DYNAMICS OF INSTITUTIONAL TRANSFORMATION:

Observations of Research Institutions' Efforts to Transform for More Equitable Student Outcomes

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UNIVERSITY INNOVATION ALLIANCE

FRONTIERSET

Introduction

This report examines how three large, public research universities approach institutional transformation toward more equitable student outcomes.

We focus on three institutions within the Frontier Set - a diverse group of 31 colleges, universities, and state systems across the US that have partnered with the Bill & Melinda Gates Foundation to increase student success outcomes and eliminate gaps in attainment by race and income. As an intermediary organization helping to facilitate the Frontier Set's research and activities, the University Innovation Alliance supported three institutions that participated in the Frontier Set: Arizona State University, Georgia State University, and the University of Central Florida. Collectively, these three universities enroll approximately 180,000 undergraduate students; on average, about 50% of those undergraduates are students of color, and 40% are Pell recipients (IPEDS, 2020).

Spanning from 2015 through 2021, the Gates Foundation's Frontier Set initiative involved deep engagement with participating "sites" across various segments of the higher education landscape. As an intermediary partner, the University Innovation Alliance engaged the three institutions listed above in target setting, quantitative and qualitative data collection, recurring sensemaking and reflection practices, and annual evaluation site visits in order to understand the process by which each institution advanced transformation efforts toward more equitable student outcomes. The UIA regularly convened participating sites within the public research university segment and facilitated sharing and cross-pollination of ideas across the broader Frontier Set network. The Frontier Set also engaged in development and testing of various tools designed to support transformation, including the Institutional Transformation Assessment and Postsecondary Data Partnership.

In 2019, the extension of the Frontier Set initiative for two additional years yielded the development of a learning agenda focused on capturing the how and why of transformation at participating institutions. Based on our observations of UIA institutions over time, we identified several lines of inquiry on which to focus. In this report, we offer responses to two questions within the overarching Frontier Set learning agenda: **(1) How do people best contribute to transformation? and (2) What tools, methods, and resources help with transformation?**

ASU, GSU, and UCF demonstrate how people fuel and enable transformational change. Drawing from Adrianna Kezar's (2013) administrative model of institutional change and our observed practices at these three universities, the UIA identified the following primary ways in which people catalyze and enable transformational change using a variety of tools, methods, and resources at 4-year institutions:

- Decision-makers clearly and consistently communicate an inspiring vision with clear goals, and a long tenure allows them to see work through and highlight progress
- Leaders organize (or reorganize) the institution to further student success goals, centralization key units and break down silos
- Senior leaders encourage the development of and participate in a culture of collaborative leadership
- Cross-functional collaboration includes faculty and mid-level leaders, with faculty engaged in intentional training and student success research
- Sustainable investments in tools and infrastructure enable data-driven decision-making and accountability
- Leaders at all levels encourage forward-thinking approaches and dedicate time and space to operationalize innovation

The Frontier Set: Equitable Student Success & Institutional Transformation

American higher education is more socioeconomically stratified today than at any time during the past three decades - and racial disparities offer an even more daunting story.[1] While access to colleges and universities has broadened like never before, educational attainment and its long-term returns (e.g., employability, mobility) continue to lag for students whose communities have been historically underserved by higher education.

The American higher education system was founded on and operates within a standard pattern. Disciplinary specialists (faculty) spend their careers developing expertise and producing knowledge, primarily through the research apparatus, and educating an elite cadre of students ages of 18-22 along the way. In theory, these students complete four years of study, graduate, land well-paying jobs, and perpetuate their families' social standing. Even those who enter the system at the two-year level must participate in this structure if they want to advance. American society has reinforced this system since the founding of Harvard in 1636; American higher education was designed to benefit dominant group interests (i.e., those in power) rather than those most in need of the benefits of education. This is important to note as group interests are rapidly changing in response to our nation's growth and evolution. Complacency in the face of these circumstances has led to the perpetuation of gaps in attainment and mobility for those most in need of the benefits of higher education.

According to institutional theory[2] (see Appendix A), institutions exist to the extent that they exert power, or influence the behaviors, beliefs and opportunities of individuals, groups, organizations, and societies.[3] As an institution, American higher education is situated at a critical moment where it must make a decision about continuing with business as usual or doing something new to promote the humanity of all individuals. In light of rapidly changing student demographics and the social strain precipitated by COVID-19 and persistent racial injustice, inequities in education, employment, wealth, basic needs, and incarceration have grown exponentially.[4] This confluence of factors has elevated calls for higher education to reflect upon its role in maintaining structures and beliefs that allow inequities to persist.

Due to changing demographics, approaches that center the needs of "traditional" students (e.g., wealthy, ages 18-22, White, etc.) are no longer viable service or business models. The vast technological advances of the past 30 years, along with continued efforts toward social change championed by nondominant groups, have begun to usher in new ways of thinking,

1 Astin, A. W. & Oseguera, L. (2004). The declining "equity" of American higher education. The Review of Higher Education, 27(3), 321-341.

2 Institutional theory establishes higher education as an Institution unto itself (see Appendix A). Throughout this report, when the **Institution of Higher Education** is noted, it will be recognized as a proper noun. When referencing colleges and universities, 'institution' will be noted as a common noun.

3 See Lawrence, T. B., & Buchanan, S. (2017). Power, institutions and organizations. In R. Greenwood, C. Oliver, T. B. Lawrence, & R. E. Meyer (Eds.), The SAGE Handbook of organizational institutionalism (2nd ed., pp. 477–506). London: SAGE Publications.

4 Center on Budget & Public Policy Priorities (2022)

being, and doing. Job automation, stagnation of wages, and growing inequalities demand that more students earn a college degree. Increases in the number of students earning degrees have begun to drive the value of a degree down (more degree-holders means the credential has less distinction) and entrenched resistance to change continues to create more disparity.[5] These circumstances, along with many others, are challenging the power structure that drives the higher education system and have resulted in decreased funding for public education[6], as it continues to fall out of alignment with dominant group interests. These contextual factors require universities to change and evolve - but these institutions are designed to maintain the status quo. As a result, higher education has failed to advance social equity, despite increasing amounts of time and resources invested in its capacity to do so.

As a result, campuses are feeling pressure both internally and externally to undergo transformative changes that dramatically alter their underlying values, norms, policies, processes, and practices to promote equity both within higher education and society more broadly. These shifts in the higher education landscape are changing the narrative of student success from a focus on equality to an emphasis on equity. As such, campuses are shifting their focus from equal ***access*** to quality postsecondary education to equitable ***outcomes*** for all.[7] This has led to many campuses taking action to reaffirm their position as conduits of social mobility and stewards of the public good. Despite this shift in the field, social, political, and economic forces that produce systemic inequities continue to reinforce barriers to advancing equity and realizing the promise of the public good mission of higher education.[8]

The convergence of these factors prompted the Bill and Melinda Gates Foundation (BMGF) to launch the Frontier Set initiative. The Frontier Set (FS) was a select group of 29 high-performing, high-potential colleges and universities and two state systems committed to improving student outcomes and closing attainment gaps while also exploring, implementing, and documenting policies and practices that facilitate institutional change, or transformation, toward increased student success.[9] Based on years of investment in understanding and improving the outcomes of "non-traditional" students - namely students of color, low-income, and first-generation students - the Foundation developed this initiative to better understand how institutions were serving these students and/or changing to better serve them.

The Frontier Set included a diverse cross-section of higher education institutions (i.e., research universities, state systems, regional comprehensive institutions, community colleges, urban-serving universities, and minority-serving institutions, including Historically Black Colleges and Universities [HBCUs]) that demonstrated promise and were leading their institutional segments

5 Emmons, Hernández Kent, & Ricketts (2018)

6 The Century Foundation, 2020

7 AFT, 2011

8 See Marginson, 2016

9 BMGF, 2020

in efforts to generate more equitable outcomes for their students. The institutional diversity of this effort is important because the solutions to these issues do not exist solely in the most well-known and well-resourced institutions.

As some of the best-resourced public higher education institutions, research institutions serve an important role in broadening access and graduating students with historically underserved identities. So often, large research institutions are looked upon to offer solutions to problems they do not fully understand and are trying to tackle themselves. Public higher education has been the engine of social mobility for generations of Americans. Large research institutions, many of which are state flagship institutions, are often perceived as the most powerful and influential institutions in the field. As such, other institutions engage in competition for this same power and legitimacy, usually by modeling their behaviors. This increased competition has led to an unfortunate outcome – pathways to success for undergraduates from historically marginalized communities have narrowed. While these institutions graduate the students they admit at higher rates than those from other segments of the field, they continue to struggle increase and advance student success outcomes for students of color and those from low-moderate income backgrounds.[10]

Public research universities are uniquely situated to drive and influence equitable transformation across the field because: 1) their public good missions require that they serve the needs of local populations, and 2) their business models have been significantly impacted by the contextual factors previously mentioned because of their reliance on state funding to date.[11] These realities prime research institutions to explore and validate new approaches to the work, as they are required to respond to needs in the external environment.

10 EdTrust, 2020

11 American Academy of Arts & Sciences, 2015

Through our participation in the Frontier Set initiative, the University Innovation Alliance was responsible for addressing several lines of inquiry focused on understanding the nature of institutional transformation. Our learning agenda focused on two overarching questions, originally outlined by the Gates Foundation:

1. How do people best contribute to transformation?

2. What tools, methods, and resources help with transformation?

Our investigation of these questions was intended to contribute to the sector's understanding of how transformation occurs at research universities and how research universities are changing as society evolves.

Among a variety of potential directions within the Frontier Set learning agenda, the University Innovation Alliance chose to focus on these questions because:

- UIA presidents and university leaders have contributed significantly to institutional transformation and vision-setting at their institutions, and each has organized and operationalized transformation uniquely across their institution;

- UIA institutions have employed distinct tools and strategies to drive transformation (for example, transfer pathways and digital learning at UCF; predictive analytics and intrusive advising at GSU; organizational redesign at ASU), and

- The distinct state contexts in Florida, Arizona, and Georgia, and institutional cultures at these institutions, create additional nuance related to the conditions in which these tools and strategies can be effective.

UIA institutions can provide meaningful contributions to our knowledge base about how decision-makers drive and support transformation, how institutions engage various strategies to accomplish their student success goals, and the conditions that facilitate progress towards more equitable student outcomes in the public research university environment.

Approach and Conceptual Underpinnings

While the Frontier Set was not an empirically designed research project, the emergent strategy mirrored collaborative research design, which aims to address practical concerns (e.g., challenges related to change management), contribute to the creation of scientifically acceptable knowledge (e.g., new concepts, theories, and models), and to enhance competencies of all involved in the research process through dialogue and learning.[12] Frontier Set was most closely aligned with interactive research design principles or action research, where partners (researchers and an organization) contribute to the work with clearly defined roles and a shared purpose to create common knowledge deemed significant from the perspectives of research, practice, and learning. Figure 1 below illustrates the three-fold process.

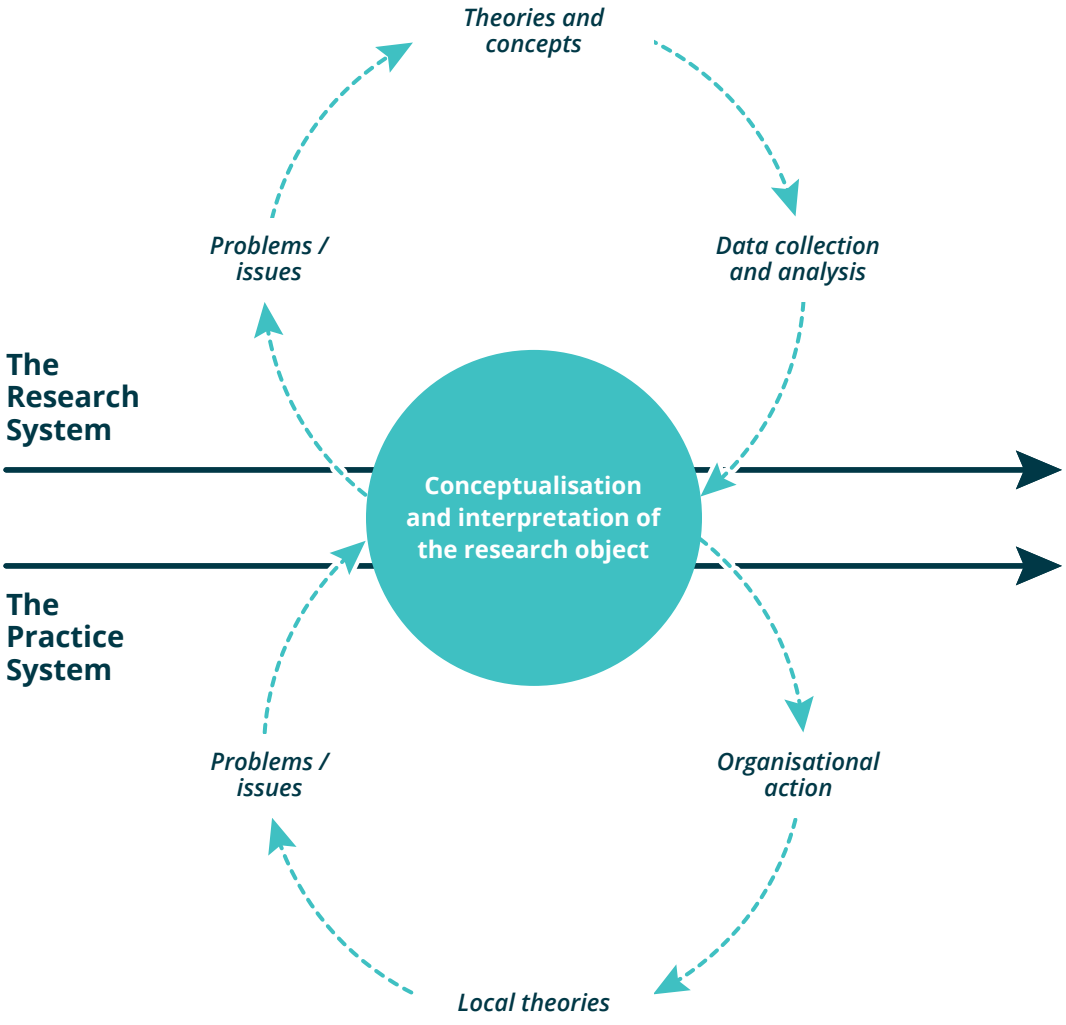


Figure 1. A Model of Knowledge Creation Through Interactive Research[3]

12 Ellstrom, 2007

In collaboration with the three participating UIA institutions, we observed and explored the people, decision-making, and resources involved in the transformation process with aims to explain in greater detail what transformation is occurring and how it is occurring on each campus. We leveraged our knowledge of the institutions, existing resources (e.g., research literature, case studies commissioned by the Foundation), and institutional data to identify the activities and additional support structures that facilitated accelerated progress toward improving student outcomes while documenting opportunities for and barriers to success. This information was used to distill themes across and differences between each institution's transformation journey.

These themes were largely guided by Adrianna Kezar's work on institutional transformation in higher education, which highlights the need for collaborative sensemaking - or meaning construction - around core strategies, where stakeholders work to understand how institutional roles, identities, strategies, and routines influence organizational contexts[13] (See figure 2). For example, senior administrative support is identified as a core strategy for effecting change in institutional structures and processes yet is also crucial for mobilizing cross-functional engagement toward student-centered change. It is important to understand that this lens provides clarity around transformation dynamics as related to internal processes, which differs from institutional theory (see Appendix A). This literature describes the macro-level processes that occur within and between institutionalized environments which lead to the meso- and micro-level processes outlined by Kezar.

13 See Kezar, 2003

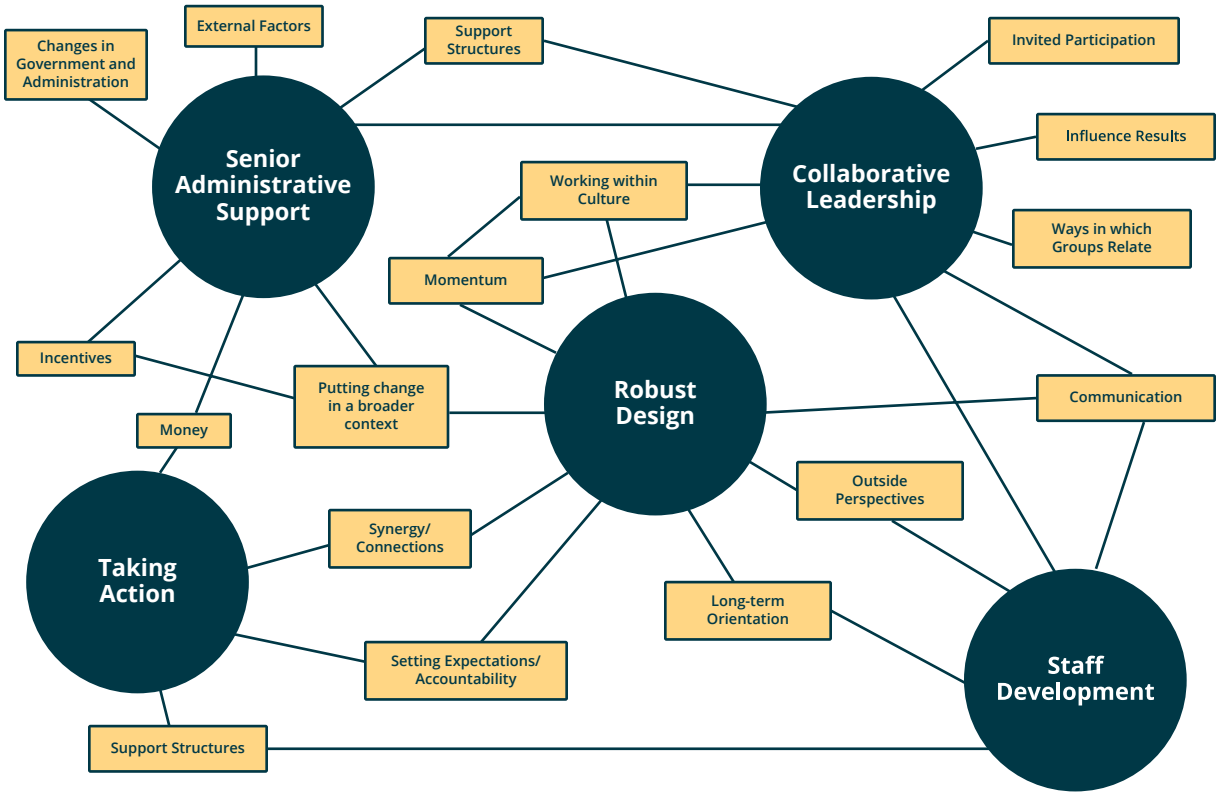


Figure 2. Examining the Institutional Transformation Process[14]

Disentangling these processes and dynamics is important because traditional postsecondary organizational structures and logics often undermine, rather than facilitate, collaboration across student-facing functions. Transformation toward student success requires that these structures and processes be evaluated and reimagined so that collaboration is part of the strategic planning and initiative design process, faculty and staff regularly share best practices and coordinate operations across functions and disciplines, and partnerships with external partners reinforce institutional plans for improving student outcomes.

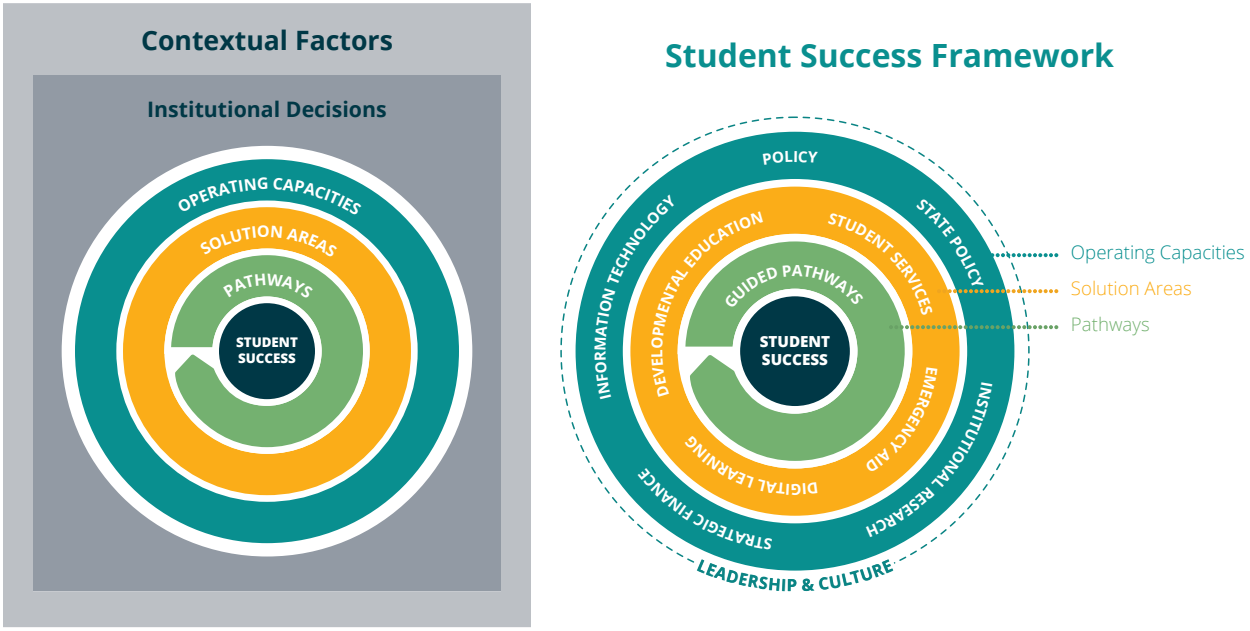
We found many areas of direct alignment with Kezar's model, particularly around robust design, incentives, and invited participation. Kezar argues that staff and faculty opportunities that promote a shared vision are crucial to supporting change, and our observations throughout FS supported this assertion. There were other areas that came into much sharper focus based on insights from the segment that were not explicitly captured in the model. For example, the importance of integrating student feedback or working within institutional culture when introducing innovations for student success were especially critical in the segment but are not captured in the model. At the same time, we observed that the importance of people and tools was not directly addressed in the model, and thus found an opportunity to contribute to our

14 Kezar, A. and Eckel, P. (2002) Examining institutional transformation process: the importance of sense-making, interrelated strategies, and balance. *Research in Higher Education*, 43, 295-328.

collective understanding of how transformation occurs in higher education.

BMGF Operating Capacities

The Gates Foundation developed a framework and a research-based hypothesis to holistically evaluate, inform, and prioritize the dynamics of institutional transformation being observed. This framework hypothesizes that integrating multiple ***solution areas***, such as advising or digital learning, supporting them with robust ***operating capacities*** (e.g., institutional research, finance), and doing so while considering contextual factors can accelerate transformation and provide measures of improvement over time.[15]



Gates Foundation Postsecondary Student Success Framework

The six operating capacities are as follows:

- **Leadership & Culture** - an institution's ability to develop and lead execution of a strategic agenda focused on student success.
- **Institutional Policy** - an institution's ability to mobilize the support required to change laws, regulations, rules, protocols, and funding priorities governing operations whether or not the policies fall within the institution's formal authority to modify.

15 BMGF, 2019

- **Institutional Research** - an institution's ability to use inquiry, action research, data, and analytics to intentionally inform operational, tactical, and strategic accomplishment of an institution's student success mission. The function— occurring inside and outside of an institutional research office—provides timely, accurate, and actionable decision support to administrators, faculty, staff, students, and other stakeholders.

- **Strategic Finance** - the institution's ability regarding the strategic and effective allocation and management of resources in support of the institution's vision, mission, goals, and priority initiatives.

- **Information Technology** - the institution's ability to provide institutional leadership, faculty, and advisors with tools and information they need to contribute to student success and develop and monitor meaningful student success initiatives.

- **State Policy** - is an institution's ability to leverage existing state policies or develop and/or advocate for new evidence-based state policies (which could include, depending on local context, legislative policies, board policies, rules and/or guidance documents) to support efforts to achieve equitable student success at scale.

Throughout the Frontier Set initiative, the UIA observed that four of these capacities played a particularly significant role in campus transformation: Leadership & Culture, Institutional Research, Information Technology, and Institutional Policy. While other capacities were undoubtedly relevant, the scope of our engagement with participating institutions most clearly illuminated the role of these four areas.

Using Kezar's model (Figure 2) and the BMGF framework above, we refined our Frontier Set learning agenda inquiry to allow for more nuanced, detailed insights based on the experiences of the institutions in the UIA segment. Building upon the two questions outlined previously, the UIA explored the following questions to guide our responses to the learning agenda questions. In-depth exploration of each question with institutional examples can be found in Appendix D.

1. **What are the structures, processes, methods, and relationships that enable transformation across large and highly decentralized organizations?**

   Transformational change for equitable student success requires all campus members to take action and work together to carry out an aligned strategy. To cultivate this environment of shared leadership and create spaces for people to engage in partnership, a culture of cross-functional collaboration must be embedded into the structures, practices, and policies of institutions. This takes intentional effort and time because many research institutions are designed in a decentralized manner that creates work silos. Campuses must understand how to

break these invisible boundaries down to increase cross-functional collaboration at their institutions. UIA institutions have demonstrated the following about enabling meaningful cross-functional collaboration at large, decentralized research institutions:

a. Aligned, enterprise-wide data-systems facilitate the coordination of care and communication across units.

b. Cross-functional working groups or committees bring people from across the university together to discuss key topics or solve specific problems, with shared data as the foundations for the conversations.

c. Transformation initiatives that are endorsed and sponsored centrally fuel cross-functional collaboration by necessitating partnership between multiple units.

2. **What are the structures, processes, tools, methods, resources, and relationships that operationalize innovation in ways that meaningfully advance student success and institutional transformation?**

Innovation is a key lever for helping institutions change to meet the needs of shifting student demographics, but institutional traditions and norms can limit workers' creativity and thinking. To combat this, institutions must cultivate a spirit of experimentation and data-driven innovation across the university enterprise. This culture enables campus members to question organizational arrangements, mindsets, and priorities that drive inequities and encourages campus members to think outside the box to improve equity. However, disrupting the status quo and taking risks can be difficult to do. We observed that UIA institutions have written and unwritten rules to institutionalize a culture of innovation. UIA institutions demonstrate that the operationalization of innovation in transformational change is supported by:

a. Leadership that thinks beyond the conventional and challenges traditional postsecondary narratives built on ideas of 'elitism' and 'exclusiveness.'

b. Internal structures and processes that encourage new ideas, including:

   i. Using data and student input to identify problems that exist for students.

   ii. Training staff and faculty in strategic foresight, design thinking, and other human-or-user-centered methodologies to promote creative, student-centered problem solving.

   iii. Piloting new ideas with robust assessment and evaluation to determine

what will be scaled across the university.

c. Adding staff capacity and infrastructure to support innovation.

d. Leveraging external resources that bring in new ideas and help mitigate risks.

3. **What are the structures, processes, tools, methods, resources, and relationships that enable the collection, synthesis, and incorporation of students' feedback, perspectives, and lived experiences within decision-making, policies, procedures, and initiatives?**

   While a key goal of transformational change is equitable student success, students are rarely engaged in efforts to transform their institutions. Quantitative data provides insight into students' academic progression, but this information does not fully capture how they experience campuses holistically. Students must be engaged as partners to transform institutions in ways that align with their needs and goals. UIA institutions have created structures that directly connect students and institutional leaders, meet students where they are, and offer opportunities for students to engage directly in transformational change. UIA institutions demonstrate that students best contribute to transformational change when:

   a. Senior leaders are hearing directly from students to understand their experiences and needs.

   b. Students' voices, experiences, and lived expertise directly shape strategy, planning, practice, and evaluation of activities.

4. **What are the processes, tools, resources, and relationships that result in faculty, advisors, and other staff members' ability to use technology and data tools to effectively implement solutions?**

   High-quality data helps campus members make sense of the student experience at scale. This information, coupled with technology that permits data to be shared across an institution, generates buy-in and engagement in transformational efforts. However, if data and technological tools are inaccessible and inaccurate, they cannot successfully be embedded in transformation efforts. UIA institutions teach us that operationalizing data and technology tools in transformational change is supported by:

   a. Routinized data use and clear expectations that require staff to review, cite, and report data regularly.

   b. A lattice approach to analytical capacity, with student success and

institutional research units collaborating to provide analytical support and leadership.

c. Data tools that:

   i. Provide real-time data that improve services and supports for students.

   ii. Provide longitudinal data to understand student outcomes, assess the impact of changes, and track progress.

   iii. Are open, available, and accessible to staff at all levels of the university, from front-line staff, to middle managers, to executive leadership.

   iv. Follow a common language in order to facilitate communication and collaboration across the institution.

d. A data-informed strategy that links to faculty members research endeavors.

e. Professional development that increases campus members capacity to use data and technology.

5. **In what roles and through what structures and processes are mid-level leaders and faculty most effective in contributing to transformation?**

Faculty and mid-level leaders are critical to the sustained progression of transformational change for equitable student success. However, institutions tend to silo efforts by role or department, which can lead to a disjointed approach. Faculty and mid-level leaders can best support transformational change when institutions create institution-wide spaces for them to engage in such efforts.

Faculty best contribute to transformational change when:

a. They are included in the visioning and strategic planning of transformation.

b. There are clear pathways to elevate their knowledge and expertise.

c. Student success is incorporated into the tenure and promotion process.

Mid-level leaders best contribute to transformation through:

a. Sensemaking, translating, and strategizing–serving as the connection point between senior leaders and staff working directly with students.

b. Leveraging the expertise and structures at research universities to advance student success.

UIA Learning Agenda Summary

Senior Leaders best contribute to transformation by:	• Modeling a willingness to redefine the research university identity in a way that expands access • Establishing and participating in cross-functional meetings, committees, and initiatives • Seeking connections directly with students • Setting the standard for using data to guide strategy, day-to-day decisions and action, reporting, and continuous improvement
Mid-Level Leaders best contribute to transformation by:	• Sensemaking, translating, and strategizing, serving as the connection point between senior leaders and staff working directly with students • Leveraging the expertise and structures at research universities to advance student success (i.e., using research expertise to inform or evaluate initiatives) • Use of data by frontline staff and middle managers to drive success, advise senior leadership (sensemaking at the middle-manager level)
Faculty best contribute when they are part of the transformation vision and process, which can be encouraged by:	• Engaging their knowledge and expertise • Incorporating student success into the tenure and promotion process
Students best contribute to transformation when:	• Their voices, experiences, and lived expertise direct shape strategy, planning, practice, and evaluation of activities • Senior leaders are hearing directly from students to understand their experiences and needs
To be successful, these people depend on the following **tools, methods, and resources**:	• Real-time and longitudinal data that is integrated, open, and easy to access • Innovation and forward-thinking approaches that foster creative, student-centered problem-solving • Tools, methods, and structures that enable the student voice to permeate through staff and leadership

Conclusion

Even in the most complex and technologically advanced of organizations, ***people*** are the catalysts for transformational change, and they must be equipped with tools, mindsets, and resources that will drive and sustain efforts to change. As knowledge producers and idea generators, research universities – and the people at all levels that lead them - are poised to drive institutional change across the field of higher education. Organizational cultures that value and practice innovation as a means to break reactive institutional cycles and mental habits makes it possible for people to drive the types of change necessary to reach equitable.

Many research institutions are stalwart in their efforts to improve student outcomes and experiences despite the myriad of complexities involved in these efforts. They are investing resources, where possible, into Diversity, Equity, and Inclusion (DEI) initiatives, often in the form of equity-centered programming for students and/or social justice oriented professional development opportunities for staff. While it is imperative that campuses invest in strategies to advance equity, such approaches do not fully address the root causes of inequities. Institutions must also shift their cultures in ways that align with equity principles to ensure that change is sustainable.

This requires campuses to establish a foundation for their equity work, including an agreed upon definition of equity to guide efforts. A well-defined definition of equity aids campuses in intentionally interrogating the various aspects of an institution to identify ways in which its policies, practices, structure, and culture causes and perpetuates systemic inequities.

Equity-centered transformational change must attend to the ways in which campus policies, practices, processes, structures, and cultures create and maintain power differentials to address the root causes of systemic inequities. This work is easier said than done because the ambiguous nature of power makes it difficult to pinpoint. Furthermore, professionals are not socialized to identify how power functions, making it even more difficult to spot the ways in which it produces inequities. Despite these challenges, UIA institutions have demonstrated unique approaches to operationalizing equity in their institutional transformation efforts using a variety of tools, methods, resources, and relationships to ensure forward progression (See Appendix E). This work, along with the people (e.g., mid-level leaders) and tools (e.g., chatbots) that catalyze institutional transformation have been key to the success of UIA institutions to date. Continued intentionality in these areas, amongst others, will afford research intuitions the opportunity to renew the value of their leadership and contributions to the field, as they carry the torch toward equitable outcomes for all students, regardless of background.