IM STEM

Using Collective Impact to Broaden Participation in STEM and CTE through a Multi-State Systems Approach

EXECUTIVE SUMMARY

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In 2017, the National Alliance for Partnerships in Equity Education Foundation (NAPE) was awarded a grant from the National Science Foundation to implement the Intermountain STEM network (IM STEM). IM STEM included stakeholders from government, business, education, and communities across six states (Colorado, Idaho, New Mexico, Nevada, Utah, and Wyoming) who represented science, technology, engineering, and mathematics (STEM) education, career and technical education (CTE), and workforce development. IM STEM used a collective impact model to create systems changes in state-level agencies and organizations with the goal of providing diverse students access and opportunities for success in STEM and CTE.

Collective impact initiatives are characterized by five core elements: backbone support, a common agenda, continuous communication, mutually reinforcing activities, and shared measurement. In the following section, we summarize key findings regarding each element in IM STEM.

1 BACKBONE ACTIVITIES

NAPE served as the backbone supporting the formation of the network and its nascent efforts, together with a strong and committed Steering Committee. We built a network with more than 1,000 members committed to addressing equity in STEM and CTE. However, it was a challenge to create a sense of shared ownership among the partners so that the backbone wasn't driving the initiative. With limited financial and human resources, we found it difficult to engage Steering Committee members for the long haul and to involve Network members beyond attending meetings.

2 CREATING A COMMON AGENDA

We were successful in establishing a broad shared vision and mission, that is, to create a cross-state alliance of formal education system partners who are committed to systems change that creates a culture of success for every student in STEM, ultimately leading to a more diverse STEM workforce. However, developing specifics to achieving that mission was more difficult. The diversity of the partners, the breadth of the mission, and the need for more time to focus the network's efforts could explain why developing a specific agenda was difficult.

3 CONTINUOUS COMMUNICATION

We implemented multiple communication vehicles: a personal welcome email from a Steering Committee member when an individual signed up to participate in the network; social media via Facebook, LinkedIn, and Twitter; monthly e-newsletter; and listserv. These strategies did not create the two-way communication platform we intended, but they did facilitate network building and resource dissemination.

4 MUTUALLY REINFORCING ACTIVITIES

We used workgroups to develop activities across states in the Network. These resulted in the creation of a **STEM Equity Program Evaluation Rubric** ↗; STEM Asset Map sharing from three states (Idaho, New Mexico, and Wyoming); and creation of a pilot STEM Asset Map in Nevada. Steering Committee members chaired and participated in workgroups, but engaging the larger group of Network members in these activities was challenging.

5 SHARED MEASUREMENT

We created a Metrics, Data Collection, and Reporting Workgroup to fulfill the role of this collective impact element. The workgroup studied the feasibility of cross-state data sharing, which resulted in updating NAPE's national CTE data dashboard. In addition, a pilot state-level data dashboard was developed using Idaho's CTE data. Efforts to create cross-state data sharing were not feasible as reauthorization of the Perkins Act led to changes in state data collection requirements for CTE and a shift in their data systems.

IM STEM's attempt to use a collective impact model to build a network of state-level organizations working together to broaden participation in STEM showed promise. Typically, collective impact is conducted at a community level, and few models use this approach to facilitate systems change across states such as IM STEM. **We hope the following lessons learned will help you as you consider using collective impact to create systems change.**

Don't boil the ocean

The collective impact process should identify very specific outcomes the partners want to achieve.

Commit adequate resources to support the backbone

To ensure continued progress, collective impact work requires the support of a backbone entity that can serve as convener, provide staff, and collect and report results.

Get it right from the beginning

The collective impact process requires that all stakeholders contribute to the development of a common agenda and strategic plan. Don't assume that everyone owns the plan if they were not involved in creating it.

Build on the strengths of the partners

Be sure that all partners have a meaningful role to play and are responsible for some aspect of the work to give them ownership and a reason to be engaged.

Stay true to your common agenda

Once set by the partners, revisit the common agenda regularly to reinforce the partners' commitment to it.

Take time to do this work—Be patient

It takes time to create real change. "**Collective impact is a long-term play, not a shortcut to social change**." Sarah Stachowiak & Lauren Gase ↗

All of the successes and challenges were well worth the effort. The lessons learned were significant and will be applied as all the organizations involved in this pilot continue to be creative and innovative and to collaborate to increase opportunities for diverse learners in STEM and CTE.

TO READ THE FULL REPORT, PLEASE VISIT NAPEQUITY.ORG/IMSTEM. ↗