to be the key to the first strategy. In 1994, UCSF had approximately 15,000 persons enrolled in some form of capitated insurance plan. With the development of the IPG, which was designed as a group practice in the image of health maintenance organizations, it was hoped that UCSF would become an attractive option for persons who were choosing a health plan. There was an expensive city-wide advertising campaign extolling the virtues of "The world's best community hospital." With the perceived need, as recommended by the consultants from Coopers & Lybrand, for an enrolled population of at least 150,000, it would take a substantial shift in the San Francisco population of about a half-million to achieve this goal.

The growth of the IPG, however, was disappointing. Enrollment of capitated patients in the IPG grew slowly, with the number rising to only about 25,000 by 1996. While there are many reasons for the failure of this strategy, including competition from other providers and an unattractive physical plant, it might be argued that the "grow our own" strategy was doomed to failure for lack of both determination and resources. It was seen as a major change in the way UCSF did business, but relative to the world of managed care the IPG was under-funded, suffered from infrastructure problems (such as the age of UCSF's information systems), and remained a relatively unattractive choice for patients.

With only three locations, and the primary location in the clinics building on the relatively inaccessible Parnassus campus, the IPG could not compete with other plans such as the California Pacific Medical Group, whose equally well-respected doctors had private offices in the heart of a residential neighborhood. It is perhaps symbolic of the problems of the IPG that the Clinical Services Executive Board was unable to recruit a

permanent Director of Primary Care, with Bruce Wintroub, M.D., continuing as interim Director.

According to one informant, "The grow-your-own strategy never was really embraced by the dominant forces in the institution. The impact and role of the new delivery system was never defined or explained or given enough resources to make it successful. ...It was chosen at all because it gave UCSF a sense of covering our bases." This relatively negative view of the organizational support for the grow-your-own strategy was echoed by several other informants.

Courting Other Organizations

Another strategy initially undertaken was to approach other major managed care organizations to develop collaborative relationships. The essence of this strategy was to gain patients through referrals from large managed care organizations, and possible collaborations in teaching and research programs, although the possibility of fuller integration or even merger was not ruled out. These organizations included the Kaiser Permanente Health Plan and Sutter Health Plan. In 1994, approaches to Kaiser met with a lukewarm response, at best. Kaiser expressed an interest, but then dragged out its response and finally at times would not even return phone calls. (In retrospect, it seems clear why Kaiser was not interested in discussions with UCSF at that time. Kaiser was experiencing its own dramatic drop in hospital use [see Chapter IV] and probably felt that its primary need was to reduce the number of hospital beds that it controlled, not to associate itself with another institution that also needed to reduce its infrastructure.) With the UCSF leadership feeling like a spurned suitor, the hurt was to both pride and strategic planning.

The experience with Sutter Health Plan was somewhat different. Discussions resulted in agreements to facilitate the referral of Sutter patients to UCSF for specialty care. The

ultimate result of these agreements was a relatively small increase in referrals to UCSF from Sutter physicians.

Upgrading the Infrastructure

The UCSF infrastructure had been seen for a number of years as in need of major upgrades. The one area, however, that was becoming basically nonfunctional, especially in a managed care environment, was its information systems. UCSF had not had a major upgrade to its information systems in many years, with lack of coordination and integration as primary problems. Many clinical services had their own clinical, and even financial, information systems, and few of these departmental systems communicated with each other or with the main hospital information systems. Of primary importance, UCSF's information systems lacked the ability to track individual patients across clinics and into the hospital.

The Information Systems Task Force was one of the few committees formed that had a major impact on UCSF's infrastructure. Under the co-chairmanship of Ronald Arenson, M.D. (Chair of the Department of Radiology) and Ronald Schumacher (head of Hospital Information Systems), and with the assistance of an outside consultant (Helen Levine of Healthcare Management Counselors), a comprehensive plan was developed for the overhaul of UCSF's information systems. The Clinical Services Executive Board ultimately approved the recommended budget of $12 million over a three-year period to install a new central information system. The committee's consensus, however, was that nothing could be done in the short-term (before the implementation of the new systems) to address the information requirements of managed care.

User Friendliness

Making UCSF more user-friendly became a high priority. A number of small physical changes were made, including sprucing-up the registration area in the clinics building,

providing valet parking (for a fee), and creating a central phone number for referring physicians to call. In addition, there was a campaign to change what was generally recognized as the arrogant attitude of some physicians and staff. Using the neurosurgery service as an example, UCSF's clinical services were urged to improve their communications with referring physicians. In other areas, re-engineering processes were started to improve the value of UCSF's services (with value defined as the ratio of quality to cost).

Results of Initial Strategies

While all of these changes were needed and had limited success in slowing the decrease in utilization, the overall immediate effect was small. Some of the changes, such as valet parking, were abandoned quickly, and the general consensus among the leadership was that, short of demolishing the entire physical plant, there was little that could be done to make UCSF easier for patients to negotiate. The grow-our-own strategy was soon seen as necessary but not sufficient, and the limited agreements made with large managed care organizations were not producing the hoped-for increase in referrals.

As noted above, UCSF also sought to establish a primary care foothold in the Bay Area with a $750,000 advertising campaign aimed at increasing enrollment in the UCSF health plan, and to increase its referrals by approaching both Kaiser Permanente and Sutter Health Care about potential mergers or partnerships. With the exception of a limited increase in referrals from Sutter, UCSF was rebuffed by both parties.

The Regents continued to monitor the situation, asking the University hospital directors in the spring of 1994 if they had considered the possibility of forming a statewide health care delivery system to consolidate administration and reduce competition (The Regents of the University of California, Committee on Hospital Governance, 1994). In the Fall of 1994, the Regents commissioned KPMG Peat Marwick

to conduct a study on the ability of the medical centers to meet capital and competitive needs over the next five years (KPMG Peat Marwick, 1995).

Based on a review of the strategic initiatives of each UC medical center, the KPMG Peat Marwick report concluded that "...the strategic plans appropriately address their individual markets and we are not aware of alternative strategies that are more likely to be successful and require less investment." (KPMG Peat Marwick, 1995) The strategies that had been reviewed for UCSF were the development of a primary care physician network, contracting to provide referrals from external medical groups and health plans, and cost reduction and service excellence.

The KPMG Peat Marwick report stated that, "UC San Francisco Medical Center's strategies focus primarily on being part of integrated delivery systems in order to achieve its desired role in two market areas: the local market for primary care, and the regional market for tertiary and quaternary services." (KPMG Peat Marwick, 1995) The "significant risk" posed by this strategy was summarized as, "UC San Francisco Medical Center is very dependent on tertiary and quaternary referrals; its greatest market exposure may lie in its ability to demonstrate the value it provides as a regional referral center and its ability to broaden its primary care base." (KPMG Peat Marwick, 1995) Thus, a week before the initial meetings were held (in April 1995) with Stanford University that culminated in a decision to merge the clinical services of the two institutions, KPMG Peat Marwick had concluded that the current strategies that focused on being part of an integrated delivery system [and did not include a merger with another institution] were adequate to address UCSF's needs.

Despite the implementation of its initial strategies, UCSF continued to experience a major decrease in admissions throughout 1994 and 1995. Adding to the general perception of distress, the California Public Employees Retirement System (CalPERS) and the Pacific Business Group on Health (PBGH) were demanding lower costs across

the board from providers. In FY1993-94, CalPERS was able to generate a reduction in its costs for health insurance, and in 1995 PBGH demanded a 15% reduction in costs for its members, resulting in lower reimbursement for institutions such as UCSF.

The Hauser Report

Problems with the infrastructure of UCSF's clinical services ranged from lack of central leadership and coordination to facilities in need of major upgrades. The drop in admissions, problems with professional fee billing, and the general unresponsiveness of the administrative structure of the School of Medicine caused considerable distress and disquiet among many department chairs and chiefs of clinical services. Although the formation of the Clinical Enterprise, with the Clinical Services Executive Board at the helm, was seen as a step in the right direction, there remained a perception that a broader plan was needed for full integration of, and alignment of incentives for, physician and hospital services. In response to this concern, the Clinical Services Executive Board formed the Clinical Integration Task Force, chaired by Stephen Hauser, M.D., chair of the Department of Neurology.

The report issued by the Clinical Integration Task Force in December 1995 (commonly called the Hauser Report), and its subsequent dissemination, provide insight into factors affecting the UCSF strategic planning process, especially the power of specialists within this process (University of California, San Francisco Clinical Integration Task Force, 1995). Key recommendations of this report included a new organizational structure, with the School of Medicine effectively in control of the clinical enterprise, and the pooling of professional fee and hospital income. Despite apparent general approval, the Hauser Report's major recommendations were never implemented.

Membership of the Clinical Integration Task Force consisted of a selection of the leadership of the clinical services of the School of Medicine and medical center (Table

12), including many who also served on the Clinical Strategies Committee. The charge of this committee was directed at making UCSF clinical services more efficient and competitive: 1) Examine the feasibility of organizational integration of the UCSF Medical Group, the clinical components of the medical school, and the Medical Center; 2) Explore the creation of a single medical group practice; 3) Examine the strategies of other academic medical centers regarding group practice development and clinical integration; and, 4) develop strategies and time lines for implementation of all recommendations (Clinical Integration Task Force, 1995).

The report cited a number of "potential threats to our future." These threats included lack of effective communication (citing a need for more input of the clinical chairs into the strategic planning process); poor functioning of the clinical enterprise in areas such as billing, interactions with referring physicians, hospital systems, and pharmacy; inadequate, uncoordinated planning; lack of common vision; uncoordinated efforts to control costs; "unaligned" financial incentives; lack of recognition of the specific needs of the clinical enterprise by the university bureaucracy; and "constraints of a state institution to address tenure issues and practical strategies for rightsizing." (Clinical Integration Task Force, 1995) The report listed a number of principles to guide the organizational and financial integration plan, including sensitivity to the academic mission.

The recommendations of the Hauser Report were far-reaching, suggesting a major reorganization of the clinical enterprise at UCSF. Control would be centralized through a streamlined governance structure. A Clinical Enterprise Board would direct the overall clinical services at UCSF. This board would have the responsibility and authority to review and approve "Major program changes, mergers, acquisitions, relationships (e.g., CPMC, Stanford)," significant reimbursement changes, and funds flow and tax assessment issues. The report recommended that the Board be chaired by the dean of the

School of Medicine (with no delegation of this role) and include chairs of all clinical departments, chiefs of staff at Parnassus and Mount Zion, representatives of the faculty, and the CEO of the Clinical Enterprise. There would also be several non-voting members on the Board, including the deans of the Schools of Nursing, Pharmacy, and Dentistry. Just below the Board in the proposed organizational structure would be the Clinical Enterprise Executive Committee, with membership and responsibilities similar to the Clinical Services Executive Board.

The Hauser Report also recommended major changes in the financial structure of the clinical enterprise. Most importantly, professional fees and medical center funds would be pooled and financial incentives for physicians and the medical center realigned, "with a substantial amount of revenue distribution and faculty compensation at risk." The pooling of funds was intended to rationalize planning for clinical services and to allow efficient services to be rewarded. The report also recommends that the Board control profit/loss distribution (Clinical Integration Task Force, 1995).

The recommendations of the Hauser Report were intended to create a centralized administrative and financial structure for clinical services at UCSF, which would be a radical departure from what had previously existed. A direct result of these changes would be substantial shifts in the power structure of the clinical enterprise. Given the strong medical school representation on the Clinical Integration Task Force, it is not surprising that the recommendations placed the dean at the head of the new power structure.

The Hauser Report was the central focus of the Medical School's Leadership Retreat at Asilomar in January 1996. According to several informants, there was substantial discussion and general agreement about both the goals and details of the report. Despite the general public agreement about the report, however, there was considerable unspoken resistance to the recommendations, particularly by surgeons and other specialists. One

informant said, "We were certainly not happy with a plan that redistributed income in a socialist-like model." The other primary concern was tying physicians too closely to the fortunes of the medical center, especially when medical center finances had been spiraling downward for several years and approaching deficit. The Clinical Integration Task Force and its report were the product of the traditional academic committee processes. To implement the recommendations on an academic timetable would have taken a considerable amount of further discussion and time. Events, particularly the merger plan with Stanford, however, were on a parallel and much faster path, overtaking and making the recommendations of the Hauser difficult, if not impossible, to implement.

In retrospect, despite the public support of the Hauser Report by the medical school leadership, it seems clear that the report's major recommendations had little likelihood of ever being implemented. The recommendations were too threatening to specialists' income and put all faculty professional fee income at great risk in the case of potential medical center losses. As discussed below, a major rationale for the merger with Stanford was to increase admissions to tertiary and quaternary care clinical services. With the specialists in opposition, and the merger negotiations with Stanford progressing, the major Hauser Report recommendations met a quiet death. Of note, only two informants even mentioned the Hauser Report in their descriptions of UCSF's strategic planning process, and none said that the report's recommendations had any effect on the strategies eventually chosen.

Merger as a New Strategy

The perception of the failure of the initial set of strategies to stem the decline in admissions and the threat to UCSF led to discussions among the leadership of a new set of strategies that went considerably further than fixing what was broken at UCSF. Discussions were initiated with UCSF's two major rivals: Stanford University regarding coordinating tertiary care and California Pacific Medical Group (CPMG) concerning

primary care. Both sets of discussions started out with the goal and expectation of limited collaboration in certain teaching and clinical programs, but ended in the merger of UCSF programs with these two entities. This rapid change in strategy and unexpected outcome was due to a logical extension of the social construction of the crisis.

Brown and Toland Medical Group

The discussions with CPMG, which ultimately resulted in the creation of Brown and Toland Medical Group, began as negotiations about collaborations of teaching programs. With the slow growth of the IPG, the limited success of other strategies, and an inpatient census that continued in free-fall, a major initiative with CPMG, which had 150,000 persons in its capitated plan, began to be seen as a replacement for the failed initiatives with Kaiser and Sutter. The joining of UCSF's 25,000 enrollees and CPMG's 150,000 enrollees would create one of the largest groups in San Francisco, large enough to compete with Kaiser. This was also seen as an opportunity to increase referrals from the CPMG primary care physicians to the UCSF specialists (and possibly to increase primary care at UCSF as new patients signed-up for the Brown and Toland plan and chose UCSF primary care physicians).

UCSF had recently agreed to manage the liver transplantation service and tertiary pediatrics at California Pacific Medical Center (CPMC). This move was tactical according to one informant, "We did a lot of things that we didn't want to do. An example was our taking over the transplant service and tertiary pediatrics at CPMC. This was a tactical move, because we had been told that Stanford might take them over, thus establishing a foothold in San Francisco that UCSF would have to compete with."

From the CPMG vantage point, however, the strategy was quite different. Having been active in the managed care field for several years, and having seen its own hospital, CPMC, go through a major merger and down-sizing, CPMG had few illusions about the

effects of a merger with the physician group at UCSF. The merged entity would effectively be dominated by CPMG enrollees and primary care physicians. One non-UCSF informant said that, from CPMG's standpoint, the merger "took UCSF off the map competitively," that is, CPMG would no longer have to worry about UCSF joining with Kaiser or other groups in competition with CPMG. In addition, CPMG was confident that it would compete effectively for enrollees in Brown and Toland, particularly given the difficulty UCSF patients historically have had negotiating the UCSF bureaucracy, compared to seeing their doctors in the private offices of CPMG's physicians.

The Merger with Stanford

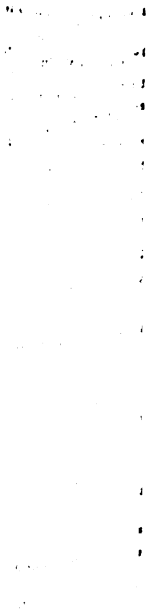
In the spring of 1995, with no end in sight in the decline of UCSF's admissions and the apparent failure of the initial set of strategies, UCSF Chancellor Martin attended a meeting concerning the problems of academic medical centers that was also attended by Gerhard Casper, President of Stanford University. During a break in the meeting, the Chancellor and President briefly discussed possible collaboration between two of the leading health sciences and clinical centers in the United States.

The impact of the changing health care environment was even greater on Stanford than UCSF. Over the preceding several decades, hospitals at academic health centers contributed substantial financial resources to their parent universities. In recent years, however, university administrators were beginning to see the potential for hospitals to be financial liabilities. Even the University of California had toyed with the idea of developing a separate line of business for its hospitals. With the financial bottom lines of its hospital in the red as much as in the black over several years, Stanford University created a separate financial entity for the hospital, Stanford Health Systems, in hopes of protecting the University from a financial catastrophe at its hospital. (According to one informant who was familiar with the legal issues involved, the "spinning-off" of this

entity, and even the creation of the private [merged] UCSF Stanford Health Systems, may not fully protect the parent universities from financial liability.)

Soon after the initial discussions between Drs. Martin and Casper, a small group of the leadership of the two institutions met. At this point there was still much uncertainty about the possibility of a merger. One person involved in these early discussions said that there were two developments that had an important impact on his thinking regarding the merger. First, there apparently had been serious discussions between Stanford and the for-profit hospital system Columbia/HCA, and he felt that UCSF could not compete effectively with such a merged entity. The second development was discussions between Kaiser and Stanford to admit Kaiser patients to Stanford. The informant said it was difficult to conceive of a merger between UCSF and Stanford initially, primarily because of the distance between the entities, but several possibilities made the merger more attractive. The informant argued that (the new entity) would be a referral resource for other health care systems; would avoid an "arms race" to acquire similar technologies; would result in reduced administrative and other costs; and would differentiate UCSF from other institutions, to "do what we're good at," that is, tertiary care and clinical research.

During the initial meetings of the leadership group, it was decided that an outside consultant would be helpful in assessing the types of joint activities that the two institutions might undertake. Beginning in the late summer of 1995, members of the Lewin Group met with the Stanford and UCSF leadership. After discussing a variety of specific relationships, the Lewin Group gave some basic advice, "If you're going to do something, you should do something." In other words, if changes were going to be made, they might as well be substantial. It was at this time that the first significant discussions took place regarding the possibility of merger between the two clinical enterprises. The

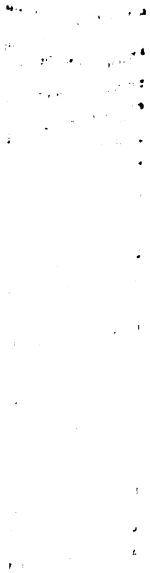


discussions, however, were limited to merger of the hospitals and not the two medical schools.

Other than brief newspaper articles about the discussions, which were vague about the details, there was essentially no public comment or disclosure about the nature of the talks. The leadership of both institutions, however, started to seriously consider the possibility of a full merger during the winter of 1996. At this time another consulting team, from KPMG Peat Marwick, was brought in to advise on specific aspects of a merger, including whether it was administratively possible and whether it could be considered a restraint of trade and therefore in violation of antitrust laws. Several informants reported that KPMG Peat Marwick was not asked to address the wisdom of the merger or whether the merger would solve the central problems that the two institutions faced, but only whether a merger was financially and administratively possible.

As part of the analyses presented by KPMG Peat Marwick, there was an assessment of the proportion of care in certain tertiary care services provided by UCSF and Stanford (to address the issue of whether a merged entity would dominate the market and possibly be in restraint of trade). The bad news was the good news. Admissions to the two institutions comprised only about 10 percent of the admissions in northern California for this set of services. Not only would a merged entity not dominate the market, but, it was argued, even an increase of two percent in the share of admissions would effectively be a 20 percent increase for UCSF and Stanford (from 10 percent to 12 percent). What may not have been considered was another implication of these data, that UCSF and Stanford were the referral places of choice for relatively few northern California patients.

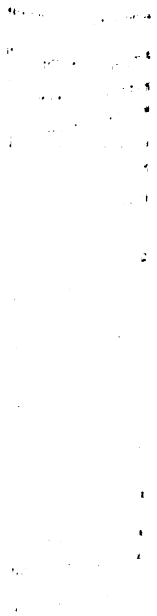
The general social construction of the problem did not change: Patients were seen as going elsewhere and the solution was to get the patients back. The primary rationale for the UCSF-Stanford merger was the belief that by combining the two premier academic



health centers in northern California, the new entity would be more successful in competing for patients by obtaining contracts for tertiary and quaternary care services.

There was an agreement during the negotiations between Stanford and UCSF to limit the discussions to administrative matters and to delay discussions of two key issues: the possibility of combining and/or down-sizing clinical services and the division of the graduate medical education dollars. These two issues lie at the heart of the relationship between a medical school and its hospital. The expenses of a teaching hospital include not only the administrative structure and physical plant, but the maintenance of clinical services for medical school faculty. Similarly, medical schools rely on the hospital clinical services as sites for teaching and research. With a declining patient base, medical schools are put in the position of having to support faculty who, with fewer patients, are less productive economically. Adding medical school tenure to this mix creates a difficult, if not impossible, situation for a medical school in its need to reduce costs while maintaining its teaching and research programs.

The other key substantive issue that was avoided was the division of the graduate medical education dollars. (This was confirmed by most, but not all, interviewees who were part of this process.) As described above, graduate medical education dollars are provided to hospitals by Medicare to support the salaries of residents and their faculty supervisors and for the extra services provided in teaching settings. Although the funds are in the hospital budget, residency and fellowship programs are a key part of the teaching mission of medical schools. The control of graduate medical education dollars can put a hospital in direct conflict with its medical school. In a merged entity, the division of these funds would be between the new clinical enterprise and two separate medical schools, each with faculty and teaching programs that would compete vigorously for these resources. The avoidance of the subject of the allocation of graduate medical education dollars during the negotiations was apparently an attempt to limit the issues



being discussed to those that affected hospital administration most directly and to exclude academically and politically sensitive medical school-related issues.

The social construction of the problem was focused on economics and defined as a need to compete more vigorously for patients who were going elsewhere. This view was reinforced by the need for the medical school to maintain its clinical services for teaching purposes and the political and practical difficulty in reducing numbers of faculty and clinical services. One informant said that, "The partnership with Stanford strategy was driven primarily by the kinds of programs that provide the basic economic foundation of UCSF. UCSF decided to go to its historical strengths, to adopt a strategy that allowed UCSF to be even better at tertiary and quaternary care than it had been in the past, rather than being something completely different. The sense was that UCSF had to be available to every market conceivable. The central focus of the strategy was economics, not necessarily academic concerns."

The omission during the merger negotiations of discussion of down-sizing clinical programs and how the graduate medical education dollars would be allocated avoided (or rather, delayed) confronting highly politically sensitive issues during a time of delicate negotiations. The competing social construct that there was an actual decrease in the numbers of patients "available," and the resulting implication that clinical activities should be down-sized, was never seriously considered.

The merger negotiations themselves were not only held in secret, but also included only a limited set of the senior leadership at each institution. By April 1996 it became necessary to "go public" with the negotiations, if only to start the process of obtaining the approval of the UC Board of Regents and the Stanford University Board of Trustees. The week before the Regents meeting at which the strategy would be announced, the merger plans were described at a meeting of the Clinical Strategies Committee. Until that time most members of the committee, as well as most people in the UCSF community,

believed that the negotiations with Stanford were limited to discussions about combining a small number of teaching and clinical services. During the Clinical Strategies Committee meeting, the surprise at the announcement was punctuated by questions from one of the most senior and influential persons on the committee who clearly knew nothing about the merger negotiations.

When the proposal was presented to the Board of Regents, it was supported by most if not all members of the board. Before the Board would give it final approval, however, the Regents decided to appoint a "third-party" committee to review the merger. The Regents' charge to the Third Party Review team was to address three financial questions: "1) Is this a sound business decision for the University of California?; 2) Has the analysis to date been sufficient to determine the business viability of the merger?; and, 3) What, if any, further analysis should be conducted?" (Hellman, McArthur, Thier, Farkas, & Miller, 1996). The committee was headed by Warren Hellman, the head of an investment firm, who chose the other members of the review team. The team included John McArthur, former dean of the Harvard Graduate School of Business; Samuel Thier, M.D., chief executive officer of Partners HealthCare System, Inc. (the merged entity in Boston of Massachusetts General Hospital and the Brigham and Women's Hospital); and two members of Bain & Company, a health care consulting group.

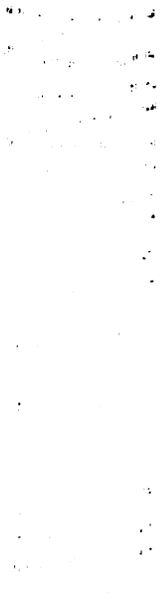
As was the case with the merger negotiations themselves, the Third Party Review focused on the financial aspects of the merger, and accepted essentially all of the financial assumptions related to the probable success of the combined entity. In the final report of the Third Party Review, there was no discussion of the potential effect on UCSF teaching programs nor assessment of the construction of the basic issues. Seeking no new analyses with which to judge the basic assumptions of the merger, and essentially limiting their information to that produced by the negotiators, the final report of the Third

Party Review fully supported the concept of the merger. Shortly thereafter the Board of Regents approved the merger as did the Stanford University Board of Trustees.

Will these strategies be successful?

Mergers of health care organizations have some theoretically positive aspects, particularly given excess capacity and the perceived economies of scale that will accrue. Economies of scale in health care organizations may be illusory, however, as there is little empirical information available about the optimal scale for different types of organizations, and because the optimal scale is likely to change as a result of changes in technology (Fuchs, 1997). Thus, there are few yardsticks with which to judge the correctness of UCSF's decisions to merge with Stanford Health System and with California Pacific Medical Group. As was the case with the merger of Children's Hospital and Pacific Presbyterian Medical Center into California Pacific Medical Center, mergers may be most successful if they result in effective down-sizing of the pre-merger organizations.

The short-term outcome of the chosen strategies will depend in large part on the identification and implementation of the new administrative structures and policies and on how the entities are able to resolve the very difficult issues of the division of resources and the probable need for down-sizing of their clinical activities. At some point, however, the difference between the social construction of reality under which these mergers were negotiated and the actual, almost universal, decline in patient admissions will have to be addressed. The long-term outcomes will be influenced strongly by factors over which these institutions have little direct control: the social legitimacy of academic health centers and struggles for power among diverse economic interests both inside and outside of academic health centers.



Chapter VI
The Implications of Social Theory

Academic health centers in general, and UCSF in particular, have grown into highly successful and affluent organizations. With a rapidly changing and newly threatening environment, academic health centers are engaging in strategic planning processes that may eventually initiate basic changes in their traditional roles and structures. This chapter discusses the implications of social theory and lessons from the UCSF experience.

Political Economy and Professional Dominance

Key characteristics of the political economy of health care that affect strategic planning in academic health centers include the ideological hegemony of the private sector; professional control and dominance, primarily by physicians; and the social legitimacy of the dominant institutions.

Private Sector Hegemony

As Estes and Alford point out, the dominant institutions in the health care sector are private; these institutions receive large amounts of funding to carry-out public functions (Estes & Alford, 1990). Although obtaining the majority of their funding from public sources, academic health centers (whether nominally public or private) are relatively autonomous in their operations and decision-making. Academic health centers have been a creation of Alford's bureaucratic sector, which has ensured their funding and dominance (Alford, 1972). Presumably, an original rationale for this support by the public sector was that the market alone would not sustain the key roles of education and research. As academic health centers have grown and become dominant in the health care system, however, their social and political power has enabled them to become relatively independent in pursuit of their goals. Academic health centers have pursued advances in biomedical knowledge and technologies, with the resulting increasing specialization of

the medical profession, at times to the detriment of their other public responsibilities and trust (Schroeder, Zones, & Showstack, 1989).

Because of their social legitimacy and the resultant large amounts of resources available, academic health centers have been slow to respond to fundamental changes in the economics of the health care system. As described by Starr, other health care organizations and systems have integrated horizontally (with the decline of freestanding institutions and rise of multi-institutional systems) and integrated vertically (a shift from single-level-of-care organizations, such as acute care hospitals, to organizations that embrace the various phases and levels of care, such as HMOs) (Starr, 1982). Academic health centers have not, until recently, attempted similar changes. Only as the health care environment has produced increasing competition that has threatened the economic viability of academic health centers have these organizations attempted to change their basic structures.

Brown's description of the factors leading to the evolution in American medicine 1890-1925, particularly the role played by industrial capitalism, is still relevant in the 1990s (Brown, 1979). Universities, through their academic health centers, have taken on the roles of training most health care professionals and scientists and conducting organized biomedical research. The advancement of scientific medicine allowed, and even reinforced, the specialization and dominance of medical professionals.

The continuing struggle among dominant groups, particularly Alford's professional monopolists and corporate rationalizers, has affected all sectors of the health care system (Alford, 1972). Because of their success and socially important roles, academic health centers have been a bastion of strength in these struggles to maintain professional dominance. Today the control of health care resources by professional monopolists is being challenged by managed care systems that are formed primarily for economic

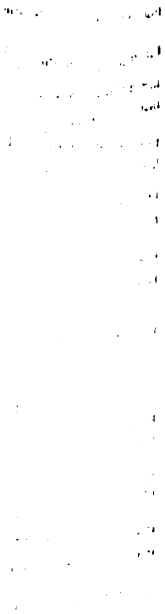
reasons. The response of most academic health centers has been to try to compete according to economic ground-rules set by the private sector.

Professional Control and Dominance

As the health care system has grown and prospered, physicians have received the greatest economic rewards. Physicians control most of the key decisions in the health care system, either directly through their roles in clinical care and in the administration, accreditation, and oversight of the system, or indirectly through their economic and political power. Managed care, however, has attempted to lessen the power of physicians with controls over both utilization and referral patterns. The threat of managed care is loss of autonomy and what McKinlay and Arches describe as proletarianism (McKinlay & Arches, 1985). The loss of autonomy strikes directly at the heart of the concept of professionalism, the right of self-governance.

One of the reasons that managed care has been slow to take hold in academic health centers may be the dominance of physicians, particularly specialists, in these organizations. The creation of a managed care system at UCSF, for example, was slowed down, if not blocked, by specialists who feared a loss of both autonomy and economic power. It is specialists who bring into the institution the most patient care dollars, who have provided UCSF and other academic health centers with much of their reputation for excellence in clinical care, and whose presence most differentiates academic health centers from community hospitals.

The decision-making process at UCSF was dominated by both the needs and perspectives of physicians. Long-term planning is not generally part of clinical decision-making. One physician informant described the lack of strategic planning at academic health centers by likening it to his role as a physician, "Physicians need to make decisions quickly. We learn to make decisions with the information available at the time, and often



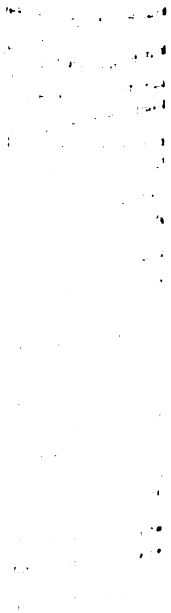
can't wait for a complete diagnostic work-up." A more subtle characteristic of physician decision-making is the belief that, given the uncertainty of clinical diagnosis, their intellectual capabilities will allow the sorting and weighing of diverse but limited information. A striking characteristic of the interviews conducted for this study was the uniformity of confidence in the correctness of the basis and results of decisions. When asked about the types of information that had been used in the strategic decision-making process, not one informant felt that more information about the environment should have been sought or was needed.

Academic Health Centers as Organizations

The Environment of Academic Health Centers

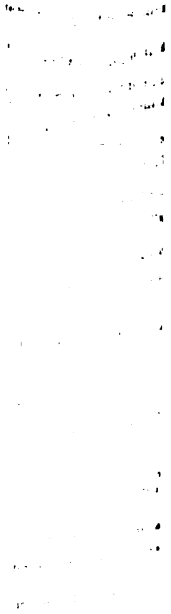
Academic health centers exist in a complex environment that influences organizational goals through systems of constraints. The existence of these environmental influences is shown, in part, by the similarity in goals, organization, and structure of the 125 academic health centers in the United States. These 125 institutions constitute an organizational field, although there are other organizational fields to which academic health centers belong and must respond.

The environment of academic health centers is complex, with multiple forces affecting, and often controlling, these organizations (Table 1). It is instructive to apply Pfeffer and Salancik's model of the relationships among the dimensions of organizational environments (Pfeffer & Salancik, 1982). Pfeffer and Salancik hypothesize that the certainty or predictability of environments is a result of the structural characteristics and relationships among the social actors in environments. Currently, power and authority in the academic health center environment is widely dispersed, including a variety of payment and control mechanisms (low "concentration" in Pfeffer and Salancik's terms); "munificence" is high, that is, resources have been plentiful; and the



"interconnectedness" of forces in the environment is only moderate (organizations are only loosely connected with each other, but the external control mechanisms that affect all academic health centers are highly connected) (Pfeffer & Salancik, 1982). Thus, in agreement with Pfeffer and Salancik's model, "conflict" and "interdependence" are low. In the past, these characteristics produced an environment for academic health centers that resulted in relative certainty and predictability. Changes in the health care marketplace, however, are lessening the concentration of power and authority, threatening resources, forcing competition, and causing an increased degree of interconnectedness among academic health centers and other actors in the system. These changes are already creating conflict between academic health centers and their environments and producing increased uncertainty about appropriate strategic choices.

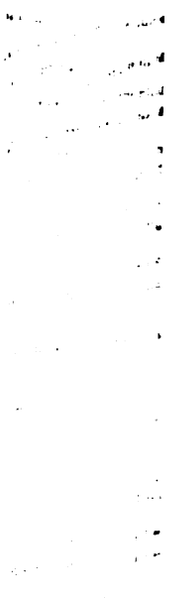
As suggested by Scott, the structure of academic health centers depends on (is mapped by) environmental elements (Scott, 1983). This "structural contingency" (Miles, 1984) is manifest in almost all of the units of academic health centers. For example, the structure of a hospital is determined in large part by the mandates imposed by external agencies (such as the Joint Commission on the Accreditation of Healthcare Organizations [JCAHO]), by requirements of health professionals, and by the types and sources of funding and reimbursement. A medical school's structure depends on both educational and clinical requirements that are imposed externally. In agreement with Miles' Structural Contingency Model, this environmental complexity causes academic health centers, and their constituent units, to create specialized units and personnel (Miles, 1984). A hospital, for example, has a number of highly specialized units that are specifically created and designed to respond to requirements of the environment. Examples include quality assurance mechanisms (required by payers such as Medicare and by JCAHO), and financial offices that must respond to a variety of payment mechanisms (such as fee-for-service, per diem, capitation, and diagnosis-related groups),



each of which has different financial incentives and amounts of payment for similar patients and services.

Ecological models of the relationship between organizations and their environment fit the empirical data about academic health centers only loosely, although the history of medical schools in the United States supports the ecological model (Hannan & Freeman, 1977). When the number of medical schools grew substantially in the latter half of the 19th century, most were proprietary and resembled each other, more because of the needs of marketing themselves than because of educational or clinical requirements (Rothstein, 1987). With the increase in scientific knowledge and the advent of the clinical training model (started at Johns Hopkins University in 1893), the number of medical schools decreased substantially. Almost all of remaining schools emulated the "Oslerian" model of bedside teaching developed at Johns Hopkins, primarily for reasons of legitimacy and competition (Stevens, 1971). Thus, there was a strong selection process that adversely affected proprietary medical schools in favor of those that emulated the Hopkins model.

With increasing resources devoted to medical education after World War II, the number of medical schools increased substantially, with the Oslerian model uniformly practiced. Perhaps because resources have been plentiful, there has been little change in the basic model and structure of medical schools over the past 50 years, which has been caused by both the lack of need to change and the threat to legitimacy that change might bring. It was only in the late 1970s that a new "case-based" model of medical education was initiated at McMaster University in Ontario and later implemented at other institutions including Harvard University in its "new pathway." (The case-based model focuses on simulated cases rather than lectures for basic science training and usually includes didactic material on social, behavioral, and population aspects of health and illness.) Although generally viewed favorably, the case-based model has achieved only



minimal acceptance and is practiced today in only a small number of medical schools, perhaps because it is seen as an unnecessary change.

The Internal Structure of Academic Health Centers

Academic health centers are complex organizations with multiple goals, administrative units, sources of revenue and supplies, production methods, and outputs. Despite this complexity, academic health centers fit closely the definitions of organizations by Weber, Parsons, and Scott cited above (Weber, 1978; Parsons, 1960; Scott, 1987). Almost all academic health centers share the same basic goals and structures. If the provision of resources to academic health centers is an indication, their role is highly valued by society.

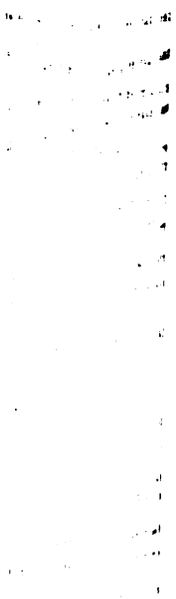
An important consideration in any analysis of the organizational characteristics of academic health centers is that they consist of two main units (the medical school and hospital) that are joined together in an organization (the academic health center) that itself is part of a larger organization (the university). Each of these organizational units, and often their subunits, have their own structures, sources of funding, and products. Thus, an analysis of the internal structure of academic health centers must assess both the goals and structures of the individual units as well as the interaction of these units with each other and with the environment.

The goals of both the medical school and hospital within the academic health center structure are based on sets of constraints, as described by Simon (1964). The primary constraints are requirements for specific activities and products imposed by funding agencies, licensing and certification groups, and professional actors. These requirements are usually independent of each other and may produce conflicts of goals and objectives. It is necessary for the academic health center and its actors to satisfy these constraints before other individual or group goals or activities may receive attention.

While academic health centers fit closely Weber's description of a bureaucracy, the complexity of their structures and environments suggests that Perrow's criticism of Weber's "ideal type" of bureaucracy is justified; it is not possible for academic health centers to eliminate extra-organizational influences, and the complexity of medical knowledge and the rapidity of change in the health care system make it unlikely that the leadership and staff of academic health centers are able to gather, assimilate, and act upon all the information necessary to fulfill their goals and objectives.

The leaders and administrative staff of academic health centers are subject to Simon's bounded rationality and forced into satisficing, rather than optimizing, behavior (Simon, 1961). An example of this phenomenon is the reaction of academic health centers to the changing health care environment. Because so much of the funding for academic health centers comes from the government, and with the new uncertainty attached to the outcomes of budget negotiations between the executive and legislative branches of government, the leadership of academic health centers must plan in an environment where the uncertain political process may be more important than estimates of the market demand for their "products." Academic health center actors need to satisfice by choosing solutions from simple and known choice sets (such as basing future budget projections on past budgets, irrespective of likely changes in the environment).

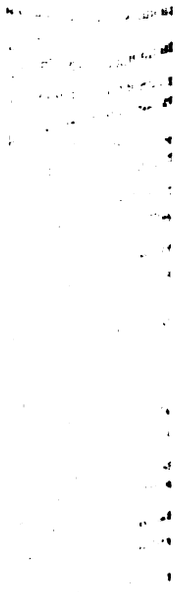
The behavior of individual actors within an academic health center is regulated much as described by Simon. In both the medical school and hospital, there is division of labor, standard practices, systems of authority and influence, multilevel channels of communication, and training and indoctrination of members. The degree and types of mechanisms of control differ, however, according to organizational unit. The "hotel" function and technology of the hospital are organized hierarchically, with control of organizational members through relatively direct systems of authority. The staff nurse is supervised by the head nurse, who is supervised by the director of nursing, who is



supervised by the hospital director. Hospital clinical services, in contrast, are provided by individual physicians who operate independently, and who are, in fact, the customers of the hospital's services. The hospital must contend with users of hospital services who are independent of the hospital staff hierarchy, but who control many hospital resources.

The control of the actors within the medical school is equally complex. Medical school goals and structure are based on educational priorities, the provision of resources by the government, and the necessities of clinical care. In contrast to the hierarchical structure and power relationships within hospitals, power in the medical school hierarchy resides in the legitimacy and prestige of the organizational actor and the ability to obtain funding, either through support of teaching, research, or patient care (Pfeffer, 1981). Rather than the dean, the most powerful organizational actor in medical schools is often the chair of the department of medicine, who commands the most resources (including numbers of students, residents and fellows, clinical income, and research support). As the most important group of actors, faculty are relatively independent from direct supervision; advancement and evaluation is based mainly on the productivity of research that is initiated by faculty and funded by non-medical school sources, and to a lesser extent on teaching and clinical productivity. Therefore, the control mechanisms in the medical school, such as internal and external peer review of research activities, are less direct than those in the hospital, and the decision-making process is much more loosely coupled in the medical school compared with the hospital.

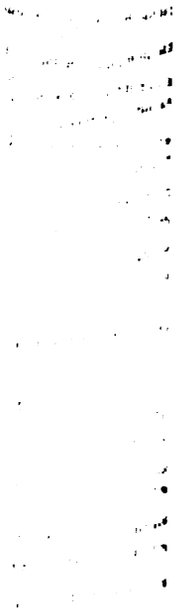
These differences between the medical school and hospital in organizational goals as defined by system constraints, in the power structure within each unit, and in control mechanisms result in substantial difficulty when joint decision-making is necessary. In part this is due to different, and evolving, conceptions of control within the two units (Fligstein, 1995). In contrast to other industries, the primary conception of control within the hospital has only recently shifted from service and marketing to finance. This change



has been accelerated by the increasingly competitive health care marketplace that has placed greater emphasis on financial outcomes and created competitive threats to academic health centers. The conception of control in medical schools has been, and is likely to continue to be, based on educational and professional standards and even more resistant than the hospital to changing to a financing conception of control. The survival of academic health centers and their constituent units may depend, in the long-term, on their ability to adapt to a competitive environment where a financing conception of control is dominant.

There is a striking similarity in goals and objectives among the 125 academic health centers in the United States. Their internal structures generally follow the pattern shown in Figure 4, although there are some notable exceptions. The general isomorphism of academic health centers results from coercive, mimetic, and normative processes (DiMaggio & Powell, 1983). The external control and funding of academic health centers produces strong coercive forces toward isomorphism. Mimetic forces are weaker than are coercive or normative forces; they generally result from a strategy that argues that to succeed one should imitate other successful academic health centers. For example, in most academic health centers, biomedical research is promoted, both for its prestige and its funding, even though most biomedical research funding is concentrated in fewer than 10 percent of academic health centers. Normative forces toward isomorphism are especially strong due to the professionalized nature of academic health centers as organizations, with physicians and other health professionals seeking to define their conditions of work and to legitimize their occupational autonomy. Perhaps most importantly, isomorphism promotes the legitimacy of academic health centers; changes in goals and structure toward new forms may threaten the basis of this legitimacy.

Academic health centers are examples of what Scott has called autonomous professional organizations where professional employees define goals and set and



maintain performance standards (Scott, 1987). Similar to Scott's description of general health care organizations, academic health centers are occupationally, rather than administratively, structured. Because of the power of professional occupations, administrators in academic health centers have relatively little control over the type of work performed and who performs this work (Scott, 1983). Thus, there is a decoupling of the administrative hierarchy from the actual decision-making and work process. In contrast, managed care organizations often are structured in a more hierarchical manner, similar to Scott's heteronomous professional organizations. As academic health centers engage in the newly competitive environment and form or align with managed care entities, they will be forced to determine the degree to which their organizational structures should be changed to a more heteronomous form.

Strategic Planning at UCSF

The Parameters of Strategic Planning

In reacting to the emerging crisis, a key characteristic of the choice and assessment of strategies by UCSF leadership was the process's implicit "bounded rationality" (Simon, 1961). Strategic and tactical choices were based on the contingencies of the moment, with relatively little emphasis put on long-term planning or seeking optimal solutions. One informant said, "UCSF has never had a formal strategic planning process. There has been capital planning as part of the long-range development plan, but that has not included formal strategic planning in other areas." The informant went on to say, "We've all heard the expression, 'When you've seen one market, you've seen one market'....You can't look elsewhere for solutions to the problems UCSF faces."

Presumably this "satisficing" behavior was due to the historic need to manage internal organizational issues without the necessity to be concerned about changes in the environment. When the environment did change substantially and rapidly, the

participants in this process felt barely able to address the issues of the moment, let alone plan strategically for the future. There were few models available elsewhere of academic health centers that had successfully addressed similar issues. The choice sets that were considered conformed to both past experience and the social framing of the crisis.

The Structure and Use of Power

The use of power by physicians within the organizational structure at UCSF is a major control mechanism and, in large part, is based on the ability to control resources and the legitimacy of the source of the power. In an environment where the sources of power are relatively diffuse, the actual leadership at UCSF (as opposed to the nominal organizational structure) is composed of persons who each control a disproportionately large, although usually minority, share of the resources (Pfeffer, 1981). Thus, the necessity for joint decision-making is compelled by both the horizontal administrative structure of one of the two main organizational components, the medical school, and the need to include powerful, but diverse, elements of the structure.

The diffusion of power in an academic environment usually makes changes in strategic direction slow and ponderous, and based on continual negotiations among different vested interests. During an era of increasing resources, this diffusion of power at academic health centers was little hindrance since resource allocation decisions tended to be "local" to the hospital and to each academic unit. The income streams mirrored (or, perhaps more accurately, helped to create and sustain) the dispersed power structure, with the hospital and the departments in the school of medicine each generating their own resources.

One of the major components of the crisis at UCSF was the disruption of this implicit power structure as income sources became less stable and predictable. Department chairs and hospital administrators, who previously had little need or desire to coordinate their

decisions with those of other units, were confronted with a new situation that threatened the basis of their power within the organization. The result of this disruption of the traditional power structure was a vacuum that was filled by a new centralized organizational structure, the Clinical Enterprise and its controlling body, the Clinical Services Executive Board.

By creating the Clinical Enterprise, the UCSF leadership both addressed and took advantage of the power vacuum. The consolidation of power into this new organizational structure effectively bypassed many of the roadblocks to change created by the academic structure. The new structure was also, in a sense, an "end run" around the academic structure as the consolidation was of clinical resources, not of teaching or research programs. In effect, the Clinical Enterprise allowed the academic structure to continue to operate in parallel while consolidating decision-making about the key set of resources in the organization.

During the strategic planning process the division of power between the Clinical Enterprise and medical school programs was protected and respected. The goals of the negotiations regarding consolidation, and possible merger, with other entities were always to increase the patient population at UCSF. Issues that might have threatened the delicate balance between clinical programs and the education and teaching missions, however, were essentially removed from the negotiating process. The secrecy of the negotiations with Stanford University about a possible merger, for example, was presumably based on a perceived need to act quickly, which entailed bypassing the formal, and slow, academic processes. Few persons even in the leadership group knew about the details of, let alone were involved in, the negotiations. By the time the full details were announced, the merger plans had become a *fait accompli.*

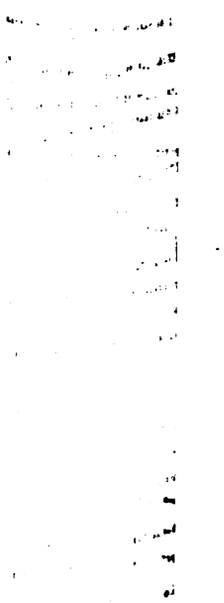
In addition, two issues critical to the two medical schools, and to the relationship between the medical schools and their hospitals, were explicitly excluded from the

negotiating process. These two issues were the consolidation of clinical programs within the merged entity and the division of graduate medical education funds. To address these issues would have required involving a variety of persons representing various clinical entities and teaching programs and entailed the risk of both slowing down the process and producing internecine and destructive power struggles. Consolidation of clinical programs and the division of graduate medical education funds are two of the most important issues that will need to be addressed in the merged entity. It seems likely that the various power centers within the medical schools and hospitals will reassert their strength at that time.

The Role of the Hospital Director

The power structure of UCSF is similar in most respects to other academic health centers, with the hospital director, dean of the medical school, chair of the department of medicine, and certain other chairs and clinicians being the key actors. At most large academic health centers, the hospital and medical schools are relatively separate units. There is a basic need for these entities to interact, particularly since funding for the medical school's graduate medical education programs flows through the hospital, and the medical school provides physicians to admit patients to, and staff, the hospital clinical services. A delicate and continual negotiating process needs to occur, with the hospital director and the medical school dean often in conflict over the allocation of these and other resources.

What is perhaps unique about UCSF, and one reason for the respect given the hospital director by the medical school faculty, is the role that the UCSF hospital director typically plays in these negotiations. The hospital director believes, and acts upon, the notion that the role of the hospital is to support the basic mission of the enterprise (teaching and research), not to have autonomous and possibly conflicting goals. By deferring to the needs of the medical school, the hospital director actually may have



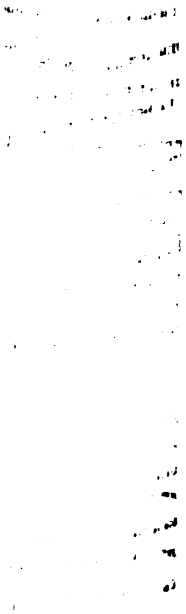
gained power through the increased respect and esteem given to him by the medical school leadership and faculty.

The Cultural Framing of the Issues

One of the most striking features of the strategic decision-making process at UCSF was the power of the then current social construction of the crisis. The lack of the ability of individual human beings, let alone the leadership of complex organizations, to understand the influence of more than a few variables at a time leads inevitably to a simplification of decision-making to a few known choice sets (Fligstein & Mara-Drita, 1996). It is in this context that the cultural framing of issues is a process of, and dependent upon, which sets of information and strategies are identified and chosen and by whom.

Although probably not limited to a medical environment, the process of decision-making in the UCSF strategic planning process was similar to clinical decision-making. The essence of clinical decision-making is making choices under conditions of uncertainty. This process was clearly evident in the reactive nature of the decisions made by the leadership at UCSF. As noted earlier, one of the leaders of this process said that they were so overwhelmed by circumstances and the continually changing environment that long-range planning was impossible.

The framing of an issue requires that choices be made about which issue-defining information will be used. In the past at UCSF there was little need for environmental information; the leadership was used to making decisions about internal structural issues but not about the possible (but unlikely) negative effects of a changing environment on the organization. Because of the uncertainty that environmental information might have produced, and the threat to the current social construction of reality, it apparently was very difficult for the UCSF leadership to change the point of reference to a complex and



rapidly changing health care system. It was easier, simpler, and fit better with past experience to limit the information included in the decision-making process to the normal internal channels of communications.

The information about the changing admission patterns in the Bay Area that was presented in this study was available, but not sought, by the UCSF leadership. Perhaps this was a purposeful decision to avoid acquiring information that would potentially be difficult to incorporate into the current framing of the crisis. Because the current frame suggested to the leadership that the solution to the problem was to continue on the traditional path of competing more effectively for patients, any information that threatened this frame would necessitate both a different direction in planning and possibly disruptive power struggles. Framing of the crisis as one of competition for patients allowed UCSF to continue its current operations relatively unchanged, while seeking a partner in competition. Of course, there is an internal logic to this position. Maintaining the status quo was both a safe and seemingly low-risk policy given the rapidly changing environment and the concomitant difficulty in predicting the future.

An alternative framing of the crisis that attributed the fall in admissions at UCSF to a general decline in admissions rather than to a failure to compete for a relatively constant number of patients was possibly too threatening to the power structure to consider. Such an alternate frame would have necessitated a painful down-sizing of the clinical structure that would have had substantial ramifications for teaching and other core programs and, perhaps most importantly, may have threatened the institutional legitimacy of the organization.

The Financial Conception of Control

Over time, a subtle but important change has occurred in health care institutions, and particularly at academic health centers, in the logical bases of control of the organization.

In a fee-for-service environment, the incentive for a health care organization is to provide increasing amounts of services. As resources were poured into the health care system between the 1950s and the mid-1980s, the increasing types and amounts of services provided necessitated a management conception of control (Fligstein, 1995). The most powerful persons in these organizations were those providers who brought in the most income and the managers whose job it was to make sure that the internal structure and resources of the organization were appropriate for the services provided. With the change to forms of prepayment, however, the incentives shifted toward providing services most efficiently, and a financial conception of control replaced the management conception of control.

This shift to a financial conception of control occurred at UCSF and was mirrored in the strategic decision-making process. One of the reasons that UCSF had always been successful financially was its management strategy, which emphasized staffing patterns that reflected on a timely basis the amount of services that needed to be provided. UCSF was an early user of temporary nursing staff to supplement a relatively small core staff. This management style produced a high degree of flexibility and lower fixed costs. In a sense, UCSF was an early adherent to what has become known as just-in-time manufacturing. Flexibility and lower fixed costs, however, do not necessarily equal the most efficient provision of the wide variety of services that is necessary at an academic health center.

As the marketplace shifted toward prepayment and reimbursements were restricted, efficiency in producing clinical services became a priority. This resulted in a shift to a conception of control that emphasized the amount of resources used to provide a particular set of services. For the first time, the "costs" of services became important and new accounting systems were employed to measure these costs. Power shifted from the managers of services to the measurers of costs. This shift in power and conception of

control was directly reflected in negotiations with other health care organizations, particularly in the discussions with Stanford University.

The merger negotiations with Stanford University focused almost entirely on the financial costs and benefits of the merger, to the exclusion of other key issues. For example, when KPMG Peat Marwick was asked to help in the merger negotiations in early 1996, the assignment given by the UCSF and Stanford negotiators was to assess whether the merger was legally and financially possible. KPMG Peat Marwick was not asked to assess the costs and benefits to other areas that would be affected by the merger, such as the organization of clinical services and the effect on teaching program and the research enterprise. It was assumed implicitly that the most important issues were financial in nature, which flowed directly from both the financial conception of control and the cultural framing of the issues as the need to be more competitive rather than to possibly down-size.

Similarly, the final report from the Regents-appointed Third Party Review focused almost exclusively on the financial characteristics of the merger and took for granted the clinical, teaching, and research-related issues. The results of this committee's work were essentially preordained by the choice of the committee members who all came from financial backgrounds. Thus, the financial conception of control characterized not only the leadership at UCSF and Stanford, but also the consultants to this process as well as the Regents.

The Influence of Cultural Self-Definition

As an academic institution, UCSF's culture places great emphasis on the development, application, and teaching of biomedical knowledge. Although the need for adequate resources to support this core mission was always recognized, it was not until the gradual increase and eventual dominance of clinical income that academic health

centers, including UCSF, recognized the need for a strong clinical enterprise. The power struggle that ensued, however, was between the dominance and self-definition of an educational institution whose goals were based on social needs and a marketplace definition of a supplier of medical care as a commodity.

During the process of negotiations with other entities in the marketplace, the implicit threat to UCSF's self-image was continually evident. On the one hand, it was difficult for UCSF to engage in negotiations with managed care organizations, which shared few of the cultural values of UCSF, while at the same time the leadership felt miffed and rejected when these organizations played hard-to-get and appeared to place little value on products other than patient care. The words most often used by interviewees when asked to explain the reason that Stanford was an appropriate match compared to other possible partners was the "cultural" similarity between UCSF and Stanford, that the two institutions shared the same "values." The importance of a culturally-appropriate partnership is not surprising, but may serve to reinforce the status quo in an environment where new organizational forms are defining the rapidly changing health care system.

The Prospects for Academic Health Centers

The health care system in the United States is highly institutionalized. The dominance of health care compared to other social programs, and the hierarchical structure of the health care workforce, derive in large part from a high degree of socially-conferred legitimacy.

For over a half century, the health care system in the United States has flourished, growing in size, producing new and effective technologies, and increasing its share of the nation's wealth. The growth of the medical care sector has been due, in large part, to the substantial social legitimacy of the system, which has resulted in the willingness of the public, the for-profit sector, and the government to bestow abundant resources on the

system. This period of growth, however, is now being challenged by a variety of forces, ranging from public dissatisfaction with the costs of, and access to, care to a realization on the part of business and government that unrestricted growth of the medical care sector is threatening profits and leading to large government budget deficits. The high expectations that accompanied the growth of the health care system are changing to a disappointment in the results and a question of whether the benefits are worth the costs. The health care system is facing a true "legitimacy crisis" that threatens to cause a withdrawal of resources from the system.

Academic health centers are institutionalized organizations. Their goals and objectives are socially legitimated through the high value that society places on the development of biomedical knowledge, the application of this knowledge in new technologies, and the provision of medical care. Another powerful source of legitimation of academic health centers results from their status as professionalized organizations that benefit from the separate social legitimation of health professionals (Meyer & Rowan, 1977). The institutionalization of the organizational form itself (that is, the arrangement of the various roles and activities of academic health centers into a highly structured organizational form) provides another source of legitimation (Zucker, 1983). The legitimacy of academic health centers as organizations is therefore dependent, in part, on their institutionalization.

Meyer and Scott distinguish between technical and institutional environments (Meyer & Scott, 1983). They classify hospitals as having strong technical and institutional environments and schools as having strong institutional and weak technical environments. An important distinction between hospitals and medical schools is the difference in technical environment. Hospitals must produce technically correct products, while medical schools are evaluated primarily on process and not outcomes; that is, the numbers of students taught rather than the knowledge of the students at graduation. (It

can be argued, of course, that neither unit is evaluated on long-term outcomes.) Similar to other educational organizations, medical schools are evaluated, and legitimized, based on a "logic of confidence" that avoids the direct evaluation of their products (Meyer & Rowan, 1983). This difference in the degree of need for short-term technically-correct outcomes can produce conflicts of goals and activities. For example, the main goal for housestaff (graduate medical students) in a hospital is education, although the hospital regards housestaff as employees who need to be productive in their clinical work.

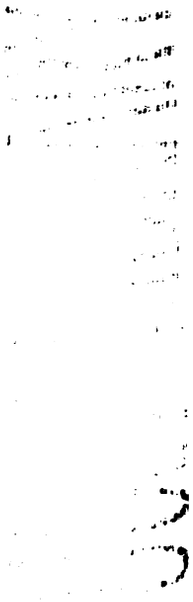
The legitimacy of the health care system has been produced by a variety of social forces. Among these forces are the high value society places on scientific and technological solutions to practical problems and the ideology of individualism. These forces have produced a health care system that is focused on highly specialized, technological care of individual patients, often at the cost of other public goods, such as public health, welfare, and education programs. This legitimation has been reinforced by rapid advances in biomedical knowledge and the application of this knowledge to highly publicized (and often very costly) technological services and by the power of the state that has granted and enforced the autonomy of medicine and the private sector dominance of health care delivery. One result of this legitimacy has been a political domination that, until recently, has protected public and private resources devoted to health care and has provided physicians with almost complete control over the design, prescription, and delivery of services.

A Crisis of Legitimacy

As institutionalized organizations, academic health centers rely on their legitimacy to sustain the continued flow of public and private resources. The changing health care system, however, is causing academic health centers to assess their strategies for survival and success. With increasing unrest among policy makers and the public over the degree of benefit that is being achieved through expenditures on health care services, academic

health centers are facing a crisis of legitimation. Similar to Habermas' description of the legitimation crisis of the state, where the state has to continually increase expectations about the success of its interventions in the marketplace as the economy struggles, the success of academic health centers has been based on rising expectation about the worth of biomedical advances. As the population ages and the most common conditions change from acute disease to chronic illnesses, biomedical interventions become both less appropriate and more expensive. Thus, the legitimacy of both the mission and products of academic health centers is increasingly being questioned.

The dilemma for academic health centers, therefore, is whether to maintain a steady course on a trajectory that has been highly successful in the past or to make substantial changes to accommodate changing social and economic conditions, which, in turn, may threaten organizational legitimacy. A steady course is the easiest alternative to choose, but risks a legitimacy crisis by continually raising expectations about outcomes that are increasingly being questioned. The environment, in contrast, may force substantial changes in both the mission and structure of academic health centers. As academic health centers confront the changing environment, each will have to make this basic choice of strategy. The degree to which this choice is based on adequate information and rational decisions or is imposed by environmental conditions is an empirical question that needs to be addressed.



Citations

Alford, R. A. (1972). The political economy of health care: Dynamics without change. *Politics and Society, 3* (1), 1-38.

Anders, G. (1994, December 21). Money machines: HMOs pile-up billions in cash, try to decide what to do with it; memberships rise and costs fall, while capital needs of industry are modest; fuel for more acquisitions. *Wall Street Journal*, p. A1.

Arditti, S. (1992, September 1). Unpublished letter to California Governor Pete Wilson expressing University of California's opposition to AB 3593.

Association of American Medical Colleges, Group Health Association of America. (1994). *Training the Generalist: Developing Partnerships between Academic Medicine and HMOs*. Washington, DC: Association of American Medical Colleges.

Baker, J. B. (1988). The antitrust analysis of hospital mergers and the transformation of the hospital industry. *Law and Contemporary Problems, 51*(2), 93-164.

Barondess, J. A. (1991). The academic health center and the public agenda: Whose three-legged stool? *Annals of Internal Medicine, 115*(12), 963-967.

Boggs, C. (1984). *The Two Revolutions: Antonio Gramsci and the Dilemmas of Western Marxism*. Boston: South End Press.

Bradsher, K. (1995, August 27). Rise in uninsured becomes an issue in Medicaid fight. *New York Times,* p. A1.

Brown, E. R. (1979). *Rockefeller Medicine Men: Medicine and Capitalism in America*. Berkeley, CA: University of California Press.

Burner, S. T., & Waldo, R. W. (1995). National health expenditure projections. *Health Care Financing Review, 16*, 221-234.

Clinical Integration Task Force (1995). Interim Report. University of California, San Francisco School of Medicine.

Culbertson, R. A., Goode, L. D., & Dickler, R. M. (1996). Organizational models of medical school relationships to the clinical enterprise. *Academic Medicine, 71*(11), 1258-71.

Denzin, N. K., & Lincoln, Y. S. (Eds.) (1994). *Handbook of Qualitative Research.* Thousand Oaks, CA: Sage Publications.

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review, 48*(4), 147-160.

Durkheim, E. (1912/1915). *The Elementary Forms of Religious Life.* New York: Free Press.

Durkheim, E. (1893/1933). *The Division of Labor in Society.* New York: Free Press.

Ehrenreich, J., & Ehrenreich, B. (1978). Medicalization and social control. In J. Ehrenreich (Ed.), *The Cultural Crisis of Modern Medicine* (pp. 39-79). New York: Monthly Review Press.

Elzinga, K. G. & Hogarty, T. F. (1973). The problem of geographic market delineation in antimerger suits. *Antitrust Bulletin, 18* (1), 45-81.

Elzinga, K. G. & Hogarty, T. F. (1978). The problem of geographic market delineation revisited: The case of coal. *Antitrust Bulletin, 23*(1), 1-18.

Epstein, A. M. (1995). US teaching hospitals in the evolving health care system. *Journal of the American Medical Association, 273*(15), 1203-1207.

Estes, C. L. (1979). *The Aging Enterprise: A Critical Examination of Social Policies and Services for the Aged.* San Francisco: Jossey-Bass Inc., Publishers.

Estes, C. L. (1991). The new political economy of aging: Introduction and critique. In M. Minkler, & C. E. Estes (Eds.), *Critical Perspectives on Aging* (pp. 19-36). Amityville, NY: Baywood Press.

Estes, C. L., & Alford, R. (1990). Systematic crisis and the nonprofit sector: Toward a political economy of the nonprofit health and social services sector. *Theory and Society, 19*, 173-198.

Flexner, A. (1910). *Medical Education in the United States and Canada* (*Bulletin No. 4*). New York: Carnegie Foundation for the Advancement of Teaching.

Fligstein, N. (1995). *The Transformation of Corporate Control.* Cambridge, MA: Harvard University Press.

Fligstein, N., & Mara-Drita, I. (1996). How to create a market: Reflections on the attempt to create a single market in the European Union. *American Journal of Sociology, 102*(1), 1-33.

Fontana, A., & Frey, J. H. (1994). Interviewing: The art of science. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 361-376). Thousand Oaks, CA: Sage Publications.

Fuchs, V. R. (1997). Commentary: Managed care and merger mania. *Journal of the American Medical Association, 277*(11), 920-921.

Gardner, D. P. (1992, September 21). Letter to California Governor Pete Wilson reiterating University of California's opposition to AB 3593. Reprinted in: University of California, Office of the President. (1993, June). *Changing Directions in Medical Education: A Systemwide Plan for Increasing the Training of Generalists.* Oakland, CA: University of California.

Gerbert, B., Showstack, J. A., Chapman, S. A., & Schroeder, S. A. (1987). The changing dynamics of graduate medical education: Implications for decision-making. *Western Journal of Medicine, 146*(3), 368-373.

Goldman, L. (1995). The academic health care system: Preserving the missions as the paradigm shifts. *Journal of the American Medical Association, 273*(19), 1549-1552.

1995 National Directory of HMOs (1995). Washington, DC: Group Health Association of America.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 105-117). Thousand Oaks, CA: Sage Publications.

Habermas, J. (1975). *Legitimation Crisis.* Boston: Beacon Press.

Hannan, M. T., & Freeman, J. (1977). The population ecology of organizations. *American Journal of Sociology, 82*(5), 929-964.

Hannan, M. T., & Freeman, J. (1984). Structural inertia and organizational change. *American Sociological Review, 49*, 149-164.

Hellman, W., McArthur, J., Thier, S., Farkas, C., & Miller, K. (1996). *UCSF Medical Center/Stanford Health Services: Proposed Merger of Clinical Enterprises: Third Party Review (Open Session Version)*. Oakland, CA: University of California Regents.

Howe, J. P., III, Osterweis, M., & Rubin, E. R. (Eds.) (1994). *Academic Health Centers: Missions, Markets, and Paradigms for the Next Century*. Washington, DC: Association of Academic Health Centers.

Iglehart, J. K. (1995). Health policy report: Medicaid and managed care. *New England Journal of Medicine, 332*(25), 1727-1731.

Inui, T. S. (1992). The social contract and the medical school's responsibilities. In K. L. White, & J. E. Connelly (Eds.), *The Medical School's Mission and the Population's Health: Medical Education in Canada, the United Kingdom, the United States, and Australia* (pp. 23-52). New York: Springer-Verlag.

Jolly, P., & Hudley, D. M. (Eds.) (1995). *AAMC Data Book: Statistical Information Related to Medical Education*. Washington, DC: Association of American Medical Colleges.

Johnsson, J. (1996, January 22). HMOs dominate, shape the market. *American Medical News*, p. 1.

KPMG Peat Marwick, University of California Medical Centers (1995, March 23). Assessment of Capital Programs and Operating Needs of the UC Medical Centers (presentation to the University of California Legislative Analyst's Office). Oakland, CA: The Regents of the University of California.

Light, D. (1989). Social control and the American health care system. In H. Freeman, & S. Levine, *Handbook of Medical Sociology (4th ed.)* (pp. 456-474). Englewood Cliffs, NJ: Prentice Hall.

March, J. G., & Olsen, J. P. (1976). *Ambiguity and Choice in Organizations*. Bergen, Norway: Universitetsforlaget.

March, J. G., & Olsen, J. P. (1989). *Rediscovering Institutions: The Organizational Basis of Politics*. New York, NY: Free Press.

McGinnis, J. M., & Foege, W. H. (1993). Actual causes of death in the United States. *Journal of the American Medical Association, 270*(18), 2207-2212.

McKinlay, J. B., & Arches, J. (1985). Toward the proletarianization of physicians. *International Journal of Health Services, 15*, 161-195.

Meyer, J. W., & Rowan, B. (1977). Institutionalized organization: Formal structure as myth and ceremony. *American Journal of Sociology, 83*, 340-363.

Meyer, J. W., & Rowan, B. (1983). The structure of educational organizations. In J. W. Meyer, & W. R. Scott (Eds.), *Organizational Environments* (pp. 71-97). Beverly Hills, CA: Sage Publications.

Meyer, J. W., & Scott, W. R. (1983). *Organizational Environments: Ritual and Rationality*. Beverly Hills, CA: Sage Publications.

Miles, R. (1984). *Macro Organizational Behavior*. New York: Goodyear Press.

Miller, R. H., & Luft, H. S. (1994). Managed care plans: Characteristics, growth, and premium performance. *Annual Review of Public Health, 15*, 437-459.

Mills, C. W. (1956). *The Power Elite*. New York: Oxford University Press.

Moore, W. L. (1979). *Determinants and Outcomes of Departmental Power: A Two Campus Study*. Unpublished doctoral dissertation, University of California, Berkeley.

Newacheck, P. W., Hughes, D. C., English, A., Fox, H. B., Perrin, J., & Halfon, N. (1995). The effect on children of curtailing Medicaid spending. *Journal of the American Medical Association, 274*(18), 1468-1471.

O'Connor, J. (1973). *The Fiscal Crisis and the State*. New York: St. Martin's Press.

O'Connor, J. R. (1987). *The Meaning of Crisis*. New York: Basil Blackwell

Parsons, T. (1960). *Structure and Process in Modern Societies*. Glencoe, IL: Free Press.

Perrow, C. (1974). *Complex Organizations: A Critical Analysis*. New York: Random House.

Perrow, C. (1979). *Complex Organizations: A Critical Essay*. Glenview, IL: Scott, Foresman.

Pfeffer, J. (1981). *Power in Organizations*. Marshfield, MA: Pittman.

Pfeffer, J., & Salancik, G. (1978). *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper and Row.

Pfeffer, J., & Salancik, G. R. (1982). *The Social Control of Organizations*. New York: Harper and Row.

The Regents of the University of California (1988). Regents meeting minutes. Berkeley, 16 June 1988. Oakland, CA: The Regents of the University of California.

The Regents of the University of California (1995). Regents meeting minutes, San Francisco, 18 January 1995. Oakland, CA: The Regents of the University of California.

The Regents of the University of California, Committee on Health Services (1995). Committee meeting minutes, San Francisco, 19 July 1995. Oakland, CA: The Regents of the University of California.

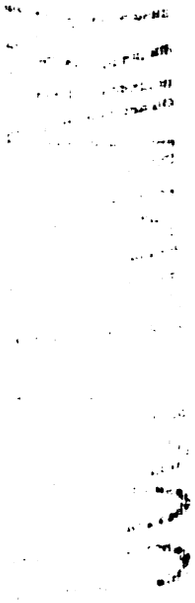
The Regents of the University of California, Committee on Hospital Governance (1985a). Committee meeting minutes, Berkeley, 16 May 1985. Oakland, CA: The Regents of the University of California.

The Regents of the University of California, Committee on Hospital Governance (1985b). Committee meeting minutes, San Francisco, 17 October 1985. Oakland, CA: The Regents of the University of California.

The Regents of the University of California, Committee on Hospital Governance (1986). Committee meeting minutes, San Francisco, 15 May 1986. Oakland, CA: The Regents of the University of California.

The Regents of the University of California, Committee on Hospital Governance (1989). Committee meeting minutes, Santa Barbara, 19 January 1989. Oakland, CA: The Regents of the University of California.

The Regents of the University of California, Committee on Hospital Governance (1994). Committee meeting minutes, San Francisco, 14 July 1994. Oakland, CA: The Regents of the University of California.



The Regents of the University of California, Special Committee on Hospital Governance (1982). Committee meeting minutes, Los Angeles, 20 May 1982. Oakland, CA: The Regents of the University of California.

Rothstein, W. G. (1987). *American Medical Schools and the Practice of Medicine*. New York: Oxford University Press.

Rubin, E., Larson, T., & Griffith, J. (Eds.) (1995). *Academic Health Centers and Universities: Shaping a Common Agenda*. Washington, DC: Association of Academic Health Centers.

Salancik, G. R., & Pfeffer, J. (1974). The bases and use of power in organizational decision-making: The case of a university. *Administrative Science Quarterly, 19*, 453-473.

SAS Institute, Inc. (1989). *SAS/STAT User's Guide, Version 6, Volumes 1 & 2*. Cary, NC: SAS Institute, Inc.

Sassoon, A. S. (1985). *The People, Intellectuals, and Specialized Knowledge (Discussion Paper in Political Economy No. 56)*. Kingston-upon-Thames, Great Britain: Kingston Polytechnic.

Schroeder, S. A., & Showstack, J. A. (1978). Financial incentives to perform medical procedures and laboratory tests: Illustrative models of office practice. *Medical Care, 16*, 289-298.

Schroeder, S. A., Showstack, J. A., & Gerbert, B. (1986). Residency training in internal medicine: Time for a change? *Annals of Internal Medicine, 104*(4), 554-561.

Schroeder, S. A., Zones, J. S., & Showstack, J. A. (1989). Academic medicine as a public trust. *Journal of the American Medical Association, 262*(6), 803-812.

Scott, W. R. (1983). Health care coverage in the 1980s: The convergence of public and professional control systems. In J. W. Meyer, & W. R. Scott (Eds.), *Organizational Environments* (pp. 99-113). Beverly Hills, CA: Sage Publications.

Scott, W. R. (1987). *Organizations: Rational, Natural, and Open Systems*. Englewood, NJ: Prentice-Hall, Inc.

Showstack, J. A., Blumberg, B. D., Schwartz, J., & Schroeder, S. A. (1979). Fee-for-service physician payment: Analysis of current methods and their development. *Inquiry, 16*, 230-246.

Showstack, J. A., Lurie, N., Leatherman, S., Fisher, E., & Inui, T. (1996). Health of the public: The private-sector challenge. *Journal of the American Medical Association, 276*(13), 1071-4.

Simon, H. A. (1961). *Administrative Behavior*. New York: Free Press.

Simon, H. A. (1964). On the concept of organizational goal. *Administrative Science Quarterly, 9* (1), 1-22.

Smelser, N. J. (1994). *Sociology*. Cambridge, MA: Blackwell.

Stake, R. E. (1994). Case studies. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 236-247). Thousand Oaks, CA: Sage Publications.

Starr, P. (1982). *The Social Transformation of American Medicine*. New York: Basic Books.

State of California Office of Statewide Health Planning and Development (1996). *Health and Safety Code, Division 107, Part 5, Chapter 1, Section 128675.* Sacramento, CA: State of California Office of Statewide Health Planning and Development.

Stevens, R. (1971). *American Medicine and the Public Interest.* New Haven, CT: Yale University Press.

Stinchcombe, A. L. (1974). *Creating Efficient Industrial Organizations.* New York: Academic Press.

Tucker R. C. (Ed.) (1978). *The Marx-Engels Reader (2nd ed.).* New York: W. W. Norton & Company.

United States Department of Justice (1982a). Press release discussing the new merger guidelines issued by the Department of Justice (June 14, 1982). *Antitrust Bulletin, 27* (3), 621-631.

United States Department of Justice (1982b). United States Department of Justice merger guidelines issued June 14, 1982. *Antitrust Bulletin, 27* (3), 633-665.

United States Department of Justice (1984). Merger Guidelines, Antitrust Division, Department of Justice, 49 Fed. Reg. 26,823.

United States Public Health Service, Health Care Financing Administration. (1980). *ICD•9•CM: The International Classification of Diseases, 9th Revision, Clinical Modification, Volume 1: Diseases, Tabular List (DHHS Publication No. PHS 80-1260).* Washington, DC: U.S. Department of Health and Human Services.

University of California, Office of the President (1993, June). *Changing Directions in Medical Education: A Systemwide Plan for Increasing the Training of Generalists.* Oakland, CA: University of California.

University of California, San Francisco Clinical Integration Task Force (1995, December). Report of the Clinical Integration Task Force. San Francisco: University of California, San Francisco.

University of California, San Francisco Library and Center for Knowledge Management. (1996, August 22). Archives and Special Collections: UCSF History – Chronology of UCSF 1852-1899, 1901-1950, 1952-Present [3 pages]. [On-line]. Available FTP: Hostname: www.library.ucsf.edu Directory: sc/hist Files: chron1.html, chron2.html, chron3.html.

University of California, San Francisco Tertiary Care Task Force (1993). *Report of the Tertiary Care Task Force*. San Francisco: University of California, San Francisco.

Weber, M. (1946/1958). *From Max Weber: Essays in Sociology*. (H. H. Gerth & C. W. Mills, Eds.) New York: Oxford University Press.

Weber, M. (1958). *The Protestant Ethic and the Spirit of Capitalism.* New York: Charles Scribner's Sons.

Weber, M. (1978). *Economy and Society (Vol. I)*. (G. Ross & C. Witich, Eds.). Berkeley, CA: University of California Press.

Weick, K. E. (1976). Educational organizations as loosely coupled systems. *Administrative Sciences Quarterly, 21*, 1-19.

White, K. L., & Connelly, J. E. (Eds.) (1992). *The Medical School's Mission and the Population's Health: Medical Education in Canada, the United Kingdom, the United States, and Australia.* New York: Springer-Verlag.

Wilson, P. (1992). *Veto of California Assembly Bill No. 3593.* Reprinted in: University of California, Office of the President (1993, June). *Changing Directions in Medical Education: A Systemwide Plan for Increasing the Training of Generalists.* Oakland, CA: University of California.

Woodard, J., & Miller, J. (1994, November). *Special Report: What UCSF Must Do to Survive.* San Francisco: University of California, San Francisco.

World Bank (1993). *World Development Report 1993: Investing in Health.* New York: Oxford University Press.

World Bank (1994). *World Development Report 1994: Infrastructure for Development.* New York: Oxford University Press.

Zucker, L. G. (1983). Organizations as institutions. *Research in the Sociology of Organizations*, 2, 1-47.

Tables

Table 1
Dimensions of the Environment of Academic Health Centers

Dimensions	Environment: Macro (National or Geographic Region)	Environment: Meso (Institutions)	Environment: Micro (Patients/Providers)
Material/Economic Incentives	**Characteristics:** Reimbursement systems; limitations on residencies; federal/state regulations **Measures:** Resources allocated by government(s); number of trainees; Medicare/Medicaid laws / regulations.	**Characteristics:** Faculty practice income; institutional finances **Measures:** Decisions about, and amount and flow of funds in, practice plans; institutional financial statements	**Characteristics:** Salaries/income **Measures:** Salary levels/changes; availability of, and competition for, provider positions
Socio-Cultural Norms and Ideology	**Characteristics:** Institutionalization of missions of AHCs **Measures:** Public attitudes toward organization/ delivery of medical care; applications to health professions training	**Characteristics:** Generalist vs. specialist/technology orientation **Measures:** Institutional mission statement; Expressed value placed on population health care	**Characteristics:** Attitudes about role, and institutionalization and legitimation of health professionals **Measures:** Acceptance of competition among individual providers and groups of providers
Politics and the State	**Characteristics:** Legal structure and requirements; political philosophies **Measures:** Manpower policies and payment; change in laws/regulations, political platforms/policies	**Characteristics:** Decision-making structures **Measures:** Estimates of power of different institutional sectors and of relative influence of different types of institutions	**Characteristics:** Licensing/enabling laws **Measures:** Estimates of power of different provider sectors and of relative influence of different types of providers
Structure and Organization of Medical Care	**Characteristics:** Federal, state, and local health care systems (e.g., Medicare, Medicaid, other programs for indigents) **Measures:** Percent of population in managed care; number and type of health service providers in region	**Characteristics:** Organization of care within institution; contracts and collaborations with other institutions **Measures:** Structure of delivery and teaching systems; number and type of providers, amount of payment through identified mechanisms	**Characteristics:** Types of providers; patient demographics and clinical characteristics **Measures:** Percent 1°/2°/3° care providers; use of 1° care providers (inc. Non-MDs); acuity/chronicity of patients

Note: This model of the environment of academic health centers was developed in collaboration with Carroll Estes, Ph.D.

Table 2
Growth of U.S. Medical Schools
1965 – 1993

	1965 (N)	1993 (N)	Change (Percent)
Medical Schools	84	125	149 %
Medical Students	32,835	66,629	203
Residents/Fellows	41,568	81,410 (1987)	196
Full-Time Faculty	17,118	87,418	511

Table 3

Inclusion and Exclusion Criteria for Study Diagnoses

According to ICD-9 Code, Source of Admission, and Age

		Inclusion Criteria		Exclusion Criteria	
Diagnoses		**ICD-9 Code Definitions of Primary Diagnosis**	**Also Must Include**	**Exclude if any ICD-9 code for a Secondary Diagnosis is:**	
Dx 1	Acute MI	410 through 410.91 (Exclude if second decimal digit is "2")	Source: Emergency Dept.		
Dx 2	Gastrointestinal Hemorrhage	578, 531.0, 531.4, 532.0, 532.4, 533.0, 533.4, 534.0, 534.4	Source: Emergency Dept.		
Dx 3	Cardiac Arrest	427.5	Source: Emergency Dept.		
Dx 4	Acute Appendicitis	540.0, 540.1, 540.9, 541			
Dx 5	Pneumonia	481,482, 483, 485, 486		410, 518.5, 518.81, 518.82, 785.50, 785.51, 785.59, 799.1	
Dx 6	Asthma	493.0, 493.9		480, 481,482, 483,484, 485, 486, 487, 490, 491, 492, 494, 495, 496	
Procedures		**ICD-9 Codes for Primary Procedure**	**Also Must Include**	**Exclude if ICD-9 codes for any 1° or 2° diagnosis is:**	**Exclude if 1° or 2° procedure ICD-9 code, and/or source, and/or age is:**
Px 1	CABG	36.1 - 36.19		410	36.x; Source: Emergency Dept. or missing
Px 2	Kidney Transplant	55.69			
Px 3	Elective Cholecystectomy	51.22			51.21; Source: Emergency Dept. or missing
Px 4	Hip Fracture with internal fixation, age < 55	79.35	Age < 55	E820 through E825, 410, 780.2, 733.1	Age: Missing
Px 5	Hip Fracture with internal fixation, age ≥ 55	79.35	Age ≥ 55	E820 through E825, 410, 780.2, 733.1	Age: Missing

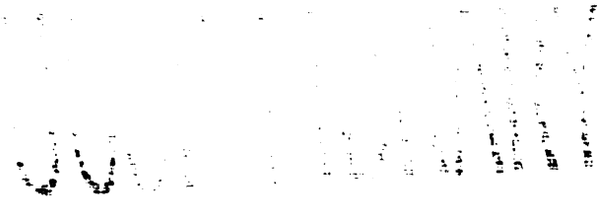


Table 4
Number of Discharges in Selected Hospitals
1990 – 1994

Hospital	Year of Discharge				
	1990	1991	1992	1993	1994
UCSF	23,260	23,397	22,618	21,208	19,900
Mt. Zion	5,749	6,233	5,823	5,983	6,097
UCSF/Mt. Zion	29,009	29,630	28,441	27,191	25,997
All Bay Area Hospitals	720,304	723,372	704,060	694,883	678,904
All Non-Bay Area Hospitals	2,845,217	2,833,097	2,827,308	2,777,455	2,741,049
All California Hospitals	3,565,521	3,556,469	3,531,368	3,472,338	3,419,953

Table 5
Percent Change from 1990 in Number of Discharges in Selected Hospitals
1990 – 1994

Hospital	Year of Discharge				
	1990	1991	1992	1993	1994
UCSF	.00%	+.01%	-.03%	-.09%	-.14%
Mt. Zion	.00%	+.08%	+.01%	+.04%	+.06%
UCSF/Mt. Zion	.00%	+.02%	-.02%	-.06%	-.10%
All Bay Area Hospitals	.00%	.00 %	-.02%	-.04%	-.06%
All Non-Bay Area Hospitals	.00%	.00 %	-.01%	-.02%	-.04%
All California Hospitals	.00%	.00 %	-.01%	-.03%	-.04%

Table 6
Percent Non-Bay Area Patients in Selected Hospitals
1990 – 1994

Hospital	Year of Discharge				
	1990	1991	1992	1993	1994
UCSF	26.1%	27.1%	26.7%	27.4%	25.1%
Stanford	14.3%	14.4%	13.7%	15.9%	15.4%
CPMC	6.9%	7.0%	7.2%	7.0%	6.3%
Kaiser (13 Hospitals)	2.1%	2.1%	2.1%	2.2%	2.3%
Other Bay Area Hospitals	4.9%	4.8%	4.7%	4.7%	4.8%
Total Bay Area Hospitals	5.4%	5.4%	5.3%	5.4%	5.4%
Total Non-Bay Area Hospitals	99.6%	99.6%	99.6%	99.6%	99.6%

Table 7
Number of Discharges from Bay Area Hospitals for Selected Diagnoses
1990 – 1994

Diagnosis	Year of Discharge				
	1990	1991	1992	1993	1994
All Diagnoses	720,304	723,372	704,060	694,883	678,904
Acute Myocardial Infarction	7,726	7,889	7,925	8,115	8,219
GI Hemorrhage	5,147	5,191	4,746	4,891	4,914
Cardiac Arrest	230	229	187	149	147
Appendectomy	5,400	5,541	5,729	5,430	5,364
Pneumonia	14,903	16,639	15,814	16,825	15,978
Asthma	6,335	6,529	6,063	6,166	5,157
CABG	3,478	3,625	3,726	3,563	3,832
Kidney Transplant	478	450	432	457	445
Cholecystectomy	6,723	6,070	1,633	1,404	1,221
Hip Fracture (Age ≤ 54)	508	438	408	412	401
Hip Fracture (Age ≥ 55)	2,555	2,540	2,525	2,695	2,749

Table 8
Herfindahl-Hirschman Indexes for Selected Diagnoses
1990 - 1994

Diagnosis	Year of Discharge				
	1990	1991	1992	1993	1994
All Diagnoses	189	187	190	189	189
Acute Myocardial Infarction	179	177	185	180	186
GI Hemorrhage	183	183	194	199	189
Cardiac Arrest	317	282	406	265	311
Appendectomy	199	202	193	193	198
Pneumonia	166	170	169	176	177
Asthma	183	176	181	167	169
CABG	731	701	693	764	702
Kidney Transplant	3,724	3,661	3,398	3,084	3,453
Cholecystectomy	211	218	237	233	229
Hip Fracture (Age ≤ 54)	342	418	340	367	381
Hip Fracture (Age ≥ 55)	195	198	210	213	194

Table 9
Herfindahl-Hirschman Indexes for Individual, and Combinations of, Bay Area Hospitals
1990 – 1994

Hospital Combinations	Year of Discharge 1990	1991	1992	1993	1994
Individual Bay Area Hospitals (No combinations)	189	187	190	189	189
Other individual hospitals and **(UCSF + Mt. Zion)**	194	175	195	194	194
Other individual hospitals and **(UCSF + Mt. Zion + Stanford Health Systems [SHS])**	229	232	236	234	237
Other individual hospitals and **(UCSF + Mt. Zion + SHS + California Pacific Medical Center [CPMC])**	238	240	244	241	244
Other individual hospitals and **(UCSF + Mt. Zion + SHS + CPMC + 13 Kaiser hospitals)**	644	661	674	669	642

Table 10
Membership of the Tertiary Care Task Force

Chair

Charles Wilson, M.D. .....Professor and Chair, Department of Neurosurgery

Members

Ronald Arenson, M.D. .....Professor and Chair, Department of Radiology

Nancy Ascher, M.D. .....Professor of Surgery; Director, Liver Transplant Unit

Frank Hanley, M.D. .....Associate Professor of Surgery

Stanley Lindenfeld, M.D. ...Clinical Professor of Medicine; Director, Office of Clinical Resources Management, Medical Center

Ronald Miller, M.D. .....Professor and Chair, Department of Anesthesiology

James Ostroff, M.D. .....Clinical Professor of Medicine

Larry Shapiro, M.D. .....Professor and Chair, Department of Pediatrics

Jonathan Showstack.....Adjunct Professor of Medicine and Health Policy

Mark Singer, M.D. .....Professor of Otolaryngology, Mt. Zion Hospital

Table 11
Membership of the UCSF Clinical Strategies Committee

Co-Chairs

William Kerr .....Director, Medical Center

Haile Debas, M.D. .....Dean, School of Medicine

Members

Ronald Arenson, M.D. .....Professor and Chair, Department of Radiology

Steve Barclay .....Vice Chancellor for Administration, UCSF

Neal Cohen, M.D. .....Professor of Anesthesiology
Director, Adult Intensive Care Unit

Lee Goldman, M.D. .....Chair, Department of Medicine
Associate Dean for Clinical Services, School of Medicine

Russell Laros, M.D. .....Prof. of Obstetrics, Gynecology, and Reproductive Sciences
Director, Clinical Practice Organization

Stanley Lindenfeld, M.D. ...Clinical Professor of Medicine, and Director, Office of
Clinical Resources Management, Medical Center

James Mailhot, M.D. .....Associate Clinical Professor of Medicine, Mt. Zion Hospital

Joseph Martin, M.D. .....Chancellor, UCSF

Ronald Miller, M.D. .....Professor and Chair, Department of Anesthesiology

Jeffrey Pearl, M.D. .....Associate Clinical Professor of Surgery, Mt. Zion Hospital

Floyd Rector, Jr., M.D. .....Chair, Department of Medicine (Until July 1994)

Jonathan Rodnick, M.D. ....Professor and Chair, Department of Family Medicine

Larry Shapiro, M.D. .....Professor and Chair, Department of Pediatrics

Jonathan Showstack.....Adjunct Professor of Medicine and Health Policy

Mark Singer, M.D. .....Professor of Otolaryngology, Mt. Zion Hospital

Craig Van Dyke, M.D. .....Professor and Chair, Department of Psychiatry

Charles Wilson, M.D. .....Professor of Neurosurgery
Director, Tertiary Care, Clinical Enterprise

Bruce Wintroub, M.D. .....Prof. of Dermatology, Exec. Vice Dean, School of Medicine
Acting Director, Primary Care, Clinical Enterprise

Table 12
Membership of the UCSF School of Medicine Clinical Integration Task Force

Chair

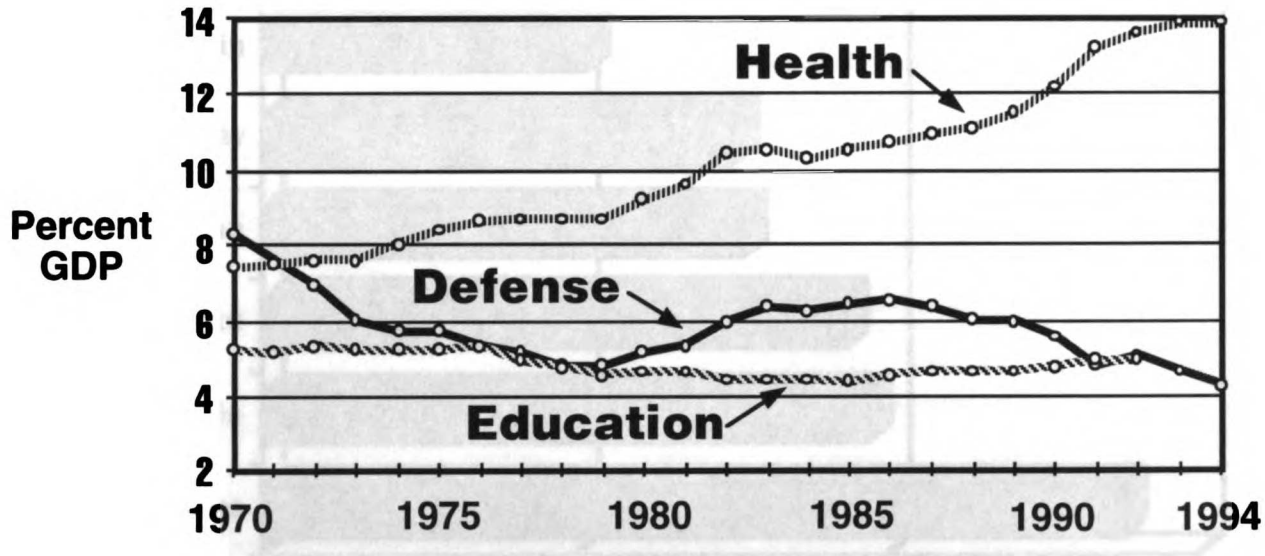
Stephen L. Hauser, M.D. ....Professor and Chair, Department of Neurology

Members

Ronald Arenson, M.D.	Professor and Chair, Department of Radiology
Jaclyne Boyden	Vice Dean, School of Medicine
David Bradford, M.D.	Professor and Chair, Department of Orthopedic Surgery
Stanley Lindenfeld, M.D.	Clinical Professor of Medicine, and Director, Office of Clinical Resources Management, Medical Center
James Mailhot, M.D.	Associate Clinical Professor of Medicine, Mt. Zion Hospital
Ronald Miller, M.D.	Professor and Chair, Department of Anesthesiology
Sean Mulvihill, M.D.	Associate Professor of Surgery
Bruce Schroffel	Associate Director and Director of Operations, Medical Center
Larry Shapiro, M.D.	Professor and Chair, Department of Pediatrics
Larry Smith	Associate Director and Director of Finances, Medical Center
Robert Wachter, M.D.	Associate Professor and Associate Chair, Department of Medicine
A. E. Washington, M.D., M.Sc.	Professor and Chair, Department of Obstetrics, Gynecology, and Reproductive Sciences

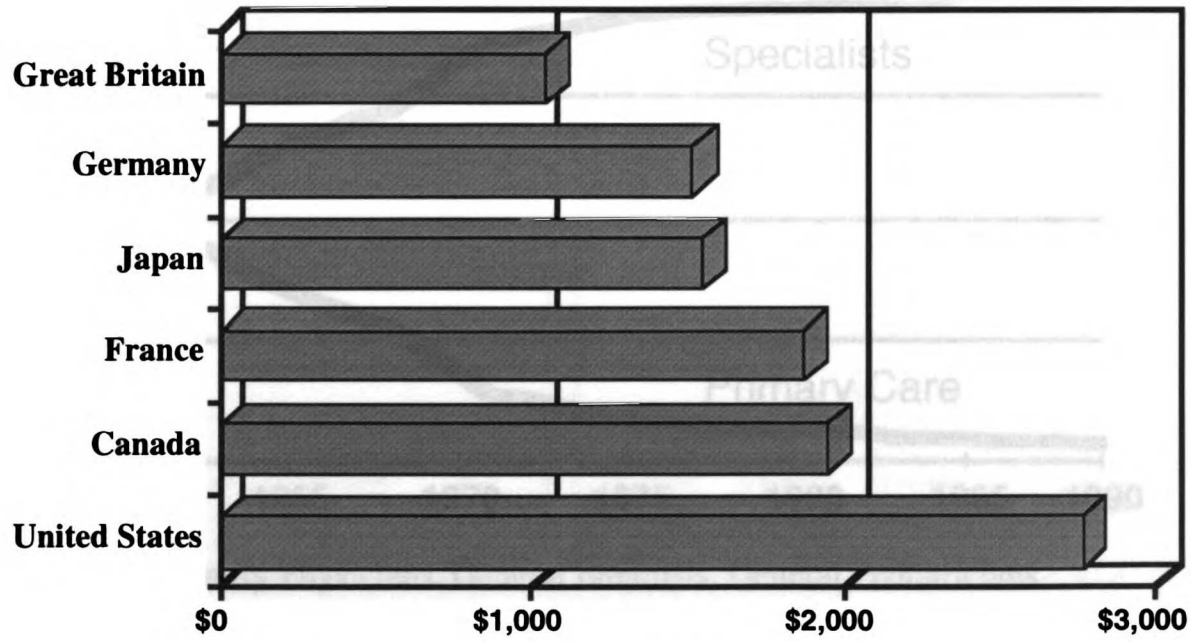
Figures

Figure 1
National Expenditures for Health, Education, and Defense



(Sources: U.S. Bureau of the Census, 1994; Burner and Waldo, 1995; Social Security Bulletin, [Summer, 1995 and others])

Figure 2
Per Capita Health Expenditures
1990 (US Dollars)



(Source: World Bank, 1993, Table A.9, p. 211)

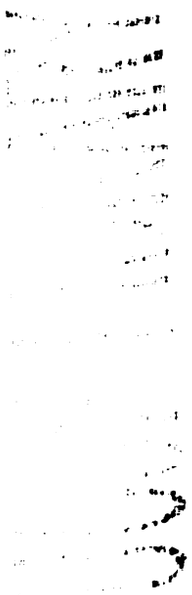
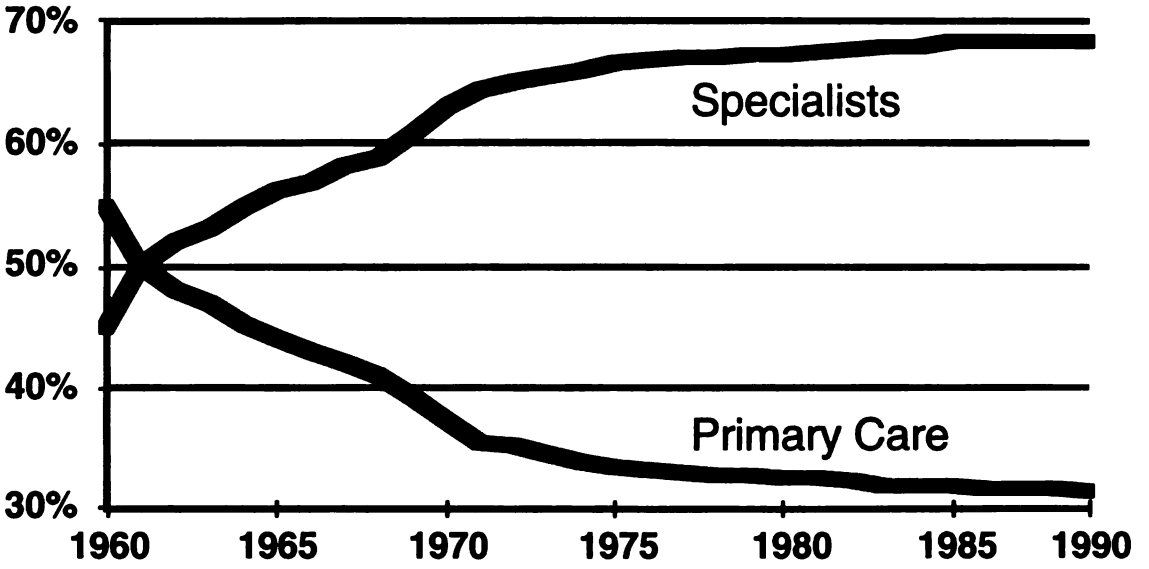


Figure 3
Percent Physicians Practicing in Primary Care* or Specialty Care



*Family Physicians, General Internists, General Pediatricians

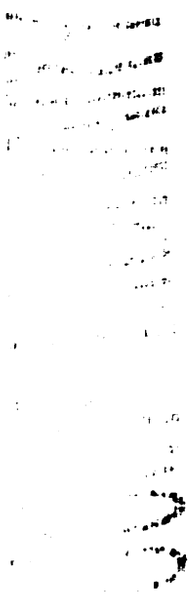


Figure 4
Internal Structure of a Typical Academic Health Center

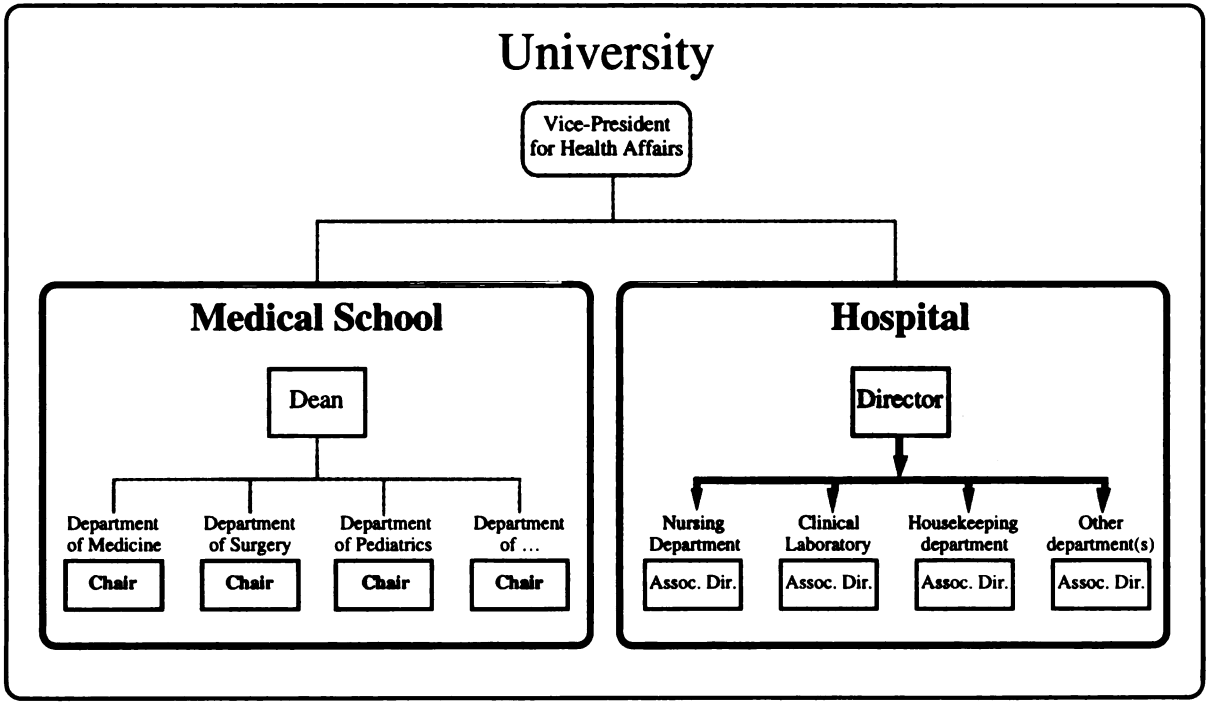
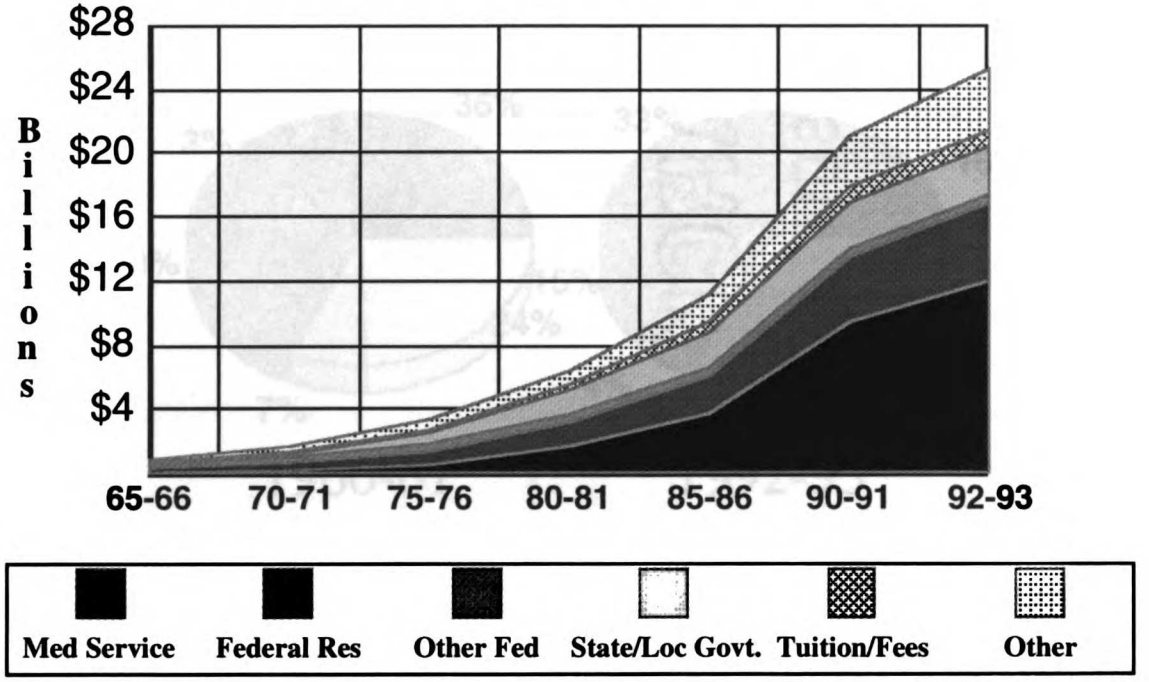


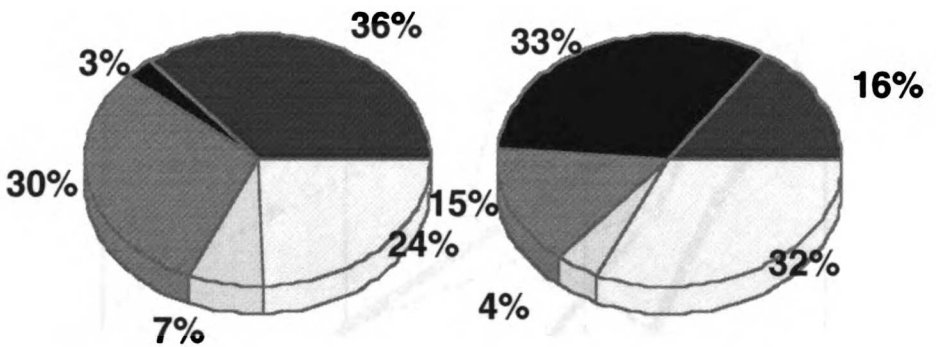
Figure 5
Medical School Revenues



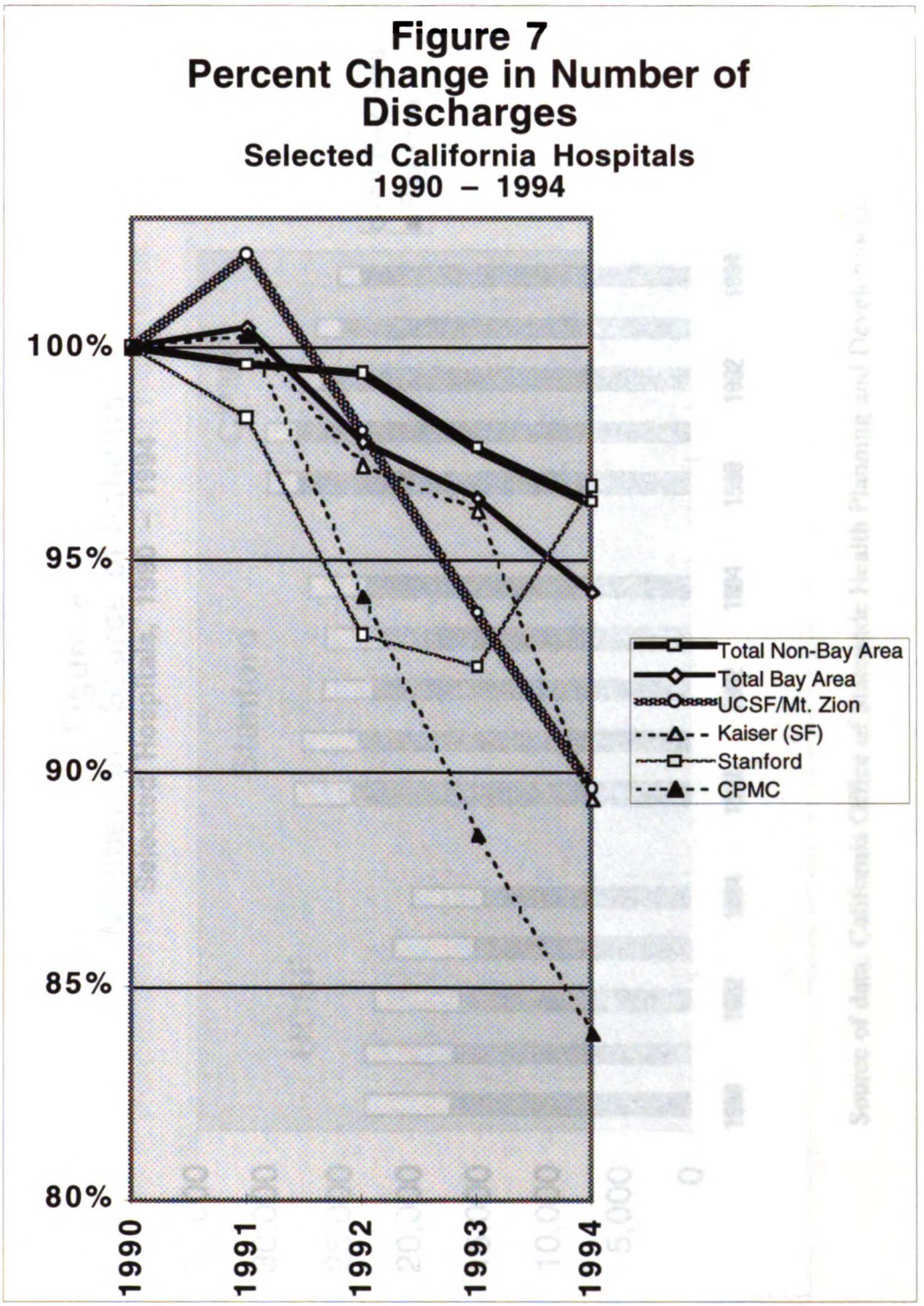
Source: AAMC Data Book, 1995

Figure 6

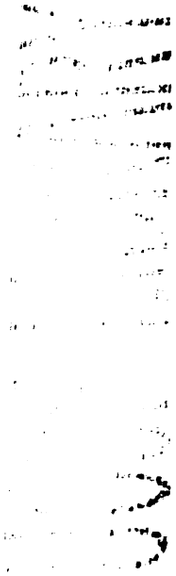
Medical School Revenues

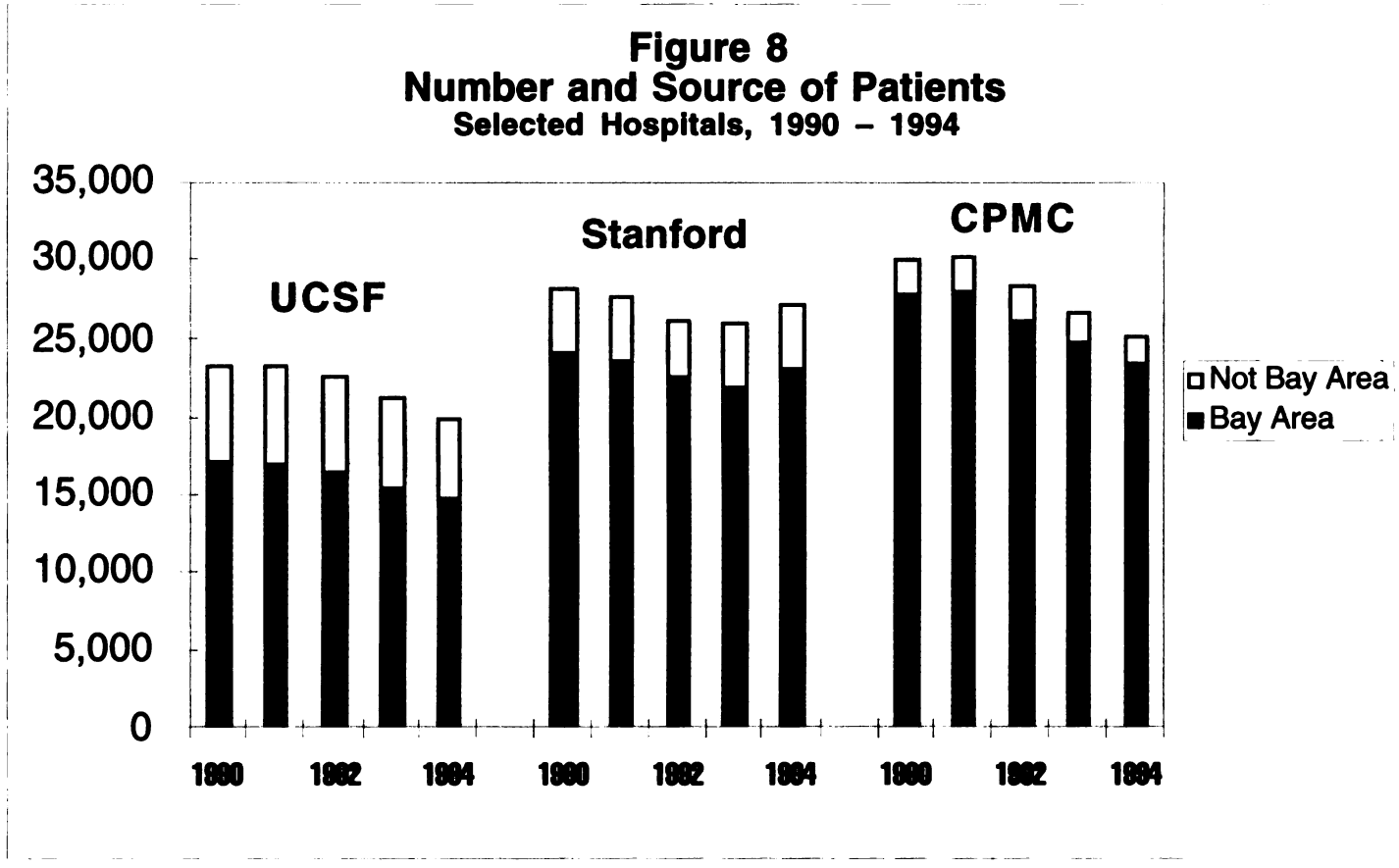


Source: AAMC Data Book, 1995



Source of data: California Office of Statewide Health Planning and Development





Source of data: California Office of Statewide Health Planning and Development

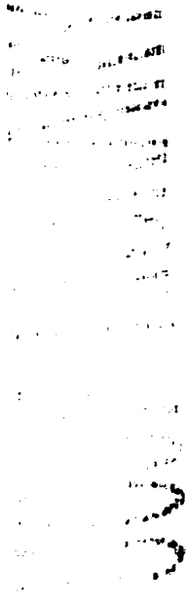


Figure 9
Percent Non-Bay Area Patients In Bay Area Hospitals

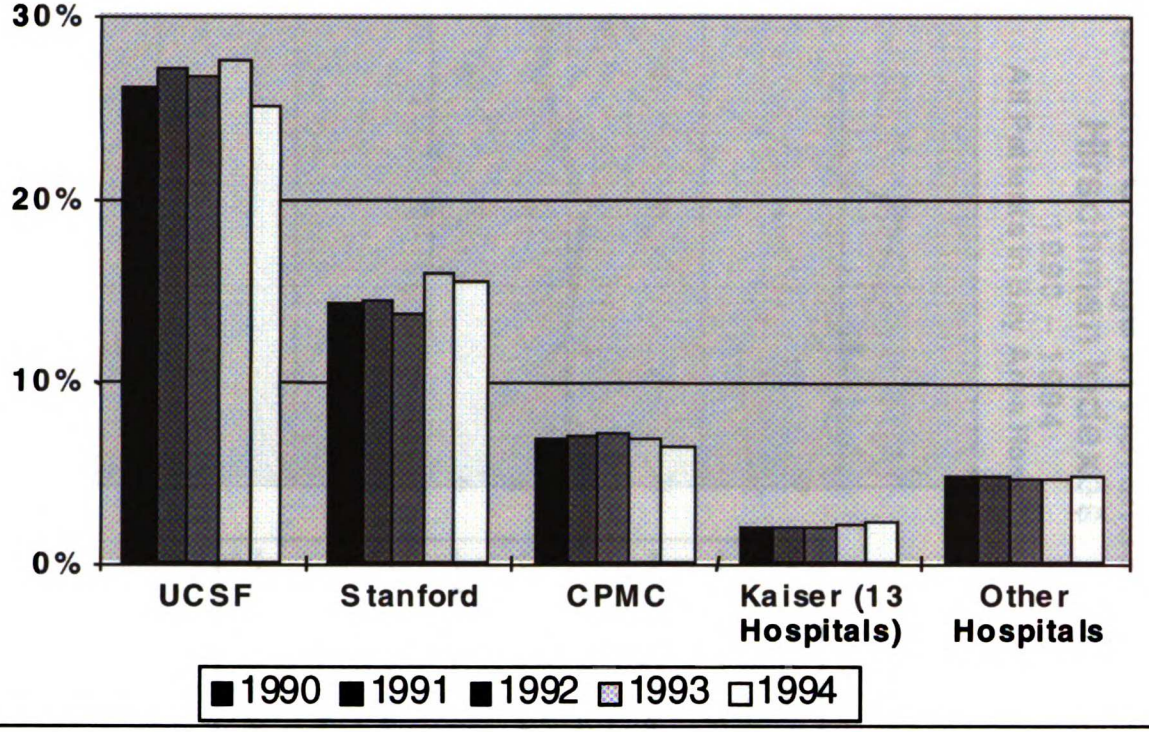
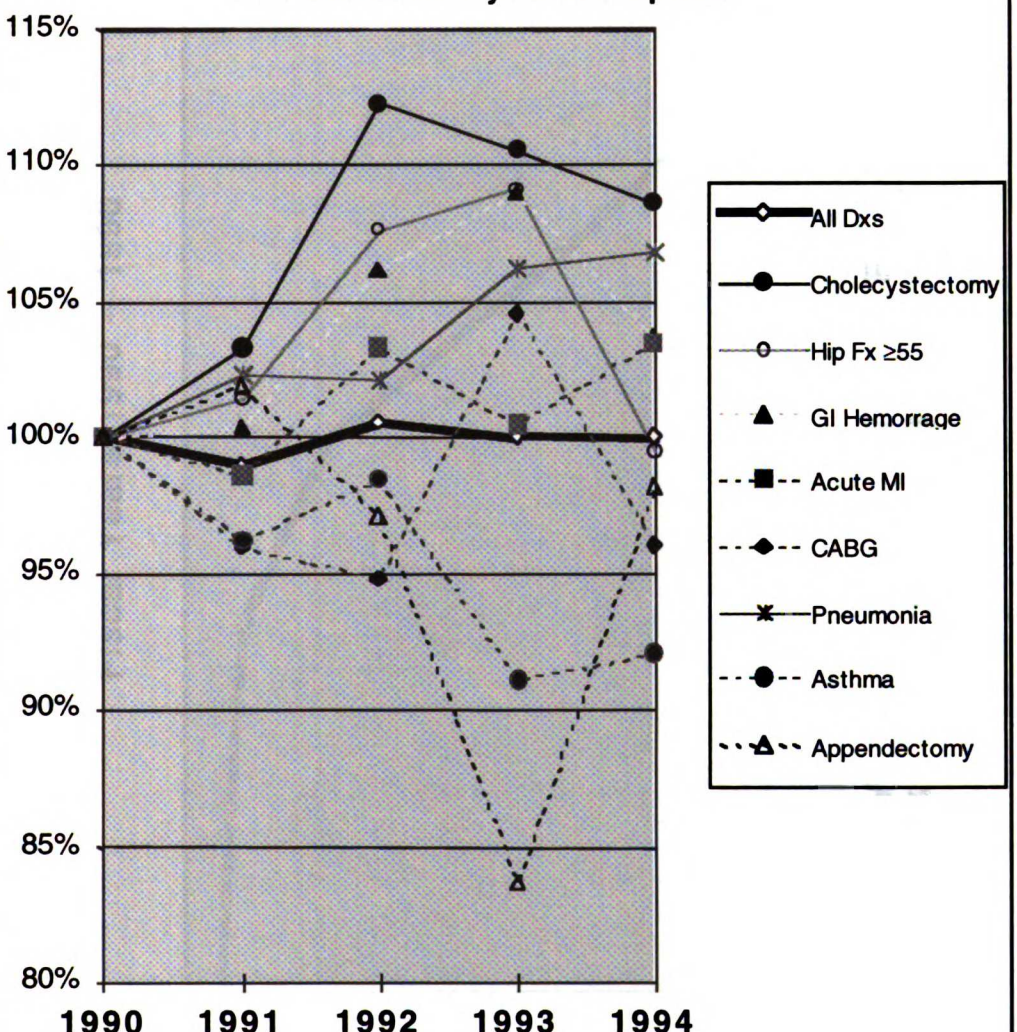


Figure 10
Percent Change in Herfindahl-Hirschman Indexes
1990 – 1994
All Patients in Bay Area Hospitals



Note: Asthma excludes Children's Hospital, Oakland

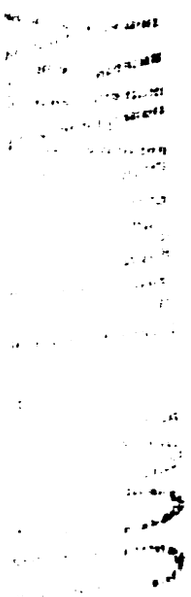
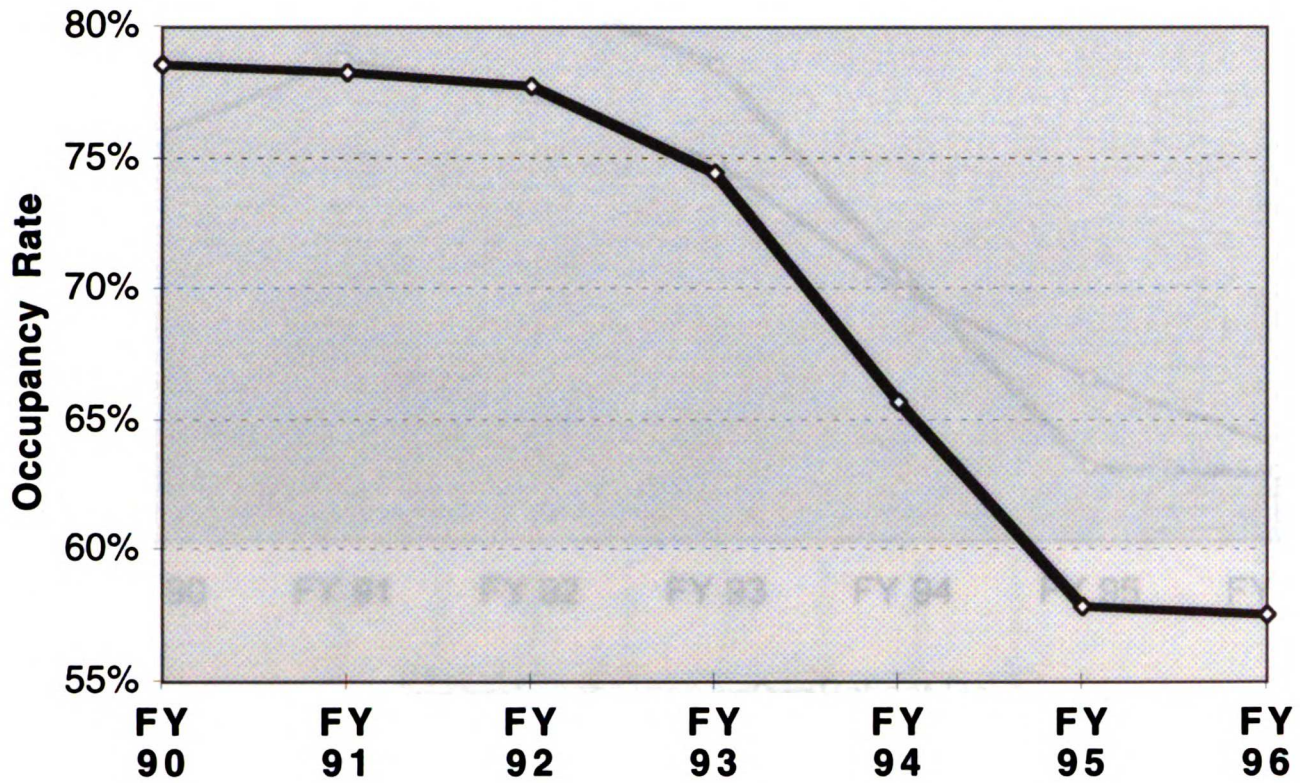
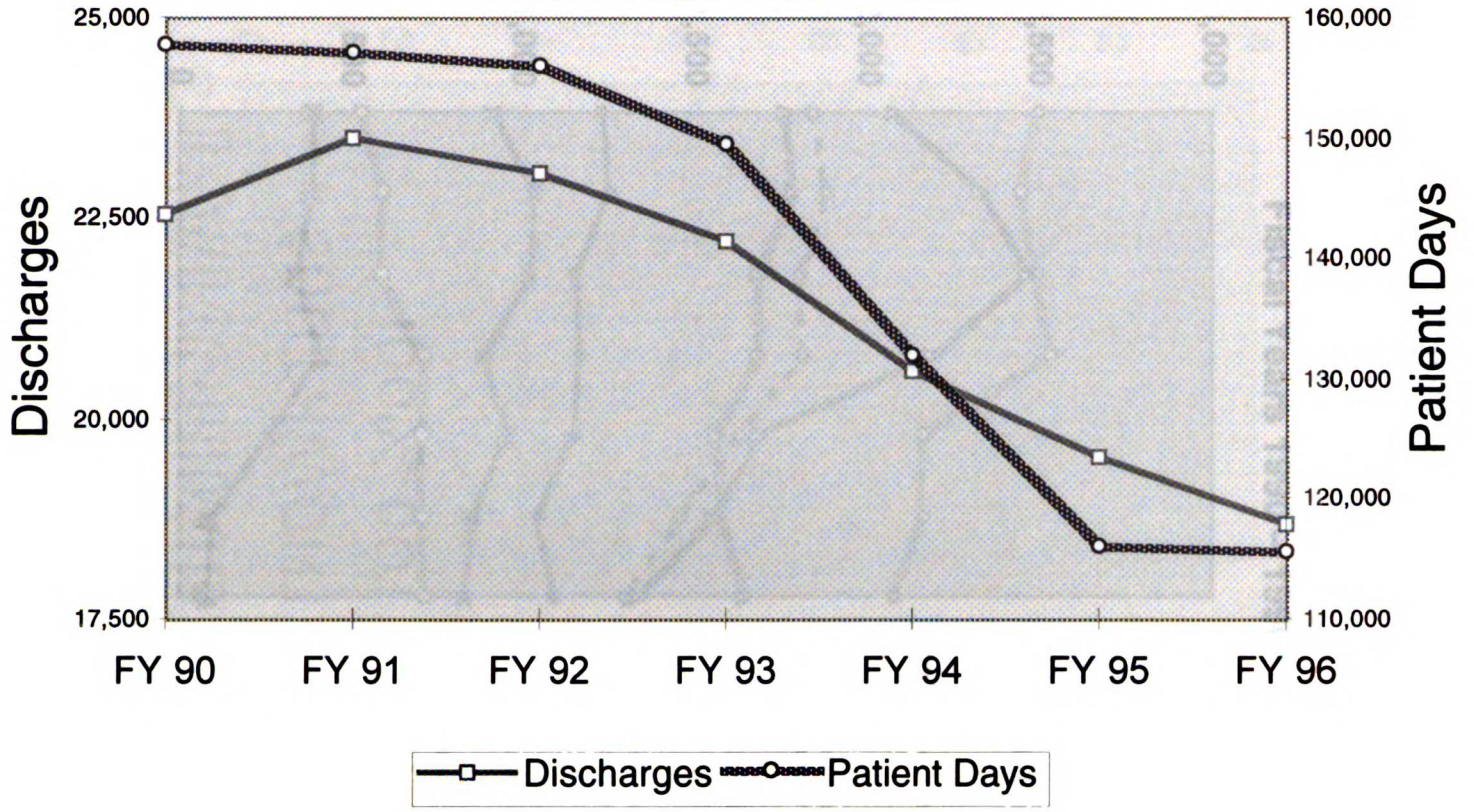


Figure 11
UCSF Occupancy Rate
Fiscal Years 1990 – 1996

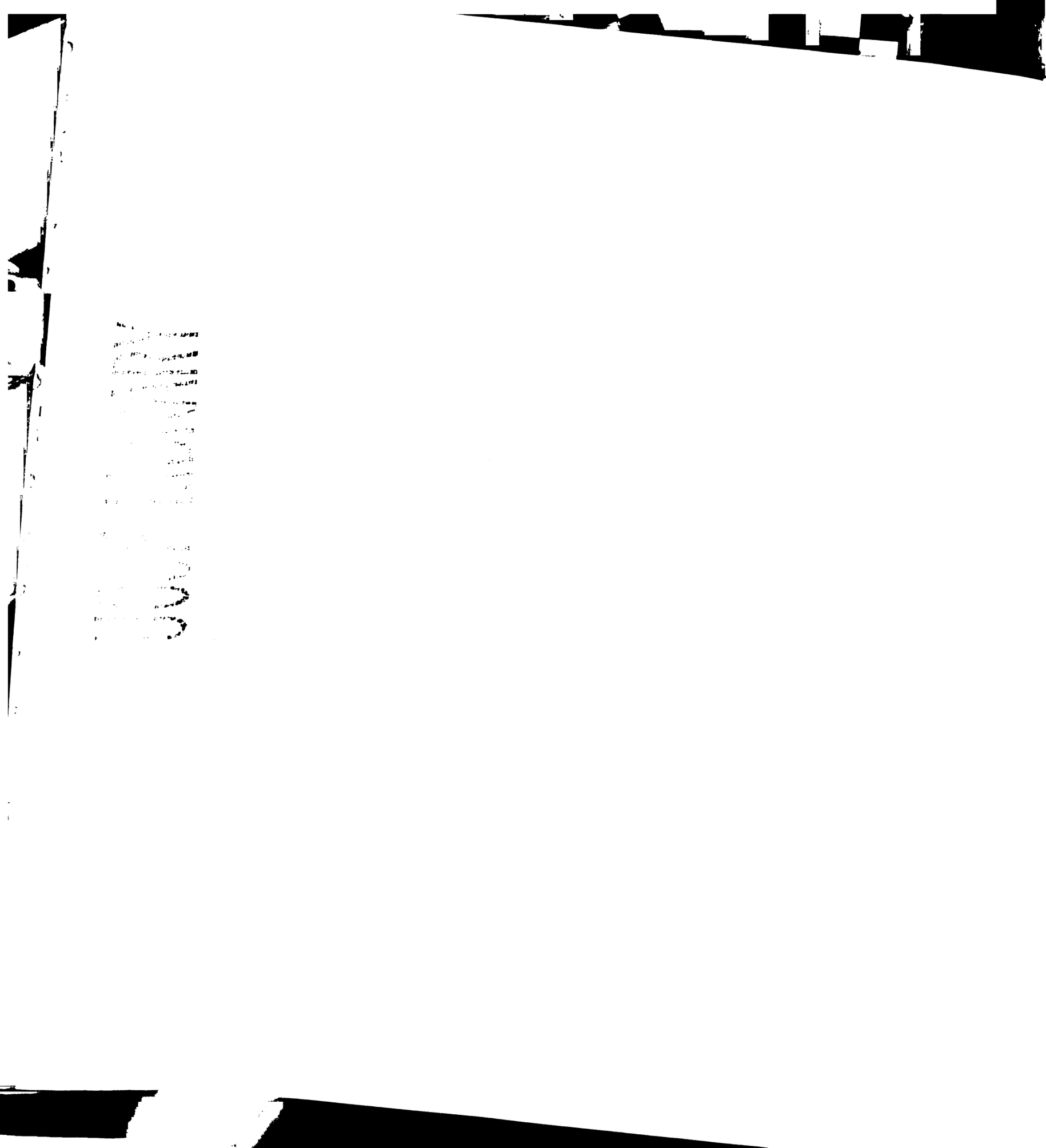


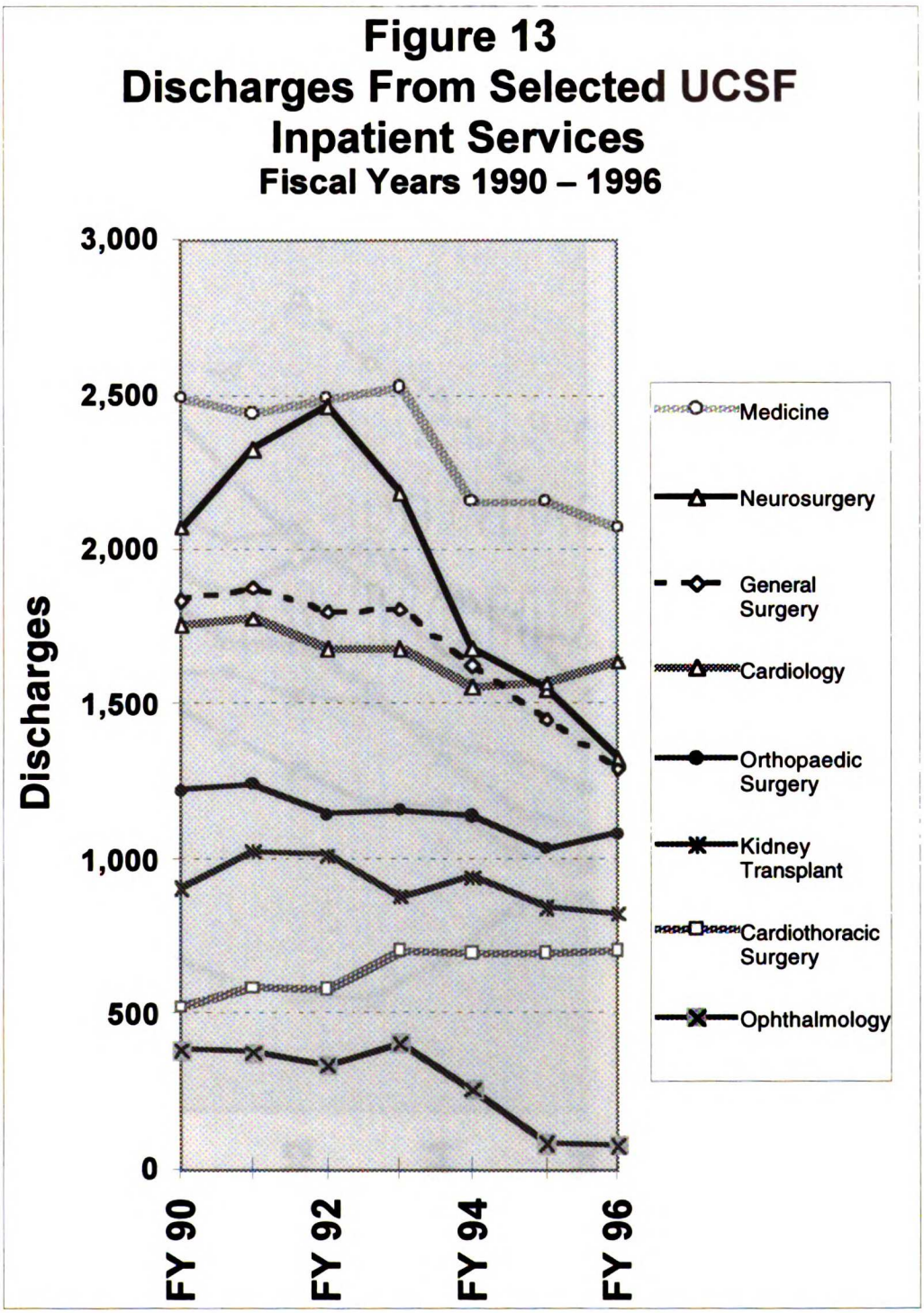
Source of Data: UCSF Hospitals and Clinics

Figure 12
UCSF Discharges and Patient Days
Fiscal Years 1990 – 1996

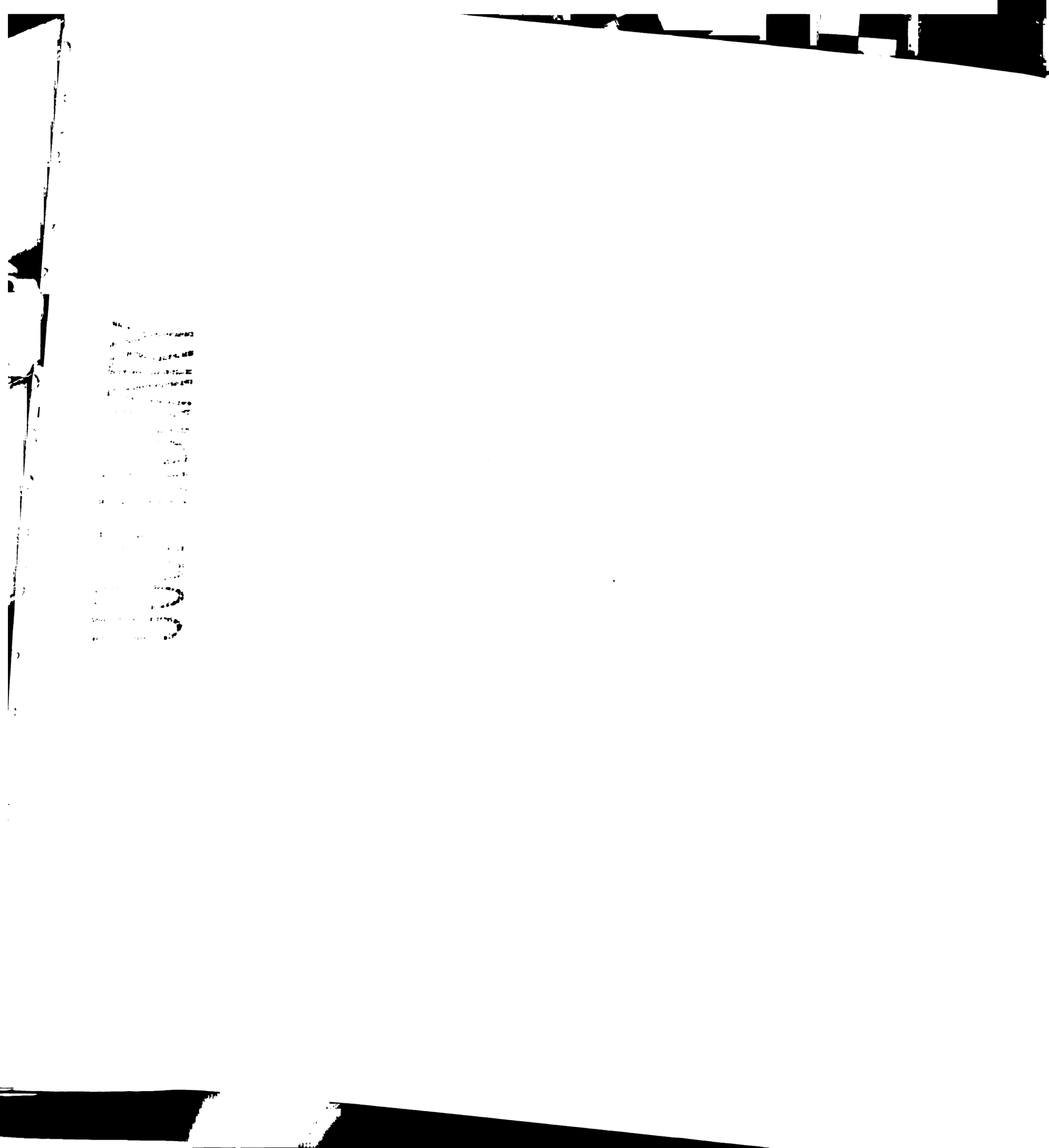


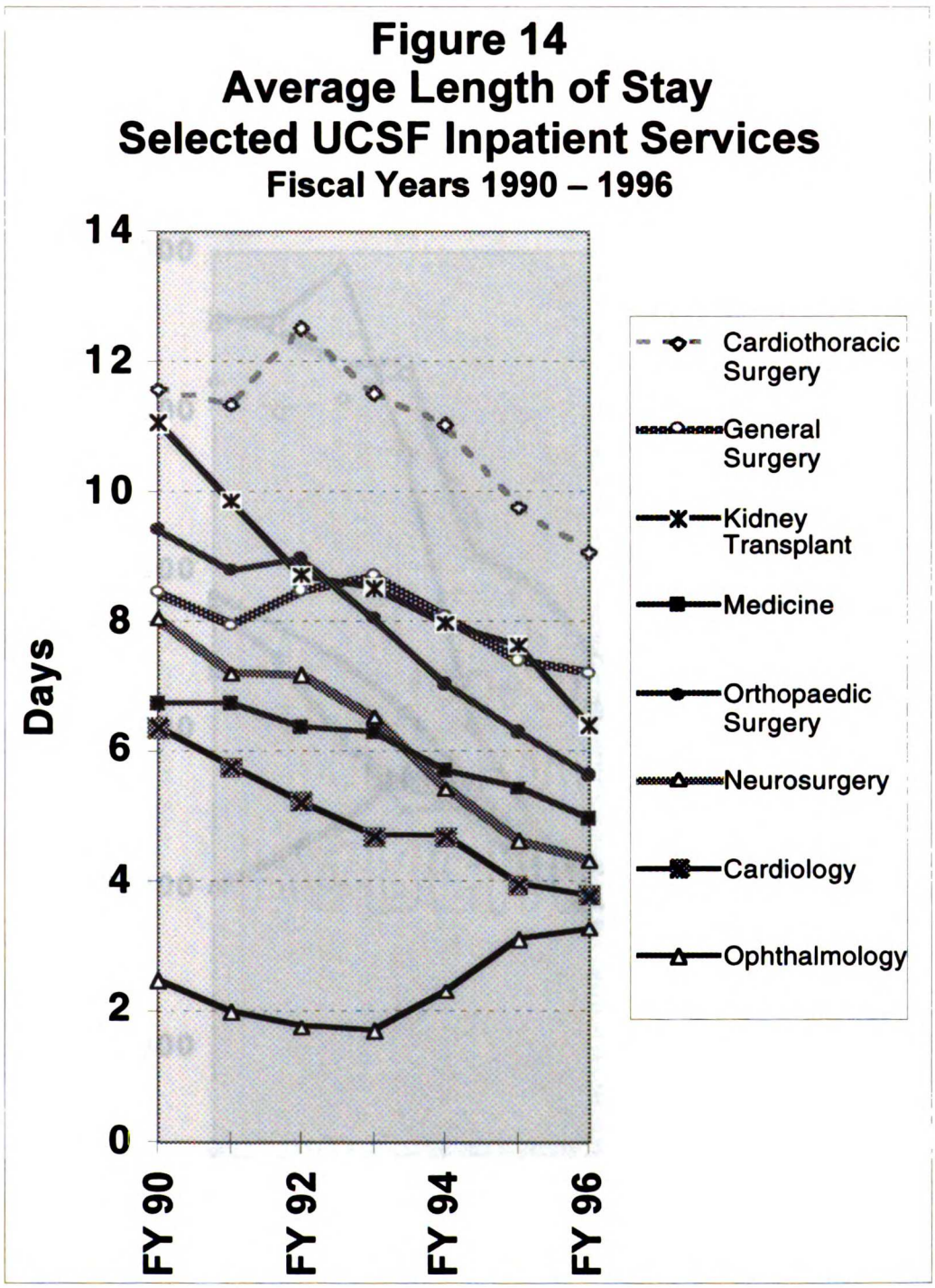
Source of Data: UCSF Hospitals and Clinics



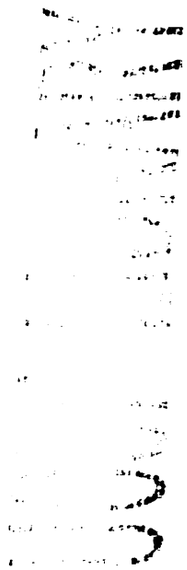


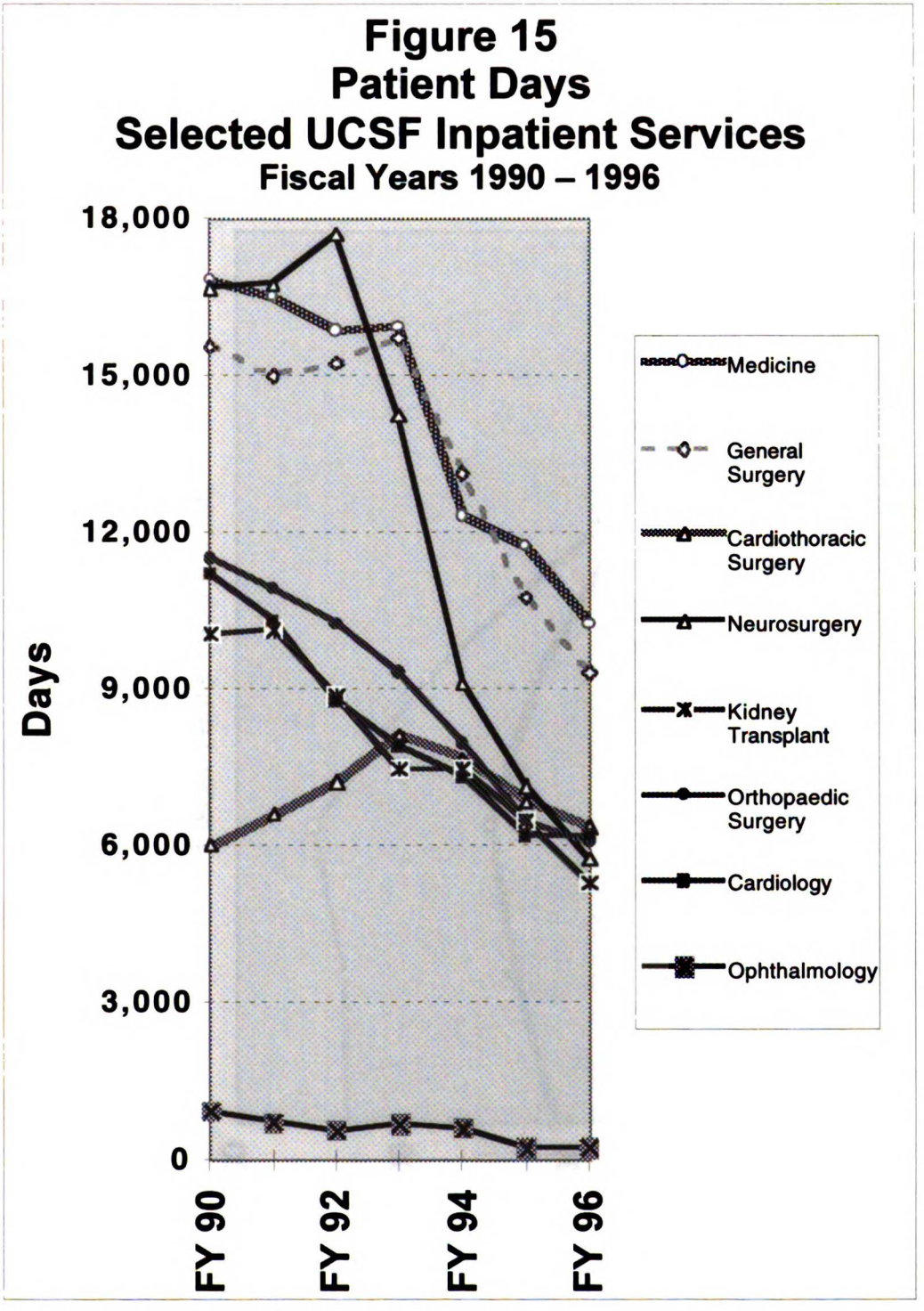
Source of Data: UCSF Hospitals and Clinics





Source of Data: UCSF Hospitals and Clinics





Source of Data: UCSF Hospitals and Clinics

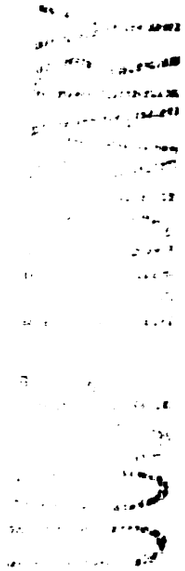
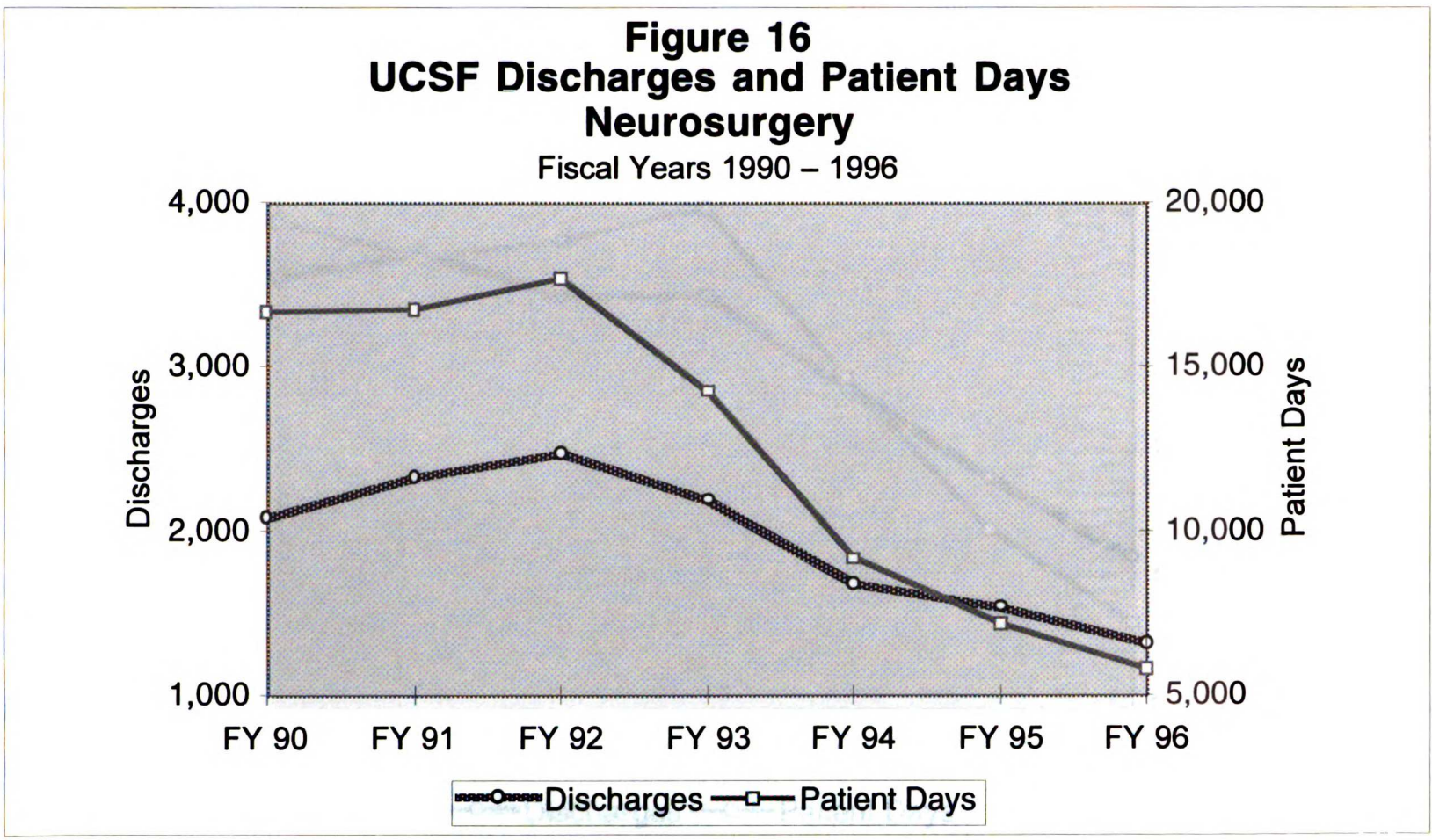


Figure 16
UCSF Discharges and Patient Days
Neurosurgery



Source of Data: UCSF Hospitals and Clinics

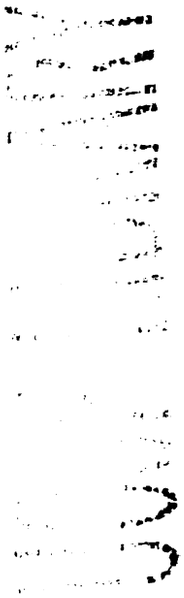
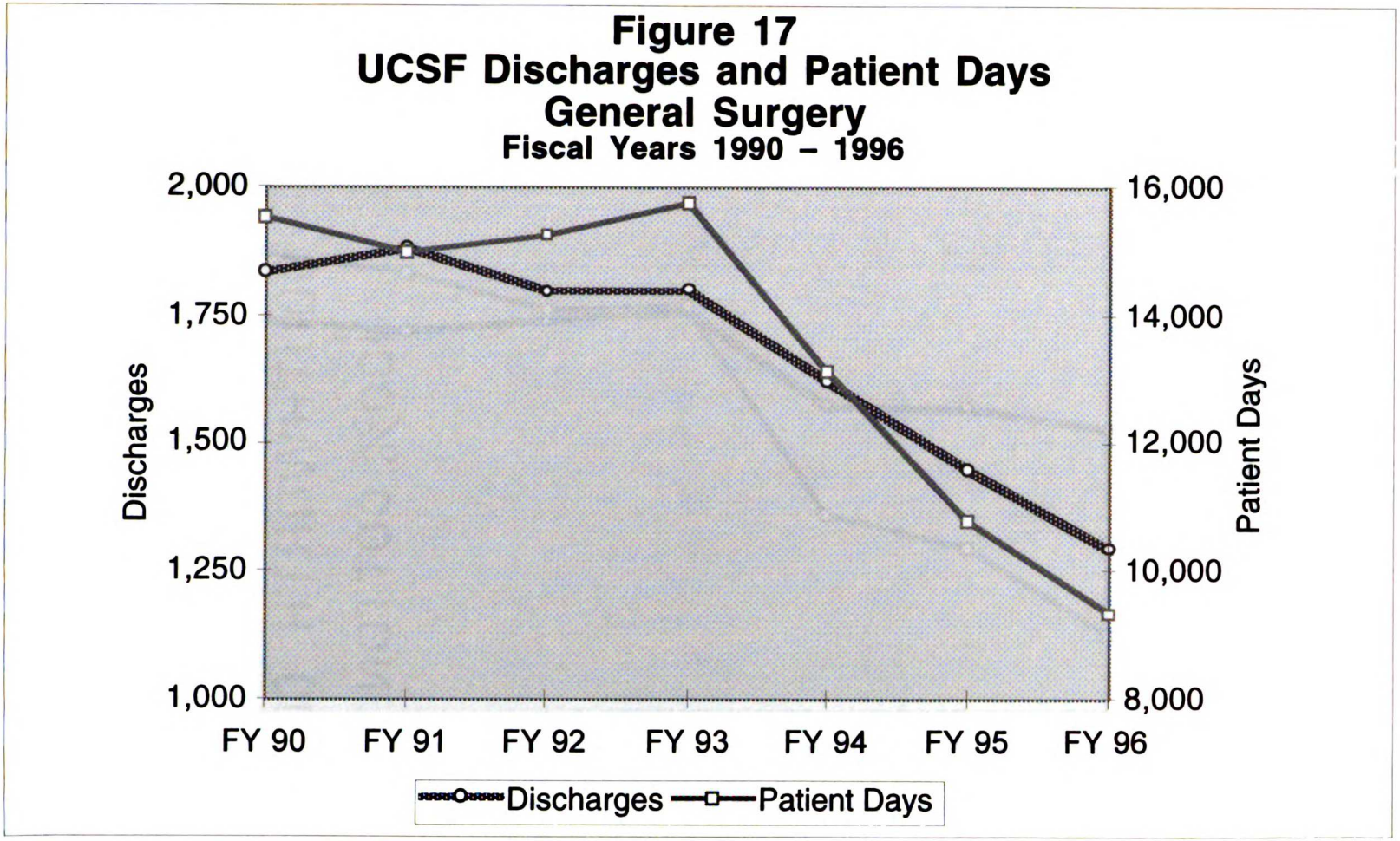


Figure 17
UCSF Discharges and Patient Days
General Surgery
Fiscal Years 1990 – 1996



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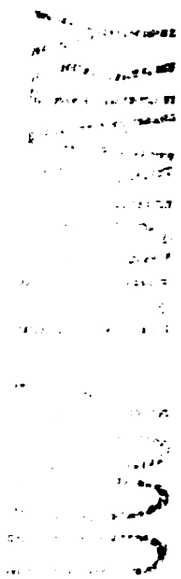
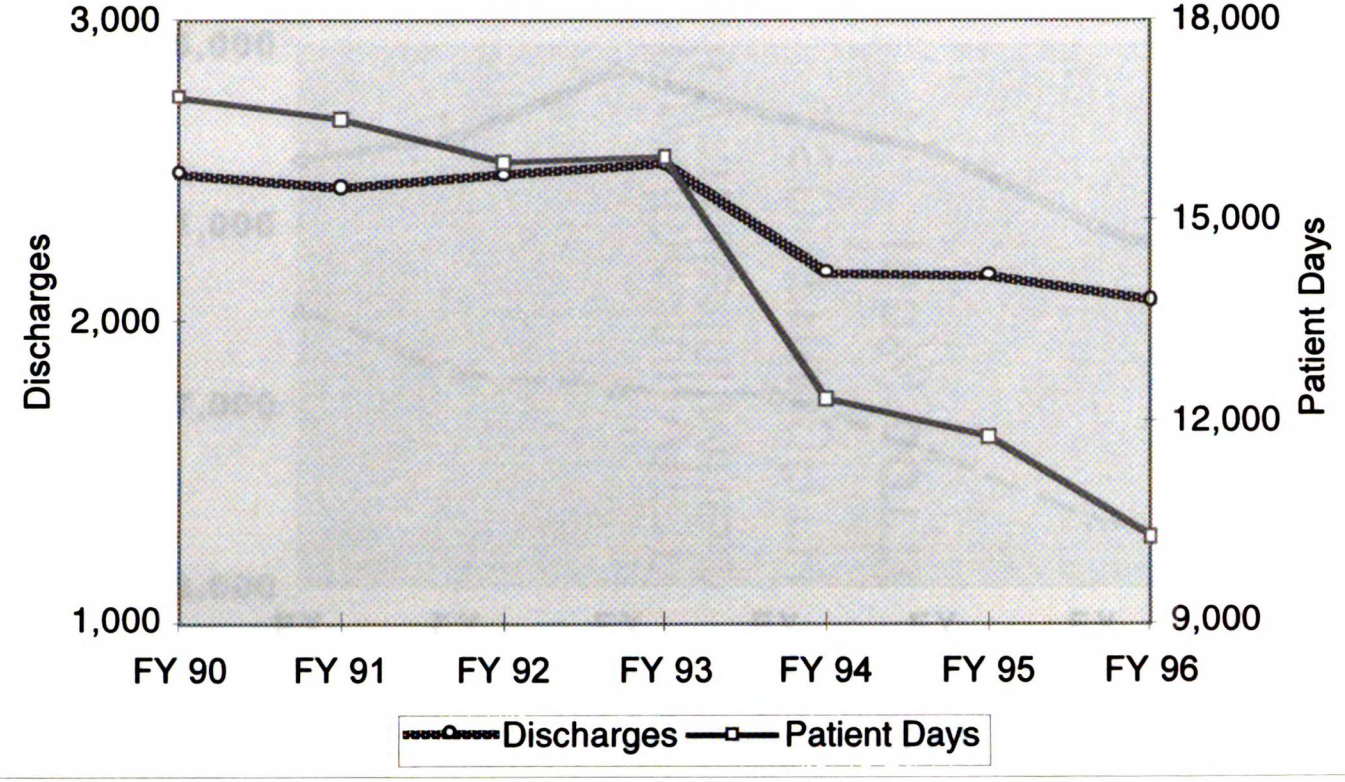


Figure 18
UCSF Discharges and Patient Days
Medicine
Fiscal Years 1990 – 1996



Source of Data: UCSF Hospitals and Clinics

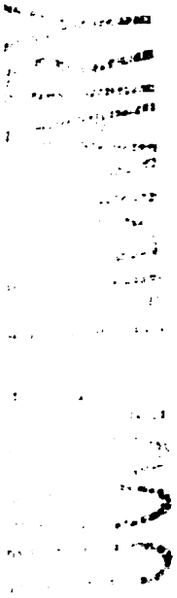
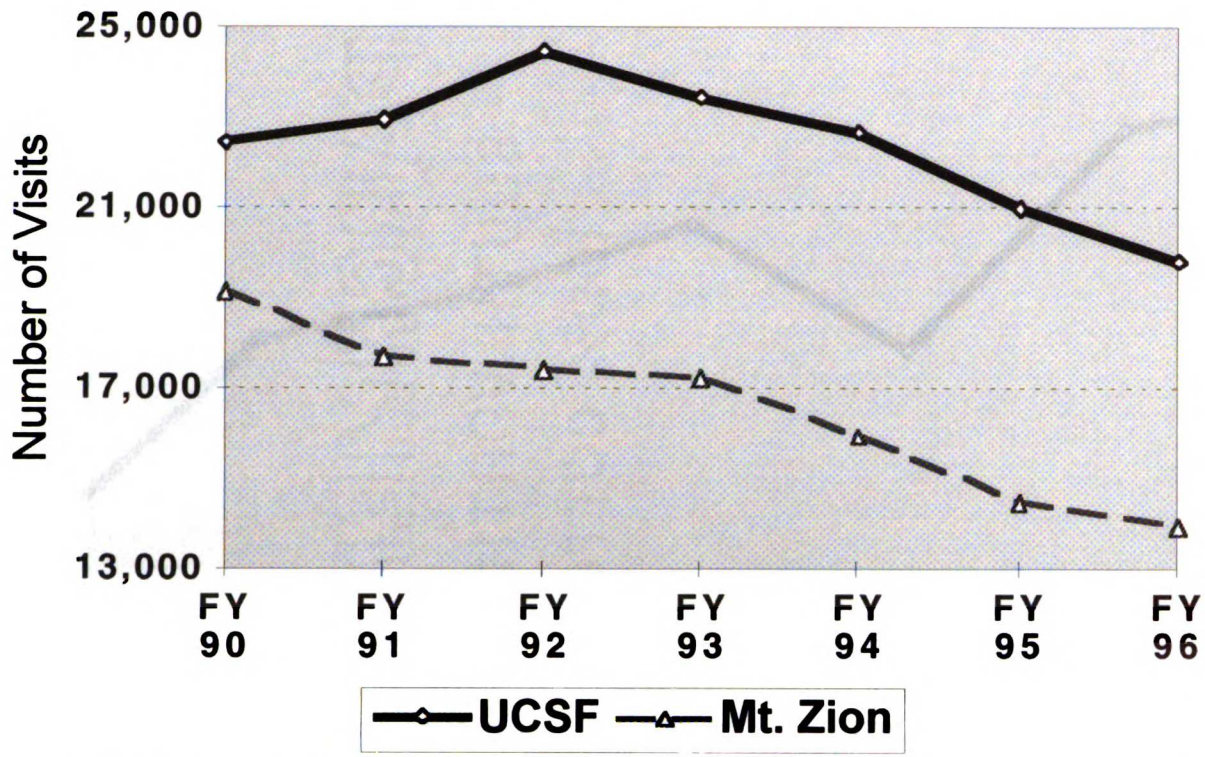


Figure 19
UCSF and Mt. Zion
Emergency Department Visits
Fiscal Years 1990 – 1996



Source of Data: UCSF Hospitals and Clinics

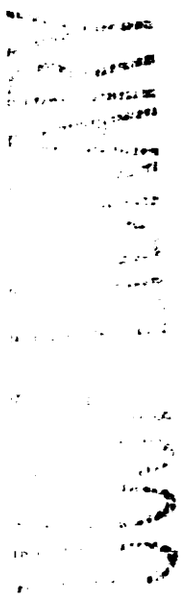
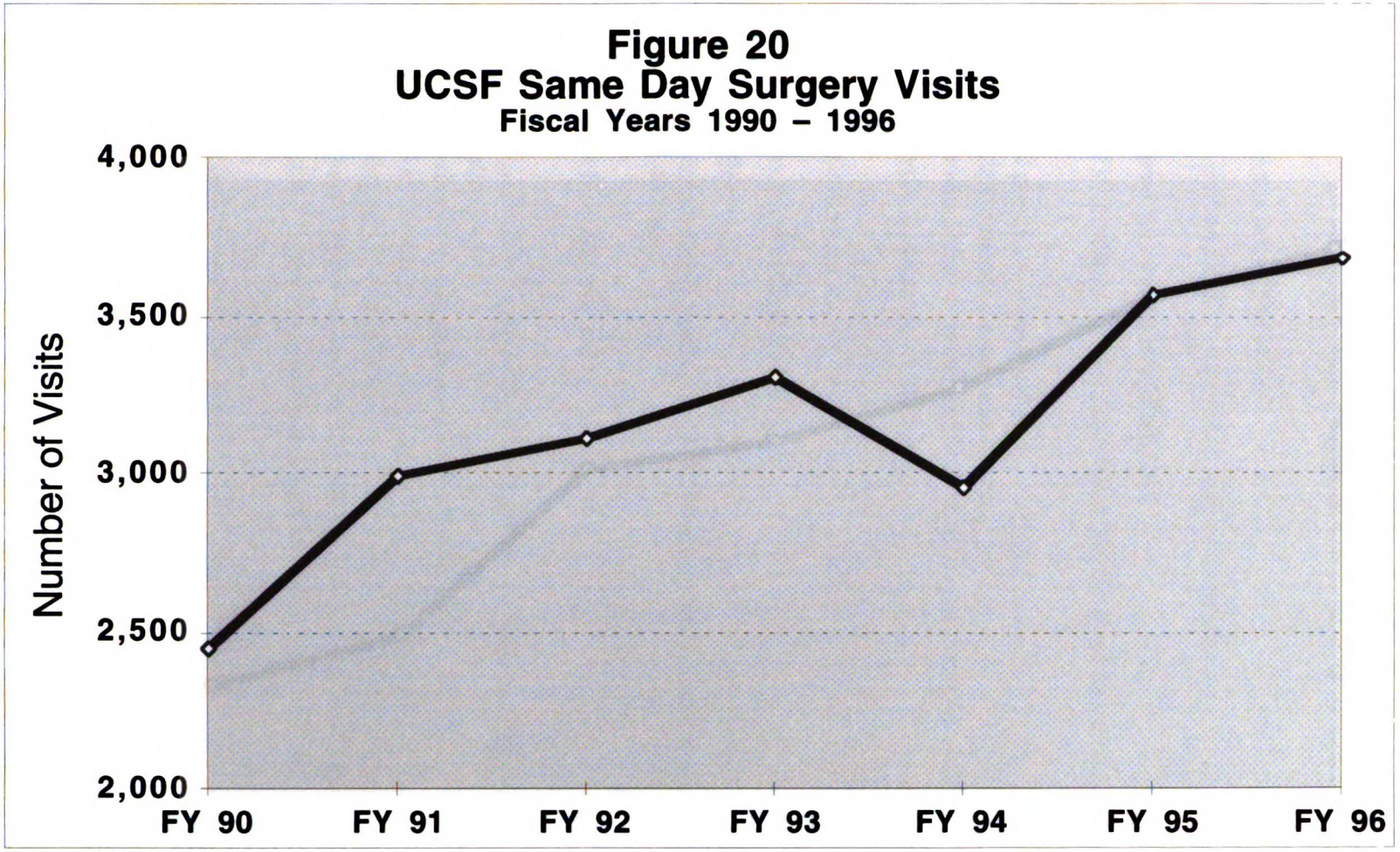
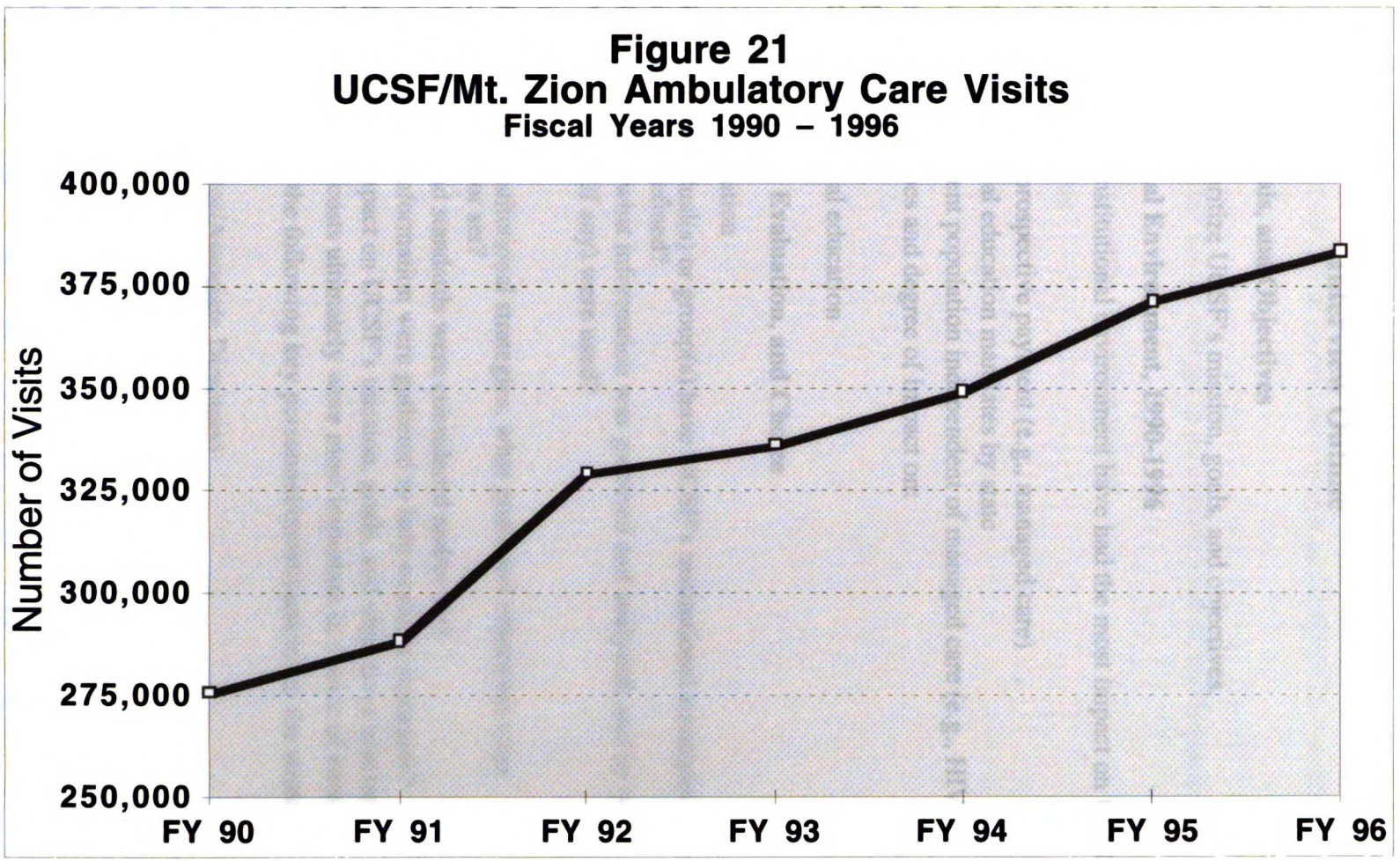


Figure 20
UCSF Same Day Surgery Visits
Fiscal Years 1990 – 1996

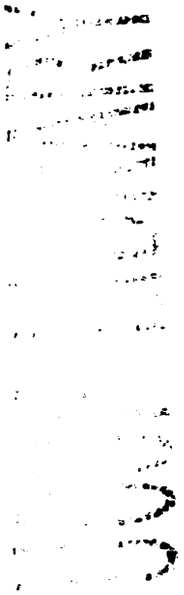


Source of Data: UCSF Hospitals and Clinics

Figure 21
UCSF/Mt. Zion Ambulatory Care Visits
Fiscal Years 1990 – 1996



Source of Data: UCSF Hospitals and Clinics



Appendix

Interview Outline

Institutional Mission, Goals, and Objectives

Please identify and prioritize UCSF's mission, goals, and objectives.

Perceptions of Institutional Environment, 1990-1996

Which changes in the institutional environment have had the most impact on UCSF with regard to:

- Trends toward prospective payment (e.g., managed care)
- Graduate medical education mandates by state
- Changes in patient population independent of managed care (e.g., HIV)

What have been the types and degree of impact on:

- Patient care
- Graduate medical education

Strategies: Identification, Evaluation, and Choice

Identification and definition

- By what individual(s) or group(s) have UCSF's institutional strategies been identified and defined?
- In this process, what information was gathered and analyzed, and by whom?
- Which models (if any) were used?

Evaluation

- In evaluating institutional strategies, what goals and objectives were considered and/or set?
- What criteria and standards were considered and/or set?
- What types of information were gathered to help evaluate strategies?
- How was the impact on UCSF's mission, goals, and objectives assessed?
- Which benefits/costs ultimately were most important in choice of strategy?

What were the roles of the following key personnel/constituencies in the strategic planning process?

- Hospital (Director/Associate Directors)
- Medical School (Dean/Department Chairs)
- UCSF Chancellor's Office
- UC Board of Regents
- UC President's Office
- Consultants
- Other

Implementation of Specific Strategies (Brown and Toland Medical Group; Stanford Health Systems)

What were the UCSF goals and tactics in negotiations?

What were the projected long- and short-term impacts on UCSF if the mergers were:

- Successful?
- Unsuccessful?

What goals were identified for the merger (e.g., explanations of, and hopes for, a new merged organization)?

What was the composition of the following teams?

- Strategic planning
- Negotiating
- Decision-making