The Networked Improvement Community:
Addressing Issues of Equity, Inclusion and Diversity within Higher Education
CIRTL AGEP

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CIRTL AGEP'S Goal

CIRTL AGEP's goal is to increase the aspirations to and attainment of faculty roles in STEM fields among scholars from AGEP populations by advancing knowledge about pathways to career success. The program objectives support the development and implementation of innovative doctoral education programs, and advance knowledge about underlying issues that impact the participation and advancement of scholars from historically underrepresented communities in STEM fields.

What is a Networked Improvement Community (NIC)?

A networked improvement community (NIC) is a learning community utilizing improvement science to address a complex problem. NICs leverage partners' expertises and contexts to accelerate learning and change efforts (Bryk et al., 2011; LeMahieu, 2015).

NICs are characterized by:
- a common and well-defined aim
- a shared understanding of the problem, the structures creating and perpetuating the problem, and a working theory to address it
- processes for developing, implementing, testing, refining, and sharing interventions
- coordination throughout the development, implementation, and integration efforts in varied contexts

Role of Institutional Contexts

CIRTL AGEP's NIC institutions each have different contexts based on:
- Geographic location
- Institutional type & control (high & very high research; special focus institutions; public vs private)
- Historical context
- Resources & capital

Additionally, NIC members have different positions at their institutions and social capital, which influences the levers of institutional change available to them.

CIRTL Alliances for Graduate Education and the Professoriate (AGEP) Participating Postsecondary Institutions

HOWARD UNIVERSITY · IOWA STATE UNIVERSITY · UNIVERSITY OF TEXAS ARLINGTON · Northwestern University · MICHIGAN STATE UNIVERSITY · University at Buffalo The State University of New York · BOSTON UNIVERSITY · UNIVERSITY OF GEORGIA · UNIVERSITY OF MARYLAND · CORNELL UNIVERSITY
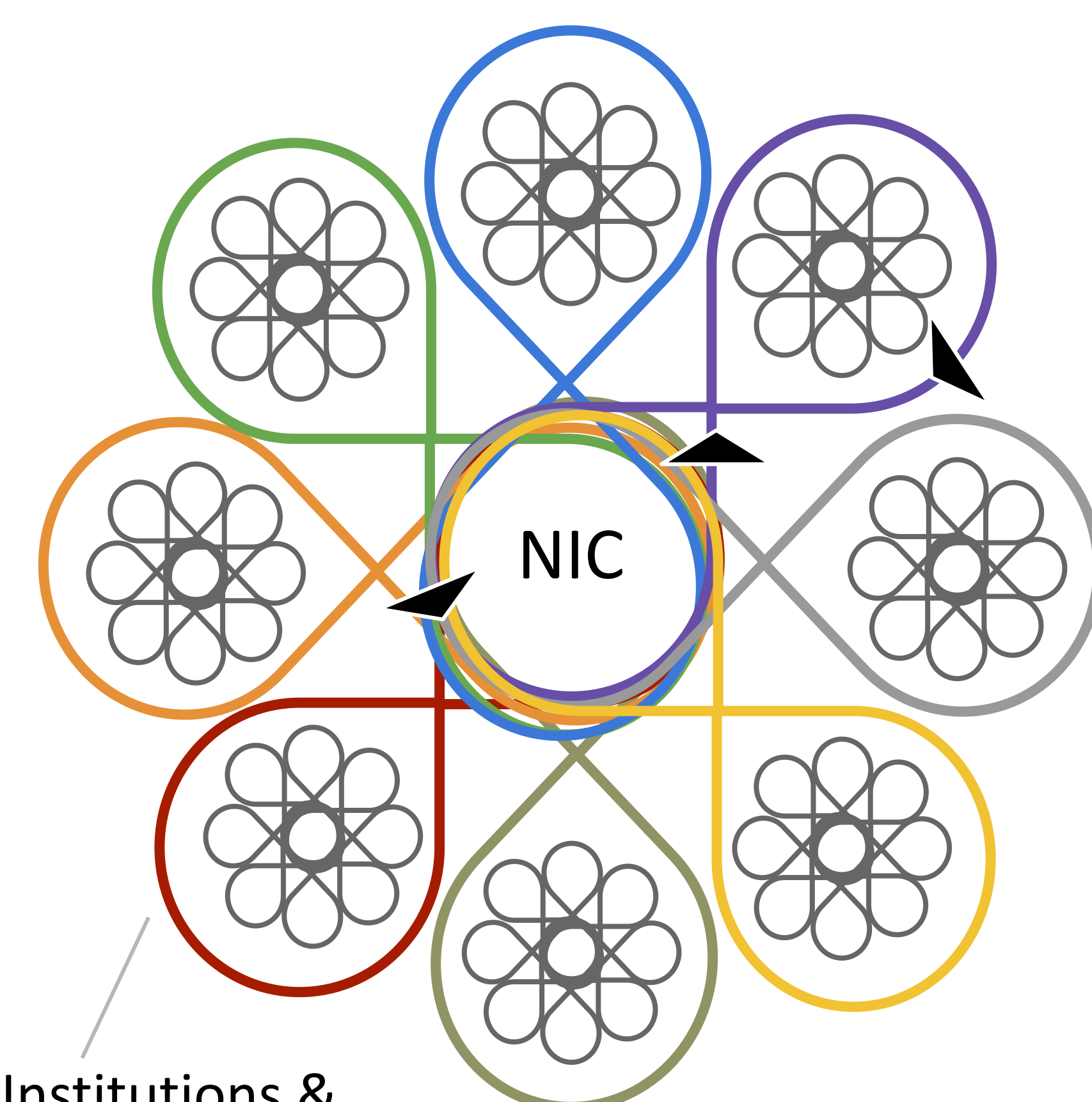
The NIC in Action

Research Questions
How does a NIC structure work in a higher education landscape?
How did the NIC facilitate change on individual campuses?

In Theory
A NIC comprised of multiple higher education institutions requires ongoing attention to both the NIC itself and the individual institutions. This model, advancing the work of Englebart (1994) and Bryk et al. (2011), reflects the dynamic nature of working with an inter-institutional NIC. Information and attention must move between the NIC and institutions. These cycles of information sharing, learning, and innovation are constantly in progress. A particular challenge and the strength of a NIC structure is this constant negotiation between the NIC and its individual institutional members.

Proposed Model of a NIC in Action[1]

NIC

Institutions & Campus Networks

### CIRTL AGEP's NIC in Practice

Inputs
- 9 intervention campuses, social science team, evaluation team, & advisory board
- research on graduate education, campus climate, & organizational change

Happening at the NIC level
- information, intervention, resource, & strategy sharing
- relationship & network building across campuses
- personal reflection & development
- ongoing learning
- navigating different institutional needs, opportunities, & constraints

Happening at the institutional level
- ongoing intervention implementation & assessment
- relationship & network building among campus stakeholders, especially campus leaders

[1] This model is an example. CIRTL AGEP's NIC includes 10 institutions.
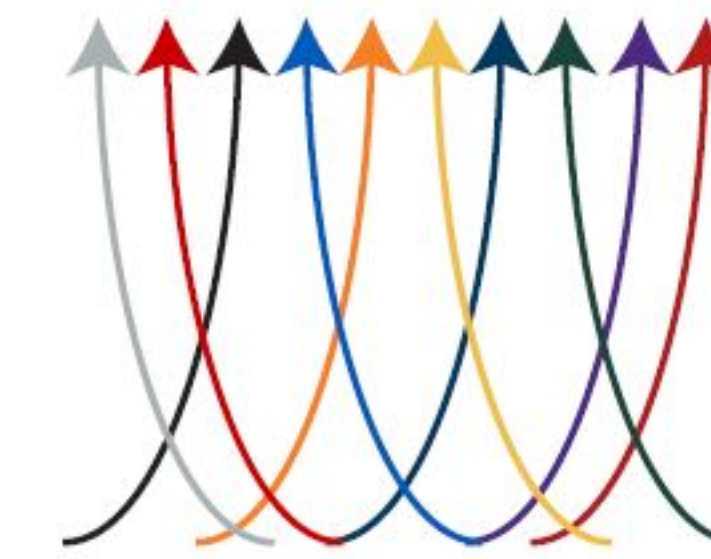
Significance

CIRTL AGEP work addresses the need for more underrepresented faculty in STEM. Graduate STEM students may not aspire to or pursue academic careers due to discriminatory experiences plaguing the STEM environment. The climate of STEM graduate education can influence graduate students' and postdoctoral fellows' interest in pursuing faculty careers. If our NIC institutions can continuously improve and maintain climates that foster and promote equity, inclusion, and diversity, then we hypothesize that the likelihood of underrepresented students pursuing faculty careers will increase. For example, the NIC's ability to share challenging and successful practices provides the opportunity for institutions to learn from each other and improve institutional environments for underrepresented students. When a NIC functions in this way, it is an effective approach to advance campus-based equity, inclusion, and diversity efforts.

Future Directions

As our NIC continues its work, we suggest the following questions to guide future research and practice:

- How can a NIC structure advance learning and change processes in multi-institutional collaborations when contexts and needs are highly variable?
- Which leadership structures and approaches are most compatible with a NIC?
- What is the lifecycle of a NIC?
- How might institutional contexts and participants' institutional positions be better accounted for in the forming and maintenance of a NIC?
- What onboarding and offboarding processes would best support the NIC's continued work as membership shifts over time?