STRATEGIES FOR ADVANCING EQUITY IN HIGHER ED THROUGH SYSTEMS ANALYSIS

catalyst:ed

COMPLETE COLLEGE AMERICA

Gardner Institute

Table of Contents

Preface: Why We Have to Restructure Higher Education	3
Introduction	4
Context: Systemic Inequities in Higher Education	5
Identifying the Problem: Naming Inequity Within College System	7
Understanding the System: Sensemaking of a Complex Environment	8
Visualizing the System: Making the Inner Workings of System Visible	11
Considering Drivers for Change: Improving Equity	12
Considerations for Practitioners & Future Research	15
1) Understand positionality and bias	15
2) Ensure authentic student voice in the process	16
3) Resist a reliance on lagging measures	17
4) Define a shared goal with common language	17
5) Promote cross-sector collaboration	18
References	19
Appendix A: Intermediaries for Scale Overview	21
Appendix B: List of Intermediaries for Scale from 2019-2022	22
Appendix C: The Institutional Transformation Assessment	23
Appendix D: Targeted Action By Causal Factor	25
Category: Institutional Policy	26
Category: Student Support Services	27
Category: Campus Cultures	28
Category: Advising Pathways	29
Category: Teaching and Learning	30

PREFACE: WHY WE HAVE TO RESTRUCTURE HIGHER EDUCATION

Restructuring the higher education sector to meet the needs of its current student population - which is increasingly racially and/or ethnically diverse, older, and made up disproportionately of working students - is critically time sensitive. Every moment that is spent deliberating the legitimacy of the current system, or re-attempting past failed reforms under new names or leadership, is a moment that pushes more students to the point of attrition, or to never enroll in the first place. The reality is that most of the students that are failed by our existing higher education systems are racially minoritized and/or from low-income backgrounds. They are a testament to the racist structures both within and outside of the higher education sector that were created to elevate the socio-economic well-being of predominantly white and wealthy students from a long legacy of college graduates, at the expense of everyone that does not fit those categories. Each of these students who are pushed to the point of attrition, or excluded from the opportunity to enroll altogether, are more likely to end up in a cycle of low-wage, low-security jobs, with less access to health care benefits - all statistics directly tied to lower life expectancies and to the continuously growing racial wealth gap in the United States. The pandemic elucidated this reality further, as non-college graduates were more likely to lose their jobs, leaving them without a reliable source of income and without healthcare during the most catastrophic health crisis of the last century. While this requirement of college education for basic financial, housing, and health security is clearly inhumane and should be challenged, it is the present reality we must navigate with the interests of the country's historically underserved populations at the forefront.

Addressing the needs of these historically underserved and presently marginalized student populations within the higher education system first requires an analysis of how each individual institution, college system, and state is perpetuating racist and classist practices. This can be done through the completion of an exercise as described in this publication which explores the root causes for inequities in higher education and facilitates the creation of effective and expeditious policies to meet student needs and increase graduation rates. The root cause analysis process also exposes potential opportunities for collaboration with students themselves, and even across sectors, to have the highest impact both within and outside of the field. Of course, no individual practitioner or institution must start this process in isolation.

Organizations that specialize in higher education policy reform, such as the participants described in this paper, have immense experience, expertise, and networks in the field to help practitioners and institutions analyze their current structures and prepare to transform them. These organizations even have specialists dedicated to certain institution types and locations, adding the critical local demographic, historical, and political context necessary for any policy to be successful. The more that we - as individual practitioners, organizations, institutions, and college systems - come together with a united plan for student success, the more effective our policy will be, and the faster we will push students towards the finish line of graduation and all the liberatory learning and socio-economic benefits associated with it.

INTRODUCTION

This publication, written in collaboration with Complete College America and the Gardner Institute, serves as a case study outlining how thirteen higher education-serving nonprofit organizations came together to undertake a root cause analysis and build out a fishbone diagram to better understand the various ways that inequitable systems, processes, and structures show up on college campuses. The work was undertaken by an Equity Working Group (EWG) that was a subgroup of the postsecondary Intermediaries for Scale (IFS) Networked Improvement Community (NIC)[1]. The IFS NIC, with the help of Catalyst:Ed serving as network manager and capacity-building support partner, had a shared aim to eliminate race, ethnicity, and family income as the primary predictors of who completes degrees in higher education. The primary goal of the EWG was to support the 13 organizations to deepen their understanding of where and how specific inequalities regarding the student experience show up on campuses, identify current best practices/ strategies for addressing inequity, and ensure that the services and supports of the 13 organizations don't perpetuate existing inequities.

The work outlined in this publication offers an initial step, understanding the problem, which is part of a larger process for the IFS cohort to advance equity in postsecondary education. This paper describes our work to unravel how postsecondary systems fail to meet the needs of historically and presently marginalized students and outlines a method for scholar-practitioners to name, map, and (eventually) develop an adaptable and systematic process to address inequities in higher education. This work is in the nascent stages and has focused primarily on problem identification, causal factors, and a network landscape analysis to understand where the ecosystem has resources to address the issues and where

[1] See Appendix A

CONTEXT: SYSTEMIC INEQUITIES IN HIGHER EDUCATION

Higher education does not produce equitable outcomes for all students. We need only look at the National Center for Education Statistics (NCES, 2021) to see how inequitable postsecondary systems impact degree completion. NCES reports that only about 56 percent of white students who enrolled in postsecondary education attained a degree between

2010-2020, but that Latino/a/x students completed at a rate of 37 percent, Black students at 36 percent, American Indian/Alaska Native at of 33 percent and Pacific Islanders at 47 percent (NCES, 2021). Additionally, students who identify as being the first in their families to attend a postsecondary institution (first-generation) and those facing economic hardship (as measured by Pell eligibility) likewise face lower rates of persistence and completion than the national averages (Marcus, 2018; Whistle & Hiler, 2018). These disparities in outcomes linked to race and income signal a system-wide failure in higher education that disproportionately impacts historically and presently marginalized communities. In short, the current higher education ecosystem produces inequitable outcomes at the expense and to the detriment of students.

The systemic inequities in higher education limit access to postsecondary learning, higher-paying jobs, and economic stability for many students and their families. While there are efforts at institutions nationwide to rectify this situation, there are limited resources available to track equity work at scale and share learning in order to accelerate improvement.

Historically, student persistence and graduation rates are frequently used to measure student success outcomes at scale. However, these indicators are akin to the smoke and flames of a fire. Such lagging indicators alert us to the results (the fire) of a combination of causal factors, but do not offer a complete picture of the underlying issues (causes) that sparked the blaze.

Flames and smoke, like persistence and graduation rates, are lagging measures of a system. Looking only at the lagging measures of systems means that help may come too late for those experiencing an undesired outcome. Lagging measures are useful as we examine student outcomes and improvement efforts across the larger ecosystem, but practitioners must have tools that allow them to see how and why these lagging measures of the system are produced. If we understand the intermediate and leading measures - the how and why of the undesired outcome(s) - we can begin to make changes that will result in an improvement for students currently in the system, rather than just measuring the end result.

Furthermore, it is necessary to employ leading indicators to understand the multitude of failure points within the system, as there is tremendous complexity related to equity within postsecondary education systems, at the heart of which are students and families who are suffering the failures of an ecosystem that was not designed with consideration of the needs of diverse learners.

The root cause analysis process is often leveraged as part of a broader practice of continuous improvement, the first law of which is that "every system is perfectly designed to achieve exactly the results it gets" (Donahue, 2015). If this assumption is true, then the current higher education system is perfectly designed to produce inequitable outcomes, as measured by the lagging measures of persistence and graduation. The processes, policies, practices, and culture that produce these inequities are complex, overlapping, and often difficult to unpack (Kendi, 2019).

Many colleges and universities are operating under long-standing racialized structures and legacies of inequity which are often obscured by tradition and complexity. If a business model has always been producing a given outcome or a government program has always been in place, as higher education has always produced inequitable results, it can be difficult for stakeholders to understand that a problem exists, as well as the full depth and range of the factors that might be causing the result. In their book, Rethinking Organizations, Bolman and Deal discuss the importance of helping organizations visualize the systems in which a given business operates (Bolman and Deal, 2013). In it, they ask readers to consider: how do actions, policy, and practice all add up to produce a given result?

The answer to such a question frequently involves so many variables that a human mind cannot hold all of the contributing factors in a single moment. Therefore analysis can be complicated without a reference framework or a means to organize ideas. Even as we try to "zoom in" to examine specific issues, the sheer number of variables in a system can overwhelm our brains, limiting our ability to analyze a large set of causal factors. Complex systems, such as higher education, require complex forms of analysis and frameworks that allow stakeholders to visualize large chunks of the system in an organized and connected format. Graphic visualizers often help bring together the pieces of complex systems in a way that can be analyzed and acted upon. Bolman and Deal explain that systems are often Volatile-Uncertain-Complex-Ambiguous. They encourage change-makers to develop visual maps to make complex structures visible to catalyze analysis and accelerate reform (2015, p.36).

IDENTIFYING THE PROBLEM: NAMING INEQUITY WITHIN COLLEGE SYSTEM

In 2020, it became clear to the participants in the IFS NIC that there was a greater need for discussion and capacity building related to the topic of equity. In response to this voiced need, partners at Catalyst:Ed, network manager for the IFS and a capacity-building support organization, helped to assemble an Equity Working Group (EWG) focused on discussing equity in higher education. Participants in this EWG collaboratively developed the following goals:

1. Build IFS team capability around equity issues through the planning and implementation of regular workshops and discussions for the whole NIC. This may include training opportunities utilizing shared technical assistance funds.

2. Deepen IFS understanding of where and how specific inequalities regarding the student experience show up on campuses, identify current best practices/strategies for addressing inequity, and ensure that the services and supports of the 13 organizations don't perpetuate existing inequities.

3. Build intermediaries' ability to support institutions on their equity journeys

In early conversations within the EWG, organizations began to share what they were learning from the colleges and universities with which they were working on the Institutional Transformation Assessment (ITA)[2]. While the outcomes of inequity were fairly uniform (low rates of persistence and graduation for underrepresented minority students), the causal factors (the how) of these outcomes were often subject to many variables, and therefore difficult to talk about in a uniform way. The desire to understand the underlying systems and structures supporting inequity on campuses and to collect and name the causal factors that support inequity became an early shared learning opportunity for the group.

[2] See Appendix C

UNDERSTANDING THE SYSTEM: SENSEMAKING OF A COMPLEX ENVIRONMENT

All too often organizations find themselves in search of a solution to a problem before investigating the underlying causes of the undesired outcome. This habit of looking for a solution before you understand the causes of a problem is referred to by the Carnegie Foundation as "Solutionitis" (Carnegie Foundation for Achievement of Teaching, 2022).

Solutionitis, and the tendency to reactively jump to solutions, can lead to inefficiency, or worse, unintended outcomes that worsen the situation. Many systemic issues are produced by a combination of causal or contributing factors rather than just a single underlying activity.

Improvement science focuses on systematic consideration of causes, followed by a rigorous, data-informed process of testing and evaluating systemic changes.

For example, there are lots of reasons an institution might not be receiving responses from students regarding an email message about tuition costs. The student could have limited access to the internet, be working a full time job, be caring for loved ones, not know where to locate funds, or perhaps be confused about a discrepancy in the amount they owe, etc. In short, there are a lot of variables at play when considering how best to obtain a desired outcome. If you can accurately understand the "why" of the systems failure in question, then you can begin to develop a change idea for improvement in a strategic and equitable and inclusive way, rather than relying on assumptions and applying a scattershot approach to an undesired state.

By starting with an understanding of the ecosystem, the desired future state, and the causes of the current state, we can choose the intervention that will best support improvement. Improvement science encourages practitioners to spend time understanding the ecosystem, make processes, practices, and structures visible, develop a list of causal factors, and then make strategic plans for change (Crow, 2019).

To start the analysis of the current state, the IFS community engaged with 246 institutions using the ITA survey in 2020-2021. The Intermediaries spoke with campus community members about the greatest strengths and weaknesses of their current campus systems in relation to equity and student success. These conversations, and the general connectedness to postsecondary education among the IFS community, gave the EWG a broad sample of perspectives regarding the current state of higher education. Each IFS sensemaking meeting involved facilitators engaging with a subset of the campus community (administrators, faculty, staff and students) to review the results of the ITA surveys, and try to puzzle out why and how the campus structures (policies, practices, and pedagogy) worked together to produce outcomes.

The IFS community worked with a diverse set of institutions from across the country and, as a result, developed first-hand knowledge of many of the most current and pressing concerns facing stakeholders in the postsecondary ecosystem. This collective experience of administering the ITA and leading sensemaking meetings was the foundation from which the EWG pulled when trying to answer the question, "What are some of the ways inequity is currently manifesting on university and college campuses?"

Using their lived experiences and information gathered from the ITA, the EWG analyzed equity problems facing educators and students using the 5 Whys Process of Inquiry protocol.

This method of deep questioning to dig into the "why and how" of root problems is often attributed to Sakichi Toyoda, the founder of Toyota industries. This process of inquiry leverages the lived experiences of participants and asks stakeholders to unpack the underlying structures that may be producing an undesired outcome within a system.

The EWG conducted these conversations via Zoom, and invited participants to break up into dyads to interview one another using a standard set of instructions to guide the conversation. In order to further structure the discussions, the EWG selected from a list of potential campus systems identified by the full team; most of which were pulled directly from the ITA. Those subsystems include:

Each dyad began by choosing a subsystem from the ITA to discuss and then proceeded to work through the instructions on the protocol handout. To standardize data collection, results were recorded by participants using a Google Form. Following the small-group discussions using the 5-whys protocols, the participants came back together to discuss what they had learned. Most participants expressed appreciation for the process and were encouraged to hear specific examples of how campus systems were supporting manifestations of inequity on campuses across the country. If we think back to the example of fire and smoke being the indicators of an issue, this exercise helps participants identify some of the sources of the flames, the structures, policy, and practice that are fueling the fires or inequity.

Understanding the components of the blaze helps us consider how best to leverage resources to efficiently and effectively address contextualized causal factors.

VISUALIZING THE SYSTEM: MAKING THE INNER WORKINGS OF SYSTEM VISIBLE

The data taken from the 5 Why's protocol analysis was taken and coded to be visually translated. The EWG chose to visualize the causes or contributing factors of inequitable outcomes within the system through a fishbone diagram. Sometimes called an Ishikawa diagram (for its creator) or a cause and effect diagram, the most widely used term for the diagram described hereafter is fishbone diagram, so called because of its distinct shape.

The fishbone diagram typically starts with a "head" on the right side of a page, and then develops a visual representation for the structures and activities producing a result in a given system. The head contains text outlining the "problem of practice;" a specific undesired outcome, the causes of which are listed under each "bone" of the fish.

The "head" of the fishbone is attached to a line running horizontally across the page.

From this spine, we draw and label "big bones," almost like the splayed ribs of a fish. At the far end of each of these big bones is a title block, with a thematic designator under which a sample of related causes can be organized. In the EWG effort, most of the big bones were titled using campus subsystems (Financial Aid, Advising, etc.) identified from the ITA.

By organizing the results of the 5 Whys in this type of graphic visualizer, the EWG was able to review and respond to the perceived causes of inequity identified by participants. In order to honor the fullness of each participant's response, the initial fishbone included every causal factor identified in the initial inquiry process. This produced a fishbone that was very large. Rather than editing our colleagues, we invited the EWG to work together to consolidate the factors in each bone and build a revised list of causal factors that could be more easily visualized and navigated. The EWG plan was to keep the granular view, but to also build a new list that would allow practitioners to "zoom out" and see the wider field. In practice, both forms of visualization can be useful, the more granular view is useful for the development of specific change ideas, while the less-detailed view can help practitioners see larger themes and trends within an ecosystem.

The resulting, consolidated fishbone diagram, which included all of the responses, was presented to the EWG for content validation, and then teams of EWG members were invited to consolidate similar or overlapping causal factors to help mitigate repetition. In the example of the student services subsystem, consolidated causal factors include a fix the student mindset rather than fix the system, lack of systemized data collection focused on diverse student success and limited funding/staff availability, to name a few. The consolidated fishbone diagram was then used as a foundation for discussion of how each IFS was or was not addressing the causal factors listed by the working group. The next section describes in more detail how the consolidated fishbone was used to identify how each IFS was or was not addressing the causal factors.

CONSIDERING DRIVERS FOR CHANGE: IMPROVING EQUITY

To further build capacity for the IFS and to supplement the individual voices of IFS, the EWG commissioned a literature review to more deeply understand how each causal factor listed below perpetuates inequity within the higher education system, and what can be done to address these inequities. The resulting paper, developed by network partners Changing Perspectives and entitled "Inequity in Higher Ed Institutions: A Review of Key Issues & Equity Centered Strategies," helped the EWG to deepen their understanding of the causal factors prior to jumping into the development of a theory of improvement, or driver diagram.

The participating IFS organizations represent a collective voice for policy reform in the higher education sector. Eight of the 13 intermediaries are also members of the Higher Ed Equity Network, a national collective impact group to address racial equity and equity-informed practices improvements and policy solutions in postsecondary education. Given that the goal of completing this fishbone diagram was to analyze root causes of historically and presently perpetuated inequity in this sector, the group decided to analyze which causal factors are already being addressed by IFS organizations for key insights on where reform efforts have succeeded and/or fallen short.

We collected this information through two avenues. First was the "matrix," in which every single causal factor was listed, and the participating organizations were asked to respond with what actions they are currently taking in regards to that causal factor. The open-ended nature of this matrix led to responses with varying levels of length and detail, with specific strategies and programs unique to each organization. The next was a basic survey in which each causal factor was listed, and the participating organizations were asked to rate the level of action they were currently taking on each factor on a scale of 0-5. The results of the surveys were at times not completely aligned in terms of degree or intensity of the action, and not every organization responded to each portion; however the surveys still provided valuable input in terms of the level of activity or lack thereof related to each causal factor, and to what degree higher education policy focused organizations are aligned in their strategies.

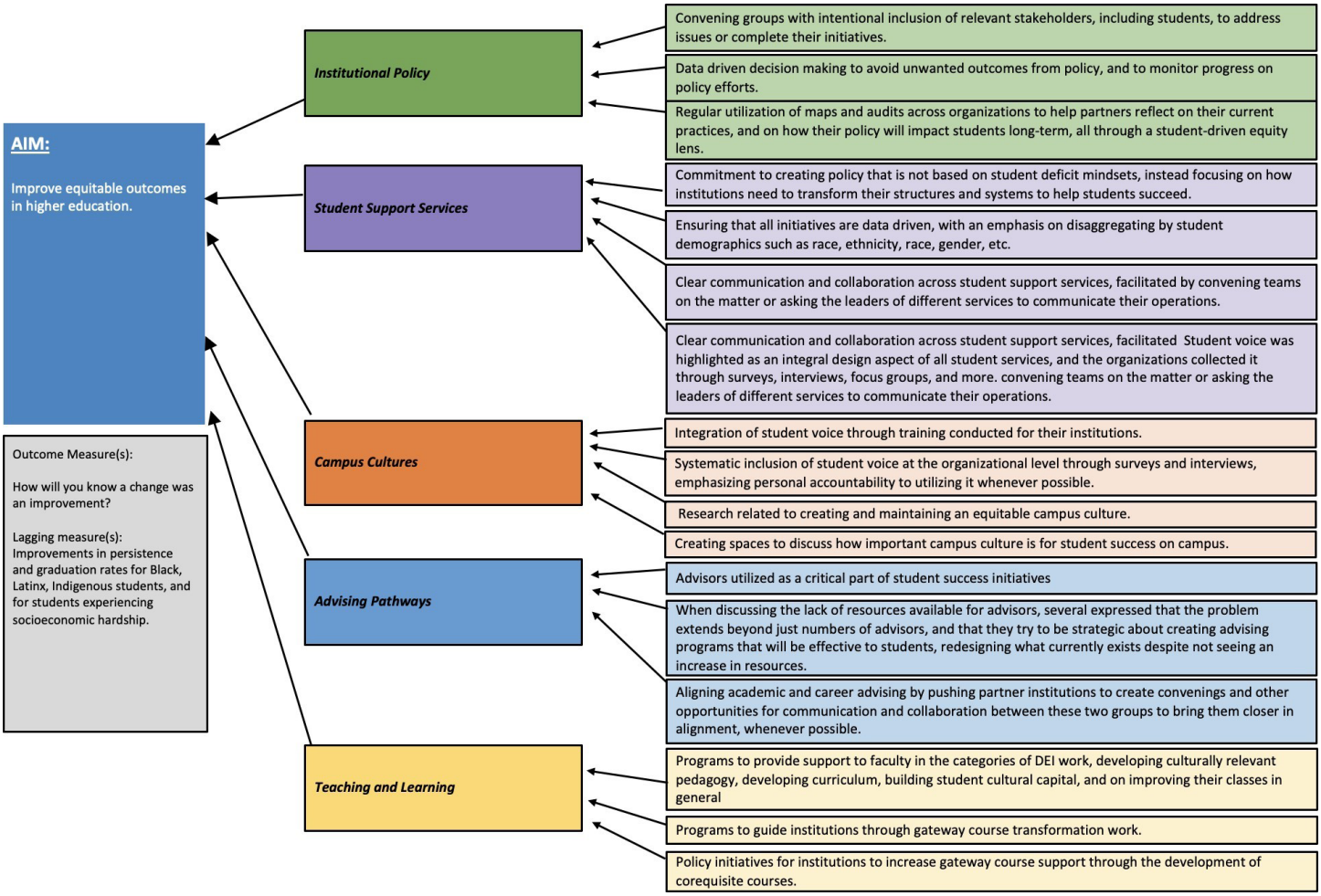


Figure 2. This driver diagram provides captures high-level network actions reported by organizations during the Equity Working Group activities in 2021.

The EWG then took the causal factors as created in the fishbone diagram along with the research on work currently occurring to create a driver diagram. A driver diagram organizes and visualizes a theory of action by showing various ways a problem may be addressed. Like the fishbone diagram, this graphic visualizer is capable of capturing a significant amount of information in a single framework. On the left, we place the overall aim of the organizations involved in the EWG which was to improve equitable outcomes. In this example, we also list lagging measures of this effort as being improvements in persistence and graduation rates just below the aim. As the network continues to develop, there is a desire to identify and track additional measures associated with each of the efforts underway.

The theory of action can be tracked by moving left to right on this driver diagram, the first column of multi-colored boxes list campus subsystems from the ITA. The underlying theory amongst the organizations being that effective policy and practice in each of these areas will "drive" equitable outcomes. In the next set of boxes are a list of high-level "secondary drivers of change". These are the consolidated list of activities that are currently being tested within the ecosystem. As the network develops, and more detailed data collection at scale becomes possible, it could be advantageous to add a third column; one with specific examples of change ideas and more granular actions at the institutional level. If such information is collected, those change ideas could be connected to initial problems of practice and outcome measures. This kind of "bread crumb trail" could allow the group to more easily study intervention effectiveness at scale, and such a system has potential to significantly accelerate equity in the wider postsecondary ecosystem.

Taking a look at the aforementioned causal factors example with student support services, you will see that there are four possible theories of actions to increase equitable outcomes within student support services. This includes commitment to policy that is not deficit minded, initiatives that are data driven, clear communication across staff and collaboration across student support service.

CONSIDERATIONS FOR PRACTITIONERS & FUTURE RESEARCH

With any new activity, in hindsight, this process of identifying causal factors of inequity in higher education through a fishbone diagram had areas of potential improvement in order to increase the accuracy and scope. Below are different areas we will commit to when replicating or building on this work, and encourage others to do the same.

1) Understand positionality and bias

When working to address inequitable outcomes, partners should understand positionality and bias. The activities implemented to identify causal factors that produce inequitable higher education outcomes was largely based on self-reflection from individual practitioners in the field. Therefore, it is somewhat limited by the experiences and perceptions of participants. While these participants likely have a wealth of experience in the field and as students themselves, this does not necessarily make them experts on the multitude of historical and political factors that lead to the systemic racism rampant in higher education today or on how to understand and redesign complex and often corrupt systems. This is especially true if participants are unknowingly carrying bias regarding students within the system, or the system itself. It would be nearly impossible for someone to accurately identify what makes a system produce inequitable outcomes if they themselves still view the world from a color-blind lens.

The effects of this are magnified when we consider the importance of local context and student demographics when implementing new student success initiatives.

Let's consider the causal factors exercise detailed above within the context of the four stages of competence, which is a learning model in psychology that focuses on the process of skill development. The model is divided into four stages and explains that "individuals don't know in advance how little they know or are capable of when it comes to a certain skill; they don't know their own incompetence. When they actually recognize their own incompetence, they start acquiring a skill and consciously using it." ("Four Stage of Competence," 2022). The stages in order are unconscious incompetence, conscious incompetence, conscious competence, and unconscious competence. Individuals operating within the phase of unconscious incompetence are completely unaware of how much they know on a subject, or what they have left to learn. Within the phase of conscious incompetence, individuals are aware of a certain skill and acknowledge they do not have the knowledge base to complete it successfully. Being able to identify the causal factors in higher education that block access and success for students from racialized and/or low-income backgrounds is a skill that requires expertise not just with higher education systems, but also with history, political theory, economic theory, and more. Therefore, it is possible that some of the participants in the causal factors activity were operating from a stage of either unconscious or conscious incompetence in the realm of equity work, which would make it difficult for them to be able to accurately identify all causal factors currently leading to inequitable outcomes in higher education, and their organization's potential role in maintaining these factors.

For example, a seasoned practitioner that has never had any experience with immigration or with undocumented populations may not realize that for about two percent of college students, and for undocumented people that have not yet enrolled, documentation status is a major barrier to access or persistence in higher education. Furthermore, higher education policy is heavily influenced by the local political and demographic context. Therefore, a practitioner that has a great grasp on causes of inequitable student outcomes within a single sector, institution type, region, or student population may have a limited understanding of what leads to inequitable outcomes in another region. These are both examples of unconscious/conscious incompetence that could lead to major blind spots when identifying equity-based causal factors stalling progress in higher education.

These potential blindspots were addressed to a certain degree during the duration of the fishbone creation process by incorporating checks for explicit and/or implicit bias throughout the activity in the form of recruiting a diverse set of participants, and incorporating validation phases in order for participants to have opportunities to question and supplement each others' ideas. However, there are more concrete steps that can be taken to increase the breadth of input and responses throughout the activity. They are listed below.

2) Ensure authentic student voice in the process

When working to address inequitable outcomes, partners should ensure that authentic student voice is incorporated into the process. Our work can be enriched by adding the perspectives of current students, who are not only more diverse/older/more-part time than ever before in higher education history ("Today's Student," 2022) but have also navigated their postsecondary experience through challenging political contexts and an unprecedented global pandemic. This is especially true given that there is often mismatch between the racial, ethnic, and/or income backgrounds of those working to change education policy, and the students who are the most failed by the discriminatory nature of the higher education system. Students will add illuminating perspectives to how each part of the system has affected them at this point in history, and internalizing and implementing their perspectives in daily work could help transform participating individuals from an unconscious/conscious incompetence to a consicous/inconscious competence skill level at identifying and addressing causal factors of inequity in higher education.

Adding student voice can entail recruiting individual students interested in the project or student organizations that are already actively mobilizing for reform on campus. While students do not have to be included in every single discussion, they could be asked to review the thought process behind how certain causal factors were identified, or asked to review the finding, or asked to give the student perspective on how these factors affect their daily lives as they strive for graduation. This would have the added benefit of not only making the identified causal factors more accurate and holistic, but of giving the practitioners a better idea of how their student success initiatives affect individual students' lives. It would also give students themselves valuable experience related to the creation and implementation of student success strategies and general policy, and the unique opportunity to elevate their platforms with powerful organizations across the country.

3) Resist a reliance on lagging measures

When working to address inequitable outcomes, partners should resist a reliance on lagging measures from the onset by brainstorming a set of leading measures related to your chosen priorities. The metrics most commonly used to measure success in higher education, such as persistence and graduation rates, are often "lagging measures of systems failure," signaling events/programs that served as barriers to student success long before students were officially pushed out. To make matters worse, many of these metrics are cohort specific, and tied to a specific time frame (for example, 150 percent time graduation rates), making it difficult to track the effectiveness of a program or initiative as it is being rolled out. To truly hold student success initiatives/programs to a high standard of effectiveness and adaptability, it is important to shift from a reliance on lagging measures to leading measures of success. To distinguish the two simply, "while a lagging measure tells you if you've achieved the goal, a leading measure tells you if you are likely to achieve the goal." ("Discipline 2: Act on Lead Measures," 2022).

The EWG and the postsecondary education sector more broadly should resist a reliance on lagging measures from the onset by brainstorming a set of leading measures related to their chosen priorities (for example: gateway-course completion, credit accumulation rate, credit completion ratio, retention and persistence, transfers, benchmarking, etc.) that they can each commit to monitoring as is appropriate from their locus of influence and unique organizational mission. Having all organizations in the EWG, or any NIC focused on equity in higher education work on a single specific priority together, bound by a common set of leading measures, would encourage consistent pushes for accountability and improvement between the organizations, and enormous pressure on the sector in general to address the issues at hand.

4) Define a shared goal with common language

When working to address inequitable outcomes, partners should define a shared goal with common language to allow for a deeper leveraging of partner organization's expertise and unique power within their postsecondary context. One of the biggest strengths of the national postsecondary intermediaries involved in this project is that it gathered people from a variety of socio-economic, educational, and professional backgrounds from organizations with very different spheres of influence and expertise to address the common goal of eradicating equity gaps in higher education. While in the past this has resulted in these people and organizations largely working on individual goals in silos, the IFS Equity Working Group brings the opportunity to accelerate this goal by leveraging each organization's expertise and unique power within the sector in conjunction to address a single issue. For example, three organizations that each distinctly focus on federal, state, and institutional level policy, in that order, could come together within the same timeline to tackle a single problem. This would entail collectively defining the issue (the main set of reforms that will be pursued along with the data to validate them), standardizing the language that will be used to define metrics and practices related to the issue, and then designing a plan for how each organization will concurrently tackle this issue from within their sphere of influence, uplifting each other's efforts, and sharing financial, operational, and network related resources along the way. In this way, bound by a common mission, every organization can remain true to their strategies and position of power within the sector, using each other's support and pressure from each section of the sector to accelerate movement building capacity and implement reforms.

The aggregated work and power will make it far easier and expeditious to implement data informed practices at scale, accelerating positive change across sectors, institution types, university systems, and even states.

5) Promote cross-sector collaboration

Finally, when working to address inequitable outcomes, partners should promote cross-sector collaboration. As it stands, this fishbone focused on the higher education system in isolation. However, many of the factors that contribute to inequitable access and outcomes in higher education cannot be attributed to the higher education sector alone. It is vital to gain input from policy, research, and DEI practitioners from outside of the higher education sector when reviewing the selected causal factors from the fishbone exercise. The racist systems of higher education are not exclusive to this sector; they complement and feed off of the racist aspects of a variety of other sectors, and all must concurrently transform in order to truly improve student outcomes. Therefore, cross-sector input and expertise is necessary to truly identify all causal factors causing inequitable student outcomes in higher education, and the action that must be taken to address them. This would also help establish cross-sector collaboration in future pursuits, especially related to movement building and collective political influence.

For example, a major contributor to low retention and graduation rates, especially in open-access institutions, is the funneling of students into developmental education courses. These courses have been proven to not only be inefficient at preparing students for gateway courses, but to directly lead to higher dropout rates (Complete College America, 2012). The higher education sector is heavily at fault for this, as they should be creating sufficient academic support to guarantee student success in gateway courses, and using multiple measures to place students in courses. However, it is hardly the only sector at fault for this; students would not be entering college behind on gateway materials if the K-12 sector effectively educated and supported its students before entering college. Also, students would have more time and resources to devote to their K-12 studies if they did not have to work to support their families from a young age. The standardized testing market also plays a hand, as many students enter college prepared for gateway courses but are then placed in developmental education courses by standardized exams that have been proven time and time again to disadvantage racially minoritized and low-income background students.

Clearly, there are a multitude of overlapping sectors contributing to the persistence of inefficient developmental education, and to try to identify the causal factors of this problem within a single system automatically limits the possibility to accurately address the deep roots of the issues, and any potential solutions to address it. The same concept applies to all identified causal factors, and could result in them not being exhaustive of the roots of inequity in higher education. Therefore, incorporating input and collaboration from sectors connected to higher education into our policy work has the potential to greatly expand our capacities to identify and address causal factors of inequity, and even increase the human and financial resources available in the process.

REFERENCES

Bolman, L. G., & Deal, T. E. (1997). Reframing organizations: Artistry, choice, and leadership. Jossey-Bass.

FranklinCovey. (2022). Discipline 2: Act on the Lead Measures. The 4 Disciplines of Execution®. Retrieved 24 Mar. 2022, from https://www.franklincovey.com/the-4-disciplines/discipline-2-act/

Janse, B. (2020). Four Stages of Competence. Retrieved March 9, 2022 from Toolshero: https://www.toolshero.com/personal-development/four-stages-of-competence/

Goldstein, J., Hazy, J. K., & Lichtenstein, B. B. (2011). Complexity and the nexus of leadership: Leveraging nonlinear science to create Ecologies of Innovation. Palgrave Macmillan.

National Center for Education Statistics. (2021). Educational Attainment of Young Adults. Condition of Education. U.S. Department of Education, Institute of Education Sciences. Retrieved 2022, from https://nces.ed.gov/programs/coe/indicator/caa.

Marcus, J. (2018, October 30). Billions in Pell Grants go to students who aren't graduating, new data shows. PBS News Hour. Retrieved 2022, from https://www.pbs.org/newshour/education/billions-in-pell-grants-go-to-students-who-arent-graduating-new-data-shows.

Whistle, W., & Hiler, T. (2018). (rep.). The Pell Divide: How Four-Year Institutions are Failing to Graduate Low- and Moderate-Income Students. Retrieved from https://www.thirdway.org/report/the-pell-divide-how-four-year-institutions-are-failing-to-graduate-low-and-moderate-income-students.

The Bill and Melinda Gates Foundation. (2022, February, 17). Intermediaries for Scale. Gates Foundation, US programs. Retrieved from https://usprogram.gatesfoundation.org/news-and-insights/usp-resource-center/resources/intermediaries-for-scale

The Bill & Melinda Gates Foundation. (2020). Institutional transformation assessment participant guide. Gates foundation, US programs. Retrieved from https://usprogram.gatesfoundation.org/news-and-

insights/usp-resource-center/resources/intermediaries-for-scale

Carnegie Foundation for Achievement of Teaching. (2022).. Solutionitis. Networked improvement and support platform (NILS) https://carnegienetworks.zendesk.com/hc/en-us/articles/115001233068-Solutionitis

Crow, R., Hinnant-Crawford, B. N., & Spaulding, D. T. (2019). The Educational Leader's Guide to Improvement Science: Data, design and cases for Reflection. (pp 3-42). Myers Education Press.

Donahue, C. (2015, April 17). Learning from Healthcare's Use of Improvement Science. Retrieved 2022, from Carnegie Commons Blog.

https://www.carnegiefoundation.org/blog/learning-from-healthcares-use-of-improvement-science/#:~:text=The%20%E2%80%9Cfirst%20law%20of%20improvement,make%20a%20car%20go%20faster.

Kendi, I. (2019). How to be an antiracist. Bodley Head.

Lumina Foundation. (2020, March 31). Today's Student. Retrieved March 9, 2022, from https://www.luminafoundation.org/campaign/todays-student/

Complete College America . (2012, April). Remediation: Higher Education's Bridge to Nowhere. Retrieved March 9, 2022, from https://completecollege.org/wp-content/uploads/2017/11/CCA-Remediation-final.pdf

APPENDIX A

Intermediaries for Scale Overview

The Intermediaries for Scale (IFS) initiative, a group of 13 national higher education nonprofit organizations, funded by the Bill & Melinda Gates Foundation, "is committed to the goals of increasing student success in education after high school and eliminating race and income as predictors of student success" (The Bill & Melinda Gates Foundation, 2022). Each Intermediary has been involved in the IFS Networked Improvement Community (NIC) from

2019-2022. Beyond the IFS NIC, each organization has an individualized focus to advance student success and is piloting an individualized approach to advancing equity that identifies institutional needs and then aligns those needs with service providers within the larger Gates Foundation ecosystem.

There are myriad data-informed practices shown to improve access and outcomes for racialized and low-income background students in higher education. A cursory overview of the "about us" or "measuring our impact" sections of any of the intermediary organizations involved in IFS can even inform a postsecondary practitioner of the history and development of each practice and step-by-step instructions on how to implement them in a given region with support from the organization. Despite this abundance of resources and support, these practices have rarely been implemented at scale; colleges and universities across the country are still not implementing co-requisite as an alternative to dev-ed, transcript holds and their associated fees continue blocking students from registering for new terms or receiving their earned diplomas, and courses remain difficult to transfer across institutions and sectors (just to name a few examples).

APPENDIX B

List of Intermediaries for Scale from 2019-2022

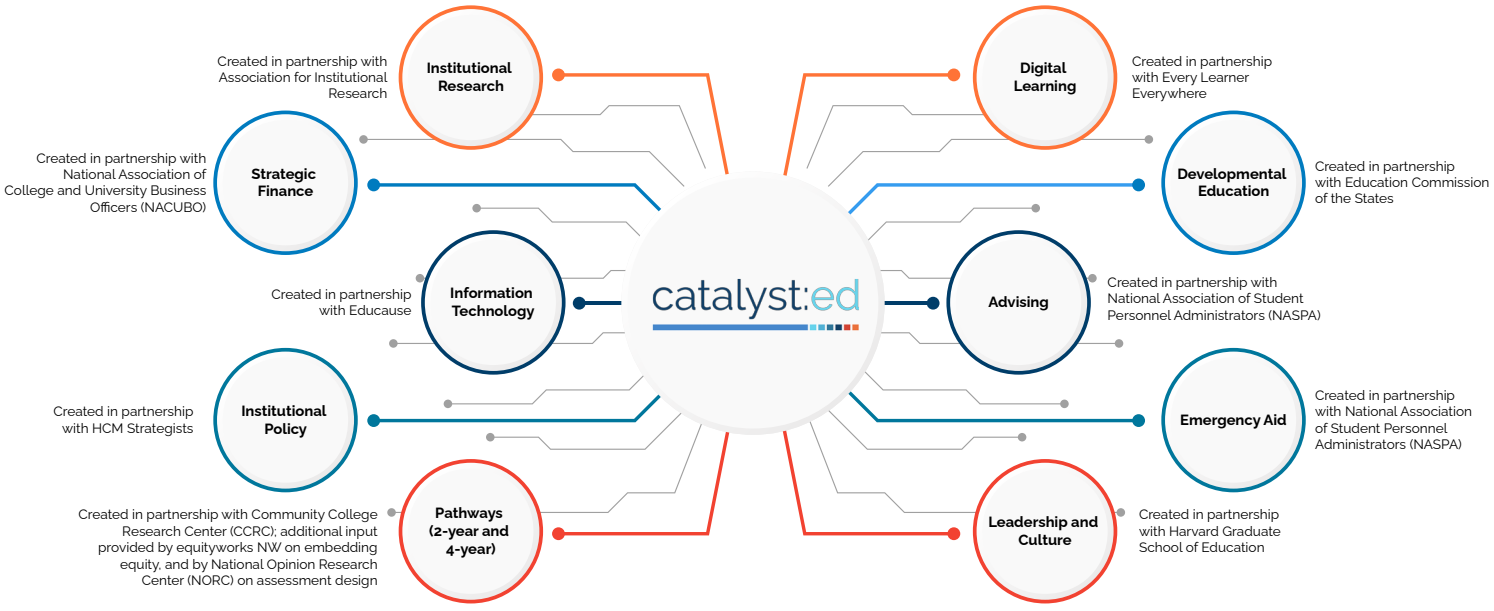
- Achieving the Dream
- American Association of State Colleges and Universities
- American Indian Higher Education Consortium
- Association of Public and Land-Grant Universities
- Complete College America
- E3 Alliance
- Excelencia in Education
- Growing Inland Achievement
- Jobs for the Future
- John N. Gardner Institute for Excellence in Undergraduate Education
- Northwest Commission on Colleges and Universities
- MDRC
- United Negro College Fund

APPENDIX C

The Institutional Transformation Assessment

While each organization serving as an Intermediary for Scale brings unique tools and perspectives to addressing inequity in higher education, one unifying element to their collective approach during 2020-2021 was the use of the Institutional Transformation Assessment. The common experience of using the ITA across many organizations is a touchpoint from which all intermediaries drew when describing causal factors that produce inequity in higher education. Through these ITA surveys and the subsequent sensemaking meetings, the Intermediaries for scale have interacted with 246 institutions between 2020-2021. During these discussions, educators shared their experiences and concerns about how their institutions were or were not serving students equitably. As a community, intermediaries voiced a desire to come together to discuss what they were learning and investigate the structures underlying inequitable outcomes in higher education.

- The Institutional Transformation Assessment (ITA) was built on a foundation of 10 rubrics, each associates with systems and structures that are believed to support or inhibit student success:



> Each rubric was created in partnership with experts that represent current standards in a range of solution areas and operating capacities" (The Bill & Melinda Gates Foundation, 2020, p. 2).

The ITA is a perception-based, diagnostic survey instrument that helps institutions consider how campus subsystems support or inhibit student success. The tool is currently offered in two formats, and broken into 10 elements, or campus subsystems. For campus leaders, there is a longer, 150+ question version of the survey; the wider campus community is typically offered a 30-question version. For a group of organizations seeking to understand and rectify systemic issues within higher education, the ITA administration experience offered participants a common frame from which to discuss the causal factors of inequity.

APPENDIX D

Targeted Action By Causal Factor

The responding organizations reported taking actions on each causal factor category through a variety of different strategies depending on their unique strengths and missions. Below are some of the strategies they emphasized in their operations:

Category: Institutional Policy[3]

Actions taken

- Convening groups with intentional inclusion of relevant stakeholders, including students, to address issues or complete their initiatives.
- Practicing data driven decision making to avoid unwanted outcomes from policy, and to monitor progress on policy efforts.
- Utilizing maps and audits across organizations regularly to help partners reflect on their current practices, and on how their policy will impact students long-term, all through a student-driven equity lens.

Opportunities for additional action across the higher education reform space

- Increase professional development opportunities.
- Expand human capital to meet work demand.
- Help institutions mitigate financial loss. Financial loss sometimes drives policy plans, which then results in inequitable outcomes

[3] The institutional policy category included 6 separate consolidated/refined causal factors listed in the fishbone above. In ageneral survey where the IFS organizations were asked how much they address each causal factor on a scale of 0-5, this category received an average of 3.7 from the 9 responding organizations. In the open-ended matrix, there was a response rate of about 54% regarding how IFS organizations addressed the causal factors related to this category.

Category: Student Support Services[4]

Actions taken

- Creating policy that is not based on student deficit mindsets, instead focusing on how institutions need to transform their structures and systems to help students succeed.
- Ensuring that all initiatives are data driven, with an emphasis on disaggregating by student demographics such as race, ethnicity, race, gender, etc.
- Clear communication and collaboration across student support services, facilitated by convening teams on the matter or asking the leaders of different services to communicate their operations.
- Highlighting student voice as an integral design aspect of all student services, and the organizations collected it through surveys, interviews, focus groups, and more.

Opportunities for action across the higher education reform space

- Address lack of mental health resources on campus
- Continue critical services despite limited financial resources.
- Connecting with local community based organizations or agencies to assist with student services.

[4] The student support services category included 8 separate consolidated/refined causal factors that are listed in the fishbone above. In a general survey where the IFS organizations were asked how much they address each causal factor on a scale of 0-5, this category received an average of 3.4 from the 9 responding organizations. In the open-ended matrix, there was a response rate of about 48%, regarding how IFS organizations addressed the causal factors related to this category.

Category: Campus Cultures[5]

Actions taken

- Integrating student voice through training conducted for their institutions.
- Systematic inclusion of student voice at the organizational level through surveys and interviews, emphasizing personal accountability to utilizing it whenever possible.
- Implementing research related to creating and maintaining an equitable campus culture.
- Creating spaces to discuss how important campus culture is for student success on campus.

Opportunities for action across the higher education reform space

- Establish a clear goal for developing campus culture.
- Consider how existing equity metrics can be used to measure the creation and maintenance of a campus culture.

[5] The campus culture category included 5 separate consolidated/refined causal factors listed in the fishbone above. In a general survey where the IFS organizations were asked how much they address each causal factor on a scale of 0-5, this category received an average of 3.8 from the 9 responding organizations. In the open-ended matrix, there was a response rate of about 29% regarding how the IFS organizations addressed the causal factors related to this category.

Category: Advising Pathways[6]

Actions taken

- Utilizing advisors as a critical part of student success initiatives.
- Creating advising programs that will be effective to students, redesigning what currently exists despite not seeing an increase in resources.
- Aligning academic and career advising by pushing partner institutions to create convenings and other opportunities for communication and collaboration between these two groups to bring them closer in alignment, whenever possible.

Opportunities for action across the higher education reform space

- Increase cultural competence amongst advisors.
- Increase representation of advisors with socioeconomic and other identity-based backgrounds that represent evolving attendance patterns of the current student populations.

[6] The advising pathways category included 7 separate consolidated/refined causal factors listed in the fishbone above. In a general survey where the IFS organizations were asked how much they address each causal factor on a scale of 0-5, this category received an average of 3.5 from the 9 responding organizations. In the open-ended matrix, there was a response rate of about 35% regarding how the IFS organizations addressed the causal factors related to this category.

Category: Teaching and Learning[7]

Actions taken

- Developing programs to provide support to faculty in the categories of DEI work, student cultural capital, and culturally relevant pedagogy and curriculum.
- Developing Programs to guide institutions through gateway course transformation work.
- Designing policy initiatives for institutions to increase gateway course support through the development of corequisite courses.

Opportunities for action across the higher education reform space

- The very low response rates for this category showcase that there is not currently much action being taken in the higher education reform space related to "Teaching and Learning." In particular, the following concept "development of systems of accountability of faculty or staff to improve in the areas of cultural competency and class quality efficiency" was completely unanswered, showing this is a high priority area for future policy initiatives.

[7] The teaching and learning category included 8 separate consolidated/refined causal factors listed in the fishbone above. In a general survey where the IFS organizations were asked how much they address each causal factor on a scale of 0-5, this category received an average of 3.5 from the 9 responding organizations. In the open-ended matrix, there was a response rate of about 24% regarding how the IFS organizations addressed the causal factors related to this category.

Category: Financial Aid Policy[8]

Actions taken

- Actions reported based on this causal factor were extremely limited. While one organization is creating a college affordability program to educate students and families on FAFSA completion, the rest of the responding organizations acknowledged that their involvement in this category was limited to advocating for financial aid reform at the federal level. This is likely due to financial aid appropriations and distributions often being determined at the state or federal level. This category remains one of the most apparent opportunities for action amongst the higher education policy space.

[8] The financial aid policy section included 7 separate consolidated/refined causal factors listed in the fishbone above. In a general survey where the IFS organizations were asked how much they address each causal factor on a scale of 0-5, this category received an average of 1.6 from the 9 responding organizations. In the open-ended matrix, there was a response rate of about 16% regarding how the IFS organizations addressed the causal factors related to this category.