

NEW APPROACHES TO FUNDING UNIVERSITY PUBLIC SERVICE AND OUTREACH

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he paradigm for university outreach and public service is poised for dramatic change. This is because of the new and pervasive role of knowledge in all aspects of social, political, and economic life and the accelerating rates at which that knowledge changes. Traditionally, outreach and public service have been organized around two distinct, typically fragmented approaches. The one, with roots in the post-Civil War concern with westward expansion and agricultural productivity, focused on supporting research and instruction which contributed directly to agriculturally linked economic and community development. The other grew out of the needs of turn-of-the-century workers and citizens coping with an increasingly industrialized and urbanizing environment to better themselves through access to advanced education and lifelong training.

These two, for the most part separately funded, organized, and governed activities (often at the margins of the modern research university), are no longer adequate, as currently organized, to the service challenges facing universities as they enter the twenty-first century. The first approach is insufficient because an infrastructure exists which is better suited to the needs of the agricultural sector and has minimal connection to other economic clusters; the second because of an infrastructure tied to instruction and the needs of individual "students" with minimal experience in addressing the knowledge needs of organizations, communities, and regional economies.

The traditional social and political rationales which gave rise to these two systems of university service and the constituencies they serve are diminishing in some cases, being embraced by other divisions of the university in some cases, or fragmenting in others. This is because the needs for accessible knowledge in contemporary society cross traditional economic boundaries — agriculture, manufacturing, business and professions, high technology — and because the "users" or beneficiaries of new and emerging knowledge are not just individual students but are organizations, communities, and regional economies. What is required today is an approach to planning, financing, and delivering service which crosses both the knowledge boundaries which have developed within the academy and the institutional boundaries which have developed between the academy and significant sectors of the larger society. This does not mean the abandonment of more than a hundred years of public service and outreach through extension and continuing education units. It may mean, however, a refocusing and restructuring of the public service and outreach functions to better suit the needs of the times. Such restructuring could also embrace a wider group of stakeholders and bring with it new sources of financing.

Transcending institutional boundaries

How organizations are structured and financed is determined largely by the particular issues they choose to address and the needs and circumstances of the constituencies they serve. In many institutions, public service and outreach has been characterized primarily (not exclusively) by activities that are instructional. The focus is individual learners in delivery formats which reflect concern with credits, degree, and other mechanisms of quality control for credentialing vis-à-vis a given body of knowledge or field of competency.

As such, outreach has been organized and financed according to many of the same principles as full-time, on-campus instructional programs, with financing and compensation being based on per-unit, per-course, per-student formulae. When applied research or technical assistance are a part of public service, they are, for the most part, highly sector- or field-specific, as in agricultural and manufacturing extension services. In addition, they are typically anchored in specific schools and funded by sector-specific agencies. The result is that oftentimes they have neither the intellectual nor the financial resources to respond to cross-sector and interdisciplinary issues. Were more intersectorial and cross-disciplinary university mechanisms in place, campuses might be capable not only of addressing a broader range of issues, but of mobilizing broader bases of political and financial support.

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Interesting examples of this potential are two parallel, regionally focused programs of the University of California, San Diego. Administered through University Extension, UCSD CONNECT and the San Diego Dialogue programs are built on a foundation of interdisciplinary and intersectorial knowledge linkages. Both programs are focused on regional economic and community development but rather than being sector-specific — agriculture or law — or discipline-specific — economics, computer science, or medicine — the programs address broad issues of regional significance capable of mobilizing a cross section of interests and ultimately obtaining financing. Neither program receives one dollar of state or federal subsidies, yet their combined budgets from regionally based memberships, sponsorships, underwriting, corporate and foundation contracts and grants, and fees for services exceeds \$2 million in the 1995-96 academic year. This is because the type of public service and outreach they are providing taps into needs and constituencies not currently served by the excellent and varied teaching and research programs of the university and, as such, add real value to both the region and to the university's knowledge work.

The CONNECT program focuses on providing technical, managerial, and general business support to emerging and growing high-tech companies in the region. By providing research briefings for business service providers,

management assistance to engineers and scientists, and networking opportunities for budding entrepreneurs, the program has developed a group of backers which includes hundreds of accounting, legal, financial, and marketing organizations on the one hand and hundreds of telecommunications, software, biomedical, and biotechnology companies on the other. Besides delivering knowledge and new competencies to individuals and organizations, CONNECT keeps a network of trustworthy, optimistic high-tech entrepreneurs alive; provides a wide range of technical services; and has been catalytic in attracting capital to the region. More than \$600 million in new investment in high-tech companies came to the San Diego region as a result of CONNECT's efforts in the 1994-95 academic year, for example. These sorts of results give rise to expanding private support for what the program does — support which is in addition to, not in competition with private-sector support for the more traditional research and instructional programs of specific schools such as medicine and engineering. In fact, the deans of both engineering and medicine participate actively in CONNECT's programs.

🖪 he San Diego Dialogue represents a parallel program whose broad focus is cross-border economic development rather than high technology. As the most populous and economically prosperous cross-border region in North America, the San Diego/Tijuana region represents a fascinating laboratory for building the global economy. Beyond the trade, service, and tourism potential represented by two cities with populations close to two million people each, there are the synergies made possible by the unique capabilities of each side of the border, such as the rich research and design capacity of San Diego and the extensive manufacturing capabilities of Tijuana. San Diego Dialogue has been catalytic in helping both a wide range of regional intellectual resources and a cross-section of businesses and industry to focus on the social and economic potential of this littleunderstood bi-national region. Its knowledge services include a wide array of regionally focused applied-research projects, publications for policy makers, community forums and leadership briefings. Beneficiaries of these efforts include stakeholders as diverse as newspaper publishers, public utilities, international telecommunications companies, retail and tourist businesses, and national foundations concerned about international affairs. Research activities have been funded by retail enterprises such as food and dry-goods companies, telecommunications giants such as AT&T and TRW, and major private foundations such as Irvine and Rockefeller.

In a knowledge economy, the seekers of new knowledge, competencies, and legitimacy are not just individuals in transition or established sectors of the economy. They are organizations adapting to new demands, communities in constant change, and regional economies continually transforming to adjust to shifts in technology and global market trends. The knowledge needs of such entities, much less the organizational and delivery mechanisms required to serve them, do not easily fit the current capacities of many university public-service and outreach units. What many institutions decry as declining support on the part of public and private sources for university public service may reflect more accurately a lack of fit between what the service units think they should be doing for their regions and what their regions actually want them to do. When suitable mechanisms, capable of

addressing genuine regional concerns in an interdisciplinary and intersectorial manner, are established, the sources of financing expand exponentially.

Emerging knowledge needs relevant to university public service and outreach

The knowledge being developed by our nation's universities and research centers is becoming more essential to a wider range of issues and more diverse constituencies at the same time that the growth in the sum total of what we know is accelerating.

The concrete manifestations of the knowledge society are everywhere, particularly in the economy. In a knowledge-based economy, advanced technology allows the efforts of three percent of the labor force to generate agricultural productivity sufficient to feed 300 million people. In a knowledge-based economy, synthetic fuels and fibers are more significant than raw materials such as coal and cotton. In a knowledge economy, labor-intensive assembly lines have been replaced by automated manufacturing and advanced telecommunications, which allow us to overcome the limits of time and space. In a knowledge-based society, formerly separated social groups, cultures, languages, and religions encounter one another through communications media and in public places, as well as through worldwide migration. In a knowledge-based society, the continuous development of knowledge for social and economic purposes represents a powerful engine for change and progress that touches the lives of all citizens (Walshok, 1995).

This accelerated rate of change has profound implications for regional economies, community institutions, employers, workers, and citizens. As more and more human activity becomes dependent on the expansion of knowledge resources rather than the exploitation of natural resources, the public-service and outreach demands on universities will increase significantly. In a recent article on the expanding role of research universities in regional development (Walshok, 1996), I identified seven emerging areas of "knowledge work" relevant to this discussion. In each case there are potential stakeholders and funders for focused university public-service and outreach activities. The matrix on page 41 provides an overview.

The categories in the matrix suggest an expansion rather than a diminution in opportunities for public service and outreach on the one hand, and a diversification, rather than a decline, in potential champions and funders.

It is becoming increasingly acknowledged, for example, that regions are home to the entrepreneurial synergies that drive economies forward (Pierce, 1996). With the end of the Cold War, few "national strategies" hold sway and, more and more, it is the collaboration and cooperation of individuals and groups at the regional level that affect such things as jobs, prosperity, and quality of life. Nonetheless, regions must function in a global context, building the future on their ability to link new technologies and increased human capacities with their historically unique regional capabilities. This requires continuous access to new information and analysis.

Now, more than ever, regions need to quantify and understand their capabilities and opportunities; they need to harness new science for technology commercialization to produce new industries and new jobs; they need to reshape their education and social-service systems to equip people to

MATRIX I KNOWLEDGE NEEDS AND KNOWLEDGE STAKEHOLDERS

KNOWLEDGE NEEDS

Stakeholders	Regional Economic & Social Research	Applied Research in Science & Technology	Technology Commercialization	Organization and Management Assessments	Workforce Development and Education	Leadership Development and Briefings	Community Forums and Civic Education
Public sector entities such as local, regional, state, federal governments, and agencies	×	X	X	×	X	×	×
Private sector entities such as for-profit enterprises, not- for-profit agencies, and foundations	×	×	×	×	×	X	×
Individual consumers or concerned citizens such as students, volunteers, philanthropists	×				×	×	×

function in a continuously changing environment; and they need to rekindle citizen participation in the democratic processes which shape regional priorities and public decision making. Each of these challenges potentially calls upon the knowledge resources of the campus. Those institutions which are willing to engage in these issues will find advocates and financial backers not only in state and local government but in chambers of commerce and economic development councils, in accounting and legal firms, among local employers and corporations, in the media and not-for-profit sector, as well as among philanthropic foundations and families concerned about regional futures.

This can happen only if universities pay attention campus-wide to regional issues and constituencies with knowledge needs. They also need to self-consciously address how the campus should organize itself to ensure effective public service and outreach. Many campus units already engage in one or more of these activities, but typically in sector-specific or discipline-specific ways. The increasing knowledge needs of the new and emerging business and industrial sectors, and the diversifying constituencies characterizing the predominantly urban/suburban landscape of our highly mobile population, unfortunately give rise to research questions, technical-assistance requirements and educational needs universities do not adequately address in large part because of the absence of facilitative organizational and financial mechanisms.

New approaches to financing university public service and outreach

Which funding strategies are available to enable universities to respond to these diverse knowledge needs and new constituencies? Universities are unusually adept at lobbying state and federal officials for tax dollars and public agencies for contracts and grants. They are also becoming increasingly adept at securing private, foundation, and corporate tax-deductible gifts and contributions. But this by no means exhausts the universe of possibilities. University public-service and outreach units have the distinct advantage of engaging in work which can immediately demonstrate the value of knowledge; their core activities elucidate the tangible benefits of access to knowledge and expertise.

What public-service and outreach units do can be both measured and "valued" in the larger society more easily than can basic research and degree programs. They can therefore tap into a variety of funding sources which are not-so-readily available for basic research and instruction purposes. This benefits society by putting knowledge to work. It serves the university by building support for the longer-term payoffs which come from basic research and degree programs. The outreach unit benefits by having an expanding and diverse cadre of advocates and backers. The table on page 44 describes the range of funding resources available to university public service and outreach units arrayed across three major sectors of potential support — public sources, private sources, and fees for services.

A few concrete examples may be useful in elucidating the potential of these various sources, particularly those in the "private" and "fees" columns. The CONNECT program, referred to earlier in the paper, sponsors approximately 100 events annually ranging from small roundtable discussions and international financial forums to annual awards luncheons with 700 guests. This requires a staff of approximately ten people whose

salaries are, for the most part, covered by annual membership and sponsorship dues paid by more than 450 business firms and high-tech companies. The costs of specific events are typically underwritten by member firms in \$5,000 and \$10,000 increments. Major efforts such as the annual membership directory and policy studies attract support at the \$25,000 level. These are typically not gifts or grants, but funds which come from the business-development, marketing, or government-relations budgets of the member companies. San Diego has no Fortune 500 companies and only a few corporate headquarters, so these modest investments by hundreds of firms and companies are critical to CONNECT's survival.



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Because of its unique role in developing the cross-border capabilities of the region, the San Diego Dialogue, in contrast, has been able to attract support from multi-national corporations and foundations. Infrastructure development opportunities in Mexico lead companies like TRW and AT&T to want reliable information and easy access to leadership on both sides of the border. These benefits are a by-product of funding the work of the Dialogue. Newspapers and television stations want to reach new markets for their advertisers and see association with the research and education activities of the Dialogue as indirectly benefiting that objective.

Two additional examples from the San Diego region are illustrative and parallel initiatives elsewhere. "Exclusive-use rights" is an interesting way to think about education and training, particularly in essential high-expertise areas. The San Diego campus was essentially "licensed" by Novell, a local-area network-software designer, to be the trainer for all their customers and users. A number of campuses across the United States have received a "franchise" from the federal OSHA training center in Des Plaines, Illinois, to be exclusive providers of federally mandated OSHA-developed and approved education and training programs. In both these cases, relationships had to be developed with an agency or organization rather than an individual student. Spinning out of the OSHA capabilities, the San Diego campus, for example, has recently formed a strategic partnership with San Diego Gas and Electric Company to use its multimillion dollar equipment and facilities to teach high-voltage safety to engineers worldwide. Such equipment would be otherwise unaffordable for the university.

Another strategic partnership in San Diego is EdVantage, a health-care education collaborative between four of the major health-care institutions in the region — Kaiser, Scripps, Sharp, and UCSD Medical. The partnership assures collaborative planning and teaching so that the continuing-education needs of health-care professionals region-wide are met in a way which is cost effective for the employer while meeting the real costs of the education

TABLE I SOURCES OF FUNDING UNIVERSITY OUTREACH AND PUBLIC SERVICE

FEES FOR DIRECT SERVICE	Tuition Individual student Employer reimbursement Special aid programs	Technical assistance and consulting to groups, organizations, and enterprisesContract research for public and private entitiesOrganizational and training-needs assessmentsTechnology networks and servicesMemberships and subscriptions	
PRIVATE SOURCES	Gifts and contributions Individuals Corporations Foundations	Commercial enterprise funds for business development and PR purposes, memberships, underwriting sponsorshipsSpecial-purpose alliances Joint ventures Strategic partnerships ConsortiaExclusive-use rights	Franchising LicensingEducation and training budgets Traditional HR links Functional divisions Executive development
PUBLIC SOURCES	Government budget allocations Local State Federal	Public agency contracts and grants Local State FederalSpecial-purpose public allocations Student aid VA loans Training grants	Internal education and training Budgets of government offices and agencies

provider. The partners share fully in all expenses and revenues and are able to offer programs collectively which would be unaffordable singly.

One could fill pages and pages with examples of innovative financing schemes drawing on experiences at respected universities such as Wisconsin, Vermont, Penn State, Tennessee, and New Orleans, to name but a few. The central point is that as an institution begins to engage itself in the critical issues of its region and provide true value-added assistance through research, education, or technical advice, it will discover new pockets of financial support.

his paper began with the assertion that the fundamental shifts taking place in the content, character, organization, and sheer volume of knowledge needed by modern society represent significant new challenges to universities. This is especially true for university public-service and outreach functions which, with the exception of a few exemplary institutions around the nation, have failed to make a major investment of time or resources in making knowledge easily accessible to the various publics dependent on the work of the university. Accustomed to relying on tuition revenues and public subsidies, many campuses are questioning how to continue what they already do, must less *expand* their commitment to service and outreach.

This paper has suggested that increased and diversified demands also introduce new potential stakeholders, who bring resources to invest in initiatives responsive to their knowledge needs. What is required to take advantage of these emerging opportunities is university leadership with the flexibility and imagination to develop new templates and forge new partnerships. It also requires within public-service and outreach units people who are comfortable crossing the intellectual boundaries that have developed within the university. They also need professional staff adept at facilitating alliances and partnerships between the university and its publics. Examples of such initiatives at many of the nation's finest universities suggest that innovative approaches to funding public service and outreach are doable. They are not only doable, but desirable, because when structured properly, they can enhance, rather than compete with the more traditional research and instructional missions.

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