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Original Research

Advancing Community-Engaged Research via the Food Justice Research and Action Cluster: A Transdisciplinary Ecosystem Model

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Abstract

Merrimack College is a midsized Catholic Augustinian College pursuing its historical service-based commitments while shifting priorities toward research. With limited time and resources, these two aims can create tension at institutional and faculty levels. This single institutional case study shares the work of faculty and College leadership to affirm and institutionalize community engagement (CE) through community-engaged research and the development of a Food Justice Research & Action Cluster (FJRAC), connecting community priorities for food justice with faculty expertise. Based on the literature on institutional change and assessment (Eckel, Hill, and Green's Typology of Institutional Change, 2001; Holland's Levels of Commitment to Community Engagement, 2005), this paper frames the stages and timeline that led to the formation of the FJRAC. We advance a Transdisciplinary Ecosystem Model for community-engaged research to analyze the depth and pervasiveness of the institutionalization of CE and explore how colleges can reinvigorate and deepen institutional change. Results of the FJRAC include student experiences (e.g., curriculum development, food security research); community opportunities (e.g., food sources, data analysis); and research projects (e.g., external funding applications). Lessons learned highlight the importance of supporting efforts

that align with values, supporting faculty teams, navigating conflict around institution/faculty tension, communicating commitment, keeping timelines flexible, demonstrating value propositions to stakeholders, and balancing conflicting goals.

Introduction

The survival of a college and the health of its surrounding communities are inextricably linked (Ferman et al., 2021). The purpose of this paper is to share how one college advanced its commitment to community engagement (CE) through the development of a community-engaged research initiative. Advancing community-engaged research (CER) aligned with the College's institutional strategic priority to advance its research profile while simultaneously meeting its commitments to the neighboring communities. This paper draws from the literature on institutional change and institutionalization of CE to develop a Transdisciplinary Ecosystem Model for how institutions − particularly those with a heavy emphasis on service to the local community, such as liberal arts, professional, or religiously affiliated colleges − can advance CER through focused institutional efforts. Specifically, this case study presents the formation of the Food Justice Research & Action Cluster (FJRAC) as a transdisciplinary research model. For us, transdisciplinary research involves academics from many disciplinary backgrounds as well as community stakeholders in generating empirical understanding for public problem-solving where all contributions are equally valued. We describe how the faculty partnered with the community, received institutional funding support to grow and sustain their efforts, and advanced research and scholarship addressing: a) community-identified priorities around food justice and b) institutional priorities to increase research and academic program development outputs. The authors use and adapt the literature on institutional change in higher education (Eckel et al.1998) and institutional commitment to CE (Holland, 2005) to explore the reach, depth, and impact of developing and sustaining support for CER at the College; develop a Transdisciplinary Ecosystem Model of Institutionalization of CER; and offer considerations for other higher education institutions using the model to ignite change.

Literature and Conceptual Framework

While individual faculty work is typically evaluated across teaching, research, and service, institutional type and mission can influence where and how faculty spend their time. As institutions develop − beyond their original mission as teaching focused to research aspiring universities − community-engaged faculty have an opportunity to broaden their community engagement and service learning beyond their classrooms and more fully integrate community engagement into their research and scholarship. Moving from individual faculty work and siloed programs toward intentional, transdisciplinary, institutionally supported research can evidence deeper institutional commitment to community engagement. We used key literature on change in higher education and institutionalization of community engagement to understand and assess the formation of the FJRAC as a model for developing and maintaining support for CER. Specifically, we use the literature on institutional change (Eckel et al., 1999) and best practices for institutionalizing CE in teaching, research, and practice (Holland, 1997; Furco, 2007; Zlotkowski and Meeropol, 2006; Ward, 2010; Jaquez et al., 2016; Carnegie Elective

Classifications, 2022) to help us assess how isolated, deep, or pervasive CER is on campus and to share our transdisciplinary research efforts as a sustainable model for continued institutional commitment to CER. We use Eckel et al.'s (2001) change typology and Holland's (2005) matrix (described below) to explain how the FJRAC was developed and implemented within the context of a faith-based institution with strategic commitments to advancing both research and CE. The resulting Transdisciplinary Ecosystem Model demonstrates visually how these components fit and interact together to support CER.

Seeking Transformational Institutional Change

For an institution to successfully change, the change effort must be 'intentional and continuous' (Eckel, Hill, and Green, 1998), and patterns of decision-making need to help move the institution closer to the transformation it seeks. Institutional change can happen in fragmented and thin ways, or it could be truly transformational when it "(1) alters the culture of the institution by changing select underlying assumptions and institutional behaviors, processes, and products; (2) is deep and pervasive, affecting the whole institution; (3) is intentional; and (4) occurs over time" (Eckel, Hill and Green, 1998, p. 3).
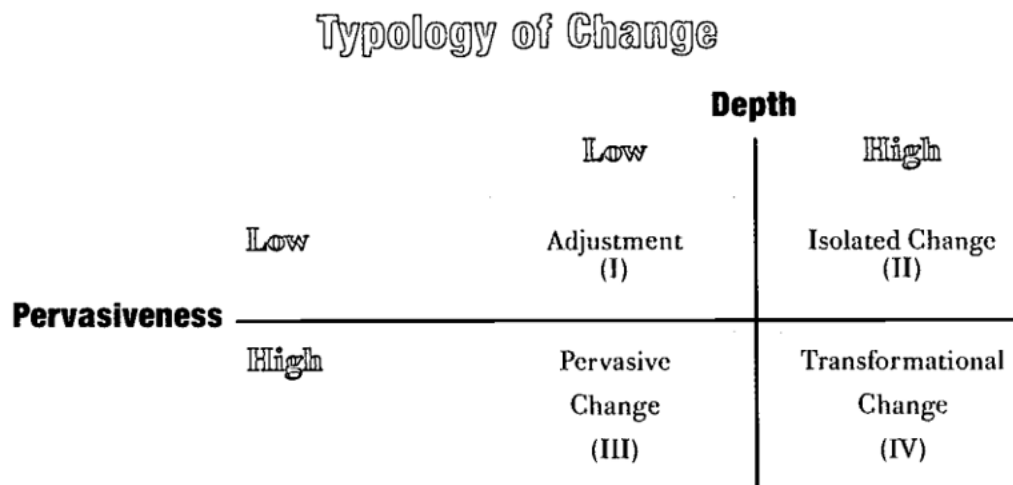

FIGURE 1. Typology of institutional change from Eckel, Green, and Hill, 2001.

Figure 1 shows the four types of change characterized by depth and pervasiveness: a) adjustment, b) isolated, c) pervasive, and d) transformational. Adjustment change is low in depth and pervasiveness, such as renewals of a single program. An Adjustment might improve work, but the change is not deep or far-reaching; for example, service learning could be required in certain courses but not required for all students. Isolated change is deep but not pervasive – perhaps limited to one unit or department. Pervasive change is expansive but does not affect the institution at its core. The ideal level of change is Transformational, where change is deep, supported at all faculty and institutional levels, and pervasive across the entire institution (Eckel,

Green, Hill, 2001), bringing about a long-lasting and sustainable shift in institutional culture. For example, all students receive scaffolded training with increasing levels of engagement and research opportunities aligned with class level, and faculty are recognized for community-engaged scholarship in promotion and tenure decisions.

Importantly, academic researchers working in partnership with communities often find themselves navigating the "swampy lowlands" (Schön, 1984) of community-engaged research. For Schön, in ". . .[t]he swampy lowlands . . . situations are confusing 'messes' incapable of technical solution and usually involve problems of greatest human concern" (Schön, 1984, p. 42). He compared these types of problems to the "high, hard ground…where manageable problems lend themselves to solutions through the use of research-based theory and technique." (Schon, 1984, p. 42). Thus, the researcher is confronted with the challenge of balancing a choice to conduct high-ground research but potentially solve "relatively unimportant problems" or "descend to the swamp of important problems where [they] cannot be rigorous in any way [they] know] how to describe." (Schon, 1984, p.42). The choices researchers make to prioritize "swampy lowlands" community-engaged research versus "high ground" scholarship have implications not only for their individual career (i.e., promotion and tenure) but also for the institution (e.g., research profile funding and rankings) and for the external community (e.g., whether there is an institutional commitment to equitable research partnerships that address community priorities). Individual research choices can become even more complicated when institutions pursue ambitious research aims that favor higher publication rates, which may be more predictably achieved with "high ground" approaches. Faculty members must navigate personal commitments to both community-engaged research and the institution's commitment to increasing its research profile.

Advancing Toward Full Integration of Community Engagement Across Key Organizational Elements

To achieve the Transformational change that realizes the institutionalization of community-engaged learning and research, several key areas need attention (Holland, 1997, 2005; Furco, 2007; Zlotkowski and Meeropol, 2006; Jaquez, Ward, and Goguen, 2016). Holland's (2005) *Measuring Institutional Commitment to Community Engagement* matrix offers nine organizational elements critical for assessing institutional commitment to CE. The matrix "is a reminder of the organizational elements that must be purposefully addressed, regardless of the desired level of commitment articulated by the campus mission." (p. 39). Each of the elements is assessed across four levels: a) low relevance, b) medium relevance, c) high relevance, and d) full integration. In assessing how the FJRAC is a model for the institutionalization of community-engaged research, we focus on the three organizational elements most relevant to our work to date: leadership, promotion, and faculty involvement (see Table 1). For Holland, the organizational element of *leadership* involves the assessment of how presidents, vice presidents,

provosts, deans, and chairs are invested in and support community engagement. *Promotion, tenure, hiring* is the organizational element assessing whether the institution values community-engaged teaching and research beyond traditional understandings of research and service. *Faculty involvement* is the organizational element assessing if and how faculty members pursue community-engaged teaching and research across the disciplines. Exploration of how community-engaged research is integrated across Holland's levels of institutional commitment helps us analyze the depth and pervasiveness of institutionalization of CE and, in doing so, present a framework for how colleges can reinvigorate and deepen institutional change to advance community-engaged research. These areas are described in more detail below.

TABLE 1. Three organizational elements excerpted from Holland (2006) "Levels of commitment to community engagement"

Organizational Element	Level One: Low Relevance	Level Two: Medium Relevance	Level Three: High Relevance	Level Four: Full Integration
Leadership (Presidents, Vice Presidents, Deans, Chairs)	Engagement not mentioned as a priority; general rhetorical references to community or society	Expressions that describe institution as asset to community through economic impact	Interest in and support for specific, short-term community projects; engagement discussed as a part of learning and research	Broad leadership commitment to a sustained engagement agenda with ongoing funding support and community input
Promotion, Tenure, Hiring	Idea of engagement is confused with traditional view of service	Community engagement mentioned; volunteerism or consulting may be included in portfolio	Formal guidelines for defining, documenting & rewarding engaged teaching/research	Community-based research and teaching are valid criteria for hiring and reward
Faculty Involvement	Traditional service defined as campus duties; committees; little support for inter-disciplinary work	Pro bono consulting: community volunteerism acknowledged	Tenured/senior faculty may pursue community-based research; some teach service-learning courses	Community-based research and learning intentionally integrated across disciplines; interdisciplinary work is supported

Leadership

When there is low institutional relevance attached to CE, it is not mentioned as an institutional priority in communication from leadership, or there are only general rhetorical references to community. At medium institutional relevance, expressions of institutional commitment might be considered only through one lens, such as economic impact. Whereas when there is high institutional relevance or full integration, interest in the work moves into the areas of teaching and research, and there is broad leadership commitment to a sustained institutional CE agenda with ongoing funding support and community input.

Promotion, Tenure, and Hiring

Traditional faculty responsibilities fall into teaching, research, and service roles. How work gets evaluated, and the value attached to each area of work ultimately determines how that work is rewarded. Reward structures vary across institutional types and evince where the true values of the institution lie. When there is a low level of commitment to CE, faculty members' community-engaged scholarly work can be confused for service (such as service on committees or sharing expertise externally through talks or consulting). When institutional commitment increases, an institution will have formal guidelines for defining, documenting, and, most importantly, rewarding community-engaged teaching and research. Evidence of high or fully integrated institutional commitment is when CE criteria are included or assessed as part of the hiring process and faculty reward processes (e.g., promotion and tenure; Blanchard & Furco, 2021; Wendling, 2022).

Faculty Involvement

A strong indicator of institutional commitment to CE is where faculty spend their time and where the institution supports faculty spending time. When institutional commitment is low, there is little support for interdisciplinary work, and faculty CE is understood in terms of traditional on-campus service to the department, school, or college. Faculty members might share their expertise by offering *pro bono* consulting to the external community as a unidirectional transfer of knowledge. As an institution commits more fully to CE, there is strong evidence of tenured and senior faculty pursuing community-engaged research and teaching community-engaged courses. Faculty have helped ensure fuller institutionalization of CE when such learning and research is intentionally integrated across the disciplines, and interdisciplinary work is supported and rewarded.

Transdisciplinary Ecosystem Model of Community Engagement

Successful institutionalization of CE requires that colleges change in deep and pervasive ways that transform the institution at its very core, allowing the development of a trusting relationship with the community. Communities have valid hesitations, and relationships of trust must be cultivated and established by consistent faculty and institutional support, with a felt presence "in" communities and with a sharing of resources. Faculty teaching and research are core functions of any college or university and must remain so, but situating this faculty work in a way that also engages and benefits neighbors while still supporting the shifting priorities and ambitions of the institution as a whole, is a more challenging task. It is certainly not impossible. We draw on the indicators of commitment to CE and organizational change literature (Holland, 2005; Eckel et al., 2001) and consider both along with Merrimack College's institutional mission, values, and aspirations to provide a conceptual framework (Fig. 2) to help us and, in turn, other colleges and universities situate their current work and strategize continued efforts to more fully institutionalizing community-engaged research.
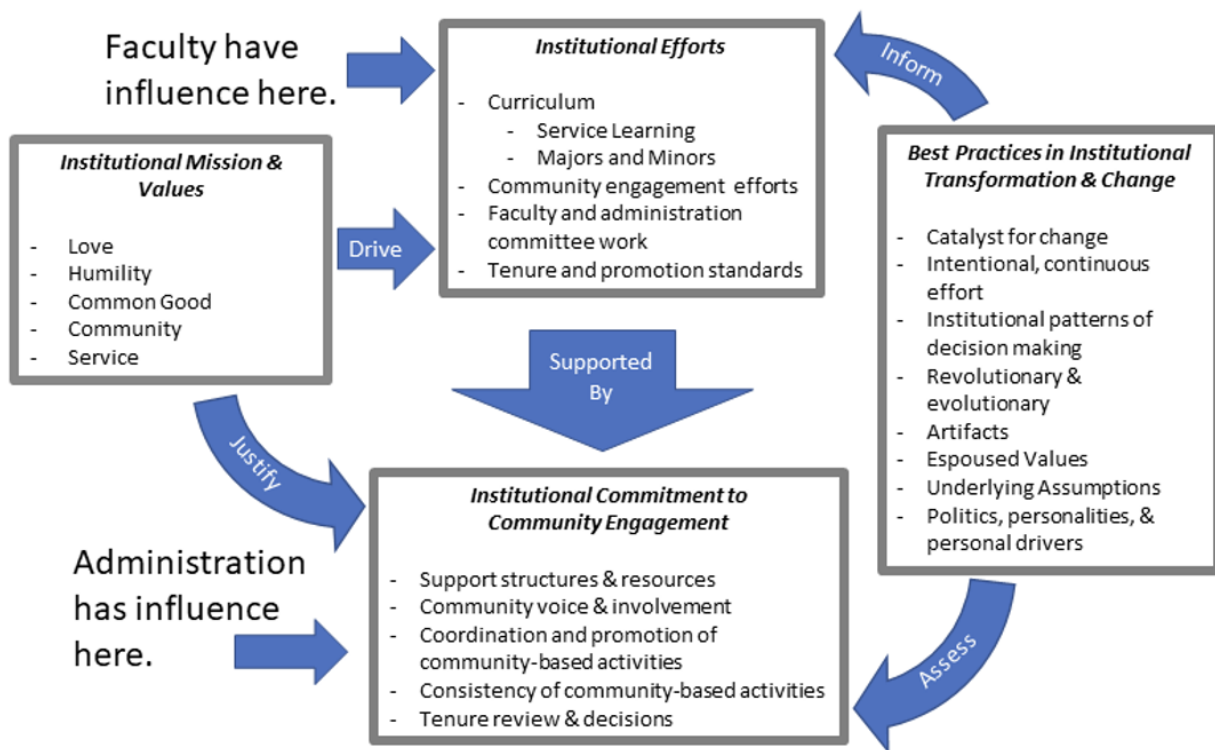

FIGURE 2. A transdisciplinary ecosystem model of community-engaged research at a faith-based college.

In the Transdisciplinary Ecosystem Model presented in Figure 2 includes four pillars of institutional 1) efforts, 2) mission and values, 3) commitment to community engagement, and 4) transformation and change best practices which interact with one another to form a cohesive institutional strategy to advance community engagement, to which both faculty and administration can and must contribute. As with any institutional prioritization, the mission and

values of the institution drive much of the strategy. For a faith-based college, these values often include components necessary for advancing the common good, including service and an emphasis on community and humility. These values, in turn, drive institutional efforts, ownership of which is often claimed by the "boots on the ground" − faculty and staff. These efforts include a curricular emphasis on service through coursework and the development of majors, minors, certificates, and other department-level programs. Other efforts may include committee work, community engagement programming, and emphasis on community engagement work, particularly community-engaged research, as part of successful tenure applications.

Success in these endeavors requires a fundamental and visible institutional commitment to supporting them. This includes infrastructure set up to support CE through coordination and promotion, as well as resources to maintain successful programs past their initial launch. Best practices for colleges to transform themselves into committed community-engaged institutions requires continuous effort to sustain programs and the relationships supporting them, evidenced by patterns of decision-making that continue to align with CE over time. Colleges have often experienced a catalyst for the change they seek. The colleges must embark on intentional continuous efforts to achieve the change and be aware of the institutional patterns of decision-making that support or impede the change. The transformation of an institution into one that fully supports community-engaged research could be considered a natural evolution of that institution's identity and growth over the years, or it could be a 'revolutionary' change that is a very different direction for the college. Identifying which type of change − revolutionary or evolutionary − is important for stakeholders so they can navigate the change process successfully. Some stakeholders may prefer a complete transformation or revolution, while others might seek a more scaffolded evolution of the college toward community-engaged research. As colleges move through an institutional change process, they also need to consider the values espoused and the artifacts and evidence of those values across the institution as well as the underlying assumptions various stakeholders have about those values. One stakeholder group might prioritize a certain set of values higher than another group. Best practices in institutional change encourage alignment across stakeholder groups on what is valued at the college. A further consideration in this model is the politics at play within the institution, the personalities of the people involved, and the personal drivers and motivations for advancing this work.

Institutional efforts, like the tenure and promotion review process, must maintain standards that include CE efforts. Additionally, institutions must be prepared to listen to the voices of the community and be ready to engage with their needs and priorities. All these individual and institutional efforts should result in outwardly visible artifacts and explicit public statements highlighting the CE and community-engaged research efforts of the college. This model can help drive the design of engagement research and programs as well as guide assessment of their overall effectiveness and value to the institution and the broader community.

Case Study: Merrimack College

We present the case study via the timeline of institutional and community engagement efforts below to illustrate how the four pillars of the model, institutional a) efforts, b) mission and values, c) commitment to community engagement, and d) transformation and change best practices unfolded over time to advance the institutionalization of community-engaged research at the college.

Mission and Values

Merrimack College is a midsized, Catholic Augustinian Master's-granting college in North Andover, Massachusetts, with a historical mission of faith and community service. For 75 years, the College has had an institutional commitment to educating returning veterans and students who want to carry out faith-based community service. The college mission is to 'enlighten minds, engage hearts, and empower lives,' which broadly focuses on teaching, research, and service inspired by the Catholic faith and Augustinian tradition. Augustinian values guide, ground, and help fully realize the institutional mission. Values of love, humility, community, humble and generous service, friendship, and the common good very much align with working with communities. Merrimack College embraces the pursuit of knowledge, attending to the common good, the pursuit of excellence in teaching and learning, and the contemplation and reflection encouraged by the intellectual life to inspire an ethical sensibility as well as a prophetic critique of social structures considering justice and peace (MC-OMM, 2023). Decades of work in and across communities have created a solid foundation upon which the College could build to claim its anchor institution identity and become a regional "steward of place" (AASCU, 2002) in the Merrimack Valley more fully.

Institutional Efforts Over Time

Merrimack College has a long-standing commitment to community-engagement based on the Augustinian mission (McHugh and Goren, 2013; Foote and DiFilippo, 2009; Vega and McHugh, 2003). There is a college-wide General Education requirement that students do Experiential Education, and many of those experiences are wholly or partially service-learning in the local community. Merrimack has an annual day of service, "Mack Gives Back," where students, faculty, and staff participate in a campus-wide community service day. Every student in the Winston School of Education and Social Policy is required to do a field placement working off-campus with an organization or neighborhood, and the College has a nationally recognized master's degree in Community Engagement. The Honors Program and the Austin Scholars living-learning community require community service, as do many courses (e.g., *Introduction to Social Justice, Community Nutrition,* and *Politics of Food*). Service-learning placement is coordinated by the Office of Mission and Ministry through the Stevens Service-Learning Center.

The Center for Excellence in Teaching and Learning (CETL) was established to support faculty development and curricular innovation. Through CETL seed funding and fellowship, members of the authorship group received support on three different occasions to a) develop professional development opportunities connecting the faith mission of the College with community-engaged learning, b) co-facilitate a teaching circle on community-engaged learning, and c) create a fellowship to build capacity for community-engaged learning and research (CELR) and to support the College's application for the Carnegie Elective Community Engagement Classification. One author, through the CETL, established a Community of Practice on campus for faculty across the schools interested in learning more about CELR and how to move their engagement practice closer to research with a publication focus. This author also worked with faculty in the Business school to strengthen the work of their financial coaching course through which students worked with local community organizations and their clients in financial literacy and capabilities.

Institutional Commitment to Community Engagement - 2020

Development of the Regional Food Resiliency Partnership and Food Justice Working Group

In 2020, Merrimack College was awarded the Carnegie Elective Community Engagement Classification. Significant scientific contributions went into the establishment of the Classification, exemplified by scholarly faculty research related to CE projects. These projects address areas of community-identified priorities such as: financial literacy, jail education, math & science education, service-learning in Chemistry, community-engagement education, and food insecurity (Aiello & Duffy-Comparone, 2019; Bregoli et al., 2022; Carlson et al. 2019; Dovi et al., 2021; Duffy-Comparone & Aiello, 2020; Falk & Vine, 2017; Falk & Willer, 2022; LaFlamme, 2021; Silva & Sendall, 2019; Silva et al., 2022; Wagner, 2019; Mason, 2020; Zabar, 2022).

The cities and towns that directly surround the campus vary greatly in socioeconomic background and in urban characteristics. While the college had a long history of engagement with surrounding communities, the global pandemic prompted the College to redouble its commitment. Specifically, the President established the Presidential Civic and Community Engagement Initiative Committee, tasked with learning about community needs during the pandemic and finding ways to harness College resources to meet those needs. A tenured faculty member was appointed to lead these efforts. Food insecurity was identified as the number one priority for all surrounding communities, irrespective of their perceived economic wealth.

In the early stages of the Presidential Civic and Community Engagement Initiative, the focus was on helping community members meet their basic needs, so efforts focused on food drives and

partnering with local food pantries to help increase food provision and access. The next stage of the work involved the College and community members coming together to explore systemic ways to address the broader issues of food security. The College helped convene representatives from three surrounding cities and two towns to explore a regional approach to addressing food insecurity. Additional representatives from local organizations such as food pantries, food providers, United Way, regional planning agencies, and others came together with the cities, towns, and colleges, forming the Merrimack Valley Regional Food Systems Resiliency Partnership (RFRP). The RFRP consists of over 70 individuals and 30 organizations and municipalities across the three cities and two towns and still meets to discuss problems, opportunities, resources, and solutions. Through these convenings, the College became more embedded in the broader community and was seen as a partner not just in providing food or student volunteers but as a resource for knowledge and solutions through the research and scholarly expertise of the faculty.

While many faculty and staff across the College participated in early RFRP meetings and efforts to support our regional food security efforts during the pandemic, a smaller number of faculty members attended almost all food justice convenings internally and with external partners. This consistency led to an increased understanding of the community's needs, as well as how they might harness their own strengths and expertise to meet those needs. In addition, the consistency helped the community to see that the college comprised individuals who sincerely cared and had the skills to contribute. Twelve months of exploratory community and College meetings helped all parties understand how we might individually and collectively contribute to advance the change the community sought. As a result, the RFRP members internal to the college formed a Food Justice Working Group (15 faculty, staff, and students - meeting bi-weekly) to debrief regularly from the RFRP meetings and strategize on how to address issues raised.

Institutional Transformation and Change Best Practices Realized – 2021-2023

In 2021, Merrimack College launched its five-year strategic plan (2021-2026), known as the "Agenda for the Future" (AFF), to govern institutional priorities and help the College community focus on many broad topics of improvement and change. Among them was a stronger commitment to developing partnerships with the local communities and becoming an "anchor institution." A central and defining characteristic of becoming such a place is community-engaged learning and research, particularly across the majors incorporating career readiness and leadership development. This was demonstrated most strongly by the AFF's *Strategic Initiative #4*: "Focus on the modern-day Merrimack as an Augustinian Catholic college whose mission is to provide all students with an educational formation experience that transforms them into ethical, moral, spiritual, and intellectual achievers and leaders. In addition, we will harness our Augustinian values and Catholic mission to serve our local community and to have a greater impact on our neighbors." (Merrimack College AFF, 2020).

2021-2022 Shoring Up Institutional Support for Local Food Justice Issues

While the AFF was being rolled out, it became evident that to understand the goals, a baseline of existing efforts was needed. The College collected data on faculty interests and research agendas to discover and coordinate efforts across the College related to Food Justice in 2021 and 2022. Administrative support was provided to host community groups and organizations related to Food Justice, including the Food Justice Symposium Spring 2022 (internal event, 18 attendees) and the Food Justice Summit Fall 2022 (external event featuring eleven external speakers representing Andover, North Andover, Haverhill, Lawrence and Methuen, over 100 attendees including external community members, faculty, staff, and students). The administrative support also assisted with the RFRP (internal and external partners - meeting monthly) and the Food Justice Working Group (internal partners - meeting bi-weekly).

2023 Funding and Development of the Merrimack College Food Justice Research and Action Cluster

As a part of its overall commitment to research and the AFF, in 2022, the College launched several new internal faculties funding models, including the "Academic Innovation Opportunity Grant Program." Faculty that had been working with the food needs of the community felt that the grant program fit this effort because of (a) the high number of faculty teaching relevant courses on campus, (b) the diversity of food-related efforts on campus, and (c) the newly reinforced connections between community and college through the RFRP. Pulling these three branches together and conceptualizing them through the lens of both action and research birthed the idea for the Food Justice Research and Action Cluster, FJRAC. Within the Transdisciplinary Ecosystem Model, the FJRAC falls into the Institutional Commitment to Community Engagement box under the first bullet point, *Support Structures and Resources*. The group applied for and received funding from the Provost's Office for the Agenda for the Future Academic Innovation award (three faculty MPIs, two faculty collaborators, and one administrator), and the Cluster became officially recognized.

Food Justice Research and Action Cluster

The Institute of Agriculture and Trade Policy (IATP) defines food justice as "the right of communities everywhere to produce, process, distribute, access, and eat good food regardless of race, class, gender, ethnicity, citizenship, ability, religion, or community" (IATP, 2012). Food security and justice are areas of high community impact but potentially low perceived institutional gain in terms of external funding or resources. Within the context of Merrimack College's institutional & faith-based drivers to maintain research and community outreach, and against the backdrop of both the pandemic and the existing literature on CE, the FJRAC is an example of an institutionally supported transdisciplinary faculty research collaboration.

Funding the FJRAC has led to college-wide benefits. The three branches of the FJRAC are a) courses, b) campus-based programs/programming, and c) community outreach that includes CER. The courses and campus-based programming mentioned above were pulled together under the same umbrella through the FJRAC, allowing more communication among faculty (e.g., sharing activities teachers could use to structure student self-reflection following service-learning) and with the community (e.g., Food Justice Summit featuring community speakers and attended by students, faculty, and staff).

The increased community outreach and communication described above (e.g., RFRP) provided more opportunities for the College to become aware of community needs, to direct research or related projects toward those needs, and to incorporate student opportunities. For example, undergraduate students have completed summer research programs and fellowships via internally funded community-engaged projects. Students have composed detailed literature reviews and papers addressing literature on food security, food pantries, and political advocacy approaches; one student created a documentary film about the experience of working in a food pantry; and students have provided data analytics, software, and geographic information systems (GIS) regarding food access in the Merrimack Valley. These projects were presented at internal and external conferences (e.g., Merrimack's Research & Creative Achievement Conference, American Society for Nutrition, and the Consortium for Computing Sciences in Colleges Northeast Annual Regional Conference) and back to the community (e.g., Healthy Active Living Working Group of the Mayor's Health Task Force, City of Lawrence, MA). These projects align with stated community needs, and they involve undergraduate students in research, which is a core tenet of Merrimack's mission. Additionally, Merrimack faculty established community partnerships that allowed them to compete for external funding sources (i.e., National Institutes of Health) and to collaborate on other external funding applications addressing health disparities (i.e., Centers for Disease Control).

Merrimack can continue to demonstrate an institutional commitment to CE through the semesterly Unity in Diversity days and the annual Food Justice Summit. As the FJRAC continues, faculty who are engaged in or interested in food-related activities or research feel supported by both the College and their peers, and local communities have experienced consistent support. Coupled with the 2021 appointment of a Special Assistant to the President for Civic and Community Engagement and the Presidential Community and Civic Engagement Initiative launch in conjunction with the Community and Civic Engagement advisory council, the formation of the FJRAC supports and is supported by the Merrimack mission.

Discussion

When advancing an institutional change agenda, alignment, synergies, and divergences between priorities, politics, patterns of decision-making, and pressures are always in play (Eckel, Green, Hill & Mallon, 1999). Exploring indicators of institutional commitment to CE and institutional change processes (Eckel et al., 2001; Furco, 2007; Holland, 2005; see Table 1) can help colleges reinvigorate and deepen institutional commitment to CE (becoming an "anchor" institution in the local community), while simultaneously advancing goals for growth in scholarly output and external research funding. A Transdisciplinary Ecosystem Model for community-engaged research may help other higher education institutions conceptualize and strategize how to advance CE in ways that balance other institutional priorities and move toward the ideal level of transdisciplinary CER that is deep in the core of the institution, pervasive across all departments and schools, and involving faculty from all disciplines.

Merrimack College's leadership (Table 1) invested in institutionalizing CE through establishing initiatives and positions (e.g., Presidential Civic and Community Engagement Initiative, Special Assistant to the President for Civic and Community Engagement). Such investments by college leadership have raised the level of commitment to community engagement and are examples of movement from lower to high levels of relevance per Holland's matrix. These investments have offered support for community-engaged projects, like the Food Recovery Network, police academy, math and science partnership, and community engagement curriculum development via the Explorations Courses. Additionally, this newer leadership commitment via the Presidential Civic and Community Engagement Initiative has helped guide college resources (e.g., faculty and student researchers) to meet community-identified needs and is evidence of "broad leadership commitment to a sustained engagement agenda with ongoing funding support and community input" (Holland, 2005). A further example of this institutional commitment was the Provost's Office awarding internal funding to support the work of the FJRAC. Altogether, these are strong examples of how College leadership across both the President and Provost have come together to incentivize faculty community-engaged research.

Regarding promotion and tenure review, another organizational element of Holland's levels of commitment to engagement (2005), Merrimack College recently equipped decision-makers with resources on the Scholarship of Engagement and guidelines on including CER in the promotion and tenure review process. To improve the review process, promotion and tenure standards must account for the potential that community-engaged teaching and research could be discounted in promotion and hiring decisions or even seen as a negative – i.e., "wasted" – time that could have been dedicated to more traditional scholarly pursuits. As described, faculty must consider promotion standards when deciding what projects to pursue, which could steer some researchers away from "swampy lowlands" research problems that would address community needs but be too time-intensive per publication output. Institutions and faculty can also alleviate these concerns by pairing CE with (a) community-engaged learning that includes students in the work

and (b) community-engaged research that includes community organizations as authors on journal articles and investigators on grant applications.

The FJRAC is an example of faculty involvement, the third organizational element we focused on from Holland's (2005) matrix, that took a transdisciplinary CER approach at Merrimack. Working together across the disciplines of computing science, education, engineering, and nutrition, faculty members support each other's efforts to engage students, apply for grants, write and publish journal articles, and maintain consistent relationships with community partners to advance the public good. Small groups of like-minded faculty members can strategize ways to do work that best meet the needs of the institution, the community, and the faculty members themselves, while easing some of the biggest challenges, such as priorities that shift as institutional, community, and social/environmental context changes (e.g., COVID pandemic).

Lessons Learned and Recommendations

The FJRAC cluster was formed in response to the issue of food security being catapulted to the center of the collective agenda by the global COVID-19 pandemic and the College's need for faculty scholarly work to be competitive for external funding to have a long-lasting impact. Focusing on and replicating successes is an important way to understand what is possible and what is desirable. Engaging more faculty around trans/interdisciplinary efforts can allow faculty to demonstrate possibilities and benefits for community members, administrators, and others. Our aim with this paper has been to share the process for charting our vision of institutionalization in hopes that it inspires other institutions to codify their own. We advance the following "lessons learned" in service of that aim.

Identify and Support Ongoing Efforts that Align with Values

Overall, the institution of Merrimack College has demonstrated growth toward deepening its commitment to mission-driven service and CE by including these in the mission statement, its history of community-engaged projects, and its appointment of leadership roles at the college to further these goals. The College has taken steps to increase the pervasiveness of its institutional support for community-engaged work by incentivizing research across all five schools at the college, supporting events such as semesterly Unity in Diversity Days (to advance diversity, equity, and inclusion on campus) and the Food Justice Summit, and highlighting student engagement strategies at college-wide training sessions through the Center for Excellence in Learning and Teaching. In alignment with Eckel et al. and Holland's models, the Transdisciplinary Ecosystem Model of CER shows how different types of efforts can drive institutional cultural transformation.

Identify and Support Faculty and Student Teams

Growth in "Faculty Involvement" (Table 1) should be rooted in a vision of CE that aligns with research goals to advance both faculty careers and the institutional mission while working alongside neighbors to improve the quality of life for all. Supporting faculty in their decisions about what sort of research to conduct while allowing faculty to network (i.e., into "clusters") so that mentoring can occur has perhaps been the most effective method from administration to date. Additionally, student involvement in both areas of CE and CER is vital to the success of institutional alignment. Student involvement facilitates research progress, provides context and understanding from varying points of view (from both faculty and other students), and bridges any perceived gap between CE and CER and the institutional mission that is focused on student outcomes and success.

Communicate Drivers of Conflict, Allowing Faculty to Navigate These Consistently

The pandemic forced many institutions of higher education to shut their doors forever. Institutions that survived made revenue-generating pivots, often toward increased reliance on external funding to support research, teaching, and other student opportunities. All members of the higher education community understand the critical need here. In contrast, CE work requires time to develop community relationships and takes a stance of responding to urgent needs rather than determining *a priori* what research questions will be asked, what methods used, and on what timeline. The work also requires communities to believe that the time will be well spent, and in some cases, this requires developing trust in the institutional partner. The onus lies on the institution and its representatives to extend their time and effort to establish and build this trust. Of course, ceding some control to communities in the research process is part of what decreases the predictability of scholarship, lengthens timelines to publication, and decreases a researcher's ability to manage some features of the study with traditional methods. The need to "keep the doors open" and maintain foundational commitments to communities may appear to be in conflict, but they do not need to be, as this paper has shown. The institution can benefit from a relationship with the community through improved student experiences and an improved reputation, as well as a diversified and expanded research portfolio. By being a good partner with faculty and maintaining communication around the drivers of institutional change, the administration can increase the opportunities here.

Increase Communication Around Commitment and Flexibility Around Timelines

As described in the previous sections, CE activities, and aligned research can take time to startup, and teams of faculty are often more effective in completing these projects. Allowing and encouraging teams of faculty to work together on these projects can mitigate some of these issues, with faculty members then able to contribute to several different efforts, including both

traditional and CE projects. To maintain a reputation as an institution seen by neighbors as worth the time required to partner, colleges will also need to solidify institutional commitment so that it is long-lasting. This will require defining "impact" appropriately to include intangibles that contribute to the student experience, such as faculty motivation, good relationships with the community, and real-world problems that increase student and faculty engagement (SENCER, 2011).

Access Community-Engaged Work through Benefits and Value to the Community and Institution

Additionally, it will be critically important for institutions to engage in continual assessment to examine these types of impacts, adjusting when needed. This must all be done while maintaining a mission-level stated commitment to community-engaged work. The institutional reputation in the community is critically important for the success of community-based work, so consistency in maintaining that commitment is paramount. The process of redefinition will require researchers to be explicit about the value this type of work brings to the institution, the faculty, the scholarly literature, and the student experience, moving beyond metrics of retention and recruitment and toward the creation of a culture where engaged students have enlightened hearts and empowered minds driven toward the pursuit of mutual goals that uplift all.

Understand and Balance Conflicting Institutional Desires

As faculty researchers, we need to consider the perceived lack of external grant money, "prestige", or academic rigor of CE research projects. As we consider where new opportunities lie to advance institutional commitment to faculty and to the community, one tension common to all colleges emerging from the COVID-19 pandemic is navigating forward to support both "swampy lowlands" and "high ground" research. Keeping in mind the institution's drivers, faculty can help ease concerns around slower research timelines in CER. One area where institutions and faculty can collaborate to ease tensions is incentive structures. For example, incentives can be created to support faculty financially, with time (e.g., course releases) or with recognition (e.g., awards) to pursue research aligned with CE at predominantly teaching-focused institutions; through informal or formal review processes (e.g., tenure and promotion standards in faculty handbooks), or through explicit validation from leadership (e.g., communication from high-ranking leadership encouraging community-engaged work).

Conclusion

The complex environment of higher education post-COVID requires the institution and faculty to change how we prioritize our actions, efforts, and resources. Living up to commitments made as

a college and as a neighbor to local communities requires high levels of time and effort from both individual faculty members and the institution (Ward et al. 2012), which is heavily influenced by institutional mission and support. This paper has demonstrated how institutions can identify opportunities to advance CER efforts together through intentional direction and support. College survival is interdependent with the health of the community in which it is placed. Institutions of higher education that support CER and intentionally aligned CER and resources can help both colleges and communities thrive.

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