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Contents

This month's cover shows Betty June Hayes, register of deeds of Orange County and immediate past president of the National Association of County Recorders and Clerks, with former Justice Tom Clark of the U.S. Supreme Court and Judge Conrad Fowler, president of the National Association of County Officials, at the convention in Atlanta this past July. Photo by Jon Kaufman and Associates, Atlanta.

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DOCTORAL PLANNING FOR THE SEVENTIES

A Pressing Challenge for Higher Education

By LYMAN A. GLENNY

THE MAJOR PROBLEMS for planning graduate education in the 1970s resulted from an event of the 1950s. That was the launching of Sputnik. The reaction of the United States to this tremendous achievement of the physical sciences was to reassess our nation's manpower needs for researchers, developers, and teachers. The experts concluded that catching up with the Russians required a massive effort by the universities to gear up for production of scientists. Manpower estimates then predicted a drastic shortage of all kinds of highly trained specialists by the year 1970.

As late as the spring of 1969, it was suggested that the number of doctoral students given federal grants should be almost doubled.[1] So did The Carnegie Commission on Higher Education.[2] Later in 1969 Congress seriously considered bills supporting these proposals for possible implementation.

These appeals were merely supplemental to the existing myriad of federal programs to support graduate work. The National Science Foundation, the Council of Graduate Schools, the Land Grant Association of Colleges and Universities, and the American Association of Universities all encouraged a variety of federal aids for graduate work. Aid was provided through special grants for libraries, computers, and buildings; through the National Institutes of Health, the National Science Foundation, the Atomic Energy Commission, and Pentagon contracts; through grants for the "emerging" colleges; through support for "centers of excellence"; and through supplemental grants to the institution for each federally aided student who enrolled in doctoral work.

Most of the hundreds of millions of dollars for advanced work primarily helped expand the sciences, both hard and soft. And in the late sixties, small sums became available to the social sciences and the humanities.

The states also did their share. Indeed, the states have always invested the lion's share of funds in all levels of public higher education. Despite this fact, federal aid for "centers of excellence" and for graduate students induced (or seduced) comprehensive state colleges to embark upon advanced graduate work. Federal funds stimulated, but state funds largely underwrote, the nu-

1 U.S. Department of Health, Education, and Welfare, Toward a Long-Range Plan for Federal Financial Support for Higher Education (Washington, D.C.: Government Printing Office, January, 1969).

2. Carnegie Commission on Higher Education, Quality and Equality: New Levels of Federal Responsibility for Higher Education (Hightstown, N. J.. McGraw-Hill Book Company, 1968).

merous new doctoral institutions that came into existence in the 1960s. Some were former teachers colleges, some state colleges, and a few were small universities—perhaps in name only. States such as Florida and New York created "instant universities," i.e., entirely new and pretentiously "full blown." State coordinating and planning boards, aware of the disproportionate funding required of the states, nevertheless were unable to resist the lure of creating a "great university" or a "center of excellence." Presidents and faculties cited the national shortage of doctorates and the exceptional potential of their particular institutions to importune and to exert pressure on the planners and legislators. The presidents claimed they could not hire first-rate professors without also offering opportunity to develop graduate programs and "do research." Faculty members, all trained indeed to "do research" (but not to teach), used their mobility resulting from their scarcity to threaten and cajole for higher salaries, lower teaching loads, and more doctoral programs.

National production of doctorates almost tripled from 1958-69: from 8,942 to 25,734.[3] The U.S. Office of Education estimates that 38,700 will be produced per year by 1976-77—about 13,000 more than 1969. Allan Cartter, chancellor of New York University, estimates that the annual doctoral capacity of the institutions currently authorized to offer degrees will be between 40,000 and 50,000 by 1976.[4]

These numbers signify the tremendous achievement of the combined efforts of federal and state government when seeking a common objective. When working conjointly, the two levels of government can indeed accomplish miracles.

If miracles have been performed, what, then, is the problem? A few additional figures will begin to reveal it.

THE PROBLEM

Just a few months after Congress began serious consideration of the proposals to provide grants to double the number of doctoral students, it became apparent that some miscalculations had occurred. In the fall of 1969, reports circulated that only half of the new doctorates in physics produced the previous year were employed and that newly hatched but unemployed doctorate holders literally besieged the members of the Modern Language Association and the American Historical Association at their annual meetings. They wanted jobs. Malcolm Scully reported in the June 8, 1970, edition of **The Chronicle of Higher Education** that many Ph.D.'s were accepting temporary positions and that the College Placement Council showed a 40 per cent decline in offers from business and industry. It appears that we have a surplus of doctorates in many fields—a surplus that threatens to grow and to cover almost all fields in the next year or so. If current trends continue, in another five years the surpluses will be great.[5]

In 1964, Cartter suggested that the then-existing shortages would continue only through the late 1960s and that in the early 1970s surpluses would occur. From the evidence, he seems to be right. What does he now say about the future?

He and a colleague, Robert Farrell, submitted a paper to the Joint Economic Committee of Congress in 1969. Their estimate of degree production indicated that in 1980 there will be 24,550 new doctorates available for teaching but only 11,600 vacancies, even if we improved the student-faculty ratio by 1 per cent a year.[6] Cartter also estimates that the proportion of doctorates produced that goes into teaching will drop from the roughly 50 per cent, which has prevailed for many years, down to 20 or 30 per cent by 1980. Thus, even with the reduced figures that he suggests, the excess of doctorates over established need will be substantial.

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3. U.S. Office Of Education, Projections of Educational Statistics to 1976-77 (Washington, D.C., Government Printing Office, 1967), p. 114; American Association for Higher Education, College and University Bulletin 22, no. 13 (May 15, 1970).

4 Letter to author dated April 3, 1970

5. This paper is limited to doctorate production in the liberal arts and sciences. It does not deal with doctorate training in the professional fields. Some professional fields have a current surplus (engineering); others show severe shortages (medical and health-related fields).

6. "Academic Labor Market Projections and the Draft," in The Economics and Financing of Higher Education in the United States: A Compendium of Papers Submitted to the Joint Economic Committee, Congress of the United States (Washington, D.C., Government Printing Office, 1969), table III, p. 365.

Other sources that project future needs continue to disagree with him. The U. S. Office of Education projects need for a total of 522,000 teachers in 1975. Cartter estimates 368,000—or a 154,000 difference. Of these numbers of teachers, about 44 per cent would be doctorate holders. Some planners indicate that if we give high national priority to a number of other pressing national goals, there would be no surplus of doctorates. That, of course, is the difficulty in predicting the future. All future estimates are built on a little experience, many assumptions, and much speculation about events and priorities. What current events have implications for planning for future doctorate production?

First and most important, the federal government has apparently read, digested, and believed the Cartter-Farrell projections made in 1969. Drastic cuts were made in the research budgets of the Atomic Energy Commission, Department of Defense, and the other agencies having large research contracts with the universities. Substantial redirections were made in aids to graduate students and accompanying grants to institutions. Grants for centers of excellence, libraries, computers, and buildings began to be phased down or out. From stimulation and heavy subsidy, the federal government is moving back to the free-market system in graduate education.

The consequences to institutions and to the states are already severely felt. During the 1960s some of our greatest universities, both public and nonpublic, had become highly dependent on federal subsidies for their operating costs. Yet many of the institutions are geared up for the new high level of graduate production. Professors with tenure are on payrolls, expensive hardware is in place, and specially designed buildings are constructed. Moreover, the demands of the newly authorized doctoral institutions for additional new programs continue unabated. So do the requests of state colleges for initial authority to offer advanced degrees.

Should the state governments follow the lead of the national government in abandoning graduate education? Such action would be disastrous to the future well-being of the nation in both social and economic terms. The very bright, the very talented, must be educated in order to provide that stimulus to creativity on which an expanding and socially conscious society so much depends. Surpluses are far more desirable than shortages. Because of this, a monumental planning problem confronts every state as we look forward to a moderately expanding need for doctoral degree holders as opposed to the great expansions of the recent past. What are the specific problems and what should be done about them?

Without dwelling on a myriad of minor issues, I see five problems facing the public (as well as nonpublic) institutions and the states. **One** is underwriting the cost; **two** is reducing anticipated surplus production; **three** is maintaining the quality of the degree; **four** is changing the character of some doctoral degree training; and **five** is the absorbing of surplus doctorate holders. All of these are closely interrelated.

COSTS

With the federal government withdrawing its financial support of graduate education, the states and their citizens are asked to bear an even greater proportion of the costs. Can and will the state provide adequate support? Should they? Or should undergradute education be improved? Graduate costs are high. A recent estimate by the National Science Foundation placed total graduate education costs for the nation in 1970 higher than expenditures for undergraduates.[7] Yet the ratio of undergraduate to graduate enrollment is 10-1. Really sound unit costs in graduate education are difficult to find. Estimates range from an average annual cost per student for doctoral work from $3,000 to $10,000 for operations alone.

The Illinois unit-cost study is one of the most thorough and comprehensive in the nation. For the year 1967-68 the study revealed that unit costs per year for the state universities were $2,528 in the humanities, $3,840 for the social sciences, and $5,440 in physical science.

By multiplying these figures by the number of years the average student takes to get the doctorate, one can estimate the cost for each of those who graduate. Additional costs are accrued by those who enter a program but drop out before receiving a degree. Allowing for the attrition factor, Cartter states that the average cost of a science degree is $62,000.

As a means of reducing the unit cost of a degree, some institutions are forcing students to com-

7 Ann Heiss cites this estimate in her study **Doctoral Education** in Prestigious Universities (Berkeley: Center for Research and Development in Higher Education, University of California, in press).

plete their work in fewer years, using greater care in admissions in order to lessen the attrition rate, and encouraging much more individual self-help and much less course work.

The cost of advanced graduate education will nonetheless remain high. The state and the institutions must ask themselves this question: "In a period of oversupply of doctorates and a short supply of money, what is the marginal utility of investing in another doctoral degree rather than investing the same money in some other level of education?" The answer to that question will vary from state to state and from college to college, depending on the condition of higher education: its accessibility, its scope, and its quality. For example, if the state's college-going rate is low, it may be more prudent to provide for additional students at the two- or four-year level than to invest in an additional doctoral degree—especially if the quality of the doctoral program is less than excellent. Or perhaps it may be necessary to improve the quality or scope of undergraduate education. Institutions and states must set new priorities between doctoral and undergraduate education and public service.

REDUCTION IN OUTPUT

Costs are the primary reason for considering a reduction in doctorate output. Some of that reduction may come about of itself, but careful state planning for its system of institutions must prevail if real savings are to occur.

All projections of doctoral degrees assume that current trends will be only slightly modified for the future. Chancellor Cartter has already modified downward his projection of 1969 because of the fall-off in the rate of entry to graduate education at some Ivy League schools. Other institutions, including some of the large state universities, are also experiencing some leveling-off. Beyond this, some big public universities have fewer freshmen as well as fewer graduate students applying than last year.[8] It is not beyond reason to assume that the market itself will quickly adjust to demand. Certainly some graduate students in surplus fields, or those about to enter graduate work, will be rethinking the utility of more years of foregone income and the expense of graduate school against immediate employment with a bachelor's or master's degree. Shifts are bound to occur in students' desire to enter training for the doctorate.

Further, if the draft becomes less of a threat (and already it appears to be so), some students will abandon graduate school as a means for delaying or avoiding the draft.

Working against these trends toward reduction will be two others. First, minority students, long denied graduate education in any large numbers, will be increasing their enrollment. How much is difficult to estimate. In future years, as high school graduation rates improve for minorities, the numbers will certainly increase, but what the effects will be on advanced graduate levels would be sheer guesswork today.

The second counter-reduction trend results from three factors: (1) the intense proselytizing by institutions that have started new doctoral programs but have not yet obtained sufficient enrollments to justify their continued operation, (2) the effort to increase the number of new doctoral programs by these same institutions, and (3) the thrust of still other colleges to obtain initial authorization to offer them. These three factors will compel the states to improve their master planning for doctorate production.

The latest figures available as reported by Ann Heiss are that 50 institutions in the country produce 90 per cent of all doctorates and the remaining 10 per cent are produced by all the other 190 doctoral institutions.[9] One might conclude that all 190 of the "other" universities should close out their programs, thus saving a great deal of money and simultaneously reducing doctorate production by 10 per cent. However, some of these schools have programs sufficiently well founded that it would be unwise to eliminate them. Be aware that the increased production from these 190 institutions is included in the various projections previously cited. By 1980 their proportion would likely be about a third of the production then. Eliminating all these programs would be too drastic a step.

All the same, many low-production doctoral programs should be wiped out and all but a few of the 190 institutions should refrain from starting many additional degree programs. Indeed, perhaps no institution should start a new program unless it is highly innovative, fully interdisciplinary, or in a discipline of national shortage.

8 Office of Institutional Research, For Your Information, Circular no. 151, May 3, 1970, National Association of State Universities and Land Grant Colleges.

9. Heiss, op. cit.

Programs that may well be eliminated are those that have not or will not reach optimum enrollments before 1974 or 1975. If they have not done so by then, they are unlikely to thereafter. Other programs for elimination may be those that are few in number in an institution and are in fields already showing large surpluses.

Elimination of a program has traumatic effects. The institution and its faculties have worked hard in planning and initiating the programs, even on a limited scale. They have probably also spent years in obtaining staff and resources and in obtaining authorization to offer a doctorate. No school will really want to give up a program, although an objective view of it might dictate otherwise.

For purely economic reasons Tulane University has recently given up eight doctoral programs, and other nonpublic institutions will no doubt be forced to make significant reductions. For most public institutions, the statewide coordinating board must assume the task of indicating what should be continued, eliminated, or reduced. It will not be an easy task. Legislatures and governors will need to give them support on carefully conceived recommendations.

Ann Heiss recommends in her study:

> To this end, graduate schools and/or departments should consider the organization and development of consortiums, cluster university programming, reciprocal instructional experiences and, on a cooperative basis, the use of facilities that might be available in other types of institutions or agencies.[10]

The very least that should be done in states with limited wealth and resources is to reduce the number of public institutions that offer the doctorate to one or two per state.[11] Some additional reasons for this are offered in the following section of this paper on the maintenance of quality of graduate degrees.

Again, state coordinating agencies have responsibility to encourage such reassessments. Indeed, the statewide boards would be well advised to reexamine all of graduate education in their states (both public and nonpublic offerings) with the clear intent of planning in a comprehensive manner for the total state system. Better rationality can be achieved in relating both need to production and production to cost effectiveness.

10. Ibid.

11. Possible exceptions would be Texas and Florida. However, both of these states are presently overextended and should reduce the number.

MAINTAINING THE QUALITY OF THE DOCTORATE

The current proliferation of doctoral programs and doctorate institutions has not only significantly increased the cost of higher education but also has encouraged a substantial negative influence on quality. Very few of the newly authorized programs across the nation are being financed at levels that are at the average of the top 50 institutions, much less sufficient to lay solid foundations in libraries, equipment, buildings, and faculty. Most of the newly born are struggling for life by sucking the blood out of the undergraduate programs. Let me illustrate: In the South the per-student support for all degree levels was $1,007 in 1967-68, a 21.3 per cent increase over 1962-63. Nationally it was $1,116—23 per cent more than it had been five years earlier.[12] Yet the southern states, with proportionately fewer and fewer dollars per student, had increased graduate enrollments 94 per cent in this five-year period against a national increase of 74 per cent. Doctoral production increased 123 per cent in the South and only 80 per cent nationally.[13] In other words, with proportionately less and less money per student, at the end of the five-year period the South had expanded graduate education at a rate 27 per cent greater than the nation, and doctorates 40 per cent greater.[14]

Is it any wonder, then, that the South has 60 institutions offering the doctorate—proportionately more than any other region of the nation but only eight of them are rated in A, B, C classifications of quality.[15]

The forthcoming report of the American Council on Education, ranking the various graduate schools (having a total of 2,632 departments), will show that all the southern institutions combined have fewer than a half-dozen "distinguished" departments, and in several disciplines the highest rating is "good."[16] Even those ten institutions rated in the top fifty nationally have 44 of the 106 departments that are rated "inadequate."

The southern states as a whole offer a clear-cut case (which is repeated in other regions) in which

12. Southern Regional Education Board. Fact Book on Higher Education in the South, 1968 (Atlanta: Southern Regional Education Board 1968) p. 51.

13. Updated tables from the Southern Regional Education Board for its annual meeting June, 1970.

14. Southern Regional Education Board, Fact Book, 1968 p. 51.

15. National Science Board. National Science Foundation, Graduate Education: Parameters for Public Policy (Washington, D.C.: Government Printing Office, 1969), p. 114.

16. Information supplied informally by Dr. Kenneth Roose, vice-president of the American Council on Education.

aspirations of faculty and administrators and political logrolling in the legislatures have created many low-quality doctoral programs while also impairing the quality of undergraduate education. How can the students in these states compete in a national labor market? What will be the character of the educated man in such states as compared with those in the rest of the nation? What will be the long-run impact on politics, government, public service, and industry?

In all states that have limited financial resources, it would seem sensible to bring undergraduate educational levels up to or beyond national norms rather than to increase the amount of graduate education. Unlike high school graduates or those holding bachelor's degrees, for whom local markets absorb the majority, doctoral degree holders are in a national market unconfined by state boundaries. States that have limited resources should not out of false pride try to compete with the well-to-do states in the numbers of doctoral students produced, but rather should hire the necessary graduate degree holders in the open market. That market will be plentifully supplied during the next decade and beyond. This also means that those unfortunates who do earn doctorates at second- or third-rate graduate schools will find little or no demand for their services in a glutted market. Why, then, should these states, which have serious need to improve the quality of the common schools and undergraduate education, expend large sums of money on the production of poor-quality doctorates?

Ann Heiss found that a major element in achieving high-quality doctorate education was the concept of a "critical mass"—of students, faculty, library, and financial resources. The critical mass will be difficult to achieve in most of the newly authorized programs. The marginal student, when he becomes aware of the oversupply of Ph.D.'s, will be wary of undertaking work beyond the master's. The highest-ability students who go on will be attracted, as they are now, to the better graduate schools, leaving the remaining students for the 190 or so institutions with the smallest and poorest capacity to produce quality work. Moreover, because of the small enrollments, many of these programs may have units costs that exceed those in the better institutions.

While the leaders of the institutions and the state coordinating boards bear heavy responsibility for the lower quality of the doctoral degree, most derelict are those regional accrediting associations formed for the very purpose of reigning over the quality of education. Accreditation agencies, too, need to review their criteria and to find persons capable of applying them in the new complex setting of higher education.

The watchwords for the 1970s should be: "Limit the number of doctoral programs and improve the quality."

CHARACTER OF THE DOCTORAL DEGREE

Part of the high cost of doctoral education is reflected not in dollars but rather in the inappropriateness of the training that the graduate receives for the kind of work he is destined to perform. Historically, about half of the doctorate holders produced have gone back into higher education. Many of these have located in graduate schools in order to replicate themselves and to do research. Many others—most, in fact—have joined institutions which provide the bulk of undergraduate education. There, research is tolerated but not venerated. Teaching is the number one, and perhaps the only, major chore. Yet the doctorate holder has not been trained to teach. He has been trained to do research and to do so in some narrowly defined field. For many years now, foresighted scholars and planners have been concerned at the lack of a teaching doctorate. Some years ago Earl McGrath, the former federal Commissioner of Education, both wrote and spoke often about the need of a college teaching profession with members having appropriate teacher-training degrees.[17]

As we look toward the next decade, it would be tragic, if not disastrous, for the surplus products of our research-oriented graduate schools to end up teaching in the junior and community colleges as the National Research Council, the National Science Foundation, and some others would have them do.[18] These are institutions that require the highest caliber of teaching, attracting as they do students with a very wide range of interests and abilities. The open-door, four-year colleges are just as vulnerable. As one scholar recently wrote, "Ph.D. training is irrelevant to the realities of most classrooms."[19] In

17. See, for example, his remarks in "Graduate Training for College Teaching," AAUP Bulletin 46, no. 3 (Autumn 1960), 294 ff.

18. Paul G. Larkin, "The Challenge to Higher Education of Manpower Priorities," Journal of Higher Education (March 1970), 202.

19. E. Alden Dunham, "Rx for Higher Education: Doctor of Arts Degree." Report presented at 25th National Conference on Higher Education, Chicago, March 1970.

order to prevent this unfortunate outcome, the graduate schools need to adopt new requirements for some Ph.D.'s or provide a new doctorate degree with emphasis on teaching. The pressure for this change is mounting.

At the last annual meeting of the American Association of State Colleges and Universities, the guest speakers urged the state colleges not to emphasize graduate education and research but rather, as Paul Woodring stated, ". . . show some imagination" and "become distinctive, first-rate universities of a new kind."[20] E. Alden Dunham, who recently completed a study of the state colleges, charged their chief administrators to "strike off in new directions . . . or follow in the weary footsteps of the institutions that are in the most trouble."[21] Dunham went on to urge the creation of a special teaching degree for undergraduate education. In December 1969, the Council of Graduate Schools was urged to do the same thing by Dean Michael Brenan of Brown University.[22] At that meeting the council in principle "recommended the establishment of graduate programs leading to the degree Doctor of Arts to prepare graduate students for a lifetime of effective teaching at the college level."[23]

If Allan Cartter's estimate that 20 to 30 per cent of the doctorates will enter college teaching is correct, then about a fourth of all doctorates produced might be trained to teach. Unless teaching as well as research becomes an accepted and honored mode of life for the doctorate holder, and he is rewarded appropriately, it seems improbable that undergraduate education will be improved and even probable that junior college education will be impaired.

The narrowness of doctoral training limits the potential usefulness of the degree not only for teaching but also for many other fields of endeavor. The National Science Foundation has become increasingly concerned especially as the number of degree holders began to exceed new positions in the traditional fields. The most recent report states:

> It is therefore very important that new Ph.D.'s be offered options of graduate programs including some that are most suitable for these new activities. Furthermore, students must not be educated with "false" aspirations for solely research careers. This training issue will make it necessary for universities to examine their graduate programs and probably to develop different and new programs for Ph.D.'s who do not intend to enter research careers.[24]

Thus a redirection in emphasis of much of graduate education is as essential as control of numbers and quality. Both the distinguished institutions and those "emerging" universities must now reassess the role of doctorate education in the 1970s and beyond.

ABSORBING THE SURPLUS DOCTORATES

Some persons making observations on the coming decade refuse to believe that a real surplus of doctorates is in the making. Rather, they take the view that we can never overeducate our people and that junior colleges and other social agencies previously prevented from hiring doctorates because of their scarcity will have available to them these highly trained specialists. Ecology, racism, housing, transportation, and poverty are cited as possible problems that will absorb these high talents and training. The National Science Foundation reports that ". . . Ph.D.'s are likely to be engaged in activities which are markedly different from those practiced by most present doctorate holders."[25]

We do not know the exact problems on which doctorate holders will work, but all surpluses will be absorbed nevertheless. People with doctorates must also eat and thus must work. So it seems probable that they may indeed take positions for which we would now consider them overtrained. Many doctorates are perhaps already in such positions. Dean John Miller of the Yale Graduate School recently stated that "some doctorates, even before the present softness, were finding themselves jobs which called for talents much less than those they had."[26]

The question, then, is not one of outright unemployment for the surplus doctorates, but rather whether it is good public policy to provide overtraining for some persons while allowing a smaller than necessary portion of public resources to go

20. As reported in **The Chronicle of Higher Education**, 4, no. 9 (November 24, 1969).

21. **Op. cit.** See also his book **Colleges of the Forgotten Americans** (New York: McGraw-Hill, 1969).

22. **Chronicle of Higher Education** 4, no. 11 (December 8, 1969).

23. Letter dated March 5, 1970, from Alvin H. Proctor (then chairman of the Council of Graduate Schools) to Winfred Godwin, Director, Southern Regional Education Board, with enclosure.

24. National Science Foundation, **Science and Engineering Doctorate Supply and Utilization, 1968-1980**, NSF 67-37 (Washington, D.C.: Government Printing Office, 1969), p. 3.

25. Ibid.

26. Comment from preliminary transcript of conference proceedings, "Measuring Outputs in Higher Education," sponsored by Western Interstate Commission for Higher Education, Center for Research and Development in Higher Education, and American Council on Education, Washington, D.C., May 3-5, 1970.

for other social problems, perhaps including an improvement in undergraduate education.

In avoiding an overreaction to surpluses on the one hand, we must keep in mind that some of the current voices advising us that "all is well for the decade if we just leave things alone" are also the same voices that during the 1960s misled us into thinking we would continue to have serious shortages of doctorates in the 1970s.

On the other hand, it would be foolhardy to take the position that drastic cutbacks should be made in doctoral production across the land. Rather, the need is for a careful assessment of basic needs and a careful allocation of resources to meet them. Modest adjustments of the kind recommended in this paper are in order in many states. Institutional governing boards, statewide coordinating boards, and governors and legislators must take a long-range view—at minimum 10 to 15 years. It took about 10 years of massive effort to gear up the graduate schools to meet 1969 needs. Now it would be unwise to make such dramatic reductions in graduate opportunities as to place ourselves in the 1980s in the same jeopardy as we found ourselves in the 1960s.

The governor and legislature of each state have the final responsibility for public policy. In 48 of the 50 states, statewide coordinating boards have been authorized to aid them in the orderly development of higher education. One of their great challenges for the seventies will be their ability to make thoughtful recommendations on the role of the individual institutions in providing high-quality doctoral education. Those institutional roles within a system of education must be more carefully appraised than in the past decade.

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Political Economy, Fiscal Outcomes, and Intergovernmental Relations

By DEIL S. WRIGHT

The governmental process is one of allocating or distributing values. An important but frequently overlooked way of assessing distributed values is to consider the net fiscal balance obtained by persons through the tax and expenditure process. In this discussion we consider the burden-benefit balance sheet primarily from the results produced by having two or more levels of government operative. We are interested in assessing the outcomes or impacts of different governmental levels on the distribution of burdens through taxation and of benefits through expenditures.

We should make clear and emphasize at the outset several cautionary points.

First, we are probing in deep, highly charged waters in discussing who pays for and who benefits from the functioning of government. From the citizens' standpoint, can or should government be subjected to a calculus of gains and losses? Is it legitimate to construct a client-based balance sheet for government much like an ordinary business firm furnishing goods and services in the market place? Edmund Burke flatly rejected the notion that government could in any way be equated with "a tea company."

Second, we present data that give the appearance of precision and a hint of absolute accuracy. Neither condition prevails. The percentages or ratios shown in the tables and discussed in the text are, at best, only rough estimates of the conditions that actually exisit. They are based on broad and bold assumptions that, for space and other reasons, cannot be specified here.[1]

Third, the estimates of tax and expenditure outcomes are given by income classes that contain thousands and even millions of persons. These estimates are crude and aggregate averages for all persons within the income classes. Extreme variations unquestionably exist within each income class. Furthermore, as averages, the tabled figures may not describe the exact condition of any real person. For example, the average family in the United States has 2.4 children but there is no family with fractional children.

Fourth, we will be limited in our intergovernmental inferences by the fact that the research and estimates developed in the tax burdens-expenditure benefits field have not been guided by the intergovernmental focus we attempt to impose. In particular, only limited fiscal features of state finances have been separated from the more predominant pattern of consolidating all state-local finances into a single sector for analysis purposes.

Fifth and finally, we need to note that the estimates for state or state-local taxes and benefits are nationwide aggregates. They can be applied to specific states only with great difficulty, caution, and qualification. Instances of tax-expenditure redistribution effects on a state-by-state basis have appeared, however.[2]

With these numerous and necessary caveats in mind, let us turn first to the question of tax outcomes. We will subsequently consider the distributions of expendi-

The author wishes to thank the University Research Council of the University of North Carolina at Chapel Hill for support in connection with the research.

1. See Tax Foundation Tax Burdens and Benefits of Government Expenditures by Income Class, 1961 and 1965 (New York: 1967); George A. Bishop, "Income Redistribution in the Framework of the National Income Accounts," National Tax Journal 19 (December 1966), 378-90.

2. Brian R. Fry and Richard F. Winters, "The Politics of Redistribution," American Political Science Review 64 (June 1970), 508-22.

ture outcomes and combine the two in a final section on burden-benefit ratios.

TAX OUTCOMES

Who pays for government? More specifically, who contributes what proportion of his income toward footing the governmental bill? Table I furnishes a set of estimates recently developed on tax incidence. The use of governmental levels as column headings in Table I treats the three levels as practically synonymous with type of tax.

This procedure seems justified because of the separation of tax or revenue sources by level of government. More than nine-tenths of all income and property tax revenues are collected by the national and local governments respectively.[3] The separation is less clear at the state level for sales and excise taxes, but in 1969 the states collected more than half the revenue produced by these consumption taxes.

The percentages by income class for the federal income tax indicate the widely noted progressivity of that particular revenue source. It takes about 2 per cent of the income of persons in the under-$2,000 category but nearly 18 per cent of incomes in the $15,000-plus bracket. The intergovernmental implications of the Sixteenth Amendment, adopted in 1913, cannot all be explored here. It is more than a coincidence, however, that major, modern-type, grants-in-aid were enacted in 1914 and 1916.

The progressive character of the federal income tax has reinforced its income elasticity, i.e., the tendency for tax revenues to grow (or decline) at a greater rate than the growth (or decline) rates of the economy as a whole.[4] This progressive tax has also provided a moderately acceptable and an occasionally ideological base for federal as opposed to state or local support of public programs. Finally, we might note that despite the progressive nature of the effective tax rates by income class, the marginal utility of dollars in the lower brackets makes the effective rates less progressive or perhaps even proportional in their real impact on taxpayers across income levels.

The effective rates for both state sales and local property taxes tend to support if not underscore conventional wisdom claiming the regressivity of both types of taxes. Both taxes are remarkable for the consistency with which they extract an equal or smaller proportion of total income as one moves up the economic scale. Perhaps one slight surprise is the fairly steep regressivity of the property tax, especially at the bottom of the economic pyramid. Some revisionary thinking by economists question the degree if not the existence of regressivity.[5] But the loud and pained cries amid the taxpayers' "revolts" at the local level make the issue of property tax relief through state action a politically popular proposal. Beyond its regressive incidence, the vagaries and inequities of property tax administration at the local level, plus the absence of vigorous state action and reform in the area, contribute greatly to taxpayer sensitivity over the tax. The result is a recycling of property tax issues back to the state level for political resolution.

When state and local taxes are combined, the strongly regressive nature of tax allocation decisions are very evident. Roughly one-seventh of the income of families in the under-$2,000 bracket is channeled to state-local coffers. Less

3. U.S. Bureau of the Census, Governmental Finances in 1968-69, Series GF69-No. 5 (Washington, 1970), p. 20.

4. Walter W. Heller, New Dimensions of Political Economy (Cambridge: Harvard University Press, 1966); Advisory Commission on Intergovernmental Relations, Sources of Increased State Tax Collections: Economic Growth vs. Political Choice (Washington, D.C.: October, 1968).

5. Dick Netzer, Economics of the Property Tax (Washington, D. C.: Brookings Institution, 1966), pp. 32-66.

Table I

Estimated Taxes Paid as a Percentage of Total Income by Income Class for Federal, State, and Local Taxes—1961, by Percentages.

Income Class (thousands of dollars)	Federal			State Sales & Excises	Local Prop.	All State-Local*		Grand Total (all levels*)	
	Indiv. Income	All*							
		A	B			A	B	A	B
under 2	2.0	9.8	12.8	5.7	6.7	12.8	14.4	22.6	27.2
2-3	3.4	10.9	14.1	5.3	5.1	10.8	12.2	21.7	26.3
3-4	4.9	13.9	17.4	5.3	4.7	10.6	12.0	24.5	29.4
4-5	7.0	13.9	17.8	4.9	4.2	9.9	11.3	23.8	29.1
5-6	7.5	14.6	18.4	4.9	4.0	9.6	11.0	24.2	29.4
6-7.5	8.4	14.8	18.4	4.5	3.8	9.9	10.3	24.7	28.6
7.5-10	9.6	15.7	19.1	4.2	3.5	8.5	9.7	24.2	28.8
10-15	10.9	18.7	21.8	3.8	3.1	8.0	9.1	26.7	30.9
15 plus	17.6	34.0	35.7	2.5	2.4	7.7	8.4	41.7	44.1
All Income Classes	9.0	16.9	20.2	4.3	3.8	9.1	10.3	26.0	30.5

* Column A excludes social insurance taxes. Column B includes the incidence of social insurance taxes.

Source: Tax Foundation, *Tax Burdens and Benefits of Government Expenditures by Income Class, 1961 and 1965* (New York: 1967), p. 14.

than one-tenth of the income of above-$15,000 persons is claimed for state-local purposes. As one might expect, and as the over-all effective rates in Table I reveal, the national and state-local tax systems are offsetting. When all taxes are allocated (including social insurance), the effective rates for the eight income brackets up to $15,000 vary within only five percentage points (from 26.3 to 30.9). Progressivity is present only at the highest bracket.

Perhaps the most significant intergovernmental implication of these tax outcome estimates is their tendency to promote a shift in fiscal responsibilities to successively higher levels, i.e., city to county, county to state, and state to national. By experience, by reason, or by other learning processes, large numbers of lower-income individuals appear to have acquired considerable political wisdom in preferring a shift in the financing of public goods and services from property and sales taxes to the federal income tax. Furthermore, results from attitude surveys confirm that proportionately, the strongest and most widespread objections to the levels of taxation come from low-income rather than high-income persons.[6] Also, the demands for expanded public services are almost evenly distributed across broad income classes, although low-income persons prefer the expansion of different types of programs from those favored by high-income persons.[7] Regardless of income, however, there is a notable discrepancy between the desire for expanded public services and a willingness to pay for them through increased taxes. This preference-payment gap is no news to public officials, but its concentration among the less affluent is cause for awareness and assessment of alternatives for action at the state and local levels.

Table II

Estimated Benefits of Governmental Expenditures as a Percentage of Total Income by Income Class for Federal, State, and Local Outlays—1961, by Percentages.

Income Class (thousands of dollars)	Federal*		State-Local					All Levels*	
			Welfare	Elem. Sec. Edue.	Higher Edue.	Total State-Local*			
	A	B				A	B	A	B
under 2	56.9	40.9	8.0	6.0	.3	27.4	30.3	84.3	71.2
2-3	34.0	25.0	2.0	6.1	.3	17.5	17.6	51.5	42.6
3-4	25.7	15.7	.6	5.2	.3	13.3	11.8	39.0	27.5
4-5	19.8	7.9	.3	5.0	.4	11.9	9.0	31.7	16.9
5-6	17.3	6.4	.2	4.4	.5	10.7	7.7	28.0	14.1
6-7.5	15.3	5.1	.1	3.8	.5	9.4	6.2	24.7	11.3
7.5-10	13.8	4.3	—	2.8	.6	8.0	4.5	21.7	8.8
10-15	12.8	4.3	.1	1.8	1.0	7.0	3.5	19.8	7.8
15 plus	11.7	4.2	—	.7	1.0	5.1	1.2	16.8	5.4
All Income Classes	17.7	8.8	.5	3.4	.6	9.9	7.0	27.5	15.8

* Column A excludes social insurance. Column B includes allocated benefits from social insurance but excludes the allocation of benefits from general overhead and national defense outlays.

Source: Tax Foundation, *Tax Burdens and Benefits of Government Expenditures by Income Class, 1961 and 1965* (New York: 1967), pp. 30-31.

EXPENDITURE OUTCOMES

The theory and practice of estimating tax incidence has a substantial if not hallowed tradition in the field of political economy. No such tradition exists in allocating public expenditure benefits. Only recently have important theoretical and research efforts been devoted to the analysis of these expenditure benefits.[8] The product of one recent analysis is presented in Table II. The percentages contained in the table are the result of assumptions and dollar allocations of various functional expenditures to income groups with the summation of the benefit amounts being expressed as a proportion of the total income received by all families in that income class.

For example, the total income of the 7.9 million families in the United States with incomes under $2,000 amounts to approximately $13.7 billion. Out of the $16 billion spent by state-local governments on elementary and secondary education in 1961, about $823 million was estimated, on the basis of number of children, etc., to have benefited families with under-$2,000 incomes.[9] This educational expenditure figure is almost exactly 6.0 per cent of the $13.7 billion, and that percentage appears in the appropriate row and column of Table II.

Two major expenditure items require brief comment. The first con-

6. Morris Jonowitz et al., Public Administration and the Public—Perspectives Toward Government in a Metropolitan Community (Ann Arbor: Institute of Public Administration, University of Michigan, 1958); John C. Bollens, ed, Exploring the Metropolitan Community (Berkeley: University of California Press, 1961).

7. Eva Mueller, "Public Attitudes Toward Fiscal Programs," Quarterly Journal of Economics 67 (May 1963), 210-35.

8. W. Irwin Gillispie, "Effect of Public Expenditures on the Distribution of Income," in Richard A. Musgrave, ed., Essays in Fiscal Federalism (Washington, D.C.: Brookings Institution, (1965). Also see the references cited by Gillespie on page 123 plus the Tax Foundation and Bishop references in Note 1 above.

9. Tax Foundation, op. cit., Appendixes A and B.

cerns benefits from general expenditures such as national defense ($60 billion) and general nonfunctional outlays at the state-local level ($18 billion). These general outlays have been included in one set of benefit estimates, the columns headed by A. The nonspecificity of such outlays as well as their magnitude prompted us (and the authors of the original study) to include in Table II columns that do not count the allocation of these expenditures. These alternate columns (labeled B), however, do include the estimated benefits accruing to persons from social insurance outlays such as social security and unemployment compensation.

The most striking feature of Table II is the prominence of expenditure regressivity. Lower income groups receive an estimated higher proportion of total income in allocated benefits than do middle and upper income groups. The pattern is consistent for the national and state-local aggregates regardless of the inclusion or exclusion of general outlays and social insurance. The greatest degree of pro-poor bias is found at the state-local level when general outlay benefits are excluded and social insurance is included. The proportion for the lowest income bracket (30.3 per cent) is about twenty-five times greater than the one for the highest bracket (1.2 per cent).

Two large expenditure programs, education and welfare, contribute mightily to outcomes favoring the lower income groups. As expected, the level of expenditure regressivity is much higher for welfare than for elementary and secondary education. Another functional area, health and hospital outlays, also shows a low-income bias, although the data are not presented.

One expenditure column in Table II departs from the pattern of benefit regressivity. The column for higher education (at the state level) shows progressivity across income classes. Middle and upper income groups benefit proportionately more from higher education outlays than the very lowest income classes (under $4,000). Why? The obvious explanation is that the sons and daughters of middle and upper income families form the bulk of the college population and benefit from a publicly subsidized education. The political implications of this reverse redistribution of educational benefits for student-university-state-citizenry relationships cannot be explored here.

REDISTRIBUTIVE RESULTS THROUGH THE PUBLIC PURSE

The presence of the proportions in Tables I and II permits us to arrive at crude estimates of the redistribution of "values" through the public fisc. The figures also allow us to maintain an inter-level division between the federal and state-local sectors. The redistribution estimates are achieved by dividing the appropriate proportions in Table II by those in Table I. The results, in the form of ratios, are presented in Table III.

A ratio over 1.0 indicates that the income group receives more in benefits than it pays in taxes. For example, the under-$2,000 income group pays 14.4 per cent of its total income for state-local taxes (including social insurance taxes) and receives 30.3 per cent in allocated benfits. The latter figure divided by the former provides the 2.1 ratio that appears in column five of Table III.

The first three columns are based on data that include the general, nonspecific expenditures and exclude the impact of social insurance. The latter is often considered an important factor in redistributing income downward. This redistributive effect appears greatly overestimated because the benefits conferred on low income persons by social insurance are financed heavily from taxes levied on the less affluent. At the state-local level, the social insurance factor produces relatively small changes in the ratios (compare columns two and five).

One general conclusion from the ratios is that redistribution is a pervasive part of the public sector. It occurs in the aggregate, by level of government, and according to

(Continued on inside back cover)

Table III

Estimated Benefit-Burden Ratios Through Taxing and Spending by Income Class and Governmental Level—1961 (Ratios of Proportionate Benefits to Proportionate Burdens)

Income Class (thousands of dollars)	All General Expenditures (Excluding Social Insurance)[a]			Includes Social Insurance[b] Excludes General Overhead Outlay		
	Fed.	State-Local	All Levels	Federal	State-Local	All Levels
under 2	5.8	2.1	3.7	3.2	2.1	2.6
2-3	3.1	1.6	2.4	1.8	1.4	1.6
3-4	1.8	1.3	1.6	.9	1.0	.9
4-5	1.4	1.2	1.3	.4	.8	.6
5-6	1.2	1.1	1.2	.3	.7	.5
6-7.5	1.0	.9	1.0	.3	.6	.4
7.5-10	.9	.9	.9	.2	.5	.3
10-15	.7	.9	.7	.2	.4	.2
15 plus	.3	.7	.4	.1	.1	.1
All	1.0	1.1	1.0	.4	.7	.5

a. Columns A of Table II divided by columns A of Table I.
b. Columns B of Table II divided by columns B of Table I.

The author, Vice-President for Finance for the Consolidated University of North Carolina, spoke before a trustees conference on November 5.

THE CO$TS OF HIGHER EDUCATION

By L. FELIX JOYNER

Almost any state, and particularly a state as large and diverse as our own, can best evaluate its future needs in broad areas such as higher education against the background of national trends—and projects based on those trends. This is particularly true if we are attempting to assess the magnitude of a financial problem as opposed to arriving at a *cost* or a *need* for a particular fiscal period.

One accepted authority on higher education financing is Howard Bowen, formerly president of the University of Iowa and now at Claremont. Dr. Bowen, utilizing data accumulated by the U.S. Office of Education, projects that total financial requirements for all higher education will reach $39 billion by 1980. The 1956 costs were $4.1 billion. The 1969 costs were $20.4 billion. As percentages of gross national product these billions translate progressively from 1 per cent (1956) to 2.4 per cent (1969) to 2.8 per cent (1980). Placing the problem in its simplest over-all terms, Bowen says ". . . we (higher education) are trying year after year to extract a somewhat higher percentage of the gross national product. If we were able to grow at the same rate as the rest of the economy our problems would be much less serious."

Our examination of several of the factors on which the estimates are based begin to reveal the North Carolina segment of the problem against this national background.

Enrollments and enrollment projections are the most important single factor. The estimated total cost is based on a national enrollment increase of over 53 per cent from 1969 to 1980. The enrollment projections of the Board of Higher Education in 1968 indicate that North Carolina can expect its enrollments to increase at least to the same extent.

Bowen's projection assumes an increase in the cost per student from 1969 to 1980 of almost $1,400 per year. Included in his projection are considerations of: student-teacher ratios (which he sees as widening); academic salaries (which he estimates to increase at 3 per cent per year); nonacademic salaries (estimated to increase 5 per cent per year); a changing student mix (estimated to increase costs due primarily to graduate and health profession inputs); library costs (estimated increase of 7 per cent per year); equipment and construction costs (increases of 7 per cent and 3 per cent per year respectively); and new program costs (increases of 2 per cent per year). Without fear of substantial contradiction, a reasonable man—relating each of the projections to North Carolina—would conclude that the estimated increases in each area are conservative.

If these conclusions are valid, then one must assume that the cost of higher education in North Carolina will increase by *at least 53 per cent* by 1980 and that the increase will likely be more than that percentage, making the over-all problem of financing higher education in North Carolina even more acute than in the nation as a whole—requiring an even larger percentage share of our total resources.

Now to the sources from which the increases must be financed—and again to start from national statistics. In 1966-67, the latest year for which reliable figures are available:

Income from *governments*—federal, state, and local accounted for *48 per cent*.

Income from *student* tuition and fees accounted for *18 per cent*.

All *other income*—including private gifts, endowment earnings, and auxiliary enterprise income—amounted to *34 per cent*.

Most national projections as to income sources acknowledge that a continuation of the 1967 rate, 18 per cent, is about all that might be expected from students in the form of tuition and fees. Two factors—the movement of students from private to public in-

stitutions being more pronounced in North Carolina than in the nation as a whole and our much lower than national average per capita income—lead to a conclusion that North Carolina would be hard put even to maintain the current *percentage* of income derived from students.

Several categories of the nonstudent, nongovernment income show signs of relative decline. Private gifts, endowment earnings, and income from auxiliary enterprises, all of which are estimated to increase in terms of dollars, will not grow proportionate to the costs. A reduction in the percentage of support from these sources by 2 or 3 per cent is projected nationally —and there are no evidences that North Carolina's experience will prove significantly different.

Government support must, therefore, continue at the 1966-67 figure—48 per cent plus the 2 or 3 per cent loss from miscellaneous sources and assuming a constant in the case of income from students.

To recap: within the next ten years total national expenditures for higher edueation will increase by more than 50 per cent—and more than half of the increase will need to be borne by governments at one level or another. North Carolina can expect increases of at least the same magnitude and perhaps larger—and it can expect that a larger share of the increase must be borne by governments.

The next question becomes "How will or should the governments' larger share be divided?" The 48 per cent governments' share in 1967 was divided 27 per cent state-local and 21 per cent federal. (My guess is that these percentages have shifted somewhat, with state and local governments having increased their share slightly and the federal percentage having decreased.) In 1980 governments will have to provide 50-51 per cent of the total—small increases in terms of percentage but large in terms of dollars.

State and local governments are caught in the "fiscal imbalance" bind. And the federal government appears in the grip of at least a temporary unwillingness to grapple with the problem in the dimensions required.

The over-all fiscal capacity of state and local governments is barely adequate to assume the burdens already being carried; it is totally inadequate for the increased demands before us for government services. State and local governments in North Carolina, having less fiscal capacity than the national average, feel the pinch even more.

If state and local government taxing powers are approaching their limits, then higher edueation can expect little more in state support for the seventies than the percentage share it now receives. The governments' share of higher education's requirements will be met, but it will be met by a new federal-state mix in the financing of government-supported activities. We may have increased direct federal support of higher education or increased federal support of other activities, freeing some state resources for reallocation. Revenue-sharing is still a possibility, although increasingly remote. The method, or methods, by which the fiscal imbalance will be resolved need not be discernible to allow a conclusion that it will be resolved.

What we now face in the nation, and in North Carolina, with regard to financing higher education is a period of frustration—the end of which is inevitable but the length of which is indeterminate. We can live with the frustration: by recognizing its cause; by improving our administrative and organizational arrangements to accommodate to a future financing pattern different from that we are familiar with; and by carefully avoiding interim decisions that would run counter to our ultimate objectives in higher education.

Acknowledging the basic cause of the temporary dilemma is vital if there is to be the kind of understanding and cooperation that is necessary. Otherwise we approach the delicate problems of resource allocation negatively and abrasively—the education establishment viewed as greedy by the General Assembly, the legislature regarded as short-sighted and arbitrary by higher education interests.

Special attention must be given to the system of financial administration employed and to the management structures of the higher education enterprise. Maximum use of limited resources for higher education is directly related to the over-all administration. Resource allocation processes are increasingly dependent upon effective long-range planning. And planning for higher education will be of limited value unless it is integrated with planning and programming in the other areas of governmental activity. Irrational structures for the management of higher education, developed piecemeal during a period of rapid growth and less restrictive financing, can respond neither quickly nor economically to a changing setting.

Unless there is procedural strength and structural stability, it is almost inevitable that many decisions will be stop-gap measures contributing little to long-term progress in higher education, and possibly making real solutions more difficult. It is in such areas as student aid, assistance to private institutions, out-of-state enrollments, tuition levels, standards of quality, budgetary procedures, and allocation of functions that mistakes could be made.

There are evidences that we are moving in the right directions. Financial administration procedures at the state level and on campuses are being reexamined. Statewide planning is receiving increased support and attention. Widespread concern is evident in regard to the administrative structure of higher education. It is for those with current responsibilities and experience in state government and higher education and you, as trustees of the state's public institutions, to judge whether we are moving fast enough.

public health and personal freedom

By DAVID G. WARREN

By their very nature, regulations that protect society in general usually inhibit the personal freedom of people as individual citizens. Unbridled individual freedom is exchanged for the community's greater interests and the needs of organized society as a whole. This balancing of the interests of society and the individual is evaluated regularly in the public health context – on issues ranging from septic tank prohibitions to mass inoculation to water fluoridation to Medicaid. Our rapidly growing and increasingly complex society can expect only more numerous and more difficult conflicts between society and its individual members in the matters of health. How will resolution of these conflicts be effected?

Constitutional considerations would seem to balance the society individual conflict in favor of personal freedom. To inhibit individual freedom, a statute or regulation must comply with the constitutional requirements of due process and equal protection and must not, without strong societal interests, infringe on those rights and liberties expressed in the Bill of Rights. Yet a multitude of restrictive laws are in constitutional compliance, as tested over the years in the courtrooms of state and federal judiciary systems.

The regulatory measures that restrict individual freedom in the name of public health are particularly familiar. There is the mother giving personal information to fill out a birth certificate,[1] the child getting an immunization before entering school,[2] a young couple submitting to a physical examination before marriage,[3] the widow being notified of a medical examiner's autopsy on her husband;[4] all citizens are subject to a lifetime of health-related governmental sanctions.

State statutes and regulations in every state impose a wide range of restrictions. Court decisions typically have tested and upheld even such intimate intrusions as compulsory physical examinations to obtain a marriage license, to enter school, and to obtain licenses as a foodhandler, a nurse, a teacher, or other worker in frequent contact with the public.[5]

North Carolina requires compulsory examination for venereal disease of applicants for a marriage license[6] and, by a separate law, inmates in jails.[7] Although the statutes do not require that the infected person divulge all contacts, they do require the local health

1. *E.g.*, N. C. GEN. STAT. §§ 130-53 through -60.
2. *E.g.*, N. C. GEN. STAT. §§ 130-87 through -93.1.
3. *E.g.*, N. C. GEN. STAT. §§ 51-9 through -13 (requiring tests for venereal disease, tuberculosis, and mental competence).
4. *E.g.*, N. C. GEN. STAT. §§ 90-217 through -220.
5. *See, e.g.*, Peterson v. Virdule, 157 Wis. 641, 147 N.W. 966 (1914).
6. N. C. GEN. STAT. §§ 51-9 through -13.
7. N. C. GEN. STAT. § 130-97.

director to obtain the names of such contacts.[8] They also authorize compulsory examination of those suspected to have tuberculosis and compulsory hospitalization and treatment of those who are infected with tuberculosis.[9] All inmates in public institutions are required to undergo examination for tuberculosis on admittance.[10] Compulsory examination and treatment of minors, even though the parents will not consent, can be ordered by a judge if he finds that the parents are in neglect of the child.[11]

North Carolina requires compulsory immunization[12] for all preschool children for diptheria, tetanus, whooping cough, smallpox and polio.[13] Some states require compulsory immunization of all of their citizens against smallpox. Compulsory vaccination has most frequently been objected to as infringement on religious freedom.[14] Nevertheless such constitutional arguments have been rejected in favor of protection of the public unless the statutes specifically provide for such an exception.[15] For example, North Carolina law provides an excuse from immunization on either physical or religious grounds.[16] Preschool immunization is enforced by requiring all children to attend school and as a prerequisite to entrance, requiring immunization. Parents can be fined or imprisoned for refusing to send a child to school.[17]

Local health directors have isolation and quarantine power to protect the community against communicable diseases.[18] The statutes also require compulsory hospitalization for those with mental illness and for alcoholics and drug addicts[19] and for persons who become "suddenly violent and dangerous."[20] Compulsory hospitalization can be required by a court or accomplished upon affidavit of a licensed physician. The law provides for mandatory sterilization for mental defectives.[21] Implied consent blood-alcohol tests for drivers of automobiles is another type of personal restriction.[22]

Personal medical care

brings the issue of compulsion into clear focus. Generally every individual has the right to do with his body what he chooses.[23] Under the common law, the patient has the right to refuse treatment and the doctor does commit a battery if he treats a patient without his consent;[24] the fact that no harm resulted or that the results were beneficial is no defense. But by law, consent to whatever treatment a doctor feels is indicated is implied in an emergency when the patient is unable to express his will.[25] The law even protects both lay and medically trained "Good Samaritans" who give first aid, almost regardless of its quality, to injured persons at the scene of highway accidents.[26] Are these emergency medical care rules necessary in the interest of public health?

Overlapping issues are involved in blood transfusions when the patient's religion interferes. Because an emergency situation is usually associated with these cases, the court must often make a decision immediately as to whether to order the medical treatment. Counsel may not be available for the patient; therefore the doctor's allegations concerning the condition of the patient are accepted as accurate. Does the court always decide in the interest of the patient?

Some examples of laws more closely identified with public health but affecting personal health include the disclosure of diseases (venereal[27] and other communicable diseases;[28] cancer,[29]) conditions (suspected child abuse),[30] and habits (drug usage)[31] of individuals in the form of reports to official agencies. All physicians and health directors are expected to comply with these requirements, over any objections of their patients, and are protected by statute from patients' lawsuits. Are some of the laws affecting personal medical care better justified on the basis of general welfare rather than public health?

In the environmental health area, restrictions are imposed that may have effects just as personalized as personal health measures. A man's restaurant or inn can be inspected for sanitary conditions even if he does not request it[32] and, with an administrative inspection warrant,[33] over his refusal. The same is true for the owner of a nursing home,[34] a summer camp,[35] or an ambulance.[36] A suburban homebuilder cannot install a septic tank system without health department approval, nor

The author is a member of the Institute of Government staff. Public health law is one of his fields of specialty.

8. N. C. Gen. Stat. § 130-96.
9. N. C. Gen. Stat. §§ 130-13, -114. (An arrest warrant may be issued for a person roaming the community with active tuberculosis.)
10. N. C. Gen. Stat. § 130-121.
11. N. C. Gen. Stat. § 7A-286.
12. Immunization laws were the basis for early court decisions recognizing the importance of public health. See Jacobson v. Massachusetts, 197 U.S. 11 (1905).
13. N. C. Gen. Stat. §§ 130-87 through -93.1.
14. State v. Miday, 263 N.C. 747, 140 S.E.2d 325 (1965).
15. *See, e.g.*, Cude v. State, 237 Ark. 927, 377 S.W.2d 816 (1964).
16. N. C. Gen. Stat. §§ 130-92 and -93.1 (f), (h).
17. N. C. Gen. Stat. §§ 115-166, -169.
18. N. C. Gen. Stat. §§ 130-19, -80, -96.
19. N. C. Gen. Stat. §§ 122-60 through -65.5.
20. N. C. Gen. Stat. § 122-59.
21. N. C. Gen. Stat. §§ 35-36 through -57.
22. N. C. Gen. Stat. § 20-16.2.
23. Judge Cardozo's famous quote from Schloendorff v. New York Hospital, 211 N.Y. 125, 105 N.E. 92 (1914), states the principle: "Every human being of adult years and sound mind has a right to determine what shall be done with his own body."
24. Hunt v. Bradshaw, 242 N. C. 517, 88 S.E.2d 762 (1955).
25. Watson v. Clutts, 262 N. C. 153, 136 S.E.2d 617 (1964); also, for minors, N. C. Gen Stat. §§ 90-21.1 to -21.3.
26. N. C. Gen. Stat. § 20-166(d).
27. N. C. Gen. Stat. § 130-95.
28. N. C. Gen. Stat. §§ 130-81, -83.
29. N. C. Gen. Stat. § 130-184.
30. N. C. Gen. Stat. § 14-318.2.
31. N. C. Gen. Stat. § 90-111.3.
32. N. C. Gen. Stat. § 72-47.
33. N. C. Gen. Stat. § 15-27.2.
34. N. C. Gen. Stat. § 90-278.
35. N. C. Gen. Stat. § 72-47.
36. N. C. Gen. Stat. § 130-232.

build an unapproved privy.[37] In most cities a family cannot live in a shack if it chooses, at least not if it violates the minimum housing ordinance.[38] And plumbing, electrical, heating, and building standards must be observed by individuals in order to protect the public health and safety.[39]

This partial catalogue of compulsory public health measures may not be overwhelming, but it is rather surprising, particularly when we hear that the philosophy of public health professionals is "education and persuasion of the public, not regulation and enforcement." Yet people usually do not complain about governmental interference with personal freedom in the name of public health.[40] Sometimes they object because of inconvenience or embarrassment; occasionally someone feels that the compulsion is unjustified and goes to court. But in case after case well-drafted regulatory health measures are upheld by the courts. Some are declared invalid when they are too vague or confusing, discriminatory to particular groups of citizens, unnecessarily rigid, too summary in procedure, or lacking in documented relationship to health goals. Occasionally some are administered unfairly. But the majority of challenged health laws are declared to be a valid exercise of the police power.

It is to the credit of the many competent health professionals and employees in state and local health departments and in other governmental agencies that these public health measures are obeyed, respected, trusted, and even taken for granted by the average citizen. In using education and persuasion, public health workers have softened the impact of these public restrictions on personal freedom. In fact they have probably been overly reluctant to use the "big stick" and have looked the other way far too often. Some laws are unobserved and some even unknown by many. The result nevertheless has been dramatic over-all progress in disease control and sanitary conditions, despite a few nonimmunized children, numerous unapproved sewage systems, some unclean restaurants, and too many persons who have never had any contact with a local health department or even a physician.

It is well to recognize that the success of most public health measures has been largely due to the people who implement them. It is also important to recognize that the laws must be able to stand by themselves, even without kindly administration, in order to be tolerated in a free society. The constant balancing test of personal freedom against public good will continue to be crucial in the area of health, but the record contains encouraging precedents of both men and laws.

37. N. C. GEN. STAT. § 130-160.
38. N. C. GEN. STAT. § 160-184.
39. N. C. GEN. STAT. § 160-185.
40. Perhaps a spate of exceptions to this generous observation will arrest the reader's flow of attention at this point, and it should be noted that in a few matters relating in part to public health (e.g., urban renewal, water and sewer extensions, dog controls, public housing, family planning) a disproportionate amount of controversy can arise.

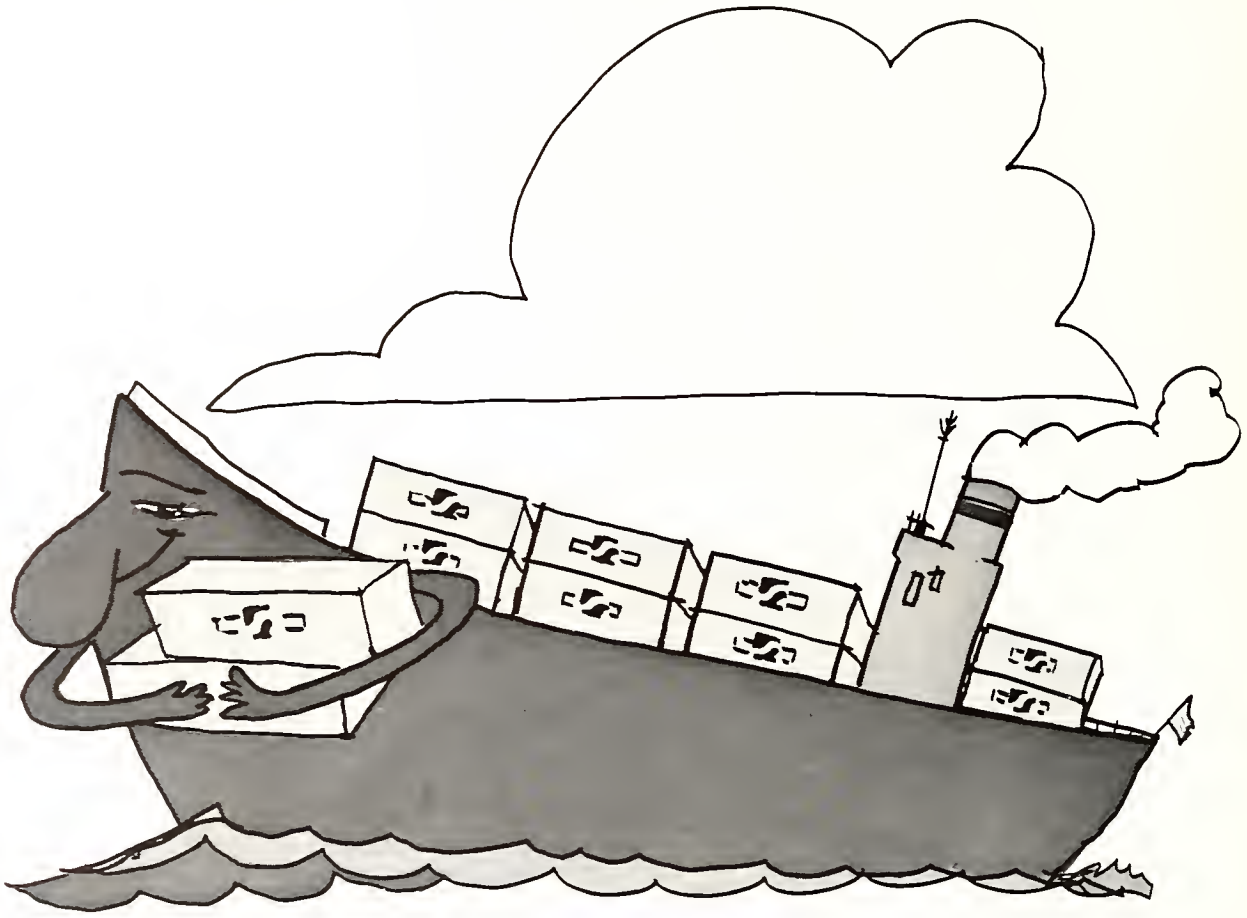
Political Economy (continued)

different allocation criteria. The redistribution ratios for the federal government, however, are greater than those for the state-local sector.

These observations may or may not come as a surprise to citizens and public officials. Despite the crudity of the estimates and the notable degree of redistribution, these figures are probably most significant for the questions they raise rather than the problems for which they provide only proximate answers. Such questions include: Are current patterns of benefit-burden outcomes too high, too low, or about right for low income (or high income) persons? What are the best tax sources and expenditure programs through which more appropriate outcome distributions can be achieved? Can and should public officials attempt to communicate the distribution-related consequences of taxation and expenditure policies to the citizenry? What role, responsibility, and response do public officials have in closing the "preference-payment" gap? Finally, to what extent if any should state and local governments assume a direct and deliberate role in altering the distribution ratios?

The redistributive power of the federal fisc is potent. Yet we need to recall that the bulk of civilian domestic functional expenditures is funded by state and local governments. It is of no small consequence that this significant sector contributes to the moderating of socio-economic extremes. In this respect it would appear that the states (and their localities) are partners in the process of modifying economic inequalities to maintain a viable political democracy. Such a democracy, Pendleton Herring once asserted, "must provide for all classes a degree of social stability and economic security sufficient to keep these elements loyal to the community of purpose that makes the state possible. Democracy. . . will collapse if it creates irreconcilable minorities."[10]

10. E. Pendleton Herring, Public Administration and The Public Interest (New York: McGraw-Hill, 1936), p. 6.



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