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ENGAGED SCHOLARSHIP: PERSPECTIVES FROM OUTSIDE THE UNIVERSITY

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Abstract

As Harvard Kennedy School (HKS) considers whether and how to expand field-based learning, it is important to understand the perspective of the School's external partners: mayors and senior members of their staffs, departmental managers, and others in government who make field-based learning possible. This paper explores how these external partners perceive the costs and benefits of working with HKS faculty and students. Why do they join these efforts? How well does HKS meet their needs and expectations? In short, what's in it for them? Our research is based on interviews with municipal officials who have worked with faculty and students over the past decade in HKS Senior Lecturer Linda Bilmes' course, *Advanced Applied Management, Operations, and Budgeting*. The course exemplifies a type of field-based learning known as "engaged scholarship," which emphasizes reciprocity between the university and its external partners.

We find that participating in the course requires external partners to spend significant time to develop and refine projects, provide necessary data, and manage student engagement. Some partners perceive that engaging with students poses risks; managing those risks can be thought of as an additional cost. In addition, working with students can create tensions within partner organizations. In terms of partner benefits, we find that external partners attach significant value to the deliverables from student projects. They value the students' fresh perspectives and analytical talent and view their output as "consultant-quality" work, without the associated financial cost. In addition, establishing an enduring relationship with Harvard creates an important recruitment pipeline, provides opportunities for staff development and recognition, and fosters new communications channels between mayors and their staffs. Engaging with students also creates opportunities for organizational change, particularly when the partnership extends over multiple projects.

While field-based learning enjoys broad support among HKS faculty and students, the School is still developing its strategy for the role such learning should play in the curriculum and the optimal type and number of field-based courses it should offer. As HKS moves to formulate such a strategy, it should take partner costs and benefits into account. It should also consider how best to strengthen existing partnerships in the local community.

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Engaged Scholarship: Perspectives from Outside the University

Students learn best when given the opportunity to apply classroom knowledge and skills in real-world settings. Recognizing this fact, a growing number of HKS faculty are offering courses with field-based components, and SLATE is developing resources to help faculty assume new, more externally focused roles.

Field-based learning, as practiced in American higher education, may involve various activities and be called by various names including “service learning,” “community engaged teaching,” and “engaged scholarship.” While these activities have much in common, they emphasize to different degrees the core university functions of service, teaching, and research—as well as the degree to which relationships between the university and external partners are mostly one-way or reciprocal. As the name implies, service learning encourages and facilitates student and faculty service on behalf of external constituencies (Jacoby 1996); it emphasizes the university’s service to those on the outside. Community engaged teaching involves students and communities in activities that enhance students’ learning while addressing important community needs (Vanderbilt University 2015); it emphasizes the university’s teaching function, and fosters more reciprocal interchange than service learning. Engaged scholarship brings universities and external partners together to create knowledge for mutual benefit (Glass and Fitzgerald 2010: 14). Together, faculty, students, and external partners define problems, undertake analyses, and share findings (Cox 2010: 26). This approach emphasizes the contributions of external partners to university research, in addition to teaching and service. To a greater degree than other field-based learning approaches, engaged scholarship emphasizes *reciprocity*—participants share benefits and costs in equal measure.

Advanced Applied Management, Operations, and Budgeting, developed and taught by HKS Senior Lecturer Linda Bilmes, is an important example of engaged scholarship at HKS. Since 2004, students in this course have undertaken complex financial and operations management projects in partnership with municipal clients. Bilmes’ course was one of the first of its kind at HKS and is widely viewed as a model. Many external partners—notably the mayors and senior staff of the cities of Boston, Somerville, and Newton—have worked with the course for many years.²

To date, field-based learning at HKS has developed in an *ad hoc* manner. While field-based learning enjoys broad support among faculty and students, the School is still developing its overall strategy about the role that field-based learning should play in the curriculum and the optimal type and number of courses it should offer. Bilmes’ course offers an important opportunity to explore engaged scholarship from the perspective of external partners. The stability of these relationships suggests that benefits are reciprocal and significant. In addition, relationships are relatively open and trusting.

How do partners of this course describe the activities required of them? From their perspective, what are the costs and what are the benefits? How might HKS better take their interests into account? This paper, based on interviews with clients of the course, explores these questions.

² We refer to community-based contacts for the course as “partners” to emphasize the reciprocal nature of the relationship. We prefer the term “partner” to “client” because it better conveys the mutual sharing of costs and benefits.

Engaged Scholarship at HKS

Advanced Applied Management, Operations, and Budgeting (MLD-412) is an advanced course that requires familiarity with variance analysis, cost accounting, activity-based budgeting, capital budgeting, performance budgeting, and financial modeling. Bilmes requires students to demonstrate that they have mastered skills in most of these areas before she will admit them. Students must have completed at least one of the three prerequisites courses, which are: MLD-411 (Budgeting and Financial Management, taught by Senior Lecturer Linda Bilmes), API-141 (Finance, taught by Senior Lecturer Akash Deep), or HGSE course A-029 (Education, Finance and Budgeting, taught by Lecturer Jon Fullerton). The MLD-412 course is intended as the next step in a sequence of analytical learning, allowing students who have mastered skills in the classroom to apply them in municipal governments or other large organizations.³ (However, MLD-412 also teaches new intermediate level coursework, which supplements the field work.) The course is taught in the spring semester, and Bilmes works with external partners during the fall semester to develop suitable projects. The specific topics vary from year to year, but the analytics used for projects is fairly consistent and builds on the introductory coursework. Students work in teams of four over the entire semester.

Since its inception Bilmes has taught the course with the help of a senior level member of the HKS staff. The staff member arranges and attends important meetings, arranges for partner visits to the class and a student field trip to project sites, addresses partner concerns promptly and professionally, and helps students obtain data they need. The role of this staff member is important because partners are usually elected officials (generally mayors) and the projects are highly visible, significant, and complex. This staff member serves as a point of contact at HKS should partners encounter problems. The staff time required is equivalent to approximately one day a week during the time when the course is in session. Additional resources are required to cover the expenses associated with the field trip, students' travel to client meetings, travel to other institutions for benchmarking, and meals at the extended class sessions. Bilmes receives funding from the Rappaport Institute for Greater Boston and the Taubman Center for State and Local Government to cover these expenses.

External partners contribute to all aspects of the course. They suggest readings to be included in course materials, come to class to introduce their projects and co-lead discussions about topics such as municipal operating budgets, and contribute input to students' grades. One of the core features of the course is that senior-level community partners are significantly engaged in the process—mayors, chiefs of staff, cabinet members, CFOs, and department heads all attend some of the classes and interact directly with the students. Bilmes reimburses partners, as well as students, for their out-of-pocket costs associated with the class, such as parking and mass transit fares. All the deliverables from student projects (presentations, reports, spreadsheets, videos, etc.) are confidential for the partners.

Engaged scholarship requires a fully reciprocal relationship between the partner organization and the course, in which the partner participates actively in helping students to learn. Several other courses at HKS fit the engaged scholarship model. Each is different. Adjunct Lecturer Doug Ahlers' courses on "Management of Disaster

³ Even though students are carefully screened, many require additional training in the financial and data management skills. To provide this training, the class uses tabletop exercises and homework assignments designed to strengthen students' ability to manipulate large amounts of data, draw appropriate conclusions, and present results effectively to decision-makers.

Recovery and Community and Urban Development” and “Community Recovery: Rebuilding Disaster Damaged Communities in Chile,” exemplify engaged scholarship. Like Bilmes, Ahlers begins work with community leaders months prior to the start of the course to craft project ideas that would have high value both for the partners’ disaster recovery as well as students’ educational experience. For Ahlers, developing projects is delicate, requiring extensive time and sensitive negotiations. Projects must be discrete enough to be manageable but significant enough to motivate clients to devote necessary time. Students have lived in partner communities of Broadmoor, New Orleans, and Recupera, Chile, for extended periods, usually over the January term. Projects involve technical assistance, capacity building, urban planning, livelihood restoration, and community mental health services. Ahlers often continues projects over multiple years, seeing them through from concept, design, implementation, and evaluation.

“Operations Management,” taught by Adjunct Lecturer Mark Fagan, includes a field experience component that requires involvement from external partners. In addition to the regular coursework, Fagan’s students work in teams on client-based capstone projects. To get ideas for projects, Fagan contacts government agencies over the summer and asks whether they would like to work with an HKS student team. He prepares a Memorandum of Understanding between the client and the class that specifies the topic, students’ time commitment, and deliverable. Partner feedback is a factor in students’ grades. At the end of term students present findings and recommendations to the class, and clients are invited to attend.

Senior Lecturer Christine Letts’s class, “Philanthropy and Public Problem Solving,” is another model of field-based learning at HKS, focusing on non-profit organizations. In this model, students shoulder the majority of the work load—it is not reciprocal in the same sense as the other courses mentioned here. Students work in teams to choose a problem area and research the roles of Boston-area organizations working to address that problem. Students contact organizations to gather information about operating practices, activities and programs, and theories of change. Letts has been teaching with this model for many years, however she recently began a new phase in the course. Using funding provided by a foundation, students make cash grants to the organizations they consider most worthy of support.

A new addition to the HKS field-based curriculum is Lecturer Jorrit de Jong’s module, “Innovation Field Lab: Public Problem Solving in Three Massachusetts Cities,” to be offered for the first time in spring 2015. Working in teams, students will undertake projects in the cities of Lawrence, Chelsea, and Fitchburg, spending considerable time in the field. Somerville Mayor Joseph Curtatone will serve as a senior advisor to the course.

In addition to these courses and modules, all MPP students must complete a Policy Analysis Exercise on behalf of an external client as a requirement of graduation. They are supervised by an HKS faculty member, and they share experiences in a year-long seminar of students concentrating their studies in the same general area. In some cases, PAEs take on the character of engaged scholarship, with both students and external clients enjoying reciprocal benefits.

Methodology

The basis for this paper is a series of interviews we conducted with external partners in Bilmes Advanced Applied Management, Operations, and Budgeting course. Many of these partners have worked with Bilmes and

HKS students over many years and have established close ties with the School. This research represents the first systematic attempt to understand their perspectives about the costs and benefits of participating.

The primary partners of the course have been the mayors, department managers, and administrators working in the cities of Boston, Somerville, and Newton.⁴ As a first step, we planned a partner focus group meeting and invited four senior managers who had been partners of the course over multiple years to participate. These managers currently hold, or previously held, the positions of mayoral chief-of-staff, director of administration and finance, deputy chief information officer, and PerformanceStat director. The meeting was held in August 2014. Discussion lasted nearly two hours and was recorded and transcribed. At the partner focus group, we posed questions such as:

- How do you identify the projects students work on?
- Who (which staff functions) from your organization gets involved in the course? What types of activities do they undertake as part of working with the course?
- Can you describe some of the costs that might be associated with being a partner of this course? How much time is involved?
- Does being a partner pose any risks?
- What kinds of benefits are there for being a partner?
- Have any of the projects been implemented in your organization, in whole or in part? If so, how?
- What would you change about the course if you could?

Next, we explored the perspectives of a broader spectrum of officials. We identified, contacted, and interviewed the mayors of Newton and Somerville; three senior-level managers who had worked with the course including Boston Mayor Menino's chief-of-staff, Menino's chief financial officer, and Somerville Mayor Curtatone's special advisor; three middle-level staff responsible for day-to-day management of student projects; and two administrators responsible for managing university-municipal engagement. With two exceptions, all interviews were face-to-face. They lasted from 20 to 90 minutes. All of the face-to-face interviews were recorded. Interview subjects were informed that we would use their comments for research purposes but that we would not attribute their individual remarks to them.

One of us (Nash) and a Master in Public Policy student (Jessica Huey MPP15) independently reviewed interview recordings and notes to identify major themes. We assigned labels for each theme, such as "cost: time" and "benefit: recruitment." When we met to compare the themes we had found working on our own, we discovered overwhelming agreement. We pulled out quotes from interviews that best illustrated the themes.

We also conducted interviews with four faculty members engaged in experiential learning at HKS to discuss how their students interact with partners and their impressions about the costs and benefits of participation from the perspective of partners. Those interviews were in person and lasted 15 to 90 minutes. Faculty interviews helped to deepen our understanding of the context for field-based learning at HKS and inform recommendations

⁴ The Boston Redevelopment Authority (BRA) and SomerStat could be considered sub-clients of these municipalities. Other cities and towns (including the City of Cambridge, town of Hull, and township of Seabright, NJ), the Commonwealth of Massachusetts, and the Perkins School of the Blind have also served as partners, but not on an ongoing basis. A list of projects completed by Bilmes' class, and associated partners, appears as an appendix to this paper.

for expanding and strengthening external partnerships that appear in the “challenges and opportunities” section of this paper.

Findings

Through interviews with external partners, we gathered detailed information about the activities partners undertake as part of their work with the course, which range from developing project ideas, to accessing data, to building internal support for working with students. We also developed a clear understanding of the costs and benefits of the course to partners, including estimates of time and resources required and how external partners are using students’ work. At the end of this section we summarize our findings with a conceptual model for engaged scholarship.

Partner Activities

In interviews, we asked external partners to describe the activities they take on as part of their work with the course. They mentioned identifying and refining ideas for projects, coming to class to “pitch” projects to students (explaining the nature of their project and why it was important to the municipality, and the desired work output), hosting a student field trip, meeting with students on a regular basis to guide projects and provide feedback, providing necessary data and connecting students to key personnel, maintaining internal communication about the project, coming to class for students’ interim presentations, and participating when students present deliverables to key decision-makers, usually the mayor.

The first activity—identifying and refining ideas for projects—is the most critical. Finding an appropriate project is a key factor in a successful partnership. Bilmes plays a lead role in this process, brainstorming project ideas with mayors and chiefs of staff, who are often aware of projects they would like to do if resources were available. In Boston, for example, the budget office may flag projects that surface in budget negotiations that would be “nice to do if there were resources.” These projects are “parked” for development, should staffing become available. Discussions typically begin many months before the term starts. Bilmes steers the client in the direction of projects that are data-rich and appropriate for the course content and timeframe, avoiding projects that are likely to become politicized or subject to news media attention, which could interfere with students’ progress. Bilmes tests project ideas with colleagues inside and outside HKS and tries to determine whether necessary data are at hand. Projects must meet certain criteria, including that the municipality is willing to assign a staff person *for each project* to serve as the day-to-day contact for students. She rejects projects that are obviously political in nature, such as analysis of wages and benefits during ongoing labor disputes or topics that are in the media spotlight.

Mayors engage throughout the vetting process. Sometimes mayors will be the source of project ideas. “At staff meetings the Mayor will say, ‘That’s something we should do with the students,’” explained a mayoral chief-of-staff. At other times, mayors are brought into the decision about whether to pursue a project suggested by others, as one mayor explained:

My chief-of-staff really heads up [the project selection.] I do get involved in the conversation. We basically float it out to the team...and usually several ideas percolate up as what we might propose as possibilities for partnership.

The mayoral role is significant: “In the end, the Mayor does have the final say... he makes the decision on whether or not we should do a project,” said a project administrator. Those we spoke with viewed mayoral support as critical to project success. “Once you have the [Mayor’s] buy-in, it...leads the project,” explained one person. Senior staff must also be enthusiastic; a project must satisfy a recognized need. “[A project must be] a question that needs to be answered. We need an answer,” explained a senior manager.

Finding the right project can be difficult. Projects without high-level support tend to flounder. “So if it’s not seen as core to [a person’s] job or something they’re already working on..., it’s very easy to not be a great client,” said a chief-of-staff. Projects must fit academic schedules, which require work to be done in a concentrated way and completed by the end of a semester. This timeframe does not necessarily match with partners’, who must juggle many complex responsibilities and cannot necessarily give students’ projects priority over others. Much of the work of city departments cannot be organized neatly into “answerable” research questions, but instead involves day-to-day management of activities. Projects can sometimes be too ambitious, beyond the scope of what could be accomplished in a semester. One senior manager told us that projects for the course sometimes lacked “relevance and integration.” Despite these challenges, most of those we spoke maintained that projects satisfy their needs. In the words of a chief-of-staff:

We’ve never felt hamstrung in the sense that we’ve never felt that we had to go with a certain project because it would be interesting to the students. [HKS] has always given us freedom to select things that would be useful for the City.

Partner Costs

Engaged scholarship imposes significant costs on external partners. In the words of one senior staffer, being a partner of Bilmes’ course “is a heavy lift.” The major cost is time required to develop and refine project ideas, provide necessary data, manage student engagement, and refine deliverables to maximize their impact. In addition, partners devote a considerable amount of time to coaching and meeting with students, discussing the progress of the project and refining it during the semester, and working with Bilmes and senior HKS staff to fine-tune the final presentations and deliverables. There can also be technical work involved in preparing databases, for example, sanitizing confidential salary and medical information before it can be handed off to students for analysis. Some partners perceive that engaging with students poses risks; managing those risks can be thought of as an additional cost. In addition, as explained below, working with students can create specific tensions within organizations.

Time and Management Attention

Being a partner of the course requires a significant amount of time, as reflected in interviewees’ estimated time commitment. Bilmes requires every partner to designate a project manager to be the students’ key point of contact. One project manager said that working with the course requires two to five hours of his time per week

when the course is in session; another said eight hours per week. At the end of the semester when activity intensifies, work with students might require as much as 15 hours per week.

In addition to the project manager's time, working with the course requires the time of mayors, their staffs, and administrators. Each mayor approaches the liaison function in a different way. In Somerville, Mayor Joseph Curtatone works directly with Bilmes and students in the course, along with his chief-of-staff and SomerStat Director. Mayor Setti Warren is the point person for the course in Newton. In Boston, Mayors Thomas Menino and Marty Walsh have engaged directly, along with administration and finance directors, budget directors, and other senior staff members. In addition, for the past six years Boston has designated an administrator to facilitate student projects. This person now works with students in seven field-based learning classes offered by Boston-area universities, establishing a channel of communication between department project managers and the mayor's office. Several people mentioned the importance of having an administrator on staff dedicated to facilitating student projects. "I think every city in the country should have a person [in that position], because if you don't all this stuff comes and goes and it's a waste," explained one senior manager. Another said, "One of the things that in my experience was critical to the success of this partnership has been having someone on the partner side who can work internally with the [student] project team." While Bilmes generally interacts directly with Boston mayors and senior staff members to define the projects, the administrator is then held responsible for implementing what is agreed on—for example, ensuring that each project manager has the permission of their supervisor to devote time to this classwork.

Neither of the mayors we spoke with, nor senior members of their staffs, was able to provide an estimate of the amount of time participating in the class required. Still, they viewed the time as "substantial" involving "multiple meetings." Partners perceive a direct link between a project's success and the amount of time they devote. "If it's not that much time, it's probably not doing that much," one person told us. Each project step—providing context for a project, introducing students to key contacts, refining students' initial findings and recommendations, and coaching students on final presentations to the mayor—requires time, but each contributes to the project's impact.

While time-intensive, working with students can actually save time if student work directly supports partners' job responsibilities. "...If [the project's] a good fit, it doesn't feel like time," explained one senior manager. "If it's something the Mayor wanted to get done, or the department head wanted to get done, [spending time on the class] ... speeds things up."

Partners want to see that others "have skin in the game"—that others are also contributing their time. Many spoke of the critical role that HKS faculty play in projects, both in terms of contributing insights and demonstrating the university's commitment to their work. In the words of one project manager:

It was clear that [the students] were getting some good mentorship and support from [Bilmes and senior staff member Jeita Phillips], directing, letting them know 'hey, don't forget to think about x and y,' and ... [making] sure their research findings were based in data...and their recommendations aligned with giving the City better access to data for performance management and eventually program-based budgeting.

Partners perceive the substantial time that Bilmes devotes to advising student projects as evidence of the reciprocal nature of their relationship and justification of their own time expenditure.

Data

A particularly time-consuming activity for partners is identifying and aggregating the data that students request for their projects. Much of the coursework in MLD-412 is related to managing data, for example, using pivot tables, constructing financial models, using statistical analysis and aggregating line-item budget data into program and activity-budgets. However, sometimes the students' enthusiasm for manipulating data far exceeds the city's ability to supply it. Students pepper client partners with data requests, without fully understanding how much work may be required to generate this information, or whether it is actually feasible. As one budget director explained, "The students don't know what [data] exist, and you can waste a lot of time going back and forth." Another remarked, "We could use an interlocutor, someone who has some understanding to help students frame the questions, to say, 'x I can get, but y, do you really need that? This is what's available; pick from that.'" Managers must sometimes intervene to ease tensions created when students ask for data that are either not available or time-consuming to put together. A program administrator explained this dilemma:

We've had experiences where students ... kind of came in with like, 'Oh, we're going to fix you.' We're working with 35-year veterans who are like, 'Right, now I'm not giving you any data.'

This administrator now begins every project by giving the students "a lesson in City Hall culture"—ways to avoid confrontations of this sort.

Risks, Real and Perceived

From the partner perspective, engaged scholarship comes with risks. Student projects may appear threatening to municipal employees. Students ask tough questions. They are highly skilled, and they have access to top decision-makers. However, they are not familiar with the way work customarily gets done. They also operate on a different time schedule (the HKS academic calendar vs. the city budget calendar). According to a program administrator, without appropriate intervention, staff may resist helping students with their work:

Projects can only be successful if you appropriately manage the buy-in of the staff. Passive-aggressive behavior should not be underestimated, especially in city government. You send a team of very bright students in, and [staff will be] thinking they are going to be outsourced or their jobs are going away.

Students' recommendations often do have implications for staffing, so employees' concerns are not without basis. A fiscal analysis of municipally provided snow plowing and street sweeping compared to services provided by private contractors (undertaken by students in 2012) has the potential to impact the number of public works people the city believes it needs, for example. A program administrator offered this caution:

Potentially we tread on very ... thin ice with a lot of the projects we do because students make recommendations about FTEs. ... So that's why [we also say] this is a draft for

policy purposes, this is research. And implementation will happen at some point but within the scope of our labor relations and bargaining.

A mismanaged project could leave a legacy of bad feeling between senior managers and line workers.

Others mentioned potential risks of sharing confidential information with students. In the wrong hands, such information could expose areas of weakness. For example, when students advised Boston about how to implement a 311 implementation strategy, they were given access to citizen complaint records for the past several years. When students helped Somerville explore whether to consolidate its vehicle maintenance facilities, they were given information about staffing costs of the current system. One year, a team of students who were joint HKS-Harvard Medical School worked on a project that compared medical leave in the fire and police departments, investigating specific diagnostic categories. In spring 2014, a student team worked on a highly confidential project for Somerville, advising on negotiations for a major league soccer stadium. The students were asked to sign non-disclosure agreements and some of the information was withheld from the rest of the class.

If shared with the media, information of this kind could conceivably be damaging to city leaders. In practice, however, problems of this sort have never occurred. Still, there have been some situations that required delicate discussions with external partners. For example, one student team uncovered a situation in which the City of Boston was being defrauded by a contractor (for a substantial amount). Another time, Mayor Menino invited the *Boston Herald* to attend the students' final presentation, resulting in a flurry of last minute activity to ensure that the presentations were appropriate for the news media.

Partner Benefits

Partners value the deliverables from students' projects: consultant-quality work without the associated costs, perspectives that are not constrained by organizational norms and established practices, and analytical talent. Benefits extend well beyond deliverables, and include establishing a pipeline for talent, opportunities for staff development and recognition, and new internal communications channels between mayors and their staffs. Engaging with students creates opportunities for organizational change. Working with students puts external partners in the role of "co-teachers," a position they find gratifying.

Consultant-quality Work

Student deliverables often include a 20-30 page report, detailed process maps of similar length, and large Excel spreadsheets. The class ends with each team presenting its findings to the highest-level decision maker in their partner organization, usually the Mayor. In addition to the presentation, students provide partners with an executive summary of their project, recommendations, and the financial model they developed, including an explanation of how to use it.

Several partners told us that much of the work students produce is on par with what a high-priced consultant would deliver. A primary benefit of engaging with the class is the opportunity to receive consultant-quality work at no cost. Student teams are also much easier to justify to city officials than high-cost consultants. Not only do partners save on consultant fees, they forego the time-consuming process of going to bid. A chief-of-staff explained:

It's all the benefits of a great consulting team with none of the hassle. And I'm not up all night writing RFPs and trying to do a whole bidding process...I skip all the purchasing red tape the government is constantly dealing with and go right to the heart of the problem.

Working with the class, the process of finding outside help is straightforward and efficient.

Students are enterprising about filling gaps they encounter in data, another benefit to external partners. To advise Boston on its pricing strategy for parking, for example, students counted all of the parking meters in the City. Boston had not compiled that information previously. To develop a pricing policy for Hubway, Boston's bike share program, students accompanied the City's bike share contractor as it moved bikes from a popular trip destination location to a popular trip origination location. They rode on each of the bike routes and identified bottlenecks in the bike-return transport system (Transporting bikes is a major cost driver for the program.) They obtained bikeshare data from Washington, DC, where a program had been in place for some time, analyzed more than 1 million individual ride prices and adapted it to Boston using local meteorological data, as well as randomizing the pricing for three days in Boston to estimate demand. The econometric model created to deliver the pricing schedule for Boston was probably far beyond what an external (non-student) team would have initiated.

In 2014, a student team worked with Boston Mayor Marty Walsh's chief-of-staff to provide analysis on one of the Mayor's top priorities, expanding night life in Boston to later hours. To assess the feasibility of extending the hours of Boston bars and restaurants, students collected and analyzed late-night activity from social media such as Twitter, creating "heat maps" of every Tweet sent in Boston during a 72-hour period, and overlaying this with maps of bars and crime hot spots. In this and many cases, the presentations, reports, and models that students deliver to partners are based in data that partners would otherwise be unable to access.

When we asked partners about the extent to which they have used students' work, partners gave a range of responses. A concrete example of a partner implementing students' recommendations is the Newton Veterans Service Center, established in 2013. At the request of the Mayor, students traced the flow of government funding for veterans services in Massachusetts and analyzed the match between funded services and veterans' needs. After identifying critical service gaps, the students recommended that Newton establish a "one stop" service center where veterans could find help for a wide range of needs. The students delivered their recommendations to the Mayor in May 2012, and the service center opened one year later. In 2014, a second group of students reviewed service center operations, recommending adjustments and additional veteran supports. The Mayor credits Bilmes and the students for the service center in place in Newton today.

More often, partners have used students' projects to inform policy options. In Somerville, the parking department asked students to determine how decreasing parking citation fines would impact parking revenue raised. The students found that decreasing fines for meter violations would decrease revenue, but decreasing fines for permit violations would increase it. These recommendations were consistent with the parking department's understanding about the relationship between citations and revenue. Students' work reinforced existing policy.

Several people had difficulty pointing to direct results from students' recommendations. They noted that implementation takes time. "Sometimes I've seen projects sit for a while and then come back when the leadership is right," explained one person. Several spoke of implementation of student work as a "process." Explained one program manager:

There's an iterative process of introducing ideas that might come to fruition [later]. An idea gets put forward, it's crazy and then a year later it reappears in a slightly different version and then it's less crazy and then eventually it happens, it gets implemented.

Partners spoke of student engagement as an opportunity to innovate in city government. Because students are outsiders, their work offers a fresh perspective. "Students don't have any sense of propriety, and I mean that in the best sense," one senior staff member told us. Students say things that mayors and senior staff simply cannot. "Students ask, 'You do it that way, really? Why not like this?'" They are largely unschooled in established organizational routines and collective bargaining rules, and they owe allegiance to no vested interest within the partner organization. As a result, their recommendations have importance, particularly when partners are looking for ways to introduce change in their organizations.

Recruitment

A key benefit of working with students is the opportunity for recruitment. This is one of the most direct and specific reasons why client partners devote the time and effort to this course. In the words of one manager, "The value proposition for me as a public sector manager is hiring." The partners we spoke with frequently have difficulty finding analytically trained applicants. He told us that the class provides a pipeline to talent:

Generally in public works recruiting you are not getting quality...It's really tough to find excellent people. But [with the class] the students come in and get their hands dirty and see the impact. You pay that person [approximately] \$70,000 a year, but that person in terms of savings to the City is worth many times that.

Boston has made eight "significant hires" from the class. These former Bilmes students now hold leadership positions in City government, including chiefs-of-staff and operations directors. The central role that recruitment plays in Boston's relationship with the class is reflected in the fact that the City's chief administrator for student projects has until recently held the title of "Talent Acquisition Specialist" within Boston's human resources office. For Boston, engaging with students is a direct way to identify promising recruits and inspire them to seek a job with the City. Students see firsthand the degree to which their knowledge and skills can improve city services and save money. People told us that many students caught "the public service bug" after working with them as part of Bilmes' class.

Class projects also allow senior managers to assess students' abilities to fit into municipal work environments. A "Harvard resume" can sometimes be off-putting to municipal managers, according to one administrator. Students' work with partners allows project managers to test their ability to get along with existing staff members and adapt to established organizational routines. A program manager elaborated:

When I see a resume, I don't want it to be better than [the employee] in front of me, and that's almost always the case with [Kennedy School] students. But because we're able to point to real life concrete experiences that the student has been able to tackle, [and can demonstrate that they understand] the complexities of government, [there's a real opportunity to hire the person]. When a department head or a cabinet chief approaches our office and says, 'We have this position open,' I can comfortably say to them, 'this person has given us good stuff.'

Bilmes estimates that 50% of her students have subsequently joined local governments, including positions in Baltimore, Boston, Cambridge, Denver, Houston, Nashville, Palo Alto, Portland Oregon, San Francisco, Somerville, Washington DC, as well as cities in Germany, South Korea, and Vietnam.

Staff Development

Senior staff members use the opportunity of working with the class to recognize promising employees. By assigning students to help a project manager, senior staff are in effect providing that manager with a consulting team to support his or her work. A senior manager exemplified that mid-level managers singled out in this way understand that their work is of special significance to the City:

We've assigned [student] teams to mid-level managers, up and coming leaders, not necessarily even managers but strong, usually analytical people in departments, and say, 'You are the point person for this team,' and they play the role of tracking down the data and figuring out how it works, and letting the students ask the questions and helping the students get their answers and being part of that experience.

Senior staff members also use student projects to establish connections between project managers and the Mayor. In a large organization such as Boston, many mid-level managers have few opportunities to interact with the Mayor directly. Student projects establish a line of communication that otherwise might not exist, according to a program administrator:

[The project] gives the Mayor an opportunity to meet those middle managers he hasn't, for one reason or another, interacted with before. And it's helpful for the department head and cabinet chief to know about some of the smaller projects, to bring them down to actually seeing the services we work with on a day-to-day basis.

Working with the students shines a spotlight on project managers, drawing attention to their competence and the importance of their activities.

Developing the Next Generation of Leaders

Partners told us that working with students serves a purpose that is broader than advancing specific projects: it contributes to the education of the next generation of government leaders. One person spoke of his role in the class as "co-teacher." Many view that role as "an honor" and a "source of pride." The most important lesson they

offer students is the immense personal gratification that comes from helping cities work better, which one mayor called “the most rewarding work of my life.”

In keeping with their role of co-teachers, several people expressed reluctance about controlling students’ work too closely. They saw value in giving students space to explore issues in their own ways. A senior manager noted:

You have to remember that, for students, the objective is the learning, not the product. So we can’t be completely in control of this, either in the selection of the project or the product. They may chase down things that you know are not ever going to happen or propose things that you know won’t work. But it’s important for students to go through that process. It’s part of what we’re here for.

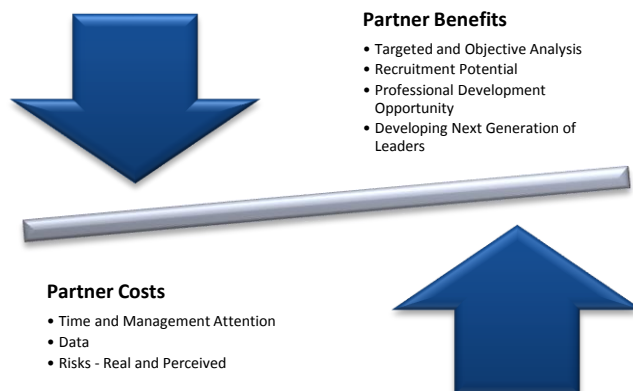
Interviewees recognized that their role as co-teachers might at times conflict with need for students to deliver analyses that could readily lead to implementation, but they were sometimes reluctant to demand products that fit established molds. Instead, they spoke enthusiastically about showing students that there was a place for “outside the box thinking” in city government.

Conceptual Model for Engaged Scholarship

We summarize the costs and benefits for external partners of Bilmes’ course in Figure 1 below. For partners, costs include time and attention to define projects and manage student work, and in particular to provide students with the data they need for analysis. An additional cost is the perceived risk of sharing the inner workings of municipal government with outsiders. In Bilmes’ class, these costs are offset by significant benefits, which include the targeted and objective analysis that students in the class provide, the opportunity to recruit talented new hires, the chance to recognize and develop existing employees who show particular promise. In addition, many in government value the chance to “co-teach” the next generation of city leaders.

A defining characteristic of engaged scholarship is *reciprocity*—participants share costs as well as benefits. A similar analysis of costs and benefits of engaged scholarship could be developed for university-based faculty and students; that analysis is beyond the scope of this paper.

Figure 1. Conceptual model of engaged scholarship



Challenges and Opportunities

We asked external partners and HKS faculty engaged in field-based learning for ideas about how to improve the experience of partners. Suggestions fell into four areas: (1) Refine project scoping, (2) Create opportunities for sustained engagement, (3) Expand partnerships to other cities, and (4) Institutionalize engaged scholarship.

Refine Project Scoping

External partners and faculty we spoke with noted the challenge of developing appropriate projects for students to work on. One external partner said that projects should be “actionable”—things that students could implement over the course of a semester. Instead of developing an analysis of the costs of expanding ferry service in Boston, for example, students should complete the grant application form for purchasing a new ferry (one of the steps Boston would need to take to implement new ferry service). Instead of analyzing the revenue implications of new parking policies, students should use the semester to create an urban “parklet” (an area of outdoor seating installed in place of a parking spot). Partners told us that more scoping work should be accomplished before the semester began so that partners and students could move more quickly toward project completion. They said their offices should do a better job maintaining lists of high-priority projects for students to work on. A list of projects, already vetted by the Mayor, would help to avoid “the scramble” at the beginning of the term. A faculty member suggested that HKS work with area universities to develop a list of projects, and organizations, needing support.⁵

Create Opportunities for Sustained Engagement with Individual Students

Most projects cannot be completed in a single semester. Partners expressed regret that “students couldn’t stay on to help with implementation.” They would welcome the chance to work with students on an ongoing basis. Even in a city like Boston, with a workforce of many thousands of people, opportunities for hiring do not necessarily coincide with the months when most students are looking for work. Somerville and Newton, with much smaller workforces, only rarely have opportunities to hire new staff. Partners offered suggestions for extending the timeframes of student engagement, short of hiring the students. One asked whether the School might offer opportunities to work with one student from a team over the summer or an additional six months. Another suggested that HKS develop a fellowship program for students seeking to work in municipal governments, using the Presidential Management Fellows program (PMF) as a model. PMF is a leadership development program, created by federal executive order, that offers promising candidates two-year placements in federal government offices.

Expand Partnerships to Other Cities

Both partners and faculty we spoke with encouraged HKS to consider extending opportunities for engaged scholarship to other cities. Chelsea, Fitchburg, Lawrence, Lowell, Quincy, and Revere were mentioned as places that would benefit from the analytical capabilities and innovative thinking of HKS faculty and students. We see

⁵ The faculty member suggested that the list of organizations maintained by the Boston Foundation, givingcommon.org, might serve as a model.

now as a time to share the reciprocal benefits of engaged scholarship more broadly, and that projects need not be ambitious or glamorous. “What municipalities really need is replication of best practices,” explained one partner.

Several warned, however, that engaged scholarship poses risks if relationships are not carefully nurtured. “If you were going to attempt to scale this, and not have that level of support for the faculty, that would concern me,” explained one senior manager at a partner organization. “I would be worried if there were a team that went to Lowell and came up with some recommendations and then if Lowell just implemented them [without faculty review and engagement],” said another. An HKS faculty member who offered field-based classes echoed the point that establishing reciprocal relationships in new places is not easy:

It takes a lot of time and energy to build and maintain a relationship. You cannot really do ‘one offs’...oh, we’ll work with the City of Houston today, and next week it’s the City of Chicago. To really build the relationship, to get [the partner] to the point where they will invest the time, they expect real benefits.

An additional challenge is that small, under-resourced cities may lack the infrastructure to support engaged scholarship. The projects that were undertaken in Hull, Massachusetts, and Sea Bright, New Jersey, were difficult to manage because there was insufficient local management bandwidth to take advantage of the student effort. In Hull, students worked with a local town councillor to secure emergency flood grant assistance for the town, which succeeded in raising nearly \$500,000 in direct funds to offset local homeowners flood insurance. Even though the project was one of the most successful student efforts in the history of the course, the town manager did not have the capacity to continue working with the students long-term. While the Mayor of Sea Bright was eager to work with the class to identify available federal and state financial resources that could help her community recover from Hurricane Sandy, she and other township officials were too busy to sustain the partnership. Students had difficulty scheduling meetings with key officials and obtaining data they needed for their analysis. Students presented the Mayor with an estimate of the gap between township needs and available assistance and a diagram showing the steps required to access federal and state funds. These results, while important to the community, fell short of what students had hoped to deliver. Bilmes has declined dozens of requests from small municipalities over the years because they could not designate someone who could work directly with the students on data analysis and ensure the reciprocity that is the hallmark of engaged scholarship.

Poorly run projects have the potential to reflect negatively on the entire School, since external partners do not necessarily distinguish between one faculty member and HKS overall. As one faculty member with experience in field-based learning explained, “The School may think of it as students in a class working on a project, but the partner thinks of it as Harvard Kennedy School working on a project.”

Institutionalize Engaged Scholarship

Many of those we spoke with encouraged HKS to think of ways to institutionalize engaged scholarship beyond the courses and activities currently offered. As a professional school, HKS should approach engaged scholarship as fundamental to its mission. People suggested a multi-faceted approach that would include teaching and research components.

The course's current semester-long format could be expanded to include summer projects, one-year public sector fellowships in the cities, and projects that are set up to be led by faculty at other institutions. One of the long-term objectives could be to place graduate students in summer public service internships and one-year fellowships that would enable them to work with a specific community on implementing these models.

Those we spoke with encouraged us to consider expanding the research basis of engaged scholarship. One approach would be to encourage academic research on topics of municipal concern. One program manager lamented the lack of academic research on topics relevant to the day-to-day functioning of cities: "There's such a deficit of academic research on the nuts and bolts of tasks that cities need to accomplish, like how do you implement a work order system? What are the best approaches for permitting?" HKS could encourage research to help to fill that gap. Several people noted that many of the projects undertaken to date have yielded material that could be adapted and made available for wider use. For example, a student-constructed model for variable pricing of parking meters in Boston could be converted into a web based application. Such materials could be used for training a wider group of municipal leaders at roundtable and conference sessions. In addition, many of the projects could be developed as teaching cases.

Conclusion

Engaged scholarship can be defined as "a two-way process of mutual knowledge creation and benefit." (Glass and Fitzgerald 2010: 14). It includes teaching, research, and service, and is reciprocal and mutually beneficial. This paper has explored the costs and benefits of engaged scholarship from the perspective of the external partners of HKS Senior Lecturer Linda Bilmes' Advanced Applied Management, Operations, and Budgeting class. We find that the current format imposes significant costs on partners. In the words of a senior staff member who has worked with Bilmes' class for many years, it is "a heavy lift." It also yields significant benefits, ranging from consultant-quality deliverables, opportunities for recruitment and staff development, and the gratification of contributing to the development of new municipal leaders. As HKS explores ways to expand field-based learning, it needs to ensure that costs and benefits are reciprocal and equitably shared. This paper offers some suggestions for doing so, which include refining the process of project scoping, creating opportunities for sustained engagement with individual students beyond a single semester, extending partnerships to other cities, and finding ways to institutionalize engaged scholarship. These steps would strengthen and expand partner benefits and help to foster a sound basis for engaged scholarship going forward.

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Appendix--Engaged Learning Projects Undertaken by Professor Bilmes' Class

Boston, Somerville, Newton 2014

- 311 implementation strategy for City of Boston
- Analysis of the cost of gun violence to the City of Boston
- Analysis of late night expanded commercial hours, including bars and restaurants in Boston
- Analysis of cost and successes of MA extended learning time (MA State Legislature)
- Newton Veterans Center – data and improvements
- Somerville Soccer Stadium - feasibility and cost implications study
- Analysis of appropriate use of capital assets for Somerville real estate

Boston, Somerville, Cambridge, Sea Bright NJ 2013

- Financing plan for a new East Boston-Innovation District ferry
- Analysis of municipal impact of potential changes to Federal bond policy (Cambridge)
- Financial plan for rebuilding Seabright, NJ after Hurricane Sandy
- Somerville Asset Management analysis

Boston, Somerville, Newton, and Perkins School for the Blind 2012

- Fiscal analysis of municipally provided snow plowing and street sweeping compared to services provided by private contractors in Boston
- Pricing strategy for Hubway, Boston's Bikeshare program
- Capital plan and operating model for a new recreational center in Foss Park, Somerville
- Analysis of revenue implications of changing Somerville parking citations and meter fees
- Model municipal program for employment services for returning veterans (Newton)
- Analysis of food services at the Perkins School, with a focus on cost savings and risk management

Boston 2010

- Economics of expanding city trash and recycling collections to non-profits
- Capacity and cost analysis for expanding usage of Boston Harbor Islands
- Modeling financial options for city role in sustainable financing for the Rose Kennedy Greenway
- Analysis of possible savings from restructuring claims process for workforce health and safety accidents
- Analysis of costs savings from consolidation of parking and other miscellaneous revenue collections

Boston 2009

- Scenario modeling for variable rate parking
- Fiscal impact analysis of consolidating Boston's emergency services communications
- Vehicle fleet optimization
- Street lights: evaluating the cost of in-house maintenance: vs. outsourcing
- An analysis of efficiency gains in Boston's snowplowing operations

Somerville School District 2008

- Evaluating the fiscal impact of charter schools on Somerville Public Schools budget
- Analyzing the cost drivers to the city of providing custodial and maintenance for the school district
- Surveying prospective teachers to optimize investments in recruitment/retention incentives
- Developing a fiscal rescue package for after school programs that were losing state grant funding
- Identifying the cost drivers and total costs of special education

Somerville City 2005 - 2007/2008

- Converting line-item budget to program format in all 17 departments
- Translating data from each department into program formats
- Assisting in the development and setting performance targets for “Somerstat”

Newton 2008

- Creating an activity based budgeting model in the parks and recreation department
- Building a capital budget for long-term construction, modeling financing options of a new high school (Newton North)
- Benchmarking financial data compared with other local cities
- Developing a revenue forecasting model under different growth scenarios

Hull 2007

- Analysis of whether the Town of Hull would save money for taxpayers by participating in the Community Rating System program for flood insurance, operated by FEMA