The Public Good, Productivity and Faculty Work: Individual Effort and Social Value

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About this Research

This paper is one of five in the *TIAA Institute Higher Education Series: Understanding Academic Productivity*, an initiative undertaken in support of NACUBO's Economic Models Project. That project was launched by NACUBO with the aim to provide colleges and universities with knowledge, ideas and tools to advance the difficult structural, cultural and political changes required for moving to more sustainable economic models. Given NACUBO's goal of offering thoughtful, objective and credible scholarship on the issues at hand, the TIAA Institute was a natural partner for the project.

This paper, written by Genevieve Shaker, author of a recent book on faculty and the public good, and William Plater, an emeritus provost and faculty member, thoughtfully explores the question of how to account for enhancement of the "public good" in the academic productivity equation. The authors address that question here from the perspective of individual faculty members; their companion paper, also a part of this series, looks at the issue from the perspective of institutional responsibility to deliver civic value. Their thoughtful work will help to enrich and elevate the complicated discussions surrounding academic productivity that senior campus leaders face.

About the TIAA Institute

The TIAA Institute helps advance the ways individuals and institutions plan for financial security and organizational effectiveness. The Institute conducts in-depth research, provides access to a network of thought leaders and enables those it serves to anticipate trends, plan future strategies and maximize opportunities for success. To learn more, visit www.tiaainstitute.org.

About NACUBO

NACUBO, founded in 1962, is a nonprofit professional organization representing chief administrative and financial officers at more than 2,100 colleges and universities across the country. NACUBO's mission is to advance the economic viability, business practices and support for higher education institutions in fulfillment of their missions. For more information, visit www.nacubo.org.

Executive Summary

Defining and measuring the complete role of an individual faculty member's contributions to the public good is difficult, if not impossible. In economic models, time devoted to producing the measurable "products" that reflect a return on public investments often becomes the most salient factor in assessing productivity and efficiency. Measures of returns on public investments in higher education are being driven increasingly toward clear, quantitative, but overly-simple rates of retention, graduation, licensure and job placement, leaving little room for accounting for under-reported and partially-counted faculty contributions to quality through their discretionary allocation of time and effort beyond position descriptions and job requirements.

As the academic workforce becomes increasingly part time, contingent, and unbundled, American higher education puts the quality of student experience and education at risk by failing to define, measure, count and recognize *voluntary* contributions to the public good—a defining characteristics of faculty as self-regulating professionals whose primary responsibility is to the public itself. This oversight persists even as vast new data sources provide more information about how faculty spend their time. Economic models and their measures—if not developed with a full appreciation of the nature of faculty work and the public purposes of education—may accelerate the move toward a fractured academic workforce because what "counts" no longer depends on faculty discretion but, instead, on contracted work for discrete tasks, such as teaching a specific course or attaining a measurable research result.

Yet, the forces currently transforming higher education, disruptive as they are, also contain the potential to design a new, coherent academic workforce and simultaneously advance the public good.

This paper is one in a series of five focusing on productivity and new economic models for higher education.

The series offers a deeply-informed review of the literature, a two-part examination of higher education's contributions to the public good, an assessment of state-level efforts to measure productivity, and an in-depth description of a course-based tool to analyze costs.

Key Takeaways

- The intersection of calls for greater productivity of institutions of higher education, to be achieved via economic modeling, and narrowing measures of returns on personal and public investments puts at risk the value-added, discretionary contributions of faculty—as academic professionals—to educational quality and the public good.
- The data and information that institutions frequently collect and value are only partially congruent with the activities individual faculty engage in and report upon.
- Inadequately informed and partial views of faculty activities lead policy makers, media, and a skeptical public (paying the increased costs of college attendance) to believe that academic workers and faculty are interchangeable, and that what matters are graduates' credentials and not the means by which they are attained.

- The traditional faculty is disintegrating in the aftermath of diminished public investments in a period of increased expectations, with a largely unnoticed and inadvertent loss of educational quality and, likewise, the possible reduced capacity of graduates.
- In the midst of disruptive innovations changing the American system of education, intentional and comprehensive restructuring of the academic workforce has the potential to enhance the public good of the nation by drawing more deliberately on individual faculty effort and their collective professional responsibility for the social value of higher education.
- Faculty need to do more to explain their own work as professionals and to create a realistic and compelling narrative of their contribution to the public good—perhaps as a bridge between evolving discussions about the changing academic workforce and economic modeling projects.

Context

Higher education is an essential component of future social and economic prosperity —what the U.S. Constitution calls the "general welfare" of the country.

America's higher education institutions' long and distinguished history of contributing to the nation's public good is widely acknowledged. The substantial investment of public funds from federal, state and local sources is based on a recognition that higher education is an ever more essential component of future social and economic prosperity—what the U.S. Constitution calls the "general welfare" of the country.

But the tension between what education does for individual beneficiaries in contrast to the general public is increasing, along with concerns about an adequate return on investment of funds for the general welfare. At a time of diminishing public resources for education and rising costs—combined with increased demand for access—issues of productivity, efficiency, transparency and accountability have led policy makers and their advisors to call for new economic models and clear priorities. Institutions, for their part, are turning to modeling as a means of creating opportunity, if not survival.

The diversity and differentiated missions of America's higher education institutions ensure that they contribute to society in a variety of ways. Their common, shared contribution to the public good, however, occurs in four principal ways: education for citizenship; education for employment; creation of knowledge; and community engagement to enhance the quality of life.[1] Accountability for these contributions can most effectively be defined, assessed, and disseminated at the institutional level, not at the level of individual employee performance, because these social benefits are cumulative and depend on the combined efforts of many staff in a variety of roles over varying periods and, increasingly, among different institutions and types of providers.

New studies of performance-based funding affirm earlier conclusions that "using outcomes as a management tool is difficult because public services are delivered through complex organizations where tasks are not routine and are inherently difficult to define and measure"

1. The role of institutions in contributing to the public good is the focus of a companion essay, *The Public Good, Productivity, and Purpose: New Economic Models for Higher Education*, which provides the larger context for this essay.

(Hillman, 2016). Nate Johnson, in a paper written for the TIAA Institute Higher Education Series: Understanding Academic Productivity, further indicates that even the institutional level of analysis may be too narrow for public policy considerations: "Yet for policymakers, no matter how well-executed or comprehensive an institutional productivity measure might be, it cannot be a substitute for a broad view of productivity in which institutions are not the main focus of the analysis." (Johnson, 2016, p. 2). Indeed, a body of evidence suggests that assessing productivity at the level of individual faculty performance may be counterproductive.

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The exception is knowledge creation and application, where colleges and universities are responding to external pressures for measures that track individual contributions in publications, citations, external grants and contracts, patents, and other forms of commercialization and prestige. Faculty engage in these efforts out of personal interest in advancement through peer review and marketability. The federal government and most other funders now use accountability measures that track time allocated to funded projects. Because the data are available, some states have attempted modeling that matches revenues attributable to individuals (tuition as well as external funding for research) with their related costs, although these efforts largely have been abandoned. As Johnson concludes, "Unless the data are aggregated at the policy level where the goals are being set and managed—whether a region, a state, or the nation—then looking at the parts alone will not be sufficient" (Johnson, 2016, p. 12). Moreover, individual contributions to knowledge creation and application are easily rolled up into reports of overall institutional contributions to economic development in communities and states where aggregated numbers are more impressive and permit a broader narrative of social, as well as economic, value. Reports on these returns on investments—public and private—are now routine and embedded in personnel and accounting systems. As Mackie's literature review in the TIAA Institute Higher Education Series: Understanding Academic Productivity states: "That the role of the higher education sector in contributing to the production of public goods is being given extensive attention…is a clear indication of how the conversation about higher education performance has evolved" (Mackie, 2016, p. 27).

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What tends to be missing from the ledger sheet of productivity are those discretionary actions of faculty—full and part time, tenured and contingent (i.e., with neither tenure nor assured long-term employment)—that contribute to the quality of education and student success but do not fall into measured categories of time or effort spent on assigned duties. These activities may include working with students beyond the classroom and office; responding to emails and requests from students on a 24/7 basis; advising student organizations; designing just-in-time class experiences that align with current events; developing trust among neighborhood residents for community-based service learning projects; providing research opportunities for students; writing letters of recommendation for a variety of purposes; sharing networks to assist in student job searches; helping students navigate academic and personal dilemmas (and providing moral support that students cite as essential for their success); and going to extraordinary lengths to ensure that students of

all kinds receive an education by volunteering in programs such as University of the People or Freedom University Georgia.

Similarly, faculty contributions to engagement in local, national and international communities tend to be subsumed under reports of teaching or research without noting time and creative effort spent on activities such as translating research into plans or actions intended to assist the community; articulating ideas derived from teaching or research to a general public through media of all kinds; developing trust among residents of other countries as preparation for study abroad; explaining relevant research to a city councilor or legislator for decision and policy making, and so on.

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The cumulative, collective work of faculty for the public good is largely a function of how individuals choose to use their time as they integrate paid work and their extra, voluntary contributions of effort beyond their position descriptions. Such work most often is not fully counted, even as the results of that work are claimed by institutions and relied on by trustees, policy makers and the public. One study estimates that as much as 30% of faculty time on average is spent on the kinds of teaching activities that might be considered discretionary and oriented toward the public good (Nelson Laird, 2015, p. 67-68). How much do chief business officers, and perhaps chief executive officers, know about this aspect of faculty work, let alone how to value it?

Nonetheless, the whole point of the new modeling inevitably calls attention to personnel costs, usually the largest budget component of most institutions, estimated to be about 75% on average (Dickeson, nd). As William Massy cogently summarizes in the forward to a 2016 paper on *Evolving Higher Education Business Models,* commissioned jointly by the TIAA Institute and the American Council on Education: "What's needed are structural models that describe how resources are applied to particular activities in sufficient detail to allow in-depth understanding of what's being done at what cost, and 'what-if analysis' of what might be done to effect improvements," all based on "a working knowledge of activities, costs, revenues, and *margins by faculty and staff* [emphasis added] across the institution" (Soares, Steele, and Wayt, p. i-ii) That is, while the social return on investment might best be understood and evaluated at the cumulative, institutional level, institutions need insights on resource use to obtain the best and highest returns on the public's investments—i.e., how best to deploy faculty time and talent.

Massy follows up in his paper written for the TIAA Institute Higher Education Series: Understanding Academic Productivity to address this specific aspect of the NACUBO modeling project, drawing on a case study at the University of California - Riverside to demonstrate the applicability of course-level activity based costing to address planning and budgeting and "making the needed trade-offs between money and mission" (Massy, 2016, p. 15). Inherently, they also raise an important public good issue for institutions by making clear that some courses and disciplines cross-subsidize others because they are critical to

mission—*and* the public purposes of higher education. Choices need to be made and data can help.

The 21st Century Faculty

As challenging as the issue of appropriately deploying individual faculty and staff time and talent might be, it is now vastly complicated because "the faculty" is no longer comprised of the respected, homogeneous, full-time, tenured, "complete" professor many policy makers remember or most assume. Instead the academic workforce is composed of a two-thirds majority of part-time and full-time contingent workers with varying credentials and places of employment (Delphi Project, 2016; Kezar and Maxey, 2015). Structural models designed to account for the costs and revenues associated with faculty work also need to attend to the modularization and stratification of the workforce into differentiated roles, titles, and perquisites; the unbundling of faculty as teachers, scholars, and community participants; and the extension of teaching responsibilities to staff.

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of the academic workforce is part- or full-time contingent workers.

Further, academics are increasingly being hired in specialties and defined roles for research, clinical activities, supervision, advising, curriculum development, instructional design, technology applications, program administration, and numerous additional roles with enigmatic titles. Moreover, professional staff, many of whom also teach as adjuncts, are hired in student services and support roles, as coordinators of programs, and as specialists to address various regulatory issues or to fulfill roles specified in contracts for services to external groups, including subsidiaries designed to commercialize university intellectual property. A growing number of services, such as IT, information resource procurement, assessment, tutoring, institutional research, and even grading, are being outsourced. The lines and titles among those who support institutional missions and work are blurred, often even to those who are leading the institutions.

Most of the calls for productivity and economic modeling are directed toward traditional educational providers offering degrees and standard academic credentials. It is too early to anticipate what role alternative providers of recognized, sub-degree credentials and their faculties might play in American higher education, but there is little doubt that they will be included in the push for greater productivity. General Assembly, one of the more prominent alternative providers, operates "boot camps," around the world focusing on skills development in technology, business and data. General Assembly exists because, in the company's own words, "The degree faces unprecedented skepticism as policymakers question the value of public-sector investments." Comprised of full- and part-time faculty, its academic staff is drawn from practitioners with requisite experiences and expertise, but not necessarily graduate degrees. The company has created a "framework for reporting [learning] outcomes in the same way that public companies report non-financial metrics important to their success" and it is in the process of developing "new measures of return on education that consider income or other criteria that can be used by students and other stakeholders to understand student success in even more specific and granular ways" (General Assembly, 2016). Another large alternative provider, Reactor Core (2016), proposes that all of its peers

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adopt a "Standard Student Outcome Methodology." What impact might alternative providers have on productivity standards if they can more accurately document a return on investment, whether of personal or public funds?

Moreover, intermediaries are forming that are gathering, analyzing and interpreting massive amounts of data made available from the rapidly expanding technological base of higher education that will impact the ways in which institutions invest their resources—especially faculty and staff time—and the way policy makers analyze returns on investments of public funds. A cooperative venture involving the American Institutes of Research, Optimity Advisors, Gallup, and several states with funding from USA Funds, for example, is developing "tools that will help prospective students choose colleges based on *the type of life they hope to lead* [emphasis added] once they graduate from college" (Fuscaldo, 2016). The tools reflect income potential from jobs based on specific degree programs where work is found in specific locations—all traceable back to the resources allocated by specific colleges and universities. It is unrealistic not to assume that data such as these will, in turn, restructure the deployment of resources, including various types of part-time faculty, to meet the expectations of ever better-informed consumers of higher education. With an increasingly unbundled, part-time, and contingent academic workforce, the measurable demands of the marketplace are likely to continue reshaping faculty work and faculty roles.

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It is now hard to say just who the faculty are, even harder to define their disaggregated work, and harder still to develop models that can adequately account for activities that can be tied to productivity measured by credentials completed and the costs of completion—the most prominent of the productivity measures of most economic models. Ironically, as online education becomes more common and as part-time adjuncts comprise most of the online faculty, there are opportunities for institutions to define faculty work in very specific, time-based ways, such as the response time for student email or grading, the amount of time working in the course management system, and so forth. Although most institutions do not yet have such specifications, demands for efficiency may lead inevitably in that direction. In the meantime, more than half of online providers permit their adjunct faculty "complete autonomy" for course customization—thus retaining respect for the integrity of the adjuncts as professionals (Magda, Poulin, and Clinefelter, 2015, p. 10).

The knowledge of "margins by faculty and staff" called for by Massy in the above-referenced foreword are very difficult to define and measure, even for academic administrators with an insiders' knowledge of how things work in the academy.[2] One exception that is becoming increasingly more common may be that in the hiring of part-time faculty, institutions are able to specify detailed job requirements, unlike their traditional approach to full-time faculty. With new data and new external measures of accountability for returns on investments, the traditional faculty—whose commitments of time and effort beyond contracted, compensated

2. It is interesting that for many years, chief financial officers in particular have been castigated for their lack of understanding of the full nature of faculty work, as reflected in a 2011 *Chronicle of Higher Education* article on measuring faculty workload: "Even within higher education, a professor's workload is seen by some as a source of bloat. When colleges' chief financial officers recently surveyed by *The Chronicle* were asked what single strategy they would adopt to cut costs or increase revenue if they didn't have to worry about any repercussions, increasing teaching loads topped the list" (June, 2011).

work create public benefits—may not long endure.

Advocates of technology-enhanced tracking, "big data," and new modeling express a belief that cost accounting is compatible with maintaining—if not enhancing—quality because new structural models can account for many more variables than known or noticed in the past: "Structural modeling allows academic departments to examine the characteristics and costs of different teaching methods, to shape their portfolios of course offerings and instructor types, and to identify courses for redesign. Over time, the models will spur faculty members and administrators to develop better learning measures and then hone their own intuition about the cost-effectiveness of alternative approaches" (Massy, 2016a).

Yet evidence suggests that the academic workforce in its many forms continues to honor the ideal that initially shaped the faculty's work *as a profession* when the American Association of University Professors (AAUP) formed in 1915. The organization articulated a principle on the "nature of the academic calling" that the "conception of a university as an ordinary business venture, and of academic teaching as a purely private employment, manifests also a radical failure to apprehend the nature of the *social function* [emphasis added] discharged by the professional scholar" because "the responsibility of the university teacher is primarily to the public itself" (AAUP, 1915, p. 294-295). In the face of a growing "gig economy" and the modularization of academic work, the durability of this personalized sense of responsibility is very much in doubt.

Political Calls for Accountability

Calls for reconsidering the role of faculty (especially their use of time) are flowing from many quarters and in greater number in recent years. These doubts arise as the result of thoughtful economic analysis and planning as well as ideological critiques of faculty indolence, often conflating resentment over tenure with a sense that most faculty don't spend enough time teaching. An array of thoughtful, academic analyses range from William Massy's (2016b) recent *Reengineering the University* (with a chapter on the cost of teaching that addresses new designs and modeling drawn from institutional transactional data) to Benjamin Ginsberg's earlier, more strident lament that the university has shifted from a community of scholars to a bureaucracy of administrators transforming education into a business (Ginsberg, 2011).

Ginsberg laments the university has shifted from a community of scholars to a bureaucracy of administrators **transforming education into a business.**

Yet the most public calls for accounting for personnel costs—and especially faculty—come from political leaders, notably governors of states, who do understand and appreciate the role of colleges and universities as a key to their region's future economic prosperity. However, elected officials tend to focus on only two of higher education's public goods: preparing graduates for employment and creating knowledge that can be commercialized. They nearly universally ignore the non-market, qualitative outputs of faculty more typically associated with education for citizenship and community engagement—despite the best

efforts of universities and colleges to document their economic value (boosted by the multiplier effect of their budgets); the philanthropy they attract; the external research funding they bring to their communities and states; and the new jobs created by commercialized intellectual property. Long a topic for politicians, the economic role of higher education took on a certain saliency and urgency in the post-recession recovery when decisions needed to be made about resource allocations of still-scarce public funds at the state level.

Texas may well have catalyzed the most recent focus on the uses of faculty time, but political leaders in Florida, North Carolina, Louisiana, Wisconsin, Kentucky, and elsewhere have followed, with Senator Marco Rubio famously introducing the subject into the 2016 presidential campaign by noting the need for more welders and fewer philosophers (Rappeport, 2015)—with the implication that institutions need to focus their own workforce on meeting employers' and states' economic needs. Reducing costs for students and increasing access extends pressure on institutions to become more "productive"[3] and thus to focus on how faculty spend their time.

A provocative 2010 analysis conducted by Texas A&M officials of their own faculty, intended to increase productivity and efficiency in a time of diminishing public support, began a series of studies, but more often commentaries and pronouncements, on how to use faculty time more effectively. While certainly not the first such calls for accountability and productivity, the Texas controversies sparked a focus on faculty time that persists still. Indeed, many policy makers are skeptical about the amount of time faculty spend on activities that policy makers believe are important.

The Texas A&M study analyzed "the financial contribution of every faculty member on its 11 campuses, subtracting the salary of each from the tuition and research money he or she brings in. The resulting metrics present in stark detail exactly where the system gets the most and least bang for its payroll buck, and they've raised the hackles of professors at all levels, who liken the approach to grading assembly-line workers on widget production" (Hamilton, 2010). The study separated research from teaching by looking at the revenue generated in each domain, making it possible to also compare costs with revenue at the most granular level of the individual faculty member, whether tenured full professor or part-time adjunct. Not surprisingly, contributions to the public good through community engagement were omitted from the formulation of faculty work. Subsequent studies of Texan faculty productivity in 2011 kept this issue alive in the news long enough to make

3. Amid all of the media considerations of the funding and costs of higher education, the 2016 presidential campaign has included a substantive discussion of the value of "free" higher education as a presumed investment in the future well-being of American society. The issue also has taken unusual form as a 95-minute documentary film, *Starving the Beast*; its director, Steven Mims, hopes the film will spur a mainstream public debate on the issue (Wexler, 2016). Further, in May 2016, the Obama administration announced plans to allow selected researchers to match student aid data files with surveys and administrative data maintained by other agencies so as to create more complete mappings of the returns on investment of public funds (White House, 2016). And crossing the political divide, Donald Trump's campaign has declared "higher education to be a major issue in the fall general election," including a discussion of whether "to make it harder for those wanting to major in the liberal arts at non-elite institutions to obtain loans" (Jaschik, 2016).

inquiries into the costs and benefits of faculty contributions a legitimate governance, public policy, political and media issue nationwide.

Hundreds of current studies, reports, conferences and briefing documents focus on efficiency in higher education (Mackie, 2016; Webber, 2011)—with almost all of them concentrating on a very few measures of productivity, as suggested by a recent report, *Improving the Yields in Higher Education*, that "described productivity improvement in higher education as requiring: Substantial increases in the number of degrees and certificates produced, at lower costs per degree awarded, without sacrificing the goals of access and equity, while maintaining (and even improving) quality" (Nodine, 2015, p. 14). Productivity invariably comes down to credential production at unit cost, even as the report on state efforts to increase "productivity" acknowledges that this is problematic on college campuses, where the term "brings to mind assembly lines rather than improved learning environments" (p. 14). As a McKinsey report, *Boosting Productivity in US Higher Education*, suggested, "institutions can drive down costs by paying closer attention to mandatory operations while improving efficiency across all noncore services" (Cota, Jayaram, and Laboissière, 2011). Clearly, some would argue that while teaching remains a mandatory operation, full-time faculty may no longer be necessary for a core service.

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Measuring Faculty Contributions to the Public Good and Productivity

For at least the past fifty years, institutions have sought ways both to explain just what faculty *do* with their time and to document the value of the full range of their activities, but with almost no success in economic terms: "Among the takeaways from the research are that contributions to the public good cannot be adequately accounted for in exclusively economic (monetary) terms; metrics to assess the public good necessarily must focus on educational outcomes, and civic learning specifically, at the institutional level…" (Mackie, 2016, p. 28). Institutional planning and accountability benefitted from such initiatives even when productivity concerns were not the impetus for the studies. Individual effort reports that quantify and record the amount of time per term spent on a menu of possible activities largely have given way to annual faculty reports that offer a richer and more nuanced cataloguing of faculty activities using standardized rubrics for various aspects of work; time, if counted at all, is reflected as a percentage of *effort* devoted to teaching, research, service or administration. These reports can more easily be used to assess individual effort and to recognize performance with salary increases, advancement, or occasionally remedial professional development.

There is much more to faculty work than can be measured in monetary terms.

Typically, however, they do not paint a complete picture of what faculty actually do or how they spend their time—including both discretionary and donated time.[4] A single institution anthropological study demonstrated the level of specificity and method needed to document faculty activities. Researchers interviewed a small group of faculty to chart exactly how

4. Many unsuccessful efforts have attempted to account for the full range of faculty time—beyond that spent in the classroom or reported to federal agencies on mandated timesheets (e.g., Fogg, 2008; June, 2011; Segal, 2007).

they spent their time, discovering that they worked an average of 61 hours a week and on a broad range of activities, including 30% of their working time spent on tasks that "are not traditionally thought of as part of the life of an academic" (Ziker, 2014) such as taking part in a wide range of meetings and engaging in hours of email communication. Simplistic measures for assessing faculty time are no longer (and perhaps never were) possible. A recent collection of essays on faculty work draws upon 23 leading experts who also make the case that there is much more to faculty work than can be measured: "For many faculty there is a strong commitment to go beyond requirements to do what is essential for the good of their own students and for the public good…" (Shaker, 2015, p. 4).

In a 2011 essay on "Measuring Faculty Productivity," Karen Webber provides a succinct overview of recent efforts to measure productivity of individual faculty in teaching, research and service, noting in particular that "measures of campus and community service receive the least attention and vary the widest." Nevertheless, "with a positive attitude, most faculty members take on a service role with some level of positive participation and hope to make a difference" (p. 115). Based on comprehensive review of past studies, Webber makes a clear and convincing case that it is nearly impossible to disaggregate and measure individual faculty contributions in many areas of faculty work, particularly those related to community service and to the overall public good—that is, faculty activities that draw on all aspects of their teaching, knowledge creation and community engagement.

It is nearly impossible to disaggregate and measure individual faculty contributions to the overall public good.

Accordingly, many recognize the limits of disaggregating work into component parts, measuring time on task, or assigning costs to discrete activities because of the overlap of duties where one aspect of work enhances or build on another. An important 2012 study sponsored by the National Research Council, *Improving Measurement of Productivity in Higher Education*, excluded considerations of public service in large part because of preoccupations with instruction and degree completion but also because productivity related to the public good is hard to measure: "…while the panel did not address research and public service productivity, we did carefully consider their impact on the measurement of educational productivity. Inputs must be parsed into their instruction and research/public service components" (Massy, Sullivan, and Mackie, p. 5).

The NACUBO Economic Models Project accepts this as a base condition: "The complexities of the multiversity are reflected in the multi-faceted roles played by employees, particularly by faculty, and particularly by faculty who are evaluated based on teaching, research, and service contributions…[T]his bundled but synergistic set of roles complicates attempts to understand the cost of any one," even to the point that "joint production functions of university activities make cost allocations and internal cost analysis a political rather than an informative financial exercise" (Askin and Shea, 2016, pp. 64-65).

If faculty contributions to the public good are just too hard to identify and measure, are they simply to be ignored?

As calls for accountability increase, some academic leaders are beginning to pay increased attention to those complex activities of academic workers (faculty and staff) that relate to the public good, in large part because they are not apparent in most models and yet are known to be valuable. These academic leaders note that teaching, research, and service all can occur at the same time in some projects or functions, especially in the context of community-based learning such as service learning, internships, clinical service, or experiential learning. During these sorts of activities, for example, research may generate knowledge or applications that lead to commercialization, while also helping a particular community or group and serving as a pedagogical method for student learning (Beckman and Long, 2016).

Attempts at productivity measurement most often extract from the complex nexus of work for the public good those activities, products, and results that can be most easily quantified and reported, including: external research grants; project and service grants or contracts; philanthropy; service leaning courses and related credit hours; estimates of hours of voluntary activities for days of service or spring break projects; contract research expenditures; hours of contributed clinical services; work study dollars expended in community organizations; patents awarded; publications related to public service; and so forth. Yet something is still missing from this impressive array of possible items to count, measure and report: that is, the bundled synergy of all of the public good works taken together.

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Hiring, retention and advancement policies of colleges and universities traditionally speak to the expected forms of faculty work, and stipulated procedures and criteria for assessing that work—details that are even more narrowly defined when union contracts are involved. Other policies address how percentages of faculty effort (time) are assigned to the different functions of teaching, research, service and administration. Because of the "bundled but synergistic set of roles," however, new policies on valuing and assessing public good work are being created in many institutions, such as the Indiana University-Purdue University Indianapolis (IUPUI) proposed policy on public scholarship, "which intentionally blurs the boundaries between research and creative activity, teaching, and service" (IUPUI Public Scholarship Faculty Learning Community, 2016, p. 3). These policies and procedures, however, are created internally to assess individual merit against an already accepted paradigm that stipulates the work as valuable in the absence of metrics for measuring contributions to citizenship, employability, new knowledge, or quality of life. Likewise, even as faculty may feel increasingly confident in evaluating the complex performance of their peers, a gap between what faculty know about each other and what the public knows about faculty work in general remains.

New policies

on valuing and assessing public good work are being created in many institutions.

As institutions struggle to find ways to account for and explain their work complexities, external entities are holding them accountable or are seeking to assist them in being accountable for the work of individuals related to the public good. A sampling of the more prominent agencies addressing public good and public service and/or productivity in general include:

Federal Government: While most of the federal accountability for investments of public funds relate to student success as measured and audited by such metrics as student retention, completion, loan repayment rates and gainful employment, investments in research and service through contracts and grants include specific metrics for faculty time (and compensation)—including time sheets. The Office of Management and Budget has a detailed set of "Cost Principles for Educational Institutions" that calls for reporting time on activity even as it acknowledges that "in an academic setting, teaching, research, service, and administration are often inextricably intermingled. A precise assessment of factors that contribute to costs is not always feasible, nor is it expected. Reliance, therefore, is placed on estimates in which a degree of tolerance is appropriate" (Office of Management and Budget 2012, p. 1).

Delta Cost Project: Established in 2007, the project "provides policymakers, higher education administrators and the general public with analyses and resources to deepen understanding of what colleges do with their money." Among the analyses, the project makes available separate data on public service, which it defines as "noninstructional services to external groups" (Desrochers and Hurlburt, 2016, p. 8), while faculty work related to public service is included with instruction. Public service work is thus counted, but not in a manner that attributes public good work to faculty as a distinct part of their overall contributions. Interestingly, among both private and public institutions for the most recent ten-year period studied, spending on public service per FTE student went down by percentages ranging from 36% at private master's colleges to 18% at public master's, with only public research universities noting an increase—and then of only 2% (pp. 11-12).

Delaware Cost Study (National Study of Instructional Costs and Productivity): Established in 1992, this project describes itself as "an analytical tool that allows you to benchmark teaching workloads, instructional costs and productivity, by academic discipline." Although the focus is on instructional costs, the Delaware Cost Study also provides information on research and service, but based only on "direct funds separately budgeted specifically for public service and expended for activities established primarily to provide non-instructional services beneficial to groups external to the institution" (National Study of Instructional Costs and Productivity, 2016). Moreover, costs are not reported in a disaggregated format, making it nearly impossible to assess individual contributions since the data allow only for benchmarking externally-funded outreach against similar funding for peers.

Carnegie Community Engagement Classification: Established by the Carnegie Foundation for the Advancement of Teaching in 2006, the elective classification "involves data collection and documentation of important aspects of institutional mission, identity, and commitments," including data on budgets, staffing, faculty teaching courses related to community engagement and their credit hours, publications related to community engagement, outreach, partnerships and almost every imaginable way an institution might be involved with a community. An extensive documentation framework is required for new applicants: "The purpose of the questions…is to estimate sustainability of community engagement by looking at the ways the institution monitors and records engagement's multiple forms. Tracking and recording mechanisms are indicators of sustainability in that their existence and use is an indication of institutional value for and attention to community engagement. Keeping systematic records indicates the institution is striving to recognize engagement as well as to reap the potential benefits to the institution" (Carnegie Community Engagement Classification, 2016, p. 7).

Faculty Survey of Student Engagement (FSSE): Established in 2003, this elective survey of faculty is designed to complement the National Survey of Student Engagement with a focus on the nature of teaching staff interactions with students and "how instructional staff organize their time, both in and out of the classroom" (FSSE, 2016). Among other data from the survey, a topical module asks faculty to assess "the importance of service-learning, perceptions of student participation in community service or volunteer work, and course emphasis on becoming an informed and active citizen" (FSSE 2015 Topical Modules, 2016). The survey is limited in that only a comparative few institutions elect the community engagement module out of nearly 800 institutions that use FSSE and, similar to the Delaware Cost Study, the data are aggregated for the faculty as a whole.

Academic Analytics: One of several emerging private firms designed to assist institutions in planning based on productivity, Academic Analytics was founded in 2005 to provide tools for administrators "to guide them in understanding strengths and weaknesses, establishing standards, allocating resources, and monitoring performance" based on detailed information about 270,000 individual faculty. One service, "Faculty Counts," "provides a numerical summary of productivity on a person-by-person basis" with "a numeric tally of each faculty member's total scholarly productivity in each of the five areas of scholarly research (journal articles, citations, books, research grants and honorific awards)" (Academic Analytics, 2016). Such measures are not without faculty complaint, as reflected in a recent Rutgers University faculty resolution: "The entirely quantitative methods and variables employed by Academic Analytics…hardly capture the range and quality of scholarly inquiry, while utterly ignoring the teaching, service and *civic engagement* [emphasis added] that faculty perform" (Flaherty, 2016).

Collaboratory: Created by a university and now part of a larger proprietary firm, NobleHour, which offers software tools to show "the economic impact individuals, groups, and entire organizations are making in their communities as volunteers." Collaboratory is specifically for colleges and universities and provides "data that develops the story of an institution's meaningful contributions to the health and vibrancy of communities, and builds acceptance of community engagement and public service as integral to higher education mission and culture" (Collaboratory, 2016).

Much of the activity important to student success and institutional quality is not captured, counted and disseminated, despite the relatively large quantity of information and data available.

Other external entities seek to measure and assess the ways in which institutions—and even individuals within institutions—contribute to the public good. As this listing suggests, however, much of the activity that is fundamentally important to student success and institutional quality is not captured, counted and disseminated despite the relatively large quantity of information and data collected. If faculty are concerned about how some of these systems track "traditional" aspects of their work (Flaherty, 2016), what of the more complex and less defined aspects of what they do? Not only are the synergies lost but so too are the contributions that are never measured and perhaps not even noticed, such as the hours spent when a professor struggles to adapt expertise and experience to respond to the particular needs of a student, or responds to a government official who reads a faculty member's article and asks for help in developing policy and legislation.[5]

The new focus on student outcomes is meant to measured by:

Retention rates

Graduation rates

Licensure rates

Job placement rates

Arguably, the most important current means of accountability for higher education is institutional accreditation, provided through voluntary associations of member institutions that are recognized and regulated by the Department of Education. While in theory each accreditor sets its own standards and criteria, including measures of productivity, the department is playing a larger role in guiding how accreditors conduct their work. An April 2016 "Dear Colleague letter" issued by the department to accreditors makes clear its emerging emphasis on accreditors' effectiveness with regard to a "new focus on student outcomes and transparency" (U. S. Department of Education, 2016, p. 1). The new focus is meant to be on "four outcome measures: retention rates, graduation rates, licensure rates, and job placement rates" (p. 4). Further, accreditors are being asked to "consider adding objective, transparent, comparable, and actionable quantitative measures" of these outcomes (p. 5). The letter details the department's "belief" that "accrediting agencies should consider allocating resources—and *determining the level of resources* [emphasis added] and evidence to be required of particular institutions or programs—based on those factors in its review process that emphasize quality" (p. 3).

5. A new report culminating a decade's collaboration among scholars and policy makers has established a metrics framework for postsecondary education: "To advance the goals of social mobility and equity, the field needs a key set of comprehensive and comparable metrics that answer these critical questions about who attends college, who succeeds in and after college and how college is financed" (Janice & Voight, 2016, p. 1).

Little doubt should remain that the narrowing of measures being used to determine eligibility for the institutional life-blood of federal financial aid will shape institutional behavior. With an emphasis on the products and results—not the means—of education, the composition, professionalism and even qualifications of the faculty producing the results appear to be flexible, if not optional. Teaching and credentialing will surely endure as core operations, but the same may not be true for "the faculty," at least as the public historically has known it.

The Way Forward: A Possible Path

The American academic workforce has undergone an irreversible transformation such that today it is comprised of at least 70% part time, adjunct and contingent instructors (Kezar, Maxey, and Holcombe, 2015). Diminished resources, increased demands and alternative credentialing offered by non-traditional providers in a growing technology-enhanced learning environment all indicate that the transformation is ongoing and permanent. The collapse of the traditional faculty model at the same time that demands for quantified accountability are growing and being enforced cries out for a new approach to faculty work and to the concept of academic professionalism. This new reality offers a phoenix-like opportunity for a new faculty workforce to arise from the remnants of what was once recognized as a largely self-regulated profession with an implicit duty primarily to the public.

Two initiatives stand out as holding the promise of a path forward by considering these trends together. The NACUBO Economic Models Project surfaces ideas about how to sustain an economically viable, high-quality system of higher education in the United States, while the Delphi Project brings together the most comprehensive research to date on the changing nature of faculty work and possible new models for an intentionally-designed academic workforce.

The highest purpose of higher education—as argued in our companion essay, *The Public Good, Productivity and Purpose: New Economic Models for Higher Education*—is in promoting the general welfare and contributing to the public good, and the highest responsibility of individual faculty as academic professionals is to the public good—as argued in this essay. We firmly believe that American higher education holds the future of our nation's economic and social prosperity in its hands; endeavors like this one, by NACUBO, and the Delphi Project present a collective opportunity to couple emerging perspectives on the academic workforce with information about the economic viability and sustainability of high-quality institutions in order to propose a sustainable path forward. Credentials without quality and teaching without public purpose lead inevitably to the decline of the nation's founding vision.

Credentials without quality and teaching without public purpose lead inevitably to the decline of American higher education.

A recent Delphi Project report revealed possible consensus on key issues that might **shape future models for an effective, affordable, public-minded academic workforce.**

An important Delphi Project report (2015), commissioned by the TIAA Institute, reported findings of a survey of numerous stakeholders (faculty, administrators, trustees, accreditors and state policy makers) from across the range of institutions. Findings revealed possible consensus on key issues that might shape future models for an effective, affordable, public-minded academic workforce—not with just one model, as has been the case—but with several possible models, each adapted to the growing complexity of educational necessity and opportunity, and all sharing an "overarching need to restore and maintain professionalism to the faculty role" (Kezar, Maxey, and Holcombe, 2015, p. ii). The models proposed to survey respondents explored factors related to tenure, unbundled roles, flexibility, contracts, and so forth. Kezar et al. report that "there was unified agreement and moderate interest across the stakeholder groups in providing multiple pathways or tracks for faculty members to pursue appointments that focus their primary, long-term responsibilities in a particular area…[and] also strong agreement across groups that faculty roles should be differentiated among different types of institutions that serve distinct missions" (p. 11).

Based on clear and viable economic models of how myriad academic professionals might educate students and create knowledge, the Delphi/TIAA Institute survey suggests that a common professionalism based on a duty to the public good may be enough to secure the quality of America's evolving higher education system—a vast system of rapidly moving parts. Detailed inquiries into stakeholders' perspectives on collaboration and community engagement, on one hand, and faculty roles and the public good on the other, revealed a strong belief "that a fundamental characteristic of a future faculty model is to ensure the continued commitment to providing services or benefits to the greater public" along with strong commitments to "defining expectations for how faculty members will contribute to shaping the development of citizenship among students" (Kezar, Maxey, and Holcombe, 2015, p. 27).

The Delphi Project is just one among many initiatives aimed at rethinking faculty work; clearly, something resembling an awakening among faculty—tenured, contingent, part time, and full time—is occurring, along with a sense of urgency to address their own plight and overcome their silence about their public good work, which has contributed to administrators' and policy maker's contentions that faculty are losing their calling. A growing body of important faculty-generated literature reflects their commitment to ensure that the founding vision of American higher education remains intact, including Shaker's book on *Faculty Work and the Public Good: Philanthropy, Engagement, and Academic Professionalism,* and Boyte's volume on *Democracy's Education: Public Work, Citizenship, & the Future of Colleges and Universities*, both published in 2015, and more new works published in 2016 including Post et al.'s

Publicly Engaged Scholars: Next Generation Engagement and the Future of Higher Education, and Beckman and Long's *Community-based Research: Teaching for Community Impact*. As the announcement of *Publicly Engaged Scholars* succinctly summarizes: "The concern that the democratic purposes of higher education—and its conception as a public good—are being undermined, with the growing realization that existing structures are unsuited to addressing today's complex societal problems, and that our institutions are failing an increasingly diverse population, all give rise to questioning the current model of the university" (Stylus, 2016).

Several faculty models urgently need to be designed. New models must retain the essential nature of the "academic calling" of a professional whose duty is to the public, yet whose work is transparent and accountable, varied in credentials, and secure in conditions of employment that may vary widely. Armed with the research of the Delphi project, including a forthcoming 2016 study, *Envisioning the Faculty in the 21st Century*, economic modelers and efficiency experts might properly begin by first assuring that their analyses of the largest single cost item of higher education—the time of faculty and staff—include direct and indirect measures of time contributed to the public good as both paid fulfillment of job descriptions and voluntarily, as "the social function discharged by the professional scholar."

Economic modelers might begin by first assuring that their analyses of faculty and staff time include direct and indirect measures of time contributed to the public good.

Key Issues

As political leaders, policy makers, trustees, institutional administrators, full-time tenured faculty, part-time and full-time contingent faculty, emeritus faculty, media, and the general public consider the purposes, means, and costs of higher education, they necessarily also will consider the role of faculty and their "responsibility to the public," as the AAUP wrote in 1915 in announcing that there *is* an academic profession with principles to guide conduct. If college teaching is indeed a calling, as the founders of the AAUP believed, then there is every probability that members of the academic profession will continue to contribute to the public good, even as "voluntary action for the public good," as Shaker claimed in her 2015 book on *Faculty Work and the Public Good*. The larger question is, will this work be recognized, counted and rewarded?

This fundamental question leads to several additional key issues and questions:

- How can economic and activity based costing models define, record, measure, assess and value the essential but discretionary work of academic professionals to the public good?
- With the academic workforce now largely contingent and increasingly part time, how can the expectations of an academic profession be sustained? Will faculty in whatever role continue to volunteer for the public good in their range of duties?
- How might faculty—in the forms that academic professionals eventually take—better articulate and explain the full dimension of their work to a skeptical and cost-conscious public?

- Without the protections of tenure, with its mutual responsibility of the institution to protect the individual, why would academic workers be willing to contribute to the overall institutional well-being and development of community within the institution when doing so could expose them to liability and risk without commensurate rewards?
- Will public officials risk quality by formulaic stipulations of how faculty spend their time and effort, such as establishing minima for credit hours taught or hours in the classroom, lab, or online per week when faculty are hired for specific periods of time and duties?
- How will institutions and policy makers address equal pay considerations when the same course or academic function might be performed with comparable results by academic professionals holding very different credentials and experiences?
- Will institutional policies that permit individuals to share in the commercialization of intellectual property too narrowly focus faculty research away from advancing the public good and general welfare in favor of maximizing personal gain?
- As academic functions (along with administrative and auxiliary services) are outsourced, might new providers offer advising, mentoring, tutoring, and community engagement services and activities, including internships, service learning, and other forms of experiential learning that were once the responsibility of faculty without traditional academic credentials?
- Might institutional accreditors, as part of their work certifying institutions for federal financial aid eligibility, be required to address not only an institution's overall contribution to the public good, but also to report on specific measures of graduates' readiness for the responsibilities of citizenship?
- Might institutions—public, nonprofit and for-profit—be required to report on the same measures of gainful employment and other attributes of success?

Conclusion

The NACUBO Economic Models Project assesses "the effect of the current economic, political, and social environment on colleges and universities, and examines the internal structural, operational, and cultural variables critical to their success" with the intent to "propose solutions from *within* these institutions of higher education, led by those who know them best" (Askin and Shea, 2016, p. 62). The project intends to provide chief executive officers, chief academic officers, and chief business officers the data and evidence they need "to take risks to innovate and create new institutions and economic models" (p. 68) based on shared knowledge and understanding of the complexities of higher education in a transformative era. This triad of leaders is "arguably, the most important component of the change dynamic in higher education today" (p. 67).

We agree that nothing could be more important than a shared, deep understanding of the cultural variables centered on the public purpose of higher education and the full extent of faculty work, even when it is so transparent that it is not seen, so essential that it is not counted. If there were ever a time that called for new institutions, new measures, and new models, this is it. Fortunately, the needed tools are available; whether we have the wisdom to use them for the public good remains to be seen. As Matthew Hartley (2012) concluded in his essay on "An Engagement for Democracy," "Movements are not built with modest, safe plans. They require audacity. And rather than tinkering around the edges, we ought to start imagining something worth fighting for. And we ought to be willing to fight as if our democracy depended on it—because it does" (p. 53).

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