Board Requirements for Economists Who Write on Medical Subjects? A Comment on *The Condition of Surgery*

FRANCIS D. MOORE

Harvard Medical School and Peter Bent Brigham Hospital

This commentary is offered by a physician who was active in preparing the SOSSUS report, who has been engaged in medical education and the care of the sick for forty years, but who writes with some hesitancy on a topic chosen by an economist. We may return at the close of my commentary to this question: precisely what qualifications are we going to demand of economists should they see fit to start writing about medical subjects?

The first few pages of Blackstone's article constitute a recapitulation of the SOSSUS report, but with a special bias: looking for "market forces" which every economist feels *must* exist in all aspects of our society. In the simple sense of "supply and demand," market forces, when they do operate, are surely imperfect allocators in medicine. If the market forces of supply and demand did have a medically purposeful impact, there would be fewer psychiatrists in New York, more hospitals in Alabama, and more gynecologists in South Dakota. Apparently, if market forces are at work, they are less than rational. The overcrowding of surgeons in some areas does not result in lower fees. Even economists trained in the rigors of research may have difficulty in accepting the results of a null hypothesis, and I would think this is the case with "pure market forces" applied to surgery.

Dr. Blackstone shares a common confusion about the essential difference between surgeons, on the one hand, and physicians who carry out operations, on the other. This leads to some unfortunate interpretations of numerical values. It is important for the economist, and indeed any analyst of the problem to realize that the "practice of surgery" is not confined to procedures conducted in the operating room. The care of surgical patients is the practice of

surgery. Much that goes on with these patients does not occur in the operating room. Some patients (such as those suffering from burns, fractures, peritonitis, head injury, pancreatitis) require extensive care and many hours of the surgeon's time without undergoing any surgery whatsoever. Those patients who do require major surgery (for example, open heart surgery or cancer of the pancreas) also need many hours of care by the surgeon and his team outside of the operating room. A few weeks of field observation in a hospital would make this clear to any critic.

The SOSSUS Report states quite clearly that, although criteria for adequate numbers are hard to come by, the central cohort of fully trained *surgeons,* with their residents in training, appears to be adequate for the country. Dr. Blackstone believes that the SOSSUS Report recommends a reduction in the number of people in surgical training so that surgeons may maintain their skill. Later on, however, he suspects that this recommendation may also reflect a desire to increase income. Actually, this concept of skill-maintenance by an adequate load of work is mentioned but briefly in the report. It is relevant to the work of any professional—a lawyer, an architect, even an economist. But it is not the controlling thought behind the desire of SOSSUS to reduce the surgical residency pipeline. Instead, that recommendation is based on the desire to achieve more efficient use of our national medical manpower resources, to avoid crowding in one segment of the profession and ease manpower flow so as to encourage entry into understaffed fields. If I state my position in quasi-market force terms, I do so in the hope of making medical reasons more intelligible to economists. They are not an easy group to educate in our ways, or we would not have been offered the following:

> A problem with the report's conclusion that there are too many surgeons and consequently a danger to the level of surgical quality, is that it is based upon a purely technological criterion . . . A few very active open heart surgery units may provide the highest quality care . . . Consumers may, however, want more widely dispersed facilities despite the somehwat lower quality that may result . . . Some reduction in quality may, therefore, be considered satisfactory if it reduces surgical prices.

There is not a shred of evidence to support such a view. Patients will travel miles, hundreds of miles, thousands of miles to find a surgeon that they believe will give the highest quality care.

Since the surgeon's fee has little to do with the price patients pay, there is no improvement in care distribution merely by scattering poorly trained surgeons all over the countryside. What exactly is meant by "surgical prices"? The cost of a surgical operation includes many components of hospitalization such as labor, food, the cost of using the operating room, anesthesia, x-ray film, and laboratory tests. The surgeon's fee itself is only about 12 percent of the total cost. The proposal to lower quality in order to reduce "surgical prices" would have the effect of lowering quality without having any impact on prices. Putting an open heart unit in every hamlet in this country would do absolutely nothing to reduce the cost of open heart surgery (I know of some economists who argue convincingly that costs would increase) but it certainly would increase its hazardous use in unqualified hands. It is remarkable that after all the years of trying to centralize such difficult procedures as open heart surgery (for reasons of economy as well as excellence) we have an economist stating that we should go for lower quality with duplicated and widespread, partially utilized facilities.

Dr. Blackstone would like it if SOSSUS supplied more information on various degrees of skill, to show that board certification is better than non-board certification as a criterion of surgical training. We see that Dr. Blackstone is himself a Ph.D. Does he believe that advanced qualifications are unworthy in medicine yet quite valuable in economics?

The process of certification by any of the twenty-two American boards should be clearly understood. The training programs approved for advanced education in any medical specialty are all in hospitals affiliated with universities. The educational standards for these institutions are exactly like those for institutions which grant the Ph.D. degree. In the case of most of the boards there are actually two parts to the examination for certification. These might be thought of as analogous to the preliminary and final examination for the Ph.D. The tests of competence are never administered by the people with whom the individual studies. Board certification is thus an advanced qualification based on education in an approved program, and then, following that, the successful passage of an examination. In addition, some boards require a year or two of actual practice before it is possible to achieve board certification. In sum, then, the method is, if anything, much more rigorous than the Ph.D. procedure.

After all, the very purpose of certification and credentials is not to enhance the ego or the income of the holder. Rather, it is to assure the public of, in this case, the surgeon's ability to perform successfully. There are some fairly obvious ways of identifying good results in surgery. And consistent failure to deliver success will probably lead to loss of credentials. But what is the parallel situation for economists, or almost any social scientists? Do their credentials assure the public of successful results?

Dr. Blackstone expresses the apprehension that hospitals might make board certification prerequisite for performing surgery. Precisely this circumstance has prevailed for certain kinds of staff appointment in the Veterans Administration since the middle 1940s; unlike Dr. Blackstone, I hope it will soon become national policy. The fact is that in most states any person possessing the M.D. degree may legally perform open heart surgery. But it would be impossible for him to find a hospital team, a hospital director who would tolerate it, physicians to refer patients to him, or patients who would take the chance—unless he had the full training and the necessary background experience. Board certification is testimony to the nature of the training experience and achievement.

The author takes the conventional economists' view that the reason people enter certain careers is to optimize income. The weight of evidence, however, shows that this is by no means the sole or even the primary consideration in the medical student's choice of surgery. The residency Questionnaire Report of the SOSSUS Study showed that in defining motives for entry into surgery and location of practice, young people put adequacy of income at about the middle of the list. Things that they enjoy doing, services they think they could give well, places they enjoy living, and the desire to live where there are educational facilities—these were all far more important than income.

There are many fields of work that provide high income much sooner than surgery does. In anesthesiology and radiology, for example, high earnings are achieved within four years of graduating from medical school, while a surgical resident is still struggling with nights on call. And yet those fields are not popular with American medical graduates, who make up only 40 percent of the filled positions. One begins to feel sorry for the economist vainly searching for market forces in medicine, and not finding them. Supply . . . and demand . . . of what? For what?

Blackstone worries about the fact that surgeons' incomes will be increased if there are not quite so many surgeons practicing and that their incomes are in the upper range of medical incomes. They are not any higher than those of bankers, stockbrokers, industrialists, automobile salesmen, and many other individuals in our society. It is clearly shown in the SOSSUS report that the level of increased surgical workload envisaged by a reasonable control on the number of surgeons in training would have but a minor impact on income. In some parts of the country even general practitioners earn incomes equal to those of surgeons. What law of economics can be invoked in explanation? Certainly, a distorted citation of historical evidence doesn't help. What would lawyer Blackstone make of economist Blackstone's implication that the Flexner Report was directly responsible for the increase in the income of physicians! Or of yet another distortion of history in his suggestion that hospitals should "require physicians . . . to devote time to general hospital patients rather than treating their own private patients." That has *always* been the historical mission of hospital staff membership of the great teaching hospitals in the United States. It is only recently that public pressures (including those from economists) have defined every patient as private or semi-private and assigned them to an individual physician.

Blackstone keeps coming back to this question of "cost cutting" as if it could be solved merely by increasing the number of surgeons. As more and more economists stake their careers in medical policy and congressional committees, they will have to broaden their understanding of the medical side of economic equations. To be sure, the inflationary factors so well known in any institutional operation are also important in the total cost of hospitalization. Physicians do influence these costs insofar as they determine the utilization of certain types of facilities or procedures; the cost attributable to surgical fees, however, is almost minuscule. But these cost-generating decisions are in part a response to the desire of the public for "perfection in medical care" and are also heightened by threat of malpractice suits. Neither of these factors would be abated by proliferating the number of surgeons. Dr. Blackstone will have to invent more effective economies.

In closing this commentary, I would like to address a problem that exists in the United States today: many economists are turning their attention to medicine. They are very numerous on the

Washington scene. Nearly every congressional committee that deals with medicine has one or two career economists working with it. They are frequently very poorly informed on matters of medicine and have large gaps in their knowledge of the current practice of medicine and surgery in this country today, the realities of the doctor-patient interface, and of recent medical history.

I would like, therefore, to make a serious suggestion in this issue of *Health and Society*. Someone other than economists should control the flow of economists into the medical field by setting up some sort of training program and test of achievement. Before being permitted to advise or write on medical matters, economists should be absolutely required to pass a stiff examination demonstrating their knowledge of how medicine is practiced, the recent history of American medicine, how hospitals are operated, how physicians are financed, how bills are paid, how patients are cared for, and how young people are educated in medicine (both at the undergraduate and postgraduate levels). Above all, they should have some basic understanding of what the average American patient seeks when he or she goes to see a doctor. Economists should be advised to spend at least twelve months in a hospital or medical school, a community hospital or a clinic, either as a patient or as an observer, and to pass an elementary examination on this period of practical training or "internship" before going on to the broader final examination for their medical economic "license." If such a course were required for all economists entering the medical field, our future legislation would be much sounder, and we would be spared the problem of redressing the distortions bred of unfamiliarity.

Address reprint requests to: Francis D. Moore, The Countway Library, 10 Shattuck Street, Boston, Massachusetts 02115