

Final Report of the Initiative Planning Group on Student Academic Success

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1. Executive Summary

Promoting the academic success of undergraduates at the University of Michigan is critical to their student experience and educational goal attainment. This planning group engaged with researchers, advisors, faculty, and student affairs professionals to recommend new initiatives that the academic enterprise can pursue to promote student academic success. It evaluated research and data analytics about the success of undergraduates at the University of Michigan and reviewed programs, practices, and structures for student support both here and at peer universities.

The university's goals for student success should include the expectation that students achieve the learning goals of the major and that they thrive, complete their degrees, and find pathways forward toward the goals in career and life that they desire. Critically, the university should identify and address any opportunity gaps across demographic groups in achieving its goals for student success. Overall, four- and six-year graduation rates at the University of Michigan are very healthy at about 81% and 93%, respectively. These rates compare favorably to our public peers: the overall *six-year* graduation rate for AAU publics is about 81%. However, U-M's overall success masks substantial differences among student groups. Specifically, wealthy, white, and continuing-generation students graduate on time more often than others. The disparities in graduation rates are significant, with gaps ranging from 10% to 20% at four years. While these gaps lessen with time, they do not close at six years.

At the same time, research shows that early patterns of course registration and completion can create academic momentum toward degree completion. Students who acquire such *early momentum* achieve higher 4- and 6-year graduation rates. Research has not yet identified a group at the U-M who would be harmed by acquiring early momentum—this includes an undergraduate's familial income, standardized test scores, high school GPA, and race and ethnicity. The initiative planning group supports the holistic concept of supporting individual students so that they acquire early momentum toward academic success.

Proceeding from this thesis, the initiative planning group derived five guiding principles that it believes should direct the University of Michigan's student success effort, now and in the future. These guiding principles that support academic student success are to: (1) Center Students

from Marginalized Communities; (2) Create Training that Embeds a Validation Approach; (3) Leverage Research and Technology; (4) Pursue Early Interventions; and, (5) Produce Better Wayfinding and Access. Each of these guiding principles suggests directions for programs and initiatives as well as for additional research. Moreover, the initiative planning group recommends that the Provost Office establish capability to coordinate the university's academic student success effort in ways that support new and ongoing efforts in the schools and colleges, allow for scale-up of best practices to the whole university, and provide capabilities for investment, research, training, and technology that are best administered institutionally.

Key recommendations are therefore to:

- Pursue organizational change. Create a vice provost position, along with a team of supporting staff, to support and coordinate academic student success with the schools and colleges. Invest in academic advising staff, including an expansion of academic coaching, as well as advising technology and the coordination to support its systemic use. Consider over time the creation of a centralized student academic success support center that brings together in one location student resources such as academic support, wellness, and crisis support. Announce a multi-year campus-wide initiative to support measurable progress in improving academic student success. Involve students in the refinement and implementation of report recommendations
- Support pilot programmatic activities and initiatives that build on promising practices already available here at U-M and at peer institutions. Develop training for faculty, advisors, and graduate student instructors on how to use a validating approach with their students to support their academic success. Develop low-barrier opportunities for informal faculty-student interactions, as an essential step in using validation strategies. Pilot and evaluate programs in which academic advisors support early momentum through regular engagement with students, including encouraging students to plan for completion of 30 credits in their first year. Create a single, well-maintained, easy-to-navigate website that integrates the student support resources at U-M. Define a clear intervention process upon early alert that a student is struggling, and establish paths between such early alerts and a coordinated set of interventions. Revisit how large course instructional teams monitor, respond to, and communicate concerns about student progress to academic advisors. Building on the success of programs in CRLT and LSA, expand the use of course and major equity reports and provide assistance to faculty seeking to transform courses that present significant barriers to student success.
- Conduct additional research. Establish coordination among the different groups that conduct research in student success on campus, using the format of either a research council or a community of practice. Apply this coordination to further expand the completeness of U-M's academic data infrastructure. Use this data infrastructure to seek understanding of currently hidden factors impacting academic student success, including the use of a validating approach. Research the experiences of students on academic probation or warning to understand how these designations support or deter retention

and success. Commit to an ongoing research/practice collaboration between researchers, instructional faculty, and advisors in support of student success, including the development of tools for measurement of early momentum. Regularly disseminate the results of this research to the communities that support academic student success.

2. Provost's Charge

As [charged](#) by Provost McCauley, the purpose of the initiative planning group was to engage with researchers, advisors, faculty, and student affairs professionals to recommend new activities that the academic enterprise can pursue to promote student academic success.

Promoting the academic success of undergraduates at the University of Michigan is critical to their student experience and educational goal attainment. This requires focus on the whole student – on the interrelationships among their mental health and well-being, their engagement in the life of the university, and their academic success. Academic success means that each student experiences high quality learning, as measured by the achievement of learning outcomes in their major; attains degree completion, as measured by four- and six-year graduation rates; and achieves their educational goals, as assessed by the realization of their desired progression in life and career.

Although the university has made substantial progress toward these academic success goals, new opportunities are available, especially in the delivery of support dynamically tailored to the specific needs of individual students. Research also suggests that students generate momentum toward their educational goals in their first year through their individualized patterns of enrollment and course completion.

The group was therefore charged to identify and recommend a set of coordinated pilot activities to pursue that will promote the academic success of undergraduates in their first year, thereby contributing to their high-quality learning, persistence, degree completion, and attainment of educational and career goals. It was asked to consider opportunities to impact student persistence and success by attention to the number of credits in which they enroll, their learning patterns in critical gateway courses, the timing and content of the early feedback they receive about their academic progress, and the ways in which the schools, colleges, and departments holistically track and support undergraduate academic progress in the early period of their degrees. It was charged to integrate research and analytics about academic success with the working experience of advisors, faculty, and student affairs professionals as well as be cognizant of prior work and recommendations at University of Michigan that promote academic student success, the progress of similar initiatives pursued at other institutions, and the holistic, contextual way in which academic success is defined at our institution.

Further description of the charge and membership are included in Appendix 1.

3. Committee Approach

The initiative planning group's approach was to engage with the research and data analytics about the success of undergraduates at the University of Michigan, apply the theoretical framework of validation to its work, and consider the current status of student support structures both here and at peer universities. The learnings from these activities were synthesized into a set of guiding principles that the planning group recommends direct the University of Michigan's future approach and investment in student academic success. These guiding principles are already practiced in specific locations on campus, and the planning group took care to identify examples of those instances. What is missing however in those promising practices is that they are not in conversation with each other. Because the specific examples are isolated, there is little opportunity for these practices to be connected to one another and scaled up. Therefore, to build out those best practices, the committee recommended activities consistent with each guiding principle that would promote student academic success in a more global manner. In an appendix of the report, these recommended pilot activities were classified according to whether they could be immediately implemented or would require more extensive preparation and planning. Each guiding principle also affords opportunities for additional research, as recommended by the committee. The full set of participants in the planning group's meetings and engagements are summarized in Appendix 2.

4. Review of Research and Data Analytics

Although definitions of student success may vary (c.f. Appendix 3 for a general discussion), the committee applied a working definition centered on individual students – on their own goals for timely and personally satisfactory completion of the degree in their desired major. Alternatively stated, the university's goals for student success should include the expectation that students achieve the learning goals of the major, that they thrive, complete their degrees, and find pathways forward toward the goals in career and life that they desire. Critically, the university should identify and address any opportunity gaps across demographic groups in achieving its goals for student success.

Overall four- and six-year graduation rates at the University of Michigan are very healthy at about 81% and 93%, respectively. These rates compare favorably to our public peers: the overall *six-year* graduation rate for AAU publics is about 81%. Unfortunately, U-M's overall success masks substantial inequities among student groups. The University of Michigan's Analytics for Student Success and Equity Transformation (ASSET) Committee uses research and data analytics to advance the goal of equitable access to success for all Michigan students. Their research shows that wealthy, white, and continuing-generation students graduate on time more often than others. The disparities in graduation rates are significant, with gaps ranging from 10% to 20% in four-year programs. While these gaps lessen at six-years, they still persist without completely closing. There is evidence that these gaps are intersectional with respect to familial income, first generation status, and race and ethnicity. Given the scale of undergraduate enrollment at the University of Michigan, closing these gaps would impact the lives and degree attainment of hundreds of students in a year, and thousands over time. That is, by improving their support and enhancing their progress, work to close gaps is likely to impact *all* students in positive ways. In addition, by closing gaps in graduation rates, hundreds of low-income,

underrepresented minority, and first-generation students will graduate earlier every year. Many who would never have graduated under current conditions will now receive U-Michigan degrees.

ASSET has researched factors that correlate with four- and six-year graduation rates, and identified 'early momentum' - successful completion of at least 15 credits in each of a student's first two terms - as the single most important correlate of on-time graduation. The idea is that a student's early decisions, actions, circumstances, and behaviors can establish a pattern of full engagement that sets them on a pathway toward graduation. This is not an unfamiliar notion: within Student Life there is an idea that early [social connections](#) create a sense of belonging at the University, providing benefits that persist throughout a student's career. This fact motivates our substantial focus on providing a rich and supportive residential experience for [first year students](#).

Likewise, early patterns of course registration and completion can create academic momentum toward degree completion. Decades of research conducted at a wide range of institutions provides clear evidence of this correlation between first-year registration patterns and eventual graduation. There is similar evidence for the role of early momentum in student success at the University of Michigan. ASSET finds that all students who acquire this early momentum achieve higher 4- and 6-year graduation rates. In fact, ASSET has not yet identified a group who would be harmed by pursuing early momentum. This holds true irrespective of the undergraduate's familial income, standardized test scores, high school GPA, and race and ethnicity. (We note that familial income can be gauged by a variety of measures, including Pell grant eligibility, eligibility for the Go Blue Guarantee, or average income in the household's zip code.)

Momentum toward graduation is acquired by selecting and successfully completing coursework. It is impeded when students attempt but fail to successfully complete classes, withdraw before the term is complete, or receive a failing grade. ASSET research shows that 'DFW' rates at Michigan are highest in large foundational courses often encountered early in students' careers. Furthermore, these DFW rates show intersectional patterns of inequity that parallel those seen in graduation rates: wealthy, white, continuing generation students are substantially more likely to complete these courses with passing grades. For example, over five pre-COVID years, the DFW rate in a large introductory chemistry class was 6.2% for all students, 12.8% for first-generation students, 15.3% for URM students, and 21.7% for students who were both first-generation and URM. We conclude that supporting the acquisition of early momentum also requires addressing inequities and relatively high DFW rates in U-M's foundational courses.

The initiative planning group understood supporting early momentum as the pursuit of a holistic concept for an individual student rather than the development of a bureaucratic regime uniformly imposing a 15-credit schedule on students. They understood that there might be good reasons for individual students to register for less than 15 credits; however, the group members also appreciated that the research does not support advising specific groups of students in a general way to register for less than 15 credits.

5. Review of Theoretical Framework

In recommending how to support early momentum toward undergraduate student success, the planning group was informed by theoretical models of student success in higher education. Dominant models of student success – as described in e.g. Austin (1984) and Tinto (1993) – often place the onus on individuals to support their own retention success through campus involvement and integration. Yet, these opportunities may not be accessible or desirable for those who are low-income, first-generation, and/or racially minoritized at predominantly white institutions (Bettencourt, 2021; Engle & Tinto, 2008; Jack, 2019).

Developed by Laura Rendón (1994), validation theory reflects a departure from these dominant models. Rendón’s framework was created as a means of encouraging and supporting the learning and development of marginalized and minoritized students in higher education while centering institutional responsibility for students’ success. Rendón specifically argued that institutional agents (i.e., faculty and staff) have the duty to help “students trust their innate capacity to learn and to acquire confidence in being a college student” (p. 40) by validating their abilities to succeed. Validation theory reflects an asset-oriented approach to working with undergraduate students. Specifically, educators who use validating approaches in their practice view students’ backgrounds, identities, knowledge, and skills as strengths that can help them succeed in college and are intentional about affirming this in academic, co-curricular, and interpersonal interactions (Kitchen et al., 2021; Rendón, 1994). Thus, validation becomes a focal point in educators’ engagement with students, serving as a catalyst to foster a sense of belonging and facilitate success.

6. Review of Peer Institution Practices

In reviewing the practices of peer institutions, the initiative planning group discussed a number of trends meriting further exploration, and potentially emulation. Some of these best practices are currently available at the University of Michigan, albeit not at full institutional scale. Some best practices that attracted the attention of the committee were the following:

Early intervention based on data analytics. [Georgia State](#) is perhaps the best known instance; this institution states that it uses predictive analytics and a system of more than 800 alerts to track all undergraduates daily, identify at-risk behaviors, and have advisers respond to alerts by intervening in a timely manner to get students back on track. While the committee has concerns that such a system may inadvertently both propagate messages of deficit and present as surveillance, the broader point that the University of Michigan could better use data analytics to promote student success was well received. On our campus, tools available through the [Center for Academic Innovation](#) represent a strong foundation for future progress. However, such resources are presently not equipped to deal with the scale of Michigan’s undergraduate student body in tangible or productive ways.

Coordinated web resources for student success. Some institutions, such as [Rutgers](#), have devoted effort to develop websites that organize resources that support student success. Critically, these websites organize academic policies in ways that both promote ease of access

and accommodate variability in policy by school/college and class level. There appears to be no comparable resource at the undergraduate level at the University of Michigan.

Expectation that students meet with advisors. Some peer institutions recognize the key role of academic advisors in student success, especially if advising loads are such that repeat engagements can be supported. The University of Maryland, for example, has established a [Transitional Advising Program](#) with required advising for upper-level undergraduates undergoing a change in major. We remark that the [Boyer 2030 commission](#) recommended advisor strategies that included long-term relationship building and a maximum 250:1 student to advisor ratio at large, complex, and academically demanding research universities (current U-M advising caseloads are as high as 600 students per advisor). At the University of Michigan, required advising and smaller caseloads allow for stronger advising relationships in some units, particularly in Athletics. Crucially, all members of the planning group concurred that a major gap in Michigan's infrastructure is our inability to develop such advising relationships with all members of the student body.

Identity-based support of students. Many institutions center student identities in their support for student success, particularly for those identities which have been historically and are currently marginalized in higher education. Our committee focused on messages that speak to students' strengths, validate their belonging, and acknowledge an institutional responsibility for student success. The National Association of Student Personnel Administrators' (NASPA) [Center for First-Generation Student Success](#) is an example of a national network that shares evidence-based practices and resources to impact this population. At the University of Michigan, the [Kessler Scholars](#) and the [Comprehensive Studies Program](#) pursue similar approaches. However, neither of these programs is intended to serve the entirety of Michigan's undergraduate student body.

Student learning centers. Ohio State, for example, has created the [Dennis Learning Center](#) to support student learning and motivation. The Center hosts academic coaching, credit bearing electives to help students develop learning and motivational strategies, and workshops promoting academic skills. There appears to be no comparable resource at the undergraduate level at the University of Michigan.

Appendix 4 includes additional details of the best practices found at peer institutions.

7. Guiding Principles

The initiative planning group envisions a sustained, campus-wide effort to support the academic success of undergraduates. The effort will involve the work of faculty and staff in all schools and colleges, as supported and coordinated by the Provost. The initiative planning group's recommendations derived from five guiding principles that emerged from its discussion of the research, its engagement with campus groups, and its consideration of the theoretical framework. These guiding principles can function as high-level direction to the University of

Michigan's student success effort, now and in the future. The guiding principles are that student success efforts need to:

- 1) Center Students from Marginalized Communities
- 2) Create Training that Embeds a Validation Approach
- 3) Leverage Research and Technology
- 4) Pursue Early Interventions
- 5) Produce Better Wayfinding and Access

In the following sections, we describe each guiding principle and potential pilot activities motivated by it. These pilot activities include interventions and changes that the university could pursue and evaluate in light of the finding. Each guiding principle also suggests further directions for research, which we describe as well.

7.1 Center Students from Marginalized Communities

Our understanding of equity concerns in student academic success emerges from research focused on students who have been marginalized in primary, secondary, and post-secondary education. We acknowledge that although this marginalization is typically framed as historical, it nonetheless also has a contemporary dimension. Upon disaggregating the University of Michigan Ann Arbor's four-year and six-year graduation rates, we find substantial inequities in graduation rates across several measures of privilege. Wealthy, white, continuing-generation, out-of-state students graduate on time more often than others. Furthermore, inequities that impact student persistence and graduation rates vary across U-M Schools and Colleges and academic majors.

To better understand the nature of these inequities, the data should be disaggregated by indicators of student academic success—early momentum, persistence, DFW rates (the percentage of students in a course who receive D or F grades, or withdraw), and 4- and 6-year graduation rates. These findings can inform direct strategic efforts to better support students from historically marginalized communities as well as those who struggle with academic success for other reasons.

The work of the Analytics for Student Success and Equity Transformation Committee (ASSET) reveals that Pell-eligible students and underrepresented minoritized (URM) students – and more specifically Black students – are populations least likely to experience academic success at Michigan. Therefore, student academic success initiatives must center limited-income students and Black students, and make their success a primary goal.

Personalized academic support has always been at the heart of student success units like the [Comprehensive Studies Program \(CSP\)](#), the [Office of Academic and Multicultural Initiatives \(OAMI\)](#), [M-STEM Academies](#), the [Michigan Athletics Academic Success Program \(ASP\)](#), the [Michigan Learning Communities \(MLC\)](#), and more. Many of these programs also have long histories of supporting marginalized communities, specifically limited-income and

underrepresented minoritized students, across all of U-M's undergraduate schools and colleges. For example, of the 3,000 students served by CSP, 46% report annual household income of less than \$50,000 and 50% percent identify as URM. Efforts to establish and support student academic success should learn from and leverage these units' deep experience by 1) increasing support to these units where necessary, and 2) identifying opportunities to strengthen other existing programs' capacity to promote academic success.

Some aspects of student identity and circumstances relevant to student success are not apparent in our research data. These include (but are not limited to): financial aid constraints; 2SLGBTQIA+ identity; classroom, departmental, and campus climate; family support obligations; parental status; and more. Research into how these factors relate to student success should continue.

Potential pilot activities supported by this guiding principle:

- Take a universal design approach to research & practice efforts, centering historically marginalized students and making their success a central goal of the effort.
- Invoke strategies that incentivize students to utilize support services and community building opportunities.
- Expand [academic coaching program run by the Academic Support & Access Partnerships \(ASAP\) team within Student Accessibility and Accommodation Services \(SAAS\)](#) to all students who need support with executing functioning/academic skills.
- Strengthen coordination between [Services for Students with Disabilities office \(SSD\)](#) and other units across campus. Identify accommodations to support schools regarding students with disabilities.
- Address student to advisor ratios to enhance the student experience and staff capacity.
- Address hesitancy to act due to concerns of overstepping into the scope of responsibility of other units.

Directions for future research:

- Pursue further disaggregation of data to identify additional inequities affecting student academic success.
- Gather previously uncollected data on student identities to better understand inequities.
- Collect data from individual departments to understand approaches that advance or hinder student success.

7.2 Create Training that Embeds a Validation Approach

As described in our theoretical framing, the validation approach centers *how* educators work with students. It can act as a lever to support their belonging and success. We found several programs that use this framing to guide program development. For example, several programs at community colleges such as [Puente](#) in California and [Ascender](#) in Texas use validation theory to ground their programming to support racially minoritized students' success. Validating students' capacities for success has been an important lever for retaining students and supporting their transfer into four-year institutions.

At four-year institutions, the Thompson Scholars Learning Community in the University of Nebraska system has created a [ecology or coordinated network](#) (Kitchen et al., 2021) that reinforces validating messages across contexts for low-income, first-generation, and racially minoritized students. Research from the [Promoting At-Promise Student Success \(PASS\) Project](#) has found the validation students experience positively affects retention and success (Swanson and Cole, 2022; Hallett et al. (2020)) In the second phase of this project, University of Nebraska institutions (Omaha, Lincoln, Kearney) are exploring how to create a campus-wide ecology of validation.

Potential pilot activities supported by this guiding principle:

- A key practice to implement is training for faculty, advisors, and graduate student instructors (GSIs) on how to use a validating approach to work with students, particularly those who are struggling academically and interpersonally. Essential elements of training should include empowering our community to re-imagine the ways they expect success from all students on campus by developing strategies to build and sustain mentoring relationships and understanding how to best convey messages and to improve course design. Training must be mindful of student identities and should develop strategies for framing conversations with struggling students to highlight room for growth and to normalize failure as part of the path to success.
- Training of this nature could be housed in the [Center for Research on Learning & Teaching \(CRLT\)](#) in partnership with a unit (such as the [Office of Academic Multicultural Initiatives \(OAMI\)](#)) within the Office of Diversity, Equity & Inclusion that brings specialization in working with low-income, first-generation, and racially minoritized students. The training for faculty and department-level advisors should ideally be implemented within department-level faculty meetings to lower the barrier for participation, to ensure broad participation, and to allow conversations to focus on discipline-specific strategies. Similarly, training for GSIs related to validating approaches to teaching could be incorporated into existing GSI training. Identifying faculty with a record of implementing best practices to participate in the training teams would also add a useful voice to the conversations. Including best practices with concrete examples of strategies for messaging, teaching, and course design in similar disciplines would strengthen the effectiveness of training.
- Delivering validating messages is perhaps most difficult in large lecture classes and is most important in courses with high DFW rates. With this mind, it would be helpful to engage course coordinators in conversation to develop strategies for infusing validating approaches to teaching across course sections. While the logistics of exam writing and grading oversight are recognized as an integral component of multi-section teaching, the critical task of instructor outreach to individual students is underappreciated and should be explicitly incorporated in defining shared responsibilities for multisection large lecture classes. Exploring the possibilities of partnerships with specific academic advisors or student life staff with expertise in asset-oriented practice may also support instructors' abilities to enact validating practices in large lecture classes and high DFW courses. We also see value in recommending pursuit of instructional design support from CRLT

(through activities like the Foundational Course Initiative or the Large Course Initiative) or other units on campus to help create and implement coordinated course structures, systems, and resources that promote a validation approach.

- An important piece of being able to deliver validating messages is to develop the initial relationship that seeds the conversation, as it is easy for marginalized students to harbor an impression that faculty are not invested in their success and don't believe they are equipped to succeed at Michigan. Developing low-barrier opportunities for informal faculty-student interactions at early time points in course can provide an essential step in validation strategies. Once students understand that faculty are interested in them as individuals and are accessible for informal discussions, the barrier for validating conversations becomes much lower at an early point in the semester. Student Life would be an excellent group to evaluate and pilot interactions of this type.
- Engaging successful alumni in classroom settings provides an excellent way to provide validating messages. Alumni who share identities with minoritized students can be uplifting classroom participants, as they can be outstanding role models for students with shared identities, especially when they can point to struggles that they have overcome. The LSA Opportunity Hub and the University Career Center have outstanding platforms for alumni networking. Developing ways for academic departments to partner with these units would be an excellent channel for evaluating and piloting interactions of this type.

Directions for future research:

- Moving forward, we recommend conducting a university-wide self-study to identify departments where a validating approach is consistently being used by educators. This study would provide a better understanding of how validation manifests at the university and its effects on students. Leveraging existing wisdom and skills at the university can be beneficial in developing training and providing more coordinated support for students across the university.
- We also recommend engaging with students who have been on academic probation or warning, in order to understand educators' roles in supporting and/or deterring retention and success. Inquiry of this nature would provide valuable information about if and how validating practices are used to support students' movement forward after struggling academically. The findings of this study will also be useful in identifying policies and practices that are invalidating and units where more training may be needed to support asset-oriented approaches to working with students.
- Finally, we recommend exploring how to foster validation in large courses as a means of supporting students' early momentum. This research would align well with the work being done as part of the [Foundational Course Initiative in CRLT](#).

7.3 Leverage Research and Technology

Undergraduate education at the University of Michigan is massive in scale and diverse in goals. We currently enroll more than 32,500 undergraduate students across fourteen separate schools and colleges with very different sizes and goals. This undergraduate student body continues to grow in both size and complexity. Understanding the experience of each of these students

across all of these environments is a major challenge for research. Attending to the real-time progress of every one of these students, placing it in an appropriate context, and being prepared to provide timely support is a major challenge for student support practice.

Improving student success campus-wide will require an on-going research/practice collaboration, supported on both sides by world-class information technology. We are fortunate that the University of Michigan has established teams working on both education research and technology ready to contribute to this initiative.

Research done by ASSET and other campus partners has played a central role in demonstrating the need for this initiative; establishing evidence of inequitable outcomes in foundational course performance, access to educational opportunities, and time-to-graduation. ASSET research also points to potential solutions, emphasizing the importance of early momentum, the efficacy of student support interventions like learning communities, and the role of active and inclusive teaching methods.

It is worth stressing that ASSET grew from efforts begun when the Provost's [Learning Analytics Task Force](#) was launched in 2012. Its mission was “to deploy technology to collect and collate the richest possible portrait of the progress of students, to mine this data for new insights into what affects student success, and to support an array of interventions aimed at optimizing teaching and learning.” In many ways, this student success initiative represents a campus-wide realization of this original vision.

Technology can play a crucial role in supporting student success at scale, and UM faculty and staff have been innovating in this space for decades. Since its launch in 2016 with support from the Third Century Initiative, the [educational technology team at the Center for Academic Innovation](#) has been the key partner in advancing student support tools like Atlas, Student Explorer, ECoach, and Spire. They have also built tools that have transformed the classroom experience, especially in large classes, including GradeCraft, Tandem, Problem Roulette, and Viewpoint. These technologies allow us to gather, share, interpret, and act on both long-term and real-time data about each student's background, interests, goals, and current status.

We have a deep pool of education researchers, world-class tools, an excellent data infrastructure, expert student support professionals, and the world's first university teaching center. It is time to bring all of these together in support of student success. U-M should be the example institution for combining research, technology, people, and practice in support of equitable higher education. This initiative provides an unprecedented opportunity to coordinate and provide central support for these sometimes isolated and underfunded efforts. If we can achieve this goal, we can ensure that all students admitted to U-M have equal opportunities to succeed, academically and personally.

Potential pilot activities supported by this guiding principle:

- Commit to an ongoing research/practice collaboration between researchers in ASSET and Institutional Research offices and practitioners like academic advisors, instructors of

foundational courses, student support experts, and undergraduate education leaders from across campus.

- Continue to develop early momentum reporting tools that allow advisors and administrators to observe 'real-time' momentum measurements for groups of students, and compare these to similar students in previous years.
- Charge ASSET to engage regularly with student support leaders to share new research and take on new questions that emerge from practitioners.
- Provide student support practitioners with technology they can experiment with as they work to deliver tailored support to all students.
 - Establish a permanent connection between the [CAI Education Technology team](#) and this student success effort, with dedicated staff connections on both sides.
 - Develop a version of [ECoach](#) for academic advisors to serve as a real-time progress monitoring system and to provide personalized feedback to students, informed by validation theory ([link to proposal](#) recently submitted to CAI by the [Advising Council of UM](#)).
 - Utilize this system to enable advisors to work with every student, reviewing their course selections, nudging them toward good momentum, responding to changes (a dropped class), and encouraging students who start slow to make a plan for completing 30 credits in their first year.
 - Adapt [Atlas's](#) course selection and new degree planning tools to encourage students to enroll in 15+ credits/term, track progress toward degree, and provide alerts if students appear to be falling behind.
- Provide faculty with the time and tools needed to critically evaluate student performance in their courses and redesign curricula as needed.
 - Rethink how large course instructional teams monitor, respond to, and communicate concerns about student progress to academic advisors. This could be done by establishing a role for a student success coach associated with each large course. In parallel, efforts should be undertaken to improve methods for faculty to directly message students in an individualized manner, perhaps by leveraging existing tools such as ECoach.
 - Expand the use of Course/Major/Department Equity Reports and provide training to help faculty transform courses that present significant barriers to student success (e.g. [CRLT's Foundational Course Initiative](#), [SEISMIC STEM Equity Learning Communities](#), [LSA's Large Course Initiative](#)).

Directions for future research:

- Explore the integration of existing tech tools (e.g. the LSA Advising File, ECoach, Atlas, Canvas, and the Student Information System) with the goal of building the next-generation student success toolkit. This will include information dashboards, tools for delivering support, data sharing, and integrated messaging across all tools. This integrated platform will enable everyone - students, advisors, faculty, and administrators - to know what's happening and have the capacity to act on it.
- Engage in user research in partnership with the School of Information and other units to ensure that these tools prioritize features most useful for all users, including faculty,

advisors, student support practitioners, and most important, students.

- Continue to expand the completeness of U-M's data infrastructure, bringing together data from currently isolated sources, including student information systems, learning management systems, student life, financial aid, and post-graduate outcomes, so that we can work with the richest possible information about our students. Protecting privacy needs to remain an essential priority.
- Benchmark data analytics/student success teams at other institutions to explore what kind of team we need to create to oversee student success initiatives and research at U-M.

7.4 Pursue Early Interventions

Across the institution there are many different processes and systems being used to identify and monitor students potentially at-risk and provide services to support them. Many of these systems rely heavily on manual processes requiring advisors, administrators, and faculty to pull together different sources of information in order to see a fuller picture of how a student is doing academically. The creation of a university-wide "Early Alert System" can allow for the identification of students who may need intervention and support and further outline specific objectives once these students are identified. Features would include consistent touch points around drop/add deadlines, addressing barriers, providing resources and identifying student success strategies.

The initiative planning group's research and engagement indicates that the use of early intervention programs can improve student retention, help students complete their degrees in a more timely manner and assist in reducing achievement gaps. Our findings further indicate that obtaining faculty buy-in to early intervention programs is key to the adoption, utilization and success of such programs. It is critical that any support/intervention services come from an anti-racist and equity-based understanding of student need/development, specifically creating a system that "helps" vs "triggers" students.

Potential pilot activities supported by this guiding principle:

- Unify onboarding for Student Affairs staff to better refer students and know what resources are available. We would like to see such onboarding incentivized in all units as a standard practice.
- Support early momentum by focusing on the message that first time students benefit from taking 15+ credits in fall. This should be done with caution and awareness of our imperfect understanding of what's right for each student and should include monitoring through the semester.
- Explore ways advisers can better communicate with students. Improve advisor engagement with students and faculty during the intervention process, so that all parties are in communication and aligned with the goals of the intervention.
- Define a clear intervention process upon receiving an early alert for a student. This will entail defining objectives and roles of specific support staff as well as establishing pathways between receipt of the early alert and launch of the coordinated intervention.
- Engage faculty in large foundational courses with high DFW rates and substantial

inequities in student outcomes in the early intervention system. Our idea is that some level of personal contact by a supportive faculty member can make a substantial difference. Impacted students will be more willing to approach such supportive faculty, and these connections will be especially critical for students who do not have much experience navigating college and interacting with faculty. How to support these personal connections between faculty and students – and to make their occurrence feasible given the many responsibilities that faculty already shoulder in these courses – could potentially be a task for CRLT and CAI to consider.

- Examples of existing systems to examine further include:
 - [Starfish](#)
 - [Georgia State University](#)
 - [University of Rhode Island's Early Alert System](#)
 - [U-M Dearborn's Early Warning Program](#)
 - [LSA Academic Progress Report](#)
 - [Student Explorer](#)
 - [UM Athletics](#)
 - [LSA Comprehensive Studies Program \(CSP\)](#)

Directions for future research:

- Determine what metrics are best used to assess the effectiveness of an early intervention system.
- Obtain information on student retention from other comparable Early Alert Systems for benchmarking purposes.
- Identify attributes of an early intervention system that are effective at the University of Michigan. For example, case studies show that academic advisors are well suited to intervene with students in these situations; however, the efficacy of such an intervention could be predicated on pre-existing rapport between advisor and student, as well as the bandwidth of the advisor to engage with the student. The salience of such factors could be addressed through research.
- Establish factors that promote faculty adoption and utilization of an early intervention system.
- Explore what technology students/advisors would be more likely to utilize consistently – such as [Starfish](#), Canvas, etc.

7.5 Produce Better Wayfinding and Access

Although many resources exist at Michigan to support students, these resources are often decentralized and siloed in ways that make finding such support challenging for students in need. There is a pressing need to support students and their advocates (faculty, staff, and families) with better wayfinding, in order to: 1) identify currently available resources, and 2) develop better to these resources once identified. Improved wayfinding and access needs to be centralized in a way that respects the overall autonomy and diversity of the University's Schools, Colleges, and programs while also facilitating ease of use for students and their advocates. Similarly, wayfinding and access needs to be coordinated in such a way as to address the

multifaceted and overlapping needs of students (for example, intersecting academic and wellness/mental health needs) in ways that our current, siloed system does not.

We reviewed information from peer institutions and found many promising practices across schools. Several universities have centralized websites that serve as a point for wayfinding and coordination and information regarding student support around campus. For example, the following platforms provide personal, social, academic, and professional support services and resources in one place: (i) Rutgers University's "[Success Essentials](#)"; (ii) Penn State's "[Success Resources](#)"; (iii) Johns Hopkins University's "[Resource Finder](#)". Several other universities have dedicated student success centers that house multiple offices and initiatives related to student success (e.g., Ohio State's [Younkin Success Center](#) and University of Tennessee's [Division of Student Success](#)). These centers oversee a wide range of programming, such as individualized wayfinding support, peer mentoring, academic coaching, tutoring, and wellness services. In many institutions, a cross-campus leadership position facilitates the coordination of these efforts across the university.

Potential pilot activities supported by this general principle:

- One promising program is to establish a centralized office to oversee and coordinate student success initiatives across the university. This office could be led by a Vice Provost of Undergraduate Education and Student Success, along with a team of supporting staff. To efficiently bring about impactful change, it is crucial to assemble a team of colleagues who have a deep understanding of the current system in place at the University of Michigan. It is particularly important to consider the disadvantages of Michigan's current decentralized model, which can hinder cross-campus collaboration when it comes to developing wayfinding resources for students. Such a high-level position can lead this effort and guide a team of stakeholders invested in implementing necessary changes.
- In tandem, a second potential strategy is to identify a "Student Success Affiliate" or "point person" in each school who regularly meets with the central office to coordinate school-specific initiatives with centralized support, resources, and best practices. This could be an Associate Dean or another designated staff member (see example [here](#)).
- In addition, a centralized student success/support center could be developed that brings together various student resources such as academic support, wellness, and crisis support. This center could also have a "wayfinding intake" team that serves as a central point of communication with students who reach out for support, in order to eliminate any confusion or barriers to accessing resources. The center could provide academic coaching, peer mentoring, tutoring and supplemental instruction, success workshops, academic recovery support, study groups, and space, as well as coordination of resources from existing internal U-M offices such as SSD, CAPS, Dean of Students, and school-related resources.
- A final potential pilot program is to create a single, well-maintained, easy-to-navigate website that contains all U-M student support resources, such as personal, social, academic, and professional support services. This website could inform and support a wide range of audiences, including students, families, faculty, and staff. This website

could also be piloted to ensure its effectiveness before being fully implemented.

Directions for future research:

- Engage with students directly. Student voices are essential to building a deeper and broader understanding of the varied experiences students have with student support related resources on campus. Our recommendation is to gain a deeper understanding of student encounters with locating and using these resources. Additionally, it would be helpful to ask for their input on how to efficiently organize and coordinate the resources in a manner that is fair, straightforward, and accessible to all.
- Engage with faculty, staff, and administrators to learn more about their experiences and perspectives on these resources and help students connect with them. Key to this research will be to gather perspectives on how these resources could be reorganized and more tightly coordinated to better support wayfinding, especially given Michigan's current decentralized model.
- Collaborate with the existing student-support services on campus to enhance our comprehension of the present state of available student-support resources. It would be beneficial to comprehensively outline all the campus resources that are available. Moreover, we advise seeking their opinions on the advantages and consequences of consolidating wayfinding efforts and direct-service support.
- Gather input from diverse stakeholders about the naming system for new centers, roles, and websites to transparently and inclusively communicate the purpose and scope of a center, roles, or website to students and their advocates.

8. Key Recommendations

The previous sections have framed directions for action organized around the five guiding principles of the initiative planning group. Our hope is that the present report will serve as a road map for the future directions of the University of Michigan's student success project. To launch this effort, we here organize a number of the ideas discussed in the guiding principles as recommendations of the report. The recommendations are in three areas: organizational changes; pilot programmatic activities and initiatives; and, research directions.

8.1 Recommendations for organizational change

- Create a vice provost position, along with a team of supporting staff, to support and coordinate academic student success with schools and colleges. While U-M's decentralized structure serves some purposes well, when it comes to undergraduate student success, a centrally coordinated approach is a judicious investment of university resources. This vice provost can identify and work with a liaison in each school/college with responsibility for coordinating school-specific initiatives, support, resources, and best practices in academic student support. Many peer institutions, including several Big Ten schools, now have a Vice Provost for Undergraduate Education (e.g., [UC-Berkeley](#)) or Student Success (e.g., [Ohio State University](#)) leading a team that provides central coordination of student success research, projects, and services such as advising.

These teams tend to include experts in data analytics, project management, and student services. The coordinating teams also serve as connectors to bring faculty and staff together across campus in pursuit of common goals. This organizational change can address the disadvantages of Michigan's current decentralized model, which can hinder cross-campus collaboration when it comes to developing resources for students. The vice provost's team could partner with: (i) ASSET on research projects; (ii) the Center for Academic Innovation and Information & Technology Services on student success technology tools; (iii) the Associate Deans for Undergraduate Education on implementing initiatives locally, as well as with the school/college community of advisors; and (iv) Student Life colleagues on supporting students' holistic development and wellness. The vice provost could also lead additional central features of this effort – including our recommendations for a centralized website and the alignment of the present effort with the requirements of accreditation. Finally, the initiative planning group strongly believes that the inaugural appointee should be a current University of Michigan faculty member because success in the role will require deep understanding of the benefits and drawbacks of our current decentralized system.

- Invest in academic advising staff, including an expansion of academic coaching. Our academic advisors are often assigned more than twice as many students as national organizations would recommend; an individual advisor is often expected to attend to more than 600 students, when expert guidance suggests a benchmark of 250 (c.f. The Boyer 2030 Commission's report, [The Equity and Excellence Imperative](#)). However, we are aware of two units on campus that exemplify their commitment to fostering student success by maintaining a highly favorable advisor-to-student ratio. Our own experience in these units – CSP and athletics – shows that more focused, personal intervention from experienced advisors can close equity gaps. CSP sustains an advisor to student ratio varying from about 1:250 to 1:300, while the comparable ratio in Michigan Athletics is about 1:100. These ratios reflect an investment in conditions that support holistic student development. Offering more personalized attention to those who need it while serving tens of thousands will require both additional advising staff *and* increased efficiency. Fortunately, investment in technology, as described in the next recommendation, can increase efficiency. But focused human effort will be needed to achieve the personalization at scale that we desire. In addition to the possibility of hiring more academic advisors, we also need to support the recruitment, professional experience, and – crucially – retention of advisors.
- Invest in academic advising technology and coordinating structures to support it. Specific possibilities include: First, adapting Atlas's course selection and new degree planning tools to encourage students to enroll in 15+ credits/term, track progress toward degree, and provide alerts if students appear to be falling behind. This should be done with caution and awareness of our imperfect understanding of what's right for each individual student. Second, expand [ECoach](#) for academic advisors to serve as a real-time progress monitoring system and to provide personalized feedback to students, informed by validation theory. Technology like ECoach can help us to better support all students and

identify those who need personal attention and connect them with trained student success advisors. Third, create an ongoing connection between the Center for Academic Innovation, advisors, and student affairs professionals to support a continuous cycle of design, use, and evaluation of these tools. Finally, over time seek to integrate the different tools into a single application or online platform.

- Consider over time the creation of a centralized student academic success support center that brings together in one location student resources such as academic support, wellness, and crisis support. The center could provide academic coaching, peer mentoring, tutoring and supplemental instruction, success workshops, academic recovery support, study groups, and space, as well as coordination of resources from existing internal UM offices such as SSD, CAPS, Dean of Students, and school-related resources. The planning and consensus-building process for such a student academic success center could be the responsibility of the vice provost for undergraduate affairs.
- Create a multi-year campus-wide initiative for academic student success that can also serve the requirements of [Higher Learning Commission \(HLC\) accreditation](#). HLC's 10-year accreditation cycle requires submission of a comprehensive, campus-wide continuous improvement project. In the last cycle, the project was the DEI strategic plan. In the prior cycle, it was international engagement. We recommend that the Provost consider student academic success as the project for the next accreditation cycle. There is great potential synergy between campus goals for academic success and the needs of accreditation. Linking the two can create a virtuous cycle in support of both necessary efforts.
- Involve students in the refinement and implementation of report recommendations. Faculty, advisors, researchers, and student affairs professionals were represented on the initiative planning group and in the outreach sessions. However, due to time constraints, the initiative planning group did not directly engage students in the development of its recommendations. Before the plans for the student success initiative are finalized, we recommend that student voices be engaged. We also recommend that the perspective of students be regularly engaged as this effort progresses.

8.2 Recommendations for pilot programmatic activities and initiatives

- Integrate expertise available in organizations such as CRLT, OAMI, and ODEI to develop training for faculty, advisors, and graduate student instructors (GSIs) on how to use a validating approach to work with students, particularly those who are struggling academically and interpersonally, and those in large courses with high DFW rates.
- Develop low-barrier opportunities for informal faculty-student interactions at early time points in courses, as an essential step in validation strategies. For example, a space on campus designated for informal coffee and bagels with students and professors would involve minimal time commitment while offering different interactions than those possible

in classroom and office hour environments. These interactions can counter impressions of marginalized students that faculty are not invested in their success and don't believe they are equipped to succeed at Michigan.

- Pilot and evaluate programs in which academic advisors support early momentum through regular engagement with students, including encouraging students who start slow (i.e., less than 15 credits during their first term) to plan for completion of 30 credits in their first year.
- Create a single, well-maintained, easy-to-navigate website that contains all U-M student support resources, such as personal, social, academic, and professional support services. This website could inform and support a wide range of audiences, including students, families, faculty, and staff. This website could also be piloted to ensure its effectiveness and should be engaged to inform its design.
- Define a clear intervention process upon early alert that entails defined objectives and roles of specific support staff. Establish paths between early alerts and coordinated interventions. Involve both advisors and faculty in the early alert response process in meaningful ways. Use expertise and experience already available on campus in developing this intervention, including [UM Athletics](#), the [LSA Comprehensive Studies Program \(CSP\)](#), and the [U-M Dearborn's Early Warning Program](#).
- Rethink how large course instructional teams monitor, respond to, and communicate concerns about student progress to academic advisors and directly to students. This could be done by establishing a role for a student success coach associated with large courses with high DFW rates.
- Expand the use of Course/Major/Department Equity Reports and provide training to help faculty transform courses that present significant barriers to student success as represented by an extension of initiatives such as [CRLT's Foundational Course Initiative](#), [SEISMIC STEM Equity Learning Communities](#), and [LSA's Large Course Initiative](#).

8.3 Recommendations for future research directions

- Establish coordination among the different groups that conduct research in student success on campus, including ASSET, [Office of Budget and Planning](#), [Center for Academic Innovation](#), [Student Life](#), and [Office of Enrollment](#). This coordination could be pursued through formats such as a council or a community of practice.
- Leverage the coordination among these groups to further expand the completeness of U-M's data infrastructure, bringing together data from currently isolated sources, including student information systems, learning management systems, student life, financial aid, and post-graduate outcomes, so that we can work with the richest possible information about our students. Protecting privacy needs to remain an essential priority.

Use this data infrastructure to seek understanding of currently hidden factors impacting academic student success.

- Research the experiences of students on academic probation or warning to understand how these designations support or deter retention and success. An inquiry of this nature would provide valuable information about whether and how validating practices are used to support students' movement forward after struggling academically. The findings of this study will also be useful in identifying policies and practices that are invalidating and units where more training may be needed to support asset-oriented approaches to working with students. Such an effort is already ongoing in LSA, and could be extended across the full campus.
- Commit to an ongoing research/practice collaboration between researchers in ASSET and Institutional Research offices and practitioners like academic advisors, instructors of foundational courses, student support experts, and undergraduate education leaders from across campus. This research would support the development of tools for 'real-time' measurement of early momentum. In tandem, ASSET should regularly disseminate its research to the communities that support academic student success.
- Support research that examines the effects on student success of the consistent use of a validating approach. Such an investigation could engage departmental faculty or the faculty that teach large courses, and be conducted by a research team such as ASSET or other faculty with research interests in higher education.

Appendix 1: Charge and Membership of the Initiative Planning Group

The Initiative Planning Group on Student Academic Success was charged by **Laurie K. McCauley**, Provost and Executive Vice President for Academic Affairs on December 16, 2022.

As described in the charging document, **the purpose of the initiative was to:**

Promote the academic success of undergraduates at the University of Michigan as critical to their student experience and educational goal attainment. This requires focus on the whole student – on the interrelationships among their mental health and well-being, their engagement in the life of the university, and their academic success. Academic success means that each student experiences high quality learning, as measured by the achievement of learning outcomes in their major, attains degree completion, as measured by four- and six-year graduation rates, and achieves their educational goals, as assessed by the realization of their desired progression in life and career.

Although the university has made substantial progress toward these academic success goals, new opportunities are available, especially in the delivery of support dynamically tailored to the specific needs of individual students. Research also suggests that students generate

momentum toward their educational goals in their first year through their individualized patterns of enrollment and course completion.

The initiative planning group will therefore engage with researchers, advisors, faculty, and student affairs professionals to recommend new activities that the academic enterprise can pursue to promote student academic success.

The primary objectives of the initiative planning group were to:

- Partner with schools and colleges to identify and recommend a set of coordinated pilot activities to pursue that will promote the academic success of undergraduates in their first year, thereby contributing to their high-quality learning, persistence, degree completion, and attainment of educational and career goals
- Consider opportunities to impact student persistence and success by attention to the number of credits in which they enroll, their learning patterns in critical gateway courses, the timing and content of the early feedback they receive about their academic progress, and the ways in which the schools, colleges, and departments holistically track and support undergraduate academic progress in the early period of their degrees
- Integrate research and analytics about academic success with the working experience of advisors, faculty, and student affairs professionals
- Be cognizant of prior work and recommendations at University of Michigan that promote academic student success, the progress of similar initiatives pursued at other institutions, and the holistic, contextual way in which academic success is defined at our institution

The group's members were:

Blaire Beuche, Assistant Director, Foundational Course Initiative, Center for Research on Learning and Teaching

Lauren Clarkson, Academic Success Director and Adjunct Lecturer in Business, Stephen M. Ross School of Business

Kate Fitzpatrick, Associate Professor of Music and Associate Dean for Undergraduate Academic Affairs, School of Music, Theatre & Dance

Nicholas Henriksen, Associate Professor of Spanish, Department of Romance Languages and Literatures and Associate Professor of Linguistics, College of Literature, Science, and the Arts

Timothy McKay, Arthur F Thurnau Professor, Associate Dean for Undergraduate Education; Professor of Physics; Professor of Astronomy, College of Literature, Science, and the Arts and Professor of Education, School of Education

Elissa Minke, Undergraduate Academic Advisor/Counselor Senior, School of Nursing

John Montgomery, Arthur F. Thurnau Professor, Margaret and Herman Sokol Professor of Synthetic Chemistry and Professor of Chemistry, College of Literature, Science, and the Arts

Rosemary Perez, Associate Professor of Higher Education, School of Education

Will Sherry, Director of Strategic Initiatives, Office of the Vice President for Student Life

Connie Tingson Gatz, Associate Vice President for Student Life, Office of the Vice President for Student Life

Kierra Trotter, Director, Comprehensive Studies Program, College of Literature, Science and the Arts

Kerri Wakefield, Director of the Engineering Advising Center and Intermittent Lecturer in Education, School of Education

Michael J. Solomon, Dean, Rackham School of Graduate Studies;
Vice Provost for Academic Affairs – Graduate Studies (Chair)

Zarinah Aquil, Office of the Provost, Project Manage (Administrative Lead)

Appendix 2: Summary of Committee Engagements

Meeting #1. December 16, 2022. **Charge Meeting.** The Initiative Planning Group met with the Provost to discuss the charge. They identified communities of practice to engage with in future meetings.

Meeting #2. January 13, 2023. **ASSET Research Presentation.** Tim McKay presented research on the Insights from the Analytics for Student Success and Equity Transformation (ASSET) Committee. The presentation and ensuing discussion addressed (1) discrepancies in 4- and 6-year graduation rates of undergraduate students by first generation status, by familial income, and by race and ethnicity; (2) the relationship between credits enrolled/completed in the first year and graduation rates.

Meeting #3. January 27, 2023. **Mental Health Implementation Team on Academic Policies.** Chair, Gina Cervetti, presented the group's findings and recommendations as they relate to student academic success. (1) University-level and unit-level policies related to grading, registration, course withdrawals, transfer students, academic calendar. (2) Coordination of academic policies and programs related to academic success and academic progress, including leaves. (3) Faculty development in relation to course-level policies and practices. Several members of the Academic Policies team were also in attendance to provide their perspectives.

Meeting #4. February 10, 2023. **Benchmarking Student Success at Peer Institutions.** Team members discussed interesting and innovative programs and practices at the following exemplary peer institutions (Universities): Duke, Georgia State, Johns Hopkins, Iowa, Ohio, Pennsylvania State, Rutgers, Maryland, Tennessee - Knoxville.

Meeting #5. February 24, 2023. **Educational Technology & Research to Support Student Success.** Cait Hayward and Ben Hayward's Center for Academic Innovation presentation focused on three projects that support student success: Atlas: Software that helps students build early momentum (enrolling in 15 credits); ECoach: Personalized communication platform focusing on equitable student success; Assessment Toolkit Initiative and Course Equity Reports: Longitudinal data through equity lens. These projects are committed to collaborating with faculty, staff, and student partners to detect problems, personalize solutions, design interventions, and evaluate impact to drive iteration.

Meeting #6. March 10, 2023. **MidPoint Check-in with Provost.** The Initiative Planning Group met with the provost to share their review of initial set of high level findings: Centering Marginalized Students; Leveraging Research and Technology; Pursuing Early Interventions; Improving Wayfinding and Access; Creating Training that Embeds a Validation Approach

Meeting #7. March 24, 2023. **Report Organization.** The Initiative Planning Group discussed faculty and their instruction as it relates to student academic success; how they would like to define student success and early momentum; and what their specific recommendations within findings (i.e. pilot programs) would be.

Meeting #8. April 7, 2023. **Writing.** The Initiative Planning Group, in their self-selected groups, met to flesh out their recommended pilot programs.

Meeting #9. April 24, 2023. **Pilot Programs and Rough Draft of Report.**

The Initiative Planning Group met to discuss the initial rough draft, areas needing work, and additional topics.

Engagement #1. February 10, 2023. **Associate Deans Group (ADG).** Mike Solomon presented "Provost's Initiative Planning for Student Academic Success" where he briefly shared prior efforts supportive of the broadly based initiative, availability of research and data analytics to support efforts, and peer institutions that have shown success with similar efforts. He also shared focus and goals as well as approach and timings of the Initiative Planning Group. Finally, time was allotted for 2 questions during a breakout discussion to gauge the associate deans: a) What are the current primary mechanisms by which your school/college supports the early momentum and academic success of undergraduates? b) What additional programs or policies would you recommend be developed, either across the U-M campus or in your school/college, to support undergraduate early momentum and academic success? Several members of the Initiative Planning Group on Student Academic Success were also in attendance at the meeting.

Engagement #2. February 13, 2023. **Advising Council at UM (ACUM) Executive Board & Advising Administrators Leadership Meeting.** Tim McKay presented "Equity and Excellence in a U-M Undergraduate Education" where he shared research from ASSET (Analytics for Student Student and Equity Transformation Committee) about equity gaps in academic success among U-M undergraduate students as well as the value of students building early momentum.

Several members of the Initiative Planning Group on Student Academic Success were also in attendance at the meeting.

Engagement #3. February 21, 2023. **Athletics Student Academic Success.**

Members of the Initiative Planning Group met to receive an overview of highlights of the Athletic Dept's practices which included information on their advising structure that addresses the considerable time demands of student athletes and the diverse academic backgrounds that they come from. Additional topics included learning details on their typical tutoring, academic and financial support, and career guidance.

Appendix 3: Definitions of Student Success and Early Momentum

Student success in higher education encompasses not only indicators such as retention, educational attainment, academic achievement, and student advancement but also the holistic development of students across intellectual, emotional, social, ethical, physical, and spiritual dimensions.

Marginalized racial, ethnic, socioeconomic, or other identity groups often encounter unique barriers and inequities that can impact their educational journey. Student success should not only focus on the traditional indicators but also incorporate additional consideration of these barriers and inequities. Recognizing and addressing these factors is essential to promoting equitable student success.

To gauge student success, the following outcomes have been identified as key indicators:

1. **Student Retention (Persistence):** Successful students in higher education remain enrolled, re-enroll for subsequent terms, and continue their undergraduate education. For instance, first-year students who return for their sophomore year demonstrate persistence.
2. **Educational Attainment:** Student success is reflected in the ability of entering students to persist and ultimately achieve their educational goals, whether it's obtaining a degree, completing a specific program, or accomplishing their educational aspirations.
3. **Academic Achievement:** A crucial aspect of student success is the attainment of satisfactory or superior levels of academic performance throughout the college journey. This encompasses students' ability to maintain good academic standing, avoid academic probation, and potentially qualify for academic honors.
4. **Student Advancement:** Student success extends beyond completion of their current educational level and includes the ability to progress and excel in subsequent educational or occupational endeavors for which their college degree or program has prepared them. Examples include 2-year college students continuing their education at a 4-year college or 4-year college students being accepted into graduate schools or entering gainful careers after obtaining their baccalaureate degree.

In addition to these outcomes, the concept of student success in higher education also emphasizes holistic development. This entails the growth of students as "whole persons" as they navigate through their college experience. It encompasses the following dimensions:

1. Intellectual Development: Students are encouraged to cultivate skills for acquiring and effectively communicating knowledge, learning how to learn, and engaging in deep critical thinking.
2. Emotional Development: Student success involves the development of skills for understanding, managing, and expressing emotions in healthy and constructive ways.
3. Social Development: Students are encouraged to enhance the quality and depth of their interpersonal relationships, develop leadership skills, and actively engage in civic responsibilities.
4. Ethical Development: A key component of student success is the formulation of a clear value system that guides ethical decision-making and demonstrates personal character.
5. Physical Development: Student success entails acquiring and applying knowledge about the human body to promote physical wellness, prevent disease, and optimize performance.
6. Spiritual Development: Recognizing the search for personal meaning, the purpose of human existence, and questions that transcend the material or physical world is also considered an integral part of student success in higher education.

Early momentum refers to the positive academic progress made by students during their initial stages of higher education, particularly in their first year of college. It encompasses a range of indicators, actions, and achievements that contribute to a strong start and set a trajectory for continued success throughout the academic journey. Early momentum is characterized by proactive engagement, timely progression, and the accumulation of credits and achievements that are empirically linked to higher graduation rates.

It is particularly relevant to supporting minoritized students, including Black, Latinx, Indigenous, and low-income students. These student populations often face unique challenges and systemic barriers that can hinder their success in college. It is imperative that pathways be created to facilitate equitable access to essential supports, resources, and guidance, ensuring that minoritized students have the necessary tools to succeed from the start.

Key components of early momentum include:

1. Credit accumulation: Students who attempt and successfully complete a substantial number of credits early on, such as 15 credits in their first term or 30 credits in their first year, demonstrate early momentum. Accumulating credits in alignment with degree requirements is crucial, as it ensures progress towards graduation and avoids unnecessary delays.
2. Course completion: Successfully completing gateway courses, typically introductory college-level math and English courses, during the first year is another indicator of early momentum. These courses provide foundational knowledge and skills necessary for success in higher-level coursework.

3. Program identification: Early identification of a degree program or academic focus area allows students to make purposeful choices and align their course selections with their intended goals. By entering a degree program early, students can map out their academic journey, understand degree requirements, and make efficient progress towards graduation.
4. Academic mindset: Developing a productive academic mindset characterized by a growth mindset, resilience, and a commitment to learning is an integral part of early momentum. This mindset helps students overcome challenges, persist through difficulties, and maintain motivation and engagement in their studies.
5. Supportive structures: Institutions that provide proactive advising, predictive analytics, coordinated communications, and structural solutions to match student credit loads with the credits needed for on-time graduation contribute to early momentum. These support systems help students stay on track, identify potential obstacles, and provide timely interventions to promote success.

Appendix 4: Summary of Peer Institution Best Practices

Using publicly available information, the initiative planning group sought out best practices for student academic success at peer institutions. The institutions selected for study were primarily, but not exclusively, public peers. Highlights organized by institution reviewed are included in this appendix:

- **Duke University's** centralized approach, academic guides, and streamlined support for leaves of absence contribute to its student success initiatives. It prioritizes student success in and outside of its [Student Success Center](#), housed within the Office of Undergraduate Education. Their comprehensive programs offer tools, support, guidance, and [peer assistance](#) to help students achieve their academic goals as well as discover and explore their interests and values. Components include the [Academic Advising Center](#), [Academic Guides \(coaching\)](#) and [Student Wellness Center](#) for personalized support, the [Academic Resource Center](#), [Duke Testing Center](#), [Office of Undergraduate Education Research](#), and the [Time Away Office](#).
- **Georgia State University** is recognized as a national leader in student success, known for its data-driven approach and innovative programs. Through the use of [data-driven predictive analytics and decision making](#), [early alerts](#), [adaptive learning tools](#), and [peer mentoring](#), the university has successfully increased its graduation rates and diminished achievement gaps based on race, ethnicity, and income. Georgia State launched the [National Institute for Student Success \(NISS\)](#) founded on compelling evidence that colleges and universities inadvertently create administrative and bureaucratic obstacles to college access, progression, and completion. Its student success initiatives are organized around three solution areas: Accelerator, Diagnostic, and Implementation Support, which target areas of growth and identify barriers to student success. The university's best practices include proactive advising, onboarding, first-year support, academic design and support, financial wellness, targeted communications, career-

oriented learning. Notable programs include [GPS Advising](#), [academic coaching](#), [freshman learning communities](#), the [Summer Success Academy](#), [College to Career initiatives](#), and various financial support programs such as Panther Retention Grants and the [Keep HOPE Alive](#) program. Georgia State University's achievements in closing equity gaps and improving student outcomes are truly remarkable.

- As a land-grant university, **Iowa State University (ISU)** is committed to serving the state through extension and outreach programs. With eight colleges offering ~100 majors, ISU provides a wide range of academic opportunities. Membership in the [University Innovation Alliance](#) further amplifies their commitment to student success, particularly for low-income, first-generation, and racially minoritized students. While forgiveness of small financial amounts is available in many schools, undergraduate transfer students and students at any stage of their undergraduate tenure can also explore innovative ideas to enhance their success. Iowa State University (ISU) places a strong emphasis on student success by implementing various initiatives and support systems. The [Academic Success Center \(ASC\)](#), located within the Dean of Students Office, collaborates with schools and colleges under the [Senior VP for Student Affairs](#) to provide comprehensive support opportunities for students to develop skills necessary to become self-directed learners through the delivery of [academic coaching](#), [supplementary instruction](#), and [educational opportunities for income-eligible and first-generation students](#). Additionally, each college has a [Director of Multicultural Student Success](#) who focuses on supporting racially minoritized students through programming, learning communities, and individual meetings. To address financial barriers hindering degree completion, ISU introduced [completion grants](#) in 2017. Furthermore, [the Hixon Opportunity Awards](#) serve students whose potential for success may not be reflected in traditional metrics. Transfer students receive dedicated support during the admissions and onboarding process, and clear articulation agreements between community colleges ease their pathways toward degree completion.
- **Johns Hopkins University (JHU)** prioritizes student success through various initiatives. As a [First Generation Forward Institution](#), [JHU's Center for Student Success \(CSS\)](#) serves as a central resource hub, providing comprehensive information and support for [first-gen and low-income students](#). The CSS website offers a [consolidated list of resources](#) covering advising, counseling, experiential learning, career counseling, and more. JHU's CSS also caters to high school students, parents, and families, offering valuable resources beyond its current students. [The Success Coaching Program in Academic Advising \(SCAA\)](#) within CSS provides early career planning assistance, while pre-professional support is available through programs like [JUMP \(Johns Hopkins Underrepresented in Medical Professions\)](#), a pre-health learning community. Academic assistance at JHU is facilitated through campus groups and organizations, compiled on the Student Success Center (SSC) website. These resources include major-specific tutoring, study consulting for general study skills, and peer-led study teams (PILOT). JHU's [Orientation and First Year Experience](#) office supports a smooth transition for first-year students, offering resources and programming. The university also offers the

[B'More Intersession Program](#), a one-week academic and co-curricular experience that introduces first-year students to Baltimore City's civic and cultural landscapes, emphasizing community engagement. JHU's Center for Student Success ensures comprehensive support for first-gen and limited-income students. From academic advising and financial aid to well-being and career preparation, the CSS plays a vital role in facilitating a successful college experience for JHU students.

- **Ohio State University's** [Office of Student Academic Success](#) involves providing students with exceptional experiences, tools and opportunities to succeed academically throughout their entire academic journey; several departments and programs work together to prioritize student academic excellence. The initiative includes various components such as the [Buckeyes First program](#), which provides support and resources for first-generation students through a virtual program and yearlong assistance. The [Student Success Research Lab](#) conducts research and collaborates with faculty to promote student success on a national level. First-year students are required to attend sessions from the [First Year Success Series](#), which help them adjust to university life and engage with relevant programs. The university also offers a [First Year Experience](#) webpage that compiles resources from different departments, aiming to ease access for students. Additionally, the [Walter E. Dennis Learning Center](#) offers courses, coaching, and workshops to support student learning and motivation. The center also provides professional development opportunities for faculty and staff. The [Younkin Success Center](#) houses various offices, including the learning center, and serves as a centralized location for student support services. The initiative aims to normalize help-seeking behaviors and prioritize marginalized student populations. Its concept of co-locating similar resources on campus is worth exploring further.
- **Pennsylvania State University's** [Student Success Center](#), overseen by the [VP of Student Success](#), supports undergraduate students in various areas, including [career counseling](#), academic goals, degree completion, and [health and wellness promotion](#). Student success initiative efforts focus on providing wrap-around and centralized resources through the Student Success Center. The initiative aims to support the success of [first-generation students](#) and collaborates with other institutions designated as [First-Gen Forward](#). The ["Open Doors" Scholarship](#) assists students who are returning to complete their education by addressing their specific needs. The [Sokolov-Miller Family Financial and Life Skills Center](#) offers financial education and mentorship opportunities for students. The initiative also aims to [centralize and structure support services on a user-friendly website](#) and promote collective efforts across campus to support first-generation students.
- **Rutgers University's** [Student Success Center](#) focuses on providing students with a strong foundation for success. This includes [academic advising](#) for timely degree completion, [minimizing financial debt](#), achieving employment or advanced study in their desired field, prioritizing [health and wellness](#), and developing [critical skills for post-graduate success](#). [The Success Essentials website](#) serves as a centralized platform,

offering comprehensive personal, social, academic, and professional support services and resources. It emphasizes the importance of enrolling in and successfully completing 15 or more credits each semester for timely graduation. The website features a searchable database of campus resources, including detailed descriptions and contact information. Additionally, the website provides practical guidance on navigating campus technology and resources. The use of student-centered and affirming language reflects institutional support and care. The website also offers a centralized platform for adding or updating campus resources.

- **The University of Maryland's [Student Success Office](#)** provides centralized services to assist students in completing their undergraduate degrees after certain circumstances such as withdrawal, academic dismissal, or extended absence. The office coordinates [re-enrollment](#), centralizes [resources](#) and [policies](#), [manages student data](#), and leads [retention initiatives](#). The university also offers a [transitional advising program](#) for students with over 60 credits, requiring an academic plan and advising appointments. Support programs are available for summer and [first-generation students](#). The transitional advising program targets specific student groups, and utilizes data for identification.
- **The University of Tennessee - Knoxville's (UTK) [Division of Student Success](#)** maximizes student potential through coordinated [academic success strategies](#), strengths identification, and holistic support, and an investment in advising technology and professional development. Led by the [VP for Student Success and a team of around 30 individuals](#), their efforts include the [First Year Experience Program](#), [UT Success Academy](#), [Veterans Success Center](#) and [Veteran Impact Program](#), and an [Academic Success Center](#). [The Volunteer Experience](#) initiative enhances [personal well-being](#) and career readiness, while targeted initiatives like [Student Success Grants](#) are implemented. Deep student engagement and transformational experiences are emphasized. Long-term goals and assessments are an integral part of the [Student Success Strategic Plan](#) which includes an [Advisor Career Path](#) to retain advisors and provide opportunities for their advancement.

Appendix 5 – Recommendation Prioritization

Within the three types of recommendations – organizational change, pilot programs, and future research – we suggest: (1) those activities which can begin immediately; (2) those activities for which design and planning can begin immediately; (3) those activities which require further outreach and scoping before adoption. Please see Section 8 for the full text of the recommendations.

Recommendations for organizational change

Begin immediately

- Create a vice provost position, along with a team of supporting staff, to support and coordinate academic student success with schools and colleges.
- Involve students in the refinement and implementation of report recommendations.

Design and plan immediately

- Invest in academic advising staff, including an expansion of academic coaching.
- Invest in academic advising technology and coordinating structures to support it.

Pursue further outreach and scoping before adoption

- Consider over time the creation of a centralized student academic success support center that brings together in one location student resources such as academic support, wellness, and crisis support.
- Create a multi-year campus-wide initiative for academic student success that can also serve the requirements of [Higher Learning Commission \(HLC\) accreditation](#).

Recommendations for pilot programmatic activities and initiatives

Begin immediately

- Pilot and evaluate programs in which academic advisors support early momentum through regular engagement with students, including encouraging students who start slow (i.e., less than 15 credits during their first term) to plan for completion of 30 credits in their first year.
- Define a clear intervention process upon early alert that entails defined objectives and roles of specific support staff. Use expertise and experience already available on campus in developing this intervention, including [UM Athletics](#), the [LSA Comprehensive Studies Program \(CSP\)](#), and the [U-M Dearborn's Early Warning Program](#).

Design and plan immediately

- Create a single, well-maintained, easy-to-navigate website that contains all U-M student support resources, such as personal, social, academic, and professional support services.
- Develop low-barrier opportunities for informal faculty-student interactions at early time points in courses, as an essential step in validation strategies.
- Rethink how large course instructional teams monitor, respond to, and communicate concerns about student progress to academic advisors and directly to students.

Pursue further outreach and scoping before adoption

- Integrate expertise available in organizations such as CRLT, OAMI, and ODEI to develop training for faculty, advisors, and graduate student instructors (GSIs) on how to use a validating approach to work with students, particularly those who are struggling academically and interpersonally, and those in large courses with high DFW rates.
- Expand the use of Course/Major/Department Equity Reports and provide training to help

faculty transform courses that present significant barriers to student success as represented by an extension of initiatives such as [CRLT's Foundational Course Initiative](#), [SEISMIC STEM Equity Learning Communities](#), and [LSA's Large Course Initiative](#).

Recommendations for future research directions

Begin immediately

- Establish coordination among the different groups that conduct research in student success on campus, including ASSET, [Office of Budget and Planning](#), [Center for Academic Innovation](#), [Student Life](#), and [Office of Enrollment](#). This coordination could be pursued through formats such as a council or a community of practice.
- Commit to an ongoing research/practice collaboration between researchers in ASSET and Institutional Research offices and practitioners like academic advisors, instructors of foundational courses, student support experts, and undergraduate education leaders from across campus.

Design and plan immediately

- Leverage the coordination among these groups to further expand the completeness of U-M's data infrastructure, bringing together data from currently isolated sources, including student information systems, learning management systems, student life, financial aid, and post-graduate outcomes, so that we can work with the richest possible information about our students.
- Research the experiences of students on academic probation or warning to understand how these designations support or deter retention and success.

Pursue further outreach and scoping before adoption

- Support research that examines the effects on student success of the consistent use of a validating approach. Such an investigation could engage departmental faculty or the faculty that teach large courses, and be conducted by a research team such as ASSET or other faculty with research interests in higher education.

Appendix 6 – Validation Approach References

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