

Tackling Grand Challenges: Community Engagement and Collective Impact in Public Problem Solving

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Abstract

In recent years, grand challenge initiatives have emerged nationally with the goal of addressing large, multidisciplinary public problems. The advent of university-led grand challenge initiatives offers an important opportunity to reflect on how institutions of higher education design, implement, and orient externally relevant activities at a time of public skepticism. With a focus on public problem solving, grand challenge initiatives offer a way to re-engage the public's imagination and faith in higher education, depending on what these initiatives reflect about institutional values, practices, and work. We use this reflection opportunity to review early approaches to university-led grand challenge initiatives. We then propose that two frameworks should merge explicitly into grand challenge initiatives to guide public problem solving: community engagement and collective impact. Finally, we offer the establishment of a grand challenge initiative at the University of Denver (DU) as an example of the integration of community engagement and collective impact frameworks into the organization and implementation of institution-wide, publicly-engaged work.

Keywords: university-community; collaboration; multidisciplinary; institutional structure

Introduction

In recent years, institutions of higher education have faced questions about their value, relevance, and contributions to the public, as opposed to private, good. At the same time, urban-serving institutions continue to navigate their “especially complex and intimate relationship” with their local communities and the challenges facing diverse communities (Ramaley & McNair, 2018, p. 4). Against this backdrop, the higher education landscape has seen the emergence of grand challenge initiatives that have the stated goal of addressing large, multidisciplinary public problems. The emergence of grand challenge initiatives offers an important opportunity to reflect on how institutions of higher education generally, and urban institutions specifically, design, implement, and orient externally relevant activities at a time of public skepticism. With a focus on public problem solving, grand challenge initiatives offer a way to re-engage the public's imagination and faith in higher education, depending on what these initiatives reflect about institutional values, practices, and work. We use this reflection opportunity to review early approaches to university-led grand challenge initiatives in an urban context. We then propose that two frameworks should merge explicitly into grand challenge initiatives to guide public problem solving: community engagement and collective impact. Finally, we offer the establishment of a grand challenge initiative at the University of Denver (DU) as an example of the integration of community engagement and collective impact frameworks into the organization and implementation of institution-wide, publicly-engaged work.

Emergence of University-Led Grand Challenge Initiatives

In 2012, the Obama Administration launched efforts to encourage government, companies, foundations, philanthropists, and universities to pursue grand challenges. It defined these challenges as “ambitious but achievable goals that harness science, technology, and innovation to solve important national or global problems and that have the potential to capture the public’s imagination” (Office of Science and Technology Policy, 2013; Dorgelo & Kalil, 2012). The Obama Administration’s call built on work emerging through foundations, such as the Gates Foundation, as well as academic disciplinary organizations, such as the National Academy for Engineering Grand Challenges (<http://www.engineeringchallenges.org>). Since then, other academic disciplines (e.g., Berndtson et al., 2007), disciplinary organizations (e.g., Uehara et al., 2013), and individual institutions (Popowitz & Dorgelo, 2018) have either called for or launched grand challenge initiatives.

In 2017, The University of California, Los Angeles (UCLA) convened nearly 20 higher education institutions from North America to share practices related to establishing university-led grand challenge initiatives. A report from this assembly (Popowitz & Dorgelo, 2018) provides the most comprehensive look to date at the early framing of university-led grand challenge initiatives, which includes both public and private institutions who summarize their work with varying degrees of emphasis on faculty research, student, and communities. For example, Carnegie Mellon University’s program “is designed to provide winning groups of faculty with targeted support to build research capability” while Georgia Institute of Technology’s program entails “a living and learning community with over 100 freshmen...living together” who will “explore solutions in student-led teams over the course of their undergraduate degree” (p. 5). Some descriptions include collaboration across students, staff, and faculty, such as the University of Texas at Austin, for whom “Bridging Barriers is a campus-wide, researcher-driven Grand Challenge initiative” (p. 5). UCLA’s description of their grand challenge initiative emphasizes connecting “hundreds of faculty, students, community members, and leading experts across many fields to solve society’s toughest problems” (p. 6).

The report is the basis for establishing a community of practice, which provides a structure for universities to share practices and co-learn as grand challenge programs come into operation nationally. Building on the Obama administration language, the report defined grand challenges as “moonshots” and a “North Star for cross-sector and multidisciplinary collaboration” (p. 2). The report shared the optimism that university-led grand challenge programs were “rallying research communities to contribute to solving a major societal challenge; attracting new investment and resources; demonstrating value of university research; and engaging students, partners, the broader community, and the public” (p. i). Higher education consultants have reinforced the potential for grand challenge initiatives to seed collaboration that will help position institutions in an increasingly difficult research-funding environment (e.g., Lund, Barnhart, Goodell, & Winslow, 2017).

As highlighted in the UCLA report, grand challenge initiatives are not the first nor only efforts by universities to leverage research for impact, which means that universities can learn from existing approaches and frameworks. The UCLA report referenced High Integrity Basic and Responsive Research (HIBAR) championed by the Association of Public and Land-Grant

Universities as a relevant approach to grand challenge initiatives. The report also cited existing frameworks to guide institutions in determining the scope and focus of grand challenge programs, such as the use of a SMART goals framework, an acronym for Specific, Measurable, Ambitious, Realistic and relevant, and Time-bounded. In addition, advice about establishing and implementing university-led grand challenge initiatives has focused on key institutional factors, such as the importance of structures and staffing to support the initiative as well as robust communication and long-term engagement of constituencies such as faculty, staff, students, administrators, and communities (Lund, 2017; Popowitz & Dorgelo, 2018).

Important questions about implementation have also emerged, such as how grand challenge initiatives can ensure faculty are able participate while also keeping their own individual or pre-existing programs of research moving forward (Lund, 2017). The UCLA report highlighted questions about how and when communities should attempt any grand challenge initiative development and implementation (Popowitz & Dorgelo, 2018). In addition to these core questions, we see an opportunity to ask what the design and implementation of grand challenge initiatives reveal about our institutional values and practices, particularly in light of trying to re-engage communities in the vision and mission of higher education. With these questions in mind, as well as the potential of grand challenge initiatives for public problem solving, we propose that two frames should be central to the design and implementation of grand challenge initiatives: community engagement and collective impact. We turn first to defining collective impact. Secondly, we discuss collective impact and community engagement in the higher education context. Lastly, we provide an example of how the University of Denver has applied these frameworks to the development and early implementation of its grand challenges initiative.

The Collective Impact Framework

Collective impact emerged as a framework in the nonprofit sector in light of observations that community-level change seemed more likely to occur when organizations worked together towards a shared agenda rather than in isolation (Kania & Kramer, 2011). In the seminal article published in the *Stanford Social Innovation Review*, Kania and Kramer (2011) described the climate of social change as one that prioritized the creation of independent solutions, where an organization's value related to its ability to demonstrate unique impact. As an alternative, they proposed the term collective impact to refer to the commitment of actors from different sectors to a common agenda to solve a specific social problem.

Collective impact efforts are, according to researchers, “different from traditional collaboration in that they are designed to drive sustainable change in entire systems” (Bender, 2017, para. 1). To accomplish system-wide or community-level change, Kania and Kramer (2011) proposed that five conditions are essential: (a) a common agenda; (b) shared measurement; (c) mutually reinforcing activities; (d) continuous communication; and (e) backbone support. A common agenda allows for a shared understanding of the problem to take shape. This, in turn, provides the clarity to prioritize strategies that are not only results-focused and measurable with an agreed-upon set of tools, but are also of mutual benefit to those involved. Continuous communication supports the overall collaborative process as does having an entity responsible for providing logistical and infrastructure support to the collaborative group. With these conditions in place, the collective impact framework suggests that diverse entities can work

towards shared goals while still maintaining their individual organizational identities and missions.

Since Kania & Kramer's (2011) article, many collaborative groups have embraced the term and endeavored to use the approach to move the needle on important, so-called wicked problems in their communities. In fact, Cabaj & Weaver (2016) have described the current atmosphere of collective impact as at a fever pitch. Not surprisingly, the swift growth and uptake of the collective impact model has ushered in important critiques as well. Authors have argued, for example, that collective impact omits attention to a rich body of evidence in the existing literature about coalition building. Furthermore, it has yet to demonstrate grounding in evidence-based practice; Moreover, it pays little attention to issues of equity and diversity. In addition it focuses on engaging the most powerful rather than the most impacted stakeholders, which undercuts building relationships, trust, and leadership among communities (Arias & Brady, 2015; Christens & Inzeo, 2015; Flood, Minkler, Lavery, Estrada, & Falbe, 2015; Le, 2015; LeChasseur, 2016; McAfee, Blackwell, & Bell, 2015; Williams & Marxer, 2014; Wolff, 2016).

Several responses, however, have emerged to these critiques. Kania and Kramer (2016) have emphasized the importance of treating the model as a framework, not a prescriptive recipe. Furthermore, the Tamarack Institute has proposed Collective Impact 3.0 (Cabaj & Weaver, 2016), which maintains many of the same principles as the original collective impact framework while encouraging-practitioners to refocus efforts away from a management paradigm and toward a movement-building paradigm. Moreover, a recent research report released in March 2018 provided the most methodologically rigorous study of collective impact completed to date (Spark Policy Institute & ORS Impact, 2018). The cross-site study included 25 collective impact initiatives, eight of which were included for deeper analysis. The study found that collective impact contributed to measurable population change at all eight sites.

Integrating Collective Impact and Community Engagement Frameworks

Many important commonalities exist between the collective impact framework and the structures of higher education institutions generally. For example, the structure of institutions of higher education lead to units that each have their own disciplinary approaches and cultures, which holds many similarities to working across sectors. While these units share a common institution-wide mission, the day-to-day practices of their work turn on the accomplishments of individual departments, divisions, and colleges in the ways the institution rewards faculty, chairs, deans, and other such administrators. Looking within departments, faculty have been historically incentivized to emphasize independent achievement, for example, through tenure and promotion processes, and incremental progress in research, such as through funding expectations to build one grant proposal on the specific findings of the previous grant.

As urban institutions of higher education begin to explore their role in collective impact initiatives (see *Metropolitan Universities* journal issue dedicated to this topic; November 2017, Volume 28, Number 4), they are also exploring how to more meaningfully participate in and impact their communities, including through community-engaged methods. In a comparison of land-grant institutions and urban institutions (Weerts & Sandmann, 2008), findings revealed that urban institutions develop a stronger embeddedness within their communities. Holland (2002)

has called this being “not just in the city, but ‘of the city’” (p. 3). This leads to an engagement agenda that is more fully realized across the campus at urban research universities. This is, in part, due to the use of intentional engagement language as a piece of institutional branding, the porous boundaries of partnerships that support engagement, the alignment of engagement with the teaching and research roles of faculty, and stronger leadership support for engagement along with leaders who view community partners as stakeholders and learning partners (Weerts & Sandmann, 2008).

Community engagement, then, is a method of research, creative work, teaching, and learning that emphasizes university-community partnerships characterized by mutual benefit and reciprocity. Over the last two decades, community-engaged methods have evolved in terms of their rigorous application to research, creative work, and teaching as well as their role in universities. The widely used definition of community engagement, advanced by the Carnegie Foundation for the Advancement of Teaching, is “the collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity” (Driscoll, 2008, p. 39). The emphasis on mutual benefit and reciprocity calls upon institutions of higher education to embrace an approach that allows diverse ways to generate knowledge as well as application of such work to the betterment of society. Shields (2015) argues that urban institutions should explore the primary function of their engagement efforts, whether they emphasize a more transactional and reputational focus or a truly mutually beneficial and social transformative one: “simply offering community service project or an infusion of development funds does not necessarily fulfill this moral function of social transformation. It does not automatically or inherently attend to the socio-cultural, political, or economic needs and ideologies of community in which the institution is embedded” (p. 227).

The complexity of society’s most pressing problems and the inherent need to approach solution generation from a multidisciplinary lens has led scholars to call upon institutions to make community engagement more central to the core of university work (Fitzgerald, Bruns, Sonka, Furco, & Swanson, 2012). Fitzgerald et al. argue that shifting from product to impact will improve the societal relevance of higher education. Such a shift requires commitment to transformational change not only deeply within an institution, but also in the way a university engages with the broader community. Ramaley (2002) underscores the importance of a clear and compelling model that institutions may use to guide actions at every turn when seeking such transformational change. Sandmann and Plater (2009) claim that “community engagement will endure only when the belief, the commitment, and the actions are so pervasive – so habitual – that their withdrawal would be painful.” (p. 23).

We propose that combining collective impact and community-engaged frameworks offers a powerful method to achieve transformational change that elevates the public purpose of universities while re-committing to such a purpose. Guided by collective impact and community-engaged methods, universities have the potential to shift from isolated impacts focused on individual scholars or projects to multidisciplinary work that tackles wicked problems in collaboration *with* communities. The focus on work done *with* communities is vitally important. By merging lessons learned in the field of community engagement, there is the possibility to address the critiques of collective impact related to diversity and equity. The practice of

community engagement, especially in urban settings, continues to evolve in ways that help universities reflect the diversity of the cities in which they reside (Bringle, Hatcher, Hamilton & Young, 2002). It strives to employ a practice of full participation where “institutions are rooted in and accountable to multiple communities” (Strum, Eatman, Saltmarsh, & Bush, 2011, p. 4), and explore their role in social transformation, especially as it relates to addressing the marginalization of individuals in their community (Shields, 2015).

A key charge for urban institutions is to consider what ethical community engagement looks like, applying “principles of mutuality, reciprocity, social justice equity, self-determination, and collective efficacy” (Murtadha, 2016, p. 8). As community engagement can help address the challenges of collective impact, collective impact can in turn strengthen university effort to work toward larger scale community change. Bender (2017) argues that collective impact approaches applied to university-community partnerships can (a) reinforce institutional mission, (b) focus and strengthen institutional community engagement efforts, and (c) facilitate community-based research. Ultimately, Bender contends that by engaging in collective impact efforts, higher education institutions can “better serve their own students, improve campus-community engagement efforts, and ultimately strengthen the communities in which they operate” (para. 13).

While Bender and articles in the *Metropolitan Universities Journal* issue highlighted the role that urban institutions can play in multi-sector collective impact initiatives in communities, no one to our knowledge has considered how to adapt and apply the concepts and processes of collective impact to the internal function of a university. In other words, because universities are composed of different units, divisions, departments, centers, institutes, and more, with different missions and visions, they function like a conglomerate of multiple organizations all working under the same set of operational goals, typically outlined in university-wide strategic planning efforts. The collective impact framework’s focus on multi-sector collaboration is ripe for helping institutions of higher education think about how to align and leverage institutional structures across diverse units and disciplines. This allows a shift from fragmented activities, though they may be of a high quality, to a collective form of action that can lead to deep and durable impact (Cabaj & Weaver, 2016).

Important to the application of the collective impact framework to higher education is infrastructure in terms of what Kania and Kramer (2011) conceptualized as backbone support, or Cabaj and Weaver (2016) as containers for change. Both conceptualizations point to the importance of a structure within the loosely coupled system of higher education that can span, convene, and support broad collaboration. The backbone support entity should bring together skills necessary to coordinate and communicate across constituents. Backbone organization staff stand apart from the participating groups and provide support such as planning, managing and supporting the initiative through facilitation, communication, data collection and reporting, and other logistical and administrative functions (Kania & Kramer, 2011). As Kania and Kramer (2011) point out, “The expectation that collaboration can occur without a supporting infrastructure is one of the most frequent reasons why it fails” (p. 40). Further, Wolff (2016) note that backbone organizations need not lead the effort themselves. Rather, they must possess the skills to cultivate leaders among those involved. The individuals driving the collective impact process must be able to create spaces where authentic dialogue is encouraged and supported and space for criticism, debate, and negotiation is embraced (Hoey, Colasanti, Pirog, & Fink Shapiro,

2017). Those best suited to apply the collective impact model may be what Bolman & Gallos (2011) refer to as academics leading from the middle. While those who lead from the middle face challenges and pressures in navigating sometimes conflicting cultures and value systems, there is also much that can potentially facilitate dialogue and bring divergent audiences together for a common purpose.

We propose that the centers or offices on campus that support the application of community-engaged methods can serve this backbone role. In a study of 147 campuses who have received Carnegie Community Engagement classification, Welch and Saltmarsh (2013) found that an important theme for engagement offices was their role in relationship building and the critical need they fill in not only supporting, but also influencing institution-wide initiatives. Indeed, offices supporting community-engaged work (e.g., from service learning to community-engaged research and creative work) are often designed and situated to span disciplines and departments, positioning them to facilitate collective impact in a dynamic way across the campus that resonates within the specific economic and social context of the institution. Engagement centers are typically already working to provide programming and resources to support faculty who then lead classes, research, and other change efforts. The collective impact framework provides a way to think strategically about the structure and resource support for these offices, so that they can in turn support deepening the collaborative potential and future impact of public good work. Further, engagement centers prepare campus constituents to work reciprocally with communities and community-based organizations by ensuring that work serves community-identified needs. This helps to address some of the recent critiques of collective impact expressed by numerous authors about whose voices are elevated in collective impact processes (e.g., Wolff, 2016).

The application of a collective impact framework across campus via engagement offices can focus on structuring existing work in such a way that disparate efforts align to a single set of goals measured in the same way rather than developing new programs or offices. In other words, institutions need not create wholly anew research agendas or classes. Rather, they ideally create structures to learn from and with one another and to coordinate efforts to support a broad set of shared aspirations. This coordination may lead to collaboration, but it may be just as likely to lead to harmonizing work and drawing connections across research agendas, programs, and other initiatives. As Hanleybrown, Kania and Kramer (2012) observe, “collective impact efforts are most effective when they build from what already exists; honoring the current efforts and engaging established organizations, rather than creating an entirely new solution from scratch” (p. 4).

Engagement-center staff, particularly center directors, play a key role in connecting constituents both inside and outside the organization, demonstrating the ability to “negotiate power and balance between the organization and external agents to achieve mutual objectives” (Weerts & Sandmann, 2010, p. 708). These staff members serve as translators of each sides’ perceptions and expectations. Competent engagement professionals are able to both embrace respect for community perspectives while also possessing a keen understanding of their institution’s landscape in order to advocate for community engagement (Dostilio, Benenson, Chamberlin, Crossland, Farmer-Hanson, Hernandez, 2017). In addition to their unique position to span such boundaries, engagement offices are often best able to help shape a common agenda. “A true common agenda requires leadership to bring key stakeholders together; to review the key data

which informs the problem or issue; to develop a shared vision for change; and to determine the core pathways and strategies that will drive the change forward” (Cabaj & Weaver, 2016, p. 6).

Engagement offices are often already working with administrators, faculty, students, staff, and community members and have often cultivated a level of trust and credibility. These broad connections across campus and community can help engagement staff bring diverse perspectives to the fore along with data to inform decision-making. Such boundary spanning staff can build strong, reciprocal relationships (Murtadha, 2016), especially those that employ “shared voice and power and insist upon collaborative knowledge construction and joint ownership of work processes and products” (Jameson, Clayton, & Jaeger, 2011, p. 264). Furthermore, these offices have often developed strategies for communicating across such diverse constituents, preparing them to support continuous communication in collective impact efforts. The community-engaged methods espoused by these offices are, by definition, central to creating mutually reinforcing activities that have the potential for enhancing public impact.

Adapting Collective Impact and Community Engagement Frameworks for a Grand Challenge Initiative

This section integrates the collective-impact and community-engagement frameworks into discussion of the design and implementation of grand challenge initiatives. Because the nature of grand challenges is to address multidisciplinary public problems, no single discipline has the capacity to address these challenges in isolation. We propose that collective impact and community engagement can guide the development of grand challenge initiatives in ways that allow institutions of higher education to demonstrate public good values and impact while leveraging structures to span and connect collaborative potential. To make this case, we describe below the development and early implementation of DU Grand Challenges (2019) at the University of Denver.

The University of Denver’s strategic plan, DU IMPACT 2025, prioritized the development of a grand challenge initiative to address complex public problems. The task of designing and implementing the initiative settled upon a working group of faculty and staff from across campus, including the authors, who serve as Director and Associate Director of the university’s Center for Community Engagement to advance Scholarship and Learning (CCESL) respectively. The Collaboration for the Public Good Working Group (Working Group) began meeting every other week in fall 2016 to design the initiative as well as other public good work from the plan.

The placement of grand challenges initiative planning within the Working Group was likely very important to the values embodied by the implementation plan as well as the community engagement and collective impact frameworks eventually applied. For example, the initiative could have chosen groups focused on expanding the University’s research impact or internal collaboration. The design priorities would have likely differed to some degree. However, the Working Group’s collaboration and public good charge led to approaches that would ensure the initiative embodied the University’s vision to be a great private university dedicated to the public good. Further, the Working Group sought to root the initiative in the University’s long-standing commitment to community-university collaborations, exemplified through the engagement office, CCESL.

The Working Group's initial proposal for implementation to the University's leadership focused on the basic structure of the initiative. Adapting the language of the White House 21st Century Grand Challenges (White House Office, 2013), the proposal framed the initiative around the potential possibilities when the multi-disciplinary expertise and interests of students, staff, faculty, and community members joins to pursue ambitious and achievable public good goals. The initiative aimed to bring together curricular, scholarship, creative work, and co-curricular activities to advance community-engaged, public good work on complex issues that affect our communities locally, as well as regionally, nationally, and globally. Further, the Working Group proposed an inherently community-engaged arc rooted in, first, articulating shared aspirations with communities, then taking collaborative actions across community-engaged scholarship, learning, and service, and finally demonstrating achievements toward our public good goals. Therefore, the Working Group designed the structure of each challenge issue to follow a 3-year time course with programming and funding for each challenge rolling out across these 3-year cycles. We also proposed that the initiative include a family of programs reflecting the goal of engaging the campus and community. The proposed programming built on successful programs already run at a smaller scale through CCESL and other campus entities.

That initial proposal also laid out a commitment to a community-engaged process of selecting the issues areas. In particular, the Working Group proposed to select the inaugural three grand challenge issue areas as part of a collaborative process with campus and community constituents. Thinking about root causes of problems, the proposal also pointed to the importance of identifying inter-related issue areas to allow DU and community partners to build on work across time (versus approaching the work as three separate and distinct challenges). This centering of community-engaged methods was in line with Cabaj and Weaver's (2016) arguments that a much stronger focus on the role of the community was essential to the evolution of collective impact. Engaging authentically, and with a sense of reciprocity and trust, with the communities with whom the University partners was essential for the initiative to have the potential to move the needle on important issues. Therefore, it is a defining characteristic of DU's approach.

Following this initial proposal, the Working Group turned to institutional operational issues. It began to integrate collective impact into structural recommendations. The collective impact framework served to argue that a backbone structure was essential to ensure implementation success and that CCESL should provide that structure. These structural arguments were grounded in descriptions of backbone functions with the ability to guide vision and strategy, support similar activities, establish shared measurement practice, cultivate community engagement, advance policy, and mobilize resources (Turner, Merchant, Kania, & Martin, 2012).

Several types of evidence helped to argue for CCESL as the backbone, including the Center's record of accomplishment in facilitating and coordinating institution-wide public good work across faculty, staff, and students within their existing organizational structures (department, divisions, centers). Furthermore, CCESL, like many engagement centers, has built a reputation for the kind of adaptive leadership required for a backbone organization, including "a delicate balance between the strong leadership needed to keep all parties together and invisible 'behind the scenes' role that lets the other stakeholders own the initiatives success" (Hanleybrown, Kania, & Kramer, 2012, p. 6). In addition to experience in training faculty, staff, and students in

the skills necessary to do public good work using best practices in community engagement, CCESL also brought assessment expertise that could identify shared measurement tools as demanded of collective impact efforts. Finally, CCESL's expertise in community engagement best practices promised to ensure that communities remained at the center of any change processes and that the initiative consistently applied principles of inclusivity.

Community-University Input to Identify Grand Challenge Issue Areas

To identify the grand challenge issue areas, the Working Group sought to select issues that were multidisciplinary in nature. Each issue would have the potential to engage every academic unit on campus in some way. Every issue must be broad enough to engage many disciplines and communities while specific enough to allow us to identify attainable goals with community partners in the "aspirations" phase. It should be relevant to the community, focused in areas where the University has substantial faculty expertise, as well as connections to both scholarship and teaching. Furthermore, the Working Group sought to recognize the unique potential for collaboration in our local, urban context while recognizing that faculty across campus also did work regionally, nationally, and globally. To identify issues, the Working Group turned to a mix of existing data as well as collected new information. In terms of existing data, the Working Group drew on interviews and site visits conducted during the University's strategic planning process. This included interviews with community leaders and change makers, as well as visits to other campuses focused on public good work and higher education leaders nationally.

In terms of new information, the Working Group used a combination of methods that aimed to bring in diverse voices to planning and discussion. Looking externally, the Working Group reviewed grand challenge issues selected by other universities as well as priority areas detailed by the city's Mayor and state's Governor. Looking internally, the Working Group looked at areas of overlap and connection among existing programming and scholarship. Furthermore, the Working Group sought to identify existing community-university partnerships that could inform understanding of areas in which faculty and communities were committed to working together. In winter 2017, the Working Group surveyed faculty from across campus about their work with communities in research, creative work, teaching, and service. More than 300 faculty responded and described more than 700 unique community partners with whom they worked on a broad range of public issues. The majority of community partners were local, illustrating the close relationship that urban institutions have with their communities (Ramaley & McNair, 2018) as well as the potential for focusing energies locally to leverage existing collaborations for impact. The survey team coded faculty responses to identify focus areas of this scholarship and themes. This coding informed a picture of both narrow topics as well as broad problem areas in which faculty were working across campus and with communities. That information enabled the Working Group to consider different configurations of topics that reflected multidisciplinary issues for which the University had depth and breadth of faculty expertise. A similar coding process was used to a review the topic areas on which student organizations focused as a way of integrating student interest into the process.

The Working Group also brought campus and community voices directly into the issue identification process. For example, Public Good Forums took place around broad topics (such as democracy, sustainability, and equity) to foster conversation about opportunities for cross

disciplinary and community-university collaboration. To promote broad engagement, Public Good Forums were live-streamed on Facebook and in-person and virtual participation via Twitter was encouraged. In July 2017, the Working Group launched a call for input on grand challenge issues as well, inviting University staff, faculty, students, and alumni as well as community members to share ideas for grand challenge issues.

These efforts provide an illustrative, not exhaustive, list of steps taken to identify the theme for DU Grand Challenges. Drawing on the information gathered in this process, the Working Group identified the overarching theme of “Thriving Communities” for the DU Grand Challenges initiative and proposed three inaugural issue areas: improving daily living in our communities, increasing economic opportunity in our communities, and advancing deliberation and action for the public good in our communities. In October 2017, DU Grand Challenges officially launched. Both Chancellor Rebecca Chopp and Provost and Executive Vice-Chancellor Gregg Kvistad expressed their enthusiasm for the initiative. Working Group co-leads, Art Jones (via video conference) and Anne DePrince presented the framework for DU Grand Challenges in terms of structure (Aspiration, Action, and Achievement) and issue areas. Both collective impact and community engagement frameworks were integrated into the launch, to set the expectation that once a common agenda (or shared aspirations in the DU Grand Challenges design language) had been set, the work would shift to developing a strategic framework for action (Hanleybrown, Kania, & Kramer, 2012). The launch was live-streamed in three parts, to ensure broad participation from those present as well as those joining online.

Implementation to Date: From Aspirations to Action

In fall 2017, the University entered the Aspirations phase for the inaugural issue: improving daily living in our communities. The Working Group offered the campus community both broad and narrower examples of topics that might connect to this issue area. Such topics included: (a) health, healthy development, health equity, disease, illness and injury, parenting and family; (b) crime and safety, such as interpersonal violence, disaster and emergency, or mass violence; (c) migration, immigration and refugees; (d) environmental sustainability, climate change, urban development, or energy; and (e) meeting basic needs, including food access, homelessness, hunger, poverty, or water access). These particular terms arose from the coding of the faculty benchmarking data on community-involved work. Therefore, these terms indicated areas in which faculty were already doing research, creative work, and/or teaching that involves communities. Across AY 2017-2018, DU Grand Challenges programming sought to engage campus and community constituents in intentional dialogue to set aspirations that could lead to action steps in AY 2018-2019 for improving daily living in our communities. For example, five DU Grand Challenges Forums brought together nearly 200 faculty, staff, students, alumni, and community members around themes that followed the broad problem areas above.

DU Grand Challenges also hosted the inaugural DU A Community Table event on April 11, 2018. This one-day event was based upon the Chicago Community Trust Foundation’s innovative On the Table program. It brought small groups of university and community change-makers together to generate ideas to improve daily living in our communities. Anyone could sign up to host a conversation and hosts selected when and where they held their table conversation, what food options were provided, and who to invite to participate in the conversation. The goal

was to obtain feedback that could guide collaborative work in the years ahead. Table participants identified priorities for action. The host conducted participant surveys and conveyed them back to our Working Group. A Community Table involved more than 70 tables, after which more than 280 people shared ideas, the majority of whom were community members. The Working Group also launched DU Grand Challenges Scholar Grants to fund faculty community-engaged scholarship that tackles issues affecting daily living in our communities. Six projects, which engaged faculty from units across campus, obtained funding. Additionally, the Working Group invested in capacity-building, bringing to campus a nationally recognized collective impact leader, Dr. Bill Fulton, for a full day of events focused on broadening conversations about collective impact as a method of accomplishing institutional goals. Participants included faculty, staff, students, and community members.

The Working Group reviewed the information collected across all DU Grand Challenges program activities during the Aspiration year of improving daily living in our communities as well as during the DU Grand Challenges planning process year (e.g., faculty benchmarking survey, call for input on grand challenge issues). A review of information from the year of programming (e.g., grants funded, input from Forums and A Community Table) suggested that DU Grand Challenges supported existing collaborations and facilitated new connections. Furthermore, the initiative seemed to be connecting people for practical purposes, such as collaboration; and for a shared identity to belong or contribute to something bigger. Moreover, the first year of programming revealed the importance of coordination with other campus activities given many inter-related opportunities. In addition, the Graduate School of Social work and Ritchie School of Engineering and Computer Science were participating in their own disciplinary grand challenge programs. Other aspects of the University's strategic plan were seeding multidisciplinary, cross-unit collaborations.

At the end of the Aspiration year, the Working Group determined that the University and community shared goals around improving daily living through addressing health and healthy development, crime and safety, migration, environmental sustainability in an urban environment, and housing and food insecurity. However, university and campus constituents did not yet share an agenda on *how* to address these issues through actions that would result in measurable change. Therefore, the Action phase focused on a distinctive and potentially high impact *process* rather than project. Specifically, the Action phase applied the lessons learned about collective impact as a guiding framework for the overall DU Grand Challenges initiative. The university took action in four areas that affect daily living in DU's urban context: (a) Crime and Safety; (b) Migration; (c) Environmental Sustainability in an Urban Environment; (d) Housing and Food Insecurity.

In September 2018, a Request for Applications (RFA) invited faculty, staff, students, and community members to join a Collective Impact Cohort on one of the four topics. With a deep recognition that "successful university-community partnerships will involve all participants as learners and teachers in shared efforts to seek solutions-focused outcomes to society's most intractable 'wicked' problems" (Fitzgerald et al., 2012, p. 18), the RFA sought broad participation from faculty, staff, students, and community members. This approach sought to maximize the impact of collaboration and minimize problems that occur when universities act alone or without adequate consultation in trying to address community issues. By applying the best approaches to community-university partnerships, this process fostered an ongoing

progression of “alignment, discovery, learning, and emergence” (Kania & Kramer, 2013, p. 2). Furthermore, each Cohort has faculty leadership who will ensure that community-engaged scholarship will be at the core of the approach to advance discovery goals while also affecting change in the grand challenge issue areas at the community level. More than 60 faculty, staff, students, and community members have joined Cohorts that launched in November and December 2018.

Over the course of a six-month planning period, facilitators will guide the Cohorts through a process to review research on collaboration, create guiding results statements, review data and identify indicators, and build an action map with intentional strategies. The Cohorts will then pursue their selected action strategies over the following 12 months and be involved in evaluation and dissemination of work in the subsequent 6 months; the latter 6 months coincides with the Achievements phase of the DU Grand Challenges structure. The work of each Cohort will inform the other Cohorts through the backbone support provided by CCESL; the Working Group will monitor and support the Cohorts’ overall trajectories. This intentional design for consistent communication and feedback will ensure that the cohorts do not fall prey to the dangers of “shifting from isolated programs to isolated collective impact initiatives” (Smith, Pelco, & Rooke, 2017, p. 27). Cohort participants are also responsible for building networks of others with expertise and interest in the issue area. The goal of this process is to build distributed networks that will continue to seed new work, identify existing work that can work in tandem, and move forward with new members when existing members leave projects. This process will balance launching new projects with continuing to look for and engage existing projects/people.

Early Successes and Lessons

There are many early indicators of success in meeting DU Grand Challenges’ goals. The earliest goals of the Working Group were to design a community-engaged initiative broad enough to be multidisciplinary while specific enough to identify goals that were attainable and relevant to the community. The Working Group was successful in many of these regards, having designed an approach to DU Grand Challenges that emphasizes community engagement and centers community-university partnerships in problem solving. The yearlong process used to identify issue areas integrated perspectives from campus and community members. With the selection of the three inaugural issues (improving daily living, increasing economic opportunity, and advancing deliberation and participation for the public good), these goals were met in terms of the reach and relevance. In terms of reach across campus, the Group found faculty experts for all issues in all units. In terms of relevance to the community, all three areas touch on existing community-university collaborations in research and teaching. This suggests that the topics selected are of interest and will continue to engage communities. As summarized in CCESL’s End of Year Report (2019), the inaugural year of programming successfully engaged students, staff, faculty and community members in activities that ranged from intentional dialogue (e.g., Forums) to research and creative work (DU Grand Challenges Scholars Grant).

Tempering early successes were challenges in identifying specific, attainable goals for improving daily living during the first year’s Aspiration phase. The phase-oriented timetable assumed that specific projects and goals would emerge out of the Aspiration phase, though the process led to the recognition that there was campus and community interest in a range of inter-related topics

and projects. A success in the face of this challenge, though, was in being able to apply flexibly the collective impact framework to advance the initiative. Facing concerns that limiting the scope too soon might impede bolder action, the Working Group proposed establishing Collective Impact Cohorts as a way to dedicate more time for a relatively smaller group of campus and community members to identify specific, collaborative action plans in four areas. At this writing, the Cohorts are in the midst of a six-month, facilitated planning period, working towards specific action plans to take effect over the subsequent eighteen months. Their action plans will include indicators and program measures to evaluate the impact of their work on the public problem targeted.

Several lessons of experience stand out looking towards the end of the second year of implementation. As noted in the UCLA report, communicating effectively about a complex initiative to the many campus and community constituencies is challenging. CCESL has diversified communication strategies over the last year and sought to expand networks of students, staff, faculty, and community colleagues to amplify messages. Programming challenges have included sustaining engagement in events and grappling with place-based decisions about whether events will be on campus and/or in the community. The Working Group and CCESL continue to try new things and adjust strategies for communication and programming.

Mid- and long-term goals of the initiative include solving public problems, developing sustainable funding for the initiative, and advancing community-university collaborations as well as multidisciplinary work. Less than two years into the implementation of this initiative, there has not yet been enough time to evaluate successes in these areas. To do so in the future, the Working Group will use indicators and program metrics determined by the Collective Impact Cohorts to examine whether actions affected the public problems targeted. Further, CCESL and the Working Group are leading multi-year efforts to evaluate changes over time in faculty and faculty-community collaboration in research and teaching, using social network analysis and other tools. As the backbone support, CCESL staff are working with development colleagues on campus on external funding. To date, the University received a grant from the Arthur Vining Davis Foundations to support DU Grand Challenges programming that affects undergraduate education. That support has resulted in undergraduates doing faculty-mentored, community-engaged research on topics related to DU Grand Challenges issue areas as well as engaging in faculty-mentored critical reflection on how their DU education prepares them to address complex public problems.

Conclusion

Grand challenge initiatives are meant to capture attention and imagination for public problem solving. University-led grand challenge initiatives have the potential to communicate much about institutional values and practices. For example, initiatives designed in a top-down fashion without consultation with communities may reinforce views of higher education institutions as hierarchical, remote ivory towers. Historical, “town and gown” tensions between universities and communities may only worsen. Alternatively, the emergence of grand challenge initiatives offers an opportunity to draw on traditions that have emerged within campus, such as community-engaged scholarship, and outside the Academy, such as collective impact, to establish a new approach to institution-wide collaboration with communities for the public good. The design and

implementation of DU Grand Challenges offers one university's approach to grand challenges in an urban context, guided by community engagement and collective impact. A new approach that integrates community engagement and collective impact has the potential to inform thinking about institutional structures, such as the importance of engagement centers to span and connect campus and community constituents. Furthermore, this approach can also affect the public's view of higher education values, particularly around collaboration and engagement with local, urban communities to solve problems. The approach promises to allow universities to leverage existing relationships and collaborations cultivated by community-engaged faculty to advance institution-wide community-engaged work.

Moreover, by drawing on community-engaged methods, grand challenge initiatives have the opportunity to articulate and demonstrate their commitment to university-community collaborations that are mutually beneficial and reciprocal. In addition, collective impact frameworks provide a template for thinking through essential structural issues. For example, collective impact scholarship suggests that community-level change requires an influential champion, financial resources to ensure adequate progress can be made, and a sense of urgency that change is required (Hanleybrown, Kania, & Kramer, 2012). By integrating a community-engaged, collective impact approach to such initiatives, we propose that universities and communities will increase the likelihood of addressing large, multidisciplinary public problems, while ensuring institutions remain relevant and responsive to their communities.

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