

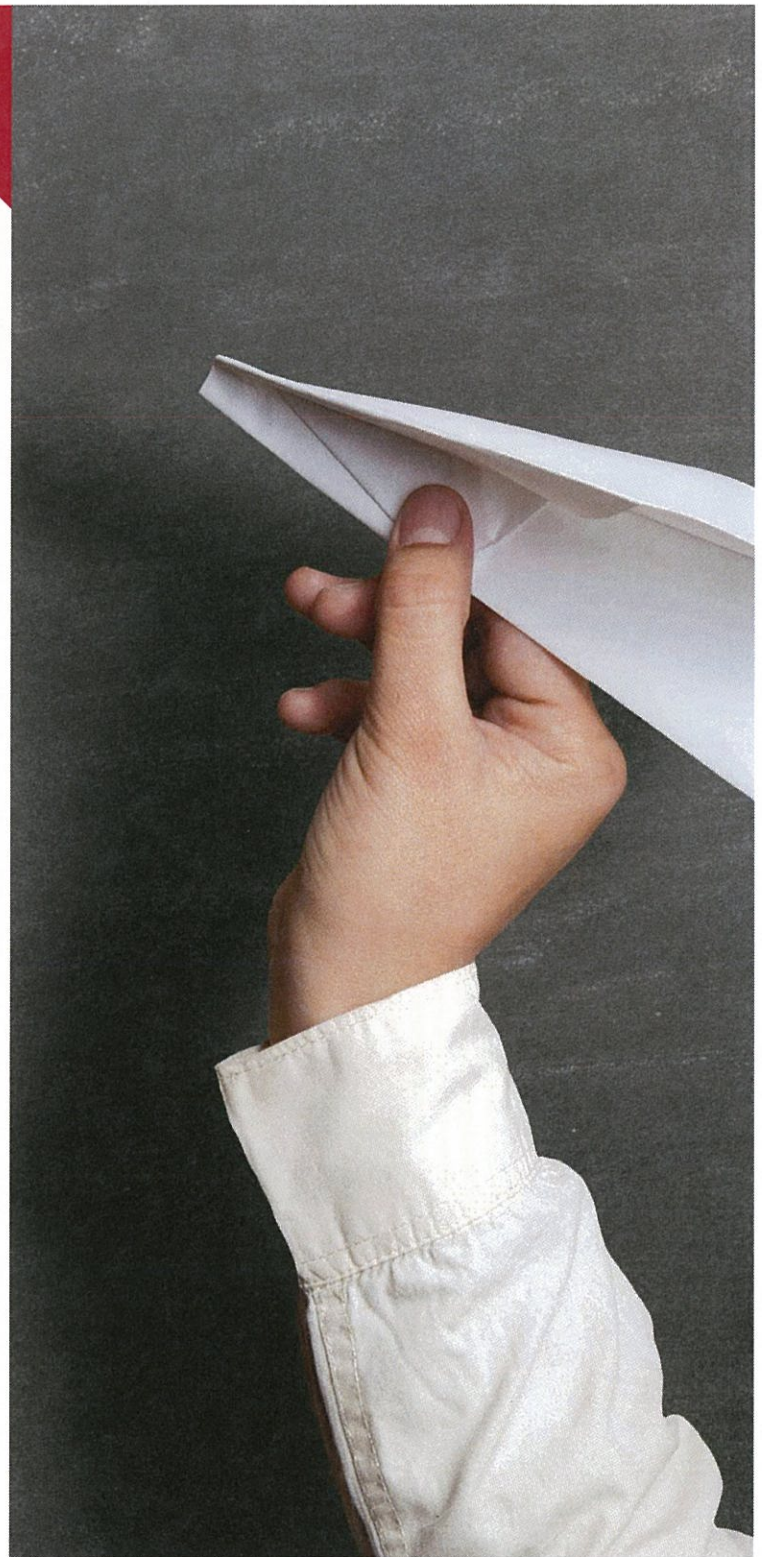
Taking Student Success to Scale

By Rebecca R. Martin

INTRODUCTION

Increasing college attainment and closing equity gaps are nationwide priorities with widely recognized benefits for individuals, the economy, and civil society. Exemplars of student success have emerged across higher education institutions, systems, and states, but national completion rates continue to rise only slightly, and equity gaps continue to widen. Lessons and best practices developed in one institution are not being scaled across campuses and systems. Data is trapped within institutions, preventing the application of modern analytics approaches to developing a personalized plan for supporting each student and for measuring evidence of impact across diverse populations and settings.

To address this need, in 2014 the National Association of System Heads (NASH) launched the landmark initiative “NASH TS³: Taking Student Success to Scale.” Collectively, TS³ is made up of 23 systems and over 300 institutions that span 18 states. (NASH: Taking Student Success to Scale 2016) These systems have a combined undergraduate enrollment of 2.6 million students; this represents approximately 40 percent of all public undergraduate enrollments in the United States. These systems also serve some of those most in need. Among the 2.6 million undergraduate students over one million (40 percent) received Pell Grants. Additionally, nearly 800,000 (33 percent) undergraduate students identify as an underrepresented minority.



The 23 TS³ systems are committed to completion with an emphasis on equitable access and outcomes. These systems award 33% of bachelor’s degrees and 11 percent of associate’s degrees conferred by public institutions in the United States. In 2011–12, almost 180,000 of these degrees were awarded to Pell recipients and more than 141,000 to underrepresented minorities. NASH is uniquely positioned as a forum for information-sharing and collective problem solving, and can be the vehicle by which we can collectively

In Short

- We know what works—and we know that these reforms are not reaching most of our students.
- It is time to take these pockets of success to the next level, accelerating and amplifying the interventions that work by leveraging the power of systems.
- While other organizations are making headway on completion, TS³ and NASH have the scale for unprecedented impact.
- TS³ leverages the power of university systems to drive transformational change at the campus level.



SUCCESS

Rebecca R. Martin is the Executive Director of the National Association of System Heads (NASH), a leadership organization serving the nation's public university systems.

improve completion rates and close equity gaps at scale (see Figure 1). (Martin, forthcoming)

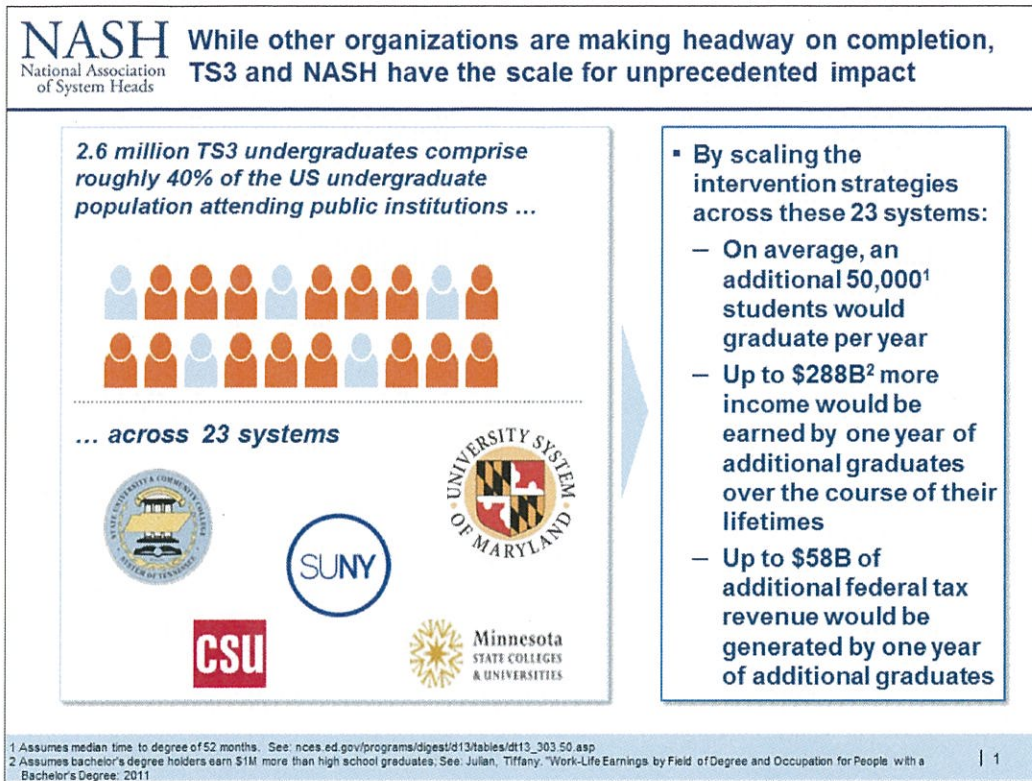
THE PROBLEM: THE NEED FOR A REDESIGN

How can we help at-risk students succeed? How can we identify the needs of each student and personalize interventions and supports accordingly? What can we do to make systems and institutions aware of evidence-based practices that work for all students, but particularly for those who are

underrepresented, low-income and underprepared? What is the evidence of impact for each intervention, and how can we use this information to scale up interventions in a resource-constrained environment?

TS³ now has active involvement from 23 systems and over 300 campuses, and we anticipate adding to these numbers (Figure 2). If the participating systems adopt and implement all three of the evidence-based interventions we are promoting, we believe each system will be able to double

FIGURE 1. NASH IMPACT



the number of degrees it awards by 2025. The initial steps taken by the 20 founding systems should result in an additional 350,000 bachelor's degree conferrals in just ten years. This number could exceed one million if all three strategies are adopted and implemented by our initial cohort. As we build beyond this first cohort of NASH systems, our impact will be even greater.

The majority of the campuses in TS³ are regional comprehensive universities. However, the current systems also include 102 two-year colleges and 45 research universities.

THE STRATEGY: SCALING UP WHAT WORKS

Taking Student Success to Scale focuses on three interventions in particular (Figure 3) selected by network members

FIGURE 2. STATES WITH TS³ SYSTEMS

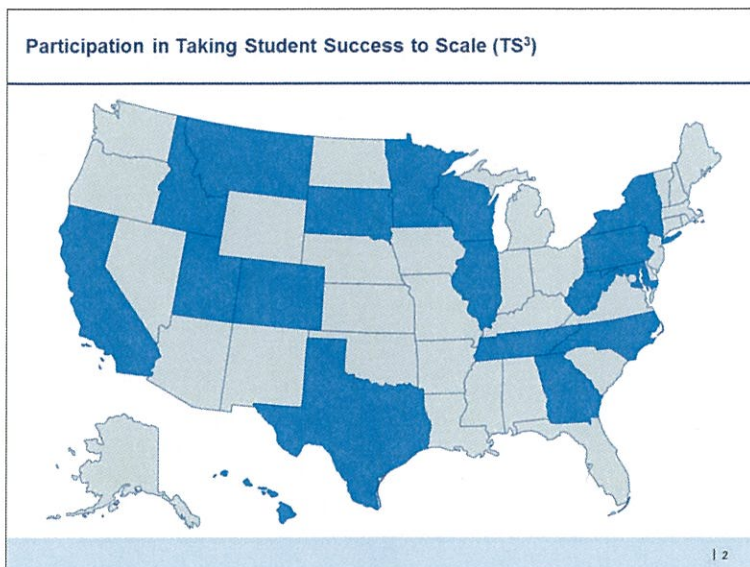
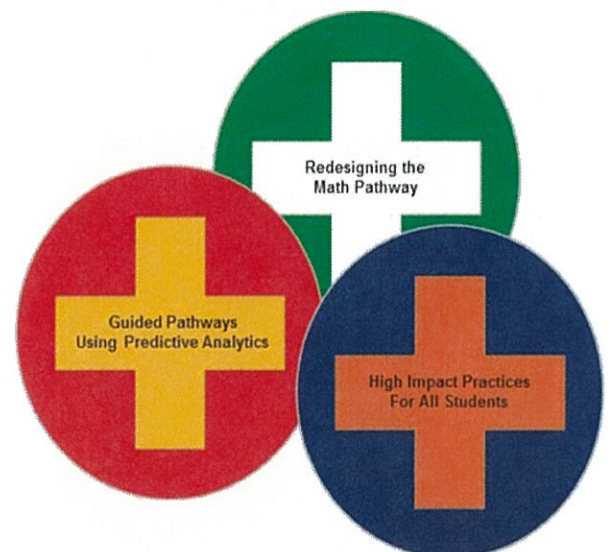


FIGURE 3. TS³ INTERVENTIONS



for their potential to make a significant change. Members use the network to support their work in any or all of these three interventions, which the TS³ leadership views as tightly related. Leaders from systems on the cutting edge of these interventions are guiding the work.

As they do so, institutions develop common standards and definitions of practice and quality for these interventions across the collaborative, improving the ability of public colleges and universities to answer these persistent questions about higher education practice:

- Who are the students that are at risk?
- What are the indicators of high-quality, equitable, and consistent delivery?
- How do different interventions perform in different settings for different students?

Participating systems and their colleges and universities meet regularly to compare best practices; learn from national experts in policy, practice and research; and intentionally orient their student success efforts toward quality and equity.

Based on evidence of impact on persistence and completion for targeted student populations and the collective wisdom of our member system leaders, these three interventions were identified as a starting point for a holistic and collective approach. They were specifically chosen because of their demonstrated impact on underrepresented minority and low-income students.

- **Redesigning the Math Pathway**

More students arrive at college underprepared than ever before, particularly among African American and Latino populations. The need for developmental math education presents a major obstacle to completion for many incoming students at both the two- and four-year levels. The pathway for students placing into credit-bearing math courses is also problematic for many, leading to fewer completing STEM majors than desirable. Recently, however, innovative approaches to redesigning developmental and entry-level math courses have been developed, incorporating elements that include disaggregated pathways with targeted curricula for specific audiences; co-remediation rather than pre-remediation; focus on problem-solving rather than skill building; and new teaching methodologies. Many of these approaches would have value in the calculus sequence as well. Lessons from Quantways/Statways (Carnegie Foundation), New Mathways (Charles A. Dana Center/Texas), and Co-Requisite Remediation (Complete College America) are among the options that are being implemented (Redesigning Math Pathways, 2016).

- **Guided Pathways Using Predictive Analytics**

A prominent barrier to student success, especially for underrepresented, low-income, and first-generation students, is a lack of information. Predictive analytics and data-mining techniques have proven to be powerful

“These three interventions were identified as a starting point for a holistic and collective approach. They were specifically chosen because of their demonstrated impact on underrepresented minority and low-income students.”

methods of empowering and informing students. The focus of this initiative is on implementing predictive analytics across multiple systems, strengthening the data infrastructure needed to leverage these tools, and implementing the policy, curricular advances, and academic support programs needed to enable the successful use of predictive analytics (Denley, 2014).

- **High-Impact Practices for All Students**

Despite their proven impact on retention, persistence, and completion, high impact practices are generally only accessible to a small subgroup of high-achieving students. Often those who could benefit the most from these practices, such as underrepresented minority and low-income students, are the least likely to participate. Moreover, these practices are defined unevenly across campuses, making it difficult to assess their quality. Over the past decade colleges and universities have embraced the use of high-impact educational practices like learning communities, service learning, undergraduate research, and peer mentoring for their significant contributions to learning as well as persistence. As states and state systems consider the ways engaged learning can drive student success, we have the chance to develop a shared national understanding of particular high-impact practices, building them into the higher education infrastructure in ways that ensure equity, consistency, and quality (Hovannesian & O'Donnell, forthcoming).

Each of these interventions is being scaled up in at least one NASH system with demonstrated improvement for all students, as well as impact on closing equity gaps for underrepresented minority and low-income students. Scaled across the 23 TS³ systems, these interventions will generate an impact greater than the sum of their parts. Each system

has committed its resources and efforts to one or two interventions at the start. This has already generated communities of interest and expertise that share knowledge with the broader system network through webinars and virtual learning communities. Ultimately, the goal will be to implement all interventions across all campuses in each of the participating systems.

THE APPROACH: FOCUSING ON COLLECTIVE IMPACT FOR SUCCESSFUL INNOVATION

Given the growing importance of systems, system leaders play a critical role in creating sustainable social innovations that result in equitable student access and outcomes. For example, system leaders can begin to develop strong coalitions by working alongside campuses in crafting a unified vision based on common opportunities and challenges. System leaders are optimally positioned to engage with campuses, as well as to engage campuses with one another. By serving as a convener and a networker, the system can make sustainable innovations that are driven by institutions. Taking on these roles helps to overcome entrenched arrangements and resistance that commonly plague change efforts in higher education, because they give campuses the opportunity to control their own change efforts. This approach leads to a more comprehensive inventory of problems and potential solutions, and the risks and rewards associated with each.

After working with campus leadership to define success and identify problems and possible solutions, system leaders can use their capacity and central positioning to gather evidence and monitor progress in addition to serving as a hub for organizational intelligence. In the systems with the prototype interventions, leaders are effectively serving their campuses through intelligence gathering that can be customized to the unique characteristics and contexts of individual institutions. This allows institutions to further tailor their efforts to the unique needs of increasingly diverse student populations.

By generating consensus around opportunities and challenges, and identifying potential solutions with a sound body of evidence, system leaders can also promote the effective organization of campuses that see value in adopting such

innovations. It is important to take an approach that focuses on organizing a group of like-minded campuses that are ready to adopt an evidence-based approach, as it allows for early central control that can quickly be distributed through working with coalitions of the willing. This strategy also negates the potential backlash if campuses perceive system action as an attempt to exert authority rather than serve as a resource. This progressive and continuous formation of initiatives allows implementation to be devolved to campuses that are willing to adopt the solution without being too prescriptive.

In fields ranging from public health to the environment to education there have been many examples of incremental gains in solving a social problem when organizations come together. By using common definitions of success, sharing lessons, and building a common infrastructure, collective impact can be an incredibly powerful tool to drive large-scale change. The discipline of improvement science has built upon this foundation to create a process of inquiry combined with the use of networks to identify, adapt, and successfully scale up promising interventions in education (Bryk, 2015).

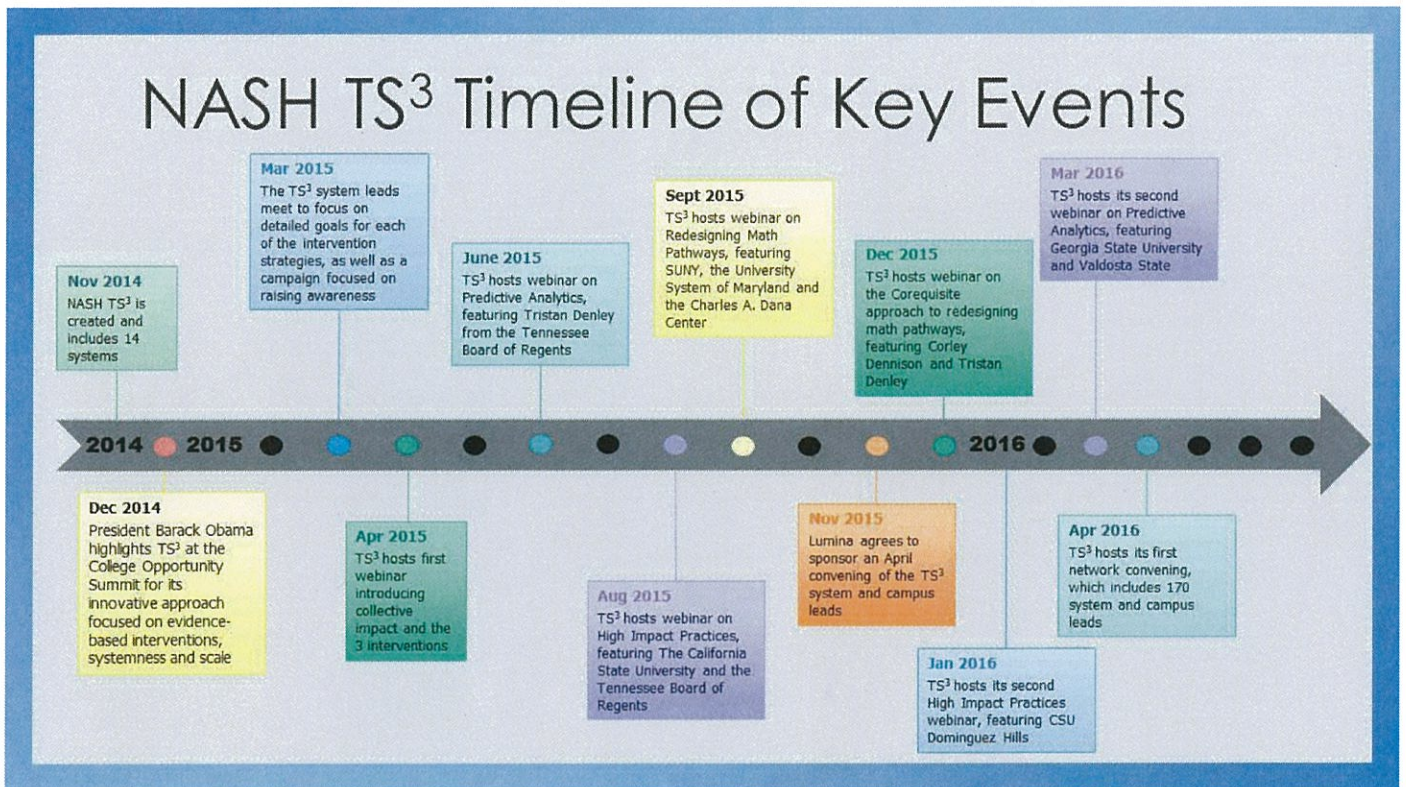
In each of our lead systems, networks have been developed among the adopting campuses, acting as a platform for coordination and information exchange, which helped to lower walls between distinct campuses. Systems that have guided the organic development of communities surrounding specific innovations prompted greater collaboration and fostered dialogue between and among campuses. In some cases, to overcome barriers to sustainability systems also worked to generate philanthropic and/or government funding to support the interventions for the longer term. TS³ builds on this approach, with a networked improvement community across 23 systems around this holistic set of strategies.

THE TS³ NETWORK

There are compelling examples of evidence-based student success interventions being taken to scale in NASH systems. It is time to take these pockets of successes and lessons to the next level, accelerating and amplifying the interventions that work by leveraging the power of systems.

“This progressive and continuous formation of initiatives allows implementation to be devolved to campuses that are willing to adopt the solution without being too prescriptive.”

FIGURE 4. KEY EVENTS



Utilizing the principles of collective impact and improvement science, TS³ involves:

- Common definitions of success, built on existing metrics;
- Common frameworks for evaluating the maturity of a state system’s implementation of the three interventions, useful for tracking network progress, measuring impact, and convening educators at similar points in their development;
- Flexibility in implementation approaches to accommodate the diversity of campuses and student populations;
- Networked communities of both system and campus representatives;
- Discussions informed by data, which focus on sharing best practices and collectively identifying and overcoming barriers;
- Significant system leadership support; and
- Strong interest from a substantive number of campuses in each system, accounting for variability in system size and institutional diversity.

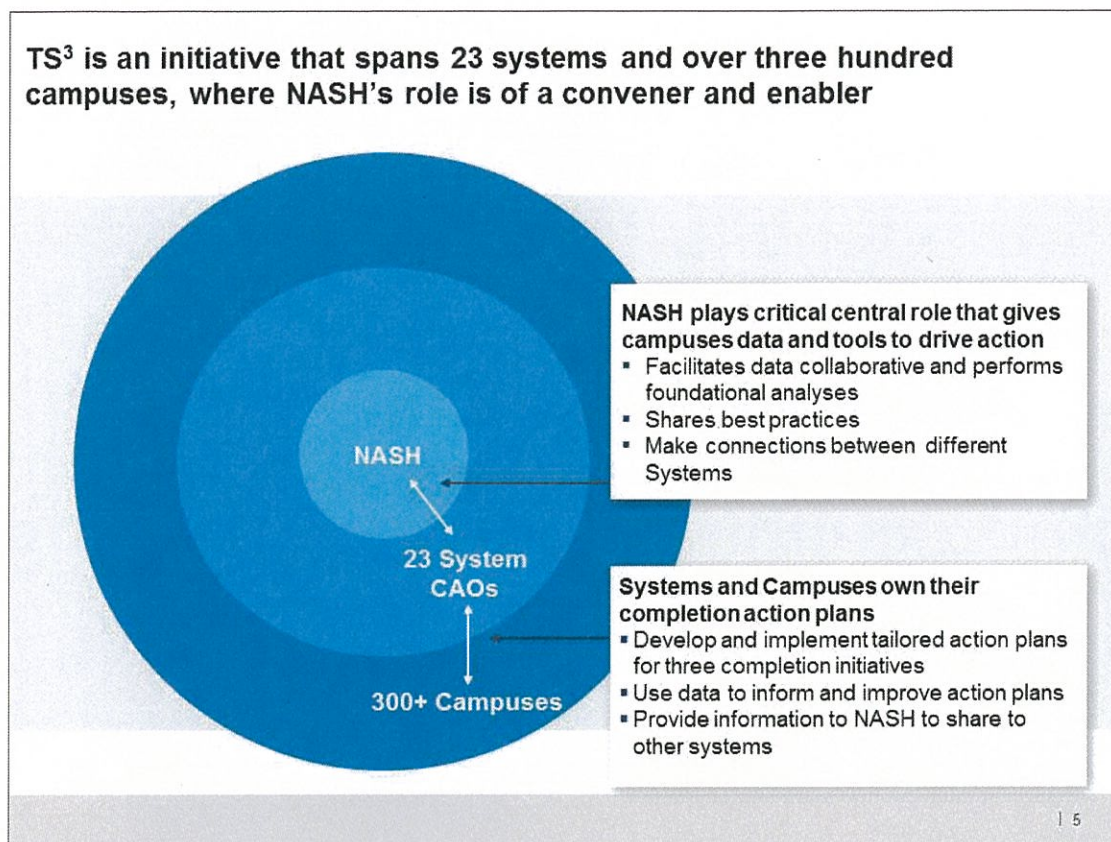
We have done much during first two years (Figure 4) to raise awareness of these intervention strategies, offering eight webinars with national experts, creating and disseminating content with an emphasis on adoption and scaling, and holding a national convening to bring together key leaders from 21 systems and more than 100 campuses.

Recognizing that the continuation of this important work will require additional resources to move forward collectively, the NASH Board formed the TS³ Partners, inviting systems to directly support and invest in the network to continue the work. Moving forward, the network is needed to establish common implementation milestones and definitions of success and related metrics, collect data on progress, keep communication flowing, and provide infrastructure to share and explore effective practices. Network resources are being utilized to underwrite national convenings, targeted webinars, and a virtual learning community. To date, fifteen of the TS³ systems have joined as partners, creating a pool of resources to support the network.

While NASH has a small central staff, we have distributed capacity across our systems, as evidenced by the significant progress made since this initiative was formed. Unlike other membership organizations with conferences to plan and publications to develop, NASH has been able to focus on TS³ as the sole priority for the members and the board. System leaders have stepped forward to lead this work, with significant commitments of senior staff time in six systems:

- California State University
- State University of New York
- Tennessee Board of Regents
- University of Colorado System
- University System of Georgia
- University System of Maryland

FIGURE 5. TS³ ORGANIZATION



By vesting the leadership for the TS³ Network in the systems, we have expanded the capacity of NASH to drive the work (Figure 5). The lead system for each intervention is developing content, hosting webinars, and supporting virtual learning communities. In each of the 23 systems, leaders are collaborating with their designated campuses. There is great excitement and momentum across this group that can be significantly advanced by additional support, building on the substantial investments in the intervention strategies already made by these systems and their campuses.

MOVING FORWARD

In the early stages of NASH TS³, we focused on ideation, experimentation, and organizing around a common goal. Following the decision of the NASH leadership to focus its attention on leveraging the power of systems through collective impact on its top priority of student success, experimental models for scaling interventions were identified and shared. We are now moving beyond building awareness to focus on implementation and action. The TS³ Partner funds have allowed us to advance these broad efforts, continuing the virtual network, establishing baseline metrics, and holding an annual convening.

In the next phase, we will move to systematizing and scaling these interventions in a subset of the TS³ campuses in the cohort. This second phase highlights a critical assumption in TS³. *Taking Student Success to Scale* does not set out to

prove again through extensive research that these initiatives are effective; the benefits of math pathways, high impact practices, and predictive analytics have already been demonstrated. Instead, the TS³ network provides system heads with a means of organizing large-scale change management, by tracking their progress relative to peers and benefiting from a national learning community.

This work will focus on developing an ecosystem of change agents who advocate the enactment of the intervention, building a critical mass who begin to change what is considered to be the norm and strengthening the learning networks by cataloging how campuses have tailored the intervention to suit their contexts. The learning network will continue in a more intensive format, with the gathering of a selected set of campus teams to focus on implementation challenges and monitoring impact.

By the end of this phase of TS³, the following questions will be addressed:

- Where are the bright spots?
- Who did this well?
- How would they describe success?
- Will they serve as teachers and diffusers of the lessons learned?
- What tools were developed?
- What obstacles arose?
- Were there unintended consequences?

The larger TS³ network will also continue to function during the adoption phase, primarily in the virtual learning community and through the annual convenings. Network members will be kept apprised of the activities in the campuses and systems moving forward with deeper adoption, learning from their challenges and successes. Ongoing assessment of progress will be the focus of the work.

ASSESSMENT AND DATA

While current data and tools provide a foundation for analyses that promote student success, they fall short of offering key decision makers and stakeholders the actionable knowledge they need to improve the manner in which they engage students in their academic endeavors. Creating the foundation for the data component of TS³ would represent a major step to ensuring that student success interventions are more broadly understood, effectively deployed, and culturally embraced at the system and institutional levels. Though assessment has not been a focus of the first phase of TS³, anticipating the need for better data has already begun. Plainly put, we need better data to drive these changes, and we need to use it to scale up proven interventions.

TS³ represents an unmatched opportunity to cut through the structural and cultural barriers that stand in the way of step-change gains in student success. Together, 23 participating systems have pledged to collaborate to diffuse and scale intervention strategies that are shown to improve student outcomes and close equity gaps. The effectiveness of this partnership begins and ends with strong evidence and shared learnings.

The first steps towards realizing the full potential of TS³ lie in creating a shared framework for large-scale implementation of three proven strategies for student success. As participating states develop a collective understanding of taking student success to scale, they will be better able to locate their own work precisely in a national context. This would represent the shared culture that is prerequisite to a strong foundation of data and promoting and embedding data-informed decision making at both the system and campus

“As participating states develop a collective understanding of taking student success to scale, they will be better able to locate their own work precisely in a national context.”

levels. Ultimately, we will build a data collaborative to fully assess the adoption of these interventions in TS³ systems and campuses. Our efforts at assessment will include data that is timely and accurate across the areas shown in Figure 6.

By creating the foundations for intervention and expanded postsecondary and system data, we hope to answer a broader range of questions related to student success interventions and outcomes:

- What do we know about the students who are at risk?
- What would be the appropriate intervention(s) to apply?
- Are there differences in how interventions perform in different settings for different students?
- How can campuses best use their limited resources to support student success?
- For a given campus or system, what is the next natural phase of implementation as we attempt to take these student success strategies to very large scale?
- Do these interventions help students who are underrepresented, low-income, underprepared and/or underrepresented and low-income get a degree and a job?

FIGURE 6. TS³ METRICS



“The collective approach to moving forward with innovation in networked improvement communities will serve to strengthen the adoption of these changes and the institutionalizing of the resulting programs.”

Unlike previous efforts at collecting and disseminating data, the proposed assessment structure is designed to manage and facilitate large-scale change, build awareness at the system and campus levels of the most effective evidence based practices, and create a field-validated research base to accelerate adoption and action.

SUSTAINABILITY

NASH TS³ has been conceived from the beginning as an effort to build sustainable change into the fabric of our systems and campuses. The interventions selected for this work are directly related to reforms already underway in many of the institutions involved. The collective approach to moving forward with innovation in networked improvement communities will serve to strengthen the adoption of these changes and the institutionalizing of the resulting programs. We can document the investments that these campuses are already making in the areas of intervention, and the commitment on the part of each system to sustain these innovations is clear. By building on work already underway and requiring initial investments at the system and campus level, we have designed an undertaking that will continue to develop long after the initial support resources are exhausted.

While some campuses and systems have selected one or two of the interventions for early adoption, all are interested in learning from the implementation of all three interventions across the network. The power of the holistic strategy

is evident, and the entry point for each campus is just the beginning of a larger change in the approach to student success.

Further, the implementation of these interventions in the cohort of campuses identified in TS³ is just the initial stage of adoption across our systems. Based on the efforts of this network, each TS³ system has committed to scale the interventions across all of their campuses. Our goal is to reach the point of scale and adoption where the innovation becomes the standard, and complementary cycles of innovation can begin anew.

CONCLUSION

The TS³ Network provides a common platform to implement tested interventions and measure their impact on student achievement for all types of systems and institutions involved in the initiative. This will support our dual promise of access and opportunity for all students who wish to pursue higher learning, especially those from underrepresented minority and low-income backgrounds. By creating a platform for shared implementation experiences and by using volunteer systems and institutions as test sites for the adoption and analysis of each of the three chosen interventions, we hope to strengthen the TS³ networked improvement community on behalf of the students and communities we serve, particularly those who are in greatest need. □

RESOURCES

- Bensimon, E. M., Dowd, A. C. Longanecker, D., & Witham, K. (2012). We have goals; now what? *Change: The Magazine of Higher Learning*, 44(6), 14–25.
- Bryk, A. (2015). *Learning to improve*. Cambridge, MA: Harvard University Press.
- Crandall, J.R., & Soares, L. (2015). *The architecture of innovation: system-level course redesign in Tennessee*. Washington, DC: American Council on Education.
- Denley, T. (2013). *Looking to improve success*. Retrieved from Brightspace website: <http://www.brightspace.com/blog/looking-improve-success/#.VPnB7vnF-2p>
- Denley, T. (2014). How predictive analytics and choice architecture can improve student success. *Research & Practice in Assessment*, 9(Winter), 61–69.
- Gagliardi, J. S. (2015). From perpetuation to innovation: removing barriers to change in higher education. In Lane, J. E. (Ed.), *Higher education reconsidered: executing change to drive collective impact* (pp. 37–54). Albany, NY: State University of New York Press.
- Gagliardi, J. S., Lane, J. E., & Zimpher, N. L. (Eds.). (forthcoming). *Higher education systems redesigned*. Albany, NY: State University of New York Press.
- Gagliardi, J. S., Martin, R. R., Wise, K., & Blaich, C. (2015). The system effect: scaling high-impact practices across campuses. *New Directions for Higher Education*, 2015, 15–26.
- Hovannesian, A., & O'Donnell, K. (forthcoming) A system perspective on scaling high impact practices. In Gagliardi, J. S., Lane, J. E. & Zimpher, N. L. (Eds.), *Higher education systems redesigned*. Albany, NY: State University of New York Press.
- Kania, J., & Kramer, M. (2011). Collective Impact. *Stanford Social Innovation Review*, Winter 2011, 36–41.
- Lane, J. E., & Johnstone, D. B. (Eds.). (2013). *Higher education systems 3.0: harnessing systemness, delivering performance*. Albany, NY: State University of New York Press.
- Malachowski, M., Osborne, J. M., Karukstis, K. K., & Ambos, E. (2015). Realizing student, faculty and institutional outcomes at scale: institutionalizing undergraduate research, scholarship and creative activity within systems and consortia. *New Directions for Higher Education*, 2015, 15–26.
- Martin, R. R. (forthcoming). Driving student success collectively. In Gagliardi, J. S., Lane, J. E. & Zimpher, N. L. (Eds.). *Higher education systems redesigned*. Albany, NY: State University of New York Press, in press.
- Mintz, S. (2014, March 26). The shifting role of university systems. *Inside Higher Ed*. Retrieved from <https://www.insidehighered.com/blogs/higher-ed-beta/shifting-role-university-systems>
- NASH: Taking Student Success to Scale. (2016). Retrieved from <http://ts3.nashonline.org>
- Park, S., Hironaka, S. Carver, P. & Nordstrum, L. (2013). *Continuous improvement in education*. Stanford, CA: Carnegie Foundation for the Advancement of Teaching.
- Redesigning Math Pathways: A NASH Priority. (2016). Retrieved from <http://ts3.nashonline.org/wp-content/uploads/2016/10/2016.07.12-Redesigning-Math-Pathways-2.pptx>
- Yeado, J., Haycock, K., Johnstone, R., & Chaplot, P. (2014). Education trust higher education practice guide: Learning from high-performing and fast-gaining institutions, top 10 analyses to provoke discussion and action on college completion. Retrieved from <http://edtrust.org/resource/educationtrust-higher-education-practice-guide-learning-from-high-performing-and-fast-gaining-institutions/>
- Zimpher, N. L. (2013). Systemness: Unpacking the value of higher education systems. In J. E. Lane & D. B. Johnstone (Eds.), *Higher education systems 3.0: harnessing systemness, delivering performance* (pp. 27–44). Albany, NY: State University of New York Press.