



THE UNIVERSITY OF ARIZONA
COLLEGE OF SOCIAL & BEHAVIORAL SCIENCES

School of Geography,
Development &
Environment

OPERATIONALIZING THE SERVINGNESS FRAMEWORK:

*METRICS FOR INSTITUTIONAL
TRANSFORMATION AT
HISPANIC-SERVING INSTITUTIONS*

CONFERENCE PROCEEDINGS:
MEASURING SUCCESS OF INSTITUTIONAL
EFFORTS AT HISPANIC-SERVING INSTITUTIONS

PI: BETH MITCHNECK, PROFESSOR EMERITA,
UNIVERSITY OF ARIZONA

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Hispanic Serving
Institution Initiatives



TABLE OF CONTENTS

1.....	PREFACE & ACKNOWLEDGEMENTS
2.....	EXECUTIVE SUMMARY: METRICS TO ASSESS SERVINGNESS AT HISPANIC SERVING INSTITUTIONS
2.....1.0	Introduction
3.....2.0	Framework of Servingness, FIGURE 1 - MULTIDIMENSIONAL CONCEPTUAL FRAMEWORK OF SERVINGNESS IN HSIS
3.....3.0	Concept Papers on Servingness at HSIs
4.....3.1	Institutional Success
5.....3.2	Faculty Success
6.....3.3	Student Success
6.....3.3.1	Student Success: Meeting Basic Student Needs
6.....3.3.2	Student Success: Sense of Belonging
7.....3.3.3	A Multi-Dimensional Revisioning of Degree Completion Metrics
8.....3.4	Community Engagement
8.....3.5	Research, Scholarship, and Creative Activities
9.....3.6	Using Concept Papers
10.....	FIGURE 2 - GRAPHIC OF PROCEEDINGS
12.....	INTRODUCTION TO CONCEPT PAPERS
12.....1.0	Introduction
13.....1.1	Reading the Concept Papers
14.....2.0	The Framework of Servingness
14.....	FIGURE 1 - MULTIDIMENSIONAL CONCEPTUAL FRAMEWORK OF SERVINGNESS IN HSIS
14.....3.0	Concept Papers on the Servingness at HSIS
15.....3.1	Institutional Success
15.....3.2	Faculty Success
15.....3.3	Student Success
16.....3.4	Community Engagement
17.....3.5	Research, Scholarship, and Creative Activities
17.....4.0	Potential Caveats with Institutional Metrics and Data Collection
18.....5.0	Stakeholders and Responsibilities
18.....6.0	Use of the Term " <i>LATINX</i> "
20.....	REFERENCES
21.....	INSTITUTIONAL SUCCESS CONCEPT PAPER
21.....1.0	Introduction
22.....2.0	Structure 1: Mission and Values Statements
23.....3.0	Structure 2: Campus Workforce Compositional Diversity
23.....3.1	Metrics on the Workforce

TABLE OF CONTENTS CONT.

25.....	3.2	Detailed Metrics on Hiring, Retaining, and Advancing the Workforce
26.....	4.0	Structure 3: Incentives
26.....	4.1	Annual Performance Reviews
26.....	4.2	Detailed Metrics on Hiring, Retaining, and Advancing the Workforce
26.....	4.3	Institutional Recognition for Faculty and Staff
26.....	5.0	Structure 4: Institutional Advancement Activities
27.....	6.0	Structure 5: Institutional Racism and Change Efforts
27.....	6.1	Decision Making and Leadership
27.....	6.2	Responses to Institutional Racism
28.....	7.0	Anti-Racism Activities are a Collective Responsibility
28.....	8.0	Institutional Levels and Leadership
28.....	9.0	Summary
29.....		REFERENCES
30.....		FACULTY SUCCESS CONCEPT PAPER
30.....	1.0	Introduction
31.....	1.1	How Do We Measure Faculty Success at an HSI on the Path Towards Servingness?
31.....	2.0	Structure 1: Culturally Relevant Curriculum & Pedagogy
32.....	3.0	Structure 1: Metrics for Culturally Relevant Curriculum & Pedagogy
32.....	3.1	Faculty Engagement with High Impact Practices Inside and Outside the Classroom
33.....	3.2	Specific Faculty Engagement Metrics with HIPs and Latinx Community
33.....	3.3	Tracking Faculty Engagement in High Impact Practices (HIPs) Using Course Attributes
34.....	4.0	Structure 2: Faculty Engagement with the Latinx Community and Diverse Students
35.....	5.0	Structure 3: Incentive Structures
35.....	6.0	Institutional Levels and Leadership
35.....	7.0	Recommendations
36.....		REFERENCES
38.....		STUDENT SUCCESS: MEETING BASIC NEEDS
38.....	1.0	Introduction
39.....	2.0	Problem Statement
39.....	3.0	Student Facing Metrics
40.....	3.1	Food Insecurities
40.....	3.2	Housing Insecurities
40.....	3.3	Transportation Insecurities
40.....	3.4	Mental and Physical Health Wellness Resources Insecurities

TABLE OF CONTENTS CONT.

41.....	3.5	Job Insecurities
41.....	3.6	Textbook- Technology Access Insecurities
42.....	4.0	Metrics Facing the Institution
42.....	4.1	Food Insecurities
42.....	4.2	Housing Insecurities
42.....	4.3	Transportation Insecurities
43.....	4.4	Mental and Physical Wellness Resources Insecurities
43.....	4.5	Job Insecurities
43.....	4.6	Textbook-Technology Access Insecurities
44.....	4.7	Student Access to the CARES and HEERF Funding- Emergency Grants for Students
44.....	4.8	Student Contact Information Accuracy
44.....	4.9	Equity Minded Covid-19 Recovery Phase
45.....	5.0	Cross-Cutting Theme
45.....	6.0	Metrics and Policy
46.....		REFERENCES
48.....		STUDENT SUCCESS: SENSE OF BELONGING
48.....	1.0	Introduction
50.....	2.0	Validating Experiences with Structures
51.....	2.1	Additional Sample Servingness Metrics
52.....	3.0	Racialized Experiences Within the Structures
52.....	3.1	Metrics to Assess Radicalized Experiences
53.....	4.0	Data Analysis Approaches
53.....	5.0	Institutional Levels and Leadership
54.....		REFERENCES
56.....		STUDENT SUCCESS: A MULTI-DIMENSIONAL REVISIONING OF DEGREE COMPLETION METRICS
56.....	1.0	Introduction
57.....	2.0	Institutional Structures of Change
58.....	2.1	Goal Upon Entry
58.....	2.2	Completion
59.....	2.3	Post-Graduation & Employment
59.....	2.4	Societal Factors
59.....	2.5	Institutional Factors
59.....	3.0	Accounting for Students who Attend Multiple Institutions and Take Breaks in Attendance

TABLE OF CONTENTS CONT.

60.....	4.0	Creating the Conditions for Social Mobility
60.....	5.0	Recommendations
61.....		REFERENCES
62.....		COMMUNITY ENGAGEMENT CONCEPT PAPER
62.....	1.0	Introduction
63.....	2.0	Goal Statement
63.....	3.0	A Framework for Strengthening Servingness Through Direct Community
64.....	3.1	Engagement with Latinx Community
64.....	3.2	Institutional Advancement Activities
65.....	3.3	Metrics / Measurement
65.....	3.3.1	Students
66.....	3.3.2	Institution
66.....	3.3.3	Community
66.....	4.0	Summary
67.....		REFERENCES
69.....		RESEARCH, SCHOLARLY, AND CREATIVE ACTIVITIES CONCEPT PAPER
69.....	1.0	Introduction
70.....	2.0	Statement of Goal- What Servingness Looks Like
70.....	3.0	Theoretical Framework that Informs RSCA Metrics at HSIs
71.....	4.0	Structural Change / Evolution and Relevant Mechanics
71.....	4.1.1	HSI Grants
72.....	4.1.2	Compositional Diversity and Incentive Structures for Faculty Research Teams
73.....	5.0	Culturally Relevant Curriculum and Pedagogy
74.....	6.0	Engagement with Latinx Community
75.....	7.0	Stakeholders and Stakeholder Responsibility
75.....	8.0	Recommendations
76.....		REFERENCES
79.....		APPENDIX A. A TOOL FOR DEVELOPING RSCA-RELATED MEASURES AT HSIS
80.....		APPENDIX B. CHECKLIST FOR ASSESSING WHERE AN INSTITUTION IS ON THE PATH TOWARDS SERVINGNESS
83.....		APPENDIX C. GLOSSARY OF TERMS AND DEFINITIONS
90.....		REFERENCES
92.....		APPENDIX D. CONFERENCE PARTICIPANTS
94.....		APPENDIX E. COLLABORATIVE AUTHORS

PREFACE & ACKNOWLEDGEMENTS

This project responds to ongoing restructuring efforts by U.S. higher education institutions that have been officially designated as serving Latinx / Hispanic populations. The Hispanic-Serving Institutions (HSI) designation has dramatically increased funding opportunities to support student success at universities and colleges that serve this student population. We believe that this report is the first comprehensive tool to help institutions examine how they currently engage students from diverse backgrounds and develop improved processes designed to recruit, retain, and ensure their academic and professional success...

THIS WORK OF SERVINGNESS IS SUPPORTED BY THE NSF HSI PROGRAM AND SPEAKS TO THE PROGRAM'S:

- focus on tailored initiatives, policies, and practices (mindful of socio-cultural awareness) designed to promote student advancement in STEM fields;
- institutional transformation efforts recognizing that organizational culture and identity play a key role in promoting student success in STEM;
- attentiveness to intersectionality to identify and strategically address STEM participation gaps; and
- developing institutional structures that foster faculty growth while identifying where students *are* in their college careers academically, financially, and socially.

The goals of the HSI Program to increase the recruitment, retention, and graduation rates of students pursuing associate or baccalaureate degrees in STEM cannot be achieved without the dedicated and visionary work of the cognizant Program Officer Dr. Erika Tatiana Camacho.

In addition to acknowledging the essential support of the National Science Foundation, the Principal Investigator, Beth Mitchneck, would like to recognize each member of the Organizing Committee's hard work on this project. John Crockett, Marlo Franco, Marie Mora, A.M. Núñez, and Barbara Endemaño Walker helped write the original proposal, answered endless questions, and wrote extensive portions of this report. Gina A. Garcia, without being on the organizing committee, made herself available to discuss ideas and offer advice. And a special thanks to Marla Franco and her staff in the University of Arizona's Office of Hispanic-Serving Institution Initiatives. Additional thanks go to Anjelica Montano, a wizardly graduate assistant, whose organizational skills kept this project on track. We also want to thank our consultants working at HSIs who read our penultimate draft of the concept papers and provided detailed comments on how to improve each one. Finally, we want to express our appreciation to the College of Social and Behavioral Sciences Communications unit for their artistry, professionalism, and patience.

The most important recognition is extended to the original conference participants and collaborative authors (see **APPENDICES D** and **E** respectively) who developed the contours of the project and selected the topics written about in the concept papers. In addition, we would like to note that the conference participants are all incredibly passionate about education at HSIs and the need to support our institutions towards necessary change to achieve servingness. Thank you.

Beth Mitchneck

Professor Emerita



EXECUTIVE SUMMARY: METRICS TO ASSESS SERVINGNESS AT HISPANIC SERVING INSTITUTIONS

1.0 INTRODUCTION

Our project grew from the premise that to achieve servingness for diverse students at HSIs, as opposed to merely enrolling them, we need to reevaluate how we measure success. Our operationalization of the servingness framework (Garcia, Núñez, & Sansone, 2019) is built on an institutional transformation perspective framed by a critical and timely question: *How do we measure progress toward becoming an institution that serves the racially, ethnically, and economically diverse set of students at Hispanic-Serving Institutions?* By institutional transformation, we mean those practices, processes, and regulations/policies that change and disrupt the status quo leading to the outcome of servingness. Two important dimensions of the framework that we operationalize in these concept papers are: **1.** structures for serving (tangible organizational structures), and **2.** indicators of serving (measurable outcomes and experiences).

The collaborative and informative group discussions resulted in this set of concept papers and metrics to gauge the institutional success of Hispanic-Serving Institutions (HSIs). Specifically, to assess the degree to which the institution is serving racially, ethnically, and economically diverse students, the concept papers focus on the structures that support institutional success:

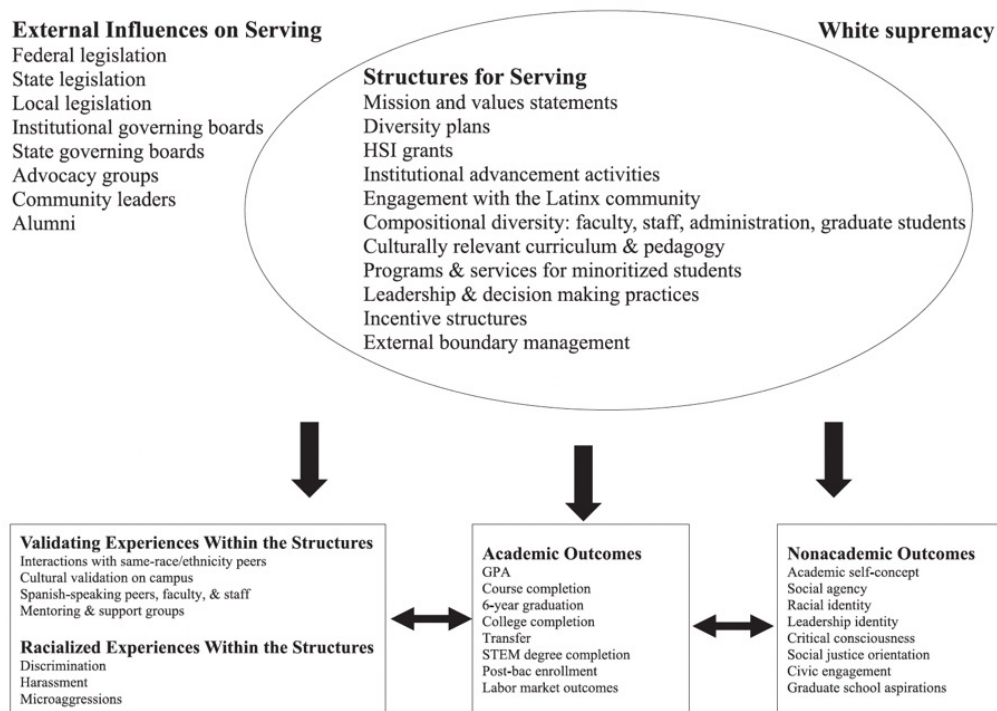
- **INSTITUTIONAL SUCCESS;**
- **FACULTY SUCCESS;**
- **STUDENT SUCCESS;**
- **COMMUNITY ENGAGEMENT;**
- **RESEARCH, SCHOLARSHIP, AND CREATIVE ACTIVITY.**

We use the term Latinx throughout as a compromise across project participants and we acknowledge that the term is contested.

2.0 THE FRAMEWORK OF SERVINGNESS

We operationalize the servingness framework so that institutions can assess where they are on the path toward serving and centering diverse students, especially in STEM. The servingness Framework below (see **FIGURE 1**) conceptualizes the parts of the university that will need to focus on the Latinx student population to move from enrolling to serving them. Garcia, Núñez, & Sansone (2019) developed this framework from a literature review of research about student success. The authors described the state of the research about the ways in which student outcomes are affected by institutional structures and external influences on serving, such as legislation, alumni, and advocacy groups.

FIGURE 1 - MULTIDIMENSIONAL CONCEPTUAL FRAMEWORK OF SERVINGNESS IN HSIS | Garcia, Núñez, & Sansone, 2019



We first consider what servingness would look like once achieved and consider how we would measure where an institution is on that path.

3.0 CONCEPT PAPERS ON SERVINGNESS AT HSIS

These concept papers are intended to serve as a resource to enable careful thinking regarding the intersection of these topics and servingness at HSIs. While we draw on existing literature and other resources to help inform our recommendations, these papers were not designed to provide comprehensive literature reviews. We propose that institutions can choose the factors relevant to their own profiles and contexts; they can also elect either static (existing features) or dynamic (trajectories) components relevant to their own institutional missions. Looking at the interaction of specific features, institutions may find that some of the structures and indicators are not applicable or feasible to their

contexts. They may also identify certain structures and indicators as aspirational and build them into longer-term institutional planning and goals.

The concept papers are written to assess servingness throughout an HSI; because most of the conference participants are STEM researchers and our funding is from the National Science Foundation, we identify areas for which separate or comparative analyses between STEM and non-STEM disciplines would be useful. Below we provide a review of metrics and indicators that we believe are critically important for institutional transformation of STEM at HSIs. The concept papers (CPs) take an expansive approach to assessing and monitoring change at the institutional level. Below is a summary of indicators specific to HSIs and STEM.

Students, faculty, and staff at HSIs make choices based upon their experiences interacting with institutional practices, processes, and policies in their departments and at the overall institutional level; some consider this institutional culture. The framework of servingness includes institution-wide structures that necessarily will undergo institutional change to achieve servingness at HSIs.

3.1 *INSTITUTIONAL SUCCESS*

Kezar and Eckel (2002) outline necessary components of successful institutional change that include the following: senior administration support, collaborative leadership, robust design, staff development (professional development), and visible action. Over the course of the last twenty years, systems thinking has added a focus on leverage points within the university organization that may lead to successful change. In this CP, we identify intersection points that would indicate successful change toward servingness are taking place: mission, hiring for mission, and incentivizing the attainment of mission.

- **INSTITUTIONAL MISSION AND VALUE STATEMENTS, AS WELL AS STEM UNIT STATEMENTS, SPECIFIC MENTION OF ENGAGING WITH AND SUPPORT FOR THE LATINX COMMUNITY INSIDE AND OUTSIDE THE INSTITUTION.**
 - Academic program reviews (APR), especially in STEM units, focus on contributions to servingness for Latinx and other diverse students, faculty, and staff as well as direct assessment of diverse pedagogies, high impact practices found to support diverse students (see also [Faculty](#) and [Student Success](#) CPs and [Community Engagement](#) and [Research](#) CPs). At a minimum, program reviews in STEM should assess unit level use and success of these practices shown to support diverse students;
 - Additional data collection and analysis should be conducted on metrics for each of the student success CPs – Meeting basic student needs; Sense of belonging; and Reconsidering degree completion. Metrics within each category should be chosen that are most pertinent to the HSI;
 - We recommend assessing all Faculty Success metrics for all APRs to show change over time:
 - Compositional diversity for faculty;
 - Culturally relevant curriculum and pedagogy;
 - Professional development to prepare faculty for servingness;
 - Incentive structures (such as performance reviews specifically related to Latinx student success).
 - We recommend assessing research, scholarship, and creative activities metrics for APRs including and not limited to engaging students in culturally relevant

problem-solving by linking [scientific] inquiry with issues of concern to students' personal lives and the well-being of their communities.

- **COMPOSITIONAL DIVERSITY OF INSTITUTIONAL WORKFORCE (FACULTY, STAFF, AND STUDENT) AS WELL AS PROMOTION AND RETENTION RATES SHOULD BE ASSESSED**
 - Including student workers and contingent faculty which are often excluded from data collection and require visibility at HSI to assess the degree to which the students have opportunity for on-campus employment;
 - STEM faculty and staff.
- **INSTITUTIONAL ADVANCEMENT ACTIVITIES SHOULD BE ASSESSED FOR THE WAYS THAT DEVELOPMENT PERSONNEL PRIORITIZE RELATIONSHIPS THAT ARE COMMUNITY-BASED AND EQUITY-RELATED WITH THE LATINX COMMUNITY**
- **RACIALIZED EXPERIENCES WITHIN THE STRUCTURES MUST BE MEASURED AND MADE VISIBLE ESPECIALLY IN FIELDS WHERE RESEARCH HAS SHOWN THE IMPACT ON STUDENT RETENTION LIKE IN STEM**

3.2 *FACULTY SUCCESS*

Professional development supports for faculty and accountability and incentivization measures are likely the most fundamental way for faculty to transform the ways that they interact with students to improve student success.

- **CULTURALLY RELEVANT CURRICULUM AND PEDAGOGY**
 - Indicators reflecting the extent to which STEM faculty participate in professional development for and use culturally relevant curriculum and pedagogy;
 - Assessment of student outcome improvements in STEM courses that use culturally relevant curriculum and pedagogy.
- **FACULTY ENGAGEMENT WITH THE LATINX COMMUNITY AND DIVERSE STUDENTS**
 - Number of students, with explicit accounting of Latinx and diverse students that each faculty member is actively mentoring/advising presented as absolute and percentage figures for STEM disciplines and changes over time;
 - Faculty actively involved with student mentorship, research mentorship, inclusion of students in service work, student organizations;
 - Assessment of faculty characteristics of those most involved with engagement.
- **INCENTIVE STRUCTURES (SUCH AS PERFORMANCE REVIEWS SPECIFICALLY RELATED TO LATINX STUDENT SUCCESS)**
 - Inclusion in faculty annual performance and/or selective salary review as well as promotion and tenure criteria participation in and use of culturally relevant curriculum and pedagogy;
 - Inclusion in faculty annual performance and/or selective salary review as well as promotion and tenure criteria effective faculty engagement with the Latinx community and diverse students;
 - Accountability (inclusion in performance reviews and salary increases) for unit level

leadership (e.g., chairs, heads, directors, deans) for supporting, seeding, and maintaining faculty use of culturally relevant curriculum and pedagogy and faculty engagement with the Latinx community and diverse students;

- Inclusion in faculty annual performance and/or selective salary review as well as promotion and tenure criteria broad contributions to diversity, equity, and inclusion; even work in this area not specifically focused on students will have tangible benefits to the campus environment and sense of belonging among all minoritized members of the community.

3.3 *STUDENT SUCCESS*

Traditional student success metrics tend to focus on four and six year graduation rates and first-year persistence. There are of course other indicators. Our conference goal was to identify metrics specific to the needs of diverse students at HSIs and related to servingness. Because of the heavy reliance on these indicators, we selected new ways to measure the degree to which institutions were incorporating servingness into student success. We developed three topics, Meeting Basic Student Needs, Sense of Belonging, and A Multi-Dimensional Revisioning of Degree Completion Metrics that when taken together, comprise one concept paper. We summarize each below.

3.3.1 *STUDENT SUCCESS: MEETING BASIC STUDENT NEEDS*

Duran & Núñez (2021) found that Latinx students are more likely than others to experience basic needs insecurities as well as feel a larger sense of stigma than other students when accessing resources at the institutional level. They also found that Latinx students responded more positively, despite the stigma, to resource offerings when there was a sense of care.

- We recommend two sets of metrics to assess: **1.** student demand for basic needs supports at HSIs and **2.** use of institutional supports for basic needs at HSIs. Over time, demand should decline and institutional support for basic needs increase;
- Insecurities include food, housing, transportation, mental and physical health, job or work, textbook and technology access;
- Additional indicators of institutional supports include student access to emergency grants for students; student contact information accuracy.

3.3.2 *STUDENT SUCCESS: SENSE OF BELONGING*

Hurtado and Carter (1997) and Maestas et al. (2007) define a sense of belonging as the psychological dimension of integration for Latinx student success. Hurtado and Ruiz (2015) encourage institutions to leverage cultural attributes of Latinx students to create that sense of belonging.

- Sense of belonging is discussed in Institutional Success, Faculty Success, and Community Engagement CPs;
- We recommend the use of existing student surveys to assess the degree to which students feel a sense of belonging at the institution, and especially within STEM units. In addition to our review of questions on major national surveys, we suggest questions specific to HSIs to

assess the degree to which the institution provides students with validating experiences and the extent to which students have racialized experiences;

- We recommend that data collection about racialized incidents should include specific location on campus, information about the individuals involved (e.g., student, administrative person, faculty) and the context (e.g., type of event; classroom or research setting; dormitory; social event; sporting event spectator or player). These details are necessary to evaluate the context (e.g., STEM class or social spaces like dormitories) in which the racialized experiences occur as means to improving the institutional response to eradicate future incidents.

3.3.3 A MULTI-DIMENSIONAL REVISIONING OF DEGREE COMPLETION METRICS

Although Black et al. (2015) describe traditional metrics of success as race neutral, we argue for the reframing of degree completion data collection because we view those traditional metrics, like four and six year graduations rates as not race neutral. A 2017 report from the American Council on Education (ACE) used National Student Clearinghouse Data that accounted for the movement of students. This report found that measuring graduation rates with data that account for multiple institutions (or “pulling

back the curtain,” as the title of the report notes) considerably narrowed the differences in calculating graduation rates at MSIs and HSIs versus other institutions (Espinosa et al., 2017). This suggests to us that the standard metrics are not the best measure of Hispanic student success.

We suggest that a question that is better suited to the diverse student populations at HSIs is the following: *What factors affecting degree completion should be considered by HSIs striving for servingness? What metrics should be included in assessing degree attainment?*

WE OFFER A SET OF RECOMMENDATIONS THAT TAKE A BROAD VIEW OF DEGREE COMPLETION THAT ACCOUNT FOR THE CONTEXT OF DIVERSE STUDENTS AT HSIS:

- Students’ goal upon entry should be included in the analysis;
- Completion metrics should be inclusive of certificates and degree-based co-curricular activities;
- Data should be presented by intersectional identities and presented for STEM and non-STEM programs;
- A time frame for completion should span multiple institutions and potential breaks in attendance that account for Latinx student realities:
 - Degree checks at the community college, undergraduate, and graduate levels should collect data on the number of institutions attended and breaks in continuous matriculation and incorporate those data into degree completion datasets.

It would also consider the extent to which institutions graduate and prepare paths to careers with family-sustaining wages and that are of service to students’ home communities. We recommend that institutions and educational policy makers monitor and act on what these data reveal to account for and to honor the experiences of students whose paths to graduation are nonlinear -- and the institutions that serve them.

3.4 COMMUNITY ENGAGEMENT

Community engagement by institutions of higher education has shifted substantially over the past several decades from an earlier model of unidirectional knowledge dissemination and public service towards a more recent model of reciprocal and collaborative partnerships (Boyer, 1996; Spainer et al., 1999; Roper & Hirth, 2005). Franco et al. (2020) proposes a Latinx-informed framework for community engagement at HSIs that this CP extends while suggesting concrete areas to assess.

● STUDENTS-FACING METRICS

- Liberatory student outcome (Garcia, 2020a and 2021) measures such as civic and political engagement as well as racial identity measures;
- Sense of belonging especially important for STEM student (see [Student Success CP](#));
- Participation in community-engaged scholarship especially in STEM fields.

● INSTITUTION-FACING METRICS

- Composition of Board of Trustees or Foundation Board to reflect engagement with Latinx local, regional, and national Latinx communities;
- Foundation and development activity, fundraising areas focused on Latinx community;
- Research and program collaborations with other IHEs benefiting Latinx community;
- Carnegie Classification of Engaged Institution;
- Incentive structures to encourage and reward faculty, students, and staff for community engagement in STEM and STEM education (see also [Institutional CP](#)).

● COMMUNITY-FACING METRICS

- Co-creators with university leadership and faculty on programs and activities;
 - Set this as a pre-condition and collect information about reality;
- Community needs reflected in university activities' Hispanic-serving community activities;
 - This requires assessment at the appropriate level (e.g., chancellor/president).

3.5 RESEARCH, SCHOLARSHIP, AND CREATIVE ACTIVITIES

Research, Scholarship, and Creative Activities (RSCA) at HSIs are significant in their role to create or contribute to intersectional and integrated science identities among students (Hurtado et al., 2017). The formation of STEM identities is critical to enrollment and persistence in STEM majors and subsequent entry into the STEM workforce, yet STEM identities are generally less accessible to URM and low-income students.

In this CP, we disrupt the explicit hierarchy of institutions (e.g., as indicated in rankings like those of *U.S. News and World Report*), as it relates to RSCA expenditures and infrastructure, while at the same time acknowledging how systemic racism and white supremacy has a) shaped the construction of what constitutes RSCA, and b) created a structural hierarchy resistant to disruption. Our model views the contributions of a 2-year college that engages students in project-based learning that develops leadership,

communication, identity, and an appetite for scholarship as equally as valid as the contribution of an R1, 4-year institution that may be able to engage in technical training on advanced instrumentation – if the engagement of Latinx students and minoritized communities is intentional and authentic. While this CP is about STEM activities, we broadened its applicability to the institutional level.

The model includes the following components with metrics. We include sample metrics here for each model component:

- **HSI GRANTS AND EXTERNAL BOUNDARY MANAGEMENT**

- Assessment of research and sponsored projects infrastructure to support HSI grants;
- Submission and award of Department of Education and National Science Foundation grants to support STEM at HSIs.

- **COMPOSITIONAL DIVERSITY AND INCENTIVE STRUCTURES FOR FACULTY RESEARCH TEAMS**

- Use of inclusive committees and processes to choose/elect/nominate internal RSCA prizes, awards, and leadership roles;
- Use of inclusive committees and processes to choose/elect/nominate faculty for external recognition, awards, fellowships, and other forms of recognition.

- **USE OF CULTURALLY RELEVANT CURRICULUM AND PEDAGOGY AS WELL AS AVAILABILITY OF UNDERGRADUATE RSCA OPPORTUNITIES;**

- **ENGAGEMENT WITH LATINX COMMUNITY.**

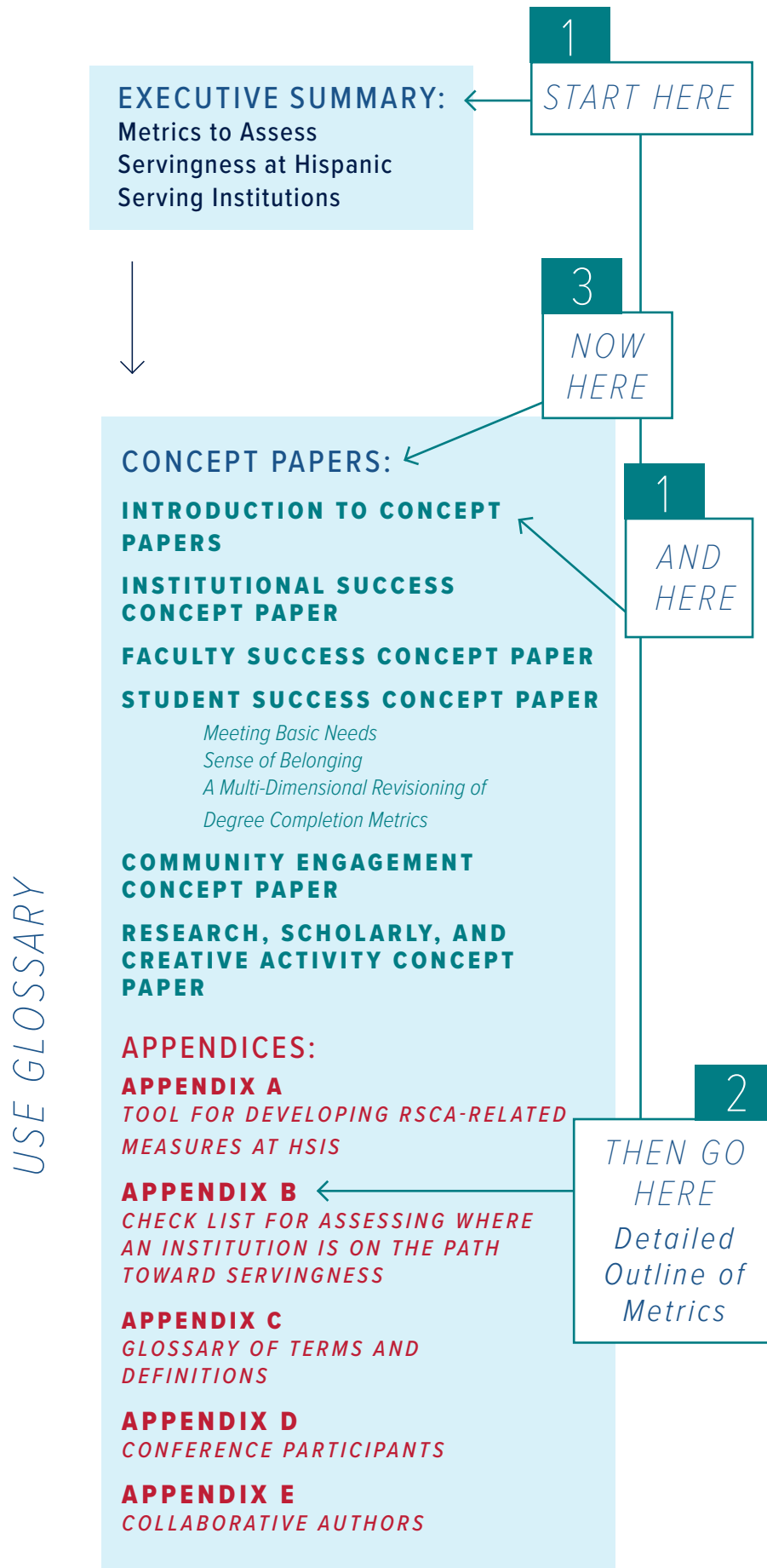
APPENDIX A includes a tool for developing RSCA-related measures at HSIs.

3.6 USING THE CONCEPT PAPERS

FIGURE 2- GRAPHIC OF PROCEEDINGS on the next page is a graphic that outlines the structure of this report and how one might use the concept papers to develop your own assessment plan. The graphic explains where you might start and how you might get the most of reading the report.

We expect that a diverse institutional audience will read and use the concept papers to shape a self-study of its institution's path toward servingness. As such, each collaborative writing team was asked to use the framework of servingness to identify the structures for serving that would need to change along with the institutional practices, processes, and policies to generate servingness. They were also asked to imagine what success or servingness at HSIs looks like at an institutional level. Because of the significant diversity of institutional types and locations on the continuum of change, our collaborative writing teams identified metrics that should be measured and suggested other possible measures. Institutions will want to choose metrics and indicators that best suit their context, needs, and goals.

FIGURE 2 - GRAPHIC OF PROCEEDINGS



APPENDICES are included to assist in the development of information and data collection for baseline measures. A check list for selecting groups of measures and indicators is included as well as a glossary of terms and definitions.

THE EXECUTIVE SUMMARY: METRICS TO ASSESS SERVINGNESS AT HISPANIC SERVING INSTITUTIONS AND THE INTRODUCTION TO THE CONCEPT PAPERS top the graphical representation of the report in **FIGURE 2** on the previous page. We suggest starting your read with these two sections and possibly looking over **APPENDIX B CHECK LIST: ASSESSING WHERE AN INSTITUTION IS ON THE PATH TOWARD SERVINGNESS**. The Check List is an outline of the various steps and items to do discussed in each concept paper. We then suggest either reading the concept papers in order or going to the topic which is most salient for your institution.

The appendices amplify material in the concept papers. **APPENDIX A, TOOL FOR DEVELOPING RSCA-RELATED MEASURES AT HSIS** helps readers of the Research, Scholarly, and Creative Activity Concept Paper assess their own context and plan activities. **APPENDIX B, CHECK LIST FOR ASSESSING WHERE AN INSTITUTION IS ON THE PATH TOWARD SERVINGNESS** is a summary of the totality of aspects of the institution which we recommend assessing in order to achieve institutional transformation and servingness. **APPENDIX C, GLOSSARY OF TERMS AND DEFINITIONS** will be of use to all readers in that acronyms are spelled out and key terms are defined. The final two appendices, **APPENDIX D, CONFERENCE PARTICIPANTS** and **APPENDIX E, COLLABORATIVE AUTHORS**, provide information on the original participants in our discussion and then the slightly smaller group who authored, edited, and queried the material in the concept papers.



INTRODUCTION TO CONCEPT PAPERS:

1.0 INTRODUCTION

The 569 institutions designated as Hispanic-Serving Institutions (HSIs) (Excelencia in Education, 2021) enroll two-thirds (67 percent) of all Hispanic/Latino/Latinx undergraduate students in the United States (including the territories). While these HSIs represent fewer than one in five (18 percent) accredited, degree-granting public and private nonprofit institutions of higher education, it should be noted that the number of HSIs has nearly doubled (from 293 to 569) in the past decade. Moreover, an additional 362 institutions have been identified by Excelencia as Emerging HSIs (eHSIs), indicating the rising importance and impact that HSIs have in educating and serving the nation’s growing Latinx population. (Please see [Section 6](#) below for a discussion of the term “Latinx”.)

Title V of the Higher Education Opportunity Act and the HSI Program at the National Science Foundation, among other federal agencies, provide critical support. These funding streams are meant to improve educational attainment and graduation rates as well as improve the quality and capacity of undergraduate STEM education at HSIs. Easy-to-measure-and-report metrics on retention, persistence, and graduation rates, however, sometimes insufficiently reflect service to diverse students and can even mask both institutional advantages and deficits.

Our project and concept papers grew from the premise that to achieve servingness of diverse students, as opposed to merely enrolling them, HSIs need to reevaluate how they measure success. Our operationalization of the servingness framework (Garcia, Sansone, & Núñez 2019) is built on an institutional transformation perspective framed by this critical and timely question:

HOW DO WE MEASURE PROGRESS TOWARD BECOMING AN INSTITUTION THAT SERVES THE DIVERSE SET OF STUDENTS AT HSIS?

Two important objectives that we operationalize in these concept papers are:

1. developing tangible organizational structures and;

2. creating pragmatic indicators for measurable outcomes of servingness at HSIs.

With the generous support of the National Science Foundation, through virtual conferences and a series of interactive discussions, we worked together to think through institutional transformation as a distinct process for improving teaching and student learning in STEM programs at HSIs. Please see [APPENDIX D](#) for a list of all participants and [APPENDIX E](#) for those who participated in the collaborative writing of the concept papers. In addition to including two authors of the framework of servingness, participants were selected because of their participation in prior HSI awards as well as their practitioner roles at various HSIs. After achieving consensus around the need to revise standard metrics so that they are responsive to HSI contexts, we looked to the institutional level, in addition to the department or classroom, to identify parts of the university that serve Hispanic and other racially, ethnically, and economically diverse student populations. Our focus on institutional transformation framed our discussion of the practices, processes, and regulatory policies that should change to support servingness.

The collaborative and informative discussions resulted in this set of concept papers that describe, among other things, various metrics to gauge an institution's success in serving racially, ethnically, and economically diverse students. In addition, the concept papers explore servingness as represented by best practices associated with:

- Institutional success;
- Faculty success;
- Student success;
- Community engagement;
- Research, scholarship, and creative activity.

1.1 *READING THE CONCEPT PAPERS*

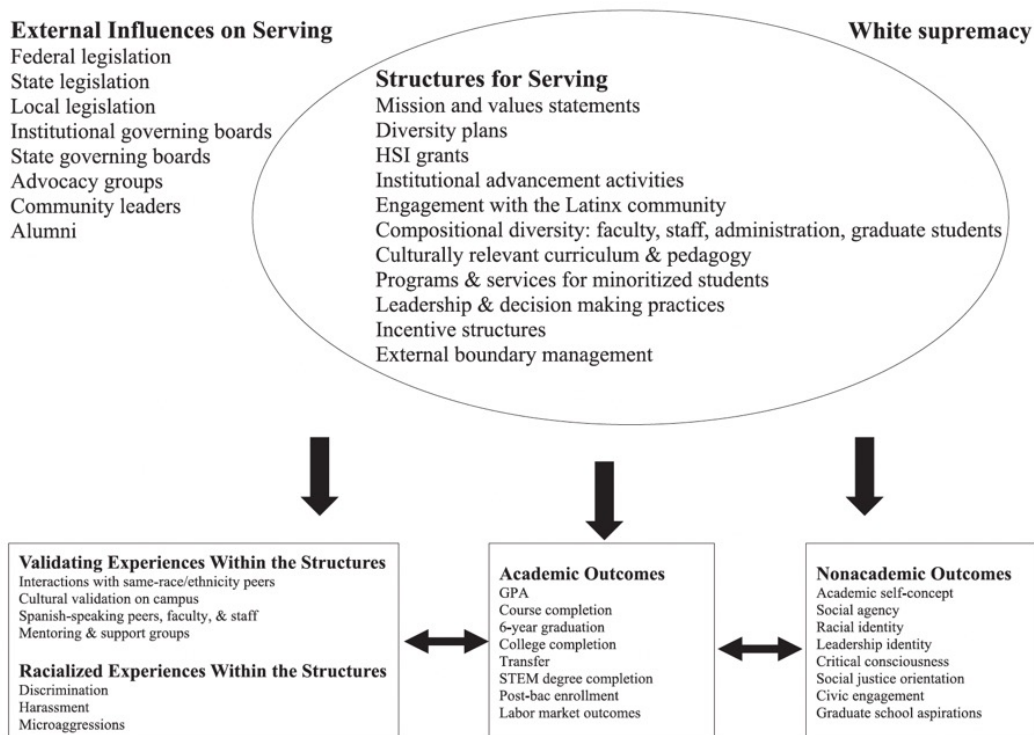
We hope this paper inspires HSIs to consider studying their own institutional path toward servingness. To help establish a first-step toward that end, our collaborative writing teams used the servingness framework to identify the structures for serving that would need to change along with the institutional practices, processes, and policies to result in servingness. They were also asked to imagine what servingness at HSIs looks like at an institutional level. Because of the significant diversity of institutional types and locations, our collaborative writing teams sought to identify measurable metrics and indicators, which are included in the Appendices, to inform the potential establishment of data-collection protocols for institutional self-studies. A checklist for selecting groups of measures and indicators is included as well as a glossary of terms and definitions.

You may choose to read the concept papers (CP) sequentially or in the order presented here. Each CP begins by describing the concept within the framework of servingness before identifying institutional structures that might be measurably assessed using metrics. Each paper is informed by current peer-reviewed research that appears in its References sections. We encourage you to first skim through the metrics assembled in [APPENDIX B Checklist: Assessing Where an Institution Is on the Path Toward Servingness](#), which will help to contextualize the concepts described in each paper. [APPENDIX C Glossary of Terms and Definitions](#) provides you with an understanding of key terms and acronyms used throughout. Finally, expect that many questions will arise for you as you read each CP. We intend that many of those questions will lead to your identifying and prioritizing specific structures or other parts of the framework to assess and then to link to those concrete metrics specific to your institutional context.

2.0 THE FRAMEWORK OF SERVINGNESS

We operationalize the servingness framework so that institutions can assess their approximate location on the path toward serving diverse students, especially in STEM. The servingness Framework below (see **FIGURE 1**) conceptualizes the parts of the university that will need to be adapted to the student population to move from simply “enrolling” to actually *serving* them. Garcia, Núñez, and Sansone (2019) developed this framework from a literature review that they conducted to lay out the ways in which student outcomes are affected by structures for serving students, external influences on serving, and White supremacy. We selected aspects of success that reflect the structures and impact the student outcomes from an institutional transformation perspective, with a focus on STEM but not exclusive to STEM. We posit that many of the changes to reflect servingness are dependent on institutional transformation of the entire institution.

FIGURE 1 - MULTIDIMENSIONAL CONCEPTUAL FRAMEWORK OF SERVINGNESS IN HSI | Garcia, Núñez, & Sansone, 2019



By institutional transformation, we mean revamping existing practices, processes, and regulations/policies to servingness. We first consider what servingness would look like once achieved and consider how institutions might measurably identify their locations on the path toward that end.

3.0 CONCEPT PAPERS ON SERVINGNESS AT HSI

These concept papers are intended to serve as a resource to enable careful thinking regarding the intersection of these concepts and servingness at HSIs. While we draw on existing literature and other resources to help inform our recommendations, these papers were not designed to provide comprehensive literature reviews. We simply desire that each institution examine its own structures – both

static and dynamic – when assessing its long-term mission as an HSI, targeting for scrutiny existing hindrances and constraints while simultaneously identifying affordances that can serve as aspirational bridges to a more inclusive academic culture.

We selected the term concept paper rather than white paper primarily to signify that we would use these papers to discuss concepts related to servingness as well as metrics. Indeed, our focus on the structures for serving and related concepts led to our inclusion of all aspects of the Servingness Framework.

3.1 INSTITUTIONAL SUCCESS

Institutional success related to servingness is the set of practices, processes, and policies that move an institution closer to serving the Latinx and other diverse students and workforce at HSIs. In the Institutional Success concept paper, we focus on several structures for serving from the Servingness Framework:

- Mission and values statements;
- Compositional diversity of the entire institutional workforce;
- Incentive structures;
- Institutional retention and advancement activities;

In the servingness framework, the authors include racialized experiences as an indicator of serving. Here, we include that indicator, racialized experiences, as part of what would signify institutional success toward servingness.

3.2 FACULTY SUCCESS

Given the critical role that faculty play in the success of students at higher education institutions, the Faculty Success concept paper reconceptualizes faculty success as it relates to servingness and asks the following question: *In which ways are faculty at HSIs successfully contributing to servingness, and what institutional structures are supporting or limiting this success?* Framed in this way, the concept paper proposes that specific structures to assess institutional change are:

- Culturally relevant curriculum and pedagogy;
- Professional development to prepare faculty for servingness (including recruitment and onboarding);
- Incentive structures (such as performance reviews specifically related to Latinx student success).

3.3 STUDENT SUCCESS

As a group, we chose to partition the concept paper on Servingness and Student Success into three focus areas: Meeting Basic Needs, Creating a Sense of Belonging, and Reconsidering Degree Completion. While there are many additional important aspects of student success, we selected three topics for which the institution may need to re-examine their role in transforming the institutional practices and policies to promote success at HSIs.

MEETING BASIC STUDENT NEEDS. Meeting basic student needs is fundamental to the success of the servingness framework. We use the [Hope Center definition](#) of student basic needs. In the first part of the Student Success concept paper, we propose a set of aspirational metrics that sketch a potential new servingness structure that shapes the institutional commitment to diverse students at HSIs. As new and incoming students enter the university setting, one of the biggest apprehensions often surrounds their ability to meet their basic needs. To fulfill the goals of working towards servingness and improving student success, the basic needs of students must be met. Managing student basic needs are critical because these insecurities may lead to lower rates of degree completion as well as other critical aspects of student success.

SENSE OF BELONGING. The second part of the Student Success concept paper identifies the servingness structures that most directly relate to assessing sense of belonging – the psychological dimension of integration for an individual/group (Hurtado & Carter, 1997, and Maestas et al., 2007) – to ultimately inform changes of practices and policies at the institutional level for HSIs striving towards servingness. A sense of belonging is included in the original framework as validating practices. By having a separate concept paper on this topic, we are elevating its importance for HSIs to be intentional throughout the institution. We also explore possible metrics for examining how students experience life within the servingness structures and provide recommendations for implementation of these changes at the institutional level. This information is important because students who do not feel a sense of belonging at their institution show lower rates of retention and lower rates of graduation when compared to students who feel integrated and have a feeling of connectedness with their student body, faculty, administration, and ultimately, institution.

RECONSIDERING DEGREE COMPLETION. In the last part of the Student Success concept paper, we present a new multi-dimensional degree completion metric that incorporates a variety of influences over completion. These include institutional structures for serving, goal upon entry, post-graduation and employment, societal and institutional factors, and attendance at multiple institutions. A focus on traditional metrics of institutional success – measures such as persistence and graduation rates – have been described by some scholars as racial identity neutral (Black et al., 2015). Labeling traditional metrics like time-to-degree completion as race neutral suggests that all students irrespective of race, gender, and ethnicity have the same goals and the same trajectory. Having the same goals is often unrealistic with diverse student populations. Additionally, when an emphasis is placed solely on traditional measures, institutions are disincentivized from serving students who have been historically underrepresented and underserved in higher education. Using servingness as a framework, we signal that there are multiple pathways to achieving educational goals, and those can be shaped by one’s ethnic and racial identities.

3.4 *COMMUNITY ENGAGEMENT*

Facilitating greater servingness through community engagement may vary by factors such as institutional type, geographic location, and the composition of departments and schools. The Community Engagement concept paper outlines specific ways in which community engagement can embody and further the mission of HSIs. A Latinx-informed framework for community engagement at HSIs should guide HSIs in their engagement with community partners in a way that centers Latinx students and their ways of knowing and being (e.g., Franco et al. 2020).

3.5 RESEARCH, SCHOLARSHIP, AND CREATIVE ACTIVITIES

Interrogating how Research, Scholarly, and Creative Activities (RSCA) Success and RSCA Development intersects with servingness at HSIs is a new frontier for institutions and individuals. We use the term – Research, Scholarly, and Creative Activities – to be as inclusive as possible of the different forms of scholarship. The extent to which RSCA intersects with the mission and practices at an HSI varies, based on a combination of factors such as institutional type, profile, history, and service area represented by the cohort of HSIs. Relatively few HSIs are Carnegie classified “research institutions.” Yet, RSCA likely plays a role at all HSIs in different ways. As such, the RSCA concept paper is a plan of action and may facilitate greater HSI servingness in unique ways:

- Socio transformative RSCA that corresponds to the mission of HSIs and prerogatives of faculty at HSIs;
- Engaging students in culturally relevant problem-solving by linking [scientific] inquiry with issues of concern to students’ personal lives and the well-being of their communities;

4.0 POTENTIAL CAVEATS WITH INSTITUTIONAL METRICS AND DATA COLLECTION

It should be noted that the metrics suggested in the concept papers are intended to provide a baseline for where institutions stand on their path toward servingness. We acknowledge that many of the metrics may initially be difficult to obtain and assess, especially for smaller institutions for which data on dimensions of intersectionality might not be possible due to small populations. We suggest that as many of these metrics as possible be added to existing data collection structures and instruments. We also realize that some metrics may represent new forms of data collection or analysis, thus burdening institutions with limited staff capacity or data infrastructures. Moreover, readers should realize that some of these metrics are aspirational and may represent the impetus for a “data revolution” to raise the visibility of both equities and inequities within institutions of higher education.

For institutions that do not have the current capacity to calculate the full set of metrics, we encourage them to select metrics that will start institutional conversations around servingness. During this time, they can select key indicators and initial benchmarks that are specific to their institution, determine where they would like to be, and reassess them annually to observe trends.

We also realize that not all the metrics are applicable to all types of institutions. As such, institutions should select the metrics most appropriate for their contexts and settings. We believe the major lift for institutions will be to identify and prioritize which data to collect and analyze; once that is established, institutions can work towards establishing structures to allow for relatively seamless annual or biennial updates. Demonstrating the importance of such metrics should also help institutions strengthen their case for the need of additional resources to support data-collection infrastructure to be more effective in meeting the goals of servingness and the institutional mission.

5.0 STAKEHOLDERS AND RESPONSIBILITIES

The following stakeholder units bear some responsibility for both collecting data and managing institutional policy for a large variety of aspects of servingness.

- Institutional governing boards
- Academic administrators
- Academic Affairs/Provost's Office
- Departments, Schools, Colleges, and other academic units
- Faculty
- Faculty Affairs
- Offices of community engagement
- Offices of institutional research/effectiveness
- Offices of teaching and learning
- Research Office
- Staff
- Student Affairs

To work towards servingness, stakeholders should shift the lens to ask **“How”** questions (e.g., How are the offices, programs, or policies that institutions have in place leveraging the diverse assets of the institution, faculty, staff, and students to enable them to connect at a scale appropriate to the mission of the institution) rather than asking **“What”** questions (e.g., What programs do we have, what is the size/scope/scale of our resources, what are our faculty doing). Questions should also center on epistemological higher education norms about who goes to college, who is qualified to be a professor, how classrooms operate, and what constitutes scholarly knowledge and research, among other examples. It is our view that institutions should also center stakeholders with diverse and intersectional identities, experiences, and motivations (Garcia, 2018), and re-orient themselves in the broader history of White privilege and power.

6.0 USE OF THE TERM “LATINX”

Throughout these concept papers, we use the term “Latinx” interchangeably with “Hispanic” or “Latino” following Núñez (forthcoming 2022): *“Here, I use the term Hispanic when referring to the federally defined entity of Hispanic-Serving Institution, and Latinx interchangeably with Hispanic in other contexts. Latinx is a gender-inclusive term, both a noun that represents the population group and an adjective that directly references the pan-ethnic ancestry of this population (Mora, 2021).”* That said, it should be noted that using the term is not without controversy, and that attempting to be as inclusive as possible might lead to a sense of exclusion among some of the stakeholders on whom we are focused. For example, based on a national poll of Hispanics/Latinos, the Pew Research Center reported in 2020:

- The overwhelming majority preferred “Hispanic” or “Latino” over “Latinx”;
- Only a fraction (three percent) used the term; and

- Two-thirds (65%) felt it should not be used to describe the U.S. Hispanic or Latino population (Noe-Bustamante, et al. 2020).

Similarly, in December 2021 the League of United Latin American Citizens (LULAC), the oldest Hispanic/Latino/Latina civil rights organization in the U.S., instructed staff and board members to discontinue using “Latinx” in official communications given their internal polling and the sense that the term is used “inside the Beltway or in Ivy League tower settings” and not by the population LULAC represents (Gambao, 2021).

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INSTITUTIONAL SUCCESS CONCEPT PAPER

1.0 INTRODUCTION

Institutional success related to servingness is the set of practices, processes, and policies that move an institution closer to serving the Latinx and other diverse students and workforce at HSIs. Kezar and Eckel (2002) outline necessary components of successful institutional change that include the following: senior administration support, collaborative leadership, robust design, staff development (read professional development), and visible action. Over the course of the last twenty years, systems thinking has added a focus on leverage points within the university organization that may lead to successful change. In this concept paper, we select the intersection and leverage points that would indicate successful change toward servingness is taking place. Institutional success may be seen in the ways that leadership articulate the institutional mission, hire to achieve that mission, and incentivize the institutional workforce in the interests of the mission. For the mission to articulate with hiring and incentivizing the workforce to achieve the mission – or servingness – Kezar and Eckel’s (2002) components of successful change necessarily intersect with the university system.

For many HSIs their institutional *mission* and vision statements center on student success and workforce development. For example, Maricopa Community Colleges’ mission is states a focus on diverse students: **“The Maricopa Community Colleges provide access to higher education for diverse students and communities.”** For the University of Texas, Rio Grande Valley (UTRGV), the *vision* is framed around HSI status:

To be one of the nation's leaders in higher education, its premier Hispanic-serving institution, and a highly engaged bilingual university, with exceptional educational, research, and creative opportunities that serve as catalysts for transformation in the Rio Grande Valley and beyond.

For other HSIs, especially those who have the designation because of recent demographic change, the institutional missions are broader and include research, scholarship, creative activity, public engagement, and contributions to the myriad of disciplines and interdisciplinary work that comprise today's research university but may not highlight their HSI status. See Contreras (2008) for an in-depth discussion of missions at HSIs. It is worth noting that some non-HSIs, such as the *University of California, Davis*, intentionally set out on a journey to become an HSI (they are currently an emerging HSI).

Some structures support representation within the institutional workforce (i.e., compositional diversity), while others signify that inclusion and accountability are woven into the institutional fabric (e.g., incentive structures). Below we focus on several structures for serving from the servingness framework: mission and values statements; compositional diversity of the entire institutional workforce; and institutional retention and advancement activities.

The metrics below are meant to provide a baseline for where the institution is now on its path toward servingness. Many of the metrics may be difficult to assess or represent new forms of data collection or analysis. We encourage institutions to attempt to create new ways to collect and analyze data, such as those we note below, because the result will be a fuller picture of servingness at the institution.

2.0 **STRUCTURE 1: MISSION AND VALUES STATEMENTS**

Institutional mission and value statements should indicate not only support for the Latinx population and diverse faculty, staff, and students, but also should feature the role of Latinx culture in shaping the institution and the outcomes of its activities. Institutional change/transformation requires publicizing goals as one means of accountability.

Textual analysis as well as other qualitative techniques like content analysis can demonstrate the degree to which the institution attempts to engage Latinx students, staff, and faculty as well as all campus groups. We recommend three metrics to assess on a regular basis:

1. Textual analysis of mission and value statements throughout the university for specific mention of the Latinx community inside and outside the institution;
2. Textual analysis of institutional documents, policies, and guidelines to ensure that HSI status is not only mentioned but also is a consistent element of every document;
3. Annual or periodic review of key institutional (policy) documents for consistency with servingness and specific mention of HSI status, especially in STEM units. The following list of documents that should be included in a review of language used as well as other documents appropriate to the institution:
 - Climate surveys;
 - Strategic planning documents at all levels;
 - Reports from stakeholder Town Halls to inform policies;
 - Academic program reviews;
 - Promotion (and tenure) and annual performance review guidelines for all faculty titles as well as staff advancement;
 - Institutional awards and public announcements;

- Assess for representation of Latinx perspectives and accolades in announcements about students, faculty, and staff.

Most institutions do not regularly, or even irregularly, include qualitative and textual analysis in their institutional research. Yet, rigorous qualitative assessment, of the kinds of documents noted above, will provide valuable benchmarking information about the degree to which the institution formally communicates its mission and intention to weave through the institution its servingness. Many institutional research offices focus on quantitative measures and may not have capacity to conduct such qualitative analyses. In those cases, we recommend that the institution locate capacity to assist with this and provide compensation for the additional work. Software exists that can be used to conduct the textual analysis with relative ease. We recommend using the first textual analysis as the benchmark of the current state. Along with the general benchmarking, such analysis can highlight for the institution which areas of its written communication are or are not supporting servingness. For example, if an institution is already designated as an HSI, we would expect to find most if not all the documents included in the three metrics above to include its status as an HSI as an important institutional feature to highlight. This exercise will allow the institution to identify which kinds of documents do not feature HSI status and which need attention to promote servingness, especially in STEM domains.

3.0 **STRUCTURE 2: CAMPUS WORKFORCE COMPOSITIONAL DIVERSITY**

Diversity of faculty, staff, administrative leaders, and students (graduate and undergraduate) is a key structure for serving. Although we recognize that this point might not be relevant to all HSI institutional types, it is imperative for each institution to have both compositional diversity and a highly visible and diverse Latinx population within its campus workforce, in general, and specifically its student workforce (inclusive of teaching and research assistants), all faculty titles, staff, student leadership positions (e.g., student governance roles) and administration. The same should be done for student admissions, staff hiring, and leadership development and advancement.

Foundational measures of compositional diversity are the count and percentage of the workforce from diverse backgrounds at different levels (e.g., entry-level, senior leadership, etc.) and, importantly, change over time metrics. These are simple ways of measuring the degree to which the institution can recruit, retain, and advance diverse faculty, staff, administrative leaders, and students necessary for structural change at HSIs. For this reason, we view compositional diversity as a key metric of servingness. We seek to highlight the importance and value of the following metrics for ensuring diversity, equity, and inclusion throughout the workforce.

While we acknowledge that some of these metrics are unusual and difficult to assess, we recommend beginning new traditions of data collection that allow for tracking these metrics over time and allow for intersectional comparisons. These types of data will facilitate measuring change over time in the institutional workforce. We acknowledge that in many cases, these metrics require changes to standard data collection practices – and therein lies the institutional transformation.

3.1 **METRICS ON THE WORKFORCE**

● **STUDENT WORKFORCE:**

- Absolute and relative composition of the Latinx population in student paid and unpaid positions throughout the university including subject areas that may have lower representation

of the Latinx student population, such as STEM fields; compositional diversity of students selected for off-campus internships and other employment type relationships; tracking of advancement of Latinx student workers into the institutional workforce and hired by outside employers or progression into graduate school;

- Intersectional analysis of the loss of Latinx student workers throughout the institution.

● INSTITUTIONAL LEADERSHIP:

- Compositional diversity and hiring practices for administrative leaders including and not limited to department chairs/heads, decanal job titles, vice presidents, directors.

● FACULTY WORKFORCE:

- We suggest that institutions strive to collect, analyze, and make publicly available several intersectional datasets on faculty compositional diversity;
 - Counts, percentages, changes over time, and advancement or retention metrics of Latinx faculty for all faculty titles; we suggest all faculty titles because most hires in STEM nationally are not on the tenure track. For a recent accounting of full-time faculty data, see the May 21, 2021, *Chronicle* article “[Race, Ethnicity, and Gender of Full-Time Faculty Members at More Than 3,400 Institutions.](#)” We know that STEM and many other courses at institutions of higher education are taught by part-time contingent faculty as well as non-tenure-eligible full-time faculty. Transparency requires collecting and analyzing data for all faculty titles that are teaching our students at HSIs. The minimal attention given to collecting data for part-time or non-tenure track faculty (or contract faculty at community colleges) limits our ability to assess the relationship between the faculty who teach diverse students and the outcomes. It might also mask an important potential pool of diverse faculty to consider for tenure-track positions.

● PAY EQUITY WITHIN TITLE:

- Ratios of pay scales for staff, faculty, and student workers by gender, race, and other identities. We recommend this as an aspirational but important equity metric. Understanding the structure of pay inequities can create significant financial difficulties for an institution, but we nonetheless strongly recommend monitoring pay ratios and assessing the differences because it is a strong marker of institutional equity.

Current data and research are not sufficient to assess compositional faculty diversity at HSIs for a few reasons. First, Kezar (2020) explains that nationally, only 30% of faculty are full-time tenure track, leaving 70% of faculty members in job titles that reflect contingency. The distribution of faculty contract type is not necessarily a gain or loss for overall faculty diversity. Second, since relatively little research has been conducted or published on racial diversity of non-tenure track/contingent faculty, we really do not know the compositional diversity of those faculty titles. The last major study of part-time faculty by race (Finkelstein et al., 2016) found that only 14% of part-time faculty are faculty of color compared to 72% of part-time faculty in 2013 being white. Among reasons cited for the continued low numbers in both tenure-eligible and contingent STEM faculty of color is the difficult work condition in these positions (Griffin, 2019; Vargas et. al., 2019). Third, few if any institutions track hiring and performance-review processes for contingent faculty. Relatively little data are collected about hiring processes or outcomes for the majority of faculty teaching at HSIs, which include community colleges, institutions of higher education in Puerto Rico, and many smaller private institutions of higher education (Kezar, 2020).

Below are metrics that may guide collection of data about hiring processes, hires, retention, and advancement of all faculty and staff titles as a means of tracking progress toward servingness. We suggest that HSIs, and other institutions, collect time series intersectional data and provide visual representation for all faculty and staff titles (part-time and full-time distinguished as finely as possible). Again, these figures become benchmarks for future change. Whether the institution is looking for parity between the student and employee populations or the local population, tracking progress is critical.

3.2 DETAILED METRICS ON HIRING, RETAINING, AND ADVANCING THE WORKFORCE

- Faculty hires, retention cases, and promotion disaggregated by title, rank, and demographic & identity characteristics (and represented in an intersectional manner);
- Faculty progression from contingent to full-time or tenure track positions as well as movement to residential faculty at community colleges comparable to point 1 above;
- Tracking staff progression;
- Comparisons of faculty compositional diversity of contingent titles to that of full-time and full-time tenure track;
- Tracking of contingent faculty hiring processes such as: size and composition of the hiring pool, the short list, and offers made and accepted as well as changes over time; equity and diversity focused guidelines for writing position descriptions and conducting interviews and hiring negotiations; tracking diversity of applicants and interviewees, broadening, and deepening the pool, using diversity statements, rubrics for assessing candidates);
- Assessment of courses and students (SCH is one possible measure) who are taught by contingent faculty versus tenure track faculty, especially in key STEM courses (gateway, general education, major, laboratory, capstone, etc.);
- Documentation of ratio of pay scales for staff and all faculty titles (i.e., contingent and tenure track);
- Presence of structural means by which to monitor equity in the faculty workplace for all titles. For example, are there equity advocates or the equivalent working on behalf of all faculty members (including contingent) and are they present on all hiring committees (including contingent)? See the Equity Advisors program at UC Irvine which first used this mechanism of achieving equity (“Equity Advisors,” 2021);
- For all faculty, including contingent, assessment of both access to and participation in professional development activities related to culturally relevant curriculum and pedagogy. Do contingent faculty receive compensation for time spent on professional development geared toward HSIs?

Analysis of these types of data will allow us to assess structural changes that impact student success and servingness. Knowing that the total and absolute numbers for data cells at either the institutional or more disaggregated levels may be small, we recommend that institutions denote a critical value under which they do not publicly share the data but do share a symbol for the small number (e.g., under 2.5% or under 5%).

Interpretation of these data requires a baseline year that the institution selects and determines to be a meaningful benchmark for analytical comparison and tracking over time (annually and over five-year intervals). Success will be measured by the degree to which an institution implements equitable hiring procedures for all faculty titles, staff titles, and leadership positions, and reaps the benefits of that intentionality by having a diverse workforce across all titles.

4.0 **STRUCTURE 3: INCENTIVES**

Incentive structures are some of the most important ones related to institutional success because they focus on accountability for achieving servingness. Here we focus on promotion and tenure (advancement) at the institution. Once again, this is a documentary and qualitative analysis. Nationally, relatively few institutions have integrated equity-minded guidelines into advancement practices. It is clearly time for this type of institutional transformation as a marker for servingness. We suggest addressing incentives on three fronts.

4.1 **ANNUAL PERFORMANCE REVIEWS**

Reviews as well as advancement reviews should specifically include accountability measures for participating in and leading activities to promote servingness specific to the position, including administrators and those in other leadership positions. These documents should include expectations of successful participation and leadership and value-added for serving the Latinx and the diverse populations at HSIs at every level of the institutional workforce, especially in leadership positions.

4.2 **PROFESSIONAL DEVELOPMENT ACTIVITIES**

Professional development activities in support of servingness should be both offered and incentivized at every level of the institutional workforce. For student success, for example, faculty should be given clear incentives to participate in activities to incorporate inclusive pedagogies into their teaching. Institutions should also provide support (e.g., travel, conference registration fees, etc.) to faculty and staff to participate in these types of professional development activities offered outside of the institution.

4.3 **INSTITUTIONAL RECOGNITION FOR FACULTY AND STAFF**

Institutional recognition for faculty and staff who demonstrate their role in servingness. For example, selection criteria for institutional excellence awards could specifically include servingness activities. The institution could also feature faculty and staff for their servingness work in newsletters or campus-wide events.

5.0 **STRUCTURE 4: INSTITUTIONAL ADVANCEMENT ACTIVITIES**

Like other structures at the institutional level, we suggest that advancement activities be conducted at all levels and in all units. Qualitative assessments of the four activities below are necessary for success.

- The HSI mission should necessarily be an institutional priority for leadership at all levels and be iterated and acted upon regularly;
- Development personnel should build relationships with foundations and private donors that

- fund community-based, equity-related research, scholarship, and creative activities;
- Institutional advancement staff should have compositional diversity and deep knowledge of donor communities from minoritized groups;
- Faculty and administrators should apply for Department of Education and National Science Foundation grant funds.

6.0 **STRUCTURE 5: INSTITUTIONAL RACISM AND CHANGE EFFORTS**

With a servingness lens, we discuss the degree to which the institution engages in and supports anti-racist work as well as diverse cultural engagement. We recommend three series of metrics aimed at assessing decision making and other activities to address institutional racism.

6.1 **DECISION MAKING AND LEADERSHIP**

- Budget figures at each level of the institution focusing on permanent dollars dedicated to activities such as professional development in support of anti-racism, and full-time equivalents dedicated to addressing systemic racism at all levels;
 - These budgetary figures should assess change over time as proportion of institutional budgets and movement from soft money (non-permanent funding) to institutional permanent budgetary figures;
- Transparent budget support for the inclusion of anti-racism as an institutional value embedded within decision making processes;
- The extent to which offices of diversity, equity, and inclusion collaborate with other units at all levels of the institution (e.g., Academic Affairs, HR) in sponsoring anti-racism events. The work should be integrated with all units across campus so that everyone has ownership of DEI work.

6.2 **RESPONSES TO INSTITUTIONAL RACISM**

- Documentation and assessment of reports of systemic racism at the institution through formal channels as well as through information obtained in campus-wide climate surveys;
- Public accounting of reports as well as institutional responses;
- Evidence of both collective reflection and processing of evidence of systemic racism at the institution and concrete mechanisms implemented to address systemic racism in specific areas including but not limited to the institutional budget allocations; staff hiring practices (part-time or full-time); student admission (undergraduate, transfer, graduate, postgraduate, etc.); (also under institutional success);
- Opportunities for professional and leadership development for faculty and staff to learn more about practical anti-racist work. Assessment of the accountability and incentives for participating in these opportunities and for acting.

7.0 ANTI-RACISM ACTIVITIES ARE A COLLECTIVE RESPONSIBILITY

- Recognizing and sharing of anti-racist efforts across campus and across units.

8.0 INSTITUTIONAL LEVELS AND LEADERSHIP

Every member of the workforce and the student population become stakeholders in efforts to achieve institutional success toward servingness when each of the above structures becomes an object of change. Structural change should be seen at every level of the institution and in every unit.

9.0 SUMMARY

These five structures, mission and values statements, compositional diversity, incentives, institutional advancement structures, and institutional racism and change efforts, constitute foundational institutional structures and practices. Change across these foundational structures is a precondition for achieving servingness at the institutional level.

Importantly, the responsibility for institutional success for achieving servingness is collective across the institution. We view this process as both bottom up and top down to ensure accountability and sustainability.

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FACULTY SUCCESS CONCEPT PAPER

1.0 INTRODUCTION

Faculty members play a critical role in the success of students at higher education institutions. This concept paper analyzes how we measure and incentivize faculty in their commitment to servingness at Hispanic Serving Institutions (HSIs). Servingness focuses on how to best serve diverse students, especially Latinx students, at HSIs. We reconceptualize faculty success as it relates to servingness and ask the following question: in what ways are faculty at HSIs successfully contributing to servingness, and what institutional structures are supporting or limiting this success? Framed in this way, specific structures to assess institutional change are compositional diversity for faculty (see [Concept Paper on Institutional Success](#)), culturally relevant curriculum and pedagogy, professional development to prepare faculty for servingness (including recruitment and onboarding), and incentive structures (performance reviews specifically related to Latinx student success are also cross referenced to Institutional Success). Research suggests the importance of having faculty from diverse backgrounds for student success as they can serve as mentors and role models, and provide multiple perspectives (Cross, 2021; Hurtado et. al, 2008; Llamas, 2021; Stout, 2018). Research also suggests that faculty need to understand the ways that students experience institutional racism to teach them more effectively (Garcia et. al, 2020).

1.1

HOW DO WE MEASURE FACULTY SUCCESS AT AN HSI ON THE PATH TOWARDS SERVINGNESS?

Traditional faculty success measures at many colleges and universities include metrics such as research productivity, grant dollars awarded and other productivity measures like number of publications, citation counts and rates, student credit hours taught, graduate students completing their degrees, service to the institution/discipline, assessment of learning outcomes, and promotion success rates. These are measures that fit the normative Predominantly White Institution (PWI) framework, especially those with STEM research missions. These kinds of metrics, however, provide relatively little information on which we may base assessments of faculty success at HSIs as they move toward servingness. This working group selected three servingness structures to assess: **1.** faculty adoption / use of culturally relevant curriculum and pedagogy; **2.** student-faculty engagement and interaction in high impact practices (HIPs); and **3.** incentive structures for faculty accountability and reward. **4.** [A fourth structural area is equitable faculty hiring procedures which is discussed in the Concept Paper on Institutional Success.] While these three structures may not seem directly focused on the success of individual faculty, we discuss below how they are emblematic of structural changes at the institutional level related to achieving servingness.

Achieving faculty diversity is a long-term process as is viewing faculty success through a student success lens. In the meantime, faculty development activities are needed to help all faculty members acquire the skills to adopt successful culturally relevant curriculum and pedagogies and to expand their engagement with students in high impact practices to promote both faculty and student success. Incentive structures are needed to hold faculty members accountable and reward them for refining curriculum and pedagogy (e.g., to address impacts of stereotype threat before it happens). Enhancing faculty engagement with students to promote their sense of belonging and overall success can also be achieved through mentor training programs (House et. al, 2018; Johnson, 2015). (See also [Concept Paper on Student Success and Belonging](#).)

2.0

STRUCTURE 1: CULTURALLY RELEVANT CURRICULUM & PEDAGOGY

Substantial research has documented the effectiveness of certain pedagogies that promote student learning among Hispanic and diverse students. These include, and are not limited to, cooperative learning, contextualized undergraduate research, learning communities, and asset-based approaches (Levine & Shapiro, 2000; Charmany et al., 2008; Favero & Van Hoomissen, 2019; Johnson & Elliot, 2020; Budinoff & Subbian, 2021; Smith, Karl et al., 2009). Some might argue that design and implementation of culturally relevant practices in STEM teaching and learning derives from a recognition of the benefits of pedagogy for all students, especially for students from diverse backgrounds.

Culturally relevant curriculum also has been found to promote student engagement and success with course material. Faculty members thus need to examine their course materials and examples so that they both resonate with Latinx and other diverse students and engage them. Particularly successful methods of accomplishing this are using examples that speak to students from a variety of backgrounds by changing the names of people or places, developing inclusive reading lists, and assigning reading from Latinx and other diverse scholars, among other examples (Charmany et al., 2008; Favero & Van Hoomissen, 2019; Johnson & Elliot, 2020).

Many faculty members come into their positions with robust and fully developed skill sets for culturally responsive and relevant instruction, but many have neither expertise nor training in pedagogy. Even faculty who are knowledgeable about such practices could benefit from professional development

aimed at communicating new information and practices.

Institutions should track participation in and the impact of professional development training for culturally relevant curricula and pedagogy as well as their integration into the educational landscape at the institutional level. We recommend taking a broadly focused approach to measuring (e.g., numbers of faculty participating in professional development of this type, numbers of courses revised) as well as more narrowly focused measures to track the implementation and benefits of new curriculum and pedagogies. The latter approach will assist institutions to assess the impacts of professional development activities rather than to check a box that these kinds of professional development activities were offered.

Below are metrics we suggest for assessing the impact of such work. Materials available to assist in these efforts include the NSF-funded TEval which could be adapted to the HSI context ([TEval homepage](#)). We recommend that universities develop a system to flag and continually certify courses as using culturally relevant curricula and pedagogy both for student choice and for analytical purposes. For example, courses are often tagged with attributes or labels to indicate specific characteristics such as writing, service learning, diversity and equity, quantitative reasoning, and so on. Similarly, courses with culturally relevant curricula or pedagogy can be tagged to allow appropriate attribution to faculty. Faculty success or impact of using culturally relevant curriculum and pedagogies may be measured through student outcomes assessments rather than through student satisfaction surveys which have been shown to reflect numerous biases.

3.0 **STRUCTURE 1: METRICS FOR CULTURALLY RELEVANT CURRICULUM & PEDAGOGY**

- Tracking effectiveness of professional development around cultural sensitivity and competency for students, faculty, and staff from diverse backgrounds; ***specifically assess the use and success of culturally relevant curriculum and pedagogy*** (Mack & Winter, 2015; Gay, 2018; Ladson-Billings, 2014).
- Tracking proportion of faculty members in specific disciplines, particularly STEM disciplines, engaging in professional development aimed at promoting culturally relevant curriculum and pedagogy:
 - Participation in structured learning communities and other forms of professional development related to teaching, curriculum development and/or pedagogy can be measured as a percentage of faculty in STEM (absolute, percentages, and percentage change);
 - Conference presentations, webinars, etc. including institutional activities to broadly communicate effective pedagogies (e.g., campus-wide summits or websites); journal and other publications related to the scholarship of teaching and learning, particularly involving students from diverse backgrounds;
- We recommend collecting the above data and tracking against assessments of student learning outcomes (where possible and especially in gateway courses). We expect to see measurable changes in student success at mastering material and continuing successfully into higher level courses, and even potentially into graduate school.

3.1 **FACULTY ENGAGEMENT WITH HIGH IMPACT PRACTICES INSIDE AND OUTSIDE THE CLASSROOM**

Research suggests that students benefit in several ways by participating in High Impact Practices (HIPs)

HIPs in the faculty success concept paper as a recognition that for our institutions to achieve servingness, the faculty need to be both participating in and leading HIPs as well as being rewarded for meritorious participation. The constellation of HIPs may vary by institutional type within the HSI category. We identify first several institutional barriers to the successful implementation of HIPs as well as faculty participation in them:

- HIPs data are not frequently codified across the institution in uniform ways, which can lead to under/over reporting or blind spots;
- External surveys cost money and are not always routinely done, making the collection of these data difficult;
- While it is useful information to have, HIPs do not neatly fall into any one's job, so they tend to fall through the cracks and atrophy;
- HIPs can also be confusing for faculty to record if the evaluation methods distinctly separate teaching, research, and service (e.g., in which category does a specific HIP belong?).

WE RECOMMEND INCENTIVES TO ADDRESS THOSE POTENTIAL BARRIERS FOR HIPs TO PLAY A SIGNIFICANT ROLE ALONG THE PATH TO SERVINGNESS:

- Commit to permanent funding for a national survey or related local data collection and analysis each year;
- Codify HIPs by integrating into transcripts for students;
- Incorporate HIPs in annual performance and tenure and promotion review policies or guidelines for faculty;
- Acknowledge and reward faculty participation and leadership in HIPs.

3.2 SPECIFIC FACULTY ENGAGEMENT METRICS WITH HIPs AND LATINX COMMUNITY

Student participation in scholarship, creative activity, and research may be tracked via a zero-credit or for-credit course or by the assignment of a badge on a transcript. Faculty members' engagement may be included in performance reviews but not systemically viewed as part of faculty success. Tracking faculty participation in HIPs might capture faculty engagement with students and can be used by faculty in tenure & promotion packages. They may also document which faculty are at capacity in their individual mentoring of undergraduate and graduate students. Below are measures meant to create visibility to faculty success through engagement, found to be especially important at minority-serving institutions.

3.3 TRACKING FACULTY ENGAGEMENT IN HIGH IMPACT PRACTICES (HIPs) USING COURSE ATTRIBUTES

We recommend systematically determining which faculty complete professional development around HIPs and incorporate HIPs, such as undergraduate research, into their curricular or extracurricular work with students. An example of how institutions can document faculty mentoring students through extracurricular research would be the University of Texas at El Paso (UTEP) program. UTEP has undergraduates register for a zero-credit research course with each faculty member having a section of this course in their name to track their research mentoring of undergraduates.

For curricular engagement in HIPs, we use the example of incorporation of research in courses (course-based undergraduate research experiences or CURES). Different types of institutions of higher education are more or less likely to use types of CURES. These can be tracked by using a flagging system. Flagging a CURE can be achieved with a three-part process: **1.** the faculty in charge of the CURE completes a template documenting a number of specific activities conducted by students in the course that would represent active participation in authentic research (e.g. attempting to answer valid research questions/unknowns, developing a hypothesis, developing solid methodology to answer the question/test the hypothesis, conducting a thorough review of the literature to put the research question in context, communicating results, etc.); **2.** the template is reviewed by a committee, at the appropriate institutional level, to determine the degree to which the course can be considered a CURE; **3.** flagging is implemented in the course registration system with a “research” tag on the course title or description. The examples above are for undergraduate research experiences, but similar systems can be used to document faculty engagement in other HIPs that are especially important in the HSI context (e.g., community engagement, capstone courses, first-year seminars, study abroad). Data collected from tracking systems can and should be included in annual and promotion reviews and to reward faculty for their accomplishments. The collection, processing, and distribution of these data need to clearly be the responsibility of an institutional unit, and then be used to assess student outcomes and faculty success in promoting student outcomes.

4.0 **STRUCTURE 2: FACULTY ENGAGEMENT WITH THE LATINX COMMUNITY AND DIVERSE STUDENTS**

- Number and composition of faculty (also as a percentage of faculty, and percentage change over time) involved in the following activities:
 - Student mentorship or advising through extramurally funded and unfunded programs;
 - Research mentorship;
 - Involving students in service work, such as volunteer work in the community or profession;
- Number of students, including explicit accounting of Latinx and diverse students that each faculty member is actively mentoring/advising (presented in a meaningful manner such as absolute and percentage figures for specific disciplines like STEM).
- Number and composition of STEM faculty involved in scholarship of teaching and learning as demonstrated by any of the following:
 - Conference presentations; journal publications related to scholarship of teaching and learning;
 - Participation in professional development related to teaching and mentoring;
 - Faculty mentorship in student organizations or clubs;
 - Faculty involvement in peer observations of teaching (as formative assessment / professional development).

5.0 **STRUCTURE 3: INCENTIVE STRUCTURES**

Incentive structures emphasize institutional values. Creating incentives and policy changes to codify the role that faculty play in achieving servingness would constitute significant institutional change. Because the diversity of institutional types of HSIs is considerable, we suggest that, within the logic of the institution, participation and outcomes of that participation be included directly in the information collected and presented for each type of review. Faculty accountability should also be accompanied by accountability at other administrative levels, including Department Chairs and Deans, for supporting, seeding, and maintaining these changes and the direct participation of faculty in them.

6.0 **INSTITUTIONAL LEVELS AND LEADERSHIP**

A clear statement that faculty success includes professional development and engagement with diverse students, especially Latinx students at HSIs, needs to come from every administrative level at the institution as well as the faculty governance structure. In this regard, it means the Provost and Deans should work collaboratively with faculty represented in the governance structure (e.g., Faculty Senate) as the processes and policies are revised.

7.0 **RECOMMENDATIONS**

- Make professional development activities available to faculty (including providing support for them to participate in off-campus activities) and reward both attendance and implementation, such as through providing incentives/awards and recognizing these activities in annual reviews and tenure/promotion guidelines. One example of such an activity could be Spanish language classes;
- Provide platforms to recognize and feature the HIPs (e.g., undergraduate research symposium, community engagement showcases);
- Provide instructional support to faculty during and after the implementation process to assess its effectiveness in terms of student learning;
- Track at the institutional level by discipline and course type, the use of culturally relevant curricula and pedagogy and make that information readily available to faculty as well as administrators;
- Track at the institutional level service-learning activities and outcomes;
- Incorporate faculty engagement in such professional development activities in the performance evaluations of Department Chairs and Deans;
- When recruiting faculty, explicitly include expectations about HSI servingness throughout the entire process, starting with the job announcement.

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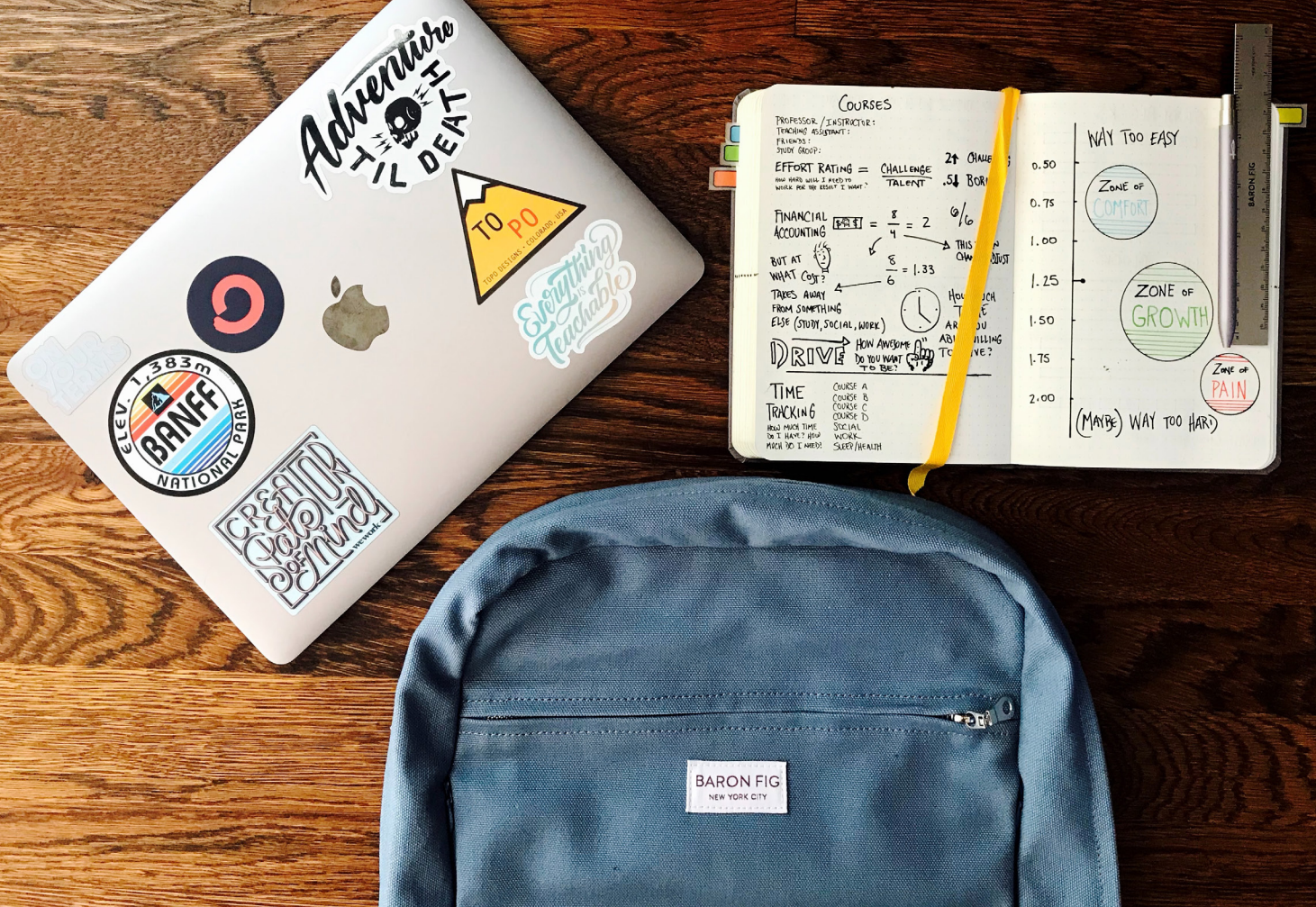
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STUDENT SUCCESS

As a group, we chose to separate Student Success into three topics: Meeting Basic Needs, Creating a Sense of Belonging, and Reconsidering Degree Completion. These are combined into one larger Concept Paper divided into three sections. While there are many important aspects of student success, we selected three topics for which the institution would need to re-examine its role in transforming the institutional practices and policies to promote success at HSIs.

MEETING BASIC NEEDS

1.0 INTRODUCTION

As new and incoming students enter the university setting, one of the biggest apprehensions surrounds their ability to meet their basic needs. While many institutions added food pantries to their student services, the larger constellation of student basic needs (e.g., transportation, housing, and many others discussed below) receive less attention at the institutional level. Research points towards the impact that an inability to meet basic needs has on a student's educational attainment and decision to pursue an education at a higher level (Wood, 2016; Goldrick-Rab, 2017; Phillips, 2018; Camelo & Elliott, 2019). When higher education institutions do not provide for and assist all students in meeting

their basic needs, we create a gap in the ability of all students to have an equal opportunity to pursue a higher education and therefore, be able to hold positions within the employment sector. Meeting basic student needs is an important aspect of the servingness framework. HSIs should not only focus efforts towards Latinx students, but also should assess the intersectionality and solidarity with other BIPOC groups on campus as well as measure the effects of other identities (e.g., gender, LGBTQIA+, socioeconomic status/class) on insecurities relating to food, housing, transportation, and technology (Duran & Núñez, 2021). We discuss below the issues around servingness and meeting basic needs beyond the classroom environment.

2.0 **PROBLEM STATEMENT**

Duran & Núñez (2021) found that Latinx students are more likely than others to experience basic needs insecurities as well as feel a larger sense of stigma than other students when accessing resources at the institutional level. They also found that Latinx students responded more positively, despite the stigma, to resource offerings when there was a sense of care. Meeting basic needs should be added to the servingness framework. Support for basic needs, a fundamental precondition to a student achieving success, should be part of institutional focus on servingness. Indeed, several public institutions of higher education are planning on addressing basic needs (“Governor Cuomo,” 2018; McLaughlin, 2019).

Basic needs as a category extend beyond academic preparation. We add to Bellows (2021) work that suggests the need for creating holistically prepared institutions. In this context, holistic refers to the inclusion and support of students in shelter, food, water, health-related resources (physical and mental), scholarship, transportation, and job opportunities. To fulfill the goal of working towards servingness and improving student success within an educational institution, the basic needs of students must be met.

Managing student basic needs deficits are critical because these insecurities may lead to lower rates of degree completion as well as other critical aspects of student success. We propose a set of aspirational metrics that sketch a potential new servingness structure that shapes the institutional commitment to the diverse students at HSIs. We outline two sets of metrics – students facing and institution facing. Because data collection may be difficult for many institutions, we suggest that as many of these metrics as possible be added to existing data collection instruments.

3.0 **STUDENT FACING METRICS**

We recommend that each institution conduct an intersectional benchmarking exercise at the institutional level as well as at unit levels such as college or school. [The Hope Center’s #Realcollege](#) initiative does research and advocacy around elevating student basic needs as a central aspect of student success. The movement provides resources for any institution of higher education in search of direction in understanding, assessing, and addressing student needs. Below, we identify metrics that are specific to servingness at HSIs. We further recommend the collection of as many data points as possible to obtain a clear, yet dynamic picture of student needs. Understanding the difficulty in collecting these data, institutions should select indicators below that are most important to their student population, in particular, the Latinx population.

3.1 *FOOD INSECURITIES*

One of the basic needs of human existence is related to food consumption and accessibility. Further down the line are issues related to quantity and quality of food and subsequent health-related effects. Thus, we propose relatively straight forward metrics at the institutional level of HSIs:

- Number and percentage of overall students experiencing food insecurities;
- Number and percentage of Latinx students experiencing insecurities. For the context of this paper, we are using the pre-existing measures affiliated with The Hope Center (Goldrick-Rab, 2019).

3.2 *HOUSING INSECURITIES*

As students enter the university setting, one of their main concerns centers around housing. Students need to have options for safe and affordable housing:

- Number and percentage of overall students experiencing housing insecurities;
- Number and percentage of Latinx students experiencing safe housing insecurities;
- Number and percentage of Latinx students experiencing houselessness.

3.3 *TRANSPORTATION INSECURITIES*

Many Latinx and other underserved students attending HSIs must work while taking part in their studies. Public transportation is sometimes the only mode of transportation for these students to go from home to school to work and again to home. Recent research finds that only 57% of community colleges are public transportation accessible, but that 25% more could become accessible with changes to local bus routes (see <https://www.shs.foundation/shsf-transit-map>). HSIs, the majority of which are community colleges should measure transportation accessibility as part of servingness:

- Number and percentage of overall students experiencing insecurities;
- Number and percentage of Latinx students experiencing insecurities.

3.4 *MENTAL AND PHYSICAL HEALTH WELLNESS RESOURCES INSECURITIES*

A major portion of the university experience and one which is sensitive pertains to the mental and physical health of the students. HSIs and other institutions strive to provide health insurance and mental health facilities for their students, but we need to measure and make visible the number of students accessing and needing these resources, separating them by specific demographic parameters and maintaining confidentiality:

- Number and percentage of overall students experiencing insecurities;
- Number and percentage of Latinx students experiencing insecurities;

- Number and percentage of Latinx students reporting that they have struggled with mental or physical health;
- Number and percentage of Latinx students reporting that their families have struggled with mental or physical health.

3.5 *JOB INSECURITIES*

As previously stated, many Latinx and other minority students need extra financial support and have occupations parallel to their studies. HSIs and other institutions should measure insecurities of their students to gauge their support of students in finding job opportunities to provide supplemental income for students to meet their own basic needs:

- Number and percentage of overall students experiencing job insecurities;
- Number and percentage of Latinx students experiencing job insecurities;
- Number and percentage of Latinx students expressing fear of losing their job and compromising their ability to complete their post-secondary education;
- Number and percentage of Latinx students expressing fear of their parents or other family members on whom they rely for financial support losing their job, which would compromise the students' ability to complete their post-secondary education;
- Proportion of students needing access to business attire.

3.6 *TEXTBOOK-TECHNOLOGY ACCESS INSECURITIES*

Our experience through the COVID-19 pandemic has made the lack of academic resource availability for students more apparent than ever. The added costs of required reading materials for courses within the university setting limit the abilities of many Latinx and other underserved students within the classroom. Institutions need to ensure that students have access to affordable texts for their courses or provide financial support to students experiencing insecurities with textbook access. Along the same line, a student's ability to access technology has a significant impact on their ability to participate in higher education. Part of servingness is making sure that students have access to a computer (not just a smart phone), software, and reliable Wi-Fi to participate in their classes, upload their assignments, and take their quizzes/exams. Some relevant metrics include:

- Number and percentage of overall students experiencing lack of access to technology/internet services;
- Number and percentage of Latinx students experiencing lack of access to technology/internet services;
- Number and percentage of Latinx students experiencing lack of access to a computer/laptop;
- Number and percentage of Latinx students experiencing lack of access to software;
- Number and percentage of Latinx students experiencing lack of access to reliable Wi-Fi;
- Number and percentage of Latinx students experiencing a lack of access to required texts for coursework.

4.0 *METRICS FACING THE INSTITUTION*

Following the same logic used for the metrics above, the metrics below suggest the ways that the institution may address both assessing and providing basic needs as part of servingness. Care should be taken in the measurement to avoid overcounting or offering one-off support. These metrics should be assessed and collected by the appropriate institutional office. The institution may assess the degree to which it has the appropriate supports for students based upon collection of student facing metrics. Here is a reminder of which most institutions are aware – just because the institution has supports, does not mean that students will know about them or use them. We encourage the use of effective techniques of communicating the availability of supports such as announcing on opening pages of LMS and ensuring that faculty and staff have easy access to the supports to provide to students.

4.1 *FOOD INSECURITIES*

For the institution, the type of services should be assessed to evaluate the resources allocated to the student body. Institutions such as the University of Arizona, as well as many others, use data collected on a swipe card to connect service usage to students' demographic data. These analyses have been used to reveal important insights into identifying the student populations that use the food pantries and for what they need. Institutions may also wish to assess the use of other supports for students with food insecurities (e.g., apps to notify students when and where there is leftover food, facilitating communication to faculty or staff to educate students about food options).

4.2 *HOUSING INSECURITIES*

Like the case of food, institutions should develop supports and then measure the impact of efforts by the types of services provided to students for their housing and the number of students supported. This information could again be measured through swipe card data and taken during orientations for the number and demographic of students' using the housing services, disaggregated by type of service.

4.3 *TRANSPORTATION INSECURITIES*

We have several metrics to measure transportation insecurity that we recommend for the institution:

- The number of students supported as well as the type of transportation service provided. Swipe card data could be used to collect these data.;
- Assessing accommodations that the institution makes to facilitate access to transportation (e.g., free bus or subway passes, parking passes).

4.4 *MENTAL AND PHYSICAL HEALTH WELLNESS RESOURCES INSECURITIES*

For students to have a positive experience in their higher education, they need to be physically and mentally healthy. We recommend that institutional assessments occur annually and include related metrics:

1. The types of services and number of students supported;
2. The accessibility of these resources such as appointment time and location availability;
3. The extent to which these resources are culturally responsive, led by professionals of color;
4. The extent to which cultural healing and wellness practices are valued and incorporated into the resources the institution is providing their students.

4.5 *JOB INSECURITIES*

For the institution, metrics to measure job insecurities include the types of services provided and the number of students supported in finding supplemental financial supports for while students are enrolled at the institution and for when they begin to search for positions that relate to their studies. Additional supports beyond career services include insuring that the student has the appropriate clothing for interviews and for the work.

4.6 *TEXTBOOK-TECHNOLOGY ACCESS INSECURITIES*

The institutional level metrics regarding access to technology and textbooks should focus on the types of supports, the number supported, and the extent to which the institution makes accommodations to facilitate technological access. Institutions should assess and track the specific supports made to facilitate technological access (e.g., laptop access, hotspots, IT services, projectors, cameras, online databases for research, programs such as Adobe and Microsoft Office, specific programs for data visualization or modeling, etc.). All students should have access to free IT services and technology to rent out if their technology is broken or they are unable to afford technology. Institutions could provide for students by having technology loan programs with sufficient inventory, accessible by all students who are in need.

Supporting students with technology and internet access at little to no fee is important for student success, particularly for students in STEM. We propose that institutions think further into extending the electricity and internet access to include working outdoor outlets and Wi-Fi to include houseless students. This extension will also allow for students to work/study outdoors and spend more time outdoors. There are clear linkages to time spent outdoors and improved mental health (Pearson & Craig, 2014). As we know, strong and positive mental health contributes to a general improved outlook on life, increased motivation, and contributes to the happiness of the individual (Soga et al., 2021).

4.7

STUDENT ACCESS TO THE CARES AND HEERF FUNDING-EMERGENCY GRANTS FOR STUDENTS

Many students are unaware of how to navigate funding, scholarship, and grant opportunities that are available to students both inside and outside of the institution they are attending. Institutions should create a system that assesses the degree to which students are using these options and compare that to the results of student facing metrics. Related to use is, of course, the ways in which the institution communicates the availability of options and supports student access to them. Options range from social media posting, posting announcements on LMS landing pages, advisor meetings one-on-one with students, individual emails, required orientation courses on aid, etc. While there are multiple funding options available to students in need (e.g., CARES Act) many students are not aware of how to apply or the requirements to be able to apply.

4.8

STUDENT CONTACT INFORMATION ACCURACY

Universal connectivity is the goal and a precondition for servingness. Institutions striving for servingness need to take measures to ensure that the contact information of their students are completed and accurate. Having tried to stay in touch with students during the Pandemic, we are aware of many students not accessing their institutional email accounts.

Institutions should invest in measuring the proportion of students with up-to-date contact information and completeness of contact information (e.g., home address, cell, email 1, email 2, etc.). From this point, it would be the institution which seeks out the information and moves the responsibility from the student to the institution in the cases where information is not readily provided.

4.9

EQUITY-MINDED COVID-19 RECOVERY PHASE

Through the COVID-19 pandemic, it was clear that distribution platforms for services which were traditionally face-to-face and shifted to online platforms hindered the students without access to technology or quality internet. Although many institutions quickly created systems which would shift all services to online platforms, measures should be taken to ensure that the institution is considering all students through a lens of equity-minded re-entry. Insecurities that surfaced during the pandemic included more than online access, extending into caretaking for students who have dependents and job insecurity in income generation for provisions for the household. Through higher education surveys and research conducted during the COVID-19 pandemic, results indicated that Latinx students were the most disadvantaged, having the highest levels of concerns and anxiety about meeting their basic needs and being able to continue in their education (Duran & Núñez, 2021).

HSIs should measure insecurities of all students exposed by the pandemic that relate to aforementioned topics. These data should also be disaggregated by ethnicity to gauge the impacts on diverse students and provisions institutions gave/failed to give to these students. Currently, an NSF-funded study (Franco et al., 2021) found an increase in caretaking responsibilities of students attending University of Arizona. Another project working to give faculty time to strategize how they will support each other and their students with families was developed using the Puente Model. This model shows that developing familia between faculty helps serve students in meeting their basic needs (“Puente Project,” 2021).

5.0 **CROSS-CUTTING THEME**

Institutions striving for servingness, especially HSIs, need institutional nimbleness and flexibility to identify, recognize, and be responsive to emerging needs. Faculty engagement with students in shared resources, spending time in the class creating a space of wellness and showing a sense of care towards students is essential in creating a safe space for the educational advancement of all students. We suggest that institutions focus on access to information rather than use of information. For example, do students lose access to information when they are delinquent in paying bills? If so, this can be changed. Do students lose access to information and services when they are not enrolled yet have the intention to re-enroll within a year?

6.0 **METRICS AND POLICY**

Institutions should prioritize advocacy and support efforts to increase aid and make delivery easier or more efficient to our most vulnerable students. Our lists above of student and institution facing metrics is extensive. By collecting the student-facing data, institutions can focus efforts in those areas that the student population, especially Latinx students, identify as their greatest needs. Institutions striving for institutional transformation in support of HSI servingness will necessarily move toward changing practices and policies around meeting student basic needs.

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STUDENT SUCCESS

SENSE OF BELONGING CONCEPT PAPER

1.0 INTRODUCTION

The most recent available data about Hispanic Serving Institutions (HSIs) indicate that 569 institutions in the United States have HSI status. Further, 18 percent of all institutions of higher education have HSI status and enroll 67 percent of all Latinx students attending HSIs (see *Excelencia*, 2021). In other words, a large majority of Latinx students attend a small proportion of institutions in the U.S. While HSIs are geographically dispersed in 30 states, three states and one territory (California, Texas, Puerto Rico, and New York) account for two-thirds of the HSIs. An additional 362 institutions are Emerging HSIs (e-HSIs), signifying a near-term 65 % increase in HSIs (Núñez, in press). It is more than likely then that HSIs will be enrolling and serving an increasing proportion of Latinx students. These trends suggest that ensuring student success at HSIs means ensuring Latinx student success, in general, and elevates the importance of creating HSIs that support a student's sense of belonging.

Research delving into institutional identity, servingness, and integration show the complexity of factors relating to a student's sense of belonging and how these can vary across demographic and social identity groups within the institution. A sense of belonging refers to the psychological dimension of integration for an individual/group (Hurtado & Carter, 1997 and Maestas et al., 2007). The goal of this concept paper is to explore possible metrics for examining how students experience life within the servingness structures and to provide recommendations for implementation of these changes at the institutional level. We aim to present a series of metrics that can be used to assess these questions:

- WHAT DOES A SENSE OF BELONGING MEAN TO DIVERSE STUDENTS ATTENDING HSIS?
- WHAT DOES A SENSE OF BELONGING LOOK LIKE TO LATINX STEM STUDENTS AT HSIS?

Students who do not feel a sense of belonging at their institution show lower rates of retention and lower rates of graduation as compared to students who feel integrated and have a feeling of connectedness with their student body, faculty, administration, and ultimately, institution. Students who do not feel included in the institutional mission and who feel marginalized or as if they are within a hostile environment, not only influence the students' sense of belonging but show cause for student departure from the institution (Maestas et al., 2007).

Research has examined the broader meaning of sense of belonging (Freeman et al., 2007), as well as how HSI STEM students relate to the spaces they occupy at the institutional level, department level, classroom level, research group level, and student body level (Maestas et al., 2007; Garcia & Dwyer, 2018; Nuñez, 2009). Below, we identify the servingness structures (Garcia et al., 2019) that most directly relate to assessing a sense of belonging to ultimately inform changes of practices and policies at the institutional level for HSIs striving towards servingness.

Institutions should develop university activities that speak to the racial, ethnic, linguistic, and cultural attributes of Latinx students and encourage their participation (Hurtado & Ruiz, 2015) to promote cultural diversity and understanding among students, faculty, and staff. For Latinx students at HSIs, taking part in Latinx Greek life, having representation of Latinx faculty and staff, as well as having the opportunities to speak Spanish all contribute positively to an increased sense of belonging (Garcia & Dwyer, 2018). Other factors connecting servingness to a student's sense of belonging stem from support by faculty and peers as well as perceived understanding/empathy of Latinx and other minoritized groups' experiences and challenges (Maestas et al., 2007).

There are four structures for serving in the servingness framework at the institutional level that directly assess contributions to servingness that impact the student experience and sense of belonging as a Latinx student at the institution. Discussion of the first three structures is embedded within different concept papers. They are:

- Engagement with the Latinx community (Community Engagement);
- Compositional diversity (Institutional Success);
- Culturally relevant curriculum and pedagogy (Faculty Success).

The fourth structure for servingness, programs and services for minoritized students, (Hurtado & Carter, 1997, and Maestas et al., 2007) – is not directly assessed in any concept paper, because our general focus is on institutional transformation. Correct or not, we expect HSIs of every type to already have programs and services for students. Further, this set of concept papers assesses what goes on within the institution as an organization and not specific offices within the organization.

The servingness framework also focuses on student experiences and outcomes related to structures for serving. In this concept paper, we discuss metrics that assess how students experience the structures for serving, specifically how those structures shape and form the Latinx and diverse student experience and outcomes. Here, we focus on these aspects of servingness framework:

- Validating Experiences within the Structures;
- Racialized Experiences within the Structures.

2.0 VALIDATING EXPERIENCES WITH STRUCTURES

Validating experiences are those that support socio-cultural identity formation, in the ideal, in positive ways. They include the nature of same-race/ethnicity interactions with peers, how the campus environment validates the Latinx culture, the degree to which students feel comfortable speaking Spanish on campus, and the presence and effectiveness of mentoring and support groups.

Several surveys that have been used to study student experiences at multiple institutions offer departure points for considering measures of sense of belonging. Note that none of the specific surveys discussed here ask questions specific to an HSI. This is important because the available surveys are not tailored to either HSIs or to the Latinx student. Below, we review two commonly used surveys at 4-year institutions – National Survey of Student Engagement (NSSE) and Higher Education Research Institute (HERI). A third instrument, University of California Accountability Report, is conducted throughout the university system. Since Spring 2020, the National Survey of Student Engagement (NSSE) has included three questions about students' sense of belonging. A fourth, the Community College Survey of Student Engagement and its related first year instrument, the Survey of Entering Student Engagement SENSE, do not include direct questions on sense of belonging and the former has not been changed since the 2017 survey instrument. SENSE includes optional modules that relate to but do not substitute for sense of belonging questions in its Building Relationships module.

The current NSSE questions are:

TO WHAT EXTENT DO YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS?

- A. I feel comfortable being myself at this institution.
- B. I feel valued by this institution.
- C. I feel like part of the community at this institution

The HERI at UCLA has a module on Diverse Learning Environments that specifically addresses student perceptions of the learning climate and sense of belonging by gender, race, and ethnicity. Findings from the 2020 HERI survey suggest that race and ethnicity are formative of student perceptions of sense of belonging (see below and <https://ucla.app.box.com/v/DLE-Instrument> for specific questions). Four questions relate specifically to a sense of belonging; they assess student attitudes as well as the role that the institution may play in shaping them. Because of space constraints, we show below two questions although others may be found at the link shared above:

PLEASE INDICATE THE EXTENT TO WHICH YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS:

RESPONSE CATEGORIES: STRONGLY AGREE, AGREE, DISAGREE, STRONGLY DISAGREE

- It will take me longer to graduate than I had planned
- Faculty empower me to learn here
- At least one staff member has taken an interest in my development
- Faculty believe in my potential to succeed academically
- I feel that I am a member of this college
- Staff encourage me to get involved in campus activities

- I may have to choose between financially supporting my family and going to college
- If asked, I would recommend this college to others
- At least one faculty member has taken an interest in my development
- I feel a sense of belonging to this campus
- I feel unsafe on this campus
- My political views closely resemble those of my parents/guardians

PLEASE INDICATE THE EXTENT TO WHICH YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS. THIS COLLEGE:

RESPONSE CATEGORIES: STRONGLY AGREE, AGREE, DISAGREE, STRONGLY DISAGREE

- Encourages students to have a public voice and share their ideas openly
- Has a long-standing commitment to diversity
- Accurately reflects the diversity of its student body in publications (e.g., brochures, website)
- Promotes the appreciation of cultural differences
- Has campus administrators who regularly speak about the value of diversity
- Has a lot of racial tension
- Provides the financial support I need to stay enrolled
- Has an obligation to prohibit racist and sexist speech on campus
- Has a right to ban extreme speakers from campus

The [2021 University of California Accountability Report](https://accountability.universityofcalifornia.edu/2021/chapters/chapter-7.html) instrument seeks to address sense of belonging directly and indirectly (<https://accountability.universityofcalifornia.edu/2021/chapters/chapter-7.html>). Questions focus on a sense of belonging by gender, race, ethnicity, religion, sexual orientation as well as political beliefs. For example, response questions include: “Students of my race/ethnicity are respected on this campus” and “Students of my political beliefs are respected on this campus.”

These instruments are excellent starts to assess how students feel about belonging. In the ideal, students would be able to answer concrete questions about a sense of belonging that relates to the servingness framework. (The HERI survey embeds concepts related to the servingness framework to a greater degree than NSSE.) We would like students at HSIs to feel like they belong at many levels – the institution, major department, social activities, clubs – and that the students feel this sense outside of affinity centers. A sense of belonging enhances self-efficacy and student success. Additional metrics below are framed around the student experience to assess the learning experience to identify specific aspects of the institutional context that influence the sense of belonging.

2.1 ADDITIONAL SAMPLE SERVINGNESS METRICS

We propose sample metrics to augment assessing validating experiences and to focus in on the HSI context and a sense of belonging.

1. How many faculty members know your name?
2. How often do you attend faculty office hours?

3. Do you know any faculty members well enough to ask for a recommendation for a job, graduate school application, or other opportunity?

These metrics would provide more nuance to the NSSE question block on belonging. We suggest assessing the questions specific to the HSI and cultural institutional contexts. The servingness framework highlights the roles of interactions with same-race/ethnicity peers; cultural validation on campus; Spanish-speaking peers; faculty and staff; and mentoring and support groups.

We recommend adding questions tailored to student experiences and cultural backgrounds about these issues that draw out the ways that the institution may have influenced the validating experiences:

- In general, has your coursework included research or activities related to Hispanic/Latino cultures? For example, inclusion in the syllabus of authors from Hispanic/Latino backgrounds?
- If you are multilingual, what is your comfort level speaking in Spanish on campus? and in the classroom? with other students? with faculty?
- To what extent do campus buildings and monuments express a focus on Hispanic/Latino cultural heritage?
- To what extent do you feel supported by campus organizations geared toward helping you succeed as a student at an HSI?

3.0 ***RADICALIZED EXPERIENCES WITHIN THE STRUCTURES***

While Institutional Success suggests metrics to assess the prevalence and handling of racism, it does not directly assess the impact of racialized experiences on student success at an institution. Metrics to assess that racialized experience assess how Latinx and other diverse students experience the institutional environment and discrimination, harassment, and microaggressions.

3.1 ***METRICS TO ASSESS RACIALIZED EXPERIENCES***

We recommend two sets of metrics. The first is to ensure collection of accurate information about the prevalence of racial discrimination, harassment, and microaggressions and the second set includes approaches to better analyze the metrics.

DATA COLLECTION METRICS

- If your university does not already have an office that both monitors and seeks to alleviate racial discrimination, harassment, and microaggressions (e.g., a Title 9 office; a Chief Diversity Officer, Office of diversity equity, and inclusion), then our first recommendation is to invest in that office as soon as possible.
- Next, we recommend that intentional questions about the prevalence of these experiences be added to student climate surveys (see <https://heri.ucla.edu/diverse-learning-environments-survey/>).
- Data collection about the incidents should include specific location on campus, information about the individuals involved (e.g., student, administrative person, faculty) and the context (e.g., type of event; classroom or research setting; dormitory; sporting event)

spectator or player). These details are necessary to evaluate the context in which the racialized experiences occur as means to improving the institutional response to eradicate future incidents.

4.0 DATA ANALYSIS APPROACHES

- All data should be analyzed by demographic group, student major, STEM or non-STEM, and event or location about the incident;
- Context, or type of physical space, is especially important to target remediation activities specific to the situation in which the incidents occur.

5.0 INSTITUTIONAL LEVELS AND LEADERSHIP

Institutional focus on and inclusion of sense of belonging supports students in providing a positive environment that embraces diversity of all students. The commitment of institutions towards improved sense of belonging for their student population stems first from their mission statement and translates into valuing culture in their promotion of faculty and staff so that these populations reflect the demographic proportions of their students. All levels of administration, faculty, and staff should be actively engaged in creating inclusive environments for learning and encouraging cultural diversity.

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STUDENT SUCCESS

A MULTI-DIMENSIONAL REVISIONING OF DEGREE COMPLETION METRICS

1.0 INTRODUCTION

A focus on traditional metrics of institutional success - measures such as persistence and graduation rates - have been described by some scholars as race neutral (Black et al., 2015). Such a narrow focus ignores the reality of pathways to achieving educational goals that may be non-linear and ignores the important ways in which Minority Serving Institutions (MSIs), especially, work to enhance students' racial and ethnic identities. Additionally, when an emphasis is placed solely on traditional measures, institutions are disincentivized from serving students who have been historically underrepresented and underserved in higher education – individuals who on account of their statuses as first-generation, low-income, or post-traditional students might benefit from more or different resources than a legacy student. Further, labeling traditional metrics of degree completion as race neutral suggests that all students irrespective of race, gender, and ethnicity have the same goals. Having the same goals is unrealistic with diverse student populations.

We argue below to develop a new multi-dimensional degree completion metric that incorporates a variety of influences over degree completion. These include institutional structures for servingness, goal upon entry, post-graduation and employment, societal and institutional factors, and attendance at

multiple institutions. A multi-dimensional metric is necessary for several reasons identified below. Most students enroll in college to earn a degree, to learn, and, indeed, to graduate. But do all students have the same goals? Assessment of Hispanic-Serving Institutions (HSIs) degree completion should include measures that transcend degree attainment and incorporate student goals. Graduation rates that consider time alone – whether a student graduates from a community college in two or three years or from a public four-year institution in four years, for example – fail to recognize and honor the considerable range of reasons why a student might enroll, transfer, or stop out from a single institution and fail to recognize student achievement at the institution other than degree attainment. Further, a focus on time alone inhibits effective programming or initiatives that would begin to address either student-level or structural challenges that contribute to leading students back to their aspirational path. Furthermore, the most consulted databases for these metrics -- like Integrated Postsecondary Education Data System (IPEDS) -- only measure graduation rates of students who began and finished at a given institution, not accounting for those students who transferred in or out, thereby distorting, and disadvantaging calculation rates for HSIs and community colleges more than for other institutions. This condition is borne out by a recent 2017 report from the American Council on Education (ACE) that used National Student Clearinghouse Data that accounted for the movement of students (rather than aggregated enrollment or graduation rates, as in IPEDS). This report found that measuring graduation rates with these data (or “pulling back the curtain,” as the title of the report notes) considerably narrowed the differences in calculating graduation rates at MSIs and HSIs vs. other institutions (Espinosa et al., 2017). Our fundamental questions in this concept paper are: *What factors affecting degree completion should be considered by HSIs striving for servingness and should be included in metrics assessing degree attainment?* Below we focus on the types of information that should be included in a multi-dimensional metric. We do not include suggestions for weighting schemas because each institution has its own context that should influence the selection of weights.

2.0 INSTITUTIONAL STRUCTURES OF CHANGE

We argue below that servingness structures at HSIs extend beyond those in the original conceptual framework. Of course, validating experiences and racialized experiences within the structures are formative of completion rates for academic outcomes. Yet, assumptions such as each student will attend only one institution, each student has one major, each student has the same goals, or that intervening family concerns will change an educational trajectory in the same way are just not justifiable for all students, especially at HSIs. Using the metric of four-year graduation rates or even six-year graduation rates may not be applicable to all students. It is certainly the norm at predominantly white institutions (PWIs), but do they make sense at HSIs? We suggest that graduation metrics to assess student outcomes at HSIs need to go beyond the consecutive years of schooling to achieve the degree, undergraduate or graduate, and should be constructed to incorporate the experience of diverse students with diverse goals rather than predetermine the education goals and outcomes for all students. Below, we review the intervening opportunities that demand that we look beyond 4 and 6-year graduation rates and incorporate new metrics in our assessment of undergraduate and graduate degree completion. The outcome would be a set of data to assess student achievement rather than one metric to assess degree completion.

2.1 GOAL UPON ENTRY

Traditional metrics of degree attainment zoom in on a specific type of student: often first-time, full-time, degree-seeking students. Many institutions use their own survey or use others. For example, the SENSE (Survey of Entering Student Engagement) instrument is specific to community and technical colleges. It could be revised to include goal upon entry questions. The Higher Education Data Sharing Consortium (HEDS) survey for undergraduates in the liberal arts has a module of questions that are an excellent start:

PEOPLE GO TO COLLEGE TO ACHIEVE MANY DIFFERENT GOALS. FOR YOU TO FEEL LIKE YOU'VE HAD A SUCCESSFUL COLLEGE EXPERIENCE, WHICH OF THE FOLLOWING MUST HAPPEN BY THE TIME YOU GRADUATE FROM [INSTITUTION NAME]? (CHECK ALL THAT APPLY)

- I'm prepared to begin a meaningful career.
- I've learned new things that will help me in my life after college.
- I feel prepared to deal with intellectual and interpersonal challenges that will come my way.
- I've built friendships that will last long beyond college.
- I've figured out what I want to do with my life.
- I feel confident that I will be able to financially support myself in the future.
- I feel prepared to build a good life for my family.
- I've made my family proud.
- I'm in a position to give back to my community.
- I've been accepted to a graduate school program (e.g., law school, medical school, business school).
- I'm better prepared to make a positive impact on the world.
- Other: _____

As more colleges and universities refine their roles in serving non-degree-seeking students in addition to degree seeking and as the number of credentials offered by institutions of higher education and others grows to nearly 1 million, we suggest that first year and goal upon entry surveys include the following. We recommend selecting questions that best fit HSIs. The servingness framework has a series of academic and non-academic outcomes that could be woven directly into questions like the HEDS survey. For example, we suggest including a question about goal to transfer to another institution or to have outcomes related to leadership identity or a social justice orientation.

2.2 COMPLETION

The following principles should be considered as fundamental to framing student success metrics and for reporting both goals upon entry and for monitoring those outcomes over matriculation years:

- Degree attainment should only be the outcome calculated for those who intend it; yet, calculating degree attainment for those who did not have that intention upon entry will also provide insights into the student experience. In the case of community colleges, for example, only students who report an intention to transfer should be accounted for in calculations on transfer.

- “Completion” should not just be calculated for degrees but should be accompanied by disaggregated and intersectional completion rates for certificates and academic programs including differentiation between STEM and non-STEM programs. This honors the hard work of diverse students at HSIs with a variety of goals.
- Co-curricular activities are a fundamental part of student life experience (Stirling & Kerr, 2015). Accordingly, we recommend examining the relationship between co-curricular activity participation and completion.

2.3 *POST-GRADUATION & EMPLOYMENT*

Higher education institutions could report an employment outcome separately for students whose goal was employment. Employment is not always students’ immediate post-graduation goal; rather, their goal may be entering graduate school or tending to other family or community needs. Knowing the difficulty in collecting employment data within the first year after graduation, we do recommend improving efforts to collect these data so they may be part of the overall assessment. For STEM students in particular, data collection methods should determine if the employment secured was STEM or non-STEM.

2.4 *SOCIETAL FACTORS*

To acknowledge how societal structures of privilege and power factor into college completion, colleges should disaggregate and respond to college achievement and completion data by students’ input characteristics. This includes data for Pell grant recipients and by race/ethnicity, first generation status, native versus foreign born, transfer students, in-state/out-of-state residents, whether students are parents, (in)dependency status, how many hours students work a week, among others.

2.5 *INSTITUTIONAL FACTORS*

The Institutional Success, Faculty Success, Community Engagement, and Research, Scholarly, and Creative Activities concept papers outline metrics that have an impact on educational outcomes. In these concept papers, you will find metrics that assess the use of culturally responsive pedagogy (Alcantar & Hernandez, 2018; Garcia et al., 2019); institutional holistic intervention to STEM and non-STEM students (Ivie, 2020); institutional alignment of advising with instruction (Rassen et al., 2013).¹

3.0 *ACCOUNTING FOR STUDENTS WHO ATTEND MULTIPLE INSTITUTIONS AND TAKE BREAKS IN ATTENDANCE*

National public data sources do not easily account for how students transfer among institutions or take breaks in attendance when calculating achievement and graduation rates. The data are structured to be collected and presented by institution and not by student. Institutions must piece together Clearinghouse data and other sources of data to create a holistic picture of college completion. In the absence of dramatically changing our educational data collection practices to focus on individual students, we recommend that each institution present data on multi-institutional degree completion.

¹ <https://ccrc.tc.columbia.edu/publications/nuances-completion-student-outcomes-cbd.html>

Degree checks at the community college, undergraduate, and graduate levels should collect data on the number of institutions attended and breaks in continuous matriculation and incorporate them into degree completion datasets. These additional metrics then become part of the context in which students achieve success and complete degree requirements.

4.0 CREATING THE CONDITIONS FOR SOCIAL MOBILITY

Harvard-affiliated [Opportunity Insights](#) has defined a college's mobility rate as "the fraction of its students who come from a family in the bottom fifth of the income distribution and end up in the top fifth of the income distribution." Including metrics like this as part of how we think of institutions' servingness will help to illuminate the extent to which institutions do serve the most vulnerable.

Ideally, there should be a positive relationship between a student completing a degree from an HSI and their experiencing social mobility post-degree completion. Also coupled with degree attainment, HSIs should calculate the amount of debt that students are graduating with. *This metric should be viewed as an evaluative measure of the institution, as opposed to a judgment of the student.* Sources like the College Scorecard can be helpful but are limited as they offer institutional and field of study-level data only and not student level data coupled with their background characteristics, thus not allowing for insights on Latinx students.

Metrics to specifically assess social mobility would collect and analyze career engagement patterns among Latinx and other students at HSIs to understand accessibility and inform improved practice, analyze career engagement (e.g., internships, career readiness workshops, career mentorship, etc.) patterns on degree completion and employment outcomes.

5.0 RECOMMENDATIONS

Reporting requirements for colleges and universities are already burdensome and we recognize that our recommendations here, if enacted, would lead to additional obligations. We make these recommendations because of the significant ways in which current metrics obscure inequities as well as accomplishments. We know that often what gets measured is what gets acted upon. We recommend these new data sources and metrics are both captured and integrated into a multi-dimension metric. The multi-dimensional overall completion rate that we recommend will give a more nuanced assessment of student success.

We find that traditional metrics of degree completion are too narrow, overlook significant populations of students, and disadvantage certain types of institutions that serve larger proportions of students with a variety of goals upon entry.

We offer a set of recommendations that takes a broader view of degree completion, accounting for **1.** a students' goal upon entry, **2.** the influence of societal and institutional factors on achieving that goal, and **3.** a time frame for completion that spans multiple institutions and potential breaks in attendance. It would also consider **4.** the extent to which institutions graduate and prepare paths to careers with family-sustaining wages and that are of service to students' home communities. We recommend that institutions and educational policy makers monitor and *act on* what these data reveal to account for and to honor the experiences of students whose paths to graduation are nonlinear -- and the institutions that serve them.

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COMMUNITY ENGAGEMENT CONCEPT PAPER

1.0 INTRODUCTION

Community engagement by institutions of higher education has shifted substantially over the past several decades from an earlier model of unidirectional knowledge dissemination and public service towards a more recent model of reciprocal and collaborative partnerships (Boyer, 1996; Spainer et al., 1999; Roper & Hirth, 2005). Community engagement by institutions of higher education is reinforced through several external mechanisms such as “broader impacts” requirements in grants and fellowships (Roberts, 2009); ranking systems that reflect “institutionalized community engagement in...identity, culture, and commitments” such as the Carnegie Community Engagement classification (Driscoll, 2014); and tenure and promotion systems that recognize and reward public scholarship and community engaged research (Ellison & Eatman, 2008). These trends align with conceptions of Hispanic-serving community engagement, and this concept paper outlines specific ways in which community engagement can embody and further the mission of HSI.

2.0 GOAL STATEMENT

Facilitating greater servingness through community engagement may vary by factors such as institutional type, geographic location, and the composition of departments and schools. Regardless of the different forms that community engagement might take in different institutional settings, community engagement should:

- Benefit Latinx, underrepresented minorities, and low-income students by providing them with opportunities that leverage their desire to respond to community-based challenges and needs. In the ideal, these opportunities contribute to creating a sense of belonging in, and connection to, the wider local community in which an institution is located.
- Enhance the student, faculty, and staff experience, promoting culturally-relevant ways for campus stakeholders to participate in, and contribute to, wider communities.
- Benefit local, regional, and national communities and organizations through collaboration and co-creation of knowledge with university scholars, experts, and leadership, and the sharing of institutional resources, such as university facilities, libraries, museums, and laboratories.

3.0 A FRAMEWORK FOR STRENGTHENING SERVINGNESS THROUGH DIRECT COMMUNITY

A Latinx-informed framework for community engagement at HSIs should guide HSIs in their engagement with community partners in a way that centers Latinx students and their ways of knowing and being. The framework, as proposed by Franco et al. (2020) includes **1.** three core elements to a *partnership* (purpose, process, outcomes); **2.** dimensions characterizing the *process* (reciprocity and mutual benefit), and **3.** *types of community engagement* relative to these dimensions (connection, consultation, cooperation, collaboration). The framework can be used to both guide and assess the extent to which engagement between HSIs and community partners is intentionally aligned with the designation. Several institutional structures (Garcia et al., 2019) intersect significantly with community engagement at HSIs. These include **A.** engagement with the Latinx community, **B.** institutional advancement activities, **C.** external boundary management, and **D.** incentive structures. These will be discussed in turn below. Additionally, community engagement also intersects with HSI grants, which is addressed in the RSCA concept paper and will not be discussed in detail here.

Along with the servingness metrics discussed below it is useful to point out that the Carnegie Community Engagement Classification includes four essential criteria - developed through a collaborative process among several relevant high education organizations and consortia:

- Institutional mission specifying community engagement as a priority;
- Executive leadership that specifically promotes engagement;
- Coordinating structures and budgetary support for community engagement;
- Faculty development support for those engaged with the community.

Although this classification can provide a helpful framework to HSIs for assessing the nature and extent of their community engagement, research on community engagement at HSIs has argued that the application process for this Carnegie classification is university-centric, often focused on ways which the

university engages with the community, yet only limitedly seeks to understand the depth and scope by which the community is offered the opportunity to influence and benefit from the university (Franco et al., 2020). These will be explicitly included in the discussion below where appropriate.

3.1 *ENGAGEMENT WITH LATINX COMMUNITY*

Engagement with the Latinx community includes two potential tracks which may overlap at certain points: engagement with the families of Latinx students, and engagement with the Latinx community that surrounds the institution.

HSI engagement with Latinx students' families along the process of outreach, recruitment, admission, orientation, enrollment, retention, and graduation should be designed using asset-based theoretical and programmatic frameworks such as funds of knowledge and community cultural wealth, in contrast to operating from a deficit lens. The funds of knowledge framework highlights and values the resources embedded in students, families, and communities and emphasizes the implications of utilizing the skills and resources embedded in working-class families for pedagogical action (Rios-Aguilar et al., 2011). Community cultural wealth engages the knowledge, skills, abilities, and networks possessed and utilized by People of Color, drawing up their familial, social, navigational, resistant, linguistic, cultural, and aspirational capital (Yosso*, 2005).

Engagement with the Latinx community should also include collaborative, sustained, genuine, and deep partnerships with the surrounding community from local to national scales. In keeping with a Hispanic-serving mission, key partnerships should focus on issues of importance to the Latinx, URM, and low-income communities both on and off campus. As such, these partnerships may be with Latinx individuals and institutions such as Latinx legislators and Hispanic-Latinx-focused organizations. These could potentially include partnerships with:

- Local, regional, state, and national governmental relations;
- Arts and culture organizations;
- Health and wellness organizations;
- Industry and commerce organizations;
- Native American nations and tribes in the region;
- Other institutions of higher education, particularly related to transfer articulation, faculty exchanges, and research collaborations. Many of these relationships could be supported through extramural funding (see [RSCA concept paper](#));
- Potentially add here about small grants for developing engagement.

3.2 *INSTITUTIONAL ADVANCEMENT ACTIVITIES*

Institutional advancement is a critical component of community engagement and should reflect an institution's commitment to serving Hispanic-Latinx students. While institutional development activities will always cast a wide net to incorporate a variety of campus needs, institutional advancement at HSIs should have an explicit strategic mission to meet the needs of the Hispanic-Latinx student population. Too often, HSIs fail to broaden their institutional advancement enterprise to incorporate potential foundations, donors, and industries that have an interest in partnering around Hispanic-serving topics and initiatives, nor do they hire those with such expertise. HSIs can further their mission by engaging

foundations, donors, alumni, and industries that are led by Latinx individuals, that work in a sector relevant to the Latinx population, and/or that have an interest in serving the Latinx community or recruiting Latinx talent from among the institution's student body.

Many institutions of higher education have a board of trustees or an institutional foundation that both advises the institution on important decisions and helps the institution with development goals. HSIs should work proactively to include several representatives from the Latinx community on its board of trustees and/or foundation board. Inviting members of the Latinx community into these influential advocacy and leadership positions will further help the institution become known more widely in the Latinx community, and potentially attract sources of capital for development initiatives and campaigns. Finally, HSIs should leverage their ever-expanding Latinx alumni base in their strategic institutional advancement planning. Latinx alumni may be more inspired to become involved when they know that they are engaging in the Hispanic-serving mission of the institution. Latinx alumni can play a variety of roles in giving back to their institution, as donors, as mentors to current Latinx students, as organizers of culturally-congruent Latinx alumni activities and events, and as advisors to campus leadership on institutional programs and practices that made them successful in graduating and building their careers after graduation.

3.3 METRICS / MEASUREMENT

Metrics and measurements to assess transformation in the above structures overlap widely. Below we outline three groups with which the institution would be necessarily engaging and in what ways to document where on the path to servingness the institution lies. In other words, we recommend assessing the degree to which the institution mobilizes and engages with the groups below in support of servingness. We also give examples of the kinds of metrics that may be used or the kinds of projects that would indicate that the institution is focused on community engagement around servingness.

3.3.1 STUDENTS

Many of the metrics noted below can be collected through mechanisms such as student engagement surveys (see [Student Success concept paper](#)). Every effort should be made to utilize resources that are already available through campus offices. In addition, effort should be made to look at these metrics as they change over time.

- Liberatory student outcomes (Garcia, 2020a; Garcia, 2021);
 - Measures of student civic engagement
 - Measures of student political engagement
 - Measures of racial identity development for students
- Family engagement;
 - UCSC regional family conference (Covarrubias et al., 2020)
- Alumni engagement;
- Sense of belonging at institution and in local/regional community for diverse students (see [Student Success Concept Paper](#));
- Engagement responding to community needs
 - Community-engaged partnerships (Ramirez & Rodriguez-Kiino, 2020) especially in STEM.

3.3.2 INSTITUTION

The metrics listed below are more of a composite of the ways in which parts of the institution engage directly with the community. One would pose the following question: to what degree does the metric target (e.g., Board of Trustees) include community engagement:

- Composition of Board of Trustees or Foundation Board to reflect engagement with Latinx local, regional, and national Latinx communities;
- Foundation and development activity, fundraising areas focused on Latinx community;
- Development/Advancement Office Staff;
- Alumni engagement;
- Regional and state impacts – STEM industry, STEM workforce, health, arts, culture;
- Institutional support through seed grants and professional development activities directed at faculty, students, and staff to develop trust between the institution and community partners that will lead to concrete co-created projects;
- Research and program collaborations with other IHEs benefiting Latinx community;
- Carnegie Classification of Engaged Institution;
- Incentive structures to encourage and reward faculty, students, and staff for community engagement in STEM and STEM education (e.g., tangible support for publicly engaged scholarship, community based research, faculty, and staff appointments on hard money to support this work) (See also [Institutional CP](#)).

3.3.3 COMMUNITY

The third level of engagement, Community, is essential to have meaningful community engagement. Co-creation of the relationship and resulting activities between an HSI and its community cannot happen without a strong institutional level of engagement which would follow from the assessment above.

- Co-creators with university leadership and faculty on programs and activities;
- Community needs reflected in university activities' Hispanic-serving community activities.

4.0 SUMMARY

The framework suggested here assesses the degree to which the HSI leverages community engagement (including External Influences on Serving) in its servingness efforts. As conceptualized and discussed above, community engagement should occur at all scales of engagement from the individual to the family, to community leaders (formal and informal), advocacy groups and all levels of government embedded within the institutional context.

The emphasis on co-creation of activities is essential for demonstrating community engagement. As the Kellogg Commission emphasized, engagement is different from outreach. Co-creation means that the community can shape in meaningful ways curriculum, scholarship, and other institutional activities through direct participation (Spainer et al., 1999).

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RESEARCH, SCHOLARLY, AND CREATIVE ACTIVITIES CONCEPT PAPER

1.0 INTRODUCTION

Interrogating how Research, Scholarly, and Creative Activities (RSCA) Success and RSCA Development² intersects with servingness at HSIs is a new frontier for institutions and individuals. We use the term “Research, Scholarly, and Creative Activities” (RSCA) to embrace multiple forms of knowledge production across scholarly disciplines and practices as well as across institutional type. The extent to which RSCA intersects with the mission and practices at an HSI varies, based on a combination of factors such as institutional type, profile, history, and service area represented by the cohort of HSIs. Relatively few HSIs are RSCA-intensive institutions (Carnegie classified “research institutions”), however, RSCA likely plays a role at all HSIs. It may take the form of undergraduate RSCA (UR), such as UR experiences, extra- and co-curricular activities, and resources centers, or is embedded in the curriculum through course-based undergraduate RSCA experiences (CURES). Faculty, of course, are engaged in RSCA at many HSIs. At RSCA-intensive HSIs, conducting RSCA on an ongoing basis is a central focus of faculty job descriptions. At 2-year colleges, regional institutions, and predominantly undergraduate institutions (PUIs), many faculty also engage in RSCA projects, develop their course content based on current RSCA and cutting-edge science, and/or as noted above integrate RSCA into courses and mentoring.

² RSCA Development (RD) encompasses a set of strategic, catalytic, and capacity-building activities that advance RSCA, especially in higher education. RD professionals help faculty become more successful communicators, grant writers, and advocates for their work. They help faculty bring new ideas to life. RD professionals also serve their institutions. They create services and resources that transcend disciplinary and administrative barriers and create programs to spur discovery. More information about RD: <https://www.nordp.org/about>.

We seek to disrupt the explicit hierarchy of institutions (e.g., as indicated in rankings like those of *U.S. News and World Report*), as it relates to RSCA expenditures and infrastructure, while at the same time acknowledging how systemic racism and white supremacy has a) shaped the construction of what constitutes RSCA, and b) created structural hierarchy resistant to disruption. The vision for our model is that the contributions of a 2-year college that engages students in project-based learning that develops leadership, communication, identity, and an appetite for scholarship is equally as valid as the contribution of an R1, 4-year institution that may be able to engage in technical training on advanced instrumentation – as long as the engagement of Latinx students and minoritized communities is intentional and authentic. As such, while this concept paper is about STEM activities, we broadened its applicability at the institutional level to the largest framing of scientific research.

2.0 STATEMENT OF GOAL – WHAT SERVINGNESS LOOKS LIKE

This concept paper is a plan of action: facilitating greater HSI servingness through RSCA will lead to the development of more HSIs that will contribute to:

- better, more equitable student outcomes;
- greater diversity in faculty composition;
- more equitable tenure and promotion policies and practices;
- socio transformative RSCA that corresponds to the mission of HSIs and prerogatives of faculty at HSIs;
- engaging students in culturally relevant problem-solving by linking [scientific] inquiry with issues of concern to students’ personal lives and the well-being of their communities;
- and an ongoing process of institutional transformation that focuses on servingness and all of its dimensions.

3.0 THEORETICAL FRAMEWORK THAT INFORMS RSCA METRICS AT HSIS

To briefly situate the RSCA enterprise within an institutional transformation approach, we draw on the broadening participation and HSI literature that seeks to “decolonize” HSIs by centering stakeholders with diverse and intersectional identities, experiences, and motivations (Garcia, 2018). A consistent theme in this research places institutions of higher education (IHEs) in a broader history of White privilege and power, that creates epistemological higher education norms about who goes to college, who is qualified to be a professor, how classrooms operate, and what constitutes scholarly knowledge and research, among other examples.

While there has been little research on the production of knowledge or the process of RSCA at HSIs, Garcia et al. (2019) and Núñez et al. (2021) have usefully approached this through the concept of “external boundary management,” which places the social construction of RSCA in distinct relationship to external institutions, such as funding agencies and governmental agencies that shape the trajectory of scientific inquiry. In a related vein, a variety of studies have addressed bias in grant peer review (e.g., Lee et al., 2013). Some of this research specifically considers reviewer bias related to the race and gender of applicants (e.g., Ginther et al., 2011). According to a study by Núñez et al. (2021), researchers at HSIs may also be subject to being evaluated along different types of bias. On the one hand, some faculty at HSIs have identified wide gaps between their research approaches and practices and the

“narrow criteria” used to evaluate proposals at NSF. On the other hand, others perceive biases related to institutional prestige, in which proposals from less selective institutions, that have fewer resources and higher faculty teaching loads, are automatically considered less meritorious.

The literature on science studies and indigenous knowledge creation is also relevant to measuring RSCA servingness at HSIs, particularly community-engaged research (CER), and critical, post-colonial, and most recently “decolonizing” theories and methods (Scheurich & Young, 1997; Said, 1978; Delgado Bernal, 1998; Clement, 2019). This research exposes the western, colonial-imperial origins and politics of scientific inquiry, calling into question the universality of scientific epistemologies and methods (Harding, 2015). Indigenous scholars in particular have advanced various ways of decolonizing the practices of knowledge production through new “re-search” theories and methods that, for example, address the needs and questions of indigenous subjects; foreground indigenous and local knowledges and knowledge diversity; forge collaborations between researchers and communities; give voice to, instead of speaking for, subjects; and make visible the ways that researcher privilege and positionality is fundamental to the production of knowledge (Haraway, 1988; Denzin et al., 2008; Norström et al., 2020; Barker & Pickerill, 2020). We also draw on studies that scrutinize and seek to align the tensions between community-engaged research and public scholarship, the public mission of universities, and tenure and promotion policies and practices (Borkoski & Prosser, 2020).

Finally, RSCA at HSIs are significant in their role to create or contribute to intersectional and integrated science identities among students (Hurtado et al., 2017). The formation of STEM identities is critical to enrollment and persistence in STEM majors and subsequent entry into the STEM workforce, yet STEM identities are generally less accessible to URM and low-income students. Several factors contribute to the development of strong STEM identities, including academic experiences such as experiential learning, RSCA, learning communities, and a positive campus climate where URM students have a sense of belonging and are not dissuaded from STEM by implicit biases, stereotype threat, and imposter syndrome (Hurtado & Carter, 1997; Hurtado & Ponjuan, 2005). Recent research focuses on the imperative to link STEM identities to the “sociotransformative” potential of STEM careers (Rodriguez & Morrison, 2019). URM, low-income, and first-generation students are more likely to pursue STEM majors and careers when they find “cultural congruity” (Cole & Espinoza, 2008) and “socio-political efficacy” (Urioste-gui et al., 2021) as part of their STEM experience and identity (Naphan-Kingery et al., 2019; Montoya et al., 2020).

4.0 **STRUCTURAL CHANGE/EVOLUTION AND RELEVANT METRICS**

In this context, several institutional structures (Garcia et al., 2019) are interrelated with RSCA in its many forms at HSIs and should transform in ways that align the RSCA enterprise with the mission of servingness. Below, several institutional structures are discussed, including a list of potential metrics through which transformation can be measured for each structure. The list of potential metrics is sizable. We recommend that you select the metrics that are the highest priority given your institutional context.

- HSI Grants and External Boundary Management

4.1.1 **HSI GRANTS**

HSI grants, particularly those from the Department of Education, are instrumental for many institutions in developing new programs, practices, and an institutional mission to serve Latinx students. Several

other federal and private agencies have funding specifically for HSIs and/or partnerships between HSIs and non-HSIs, such as the Department of Defense, the National Science Foundation, the National Endowment for the Humanities, the Mellon Foundation, and the Sloan Foundation, among others. Several of these emphasize the development of relationships between MSIs and non-MSI institutions. Measuring the role and efficacy of HSI grants at HSIs also involves an understanding of *external boundary management*; in this case meaning how HSIs influence federal funding allocations for HSIs; how agencies frame funding requests for proposals (RFPs) for HSIs; who is chosen to review HSI grant applications; and the types of programs, topics, and research that are considered meritorious and fundable by the agencies. Three examples of institutional transformation and relevant metrics in these interrelated structures are as follows:

- A.** What is the institutional infrastructure for contracts and grants for HSI grants?
 - i.** Are there “adequate” staff and resources for grant submission and management (Office of Sponsored Projects, pre- and post-award)?
 - ii.** What is a systematic process to develop HSI grants?
 - 1.** Including current institutional data availability and analysis to inform evidence-based objectives;
 - iii.** Is there broad institutional engagement in developing HSI grants?
 - 1.** Inclusion of a variety of faculty, staff, and student stakeholders involved in the program/proposal development process;
 - 2.** Professional development for faculty and staff to help them develop expertise in proposal writing.
- B.** Engagement with funding agencies to reframe epistemologies of RSCA and creative activities at HSIs and in review panel processes:
 - i.** Faculty and staff serving as reviewers on grant review panels;
 - ii.** Faculty and staff attending agency webinars, workshops, other events, and meetings related to funding opportunities;
 - iii.** Government/federal relations office involved in agency outreach and engagement;
 - iv.** Government/federal relations office involved in local political representative outreach and engagement related specifically to HSI funding and agencies;
 - v.** Institutional participation in advocacy organizations such as HACU, Excelencia, AAHHE, AHSIE, and state level HSI Consortia.
- C.** Institutional Advancement for RSCA
 - i.** Engaging private, industry, and other donors for RSCA funding;
 - ii.** Endowment mechanism in ED HSI grants and matching opportunities.

4.1.2 COMPOSITIONAL DIVERSITY AND INCENTIVE STRUCTURES FOR FACULTY RESEARCH TEAMS

While compositional diversity is discussed in Institutional Success, we focus here on the role of diverse research teams in shaping servingness. Research on organizations and teams makes clear that diversity on RSCA teams can improve and amplify productivity, innovation, and efficacy when the climate engenders trust and the realization of all perspectives in the RSCA endeavor (Margolis & Fisher, 2003;

De Melo-Martín & Intemann, 2012; Uriarte et al., 2007; Hong & Page, 2004; Woolley, et al., 2010; Bear & Woolley, 2011). *Achieving compositional diversity among faculty is fundamental to developing diverse RSCA collaborations at an HSI*. To harness the potential for diversity on RSCA teams, several other conditions must be in place, including a climate conducive to thriving and retention, as well as incentive structures that promote, catalyze, and reward RSCA activities in their many forms, RSCA teaming, collaboration, and co-publication. These *incentive structures* include tenure and promotion, and policies, practices, and professional development related to RSCA activities. Three examples of institutional transformation and relevant metrics in these interrelated structures are as follows:

- Faculty Professional Development and Practices Related to RSCA
 - Professional development for faculty and student researchers to effectively lead, manage, and participate in diverse RSCA teams through creating an inclusive environment;
 - Seed grants to catalyze new diverse collaborative RSCA projects;
 - Seed grants to develop leadership skills for diverse faculty;
- Administrator Professional Development and Practices Related to RSCA
 - Professional development for research administrators, deans, and department chairs on the ways that diverse RSCA teams can increase productivity, innovation, RSCA funding, and publication impact;
 - Inclusive committees and processes to choose/elect/nominate internal RSCA prizes, awards, and leadership roles;
 - Inclusive committees and processes to choose/elect/nominate faculty for external prizes, awards, fellowships, and other forms of recognition;
 - Representation of a range of disciplines in those nominated, intersectional diversity of faculty who are nominated and receive prizes, permission to submit limited submission proposals, and lead RSCA teams;
 - Equitable institutional partnerships with a wide variety of other IHEs and related RSCA organizations to build and conduct collaborative RSCA.
- Incentive Structures
 - Tenure and promotion and annual performance review policies and practices that reward team RSCA, collaborative research, and co-publications;
 - Tenure and promotion and annual performance review policies and practices that reward HSI-centric knowledge generation through faculty RSCA and scholarship (if desired by a faculty member);
 - Accommodation for course release, summer salary, seed funding, and other recognition and rewards for RSCA and creative activities that further the HSI mission;
 - Institutional support for decolonized RSCA topics, questions, methods, and dissemination (e.g., within policy or guidelines documents).

5.0 CULTURALLY RELEVANT CURRICULUM AND PEDAGOGY

RSCA Activities are related to curricula and pedagogy in a variety of ways. Undergraduate RSCA (UR) experiences are influential in improving various measures of student success and leading URM stu-

dents to attain advanced degrees (see [Concept Paper on Faculty Success](#)). RSCA experiences for students can be catalyzed through independent RSCA initiatives (perhaps funded through a campus UR program), participating in faculty RSCA projects, or conducting course based RSCA activities. In all these instances, culturally relevant RSCA topics can improve the formation of RSCA and academic identity for URM students (De Melo-Martín, & Intemann, 2012).

Three examples of institutional transformation and relevant metrics in this structure are as follows:

AVAILABILITY OF UNDERGRADUATE RSCA OPPORTUNITIES

- Existence of UR experiences, offices, infrastructure, and funding;
- Number of courses offering CURES;
- Rates of student and faculty participation;
- Numbers and disciplinary variety of UR opportunities;
- Industry partnerships and connection to industry-related experiences and career pipeline.

UR EXPERIENCES THAT INTEGRATE CULTURALLY RELEVANT AND CONGRUENT TOPICS

- Integration of community-based, citizen-science, public scholarship, and/or real-world examples in RSCA opportunities;
- Courses/training for students on a wide range of RSCA methods, with emphasis on how the production of scientific and academic knowledge is embedded in the history of racism;
- Course content informed by current and culturally relevant RSCA.

REGULAR PROCESSES OF REDESIGNING AND UPDATING CURRICULA AND MAJOR REQUIREMENTS

- Professional development for faculty related to teaching and learning in the context of an HSI.

6.0 *ENGAGEMENT WITH LATINX COMMUNITY*

HSIs engage with the local, regional, and national Latinx community in multiple ways, and leveraging this engagement is salient for the RSCA enterprise at HSIs (see [Concept Paper on Community Engagement](#)). HSIs can prioritize their institutional mission by promoting and incentivizing RSCA that relates in various ways to HSIs, the Latinx community, equity, justice, and diversity topics. Even in “basic science” STEM topics that may at face value have little to do with the Latinx community, can be oriented by faculty in their RSCA inquiry to focus on Latinx issues, for example bio-medical questions that implicate Latinx health patterns, or climate and environmental topics that implicate places/spaces where Latinx communities live. Other funding agencies - private foundations in particular - have missions that are explicitly focused on RSCA that address critical societal challenges, and/or action-oriented results. Across this RSCA landscape, RSCA can be improved through engagement with Latinx communities. Three examples of institutional transformation and relevant metrics in this structure are as follows:

- Equity-related RSCA topics;
- Broader impacts of RSCA;
- Community-based and engaged RSCA and public/action scholarship.

7.0 STAKEHOLDERS AND STAKEHOLDER RESPONSIBILITIES

In order to shift away from the norm within research, stakeholders should shift the lens to ask “how”(i.e., how are the offices, programs, or policies that institutions have in place leveraging the diverse assets of your institution, faculty, and students to enable them to connect with RSCA at a scale appropriate to the mission of the institution) rather than asking “what”(i.e., what programs do you have, what is the size/scope/scale of your resources, what are your faculty doing, what are your laboratories doing). Our questions should also center on epistemological higher education norms about who goes to college, who is qualified to be a professor, how classrooms operate, and what constitutes scholarly knowledge and research, among other examples. To work towards servingness in RSCA, institutions should center stakeholders with diverse and intersectional identities, experiences, and motivations (Garcia, 2018) and re-orient institutions in the broader history of White privilege and power.

8.0 RECOMMENDATIONS

As stated above in the structure change/evolution and relevant metrics section, our recommendations for institutional change focused in RSCA include a focus on:

- **HSI GRANTS AND EXTERNAL BOUNDARY MANAGEMENT**
Engage in external boundary management; in this case meaning how HSIs influence federal funding allocations for HSIs; how agencies frame funding requests for proposals (RFPs) for HSIs; who is chosen to review HSI grant applications; and the types of programs, topics, and research that are considered meritorious and fundable by the agencies.
- **COMPOSITIONAL DIVERSITY AND INCENTIVE STRUCTURES FOR FACULTY ENGAGING IN RSCA**
Pursue *compositional diversity among faculty*. Develop a climate conducive to thriving and retention. Implement *incentive structures* that promote, catalyze, and reward RSCA activities in their many forms, RSCA teaming, collaboration, and co-publication.
- **CULTURALLY RELEVANT CURRICULUM AND PEDAGOGY AND RSCA**
Highlight and reward culturally congruent RSCA topics.

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APPENDIX A. A TOOL FOR DEVELOPING RSCA-RELATED MEASURES AT HSI

To facilitate institutional introspection, we propose the use of a simple, flexible tool that may reveal hidden connections between RSCA Development and Success and the features of servingness that we propose. This tool serves as a check list of the types of activities with which an HSI may engage on its path toward institutional transformation and servingness. The tool may assist tracking whether the IHE is using techniques for institutional change of RSCA.

The primary utility of this tool is to enable careful thinking regarding the intersection of RSCA and servingness at an HSI. We propose that an institution could choose the factors relevant to their own RSCA Profile, could elect either static (existing features) or dynamic (trajectories) components relevant to their own institutional mission. Looking at the interaction of specific features, an institution could articulate a target that is not-applicable, relevant and in-progress, or aspirational, and interrogate the critical contribution of this concept paper: HOW is the activity related to RSCA Development and Success considering the specific axis of servingness. There is no implied or explicit assumption that each feature of servingness would be addressed.

	Working Group on RSCA Development and Success	Student capacity to engage RSCA projects	Student leadership capacity	Trajectory of RSCA Development Resources	Partnerships, Networks, and Collaborations	Representation on RSCA Teams	Measurable growth in RSCA skills	Capacity or incidence or RSCA presentation	Application of RSCA Findings in the Classroom	Size of RSCA enterprise
<i>FEATURES OF SERVINGNESS</i>										
<i>Academic Outcomes</i>										
<i>Non Academic Outcomes</i>										
<i>Student Experiences</i>										
<i>Non Student Experiences</i>										
<i>Leadership and Decision Making</i>										
<i>Culturally Relevant Pedagogy and Curriculum</i>										
<i>Culturally Relevant Programs</i>										
<i>HSI Context Considered in design</i>										

APPENDIX B. CHECK LIST FOR ASSESSING WHERE AN INSTITUTION IS ON THE PATH TOWARD SERVINGNESS

Below is a summary of the servingness structures as well as categories of metrics for the following concept papers: Institutional Success, Faculty Success, and Student Success. For the Community Engagement and Research, Scholarly, and Creative Activities concept papers, we include the overall categories of metrics. The metrics that an institution would select are dependent on institutional type and we recommend reading the concept paper for the details.

A. INSTITUTIONAL SUCCESS CONCEPT PAPER: STRUCTURES FOR SERVING

MISSION AND VALUE STATEMENTS

COMPOSITIONAL DIVERSITY, WORKFORCE

INCENTIVES

INSTITUTIONAL ADVANCEMENT ACTIVITIES

INSTITUTIONAL RACISM AND CHANGE EFFORTS

METRICS FOR ASSESSING SERVINGNESS

MISSION AND VALUE STATEMENTS

- Institutional documents such as climate surveys, strategic planning documents, focus group instructions, academic program reviews, performance review guidelines, stakeholder town halls, institutional awards, and announcements.

COMPOSITIONAL DIVERSITY OF WORKFORCE

- Student workforce;
- Institutional leadership;
- All faculty titles including adjunct;
- Pay equity within title;
- Metrics on hiring, retaining, advancing.

INCENTIVES

- Annual performance reviews, professional development activities, institutional recognition for faculty and staff.

INSTITUTIONAL ADVANCEMENT ACTIVITIES

- HSI mission included;
- Development personnel including HSI relationships;
- Advancement staff and compositional diversity;
- Department of Education and National Science Foundation HSI grants applied for Institutional Racism and Change Efforts;
- Decision making and leadership focus on reducing impacts of racism;
- Institutional racism and responses;
- Anti-racism activities.

B. FACULTY SUCCESS CONCEPT PAPER: STRUCTURES FOR SERVING

CULTURALLY RELEVANT CURRICULUM & PEDAGOGY

FACULTY ENGAGEMENT WITH THE LATINX COMMUNITY & DIVERSE STUDENTS

INCENTIVE STRUCTURES

METRICS FOR ASSESSING SERVINGNESS

CULTURALLY RELEVANT CURRICULUM & PEDAGOGY

- Professional development around cultural sensitivity;
- Comparison by discipline, learning outcomes, gateway courses.

FACULTY ENGAGEMENT

- Use of High Impact Practices (HIPs) in courses;
- Detailed faculty data on student advising, mentorship, service work.

INCENTIVE STRUCTURES

- Presence of incentives and policy changes to codify faculty role in servingness.

C. STUDENT SUCCESS CONCEPT PAPER: STRUCTURES & VALIDATING EXPERIENCES STRUCTURES – DISCUSSED IN OTHER CONCEPT PAPERS

ENGAGEMENT WITH THE LATINX COMMUNITY ([see Community Engagement](#))

COMPOSITIONAL DIVERSITY ([see Institutional Success](#))

CULTURALLY RELEVANT CURRICULUM AND PEDAGOGY ([see Faculty Success](#))

PROGRAMS AND SERVICES FOR MINORITIZED STUDENTS

VALIDATING EXPERIENCES WITHIN THE STRUCTURES

RACIALIZED EXPERIENCES WITHIN THE STRUCTURES

C.1. MEETING BASIC NEEDS

- Student facing insecurity metrics: food, housing, transportation, mental and physical health wellness, job, textbook-technology access;
- Institution facing insecurity metrics: food, housing, transportation, mental and physical health wellness, job, textbook-technology access, emergency grants for students, student contact information accuracy, equity-minded COVID-19 recovery.

C.2. SENSE OF BELONGING

VALIDATING EXPERIENCES WITHIN THE STRUCTURES

- Survey questions on sense of belonging from existing climate surveys and suggested new questions.

RACIALIZED EXPERIENCES WITHIN THE STRUCTURES

- Data collection office, additional climate survey questions, data collected about racialized incidents by whom and by context;
- Analysis conducted by demographic group, student major.

C.3. DEGREE COMPLETION

ACADEMIC OUTCOMES

- Diversity of outcomes upon entry;
- Completion to include co-curricular activities;
- Employment outcomes;

- Accounting for attendance at multiple institutions and breaks in attendance;
- Creating conditions for social mobility.

D. COMMUNITY ENGAGEMENT CONCEPT PAPER

ENGAGEMENT WITH THE LATINX COMMUNITY

INSTITUTIONAL ADVANCEMENT ACTIVITIES

- Engagement with Latinx community at the institutional level;
- Institutional advancement activities focused on Latinx community;
- Student engagement with the community (non-academic outcomes).

E. RESEARCH, SCHOLARLY, AND CREATIVE ACTIVITIES (RSCA) CONCEPT PAPER

HSI GRANTS

- Contracts and grants institutional infrastructure for HSI grants;
- Engagement with funding agencies;
- Compositional diversity and incentive structures for faculty research teams;
- Faculty and administrator professional development related to RSCA projects.

APPENDIX C. GLOSSARY OF TERMS AND DEFINITIONS

AAHHE

American Association of Hispanics in Higher Education, Inc. <https://www.aahhe.org/>

ACE

American Council for Education <https://www.acenet.edu>

AHSIE

Alliance of Hispanic Serving Institution Educators <https://ahsie.org/>

AIM

All-Inclusive Multiculturalism (Stevens et al., 2008)

APIs

Asian American and Native American Pacific Islander-serving institutions <https://www2.ed.gov/programs/aanapi/index.html>

BIPOC

Black, Indigenous, People of Color. BIPOC is a newer term (est. 2013) which distinguishes cultural and social differences among groups who are oppressed. Specifically, BIPOC emphasizes two groups who face the greatest discrimination and long history of oppression in the US context: Black and Indigenous people (Selvarajah et al., 2021).

CARES ACT

Coronavirus Aid, Relief, and Economic Security (CARES) Act (2020) and the Coronavirus Response and Consolidated Appropriations Act (2021) provided fast and direct economic assistance for American workers, families, small businesses, and industries after the onset of the COVID-19 pandemic. <https://home.treasury.gov/policy-issues/coronavirus/about-the-cares-act>

CBOs

Community-based Organizations <https://www.coalitionforcollegeaccess.org/cbo-resources>

CER

Community-Engaged Research <https://medicine.yale.edu/intmed/genmed/eric/cbprguidebook/whatiscer/>

COMMUNITY ENGAGEMENT

“Community engagement means the systematic inclusion of community organizations as partners with State educational agencies, local educational agencies, or other educational institutions, or their school or program staff to accomplish activities that may include developing a shared community vision, establishing a shared accountability agreement, participating in shared data-collection and analysis, or establishing community networks that are focused on shared community level outcomes. These organizations may include faith-and community-based organizations, institutions of higher education (including minority serving institutions eligible to receive aid under Title III or Title V of the Higher Education Act of 1965), businesses and industries, labor organizations, State and local government entities,

or Federal entities other than the Department. (Supplemental Priorities)” (US department of Education, 2017).

CONCEPT PAPER

“Concept papers can describe an innovative, new initiative or be an extension of an ongoing initiative that improves student learning outcomes or student success.” <https://www.utc.edu/SACSCOC/qep/information/concepts>

COVID-19

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. https://www.who.int/health-topics/coronavirus#tab=tab_1

CULTURALLY RELEVANT PEDAGOGY AND CURRICULUM

Pedagogy and curriculum that take into consideration the racial and cultural ways of knowing and learning of students from minoritized backgrounds (Garcia et al., 2019).

CULTURAL RESPONSIVENESS

Cultural responsiveness in the classroom involves highlighting student’s work, and consistent interaction and small gestures of concern and care (Alcantar & Hernandez, 2018).

CULTURALLY RESPONSIVE TEACHING (CRT)

CRT is defined as ‘using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them’ (Gay, 2010 p. 31). This is associated with increasing educational achievement and engagement of minoritized students (Abacioglu et al., 2020).

CUNY

The City University of New York <https://www.cuny.edu/>

CURES

Course-based Undergraduate Research Experiences <https://www.colorado.edu/research/cure/>

DEI

Diversity, Equity, and Inclusion <https://odi.osu.edu/dei-education>

EQUITY

“The Merriam-Webster’s Learner’s Dictionary (2016) defines equity as: ‘fairness or justice in the way people are treated (Aoki et al., 2016).”

EXTERNAL BOUNDARY MANAGEMENT

The ways in which the organization works with external entities including boards of trustees, neighborhood associations, elected officials, local governments, community partners, and other HSIs (Garcia, 2018).

FACULTY SUCCESS

Faculty success is often measured in terms of research productivity, grant dollars awarded, number of publications, citation counts and rates, student credit hours taught, graduate students completing their

degrees, service to the institution/discipline, assessment of learning outcomes, and promotion success rates. Other studies include variables such as low stress, job satisfaction, clear expectations, interpersonal relationships with other faculty members, work and family balance, and career commitment (Stupnisky et al., 2015).

FTE

Full-Time-Equivalent <https://oir.umn.edu/student/student-credit-hours-and-full-time-equivalent-enrollments>

GATEWAY COURSES

Gateway courses are considered entry level courses to a degree which many students fail or do poorly in that impacts grade point average (GPA), motivation, and impedes their degree progression (Bloemer et al., 2018).

GRADUATION RATE

Graduation rates are a calculation that tracks “a cohort of students (i.e., new-entering, full-time, first-time, degree-seeking, etc.) from the time of initial enrollment at an institution until they complete their degree program within 100%, 150%, or 200% of normal program completion time at the same institution”. <http://www.ohe.state.mn.us/sPages/GraduationRates.cfm>

HACU

Hispanic Association of Colleges and Universities <https://www.hacu.net>

HBCUs

Historically Black Colleges and Universities <https://sites.ed.gov/whhbcu/one-hundred-and-five-historically-black-colleges-and-universities/>

HEERF

Higher Education Emergency Relief Fund II (HEERF II) is authorized by the Coronavirus Response and Relief Supplemental Appropriations Act to support education. <https://www2.ed.gov/about/offices/list/ope/crrsaa.html>

HIPs

High Impact Practices (Kuh et al., 2013)

HISPANIC

Hispanic origin can be viewed as the heritage, nationality, lineage, or country of birth of the person or the person’s parents or ancestors before arriving in the United States. People who identify as Hispanic, Latino, or Spanish may be any race. <https://www.census.gov/topics/population/hispanic-origin.html>

HR

Human Resources <https://www.azed.gov/hr>

HSIs

Hispanic-Serving Institutions (HSIs) are nonprofit, degree-granting postsecondary institutions in the United States that are federally designated as such by enrolling at least 25% Latinx undergraduate students (Garcia et al., 2019).

INSTITUTIONAL ADVANCEMENT

Institutional advancement is an effort or attempt to build a solid funding base and ensure the future growth and development of their institutions (Mulnix et al., 2002).

INSTITUTIONAL RACISM

“Institutional racism refers specifically to the ways in which institutional policies and practices create different outcomes for different racial groups. The institutional policies may never mention any racial group, but their effect is to create advantages for whites and oppression and disadvantage for people from groups classified as non-white (Wenger, 2009).”

IPEDS

Integrated Postsecondary Education Data System <https://nces.ed.gov/ipeds/>

IHEs

Institutions for Higher Education <https://www.cdc.gov/coronavirus/2019-ncov/community/colleges-universities/considerations.html>

IT

A program that focuses on the design of technological information systems, including computing systems, as solutions to business and research data and communications support needs. Includes instruction in the principles of computer hardware and software components, algorithms, databases, telecommunications, user tactics, application testing, and human interface design. <https://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=55&cipid=87244>

LATINX

“Latinx” as a gender-neutral, racial/ethnic umbrella term for people who self-identify as having an ethnic, cultural, historic connection to Spanish colonization and the indigenous peoples of modern-day Mexico, Central America, South America, and parts of the Caribbean (Garcia et al., 2019).

LGBTQ+

LGBTQ denotes the lesbian, gay, bisexual, transgender, and queer community. The addition of the “+” is to denote the addition and inclusion of other orientations that are none conforming such as: transsexual, two-spirited, questioning, intersex, asexual, ally, pansexual, agender, genderqueer, bigender, gender variant, and pangender. <https://studentaffairs.unt.edu/counseling-and-testing-services/guides/self-help-resources/lgbtq>

LIBERATORY OUTCOMES

Institutions offering students of color and other minoritized students the opportunity to gain or develop skills in civic engagement, academic self-concept, social agency, social justice orientation, racial/ethnic identity development, leadership development, critical consciousness, and graduate school aspirations while in college may actually be participating in the humanization of these students, and thus countering the long-term dehumanizing pedagogy they have been exposed to (Garcia, 2020).

LMS

Learning Management System <https://www.d2l.com/learning-management-system-lms/>

LOW-INCOME STUDENTS

Low-income students are those whose family incomes are below the 200% poverty threshold (Roksa et al., 2021).

MSIs

Minority Serving Institutions <https://www.doi.gov/pmb/eeo/doi-minority-serving-institutions-program>

NSF

National Science Foundation <https://www.nsf.gov/>

PROFESSIONAL DEVELOPMENT/TRAINING

Professional development/training is learning for professionals to earn or maintain credentials. This can include training for academic degrees and formal coursework, or for attending conferences and workshops. Professional development/training is collaborative and ideally incorporates an evaluative stage.

PUENTE MODEL

An interdisciplinary model with three components: writing, counseling, and mentoring. Its mission is to increase the number of educationally underrepresented students who enroll in four-year colleges and universities, earn college degrees, and return to the community as mentors and leaders to future generations (“The Puente Project”, 2021).

PWIs

Predominantly white institutions (Herrera et al., 2012)

QUEER

Queer can be defined as abnormal or strange. This term was historically used as a slur for those who do not conform to dominant gender expectations and expressions/sexuality. This term has been reclaimed by the LGBTQ+ community as a term to celebrate not fitting into social norms; however, this term is considered hateful when used by those who do not identify as LGBTQ+. <https://lgbtqia.ucdavis.edu/educated/glossary>

RD

Research Development <https://www.nordp.org/about>

RETENTION RATE

The retention rate is a calculation of “retention of first-time full or part-time undergraduate students from the fall enrollment of their first year to the fall enrollment of their second year.” This calculation is tracked through the U.S. Department of Education. <http://www.ohe.state.mn.us/sPages/Graduation-Rates.cfm>

RFP

Request for Proposal <https://www2.ed.gov/fund/contract/about/request.html>

RSCA

Research, Scholarly, and Creative Activities <https://research.calpoly.edu/rsca>

SCH

Student Credit Hours <https://oir.umn.edu/student/student-credit-hours-and-full-time-equivalent-enrollments>

SENSE OF BELONGING

“A sense of belonging contains both cognitive and affective elements in that the individual's cognitive evaluation of his or her role in relation to the group results in an effective response. Studying a sense of belonging allows researchers to assess which forms of social interaction (academic and social) further enhance students' affiliation and identity with their colleges” (Hurtado & Carter, 1997).

SERVINGNESS

A multidimensional and conceptual way to understand what it means for institutions to move from simply enrolling Latinx students to serving them (Garcia et al., 2019).

SOCIAL MOBILITY

Social mobility is the movement of individuals, families, or groups through a system of social hierarchy or stratification. An example of social mobility is the ability of an individual to jump to higher income levels across generations. <https://www2.ed.gov/rschstat/research/pubs/advancing-diversity-inclusion.pdf>

STEM

Science, Technology, Engineering, and Mathematics, including Computer Science <https://www.ed.gov/stem>

STUDENT SUCCESS

Most of the common indicators of student success are quantifiable and based on access to a postsecondary education, academic achievement, persistence, and degree attainment which are often utilized as measures of accountability that align with policymakers' and practitioners' interests. Broader definitions of student success consider the quality of education and cognitive, personal, and civic development (Hurtado et al., 2012).

SUNY

The State University of New York <https://www.suny.edu/>

TRANS*

Trans is an abbreviation of transgender, a term for people whose internal knowledge of gender identity does not match the sex they were assigned at birth. “Transgender can also describe someone who identifies as a gender other than woman or man, such as non-binary, genderqueer, genderfluid, no gender or multiple genders, or some other gender identity.” Including the asterisk includes all identities within the gender identity spectrum and denotes an effort to include all non-binary, genderqueer, and gender non-conforming identities in the term. <https://lgbtqia.ucdavis.edu/educated/glossary>

TRIBAL (TCU)

Tribal Colleges and Universities <https://sites.ed.gov/whiaiane/tribes-tcus/tribal-colleges-and-universities/>

UCSC

University of California, Santa Cruz <https://www.ucsc.edu/>

UTRGV

University of Texas, Rio Grande Valley <https://www.utrgv.edu/en-us/>

UR

Undergraduate Research <https://ur.arizona.edu/>

URM

The term Underrepresented minorities includes students who are U.S. citizens and have identified themselves as African American, American Indian, or Hispanic. <https://www.calstate.edu/data-center/institutional-research-analyses/Pages/Glossary.aspx#>

UTEP

The University of Texas at El Paso <https://www.utep.edu/>

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APPENDIX D. CONFERENCE PARTICIPANTS

ADITYA ADIREDDA	UNIVERSITY OF ARIZONA
JOHN CROCKETT	SAN DIEGO STATE UNIVERSITY
LOURDES ECHEGOYEN	UNIVERSITY OF TEXAS EL PASO
MARLA FRANCO	UNIVERSITY OF ARIZONA
JONATHAN GAGLIARDI	CITY UNIVERSITY OF NEW YORK
GINA GARCIA	UNIVERSITY OF PITTSBURGH
NORA GARZA	LAREDO COLLEGE
SYLVIA HURTADO	UNIVERSITY OF CALIFORNIA, LOS ANGELES
CARMEN MARTINEZ-LOPEZ	SUNY WESTCHESTER COMMUNITY COLLEGE
JEFFREY MILEM	UNIVERSITY OF CALIFORNIA, SANTA BARBARA
MARIE MORA	MISSOURI UNIVERSITY SAINT LOUIS
ANNE-MARIE NUNEZ	THE OHIO STATE UNIVERSITY
ALICE OLMSTEAD	TEXAS STATE UNIVERSITY
ARMIDA ORNELAS	LOS ANGELES COMMUNITY COLLEGE DISTRICT
CECILIO ORTIZ GARCIA	UNIVERSITY OF TEXAS, RIO GRANDE VALLEY
MARLA PEREZ-LUGO	UNIVERSITY OF TEXAS, RIO GRANDE VALLEY
MAYRA PADILLA	CONTRA COSTA COLLEGE
MATTHEW PRESSER	MERCY COLLEGE
MARIA REYES	-

APPENDIX D. CONFERENCE PARTICIPANTS CONT.

SUZANNA ROSE	FLORIDA INTERNATIONAL UNIVERSITY
MARINA SUAREZ	UNIVERSITY OF KANSAS
VIGNESH SUBBIAN	UNIVERSITY OF ARIZONA
KENNETH VOGLESONGER	NORTHEASTERN ILLINOIS UNIVERSITY
BARBARA ENDEMANO WALKER	UNIVERSITY OF CALIFORNIA, SANTA BARBARA

APPENDIX E. COLLABORATIVE AUTHORS

ADITYA ADIREDDA	UNIVERSITY OF ARIZONA
JOHN CROCKETT	SAN DIEGO STATE UNIVERSITY
LOURDES ECHEGOYEN	UNIVERSITY OF TEXAS EL PASO
MARLA FRANCO	UNIVERSITY OF ARIZONA
JONATHAN GAGLIARDI	CITY UNIVERSITY OF NEW YORK
GINA GARCIA	UNIVERSITY OF PITTSBURGH
NORA GARZA	LAREDO COLLEGE
CARMEN MARTINEZ-LOPEZ	SUNY WESTCHESTER COMMUNITY COLLEGE
MARIE MORA	MISSOURI UNIVERSITY SAINT LOUIS
ANNE-MARIE NUNEZ	THE OHIO STATE UNIVERSITY
ALICE OLMSTEAD	TEXAS STATE UNIVERSITY
MAYRA PADILLA	CONTRA COSTA COLLEGE
MATTHEW PRESSER	MERCY COLLEGE
MARIA REYES	-
SUZANNA ROSE	FLORIDA INTERNATIONAL UNIVERSITY
VIGNESH SUBBIAN	UNIVERSITY OF ARIZONA
BETH MITCHNECK	UNIVERSITY OF ARIZONA
ANJELICA MONTANO	UNIVERSITY OF ARIZONA
KENNETH VOGLESONGER	NORTHEASTERN ILLINOIS UNIVERSITY
BARBARA ENDEMANO WALKER	UNIVERSITY OF CALIFORNIA, SANTA BARBARA

