# Comment

# Reinventing the Research University for Public Service

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If the research university were reinvented for public service, what would it be? This article addresses several such questions and some of the intellectual and institutional issues they raise at a time when communities and universities are being challenged to develop capacity for the future. It draws upon research and practice for analysis of the elements in the reinventing process, such as reconceptualizing research, integrating service into the curriculum, modifying the reward structure, changing the academic culture, and providing the leadership. It identifies obstacles to the process and ways to overcome them in higher education.

If the research university were reinvented for public service, what would it be? This question is increasing in importance nationwide. Social, economic, and political changes are challenging communities—and their universities—to develop their capacity for the years ahead. The federal government was once viewed as a major agent of problem solving; now the community is viewed as a unit of solution, and yet communities vary in their readiness for this role.

America's research universities—such as Stanford, Michigan, Johns Hopkins, and the Massachusetts Institute of Technology—have some of the greatest intellectual resources in the world, but they are not readily accessible to the community. Most of them have a mandate to develop knowledge for the welfare of society, but their top administrators are uneven in their commitment to this purpose, and the few faculty members who take up the torch are not taken very seriously by other faculty members. And although their communities need knowledge, only some community groups ap-

proach the university for assistance, and those that do find it difficult to get what they need.

The university's public service—defined here as work that develops knowledge for the welfare of society—is a resource with potential for problem solving, but there is need to discuss even the most basic questions about the subject. What is meant by service? Who should be served? Which methods should be used to serve them? How can knowledge be made more accessible? Should the university have a comprehensive strategy for service and, if so, what should it be?

This article addresses several such questions and some of the issues they raise. It assumes that the community is a unit of solution in society, that the university has resources to contribute to the community, and that community-university collaboration benefits both parties. None of these assumptions is under serious discussion at the nation's research universities, and yet the future of these institutions will depend in part on their service.

#### COMMUNITY NEEDS AND UNIVERSITY RESOURCES

Changes in society are challenging communities to develop their capacity for the years ahead. Economic recession, changes in population and industry, and reductions in federal and state expenditures have altered

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conditions for many communities and challenged them to solve problems and plan programs of their own at the local level, but communities vary in their resources. Some communities have enough wealth and power to afford professional experience and technical expertise. However, other communities have lost the investment of private institutions and public agencies, resulting in reduced levels of services, a downgrading cycle of deteriorating infrastructure, and the withdrawal of resources at a time when their needs are increasing. Low-income communities that face worsening conditions have the least access to the resources required.

Research universities are strategically situated for public service. They are civic institutions established to develop substantive knowledge, practical skills, and social attitudes responsive to society. They have faculty with expertise in academic disciplines and professional fields that could contribute to problem solving and program planning. They are educational institutions charged with preparing students for active citizenship in a democratic society. And they exercise disproportionate influence over other educational institutions that model themselves after them, such that initiatives taken by the research universities can create changes in those educational institutions.

However, research universities do not show strong commitment to public service. Although these universities were once active in building the nation, today it is hard to find top administrators with dedication to service, and few faculty view this function as central to their role, with the result that they often appear marginal to society and become the target of critics who claim that they are not doing what they should do (Boyer 1987; Harkavy and Puckett 1994; Sykes 1988; Newman 1985; Bok 1982; Kerr 1982; Szanton 1981). "Higher education is suffering from a loss of overall direction, a nagging feeling that it is no longer at the vital center of the nation's work" (Boyer and Hechinger 1981, 3). "Most universities continue to do their least impressive work on the very subjects where society's need for greater knowledge and better education is most acute" (Bok 1990, 122).

There is opportunity and need for reinventing the research university for public service. Communities have needs, universities have resources, and collaboration has benefits for both parties. However, this item is not high on the agenda of the research university. University presidents struggle with many issues, but public service is not usually one of them.

Reinventing the research university for public service assumes that the community is an important unit of solution in society. Community—defined here as a process of people acting collectively with others who

share some common concern, whether on the basis of a place where they live, of interests or interest groups that are similar, or of relationships that have some cohesion or continuity—is not the only unit of solution but it is among the important ones. This is not to suggest that the university has an easy time in defining the community, or in involving the community in knowledge development, but rather that the very idea of serving the community assumes its importance as a unit of solution and requires some consideration of the term (Checkoway forthcoming).

Reinventing the research university also assumes that universities have resources to contribute to the community. Indeed, they have faculty with credentials in academic disciplines and professional fields—such as architecture and urban planning, social work and public health, nursing and medicine, law and business, sociology and psychology, in addition to literature, science, and the arts—with potential for problem solving. They have large libraries, research laboratories, telecommunications technology, and academic support facilities that are the envy of universities everywhere. The university is more than an educational institution; it is also a major employer, a provider and consumer of goods and services, and a powerful social and economic unit whose decisions affect the community of which it is a part.

Research universities are not the only institutions of higher education with resources to contribute. On the contrary, there are other institutions, including those that focus on teaching rather than research, which are also strategically situated for knowledge development. However, research universities have accumulated rich resources and are highly influential institutions in society.

Reinventing the research university also assumes that community-university collaboration has mutual benefits for both parties. On the campus, collaboration can provide opportunities for students to serve the community and learn from experience, and for faculty to conduct community-based research and integrate service into their teaching. In the community, collaboration can provide a source of basic and applied research, consultation and technical assistance, and durable linkages with the university. Done with excellence, collaboration can integrate service and learning in ways that address unmet community needs in accordance with the core objectives of the university. But the promise of the university is not matched by its performance.

#### REINVENTING THE RESEARCH UNIVERSITY

It is necessary to reinvent the research university for public service. The following are not the only elements in the process but are among the important ones.

#### Redefining Service as Scholarship

Because many definitions of service are used in the research university, it is useful to clarify the meaning of the term as a basis for discussion (Votruba 1992; Checkoway 1991). Public service is defined here as work that develops knowledge for the welfare of society. This meaning is consistent with *Professional Service and Faculty Rewards*, the report of the National Association of State Universities and Land-Grant Colleges by Elman and Smock (1985), which defines service as "work that draws upon one's professional expertise or academic knowledge for the welfare of society" and states:

The basic question relates to whether or not the work requires expertise in one's academic discipline; and, if so, does the work:

- 1. create new knowledge,
- 2. train others in the discipline or area of expertise,
- aggregate and interpret knowledge so as to make it understandable and useful, or
- disseminate the knowledge to the appropriate user or audience. (p. 15)

It also is consistent with Making the Case for Professional Service, the American Association for Higher Education report by Lynton (1995, 1), which defines service as "work by faculty members based on their scholarly expertise and contributing to the mission of the institution" and presents case studies of "service as scholar-ship" at several universities.

This meaning of public service contrasts with, but does not diminish, the importance of professional service through participation in professional associations, university service through membership on campus committees, or other forms with which the faculty are familiar. Some might think it efficient to combine these various approaches to service into a single evaluative category, but these are distinct approaches, each of which should have its own documentation, evaluation, and reward.

Which activities should be included as service? Elman and Smock (1985) suggest that the answers lie in response to questions such as these: Does it create new knowledge? Does it train others in the discipline or area of expertise? Does it make knowledge more understandable and useful? Does it disseminate knowledge to the user or audience? They include activities in the general categories of applied research, consultation and technical assistance, instruction, products, and clinical work and performance—but not work with campus committees or professional associations unless these draw upon one's professional expertise or academic knowledge.

Is it "service" if a chemical scientist serves as mayor and produces a book on the subject, but "research" if a political scientist does the same? What if an engineer consults for a corporate client and uses the data for a scholarly publication; if a physicist works for a public agency and submits the report for purposes of promotion; if an artist gives a performance and includes the videotape in the annual salary review; or if a social scientist struggles against discrimination in the community and brings his or her ideas into the classroom?

Does the quality of service differ if the product is a scholarly book, journal article, technical monograph, or nonjuried report? Does it matter if the work serves a large public agency or private corporation that gives money to the university, or helps a small community group in a low-income area that writes a letter of appreciation? Or if the work is paid for by a client, used in a lecture tour, or submitted for an award? New efforts are needed to differentiate among categories of service.

This definition of service would not appeal to those who believe that all civic duties should receive faculty reward, that time on campus committees or in professional associations should substitute for public service in the community, that the university is an instrument for private initiative rather than public responsibilities, or that service is not a serious form of scholarship. As Boyer and Hechinger (1981) conclude:

Colleges and universities have recently rejected service as serious scholarship, partly because its meaning is so vague and often disconnected from serious intellectual work. . . . To be considered serious scholarship, service must be tied directly to one's special field of knowledge and relate to, and flow directly from, this professional activity. (p. 4)

But this definition of service would appeal to those who believe that the university has resources and responsibilities to the community. This notion has a history that extends from Ezra Cornell and Leland Stanford to the Morrill Land-Grant Act and the Wisconsin Idea, and is evident in efforts by some universities today (Hackney 1986).

Should the university have a singular definition or standard of service that informs all approaches on campus? Or should each campus unit be expected to clarify its own meaning or standard? Many definitions for service can be provided, but is it possible to make much progress without discussion of the term?

# Formulating a Strategy

Strategy is a process of determining what you want to accomplish and how you will get there. It involves choice and sequence, staging and timing, and several steps in the process. It reflects a commitment to think ahead, anticipate alternatives, and achieve results over time—not as a one-time event but as an ongoing process

over the long haul.

A comprehensive strategy for public service would include a statement of mission or goals toward which action is directed, identification of issues that appeal to specific constituencies, analysis of factors that facilitate or limit progress, and recognition of resources available and needed for implementation. It would take procedures for the documentation, evaluation, and reward of activities and accomplishments and commitment to university-community collaboration by top leaders and key actors in the institution.

Most research universities do not have a comprehensive strategy for public service (Crosson 1985, 1983). They may strategize for recruiting faculty, building a library, or filling the football stadium, but do not usually think or act strategically for service. Some of them give an appearance of strategy, but even they are uneven in levels of commitment and investment of resources.

For example, Michigan State University has formulated an impressive institutional strategy for this purpose. With a \$10 million grant from the W. K. Kellogg Foundation, campuswide committee members reviewed the literature, interviewed colleagues, conducted roundtables statewide, and studied peer institutions across the nation. Their report, University Outreach at Michigan State University: Extending Knowledge to Serve Society, redefines service as a form of scholarship with potential to integrate research and teaching across academic disciplines and professional fields, and recommends ways to recognize and reward this type of work (Michigan State University, Provost's Committee on University Outreach 1993). Under the leadership of a vice provost for university outreach, university officials emphasize the intellectual foundation of the service movement and work for institutional change (Votruba forthcoming). However, they also find discrepancies in commitment among academic units, several sources of resistance to institutional change, and unanswered questions about long-term sustainability following the foundation grant.

Nor do most communities have a strategy for making the resources of the university more accessible to them. Some groups, especially ones with concentrated economic or political interests, occasionally strategize to influence the content and process of knowledge development—such as when a medical society seeks to strengthen the teaching of a particular specialty or when an industrial corporation offers a contract for research on a new product. Other community groups, especially ones with fewer resources, rarely strategize around the university, and when they do—such as when they protest the location of a noxious facility or seek assistance from an academic unit on a practical project—their influence is limited.

What explains the absence of strategy? One view assumes that the university has a mandate for service and attributes the absence of service to the lack of resources needed for a serious effort; if there were more resources, a service strategy would develop. Another view contends that the mandate is not real, that its function is symbolic and secondary to other objectives, and that its absence is the direct result of the higher priorities of the university, which do not include service. Fundamental changes in the purpose and structure of the university would be required.

Should the university have a comprehensive strategy for service and, if so, what should it be? Some would warn against formulating strategy in an institution that decentralizes its functions and presumes to serve the general community. While the university ponders these issues, however, an implicit strategy develops, and some groups have disproportionate influence.

#### Reconceptualizing Research

Knowledge is a resource that is unevenly distributed in society. Some communities have a great deal of technical expertise, while others have popular knowledge derived from everyday experience that is not recognized by those who set standards of validity for the "knowledge society."

Universities are strategically situated for knowledge development but frequently are narrow in their approach. The prevailing paradigm places emphasis on the quest for new knowledge in accordance with positivist scientific principles. Researchers are "detached" workers who define problems in "dispassionate" ways on conceptual or methodological grounds and gather data on "human subjects" through "value free" methods that assure reliability of the findings. They share their results with professional peers through presentations at scientific meetings and publications in scholarly journals whose editors have the same orientation. They receive rewards based on evaluation of research and publication in accordance with scholarly standards of the academy.

Reconceptualizing research would broaden the prevailing paradigm to include other ways of knowing and "the welfare of society" as elements in knowledge development. Boyer (1994, A48) describes this as going beyond "the scholarship of discovery" to the scholarships of "integration," "application," and "teaching." In the new paradigm, researchers would involve the community in the process, from problem definition to data collection to discussion of the action steps. They would regard community members as research partners and active participants in knowledge development rather than as human subjects and passive recipients of information. They would share results with professional

peers and also disseminate knowledge to audiences with potential for its use. They would receive rewards based on an assessment of its scholarly significance and also for its impacts on society.

Reconceptualizing research as service is an epistemological and methodological issue that involves seemingly unconventional ways of defining problems, gathering data, and using results (Wolfe 1989; Lindblom and Cohen 1979). To the extent that research is a major function of the research university that can be reconceptualized in this way, the challenges are more complex than those commonly associated with the usual service category in the faculty member's annual performance review.

For example, the president of the University of Illinois responded to a state legislator's challenge to demonstrate his university's commitment to the poor by recruiting faculty and reallocating funds for research in distressed neighborhoods of East St. Louis. Since then, faculty and students have collaborated with community members in participatory action research and community service-learning activities. They have prepared comprehensive community plans, implemented complex neighborhood projects, and prepared articles for professional journals (Reardon 1995).

However, they also have found challenges on the campus and in the community. First, local leaders are wary of partnerships in which they are not full partners and challenge faculty to devise research and teaching methods that are responsive to neighborhood needs but unorthodox in the university. Second, faculty are uncertain of the university's level of commitment and investment of resources over the long haul. They have conducted research responsive to community needs, published their work, and incorporated service into established courses. They also find few institutional rewards and wonder about the weight of this work in promotion and tenure.

Broadening the criteria for the evaluation of excellence in scholarship is a formidable task in institutions whose members are deeply invested in the status quo. Schön (1995, 27) warns that reconceptualizing research requires "a new epistemology, a kind of action research with nouns of its own, which will conflict with the norms of technical nationality—the prevailing epistemology built into the research university." Kuhn (1979) describes "scientific revolutions" resulting from "paradigm shifts" in which an older paradigm is replaced by a new one. But if the shifts attributable to Copernicus and Lavoisier can occur in the world's scientific community, can't they also occur at Stanford and Columbia?

Making Knowledge More Accessible

A university's knowledge must be accessible. For many communities, however, the university has become, like Kafka's castle, "vast remote, inaccessible." Most community groups do not perceive the university as central to society or university knowledge as readily accessible. They have a problem to solve but are unaware of the university's resources and unsure of how to approach the institution; or, they find a faculty or staff member with expertise, but the technical jargon makes little sense to them. Some of the groups that might benefit most from the university's knowledge have the least access to it, and the institution does relatively little to reach out to them, except to "expropriate" their knowledge and treat them as human subjects in research projects.

This is largely the fault of the universities. Some universities view public understanding as central to their mission, place emphasis on the dissemination of usable knowledge, and communicate with persons outside the institution to encourage them to consider using the lessons learned. However, most universities show little support for this function. At the departmental level, they reward professors for their publications in scholarly journals but not for their efforts to translate knowledge into action. At the institutional level, they publicize research results through a one-way stream of news releases to the media; however, the measure of effectiveness is not that the knowledge be used but that information be provided for positive public relations.

Faculty are uneven in their accessibility. Some faculty view themselves as active participants in society, their research and teaching as forms of participation, and their knowledge as something significant to share with the community. Others view themselves primarily as researchers and teachers, their audience as a small number of students and professional peers, and their rewards as resulting from student evaluations of teaching or peer reviews of research by a small circle of intellectuals. They do not view nonprofessional dissemination or community education as central to their work.

Making knowledge more accessible requires recognition that both the individual and the institution have responsibility for knowledge utilization and that formal structures are necessary for the process. These include contact and entry points for potential users and information and referral procedures to route users to the resources they need; interdisciplinary arrangements that increase interaction among knowledge producers from diverse disciplines in order to focus on issues transcending the expertise of each one; brokering mechanisms that handle administrative arrangements and contractual details between partners; bridging mechanisms that mediate between collaborators on campus and the community; and public understanding programs for dissemination by communicators who reach diverse audiences, translators who translate jargon into language that people can understand, and animators who transform knowledge into action (Walshok 1995; Lynton and Elman 1987).

Yet even when universities try to make knowledge more accessible, there still is no assurance that it will be used. There is nothing a priori that makes university-based knowledge usable in a society whose other knowledge producers, such as private corporations and electronic media, are often closer to people than those in academia, and in which formal knowledge is only one factor in decision making by communities whose lag time between knowledge advance and practical application is lengthy (Eurich 1985; Glaser et al. 1983).

# Mobilizing Internally for External Outreach

Service as scholarship is not a one-time event but an ongoing process that requires an appropriate institutional structure. However, the present structure of the university is best understood as a loosely coupled federation of decentralized units dominated by academic disciplines and professional fields. Each unit is relatively autonomous in its personnel decisions, research emphases, performance standards, and curricular requirements. Each one strives for excellence measured by its comparative standing in a national ranking by reputation among its disciplinary communities and professional peer groups, which often become the faculty member's primary source of identification rather than the campus or community (Alpert 1985). The conclusion is that "communities have problems, universities have departments" (Center for Educational Research and Innovation 1982; see also Kates 1989).

For most universities, service as scholarship would require restructuring in one of four ways. First, centralize this function into an administrative structure at the presidential, vice presidential, or other institutional level. This approach underscores the campuswide significance of this function but also runs the risk of overdependence on the center, rejection by the faculty because of administrative involvement, and co-optation by the administration rather than increased involvement on campus and in the community.

Second, decentralize this function to academic units across the university. This approach recognizes the decentralization of the university and the potential contribution of all units. This approach is reminiscent of the extension service, which continues to reach out to local communities at many land-grant institutions despite its demise in others. It also creates a division of labor between "researchers" and "extenders" of knowledge that reduces the responsibility of the former and marginalizes the latter.

Third, incorporate service into the existing infrastructure through units that increase interaction across the university. These units involve individuals from diverse disciplines and help them focus on problems transcending the know-how of any one of them. Examples include the Institute for Urban and Regional Studies at the University of California and the Joint Center for Urban Studies at Harvard University and Massachusetts Institute of Technology, although the effort to establish urban affairs is only one episode in this history (Feld 1986; Klotsche 1986; Hambrick and Swanson 1980).

Fourth, build upon the existing institutional structure and present activities of the faculty without creating new bureaucratic structures or decentralizing the function to subunits with uneven levels of commitment. It might begin with a request for proposals that invites faculty to propose projects that draw upon their expertise, supports proposals that develop knowledge and meet community needs, and rewards performance in accordance with the standards of the academy.

No single structure fits all universities; the key is to fit structure to situation. However, the present structure is based on decentralization to local units, and most efforts to mobilize internally run contrary to the normal way of doing things in academia.

Even when a fitting internal institutional structure is found, its impact will depend on its relationships with the community. In contrast to the notion of outreach as a form of public relations, which provides a one-way flow of information and builds support for university programs, the "new outreach" would develop durable linkages, reciprocal relationships, and lasting partnerships for mutually beneficial knowledge development (Michigan State University, Provost's Committee for University Outreach 1993). The new outreach model would reflect a commitment to collaboration among colearners on campus and in the community—which also runs contrary to the normal way of doing things in academia.

#### Involving the Faculty

Faculty are strategically situated for strengthening service. They have key roles in the decentralized university, responsibilities for fulfilling its core objectives, and relationships with those that influence implementation.

Some faculty develop knowledge for the welfare of society. They conduct basic and applied research, teach and train others in the discipline or areas of expertise, and aggregate and interpret knowledge to potential users. They also publish papers that earn professional praise, teach courses that receive positive student evaluations, and earn promotion and tenure for their efforts.

However, many faculty do not. They are trained in graduate schools whose required research courses ignore content on dissemination and utilization, and they enter academic careers whose gatekeepers dissuade them from spending much time in the community. They conduct research on problems defined largely by their departments and disciplines, teach courses involving

students in the library or laboratory, and perceive that service has low regard and few rewards in the academy.

What explains the differences? Some analysts attribute differences to the characteristics of the faculty, praising or blaming them for their own beliefs and behaviors. Others attribute differences to the institutional structures and reward systems that facilitate or limit faculty members' individual performance, including deans and department heads who do not define service as scholarship or associate excellence in research with involvement in the community. It is unfortunate that institutions dissuade faculty from their original purpose or cause them to blame themselves for situations that are not of their own making, but this "false consciousness" is a powerful force.

Involving the faculty demands a systematic strategy to sensitize them to the intellectual integrity and educational benefit of the service orientation and to reward them for their activities and accomplishments. Part of this involves a serious cultural campaign, increasing faculty support in the department or discipline, and providing promotion and other rewards in the institution. More than they admit, faculty care about these rewards, a phenomenon that can contribute to change but by itself is not usually sufficient.

Faculty are not nincompoops. Like other people, they want to do a good job, get paid for the work they do, and receive recognition for their efforts. They tend to respond to the rewards they receive, and when these become significant enough to favor research and teaching for the welfare of society, they too will likely respond.

Involving the faculty takes changes in socialization from their first days of graduate training to their professional careers. It takes recognition that not all faculty members are the same and that pretenure faculty are different than posttenure faculty. It takes appreciation that academic disciplines and professional fields are different in their levels of commitment, norms of collaboration, and outputs of work.

Broadening the social role of knowledge producers will be difficult in institutions whose members have been conditioned to narrow specialization and dissuaded from service throughout their careers (which includes their graduate training). It has been years since Znaniecki (1940) described the social roles of knowledge producers, but his lessons remain largely unlearned.

Modifying the Reward Structure

Faculty should be rewarded for the work that they do. Elman and Smock (1985) state:

Work which draws upon and is the outgrowth of one's academic discipline and professional expertise is legitimately a part of the academic enterprise. When academicians engage in this work, they should be rewarded. To

do otherwise is dysfunctional for the individual and for higher education. Whether specific activities are categorized as research, teaching, or some other label (i.e., service) is irrelevant. If it is appropriate and important for physicians in the medical school or clinicians in social work to conduct clinical work, they should be rewarded. If it is important for faculty in the drama school to produce and act in plays, they should also be rewarded. In short, the performance of work, often categorized as service, should not put the faculty member at risk. (p. 15)

However, the present reward structure at most research universities places emphasis on research and teaching, defines service as distinct from research and teaching, and recognizes faculty primarily for the creation of new knowledge. It is ironic that universities base their reward structure upon the creation of new knowledge, for relatively few individuals create knowledge that is truly new at even the most prestigious institutions. And when faculty devote their lives to the performance of this function for a small circle of peers, they are likely to increase their own social isolation and produce work that lacks relevance, which further distances the university from society (Rowan 1991).

The University of North Carolina School of Public Health, one of the nation's finest, has devised a promotion and tenure process that redefines service as scholarship. In contrast to the usual tripartite of research, teaching, and service—in which research and teaching are not integrated and service is secondary to the others-North Carolina faculty are expected to demonstrate competence in some combination of "research," which includes the generation of new knowledge for publication in scholarly journals; "practice," which applies knowledge to advance the state of the art in organizations and communities with dissemination through publications of diverse types; and "teaching," which prepares people for practice in traditional classroom and nontraditional settings. They also are expected to "serve" the profession and the university, but such service is secondary to the emphasis on the development and dissemination of practice knowledge (University of North Carolina, School of Public Health 1994).

Modifying the reward structure of the university would require reintegration of research, teaching, and service. It would recognize that the creation of new knowledge and publication in scholarly journals is only one way of knowing; another would be the integration and utilization of knowledge through training, consultation, and technical assistance. It would broaden the criteria for the evaluation of excellence in knowledge development—an effort that would encounter resistance from those who are invested in the status quo (Schön 1995; Lynton et al. 1985; Florestano and Hambrick 1984).

The reward structure needs modification, but the insufficiency of the present structure should neither

justify individual inaction nor keep faculty from quality service in the interim. Faculty do many things for which there are few rewards, and there are substantial rewards for work that sometimes seems outside the formal structure. The reward structure is an important instrument but it is not enough to alter behavior, and some individuals serve without its support.

"What was the quantity and quality of your research in terms of its service?" "To whom did you provide service and in what form?" "How did service inform your academic work?" "How did you draw upon your academic discipline or professional expertise for the welfare of society, and with what effects for knowledge development and community change?" If the deans or department chairs asked faculty to answer these questions in this year's performance review, it might raise consciousness for needed change, for these are the administrators who can directly influence the faculty.

### Integrating Service Learning into the Curriculum

Communities require citizens who have ethical standards, social responsibility, and civic competence, but universities are not a strong source of training for these qualities. Whereas higher education was once concerned with strengthening social values, today's university has abandoned its earlier emphasis and adopted a more secular attitude. Critics charge that undergraduate education does not develop a sense of social responsibility and that professional schools do not prepare people to address ethical issues in the workplace (Barber 1992).

Community service learning, a pedagogy in which students serve the community and learn from the experience, is one way to reintegrate social values into the curriculum (Checkoway 1996; Barber and Battistoni 1993a, 1993b; Coles 1993; Boyte 1991; Rutter and Newman 1989). Studies show that when students serve the community (as when they rehabilitate houses for the homeless, serve meals in soup kitchens, or clean up the environment) and reflect critically upon the experience through structured learning activities (such as individual consultations, journal writing, or in-service seminars), they learn a great deal as a result (Galura et al. 1995; Howard 1993).

Indeed, studies show that service learning develops substantive knowledge with concurrent gains in academic achievement, provides practical skills in problem solving through experiential education, and strengthens social responsibility and civic values in a diverse society (Checkoway 1996; Boss 1994; Conrad and Hedin 1991; Rutter and Newman 1989; Checkoway and Cahill 1981). It is a powerful pedagogy and way of knowing consistent with the "learning by doing" philosophy of Dewey (1916), through which some students learn more than they would from conventional classroom instruc-

tion (see also Benson and Harkavy 1995; Giles and Eyler 1994a, 1994b; Westbrook 1991).

Service learning has strong support from educational leaders. For example, Bok (1982) decries the decline in moral education and advocates community service as a way of restoring social values:

Of all collaborative activities, community service programs such as tutoring underprivileged children or working in shelters for the homeless, are the most valuable, since they offer students such a vivid opportunity not only to perceive the needs of others but to act affirmatively to help people less fortunate than themselves. To foster these activities, universities should encourage them publicly, give seed money to help them get started, and provide adequate counseling and supervision. Professional schools could even offer further incentives by giving positive weight to applications from students who have devoted substantial time and effort to endeavors of this kind. (p. 88)

Service learning also helps higher education fulfill its responsibilities to society—by making knowledge more accessible, improving communications with constituencies, and building support for university-community collaboration. At a time when universities are challenged to demonstrate their accountability, service learning contributes to meeting the challenges of a changing society.

Recent years have witnessed an upsurge in service learning at research universities. More students combine service and learning in more communities than ever before, and increasing numbers of faculty conduct community-based research and incorporate service into their teaching. Some universities have established serious service learning programs, a few of which have outstanding reputations, such as the Swearer Center for Public Service at Brown University and the Haas Center for Public Service at Stanford University (Stanton 1990).

In an experiment in a large undergraduate course, University of Michigan researchers found that students in service learning sections were significantly more likely than those in traditional discussion sections to report that they had performed up to their potential, learned to apply principles from the course to new situations, and developed a greater awareness of societal problems. Classroom learning and course grades increased significantly, and postsurvey data showed significant effects on personal values (Markus et al. 1993).

Service learning is especially appropriate for universities that focus on knowledge development, but tends to have less support than research or traditional teaching. Students learn a great deal from service learning, but only a fraction of them combine service and learning through a structural mechanism or service learning process. Some faculty conduct community-based research and incorporate service into their teaching, but most of

them operate in isolation and lack resources for initiatives. Bok (1982) concludes:

In recent years university administrators have begun to do more to foster community service. Yet community service still does not receive the backing it deserves from the colleges and universities. Only a minority of campuses have sponsored programs of this kind, and only a small fraction of the student body is typically involved. Moreover, the institutions that do have programs rarely give them much support. It is sad but true that community service activities almost never receive as much experienced help and supervision as colleges offer even their most inconsequential athletic teams. (p. 88)

#### Recognizing Consultation and Technical Assistance

Consultation and technical assistance by faculty are common ways in which universities provide expertise to communities, as when they are asked to analyze some data, solve a problem, or evaluate a program. When a faculty member draws upon expertise in this way, it is another form of knowledge development and an appropriate professional role that should be recognized and rewarded by the institution (Walshok 1995; Lynton and Elman 1987).

This type of work has benefits for both the individual and the institution. It provides faculty with new life experiences outside their professional circles that can stimulate research and improve teaching. It enables them to interact with people often very different from themselves, relate theory and practice in a real-world situation, and get new ideas for research and materials for teaching, in which they excel partly because of this consulting experience (Patton and Marver 1979; Marver and Patton 1976).

However, universities are slow to facilitate this function. They usually do not have institutional infrastructure or logistical support to help faculty make arrangements with clients or maintain written records of activities. They do not have procedures for documentation and evaluation, or the recognition and reward thereof, even though there are highly developed procedures for research and teaching.

Universities also usually do not share in the financial remuneration from consultation and technical assistance, even when the work draws directly from an individual's academic or institutional affiliation. And yet if this affiliation is a part of what makes an individual valuable to a client, then shouldn't the institution have some degree of responsibility, recognition, and remuneration for the relationship?

Many universities have procedures that limit the amount of consulting and expect faculty to report their activities, but these are not evenly enforced in the institution. Instead, most faculty consultation is beyond reach of the university unless the individual treats the

work as a contract or grant to the institution rather than as an external relationship with a client—an arrangement whose direct or indirect costs seem foolish in the prevailing environment of institutional retrenchment and low salary increases for employees.

Does the work involve innovative methods, or is it relatively routine? Does it lead to new ideas for knowledge development or materials for teaching? Does it communicate effectively with the client or produce measurable effects in the community? Does it advance the professional development of the individual and educational mission of the institution? These are only some of the questions that would arise with institutional involvement in consultation and technical assistance, and they have few clear answers in academia.

When faculty take consultation and technical assistance outside the university, however, individual and institutional trade-offs result. Imagine a scenario in which faculty operate a consulting firm down the street from the university. They intensify their own interdisciplinary interaction and collegial collaboration, assist clients in problem solving and program planning, generate data for research and publication, work closely with student assistants whose learning is multiplied by real-world involvement, bring case materials into the classroom for the benefit of students, and multiply their income by more than they could expect in the university. And yet they receive no institutional recognition, and the university receives no remuneration, for this work.

The challenge is for universities to encourage faculty to provide consultation and technical assistance that draws upon their expertise, complements their research and teaching on the campus, and receives recognition and reward as part of the professional role. Medical school "practice plans" that facilitate professional practice and remunerate for services provided are a step in this direction, but have few counterparts elsewhere on campus.

# Involving the Community

Public service develops knowledge for the welfare of society, but who belongs to society, and how should they participate? The premise is that people should participate in knowledge development decisions that affect them, and that institutions have a responsibility to involve them in the process.

Who is the community? Most universities are silent on the issue, or take the general population as their community, or remain aloof from the idea of serving particular groups. However, universities that try to serve everyone may serve no one, replicate existing inequities in the social structure, and open themselves to domination by those already advantaged by economic or political resources. The issue is not that universities are captured by special interests but rather that

they respond to the most powerful inputs they receive, and these come from these interests.

How should the community participate? Again, most universities are silent on the matter, or view the community in the role of clients or customers, or involve key stakeholders as representatives on boards and committees. These stakeholders are not usually representative of the general population, and their involvement is often more token than real. It is no surprise that university officials tend to select "safe" methods of participation that provide public information and build constituency support for programs without transfer of power to the community.

Research universities almost never limit themselves to the local community; instead, they view themselves as cosmopolitan institutions whose prestige grows with the distance of its research boundaries. There are exceptions to this phenomenon—as when University of Chicago sociologists produced their studies of social structure in Chicago neighborhoods, and Yale University political scientists produced studies of political power in New Haven. It is ironic that work is deemed more significant because of its locus in Tokyo rather than in Toledo, but this is the situation at most universities today.

In contrast, the University of Pennsylvania has established the Center for Community Partnerships for coordination of research, teaching, and service in neighboring West Philadelphia. Recognizing that community participation can contribute to knowledge development and that the university can contribute to improving the quality of life, the center coordinates the direct service of students and faculty, academically based service related to research and teaching, and institutional partnerships for university-community collaboration. Center staff have formed partnerships to establish university-assisted community schools, operate job-training programs for at-risk youth, and enhance economic development through business efforts to revitalize the neighborhood. They have had strong support from central administration, increased involvement of students and faculty, and significant external funding for their work. This is evidence of what can happen when a research university tries to relate research and teaching to the local community, but this is exceptional rather than typical in the field (Benson and Harkavy 1995).

Overall, universities that ignore their local community run the risk of occasional opposition—as when landlords neglect the housing near the campus landmark, or when residents protest the use of hazardous materials in the laboratory, or when legislators cut the university's budget when the institution rejects students from their districts. University presidents who have unlimited transportation and telecommunications

technology make a serious mistake if they ignore that their destiny is also intertwined with residents who are lacking in resources and are local in their orientation (Patton 1995).

#### Changing the Culture

Basic to making knowledge more accessible is a belief that it is desirable and possible to do so. But this belief runs contrary to the dominant culture of the university. Although some university administrators discuss service as central to their institutional mission, deans and department heads worry that service will detract from research and teaching, and faculty believe that there are few rewards for this function. They may even become conditioned to regard service as a waste of time, a distraction from work, or a threat to their careers. Studies show that those who engage in significant service score higher in the number of funded research projects, in the number of professional peer-reviewed publications, and in student evaluations of their teaching than those who do not, despite widely held beliefs to the contrary. These facts continue to elude key actors in the institution. When individuals hold beliefs that run contrary to the facts, a cultural problem exists.

Other faculty may support service in principle but not feel very strongly about it in practice, or they may have commitment to service but lack resources to translate knowledge into action. These faculty are the "silent majority" who sometimes feel frustrated and withdraw from participation, but also are candidates for cultural change. This does not happen very often, but when it does, it can be revolutionary.

A small number of faculty are extreme in their beliefs. They are "true believers" who view research and teaching as inseparable from service and who campaign continuously on the issue. Or they are "freedom fighters" who view service as a threat to scientific neutrality or academic freedom, and something to be resisted with fervor. Both types of extremists are few in number but sometimes can have influence.

How do you alter the consciousness of faculty and the culture of the institution when faculty perceive that service is diversion from work, and their deans and department heads perceive that excellence in service is inconsistent with excellence in research and teaching?

As a way of changing the culture, Michigan State University has sought to increase the incentives as well as rewards at the individual and institutional levels for service as scholarship. Specifically, university officials offer funding for faculty on a peer-reviewed, competitive basis, and for academic units proposing projects that strengthen service as scholarship. These incentives have motivated new ways of thinking about service, which has become a component in the annual planning and budgetary process of the university.

Changing the culture of the university is an enormous undertaking fraught with obstacles. It is possible to imagine a cultural campaign with consciousness raising and support building among university presidents and executive officers, deans and department heads, and intellectual leaders and change agents among the faculty. Such a strategy would evoke resistance, but this is normal in the process of change.

# Providing the Leadership

Leaders show special commitment to goals and facilitate their achievement. They are found by their formal or informal positions, reputation for getting things done, participation in activities, and influence in important decisions. Leadership for the university's public service is a shared responsibility (Bergquist 1992). For example, the university president has a formal position that provides both a platform on which to campaign and an appearance of greater power than is actually available in a decentralized institution. Alpert (1985) argues that universities operate on a "great man" theory of administration in which faculty unrealistically expect the president to take primary responsibility for leading the institution:

Most of the university presidents in office today are able, perceptive, and articulate. They assume responsibility for a broad variety of tasks, they work painfully long hours, and they are concerned for the university and the integrity of its relationship to society. But the president's capacity for providing coordination among academic units and for revitalizing the institutional mission is, to say the least, limited. (p. 251)

Vice presidents and other administrative officers formulate policies and provide funding support but depend on deans and department heads for implementation. These local officials have relative autonomy in making decisions about personnel appointments, performance standards, and curricular requirements and are key figures in having some institutional influence over the faculty. However, they are often more absorbed in boosting their academic units in a time of retrenchment than in taking initiative in areas that fall between institutional lines. Most of these operational officers praise the benefits of interdisciplinary work in theory but rarely take leadership in practice.

Intellectual leaders among the faculty have influence that can enhance the status of and strengthen support for institutional initiatives. But the source of their influence derives from their performance in their academic disciplines or other external systems whose involvement leaves them without much time for local leadership. Other faculty "change agents" include exceptional individuals whose commitments can occasionally overcome the obstacles to this function, but they are not numerous in academia.

Students have more potential than they realize for leadership in strengthening service in the university. They can serve as volunteers in the community and as organizational representatives to pressure university administrators to respond to local needs. They can individually contact their professors and express interest in service learning. They can unite as a group, take formal positions, and advocate for curricular change. History shows that when students communicate their objectives in forceful terms and hold faculty and administrators accountable, a difference can be made.

Shared responsibility is a popular notion that is not necessarily sufficient for successful implementation. If the notion of shared responsibility is used to divert attention from those who formally are responsible, then nothing much is likely to happen.

#### **OBSTACLES AND OPPORTUNITIES**

There are obstacles to reinventing the university for community service. Some obstacles are individual in nature. It is difficult to strengthen service when the president does not convey commitment or have authority to coordinate a successful initiative, or when deans and department heads do not define service as scholarship or devise adequate procedures for its evaluation, or when faculty do not perceive that service is compatible with research and teaching or will result in rewards. It is ironic that individuals in an institution hold views that are incompatible with its central objectives, but this is widespread in academia.

However, it is a mistake to blame these individuals alone for this situation. They are socialized into a culture—beginning with their first days in graduate school and continuing into their academic careers—whose institutional structures shape their beliefs and cause behaviors that are consistent with their conditioning. It is almost as if reinventing the research university for public service were a violation of a cultural canon that has been unquestioned for years. And yet if people are not responsible for themselves, then who is?

Other obstacles are institutional in nature. It is difficult to expect much from the president when he or she is limited by the organizational context, or from the deans and department heads when they are absorbed in boosting their own academic units rather than increasing interaction, or from faculty when they are socialized into a culture that dissuades them from practicing this function. Most universities lack strategies and structures for strengthening service as a form of knowledge development. They may increase public information about their service accomplishments, but the aim is to provide public relations and build constituency support without structural changes in the institution.

Still other obstacles originate in the political-economic arena of which the university is a part. Simply stated,

universities hear from private corporations, professional associations, business groups, and computer companies—all of which have concentrated economic interests and organizational resources to influence the institution. They almost never hear from low-income communities that could benefit a great deal from their resources. This is not to suggest that these communities cannot influence the university; there are cases in which they have participated actively in public proceedings and reacted strongly to institutional initiatives. If community groups organized around the university more effectively, or if the institution reached out in ways that increased external expectations, then change could result, although this is largely untested nationwide.

Despite the obstacles, there are faculty who serve regardless of the reward system, universities that pursue service with fervor, and community groups that mobilize to influence higher education. They are not typical; they exist as examples and offer lessons from which others can learn. If only a fraction of their colleagues and counterparts followed their lead, it might produce lasting change on campus and in the community.

#### CONCLUSION

New initiatives are needed to reinvent the research university for public service. These initiatives will require efforts to redefine service as scholarship and make knowledge more accessible to the community. They will involve mobilizing internally for external outreach, changing the institutional culture, and involving the community in the process. They will encounter resistance, but this is a normal part of the process of change.

The premises of these initiatives will be subject to scrutiny. First, the community is an important unit of solution in society, but communities vary in their levels of readiness, and even the healthiest ones are limited in their influence in the larger society. Local communities should not be expected to solve problems whose causes are beyond their reach.

Second, the university has resources that could contribute to the community, but the university is only one of several knowledge-producing institutions in a society whose market for information is highly competitive. While federal government dollars decline for research, corporate support of research has shown steady growth. The university is an important institution that is limited in its capacity and should not promise more than it can actually deliver.

Third, university-community collaboration can have mutual benefits for both parties, but lasting relationships require a measure of parity that is rare. Many key changes in the university have originated outside its walls in communities that have organized to influence the institution. There is a need for communities to make demands on universities and hold them accountable and for universities to reach out to the community.

Historically, the most important contributions of the university have been the creation of new knowledge and the education of students. But new models are emerging in which research universities develop knowledge and provide education in ways that also serve the community. The new vision is one in which excellence in research and teaching is inseparable from service, in accordance with the highest standards of the university. It is ironic that the university has not emphasized discussion of public service in recent years, for this was an original mandate of most universities, and the future of the institution may depend in part on its reinvention for this purpose.

Among those who commented on earlier versions of this article were Louis Albert, Paula Allen-Meares, James Duderstadt, Ira Harkavy, Ernest Lynton, Marvin Parnes, Carl Patton, James Votruba, and Gilbert Whitaker, Jr.

#### REFERENCES

Alpert, Daniel. 1985. Performance and paralysis: The organizational context of the American research university. *Journal of Higher Education* 56, 3: 241-81.

Barber, Benjamin J. 1992. An aristocracy of everyone: The politics of education and the future of democracy. New York: Ballantine.

Barber, Benjamin J., and Richard Battistoni, eds. 1993a. Education for democracy. Dubuque, IA: Kendall/Hunt.

——. 1993b. A season of service: Introducing service-learning into the liberal arts curriculum. PS: Political Science and Politics 26, 2: 235-40.

Benson, Lee, and Ira Harkavy. 1995. School and community in the global society: A neo-Deweyan theory of community problem-solving schools and cosmopolitan neighborly communities: Actively, progressively, connecting school and community in the global economic and communication systems of the 21st century. Philadelphia: Center for Community Partnerships, University of Pennsylvania.

Bergquist, William H. 1992. Cultures of the academy: Insights and strategies for improving leadership in collegiate organization. San Francisco: Jossey-Bass.

Bok, Derek C. 1990. Universities and the future of America. Durham, NC: Duke University Press.

------. 1982. Beyond the ivory tower: Social responsibilities of the modern university. Cambridge, MA: Harvard University Press.

Boss, Judith. 1994. The effect of community service work on the moral development of college ethics students. *Journal of Moral Education* 32, 2: 183-98.

Boyer, Ernest L. 1994. Creating the new American college. Chronicle of Higher Education (March 9): A48.

——. 1987. Scholarship reconsidered: Priorities of the professoriate. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.

Boyer, Ernest L., and Fred M. Hechinger. 1981. *Higher learning in the nation's service*. Washington, DC: Carnegie Foundation for the Advancement of Teaching.

Boyte, Harry C. 1991. Community service and civic education. *Phi Delta Kappan* 72, 10: 765-67.

Center for Educational Research and Innovation. 1982. The university and the community: The problems of changing relationships. Paris: Organization for Economic Cooperation and Development.

Checkoway, Barry. Forthcoming. Core concepts of community change. Journal of Community Practice.

- ——. 1996. Combining service and learning on campus and in the community. Phi Delta Kappan 77, 9: 600-06.
- ——. 1991. Unanswered questions about public service in the public research university. Journal of Planning Literature 5, 3: 219-25.
- Checkoway, Barry, and William Cahill. 1981. Student workshops and neighborhood revitalization. *Journal of Alternative Higher Education* 6, 2: 96-110.
- Coles, Robert. 1993. The call of service. New York: Houghton Mifflin.
- Conrad, Dan, and Diane H. Hedin. 1991. School-based community service: What we know from research and theory. Phi Delta Kappan 72, 10: 743-49.
- Crosson, Patricia H. 1985. Strengthening the public service mission. Thought and Action 1: 109-22.
- ——. 1983. Public service in higher education: Practices and priorities. Washington, DC: Association for the Study of Higher Education.
- Dewey, John. 1916. Democracy and education. New York: Macmillan.
- Elman, Sandra E., and Sue Marx Smock. 1985. Professional service and faculty rewards: Toward an integrated structure. Washington, DC: National Association of State Universities and Land-Grant Colleges.
- Eurich, Nell P. 1985. Corporate classrooms: The learning business. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.
- Feld, Marcia Marker. 1986. The university and the city: Partners in social change. Providence: University of Rhode Island Urban Field Center.
- Florestano, Patricia S., and Ralph S. Hambrick, Jr. 1984. Rewarding faculty members for profession-related public service. *Educational Record* 65, 1: 18-21.
- Galura, Joseph, Rachel Meiland, Randy Ross, Mary Jo Callan, and Rick Smith, eds. 1995. Praxis III: Voices in dialogue. Ann Arbor, MI: OCSL Press.
- Giles, Dwight E., Jr., and Janet Eyler. 1994a. The impact of a college community service laboratory on students' personal, social, and cognitive outcomes. *Journal of Adolescence* 17, 4: 327-39.
- ——. 1994b. The theoretical roots of service learning in John Dewey: Toward a theory of service learning. Michigan Journal of Community Service Learning 1, 1: 77-85.
- Glaser, Edward M., Harold H. Abelson, and Kathalee N. Garrison. 1983. Putting knowledge to use: Facilitating the diffusion of knowledge and the implementation of planned change. San Francisco: Jossey-Bass.
- Hackney, Sheldon. 1986. The university and its community: Past and present. *Annals of the American Academy of Political and Social Science* 488: 1351-47.
- Hambrick, Ralph S., Jr., and Gerald S. Swanson. 1980. The university as a resource for applied urban research. *The Social Science Journal* 17: 35-52.
- Harkavy, Ira, and John L. Puckett. 1994. Lessons from Hull House for the contemporary urban university. *Social Service Review* 68, 3: 299-321.
- Howard, Jeffrey P., ed. 1993. Praxis I: A faculty casebook on community service-learning. Ann Arbor, MI: OCSL Press.
- Kates, Robert William. 1989. The great questions of science and society do not fit neatly into single disciplines. Chronicle of Higher Education (May 17): 82.
- Kerr, Clark. 1982. The uses of the university. Cambridge, MA: Harvard University Press.
- Klotsche, J. Martin. 1986. The urban university and the future of our cities. New York: Harper & Row.
- Kuhn, Thomas S. 1979. The structure of scientific revolutions. Chicago: University of Chicago Press.
- Lindblom, Charles E., and David K. Cohen. 1979. Usable knowledge:

- Social science and social problem solving. New Haven, CT: Yale University Press.
- Lynton, Ernest A. 1995. Making the case for professional service. Washington, DC: American Association for Higher Education.
- Lynton, Ernest A., and Sandra E. Elman. 1987. New priorities for the university: Meeting society's needs for applied knowledge and competent individuals. San Francisco: Jossey-Bass.
- Lynton, Ernest A., Sandra E. Elman, and Sue Marx Smock. 1985. Rewarding professional activity. Thought and Action 1: 101-8.
- Markus, Gregory B., Jeffrey P. Howard, and D. C. King. 1993. Integrating community service and classroom instruction: Results from an experiment. *Educational Evaluation and Policy Analysis* 15, 4: 910-19.
- Marver, James D., and Carl V. Patton. 1976. The correlates of consultation: American academics in "the real world." Higher Education 5, 2: 319-35.
- Michigan State University, Provost's Committee on University Outreach. 1993. University outreach at Michigan State University: Extending knowledge to serve society. East Lansing: Office of the Provost, Michigan State University.
- Newman, Fred. 1985. Higher education and the American resurgence.
  Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.
- Patton, Carl V. 1995. The value of a university in an urban setting. Atlanta: Office of the President, Georgia State University.
- Patton, Carl V., and James D. Marver. 1979. Paid consulting by American academics. Educational Record 60, 2: 175-84.
- Reardon, Kenneth M. 1995. Institutionalizing community service-learning at a major research university: The case of the East St. Louis action research project. Urbana: Department of Urban and Regional Planning, University of Illinois.
- Rowan, John. 1991. A dialectical paradigm for research. In *Human inquiry*, P. Reason and J. Rowan, eds. New York: John Wiley.
- Rutter, Robert A., and Fred M. Newman. 1989. The potential of community service to enhance civil responsibility. *Social Education* 53, 2: 371-74.
- Schön, Donald. 1995. Knowing-in-action: The new scholarship requires a new epistemology. Change 27, 6: 27-34.
- Stanton, Timothy K. 1990. Integrating public service with academic study: The faculty role. Providence, RI: Campus Compact.
- Sykes, Charles J. 1988. Profscam: Professors and the demise of higher education. New York: St. Martin's.
- Szanton, Peter L. 1981. Not well advised. New York: Russell Sage Foundation and Ford Foundation.
- University of North Carolina, School of Public Health. 1994. Appointments, promotion, and tenure manual. Chapel Hill: School of Public Health, University of North Carolina.
- Votruba, James. Forthcoming. Strengthening the university's alignment with society: Challenges and strategies. *Journal of Public Service and Outreach*.
- ——. 1992. Promoting knowledge in service to society. Metropolitan Universities 5: 219-25.
- Walshok, Mary L. 1995. Knowledge without boundaries. San Francisco: Jossey-Bass.
- Westbrook, Robert B. 1991. John Dewey and American democracy. Ithaca, NY: Cornell University Press.
- Wolfe, Allan. 1989. Whose keeper? Social science and moral obligation. Berkeley: University of California Press.
- Znaniecki, Florian. 1940. The social role of the man of knowledge. New York: Columbia University Press.