

Notes on the Design of a Curriculum  
in Public Management

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I. Introduction: Aspirations and Difficulties

The objective of a curriculum in public management is to prepare students to perform effectively in operational roles in the public sector. This is axiomatic. To see what this implies consider examples of operational problems faced by public sector officials.

1. A new Administrator of the United States Environmental Protection Agency takes office at a time when the cost of stringent environmental regulations has become apparent. Moreover, the emergent energy crisis promises to put additional pressure on environmental restrictions. Finally, concern about accumulated stocks and new production of toxic wastes is growing. Internally, he confronts an organization strongly committed to aggressive enforcement. How can environmental concerns be protected in a world pre-occupied with energy? What should he do to build support for his goals? How should the operations of his organization be adjusted to help him accomplish his goals?

2. The Administrator of the New York City Health Services Administration in 1969 sees that heroin addiction is a major problem for New York City. Available evidence suggests that methadone maintenance programs are an effective response to at least part of the problem. He has some capacity to field methadone maintenance programs since they can be based in hospitals, and many hospitals in New York are responsive to the Administrator's influence if not under his direct control. Moreover, many hospitals seem eager to respond to the heroin epidemic. Unfortunately, the Addiction Services Agency, the designated lead agency in responding to the heroin problem, is adamantly opposed to methadone

maintenance. The questions are: Should the Administrator develop the program? If so, how can he gain the authority to do so, and make the sluggish bureaucracy spring into action?

3. The Director of the Office of Building Code Enforcement has designed a new system for deploying inspectors to increase the productivity of his organization. The system focuses inspector resources on high priority cases (those where safety is involved or where substantial economic costs turn on the timing of the inspection). In addition, the plan reduces the amount of time that his inspectors spend in the office. In response to pressure to implement the plan, all of his inspectors, except one, walk off the job. What should he do now?

4. A newly appointed principal takes office in a troubled experimental school in an urban ghetto. The school's accreditation is being challenged by the school board. Major security problems have arisen partly because the school is designed with many entrances to symbolize access to the community. Some faculty have been beaten in their classrooms and are demanding more effective security. In individual meetings with key subordinates, the new principal receives ultimatums from three different people demanding inconsistent actions. In his first staff meeting, one teacher (a black male) threatens to strangle another teacher (a white female). What concrete steps should he now take to deal with the school's problems?

5. A federal regional official is charged with seeing to it that all nursing homes in Massachusetts receiving reimbursement from Medicare and Medicaid programs comply with federal standards for fire safety. To motivate compliance he has the

ultimate sanction of cutting off Federal aid to homes that fail to meet the code. The problem, however, is that the federal standards include structural features (e.g., number of stories and construction materials) that exclude a large portion of Massachusetts' nursing homes. In addition, bureaucratic tangles and limited resources make it difficult to complete the required inspections. What should he do to promote compliance with the standards?

6. An Assistant Secretary of the Treasury for Tax Policy in the U.S. Department of Treasury is alarmed by the growth in sales of Industrial Development Bonds. He regards them as an "abuse" of the special tax status granted to municipal bonds. He would like to issue a ruling that would exclude such bonds from favored tax treatment. Unfortunately, the Chairman of the House Ways and Means Committee who shares authority for tax policy is opposed to the ruling. How should he handle the problem?

7. A staff member working for an influential Senator accepts the task of organizing hearings to promote de-regulation of airlines. Part of his problem is gaining jurisdiction over the issue within the Senate. Another part is figuring out how to give a technical discussion some widespread appeal.

These situations indicate how much we all have at stake in the operational decisions of public managers. What they decide and do has great significance not only for their own professional careers, but also for the kind of world we live in and the way in which we are governed. To the extent that a curriculum can train people to solve problems or exploit opportunities on behalf of the public interest, it can make an important contribution to public life.

But to describe these situations is also to indicate the complexity of developing a public management curriculum. Three difficulties stand out. One is that, in talking about the actions of public officials, important normative questions are close to the surface. The purposes that officials pursue reflect particular, substantive conceptions of the public interest. The wisdom of these particular conceptions is usually debatable on both empirical and normative grounds. Similarly, the actions they take in pursuit of their purposes - whether they be efforts to win a mandate from the people with whom they share authority, or to organize, direct and motivate their employees - also raise important normative issues. Some concern the proper stance of an official towards the political and legal institutions that authorize or legitimate their actions. Others bear upon the proper relationship of a manager towards his subordinates. And still others involve claims of friendship and collegiality.

The pervasiveness of normative or ethical questions need not be considered a problem, of course. Once recognized and treated as discussable issues, these questions can add great richness to what might otherwise be too narrow and vocational a curriculum. Still, their existence adds complexity to the question of how public managers ought to behave in specific situations. They are sufficiently interesting to attract great attention, sufficiently important that their elucidation can be decisive as to appropriate actions in given situations, but often sufficiently ambiguous as to frustrate the effort to develop unambiguously attractive solutions to operational questions. From the narrow point of view of teaching about effective managerial action, then, these ethical issues are distractions - crucially important, even decisive, but distractions nonetheless.

A second difficulty in the design of a public management curriculum is the heterogeneity of the operational problems. As the examples indicate, the problems differ in terms of: 1) the substance of the issue; 2) the institutions that are involved; 3) the position of the actor in the case; and 4) the scope of the managerial problem being addressed. With respect to substance, for example, the situations move from environmental problems, to drug abuse, to long-term care for the aging, and so on. With respect to institutions, the action shifts from a federal regulatory agency, to a local service delivery organization, to an intergovernmental grant program, and so on. With respect to positions, the actors are sometimes politically appointed executives, sometimes mid-level managers, sometimes policy advisors, and sometimes legislative staff. Finally, with respect to the scope of the managerial problem (measured by the scale of contemplated action) some examples are very broad - cutting across the entire agenda of a high-level official (e.g. the problem facing the EPA Administrator), and some relatively narrow - a tactical decision on one problem for a relatively low level official (e.g. the problem facing the school principal).

A third difficulty arises from the fact that in the real world the actual solution of operational problems depends on a great deal more than diagnostic skills and knowledge of managerial technique. The public official must act on the basis of his conception: He must make the arguments, hold the meetings, praise and criticize his employees, attract the confidence of overseers, and so on.. In short, he must act to realize his objectives. His success as an actor depends on temperament, interpersonal skills, and personal style as well as cognitive ability. As in the case of ethical concerns, the important role of temperament and style in determining the advisability and ultimate success of managerial action need not be

considered a problem. Once recognized, it can be addressed as an analytic problem in the design of managerial action. And it may even be possible to develop pedagogic exercises that develop or create self-consciousness about temperament and style. But to the extent that personal characteristics importantly affect the results of managerial actions, the development of cognitive skills seems relatively less important and less decisive in assuring effective public management.

These difficulties pose a stark challenge to aspirations to develop a useful intellectual framework for the field of public management. The usual intellectual problem of corraling heterogeneous operational problems in a few abstract categories without sacrificing too much concreteness and relevant detail exists with a vengeance. But even if we could cross this significant intellectual hurdle and begin to make progress in developing principles for diagnosing and solving specific sorts of managerial problems, the value of the enterprise would remain limited. We would still have to contend with: 1) the moral or normative questions attendant on the actions of public managers; and 2) the personal qualities of students that would allow (or inhibit) them from taking certain kinds of managerial action effectively. Still, it seems useful to seek to develop an intellectual framework that orders the field of public management. After all, work is also proceeding on developing conceptions of the moral dimensions of the public manager's job and on devices for diagnosing and developing management style. So, without being sure that these enterprises will be successful, it is still desirable to work on the cognitive or analytic aspects of the operational problems. In any event, the main purpose of this paper is to propose a schematic outline of the field which could accommodate an orderly intellectual development of these cognitive aspects of public management.



## II. Alternative Organizing Conceptions for the Field

As noted above, every concrete operational situation can be characterized in at least four dimensions: the substance of the problem; the institutions that are involved; the position of the actor; and the scope and nature of the managerial problem to be solved. To solve operational problems, each of these dimensions must be accommodated lest the conceived solution be inappropriate to the existing situation. For coherence in research and teaching, however, it is probably best to let one of these dimensions become the dominant conception of the field with the others relegated to the status of embellishments and modifications of the basic understanding associated with the dominant conception. The question thus becomes which dimension should be dominant. Interestingly, plausible arguments can be made in support of each.

### A. Organizing Around Substantive Areas

Organizing the field around substantive areas implies doing research and developing concepts of management in criminal justice, in health, in foreign policy and international relations and so on. The analogy for business schools would be to organize research and teaching around the food industry, the petrochemical industry, the energy business, and so on. The basic argument for organizing on this dimension is that to be an effective manager, one has to "know the business": one has to have substantive knowledge of the products, the production processes, the major prospects for technological innovation, the strengths and weaknesses of existing institutions, the new markets that might be pioneered, and so on.

This idea has some appeal. To a degree, it has been accommodated within the teaching and research activities of business schools. They sometimes develop courses and research projects around specific industries such as oil or agriculture. Moreover, organizing around specific substantive areas ought to be even more appealing for schools of government than for business schools. The reason is that substantive knowledge of a field seems to play a much more important rôle in managing in the public sector than in the private sector. In the private sector, an effective accounting system that reliably identifies revenues and costs for given products can, to a degree, compensate for ignorance about the products, markets and production processes of a given firm. In the public sector, however, much of the burden of evaluating current performance and imagining improvements depends on the substantive knowledge possessed by professionals in the field. Thus, only police know what good policework is; only teachers know how to design an effective school; and only combat officers know how to keep a military command ready to fight. Perhaps because professional knowledge seems so important in the public sector, career patterns in the public sector tend to favor people with special substantive credentials or substantial experience in the field. Police forces are usually run by police, schools by former teachers, and armies by career officers. For both effective management and placement, then, it may make sense to organize public management research and training around substantive knowledge associated with particular public enterprises.

#### B. Organizing Around Kinds of Institutions

A second organizing conception for the field would emphasize the kinds of institutions in which public managers operate, or with which they must interact.

Thus, one could do research and organize courses on regulatory agencies (perhaps distinguishing between those that do economic regulation and those that do social regulation), on service delivery organizations (distinguishing again between human services such as welfare, education, and job counseling and other more technologically based systems such as fire prevention and refuse collection), on intergovernmental grant programs, on legislatures, or perhaps even campaign organizations. The analogy in business schools would be to organize around high technology firms, small scale production firms, conglomerates, and so on.

There is, again, some appeal to this idea. Arguably, the kinds of management problems and forms of useful knowledge vary as one shifts from one kind of institution to another. The special problems of promoting activity in organizations that are not directly under one's control make regulatory agencies much different from service organizations. Similarly, the heavy reliance on professionals and the lack of useful management controls in human service organizations make these organizations distinctive in terms of management challenges. And the problem of organizing discussion and voting in legislatures appears to be a far cry from any commonly understood management problem. Moreover, if one organized research and teaching on public management in this way, it would facilitate a close link with on-going research in departments of political science. The reason is that the research of political scientists tends to be organized around specific institutions (e.g. the Congress, the Presidency, Governors, and so on) or specific kinds of institutions, such as regulatory agencies or "people processing agencies".

C. Organizing Around Managerial or Operational Positions

The third dimension that might be used as the dominant organizing scheme is the position of the actor. One can imagine research and courses focusing on general managers, on mid-level managers concerned primarily with production and direct supervision, on directing Offices of Planning and Evaluation, on being Assistant Administrators for Administration and Management, on heading Legislative Relations Offices, and so on. The analogy in the private sector would be to train people for jobs as comptroller, corporate planners, financial analysts, public affairs, general managers, and so on.

The great virtue of organizing around specific jobs is that it focuses the research and curriculum on the practical problems to be solved. It avoids pre-occupation with substantive issues, or a drift into institutional description. It stays focused on doing jobs. The great liability of organizing around specific jobs is that there are so many of them. Moreover, since students are unsure which job they would like to do, and since their jobs will change over the course of their career, it is hard for them to decide on courses based on specific jobs.

The business schools have figured out a clever solution to this problem. They focus their training on the job of the "general managers." This means that they give them an introduction to the jobs of all the other managers in the organization - a nice way of preserving a concrete, vocational orientation without sacrificing the breadth of the training and flattering themselves and their students to boot! The idea of orienting research and teaching to specific jobs - and perhaps even to the specific job of the "general manager" - has much to commend it.

D. Organizing Around Managerial or Operational Functions

A fourth organizing concept depends on the notion that archetypal managerial problems exist, and that solving these is the essence of the managerial function. More than any other approach, this has been the approach that has been taken in business schools. Typically, business schools are organized in departments concerned with accounting, finance, management control, production and operations management, marketing, organizational design, human behavior in organizations, personnel, labor relations, and business policy. These become distinct areas because they focus on different managerial problems, and rely on different techniques for their solution. Finance, for example, is concerned with the problem of buying capital inexpensively, maintaining appropriate degrees of liquidity in a company's assets, and properly measuring overall financial performance. Management control is concerned with capturing information about performance to support resource allocation decisions and to motivate subordinate managers. Human behavior in organizations, personnel and labor relations are all concerned with making the most effective long run use of the human resources of an organization. Production and operations management is concerned with designing efficient processes for completing tasks—sometimes manufacturing cars, sometimes serving food, and sometimes making thousands of loan decisions. Of necessity, the methods used for addressing these problems are somewhat abstract because they are applied to many different kinds of institutions in many different businesses. Moreover, while these functions are related to jobs (e.g. a mid-level manager is more pre-occupied with production and operations management than with the design of company-wide personnel systems, and a comptroller more concerned with finance and management control than organizational structure, and a general manager more interested in business policy), they have an existence apart from jobs. In small firms, for example, many of the functions would be performed

by the same individual. In very large firms, these functions would be performed by large teams of people scattered at different levels throughout the organizations.

E. Distinctions Between the Functions of Public Sector and Private Sector Managers

The problem with using this concept as an organizing device in the public sector is that we are much less familiar with the set of managerial functions to be performed. There is considerable overlap, of course. Those managers in the public sector that have "production" units reporting directly to them must be as concerned with accounting, control, personnel, organizational design, production and operations management as private sector managers are. But there are important aspects of a public manager's job that appear quite anomalous in the context of our current training of private sector managers.

Perhaps the most obvious and important difference is that public managers share their authority for managing their organization. In a democratic system, many people feel entitled to offer comment and advice to public sector managers. Moreover, the advice they offer is not limited to the overall purposes of the organization. Legislators, constituents, and the media will feel free to comment on specific operational aspects such as the location of facilities, the appropriateness of certain kinds of operating procedures, and even specific uses of money and personnel. Nothing is too broad and nothing too narrow to capture some public attention. Public comment can be about performance, production processes, or the inputs used to accomplish public purposes. The range, frequency, and variability of public intervention into the operations of public agencies is simply

astonishing. Moreover, there is no requirement that the public speak with a unified voice. In fact, quite the opposite is typically true. Some people in positions to comment authoritatively want one thing, and others want the opposite. To manage, then, a public manager must spend a great deal of time constructing the mandate within which he will try to manage, and enhancing his own reputation and authority so that he will be less vulnerable to "kibbitzing", and more powerful with respect to his own organization. That this is an important task for public managers is suggested by the existence of specialized units for public relations and legislative liaison in most public agencies.

A second important difference that is importantly related to the first is the ambiguity concerning a public manager's objectives or purposes. Is the task of a Welfare Commissioner to give aid to everyone who is eligible, or to minimize costs? Is the task of a police department to provide social services or to fight crime? Is the objective of an environmental protection agency to enforce compliance with existing laws, to clean up the air and water at the lowest possible cost, or simply to reach some ambient standards regardless of the cost? No analytic criteria corresponding to "return on investment" provide convincing answers to these questions. For this reason, we leave such issues to the political process to resolve. But, as noted above, the political process does not give unambiguous answers. So, the public manager has to state and legitimate his purposes—defending them against daily encroachment—before he can get on with the tasks of management control, organizational design and so forth.

A third crucial difference is that a public manager is held accountable for producing results in situations when only a tiny part of the actual production

process leading to the desired result is under his direct control. This is most obviously the case with regulatory programs when the government's capacity to produce intended results depends on its ability to motivate private firms to change their production activities to produce less pollution, more safety, more equality of opportunity, and so on. But it is also true for domestic inter-governmental grant programs, for foreign aid, and for military procurement. In each case, large organizations whose personnel systems, structure, and production systems cannot easily be penetrated by government managers lie between the government managers and the outcomes for which they are ultimately accountable. This is even true for many human service programs such as hypertension treatment, elementary education, and youth employment where the attitudes of clients and the help of other private institutions play a key role in determining the returns to government expenditures. Both the tasks and techniques of "indirect management" are highlighted in the public sector, and muted (but nonetheless present) in the private sector.

In sum, the functions of management in the private sector take for granted a purpose, a grant of authority, and a boundary around the productive activities of the firm. As a result, with the exception of finance, labor relations, and marketing, private sector management is largely concerned with internal arrangements: the organization of production, the deployment of resources, and the direction, motivation and development of personnel. Moreover, when the manager looks outside his firm—to sources of capital, to representatives of labor, and to consumers—he does so with a confident, widely agreed upon purpose. In the public sector, on the other hand, none of these things can be taken for granted. The manager must on a daily basis establish and re-establish his authority to run



the organization against all others who feel they have a legitimate claim to do so - at least in some limited area. He must constantly state and defend his purposes as an appropriate assessment of the "public interest" without benefit of prior agreement about what the term means. And he must be accountable not simply for getting production from the people who work for him, but also for getting production from all those others outside his organization whose actions affect his ultimate purpose. In this world, then, the functions of a manager look quite different than in the private sector.

F. Conclusions

While reasonable arguments can be made for organizing the field along any of these dimensions, and while it would be folly to discourage developments along any of these lines, it seems likely that the field would be best served by thinking primarily in terms of the functions that are performed by people who wield public authority and spend public resources. This conclusion is based on three simple observations.

First, the focus on managerial (or operational) functions is most likely to keep the field concerned with developing concepts of good practice rather than drifting towards the simpler (and more traditional) tasks of institutional description, or theorizing about governmental behavior. If the dominant question is how best to perform certain tasks or diagnose and solve archetypal operational problems, the field will retain its vocational orientation. If a substantive or institutional focus were adopted, much of the work would inevitably focus on

developing facts about the substantive areas and the institutions. Less time would be devoted to developing methods for solving managerial or operational problems.

Second, the functional orientation serves the institutional needs of schools that would like to train students for many different careers in the public sector. It avoids the problem of discouraging students who were interested in specific substantive areas, institutions or jobs not represented in a given institution. Moreover, it offers students who are unsure about these matters a hedge. They need not decide which substantive areas, institutions and jobs by learning about the functions of public managers.

Third, the development of business schools suggests that the natural evolution of schools concerned with teaching managers is towards a curriculum organized primarily around managerial functions or problems to be solved. Courses concerned with particular kinds of businesses always tend to be specialized electives. The core of the required training is to learn about managerial functions.

Despite the fact that there is currently little consensus on the functions of public managers, then, it seems sensible to try to develop the field in terms of a conception of the common functions to be performed by public managers. At any rate, that is the approach we shall try.

### III. Managerial Functions in the Public Sector

Management involves having purposes, marshalling resources to accomplish them, maintaining the confidence of those who lent their resources to the

enterprise, and organizing the use of resources to achieve purposes efficiently and effectively. In addition, it involves keeping institutions within which (and through which) one manages in good repair—maintaining them if they are serving their purposes well, improving them if re-structuring would make them more effective in accomplishing given purposes, and adapting them if purposes change.

At this level of abstraction, management in public and private sectors are similar. Both have purposes that give direction and meaning to managerial action and for which they are accountable (e.g., "return on investment" for private managers and "pursuit of the public interest" for public managers). Both must go outside their organization to secure the resources and licenses they need to manage (e.g., to bankers, investors and regulatory agencies in the private sector, and to legislators and constituencies in the public sector). Both must be concerned with organizing efforts to achieve their purposes (e.g., with the assignment of authority and responsibility to subordinates; with the systems for recruiting, training, and motivating people throughout the organization; with the allocation of resources within the organization; and with the systems that monitor levels of activity—costs, outputs and ultimate returns—across the organization). And both must be concerned with strengthening and adapting the institutions of which they are a part lest the productive capacity of the organization be lost to the effects of decay or changing environments, and with this, not only the economic security but also the ambitions and aspirations of those who work for the enterprise. That these similarities exist may reveal nothing more than that we are describing managerial functions at a high level of abstraction.

It is slightly more interesting to realize that one describe management in these terms not only across sectors, but also at a variety of levels within the sectors. The words used to describe characteristic managerial functions apply equally to high school principals, superintendants of local school systems, state commissioners of education, and the Secretary of Education. They apply as well to precinct commanders as to Police Commissioners, and to Directors of Mental Health clinics as to State Commissioners of Mental Health and the Secretary of Health and Human Services. To be sure, the scope of their purposes, the nature of the institutions to which they are responsible (whether legislative or bureaucratic), and the instruments they grasp to promote production all may differ substantially across these positions. But at each level, they must be concerned about purposes, credibility and production. In these terms, the principal of the high school described above resembles the Administrator of EPA.

It is also worth noting that we can use these terms to describe a manager's approach to pieces of his job as well as to his entire job. A high school principal must think in these terms when he is diversifying his athletic program to include women, or adapting his science curriculum to respond to increased interests in health careers as well as when he is thinking about the broader purposes of his administration and the entire agenda of issues with which he must deal. No matter how big the job then, and no matter how large the programmatic issue being considered within the job, doing the job will involve having purposes that direct and justify action, developing or maintaining support for those actions, organizing to accomplish the purposes, and doing all this with an eye to the effects of one's current actions on the power and serviceability of broader institutional arrangements.

Although it may be possible to characterize many managerial calculations and concerns in these general terms, it is probably more useful to look beneath these broad categories to more detailed and concrete functions, for it is at this lower level of abstraction that most managerial training occurs. Moreover, it is at the lower level of abstraction that important differences begin to show up—not only between public and private sector, but also among kinds of institutions and jobs in the public sector. Consider, first the differences in the detailed characterization of managerial functions between public and private sectors.

A. Production/Implementation

Probably the area of greatest similarity between public and private management is in the organization of production. In both sectors, this is recognized as a central managerial function. Using available resources to produce things of greater value than the unassembled materials, and doing this on a larger scale than an individual can do by himself, is the quintessential managerial function. Sometimes the managerial objective is simply to maintain an existing production system in good working order against the forces of attrition and decay. Other times the objective is to increase productivity—to wring more or higher quality outputs out of the same quantity of resources. Still other times the object is to develop a production system for a new product. Moreover, some enterprises are included in producing the same things over and over again, while other are "job shops" whose activities are composed of a continuous stream of discrete projects—each requiring its own more or less distinctive technology. No matter what the managerial objective with respect to the production process, the manager is responsible for seeing to it that purposes are achieved efficiently and effectively.

## 1. Tools for Organizing and Directing Production

The tools grasped by public and private managers to accomplish this purpose are quite similar. They rely on the techniques of "production and operations management" to analyze their activities and determine where efficiencies might be realized. They rely on "personnel systems" to recruit, select, train and motivate people to do jobs consistent with their purposes and the current production processes. They rely on "budgeting systems" to allocate resources among the various activities of the enterprise. They rely on "organizational structures" to fix responsibility for tasks and objectives. And they rely on "management control or information systems" to maintain incentives for mid-level managers, and to allow them to make periodic adjustments in the overall allocation of effort within the enterprise.

There is a great deal to be learned about each of these tools of management. With respect to each tool, there is a certain amount of technical knowledge that must be absorbed. Thus, in learning how to analyze one's production processes it may be important to learn the rudiments of simulation, linear programming, standard solutions to inventory and scheduling problems and so on. In learning about how to design an effective personnel system, we may have to learn what psychologists think they know about human motivation and how jobs might be designed to be consistent with current views of human motivation, what kinds of tests have proved effective in screening people for managerial responsibility, alternative forms of labor relationships, and so on. In learning about budgeting and control systems, it may be important to know the different forms of budgeting systems that have been tried, basic principles of accounting, the capabilities of

computers and how changes in the technology of information processing can change the location of responsibility and power in an organization, etc.

Beyond the technical knowledge associated with each management tool, it may also be important to know a little about the historical and institutional context which led to the development of particular expressions of a given tool, and which continues to shape its uses for managers. It may be important, for example, to understand the historical development of labor relations in the U.S. as well as to know a little about the development of accounting and budgeting systems from systems designed to prevent theft and insure the proper exercise of fiduciary responsibilities to their use as systems that allow managers to direct their operations more effectively than they otherwise could. Finally, it might be important to see that techniques of production and operations management began with production systems rooted in the physical production of goods, but have since been used effectively to analyze service operations whose outputs were not products but activities, and whose technology was based not on machines but on the activities of people.

Perhaps the most important thing to learn about these tools, however, is how to use them to accomplish managerial objectives. We tend to teach about budgeting, information systems, personnel, labor relations, and so on as though an ideal version of each of these systems existed, and therefore that this ideal ought to be approximated in each managerial situation. Even worse, by separating these different tools and making them sufficiently complicated that specialists in each of the tools can develop, we tend to develop people who think that one of these tools of management is the solution to every management problem. The real task, of

course, is not to refine each tool, and not to assume that any given tool is the right way to solve specific production problems in a specific setting, but instead, to figure out which tools in which combinations and in what specific configurations might be used to improve production in a given situation. This, in turn, requires one to remember: 1) that his objective is production—either the maintenance of a productive system, increasing its productivity, or changing it to allow the production system, increasing its productivity, or changing it to allow the production of new goods and services; 2) that he must work with the existing institutional arrangements—that he cannot start from scratch with abundant, completely fungible resources; and 3) that to a great degree he must integrate the production technology, the personnel system, the structure of the organization, and the control system lest tensions and inefficiencies be created by confused signals sent throughout the enterprise. In short, the important task is not only to learn about the tools, but also how to use them in specific situations to accomplish specific purposes. To the extent this is forgotten, we will change the problem of getting things produced to the problem of creating a good budgeting system or a good personnel system, etc.

One other thing should be noted about these management systems as they are used by managers to organize the production of goods and services (i.e., to achieve purposes). First, just as "production" is a generic function that exists at all levels of management within institutions, so the various "tools" grasped by managers can exist at a variety of scales and levels of development. In teaching about these systems we are apt to focus on the grandest, most sophisticated, and most self-consciously developed forms of the tools. Thus, we look at large organizations that are having elaborate new budgeting or personnel systems installed, or we look at



innovative new systems of labor relations. What this conceals is that there are analogues to production engineering, budgeting, and personnel systems in very small aspects of very small jobs. The school principal concerned with a diversified athletic program can do an analysis of alternative ways of using money, facilities, and staff to maintain different configurations of activities; he can worry about how his plans mesh with the capacities of his current personnel, and with the understandings or contracts with them concerning responsibilities, qualifications and remuneration; he can consider whether his current financial system would allow the shifts in resources he has in mind; and he can wonder whether he should temporarily assign somebody as a project coordinator, or whether he can accomplish the change by maintaining responsibility for the change in his own office. While the tools grasped by the principal to accomplish his objectives would in all likelihood be neither large nor particularly sophisticated, and while we might expect the principal to spend relatively little time designing or developing the tools, the possible tools are all there latent in the situation.

The corollary of this point is a second important observation about management systems; in the large organization in which these systems take on their largest, most elaborate and most self-conscious forms, the manager is rarely directly responsible for their detailed design and development. Specialized staffs exist who design, maintain and operate these systems. Ideally, they do this on behalf of the manager and his purposes. Like other technicians, management systems specialists often pursue the technical virtues of their profession instead of the production objectives of management. In large organizations, then, grasping these management tools takes the form of controlling the specialized staffs that design and operate relatively formal systems. In smaller organizations, managers

may be more directly involved in designing production systems, personnel systems, budgeting systems, and so on. Even in small organizations, however, the manager spends relatively little time setting up these systems. The reason is that even in small organizations, the systems take time to "take hold." After all, change in the systems involves many people learning new tasks and accepting new responsibilities, and this takes time. As a result, managers necessarily spend less time tinkering with those systems than they do living with results of whatever the last system was.

## 2. Contrasts in Production Between Public and Private Sectors

Everything I have said so far applies equally to private and public sector management. It is worth pausing for a moment, however, to consider some crucial differences in the production environment of private and public sector managers.

One major difference between public and private sectors with respect to production is that, by and large, the public sector is more heavily oriented to services than the production of hard goods, and more dependent on labor-intensive than capital-intensive production processes. To be sure, banks, fast food emporiums, and private nursing homes are making the private sector more service oriented; and the public sector's involvement in transportation, parks, and military defense draw the public sector into capital intensive enterprises; but still, the public sector is inclined to think of itself as engaged in businesses where the production technology is embedded in people rather than in equipment which makes rigid and specific demands on the laborers who man the equipment. Sometimes the production processes are embedded in bureaucratic routines prescribed in advance

and practiced until they are automatic. Other times, they are embedded in the more general training of professionals which inculcate certain values, diagnostic skills and varied responses. Whether we think of the people delivering public services as bureaucrats or professionals, however, we are much more likely to think of public sector production being rooted in people rather than machines or carefully designed, regimented production processes.

This difference has enormous consequences for the way public sector managers approach production problems. For the most part, they ignore what might be considered production engineering. They spend relatively little time analyzing and reviewing the core production technologies of their enterprise. Enforcement agencies spend little time thinking about the deployment of men and equipment and how that meshes with the demands made on them, or the objectives they wish to pursue. Educational institutions do not look very closely at the technology of classroom institution—much less consider how classroom teaching fits with other parts of parts of the school's activities to build knowledge and character among the students. While one can sympathize with the enormous difficulty of performing such analyses, public sector managers often act as though production engineering is not their responsibility. What is substituted for production engineering is often "professional standards." These are typically set by the people who do they work: teachers for educational institutions, police officers for police departments, and physicians and nurses for health care institutions. Moreover, these professional standards gain extraordinary force in determining overall output by virtue of the fact that they are inculcated among workers through their formal and informal training, supported by management and supervisors who are promoted on the basis of their skills as professionals rather

than managers, and defended by public sector unions who claim to represent not only the economic interests of their members, but also the public's interest in receiving the best, highest quality, most professional services. While it may be true that professional standards often do help to organize public sector production in useful ways, one need not be excessively skeptical or cynical to imagine that these standards could become ways of defending the interests of the public sector workers as well as advancing the public's interest. At any rate, the lack of attention to production processes (due partly to the difficulty of analyzing them), the existence of strong professional associations in many areas of public sector enterprise, and the dominance of supervisory levels by professionals who share the training and values of the workers, means that management lacks an independent basis for confronting the workers with their traditional concerns for more (or higher quality) output at lower cost. In an ideal world, public sector manager would understand that even though they were finally more dependent on their foremen and informal personnel systems for influencing levels and quality of production (rather than, say, new equipment or new production systems fixed in the organization of the machinery and the layout of the buildings in which the production was done), and even though their had would inevitably be weakened because of this, they nonetheless had the responsibilities to build into their production processes the public's concern with the relationship between cost and output, and that to do this they needed to continue to analyze production processes.

The dominance of labor intensive service enterprises in the public sector thus importantly changes how public managers should and do think about the organization of production. In general, the importance of personnel systems as

tools for management increases. The public sector manager is often crucially dependent on them. But precisely because personnel systems are overwhelmingly important, the remaining role of production engineering and management control increases. Without some independent basis for evaluating production activity, the managers are defenseless against the claims of the professionals within his organization. The prescription, then, is for managers to assert their interest in production at low cost through personnel systems. What we often see is personnel systems dominating managers through claims of professional virtue buttressed by civil service and union protection and the sheer difficulty of analyzing the production technologies.

A second major difference between production in the public and private sector is that much less of the production process required to produce the valued product is under the control of the manager in the public sector. The Administrator of EPA is responsible for making the air and water clean: that is the result that would justify his costs (and the costs he imposes on others). But to produce this result, he must rely on actions by state pollution control agencies, municipal refuse systems, and private corporations. The actual "production" of clean air and water is in the hands of others. Similarly, a Police Commissioner is responsible for reducing crime and fear of crime. But probably most of the actual deterrence of crime, and most of the factors that allow him to apprehend offenders, are in private hands. If private citizens resist victimization and call when they see others being victimized, crime will be reduced. If citizens are careless, even a very efficiently managed police force will fail to control crime. This makes it difficult for public sector managers to control production, and lacking such control, to feel accountable themselves and insist on accountability among their subordinates.

Now, part of the public sector manager's problem is lack of a pricing scheme that gives an explicit value to his organization's final products. After all, moving coal from a mine in West Virginia to a steel factory in Pennsylvania, and even a plate of finished steel, are a long way from producing utility or satisfaction in the hearts of consumers. Yet this is not a problem for the coal operator or the steel fabricator because the market assigns a value to intermediate as well as to final products. Similarly, parks and libraries are very close to the ultimate consumer—at least as close as washing machines and stereo equipment. Yet because no price is charged for using these public services (to avoid the unequal distribution of use that might result from such pricing), the manager of the parks and libraries remains uncertain about the value of his production. There is no necessary link, then, between the fact that public sector managers are often producing intermediate products that must be embellished in some way to produce things of ultimate value, and the lack of accountability. The problem may be more fundamentally that no prices exist than that the manager are typically producing only intermediate products.

What this analysis ignores, however, is that much public sector activity is not producing goods and services (whether intermediate or final), but instead is producing incentives for private individuals and firms. The government tries to produce things indirectly: by creating opportunities and risks for others. Thus, clean air and water is produced not by direct production (cleaning up the gunk), but by threatening people with enforcement action if they don't and offering them grants to subsidize clean-up efforts. People become educated partly by exposing them to ideas by exposing them to ideas at school, but also by enlisting parents in the educational process (or by building on the base parents have constructed). Even

employment programs operate by attempting to set up opportunities confronting people as much as by working on individual preferences for work over leisure. Pricing the value of incentives in terms of their capacity to guide activity in useful directions is importantly different from the pricing of intermediate products. It is more akin to the problem of assigning value to executive direction and control in a firm—something that has always been difficult to do. It is possible to create a transfer price for intermediate products, but how much are people willing to pay for control and influence?

At any rate, for our purposes it is sufficient to note that public sector managers are held accountable for results that occur much farther down a chain of causation than their direct control extends. The EPA administration must operate through an incredibly elaborate institutional setting of states, local governments, and private corporations—all with political power over the EPA administration through the courts, congress and the presidency. The local school superintendant is held accountable for reading scores even though this may depend importantly on how supportive the household environment is to reading. And the local sanitation director may be responsible for the cleanliness of the streets but has little control over the amount of individual private littering and clean-up efforts. Public sector managers, then, must produce results by exercising influence beyond the boundaries of their organization—indeed, even across political and constitutional boundaries, and down to the conduct of individuals as well as through larger autonomous organizations.

To a degree, this is analogous to marketing in the private sector. If a private manager can stimulate the demand for his product he is, in effect, enlisting the aid

of consumers in increasing the value of his product. If consumers like the product, they help in producing utility. Moreover, marketing involves influencing the attitudes and activities of people outside the firm. But the analogy is mostly superficial. Surely the role of private firms in producing clean air and water, and the role of individual private citizens in producing clean streets is different than the role of consumers in creating value by liking and using products. Moreover, the ways in which government officials might enlist the aid of others in producing things of value, while they might benefit from private sector sophistication in the use of mass media, are inevitably different from what private firms do to stimulate demand.

Thus, in the public sector, the production of things of final value of the depends crucially on the activities of organizations and individuals outside the direct control of the public sector manager. The techniques of indirect management may be related to (and usefully informed by) the techniques of private sector marketing, but they are not likely to be identical. What techniques are available and effective, then, constitutes an important unanswered question in the field of public sector management.

A third important difference between public and private sectors in terms of organizing production is that many of the traditional tools of management are not under the direct control of management, but instead in the hands of oversight agencies (e.g., budget bureaus, offices of administration and management, and civil service commissions), political superiors in the executive branch (e.g., mayors, governors, and presidents), and perhaps most importantly in legislative bodies (e.g., city councils, state legislatures and the U.S. Congress). Typically, legislative



bodies exert formal control over the organization of executive branch operations through oversight by authorization committees, annual scrutiny by appropriations committees, and special studies by committees authorized to investigate government organization and operations. The formal powers of the legislature can be more or less detailed, but it is not unusual to find situations like that in Massachusetts, where both the legislature and the Executive Branch Office of Administration and Finance control organizational structure, staffing and a substantial fraction of the resources by controlling individual jobs throughout the executive branch.

The implication of this shared control over organizational structure, budgets and personnel systems is that in order to use these tools to shape production efforts, public sector managers must persuade other elements of the executive branch and elements of legislative bodies to allow them to organize and staff the way they would like to. This adds a level of complexity and difficulty to the use of management tools: not only must public managers figure out what structures, personnel systems and budgets maximize production in the directions he wishes to go, but in addition he must consider whether and how independent people who control these aspects of his organization can be persuaded or otherwise motivated to go along with his proposals. This requires the public sector manager to have (or know how to develop) a generally strong position among those with whom he shares the authority to manage his operations. It is to this distinct aspect of public management that we next turn.

B. Shaping Mandates and Maintaining Credibility Among Overseers

Virtually all managers borrow something from people outside their organization (and, to a substantial degree, from people inside their organization as well). In the private sector, mostly money is borrowed—both from lenders, and from those who buy equity in the company. In the public sector, managers "borrow" money in the sense that representatives of tax payers in the legislature and executive branch grant them funds from general tax revenues in hopes that they will use the money to accomplish something that is in the public interest. They borrow authority in two slightly different senses. One sense is that they are given varying degrees of discretion in the deployment of the resources they are granted. How much discretion depends a great deal both on the professional reputation of the manager and the amount of interest that congress and political superiors take in areas in which he is managing. Some public managers will have a relatively free hand in organizing and deploying their own resources; others will face a few rigidly established more or less broad constraints; and still others will be subject to constant and capricious "harassment" by overseers. The other sense in which public sector managers are granted authority is that to the extent that their job requires them to influence the conduct of other "independent" organizations to accomplish their purposes, the public sector manager may be granted more or less extensive formal powers with respect to those other units, and more or less political support as the public sector managers confront the "independent" organizations (e.g., private corporations, other units of government, or private individuals). In this sense, formal powers and informal political support granted by political executives become "productive" resources in the hands of public managers who need activity from these independent units to achieve their purposes.

Grants of money and authority are never given unequivocally—neither in private or public sectors. Those who lend money or create and delegate power always retain an interest in how these resources are used. They watch overall performance. And they also watch the organization of production. If they are dissatisfied with either (or if they have some special interest they want advanced through the operations of the enterprise), they may intervene. They can insist on a change in management. Or they can begin imposing additional constraints and disciplines on managerial action. If managers are to be successful in controlling both their own resources, and, in the case of public sector managers, the resources of others, they must maintain the confidence of these creditors or overseers.

To an extent, the analogy is overdrawn. To liken the oversight of stockholders and lenders in the private sector to the oversight of legislative bodies, political executives, and the courts in the public sector may seem a considerable exaggeration. The decisions of private sector executives are subject to nowhere near the amount of external review as those of public sector executives. After all, in the public sector, specialized institutions exist whose major purpose is to criticize the activity of public sector managers, and they go at the task with a will that is truly daunting to private sector managers unaccustomed to such scrutiny. Moreover, the criticisms are made at many different levels. Performance and process are both subject to criticism. Small errors in both can destroy managerial credibility even if the average level of performance is quite impressive. Finally, the criticisms are often made in the harsh glare of media exposure. This makes errors all the more painful, and all the more difficult to explain or put in perspective. So, while it may be true that both public sector and private sector managers must receive implicit grants of authority from creditors, managing in the

public sector is like managing in a world where one faces a highly publicized proxy fight or take-over bid on a monthly basis. In short, the authority to manage in a given way for a given purpose is up for grabs in the public sector in a way that it isn't in the private sector.

While the differences between public and private sector in terms of the durability and coherence of the authority granted to managers are very substantial, it is worth noting that the differences may be shrinking. The decisions of private sector managers are becoming increasingly "politicized" as many people besides stockholders (and labor unions) challenge their autonomy. The government, for example, is increasingly intrusive with respect to private sector management. Pension funds, personnel policies, accounting systems, production technologies and so on are all now significantly regulated by various government agencies. This puts private sector managers in a world that is not all that different from public sector managers. They, too, need "licenses"—either formally or implicitly—from many different government agencies. To secure them, they must satisfy the government regulators that they are operating with the government's interests at heart. In addition, the companies find themselves with a variety of informal interest groups—consumers, residents in adjacent areas, and so on—all of whom would like to influence company policy to serve their interests. Thus, private sector managers must increasingly deal with challenges to their discretionary authority from sources that have independent bases of power and authority.

At any rate, it is clear that an important part of public sector manager's job is to maintain general credibility with his overseers, and to some degree, to shape the mandate within which he manages. This is a necessary implication of trying to

manage in an institutional environment of "separated institutions sharing power." The fact that the schedules of public-sector managers require them to spend more than half their time dealing with the political and legal institutions that authorize and oversee their activities suggests the importance of this factor.

Although maintaining credibility among the people with whom one shares authority is a very important part of public management, our concepts of how this function is performed are much less precise and differentiated than our view of the tools managers use in organizing and directing production. The art of negotiation seems central to this function, but the context within which the negotiations occur is exceedingly complex. For any given issue, a large but uncertain number of actors may come forward to exert influence. Some of these actors will be important to the public manager across the entire range of his responsibilities, others will be important to him in more-important areas than the one under negotiation, and still others will, in all probability, be important only in this single instance. The public manager can affect who becomes involved in the issue and the positions they take through a variety of tactical moves including influencing the choice of process that leads to an authoritative choice, framing the issue in particular ways, influencing the timing of the decision, and so on. In fact, the whole process may not look like a negotiation at all, but will still produce a result that looks as though it had been bargained over. Exactly how to fit analytic concepts of negotiation and bargaining into the complex world of shared decision-making in the public sector is a major intellectual challenge close to the core of public sector management.

Beyond this close-in bargaining and negotiation with specific people on specific issues are the public manager's special efforts to maintain relations with the legislature, the press, interested constituencies, and so on. Most large public agencies now have specialized units devoted to these functions (e.g., legislative liaison, press relations, client or constituency advisory groups, etc.). What these units do, what constitutes good practice, and how their operations are regulated by laws structuring government decision-making (such as the Administrative Procedures Act, the Freedom of Information Act, the Government in the Sunshine Act, etc.) are all areas ripe for inquiry. I suspect that there is as lively a conversation to be had concerning the proper organization, staffing and procedures of press and legislative officers as there is concerning the design of budgeting procedures or information systems. And it is possible that their functions are more important to public managers than budgeting.

It is worth noting that one of the main reasons that public managers are subjected to such extraordinarily comprehensive and intrusive oversight is that we rarely develop an unambiguous conception of what we want public managers to accomplish. In many areas of public policy, deep divisions exist among reasonable men as to proper purposes and methods. Because we want to respect that diversity of opinion, our institutions have been structured to allow many views to be expressed equally forcefully. The diverse views are pressed on public managers from differently powerful salients, but few of them are negligible. In effect, we have chosen a process solution to the problem of defining the public interest, and have thereby exposed the public manager to widely varying influences and threats. Somewhat ironically, then, one of the public manager's most powerful tools in seeking to create a coherent mandate within which to manage is to seek to develop

a rough consensus, or at least an agreement among a sufficiently powerful coalition of interests as to his proper purposes and methods. The skill with which a manager may pacify or temporarily harmonize political conflict over his mandate, then, may depend largely on how well he handles his last area of managerial responsibility—the setting of goals.

### C. Setting Goals

All managers set goals for their organizations. Of course, the goals they set must be relatively consistent with the expectations and licenses granted by overseers who lent money or authority. Private sector managers, for example, must seek to maintain (maximize?) the long run profitability of the firms they lead, and public sector managers must operate within the mandates created by statutes and other forms of political understandings. Because managers must operate within these limits—must respond to the expectations of others—it is sometimes argued that managers do not—and, indeed, should not—think of themselves as setting goals. They are to act as agents for others.

But this perspective misses a great deal of managerial activity and influence that can only be thought as setting goals. For one thing, managers are hardly neutral parties in shaping the expectations within they will manage. In both private and public sectors managers work hard to shape the expectations and demands of overseers. Private sector managers confront a diverse group of stockholders and lenders who have different preferences about the timing of returns and the amount of risk they are willing to bear, and different judgments about the wisdom or appropriateness of specific corporate plans. Similarly, public

managers confront overseers whose willingness to sacrifice one social value for another differ significantly, and who also have different preferences about the timing of returns and the risks that can be run in each of the various dimensions of the public interest. Moreover, as in the private sector, overseers may differ in their empirical judgments about the likely results of adopting given policies and programs. The differences among the oversight groups (with respect to both preferences and empirical judgments about the likely results of adopting specific plans) provide an opportunity for managers to formulate plans that can create a durable, dominant coalition among the overseers. To the extent they do this, they are, in effect, setting goals for themselves. One can argue about the appropriateness of managerial influence on overseers with respect to the formulation of broad goals, but it is hard to deny that it exists.

Even if we ignored the influence of managers in establishing the broad goals within which they operated, however, we would still find that managers "set goals." They do so by making the broad goals of their charter "operational." Typically, we think of this process as one in which broad, abstract concepts are made specific and concrete, hence measurable: the goal of profit maximization becomes maintaining or decreasing a price to earnings ratio for a company's common stock; the goal of reducing crime and the fear of crime becomes reducing rates of reported crime. In addition, however, and particularly in the public sector, making goals operational also means establishing objectives in terms that reflect the activities or outputs of organizational units rather than the ultimate objectives of the organization: the operational goal of a manufacturing company is sometimes to produce and ship a certain number of units (rather than earn revenues or generate profits); the operational goals of police departments become responding



to calls for service within a given time, or making arrests (rather than reducing or promoting a sense of security in the community).

Note that the logic of establishing operational goals for specific organizational units can carry one far away from measuring overall performance with respect to ultimate goals. Soon, one is setting objectives for support units and overhead units of an organization as well as those that produce the organization's final product: inventory targets are set for purchasing units in manufacturing firms, and crime analysis units are required to complete a certain number of reports in police departments. In addition, objectives are established for activities that constitute investment in an organization's capacity to operate as well as for those activities that represent production based on past investments: the purchase and installation of new machinery, or even the development of a new product line become objectives in private companies; the installation of new information systems, the training of personnel in new procedures, or the implementation of a new program (i.e., the development of a continuing capacity to perform the activities associated with a new program idea) can become objectives in the public sector. (Note: dis-investment—the dismantling of operational capacities, the selling of the assets—can also be an objective.)

In an ideal world, the process of making broad goals operational is harmonious: broad goals become a nest of specific, measurable tasks for distinct operational units within a manager's control. The operational tasks completely fill out the content of the broad objectives and do so without awkward distortions. In the actual world, this is rarely possible. The limitations are partly intellectual: it is simply too difficult an analytic feat to map broad goals into specific operational

tasks of varied organizational units. But the limitation is also in the quantity and character of information that can conveniently be collected about the organization's activity. If there are too many activities to be monitored, understood and evaluated, management is overwhelmed. The implication, then, is that the fit between broad goals and operational goals will be far from exact: there will be both gaps (i.e., important aspects of broadly defined goals that cannot be conveniently measured and therefore may not be achieved), and distortions (i.e., the approximate representation of a complex goal will lead to a different kind of activity than is desirable).

Often, the difficulty of filling out a broad goal with a nicely structured set of operational goals is taken as a problem to be deplored. And so it is if our concept of management requires very close accountability of managers to overseers, and close control over their operations. But, it should also be apparent that the imperfection of the process of making goals operational, and the fact that it is the manager's responsibility to do this, is a source of power and influence for the manager. By making goals operational in particular ways he can exercise enormous influence on what the organization actually does and what it actually produces. In short, hidden in the apparently "technical" problem of making goals operational is an enormous amount of effective influence with respect to what the organization will actually do. This is particularly true for public sector organizations because the information about the ultimate success of a manager's effort to give operational context to a broad purpose is much weaker and less reliably available than for private sector managers. Lacking the inevitability of confronting a sequence of financial statements that in many respects do reliably summarize the performance of a private firm, the public sector manager's definition of his

operational goals becomes a very powerful influence on the actual strategic performance of his organization.

Managers do set goals, then. They do this by proposing plans and programs that command the allegiance of the overseers and become the mandates within which they work. And they do it through the process of making broad goals operational and meaningful to subordinate units of their organization. The next questions are what should managers know about how to do this well, and where important differences show up between the public and private sectors.

In discussing techniques useful to managers in setting goals, it is useful to carry over some of the distinctions made quickly above: specifically, the distinction between broad goals that are supposed to define the overall purposes of the organization and those that refer to more specific programs or projects within the organization; the distinction between defining the goal and measuring the organization's performance; and the distinction between goals for final production, goals for support and overhead units, goals representing new investment in old product lines, and goals representing new investment to develop a continuing capacity to produce new products or services. Slightly different techniques are suitable for these different goal setting tasks.

The task of setting broad goals for an organization is something that has engaged the interest of those studying private sector management. This is the subject of courses in "business policy" or "corporate strategy." The basic argument is that general managers should have a conception of how their organization will function in the future. In order for an idea to serve as a "strategy" for an

organization, it must meet several requirements. First, it must be anchored in realistic judgments about the company's environment and its own operational capabilities. Knowledge of the market, the distinctive competence of the organization, the extent to which the current market can be expanded, the rate at which operational capabilities within the firm can be adjusted and so on must all lie behind the strategic conception. Second, the idea must establish a "fit" between the opportunities present in the company's environment and the capabilities or distinctive competence of the firm. The opportunities to be exploited cannot be beyond the capacities of the firm to exploit. They must be linked together. Third, the idea must be simple and general, but still have some power to narrow, guide, and discipline choices. It must be simple so that it can be easily recalled and used. It must be general so that it allows one to spot unanticipated opportunities to pursue the strategies, and so that it can be adapted to new and changing circumstances. At the same time, it cannot be so simple or general that it allows any action; otherwise, it loses its power as a guide to choices.

While it is possible to say what must go into the construction of an organizational strategy, and while it is possible to define some tests it must meet, no one has yet established a procedure for arriving at a particular strategy from a particular set of facts. The concept in the end is a synthetic judgment—not an analytic procedure. It is a judgment in two different senses. First, in developing a strategy one must accommodate an enormous amount of uncertainty. Analyses of various types based on past reality can inform the construction of a strategy, but they cannot determine the strategy, since it is a complicated bet about the future. While in principle all the uncertainties could be informed by empirical investigation and structured in analytic formats, in practice, this cannot be and never is done.

Second, the construction of a strategy depends on discriminating what is empirically or normatively important from the welter of possible considerations. Simplifying the tasks of a firm in a way that focuses attention on what is important, and draws attention away from what is less important is an enormously difficult (and aggressive) intellectual act. Again, while we might construct tests to determine the adequacy of a simple formulation, the initial simplification seems to draw heavily on a mysterious capability we call discerning judgment. We think we recognize it when we see it, but we don't know of what it consists. The fact that one cannot easily describe the analytic procedures necessary to construct a strategy has led business schools to teach it by practicing the construction of strategies—much like one learns how to speak, or draw a straight line, or hit a forehand in tennis, perhaps even to think.

The concept of an organizational strategy carried into the public sector is potentially equally valuable. But to be useful, some adjustments must be made. The most important adjustment is that the "environment" of the public sector organization includes two quite distinct parts. One is what might be thought of as the market for the organization's activities: the clients it is supposed to serve, or the public tasks it is supposed to accomplish. The success of the organization in serving its clients or achieving its objectives are not measured by revenue, however. Instead, it is measured (usually badly) by looking at the effects of the program and matching them against some notion of the public interest. The second part of the environment is the group of overseers who authorize and appropriate money to the organization.

Obviously, there is some link between the two pieces of the environment. The "clients" or the "public" that is benefitted (or discomfitted) by a public organization may exert some influence over the overseers who guide the activities of the public sector organization. But the point is that this need not be true; and, indeed, that the "clients" of a given organization (i.e., those who are benefitted) may have either too much or too little access to the overseers compared with other parts of the public who also have a somewhat disguised interest in the operations of the public agency. To the extent this is true, the two different parts of the official's environment may tug in quite different directions: he may see an opportunity to serve his "clients" better (e.g., by making food stamps more conveniently available to poor farmers, or by allowing a firm to escape some very costly regulatory requirement that is in fact unrelated to the task of cleaning the air and water), but be held back from doing so by those who oversee his operations and happen to represent a different piece of the population than those he thinks of as his immediate "clients."

In any event, the public official is likely to see his overseers as an important piece of his strategic environment, and may or may not imagine that improving services to his "clients" is a good way of protecting his reputation with his overseers. The private manager can be a little less interested in his overseers: if he makes a good judgment about what people will buy, he will raise the revenues that both satisfy his overseers and provide him with the wherewithal to continue to manage. Thus, the strategies of a public sector manager must fit the capabilities of his organization to a substantive conception of the public interest and the political environment that authorizes the public manager's activity.

There is one other thing to say about the notion of an organizational strategy in the public sector. Many of the most difficult choices a public sector manager must make involve the balancing of incommensurable values: environmental degradation against slowed economic development; privacy and non-intrusiveness against more effective crime control; reduced traffic fatalities against the liberty (and low cost) of deciding as individuals whether to use seat belts; and so on. We sometimes imagine that these issues can be considered against some objective standard like maximizing the public interest. Thus, we sometimes talk as though our officials could make "disinterested" or "objective" judgments about such matters. The fact of the matter is, however, that these normative questions are properly political. Thus, a crucial role of public sector managers is a political role: to propose a given balancing of these values—to say that the choices made by their agency will advance some values at the expense of others. Often, then, a strategy for a public official not only selects from the broad range of his responsibilities a few things that will have unusual importance to him, but also establishes the rates at which important, incommensurable social values will be traded at the margin. Seen in this light, the strategies of public sector managers are important political statements because they seek to define social value. That is why the strategies must be designed to fit within the political authorizing structure as well as serve some independent notion of what the public interest requires.

In seeking to develop strategies for public sector organizations, public managers can draw on policy analysis and program evaluations in the same way that private sector managers draw on marketing analysis, and the evaluation of past operating experience summarized in accounting data. But as in the case of the development of strategies for private sector agencies, the development of

public sector strategies is not strictly derived from these analytic efforts. A strategy remains an aesthetic idea that requires a leap from discrete policy analyses and program evaluations. It is hard to see, for example, how Ruckleshaus' concept of "pollution abatement" or Jerry Miller's commitment to "de-institutionalization" could have been the clear conclusion of rigorous policy analyses or program evaluations.

In fact, public sector managers have a special frustration in trying to rely on policy analysis for assistance in the design of organizational strategies. The problem is that policy analysis is typically done with respect to a given substantive problem—not an organization. Common questions in policy analysis are how best to protect the health of the country, or finance health care, or deal with alcohol or drug abuse, or reduce inflation. These questions cut across organizational lines in the public sector. Because the policy problems considered by analysts do not map neatly onto given organizations, the leaders of those organizations do not feel that their strategic problem is addressed very well. The head of the Drug Enforcement Agency, for example, is sometimes part of a crime reduction policy, and sometimes part of a health promotion effort. And, in both areas, his operations must mesh with the activities of the State Department, the Food and Drug Administration and local enforcement agencies to accomplish anything. Policy analysis will point this out to him but not solve his problem which is how to define the business of his organization. Because substantive problems do not map neatly onto the organizational structures of the federal government, policy analysis often lacks an institutional anchor: it is hard to know who the manager is that is the intended beneficiary of the analyses.



Where policy analysis is strong and valuable from the point of view of the manager is not in the development of an organizational strategy but in the analysis of proposal new programs. Just as private sector managers benefit from close financial, marketing and engineering analyses in considering new products, or new arrangements to produce or distribute old products better, public sector managers can benefit from careful analysis of new public programs or changes in old programs. For such questions, the audience and questions are relatively well defined, and standard analytic techniques can be profitably employed. To be most useful, however, policy analysis must incorporate judgments about whether existing institutional arrangements are hostile to given policy ideas, or whether they can easily accommodate and reliably implement the proposal. Techniques for making such judgments (called "feasibility estimates" or implementation analysis") are now being developed as an important part of courses in institutional analysis and public management.

Like policy analysis, program evaluation also plays an important but not decisive role in public sector goal setting. The methods of program evaluation which emphasize the development of quantitative measures are helpful in making broad goals operational. Moreover, completed program evaluations provide information useful to managers in developing organizational strategies and deciding to "dis-invest" in specific programs. All this would be more helpful to managers if the definition of programs to be evaluated coincided with operating units of an organization. Like policy analysis, however, program evaluations are often designed without reference to the organizational identity of the programs to be evaluated. If program evaluation could be conducted<sup>1</sup> routinely across the full array of an organization's producing units, program evaluation could be thought of as an

analogue for an accounting based control system in the public sector. This would be valuable indeed. Since program evaluations are not closely tied to organizational units, and since an organization rarely has a comprehensive set of program evaluations, program evaluations are less useful to public sector managers than an accounting system and financial reports are to private sector managers.

Two other analytic techniques are useful to public sector managers in setting goals and objectives. The techniques of operations analysis allow managers to explore the "core technologies" of their organization—to describe exactly how the organization uses resources in a series of steps to produce goods and services. This is important not only because it allows managers to experiment with improved technologies, but also because it allows managers to define objectives for support units as well as operating units. This becomes possible because the role of support units in production is clarified. Similarly, the techniques of "project management" and "PERT charts" are useful for defining goals for one shot projects (e.g., a moon launch, or putting up a building, or conducting a limited military operation) and for those projects that are investments in the organization's capacity to produce (e.g., the development of a special operational capacity for making conspiracy cases in the Drug Enforcement Administration, or the installation of a new management information system in a food stamp program).

Thus, the general idea of setting goals encompasses a great many specific tasks: developing a general strategy for the organization, deciding on the wisdom of initiating or terminating programs or activities within the organization, establishing operational goals for various programs and measuring performance against those goals, analyzing "core technologies" of the organization to help in

setting operational objectives for support units as well as producing units; and developing project management networks to guide investments in the operational capacities of organizations. In all of these activities, the public sector goal setting activities are hampered by the absence of revenues as a clear expression of the value of an organization's activities. Instead, a variety of analytic techniques (policy analysis and program evaluation) are introduced to help public sector managers determine the value of proposed or existing activities. By themselves, these techniques are not sufficient to resolve questions of social value conclusively. The authorizing process may always modify, over-rule, or substitute for the conclusions reached through analytic procedures. Moreover, the value of many analytic techniques, as currently employed, is diminished by the fact that the analytic studies are not structured to answer managerial questions: policy analyses often cut across organizations, and program evaluations are not linked to specific operating units. Still, when these techniques are focussed on managerial questions, they are enormously helpful in setting goals. The broadest goal setting activity, though, (the development of an organizational strategy) depend ultimately on more than analysis: it depends on a combination of analysis, vision and discerning judgment.

D. The Scope of Managerial Problems and the Content of Managerial Action

The managerial functions described above (gaining authorization; setting goals; and organizing production and implementation) are performed by managers at all levels of government. The Administrator of EPA must think about these functions when he is designing a strategy for EPA. The principal of the High School must also think in these terms as he considers how he will deal with the various

threats and ultimata he has received from his employees. But clearly there is a difference between these two different situations. We will describe the difference as a difference in the scope of the managerial/operational problem being addressed: some managerial problems have broader scopes than others.

One can gauge the scope of managerial problems in several different metrics. The most natural metric is some conception of social significance or scale. The broad choices of the EPA Administrator seems to have much larger implications for life in the country than the choices of the High School Principal: more resources are re-deployed, more changes occur in the world, and more people are affected. This difference clearly exists and is important. It seems to suggest that the amount of analysis that could usefully be done (and should be done) is much greater for the problem of the EPA administrator than for the problem of the High School Principal. But it is possible that this implication is wrong. After all, in trying to represent managerial problems in a form that allows decently competent choices we are up against the limits of human intelligence and imagination. It may be that the complexity of even the apparently small problems reach and pass these limits. Hence, our capacity to usefully represent managerial problems may be about the same between the two different situations: our simplifications may do much greater violence to the subtleties of the large problem than the small, but there is no help for this. Our minds are limited, and the structures we use in thinking about small problems may be the same as those we use in thinking about larger problems. This suggests that "mere" differences in scale and social significance may be an unimportant difference in teaching people cognitive structures useful to public sector managers.

A second less obvious but potentially more important way of measuring the scope of a managerial problem is by comparing the scope of the problem that is being addressed to the full scope of the manager's responsibilities. The problem of developing a strategy for the organization or subordinate unit one leads is the managerial problem that coincides with the full extent of the manager's responsibilities. Within that strategy, though, he must deal with a myriad of smaller problems—some at his initiative, but most at the initiative of others. Thus, the High School Principal's concern with getting through his first few meetings is not only small in terms of social significance, but also small in terms of the full scope of his job (which is also relatively small in terms of social significance). The reason that scope relative to one's job is important is that if one is dealing with an issue that is only a piece of his job (which one is doing most of the time, of course), then he must try to see the problem and its resolution in the context of his broader agenda. Indeed, a useful starting point in dealing with small managerial problems is to see what various solutions imply for the larger problems one is dealing with.

A third way of describing the scope of managerial problems being addressed is to measure them against the amount of time that will elapse before the problem is (temporarily) solved, or the amount of managerial activity that will be required to produce the imagined resolution. The notion of how long it takes for a management action to be completed is often very important in thinking about problems of production and implementation. It takes a lot of time for broad managerial interventions in the production systems of an organization to take effect: working through personnel systems to shift the average inclinations and capabilities of police officers; creating a new diagnostic capability in hospitals and among parents to deal with lead poisoned children; shifting the dominant focus of

the EPA to toxic wastes and away from air and water; and so on all take a long time to bear fruit. That is one reason why it often seems a mistake to spend a great deal of time teaching people about how to use the big instruments of managerial influence to accomplish purposes. Managers inevitably spend much less time working with these broad instruments, and much more time with narrower instruments such as direct assignment and supervision of smaller projects within the framework of these larger systems.

The notion of the amount of managerial activity required to deal with a certain problem is also an important way of measuring the scope of managerial problems. Since managerial time is a very scarce resource, it is important for managers to think of how much time a given problem will claim.

In sum, while it is most natural to think of the scope of managerial action in terms of social scale and significance, for teaching managers how to think about their problems, it is probably more important for managers to think of the scope of problems in managerially relevant dimensions: i.e., the size of the problem relative to the full range of their responsibilities; the length of time to (temporary) resolution of the issue; and the amount and nature of the managerial intervention required to solve the problem. Each of these has more significance to questions of how the manager will handle the issue than the social scale of the problem being addressed.

In teaching about how to solve managerial problems, there is a natural tendency to encourage people to broaden the scope of the problem: to see the implications of the problem (and its imagined solution) for other substantive

problems on the manager's agenda, and so on. As the scope of the problem is broadened, however, several things happen to the way we address the problem. Among the virtues of broadening the problem are that the interdependencies among problems on the manager's agenda are highlighted; and strategic factors (i.e., those factors that affect the manager's capacity to act on a broad front) are highlighted. To the extent that we think it is desirable to encourage strategic thinking among managers, these changes in their conception of problems are valuable. But other things happen as the scope of the problem broadens as well. The kinds of managerial actions that become favored solutions change in all the expected directions: actions that work through "remote control" rather than direct action of the manager become more significant, interventions that will take a long time to bear fruit become more prominent, and the wisdom of waiting until the world changes in ways favorable to one's objectives becomes apparent. In addition, the "solutions" to the problems inevitably become less determinate: they seem abstract rather than concrete, and linked to one another through aesthetic rather than specific analytic structures. All this is extremely valuable when trying to solve strategic problems. But all this has a way of carrying one far away from the concrete question of how to solve a small problem tomorrow in a way that will help solve the bigger problems over time. Strategic managers, contemplating the beauty of strategic actions, may forget the importance of deciding issues and doing things today.

There is a remarkably clarifying moment when one realizes how simple and concrete the real content of managerial action is. In the end, the manager is just someone with a speaking voice, a telephone, and a dictaphone or a pad of paper. What he actually does is talk: he persuades, argues, orders, explains, directs, and

so on. Of course, many things may happen as a result of what the manager decides and says and writes. But whatever the scope of the managerial problem being addressed, the manager acts on that problem by deciding, talking, and persuading.

The broader the scope of the managerial problem being considered, the harder it is to link the problem to actions that should be taken tomorrow. But if the link isn't made, nothing happens with respect to the broader problem—no matter how clear and precise one's idea of how the broad problem could be solved. This suggests that there is a risk associated with broadening the scope of every problem being considered—particularly if no effort is made to establish the link between broad problems and particular actions. It also suggests that much might be learned about managerial action as well as managerial problems and managerial functions. Learning how to be persuasive, to negotiate well, to motivate one's immediate subordinates and others whom one sees on a face to face basis, to schedule one's time, to be an effective public speaker, and so on are all important in their own right. Of course, we can imagine that much of the actual content of managerial action is determined by psychology and temperament and therefore difficult to learn. But it is striking that we take actions like talking very seriously in some professions (e.g., psychotherapy), and we believe that diverse individuals can be trained to do quite difficult tasks associated with talking and listening and establishing certain kinds of relations with others.

#### E. The Overlap of Institutions, Positions and Functions

So far, we have been discussing the functions of public sector managers from the point of view of the public sector's closest analogue to a "general manager"—



namely, an official who has substantial line authority over an agency's operations, and who interacts in some significant ways with the organization's external environment under policy guidance that leaves substantial discretion to the official in setting goals and managing his operation. There are three problems with viewing public sector management exclusively from this vantage point, however.

One is that the perspective often seems to impute greater powers to the public manager than he typically has. As we have seen, an important and unusual feature of public sector managers is the extent to which the manager's authority over agency operations is generally challenged and specifically invaded by other officials. He is vulnerable to legislation and political oversight, to media coverage, and to attacks by his own subordinates. In deciding important issues concerning organizational structure, budget, personnel, even information systems, he must often seek authorization from specialized overhead agencies who do not report to him. We can keep reminding ourselves of this fact, but it is very easy to forget when we begin describing officials as managers—because management suggests a higher concentration of authority in the hands of a single person than is characteristic of the public sector manager.

A second problem is that all those officials who share the public manager's authority become in some important sense managers as well. The experienced staff of an appropriations sub-committee often wields more effective influence over an agency's actual operations than an appointed political executive who is titularly in charge. Officials in civil service commissions who approve job descriptions and procedures for filling them act as though they are responsible to some idealized conception of a meritocratic personnel system, but their actions

have huge implications for the direction of an agency's operations. Even newspaper reporters and external program evaluators and auditors can exercise significant influence over agency operations. To the extent that these "non-managerial officials" in fact exercise significant managerial influence, it may be important to begin thinking of them as, in some sense, public sector managers and begin talking to them about the nature of their responsibilities for effective management. In effect, it would be foolish not to think of the congressional staffer who designs a hearing to pressure the Civil Aeronautics Board to change their policies and procedures, or the Assistant Secretary of Tax Policy who is seeking a reform of the laws governing tax exempt bonds as important public sector managers even though they are not line managers.

Third, since it is likely that many students interested in public sector careers will work in the sort of jobs described above (e.g., legislative staffs; elected officials; officials of budget agencies, civil service commissions, or audit agencies; policy planning and program evaluation staffs; even newspaper reporters or public relations specialists), it may be desirable to teach the perspectives and skills associated with responsible and effective performance in these jobs. In short, while thinking about "general management" in the public sector has heuristic value in identifying managerial functions to be performed, it is hard to find a specific official who is the "general manager." Instead, one finds a cluster of people who share with the apparent general manager the power (and therefore the responsibility) to shape public sector activities in his area of responsibility. This suggests that a curriculum in public management should be designed to allow students to pursue interests in particular kinds of jobs and particular kinds of institutions as well as particular kinds of managerial functions.

Fortunately for those who must design a curriculum in public management, however, the tension between designing a curriculum around managerial functions or around specific jobs is mitigated by the fact that the two are fairly closely correlated. The institutions involved in authorization and the jobs associated with them are fairly distinct from those primarily involved in implementation and production.

On one hand, one has legislative bodies, political officials in the executive branch, the media, and interest groups. While people doing jobs in these institutions are often importantly involved in shaping implementation and production, it is more often the case that they are involved in the process of authorization. Moreover, even when they are involved in implementation, their operational tasks are characteristic of the authorization function. The officials seek to create a shared view among those who can influence an agency's operations that their conception of what should be done is clearly correct. They work with peers, not subordinates; and they are concerned with goals and policy directives more than the organization of production across the full range of an organization's responsibilities. So, even when they are acting to shape implementation, they do so through the powers, methods and techniques of authorization.

On the other side, one has executive branch program managers, officials responsible for "administration and management" within given agencies, and officials who work in government-wide overhead agencies (e.g., budget bureaus, civil service commissions, and so on). Because the official powers of these agencies are narrower, they are more exclusively concerned with production and implementation. Of course, all of these groups (particularly program managers)

play a more or less covert role in the authorization process. But, by and large, these officials are primarily concerned with production and implementation.

Because the institutions of government, and the jobs associated with them, are to a degree functionally specialized, one can organize a curriculum around functions and have it correspond fairly closely (but not precisely) to a curriculum organized around institutions or jobs. The fact that a functionally organized curriculum cannot fit jobs or institutions precisely might be taken as a weakness. To my mind, however, it is a virtue. To the extent that people in different jobs share responsibility for a given function (e.g., goal-setting, authorization, the organization of production), it is very important that they come to understand the nature of this inter-dependency. Indeed, all the existing institutional arrangements (e.g., the sharing of functional responsibilities among different institutions, the different career tracks that bring people to different positions in those institutions; the different incentives operating on people within the various jobs) operate to create suspicion and distrust among people who must share some understandings if the government's operations are to have any coherence. A curriculum organized around functions, and showing how people in different institutions and jobs shared responsibility for performing the managerial function is one small institutional arrangement going the opposite way—towards a recognition of interdependency, and the establishment of some sense of responsibility for performing the shared function well.

Thus, the diversity of institutions and jobs in the public sector argues for a broad definition of who is a public sector manager, and an equally broad curriculum to accommodate different student career aspirations. At the same time, however, it

is desirable to fit this interest in accomodating diverse jobs and careers into a scheme that emphasizes managerial functions to remind those in apparently non-managerial jobs about their important managerial responsibilities, and to emphasize their interdependence with others in different jobs who share their responsibility for handling a managerial function.

#### IV. The Form of Knowledge About Effective Public Management

So far, we have developed a conception of the subject matter of public management. In this conception, public management is a set of functions commonly performed (by commission or omission) by those who are formally authorized to commit the authority or resources of the government. Broadly speaking, the functions include organizing and motivating production, shaping mandates or legitimating policies and programs, and setting and adapting goals. Moreover, the academic field of public management (as oposed to the actual practice) is concerned with developing ideas about how these functions could or should be managed across a wide array of substantive areas, institutions and positions. It is practical in that the concepts are developed to solve particular kinds of operational problems. But it is abstract in that it seeks to order a spectacularly diverse set of specific operational situations in a small number of generally defined categories, and to develop concepts and ideas within those categories that are helpful in resolving operational issues.

The juxtaposition of concrete, particular operational problems and the existence of abstract concepts designed to be helpful in defining and solving those specific problems is somewhat unfamiliar. When we think of developing theories as

general knowledge we are most likely to think of general, descriptive propositions about how things in the world work. While we often act as though this knowledge could easily be "applied" to specific situations, exactly how this "application" is achieved remains problematic. Typically the knowledge is about larger things than a person in a given professional position is able to affect. Moreover, the descriptive theories do not include in them ideas about the kinds of actions a manager or operator might take. For example, there may be powerful theories describing how legislatures or organizations work in general. But these may be largely irrelevant to a specific question confronting a staffer or manager—namely, how he might act to increase the likelihood that a legislature will pass a particular bill, or that an organization will add some new kind of operational capacity. Since this knowledge is not designed to be helpful to people facing operational problems but instead to be more broadly descriptive, it often fails to be helpful. On the other hand, when we think of particular problems to be solved, we are apt to think them as stubbornly resistant to categorization. Everything seems contingent including the question of what might be a relevant contingency. Thus, ordered knowledge about particular problems is impossible.

What will be asserted here opposes these views. The argument is that there is a broadly applicable, abstract set of ideas which are helpful to managers facing specific problems, and that these ideas differ from the broadly descriptive generalizations that political scientists, sociologists, psychologists, and other kinds of social scientists seek to develop. Instead, they are the sorts of things that constitute the knowledge of engineers, architects, lawyers and physicians—an idea about how to define a problem, imagine solutions, and check the imagined solutions.

against what they know respectively about the laws of physics, sociology, biology and the law, respectively.

To reach this conclusion, however, it is helpful to step back for a minute and imagine the forms that knowledge about public management might take. I think that there are basically only three possible forms of knowledge. Two of them are quite familiar but in my opinion inappropriate. The third is less familiar, difficult to describe, but, in the end, the right kind of knowledge to try to develop alongside the others, and in many ways, the heart of the enterprise.

One kind of knowledge might be thought of as general descriptive knowledge about how people, organizations, or governmental institutions tend to behave in general with some implications for managerial decisions and actions. Propositions of this type include the following:

- o People are motivated by desires for autonomy and power, for companionship with colleagues, and by ideas of broad purposes and mission, as well as by material incentives. Moreover, they are motivated by expectations about the future as well as by what is happening in their current situation. Thus, a well designed personnel system will be designed to create these sorts of incentives as well as the more familiar types involving material incentives for current work.
  
- o Organizations tend to do what they did yesterday. Thus, the best prediction of what they will do in the future is what they did in

the past. This is true except when the total supply of resources available to the organization changes dramatically—either increased or decreased.

- o Legislatures generally organize themselves into committees concerned with substantive problems, and the committees tend to have significant influence with respect to the rest of the legislature. Members seek (and are ultimately granted) assignments to those committees whose jurisdiction includes matters of great concern to their constituents. Once on the committee, they press their constituents' interests at the expense of others. Thus, "log-rolling" is a pervasive feature of legislatures.

Propositions such as these are interesting and hard won products of empirical research and reasoning. Moreover, one can imagine spending substantial time refining the ideas and further testing them. Finally, they all seem to have "implications" for the solution of particular operational problems.

But at the same time, I think it is apparent that they are not guides to the choice of action in particular situations. The first proposition tells the designer of a personnel system of police department something about how to motivate certain levels and kinds of work, but it falls far short of telling him how he should adjust current recruitment, training, or evaluation practices in the organization to accomplish a given goal. It tells somebody who is trying to assign a key subordinate to a given set of responsibilities even less. Similarly, the second



proposition tells a strategic manager relatively little about how he might work now to position his organization in an increasingly hostile environment so that a future crisis will be less possible. In fact, it suggests that all such efforts will fail! Finally, the third proposition may yield some utopian ideas for legislative reforms, but it does not tell a young staffer how to think about whether and how she could enact a specific piece of legislation.

These sorts of propositions fail as guides to action for at least three reasons. First, they do not include in them any idea of actions that managers as operators might take. They may suggest such actions, but they do not describe them. And how one develops ideas about actions from these propositions is not obvious. Second, they tend to be about larger, more aggregate phenomena than specific managers and practitioners are concerned with. This is not true for statements about individuals and their motivation and behavior. But once one begins talking about the behavior of organizations, or legislatures, or the press, or interest groups, one is making statements at higher levels of aggregation than are usual to people in specific jobs. Third, while each proposition implicitly includes a set of variables that are asserted to have explanatory force with respect to a phenomenon of interest, and while these propositions could become a "check list" or an "analytic framework" for exploring the possibilities of specific situations (I will later argue that this is just what we should be developing), the propositions have limited value for this purpose precisely because the propositions strain for parsimony in their explanation of a given phenomenon. The drive for parsimony in the theoretical statement results in the theorist trying to shrink the number of explanatory variables, or to make the variables more abstract so that they embrace more particular situations. A small number of variables may have virtues in the

construction of elegant theories, but it has less interest for a professional who is trying to imagine a set of \_\_\_\_\_ possibilities and limitations in a given situation. For professionals, eclecticism may be a greater virtue than parsimony. Moreover, because he must bring the concepts into contact with the particular world, abstraction creates a major problem. In our view, unlike the social theorist, the thoughtful practitioner needs ideas that involve concepts of action, that are about things he can affect, and that offer a lot of ideas about factors that could limit or expand the possibilities (on admittedly small margins) in given situations. For these purposes, general descriptive propositions about the behavior of institutions are not terribly useful.

A second form of knowledge overcomes some of the objections of the first. We might describe this as "management science." It is about managerial action, and claims to represent the likely results of specific managerial interventions. Propositions of this type might include the following:

- o If one develops an information system that monitors organizational activity of certain types, measured levels of activity of that kind will increase. That may indicate increased activity and improved performance, but it may also be nothing more than changes in reporting practices (including outright fabrication). And, it could be that overall performance of the organization may not improve due to the lack of any important link between the induced changes in the organization's activity and its ultimate goals.

- o If one establishes a policy planning system and places a high quality staff at the center of that process, the organization will eventually develop significant problems because the line organizations will cut the staff off from valuable information, and will fail to implement policy choices with enthusiasm.
  
- o Liaison offices headed by people who are not routinely included in the policy-making activities of an agency will fail to save the agency manager's time with respect to managing relations with the group for whom the liaison officer was established because they will insist on dealing with the principal. Moreover, establishing a liaison office with access to policy-making activities will expand the claims made by the outside group on the agency.

These propositions differ from those described above in that they concern managerial actions and its likely effects. They are similar in that they purport to be general across a wide variety of circumstances, and to be based on a combination of empirical observations and logical reasoning. Because they are about managerial actions, they seem to offer more guidance to public sector managers and operators. But as in the case of the "social science proposition," much seems to be missing. One suspects that a large ceteris paribus assumption lurks in the background of these propositions, and that if some unspecified factors change, the force of the proposition will diminish. Similarly, one worries that the managers could become too dependent on propositions of this kind—using them as a kind of intellectual club to handle every operational problem that arises. Again the

eclecticism that is a friend to those confronting messy particular problems is banished in preference for the parsimony and elegance of simply stated propositions.

The third form of knowledge could be described as "analytic frameworks" or "checklists" of possibilities and relevant considerations. The basic idea is that analytic procedures can be developed to illuminate different kinds of specific operational problems—to draw the manager's attention to a variety of features of the immediate situations that significantly constrain or expand the set of possibilities, to help him imagine a set of possible actions, to suggest a sort of criterion or purpose against which the actions might be evaluated and compared, and generally, then, to help him reach a conclusion about plausibly effective actions.

Note that this third form of knowledge does not produce specific propositions. All it does is assert the relevance of some concepts in figuring out a tolerable solution to a given problem. Moreover, the internal logic of the analytic procedure is not so clearly developed as to dictate an answer to an operational issue in a reproducible calculation. Many take these features of this form of knowledge as a weakness—preferring the elegance and rigor of simply stated propositions that can be shown to be true empirically, or the necessary implications of an internally coherent logical argument. In my view, however, the eclectic quality and very looseness of this form of knowledge is its virtue. The reason is that use of the frameworks brings the manager into closer and more intimate contact with the particular situation than would be possible with either the elegant simplicity of "scientific" statements or the much cruder simplicity of intuition,

rules of thumb, or traditional practice. The frameworks should be designed to distribute the manager's attention throughout his particular situation with breadth, precision and coherence, but its use need not yield a particular answer. Its purpose is to aid judgment and imagination by expanding the conception of the problem so that judgment and intuition have room to operate effectively. For this task, orderliness in the categories of thought is a virtue, but parsimony is not. Eclecticism and evocativeness are more important than Occam's razor and analytic rigor.

If the analytic frameworks do not produce propositions that can be tested by checking the internal logic that generated them, by checking them against empirical facts, or by both, how does one test the relative power of different analytic frameworks? I would propose several tests. First, like other forms of knowledge, the analytic frameworks are useful if they are easy to recall and can be used in a wide variety of particular situations. This is what makes orderliness and a certain level of abstraction necessary. But Occam's razor is wielded nowhere near as ruthlessly here as in the construction of scientific propositions. Second, the people for whom the frameworks are designed should find them useful for making the sorts of judgments they actually make in their jobs. They should be designed to help with the intellectual tasks they actually face. Third, use of the frameworks should, on average, lead to more effective solutions of particular managerial problems. Just as physicians make better treatment decisions by having in mind a broad set of diagnostic possibilities and a broad set of treatment alternatives, we would expect managers to diagnose and solve operational problems through analytic frameworks to make better managerial decisions. Fourth, the analytic frameworks should produce solutions that bear the marks of the particular

situation in which the managerial problem was confronted. The frameworks should not produce answers in general; they should produce plausibly effective particular solutions. The test here is much like those that must be applied in architecture (and perhaps to common law). An architect, like a manager, begins with a particular problem to be solved. In principle, there are a large number of possible solutions which at the outset look broadly comparable. We judge the solution finally developed not against all possible ideas, but in terms of how well it seemed to solve the particular problem at hand. And, indeed, part of that evaluation depends on how the solution has been fitted to the relevant and unusual features of the particular situation.

#### V. Some Tentative Conclusions for Public Management Research

The vision of a public management curriculum presented in this paper has implications for the direction and character of public management research. Four points seem particularly important.

First, because we can imagine different ways of organizing the field, and because there is uncertainty about which way would be the best, it probably makes sense to hedge our bets by being eclectic. We are in the stage where we should "let a thousand flowers bloom", rather than wield our pruning shears with too much enthusiasm.

Second, to the extent that we were willing to put more money and effort into one conception rather than another, I would be inclined to bet on an approach that sought to develop clear conceptions of managerial functions, and analytic

frameworks that were helpful to managers as they tried to perform those functions in specific instances. The list of functions presented in this paper represents a good start on this agenda. Moreover, behind each of the functions described here is an emergent analytic framework being developed. Organizing around substantive areas, or specific positions seems less likely to yield significant returns to our students than organizing around managerial functions; general descriptive propositions about the behavior of relevant institutions or the average efforts of managerial interventions seem less useful than analytic frameworks which help orient students as they confront particular managerial situations, and bring them into contact with the relevant features of a particular situation.

Third, because we are using the research to develop a curriculum useful to practitioners (rather than to develop general truths of interest to political scientists), it is probably valuable to tie the research as closely as possible to actual courses. The courses discipline the research in at least three ways: they provide deadlines for research products; they focus the research on subjects that are of practical value to professional students; and they put a premium on clarifying the analytic frameworks that are being developed. Without the discipline of having to face professionally oriented students, the research could easily drift away from our main purpose—namely to help public sector officials do their jobs more effectively.

Fourth, if the research is designed to develop analytic frameworks useful in thinking about how to perform managerial functions in particular situations, then the research should be based on actual cases of managerial action. Carefully documented cases have enormous value as research materials for at least three

reasons. For one thing, they allow us to check our conception of managerial functions against the actual concerns and behavior of managers. In addition, it becomes possible to ask managers how they thought about the problems that they encountered—what their objectives were, what features of the situation made attractive solutions more or less possible, and what sort of actions they imagined and abandoned before adopting a particular line of action. Finally, if carefully documented, the cases allow us to see what actually happened as a result of the manager's actions, and thus learn a little about how the world operates. In effect, both the concepts of the managers and the consequences of their actions become data for us in seeking to develop efficient analytic frameworks for solving operational problems.

To a degree, a useful analogy can be drawn between case oriented public management research designed to develop analytic frameworks useful in sizing up particular managerial problems, and the sort of research that is done in law schools and law review articles. In law school cases, there is typically a specific fact situation and a question of what the law requires a judge to decide in that situation. The facts of the case are usually very short—the actual events giving rise to the case have become caricatured, almost a cartoon, to dispose of facts that are irrelevant to considerations of legal duty or justice. Much of the "case", then, is a judge reasoning about how the law is to be applied—which facts are relevant, which law takes precedence, what social interest counts more than others, and so on. Given a certain number of different fact situations and different legal rulings, someone will decide to write a law review article that seeks to expose an underlying logic that makes varied court decisions coherent. It is the form of reasoning, the specific decisions, and the more or less successful



integration of diverse findings that constitutes the body of legal knowledge, and the act of putting this together that constitutes legal scholarship.

Public management cases are currently quite different. Typically, one is presented with a fairly complex fact situation that has been left in its naturalistic state. It has not been parsed in any way to be ready for an analysis. Moreover, often there is no analytic discussion of what the manager should do in a situation of this kind. We may know what the manager did and what the results were, but we do not have someone offering an account of how he did think or should have thought about his situation. This crucial judgment is left open for discussion. Finally, because there is no opinion offered, there is no collection of opinions in review articles which seek to combine and order the opinions. Thus, managerial knowledge develops much more slowly and incoherently even than legal knowledge.

In principle, of course, this could change. We could begin writing "managerial opinions" about how certain fact situations should be handled. In the process, we would be learning to "think like managers", including learning the rules for abstracting fact situations, for applying general concepts of good managerial practice, and laying the basis for broader conceptualizations presented in "reviews of managerial opinion." In fact, I think this might a useful way to proceed in public management research. In practice, however, a practical problem appears: judges are paid to write legal opinions, and managers are not. Thus, we are deprived of a crucial datum in developing knowledge of public management. But the problem suggests a solution as well. If in doing cases we asked managers to give relatively complete accounts of their calculations, and if we added to that knowledge of what

happened and our own account of a slightly different way of analyzing the problem, then this might substitute for "judicial opinions" in the legal area, and "managerial review articles" would become possible. At that stage, managerial knowledge, like legal knowledge, would consist of: 1) knowing how to think like a manager; 2) knowing a variety of "managerial opinions" in specific fact situations; and 3) having in mind a more or less coherent body of thought and concepts about "good managerial practice" based on reviews of "managerial opinions" in diverse but related fact situations. It is towards something like this that I think we should be headed.