The Transformative Change Initiative:

Capitalizing on TAACCCT to Scale Innovations in the Community College Context

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Introduction

Started in 2012, the Transformative Change Initiative (TCI) is dedicated to assisting community colleges to scale-up innovations in the form of guided pathways, programs of study, and evidence-based strategies to improve student outcomes and program, organization, and system performance. Transformative change refers to implementing, sustaining, and scaling change that produces unprecedented results without sacrificing the historic commitment of community colleges to access, opportunity, and equitable outcomes. Community colleges that engage in TCI are committed to innovations that are as effective for underserved learners as they are for student groups that have traditionally enrolled in college. Pushing performance to new levels is not just an axiom for TCI, it is TCI's fundamental mission.

Through the leadership of experienced practitioners and the support of researchers and experts affiliated with the Office of Community College Research and Leadership (OCCRL) and The Collaboratory, TCI is currently assisting over 230 community colleges throughout the nation to improve postsecondary education and workforce outcomes. With the generous support of the Bill & Melinda Gates Foundation, Lumina Foundation for Education, and the Joyce Foundation, over the next two years TCI will increase its outreach to a growing network of community colleges that are committed to transformative change through the TCI Network, applied research on scaling innovations, convenings, webinars, and other technical support.

Scaling Transformative Change

Strategic implementation of guided pathways, programs of study, and evidence-based strategies is a critical goal of TCI. How can this be done? Jeanne Century, a leading researcher on scaling innovation at the University of Chicago, claims the two critical dimensions of scaling are **spread** and **endurance** (Century, Rudnick, & Freeman, 2010).[1] Strategically envisioning how innovations will spread and how they will endure is key to successful scaling in any context, but especially important when so much is at stake in the postsecondary education and workforce contexts.

Spread refers to determining whether scaling will be done within an organization or with other organizations. In other words, it refers to how wide the innovation will reach. Is scaling intended for broad reach and impact within the organization that originates the innovation, or is it intended to reach and impact multiple organizations (e.g., other community colleges, K-12 education, universities, workforce agencies, employers, community-based organizations, and others)? Setting clear targets to inform the spread of an innovation is necessary to achieve meaningful results.

Endurance is about how long an innovation will last and what processes are needed to ensure the proposed longevity. Few changes of substance come about quickly, so a commitment to change over time has to be deliberate. Realistic timelines are needed to both implement and institutionalize change, with institutionalization referring to fully integrating innovations into an organization's structures, processes, and culture. According to Century (2013), adaptation is key

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[1] Century, J., Rudnick, M., & Freeman, C. (2010). A framework for measuring fidelity of implementation: A foundation for shared language and accumulation of knowledge. *American Journal of Evaluation, 31,* 199-218.

to endurance because most innovations acclimate to the local context over time, not immediately. Adaptation and acclimation are required for long-term endurance.[2]
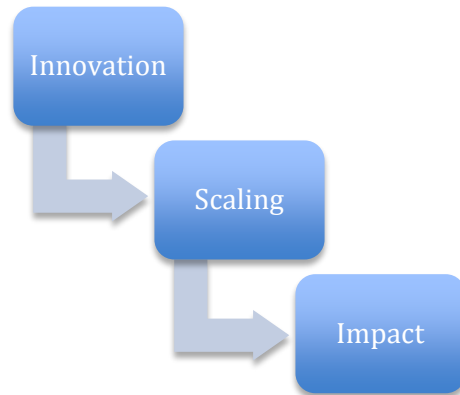
Practitioners and other stakeholders who are engaged in scaling innovations should not lose track of the fundamental goal of scaling, which is to grow impact (Enright, 2013).[3] Kathleen Enright, the President and CEO of Grantmakers for Effective Organizations, makes a compelling case for the ultimate goal of scaling to be growing impact. According to Enright, scaling isn't just about changing or even about doing things better, it's about changing and doing better things to produce greater impact. In the educational context, greater impact is ultimately about improving outcomes, increasing social impact, and contributing to the public good.

Window of Opportunity

The impetus for TCI is the Trade Adjustment Assistance Community College and Career Training (TAACCCT) program. Beginning in 2011, the United States Department of Labor (DOL) began awarding a total of nearly $500 million per year to single institutions or consortia of colleges that implement guided pathways, programs of study, and evidence-based strategies that are intended to improve postsecondary education and workforce performance throughout the United States. Through highly competitive 3- or 4-year grants, community colleges are required to recruit and assist Trade Adjustment Act (TAA)-eligible workers and other adults to participate in "undergraduate education and career training program strategies or to replicate existing designs, program development methods, and/or delivery strategies that have established evidence of successful implementation… [and] ensure that our nation's higher education institutions are able to help TAA-eligible workers and other adults acquire the skills, degrees, and credentials needed for high-wage, high-skill employment while also meeting the needs of employers for skilled workers" (U.S. Department of Labor, Employment & Training

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[2] Century, J. (2013, December). *10 considerations for measuring the spread and endurance of education innovations*. Keynote address presented at the Transformative Change Initiative Evaluation Collaborative. Chicago, IL. For more on Dr. Century's recommendations on scaling, see: http://occrl.illinois.edu/10-considerations-for-measuring-the-spread-and-endurance-of-educational-innovations/
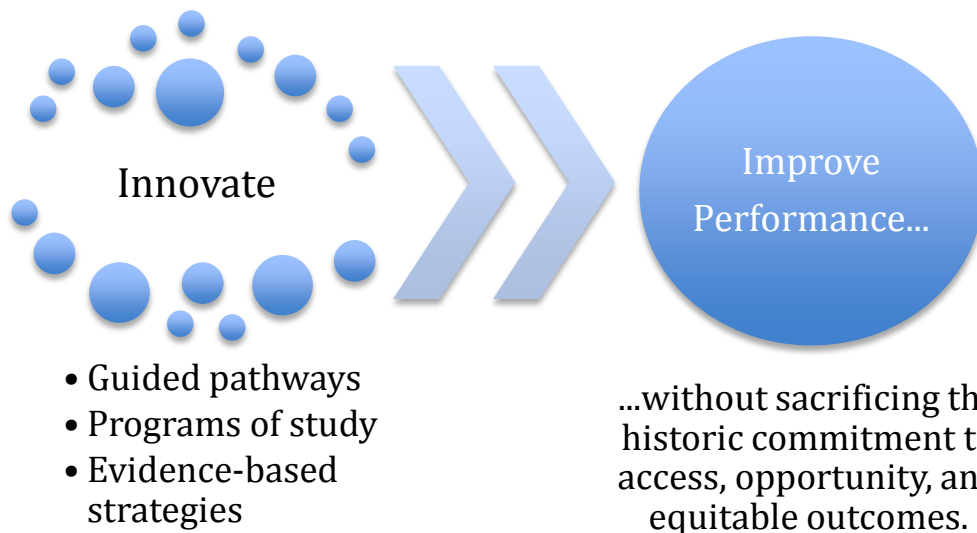
[3] Enright, K. (2013, June). *Pathways to grow impact*. Keynote address presented at the Transformative Change Initiative Scaling Forum. Chicago, IL. For more on Ms. Enright's comments on scaling to grow impact, see: http://occrl.illinois.edu/projects/transformative_change/community-college-transformative-change-initiative-meeting-resources/

Administration, 2010).[4]

Guided Pathways, Programs of Study, and Evidence-Based Strategies

The TAACCCT grants provide funds to support guided pathways, programs of study, and evidence-based strategies designed to improve and student, program, and system performance. The pathways and programs of study are linked to careers in a wide range of occupations that are experiencing growth in the US economy, including Science, Technology, Engineering and Mathematics (STEM), health care, business, and other fields.

Evidence-based strategies include accelerated and contextualized developmental education; competency-based curriculum; online learning technologies; intensive student supports; industry-recognized stackable credentials; and career development and job placement, to name a few. Ultimately, TAACCCT attempts to support community colleges in building capacity and improving performance by serving as a test-bed for scaling innovations on a level never before seen in the United States.

Innovate

> Improve Performance…

- Guided pathways
- Programs of study
- Evidence-based strategies

…without sacrificing the historic commitment to access, opportunity, and equitable outcomes.

Transformative Change Initiative Framework

The TCI Framework presents the rationale and guiding principles for scaling innovation in the community college context. Why focus on guiding principles? Centering scaling on guiding principles is important because principles provide direction rather than prescription. They represent the intentionality of the innovation in ways that often allow for multiple actions (practices) to take place. Principles provide "guidance for action in the face of complexity"

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[4] U.S. Department of Labor, Employment and Training Administration. (2013). *Notice of Availability of Funds and Solicitation of Grant Applications for Trade Adjustment Assistance Community College and Career Training Grants Program (Round Three)*. Washington, DC: Author. Retrieved from http://www.doleta.gov/grants/pdf/taaccct_sga_dfa_py_12_10.pdf

(Patton, 2011)[5] so that adaptation can occur in ways that achieve the intended outcome in the local context. Also, principles reflect the underlying knowledge and beliefs that guide the actions that practitioners undertake to implement and sustain change, revealing lessons to grow impact.

Our theory of change for TCI suggests scaling happens most successfully when practitioners apply "guiding principles" to their implementation and scaling efforts. When practitioners act intentionally to set goals and posit intended outcomes, promising practices emerge that yield student outcomes that are also linked with improving program, organization, and system performance. Our theory asserts that scaling represents the decisions that practitioners (and stakeholders) make about what they understand and believe to be good practice, and these practices ignite a change of actions, reactions, and outcomes that both reflect and shape the evolving local context. In this view, scaling is not so much about replicating what others assert is good practice, which is a classic theory of scaling,[6] (Schorr & Farrow, 2011) but about becoming an instrument of the scaling process. To make this happen, practitioners need to be aware of the principles that guide their practice, and they need to reflect those principles in the practices that they implement and sustain over time.

The following themes are reflected in the guiding principles of the TCI Framework:

1. Leadership, organization, and support

2. Adoption and adaptation

3. Networks and professional development

4. Policy-focused and publicly financed reform

5. Technology support and technical assistance

6. Targeted sharing and dissemination

7. Evaluation utilization to grow impact

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[5] Patton, M. (2011). *Developmental evaluation: Applying complexity concepts to enhance innovation and use.* New York, NY: The Guilford Press, p. 167.

[6] Schorr, L. B., & Farrow, F. (2011, July). *Expanding the evidence universe: Doing better by knowing more.* Washington, DC: Center for the Study of Social Policy. Retrieved from http://lisbethschorr.org/doc/ExpandingtheEvidenceUniverseRichmanSymposiumPaper.pdf

Leadership, Organization, and Support

Leaders who engage in transformative change come from many backgrounds and represent many perspectives. Top-down leadership associated with formal administrative roles is important to transformative change, but so is bottom-up leadership. In the context of transformative change, leadership is less about formal structure than persistent persuasion. Ultimately, leadership to scale innovation isn't so much about lines of authority but about the ideas and actions that individuals put forth to generate new understandings of, enthusiasm for, and commitment to change. Developing a thoughtful plan sets scale-up activities on a promising trajectory by creating a vision for change, assessing the potential for scaling to be successful, gathering needed information about innovations and audiences, and preparing stakeholders to engage in the scaling processes (Kooley & Kohl, 2006).[7]

Shared leadership, also called distributed leadership, (Spillane, 2006)[8] is an important way of thinking about the kind of leadership that is needed to implement and scale change. Improving pathways, programs, and practices in the context of the community college "…requires the active engagement of multiple stakeholders who act collectively to create and implement a shared vision, to execute short- and long-term goals and plans, and to engage actively in strategic implementation…" (Taylor et al., 2009).[9]

The notion of **transformative leadership[10]** (Shields, 2010) suggests leaders are agents of change who are acutely aware of diverse learners' aspirations to access education, to participate fully and successfully in learning, and to achieve desired outcomes. Transformative leaders are advocates for access, equity and opportunity for all students, especially student populations that have not acquired access to higher education in the past. Leaders who are committed to transformative change assume heightened responsibilities for the dual goal of enhancing equity and improving student outcomes.

Ensuring organizational support, including adequate fiscal resources, is important to incentivizing and sustaining the people who engage in innovation. Individuals who resonate with "big-picture thinking" as well as those who prefer a "deep dive" into implementation are needed. Democratic processes of coordination and collaboration are needed to address complexity and bring about change.

> **Guiding Principle 1: Leadership, organization, and support are essential to implementing, sustaining, and scaling transformative change.**

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[7] Cooley, L., & Kohl, R. (2012). Scaling up—From vision to large-scale change: A management framework for practitioners. Washington, D.C.: Management Systems International. Retrieved from http://www.msiworldwide.com/wp-content/uploads/MSI-Scaling-Up-Framework-2nd-Edition.pdf

[8] Spillane, J. (2006). *Distributed leadership.* San Francisco, CA: Jossey-Bass.

[9] Taylor, J. L., Kirby, C. L., Bragg, D. D., Oertle, K. M., Jankowski, N. A., & Khan, S. S. (2009). *Illinois programs of study guide.* Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign. Retrieved from http://occrl.illinois.edu/files/Projects/pos/POSguide.pdf

[10] Shields, C. M. (2010). Transformative leadership: Working for equity in diverse contexts. *Education Administration Quarterly, 46*, 558-589. doi:10.1177/0013161X10375609

Adoption and Adaptation

The classic idea for scaling innovation calls for replication with fidelity, meaning implementation consistent with the original innovation[11] (Murray, Caulier-Grice, & Mulligan, 2009). Whereas the simplicity of this idea is attractive—follow the recipe, fix the problem—increasingly scholars and practitioners are questioning whether replication is either feasible or effective in complex settings. In the case of TCI, we argue community colleges having multiple missions, diverse learners, comprehensive curricula, and different funding streams more than qualify as complex organizations. For these colleges, practitioners need to pay as much attention to how an innovation has to adapt to fit the local context as how to replicate with fidelity. Lisbeth Schorr, a leader in scaling in family and community settings, concurs that in order for innovations to last, they must adapt to the locations where they are implemented. Her analysis of promising innovations reveals that a lack of understanding of local forces, combined with over-simplified ideas about how innovations spread, lead to disappointing results. A more promising approach involves practitioners recognizing how the local context influences implementation; using data to understand what is working and what is not; and repeating the pattern of implementing, measuring, learning, and adapting over time. Her thoughts echo those of John Kotter, the leading organizational change expert who keynoted the inaugural TCI Learning Lab in Anaheim in February 2013.[12] Establishing a sense of urgency for change, communicating the vision for change, and integrating change into the local cultural context is important to organizational adaptation and improvement, according to Kotter.

Identifying the components of an innovation and understanding how these components are being implemented provides valuable insights into how well an innovation will scale. Schorr's recent article on measuring social impact reinforces this point. In it, she observes, "Focusing on spreading the identified components of effective interventions is often more promising than attempting to replicate entire programs, because even proven models are seldom so strong that the program will be successful regardless of the circumstances in which it is replicated" (Schorr, 2012).[13]

Chris Dede, an expert on scaling in the K-12 education context, concurs that successful scaling requires adapting innovations to the local context, which means "closing gaps that exist between the innovation's demands and an organization's capacity" (Dede, 2006).[14] To change practice may require policy changes to remove roadblocks, and it may require professional development to help faculty and staff understand innovations and allow them to be sustained and grow.

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[11] Murray, R., Caulier-Grice, J., & Mulligan, G. (2010, March). *The open book of social innovation*. Washington, DC: Center for American Progress. Retrieved from http://youngfoundation.org/publications/the-open-book-of-social-innovation/

[12] For more on John Kotter's work, see http://www.kotterinternational.com/our-principles/changesteps

[13] Schorr, L. B. (2012, Fall). Broader evidence for bigger impact. *Stanford Social Innovation Review*, Fall 2012. Retrieved from http://www.ssireview.org/articles/entry/broader_evidence_for_bigger_impact

[14] Dede, C. (2006). Scaling up: Evolving innovations beyond ideal settings to challenging contexts of practice. In R.K. Sawyer (Ed.), *Cambridge Handbook of the Learning Sciences*. Cambridge, England: Cambridge University Press, p. 11.

Guiding Principle 2: Adoption and adaptation are key to implementing, sustaining, and scaling innovation.

Networks and Professional Development

When community colleges engage in TAACCCT (and other similar initiatives), they become part of a larger network of community colleges that have similar goals and expected outcomes. Consortia created through TAACCCT bring together community colleges in networks that connect to other schools and to the workforce to address workforce, economic, and social concerns. To do this, community colleges draw upon local expertise to share resources and technical support; through partnerships they collaborate with workforce agencies, employers, universities, community-based organizations, and others to address local needs.

Working independently or in conjunction with others, community colleges prepare diverse learners to navigate guided pathways through postsecondary education and into the workforce. Sharing information about how labor markets work and how education and training providers are linked to local, state, and/or global economies is important. Through strategic communications, practitioners acquire the necessary knowledge they need to scale innovations.

With respect to TAACCCT, a consortium of community colleges act as a network to support practitioners and their partners in engaging in principle-driven practice to implement and scale innovations. Through the TCI Network, TAACCCT consortia operate as a mega-network that links expertise and experience across these different consortia.

Guiding Principle 3: Through networks and professional development, community colleges gain access to expertise and resources that are vital to scaling innovation.

Policy-Focused and Publicly Financed Reform

Most community colleges are publicly financed and therefore influenced by the political and fiscal environments in which they operate. Of course, not every innovation is legislatively driven, but every innovation in public community colleges is influenced by public resources and the larger political context. By public, we refer to the citizens and constituents who supply resources through democratic processes operating at the local, state, and federal levels. Community colleges are both empowered and constrained by their public environments, which suggests any effort at scaling needs to take the public (and political) context into account. When scaling is synonymous with "systems change," which is often the case when public monies of the scale associated with TAACCCT are at stake, innovation focuses on changing institutions but also systems in profound and lasting ways.

Scaling in the public sector can also occur at the state and federal levels and sometimes occurs at multiple levels simultaneously. Asera, McDonnell, and Soricone (2013) suggest the states that have been successful in scaling up career pathway reforms have approached their efforts in a

sequential fashion, beginning with planning and moving to initiating, expanding, and ultimately sustaining.[15] They refer to this process as the "arc of scaling" to reflect the trajectory from planning to sustaining. Scaling state policy change begins when practitioners gain consensus on a problem and generate a framework for potential solutions to bring about system-level change. Consensus is needed to engage practitioners, including and extending from faculty to system leaders, in bringing about change. They also note the importance of states starting with a sub-set of institutions to provide a test bed for reform and then scaling up to the entire system. Lessons learned by the system as a whole and by the few involved in pilot testing can be transferred to the rest of the state, if data on implementation and scaling are gathered and shared. The concept of adaptation is to scale and sustain change is relevant at all levels.

This strategic approach to state-level scaling presents a best-case scenario, where goals are clear, plans are carefully executed, and lessons are documented and disseminated to those eager to adopt the innovation. Unfortunately, there are many examples where innovation and - scaling happen in a much messier way. Sometimes when organizations don't have clear plans, there is limited understanding of implementation, and data are lacking or misinterpreted. Even when innovations are implemented with care, there can be limited opportunity for practitioners to communicate with each other to disseminate lessons learned. Therefore, an important goal of TCI is finding ways in which practitioners engaged in scaling can tell their stories.

Guiding Principle 4: Scaling is enhanced when practitioners share their stories of how change improves the community college policy context.

Technology Support and Technical Assistance

Technology has become a critical element of innovation, and it has also become a very critical element in sustaining and scaling innovation. For example, technology applications for learning through online and open education resources are center stage today, as are technology applications to achieve greater efficiencies in delivery, administration and assessment. Equally important is the application of technology to improve implementation, sustainability, and scaling. For example, social network mapping can be used to visually represent relationships among innovators and users to give insight into how innovations grow and change over time. They can illustrate weak and strong connections between user groups that indicate where additional resources are needed to encourage scaling.[14] Finding expertise of this sort can be challenging, but the value of effective technical assistance cannot be overstated in the context of transformative change.

Guiding Principle 5: Technology applications and technical assistance are instrumental to the adaptation and scaling of transformative change.

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[15] Asera, R., McDonnell, R. P., & Soricone L. (2013). *Thinking big: A framework for states on scaling up community college innovation*. Boston, MA: Jobs for the Future. Retrieved from http://www.jff.org/sites/default/files/ThinkingBig_071813.pdf

Targeted Sharing and Dissemination

Dissemination should begin by assessing the ways potential user groups may take up the innovation, including determining factors that may influence their initial adoption. Once these users are identified, it is also important to anticipate how they may want to tailor the innovation to promote scale-up in other local contexts. Bradley and others who researched scaling in international contexts for the Bill & Melinda Gates Foundation recommend, "[T]ailoring of the innovation to fit target user groups; development of political, regulatory, socio-cultural, and economic support for the use of the innovation in target user groups; deep engagement with target user groups to ensure that the innovation is translated, integrated, and replicated effectively; and devolving of efforts to spread the innovation from the index user groups to additional sets of user groups often through social and professional networks and relationships" (Bradley et al., 2011).[16] The ultimate goal is to help potential users understand how to assimilate the innovation into routine practice in the new organization. By assimilation we mean deep and full adaptation that ensures that the innovation functions effectively within the new context.

Social network mapping is one of many tools that can be used to representing relationships among innovators and users to give meaning and insight into the ways in which innovations assimilate over time. By using a visual, graphic representation, social network maps can illustrate weak or strong connections between user groups that may point to places where additional resources are needed to support scale up. A visual representation of social networks may also increase interest in scaling in ways that other forms of communication cannot engender because the pictures provide simple yet compelling way to illustrate how scaling looks and feels in real time (Rowson, Broome, & Jones, 2010).[17]

> **Guiding Principle 6:   Identifying and engaging user groups in dissemination that is sensitive to context is important to scaling transformative change.**

Evaluation Utilization to Grow Impact

Using multiple forms of evaluation is important to scaling large-scale innovations. Comprehensive approaches to evaluation are also especially important when capacity building is undertaken. With respect to TAACCCT, comprehensive evaluation designs include performance evaluation wherein data are gathered to track and report on myriad indicators associated with education and employment outcomes. Evaluations associated with TAACCCT also focus on program implementation, especially in conjunction with programs of study and evidence-based strategies. Understanding what and how principles guide practice is critical to program evaluation. Sophisticated designs, including quasi-experiments or experiments, may also be

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[16] Bradley, E. H., Curry, L. A, Pérez-Escamilla, R., Berg, D., Bledsoe, S., Ciccone, D. K., .
. . Yuan, C. (2011). *Dissemination, diffusion, and scale up of family health innovations in low income countries.* New Haven, CT: Global Health Leadership Institute. Retrieved from:
https://docs.gatesfoundation.org/Documents/yale-global-health-report.PDF

[17] Rowson, J., Broome, S., & Jones, A. (2010). *Connected communities: How social networks power and sustain the Big Society*. London, England: RSA Projects. Retrieved from
http://www.thersa.org/__data/assets/pdf_file/0006/333483/ConnectedCommunities_report_150910.pdf

valuable to assessing the impact if circumstances allow for the credible use of these designs. However, forcing "rigorous" evaluation designs have limited utility if the data that are gathered lack validity, reliability, and utility. In the end, the potential for gathering and using data that measure the adaptation of innovations in different contexts and over time through continuous improvement methods may prove to the be the most important of all. Activities that engage practitioners in reflection and story telling about their experiences may be the most helpful of all. Schorr (2012) contends it is the efforts to scale innovation that inform practitioners about how implementation is going, how to continuously improve, how to spread innovations beyond their current contexts, and how to link outcomes to performance results that are the most impactful.[18]

Performance

Continuous
Improvement

Evaluation

Implementation

Impact
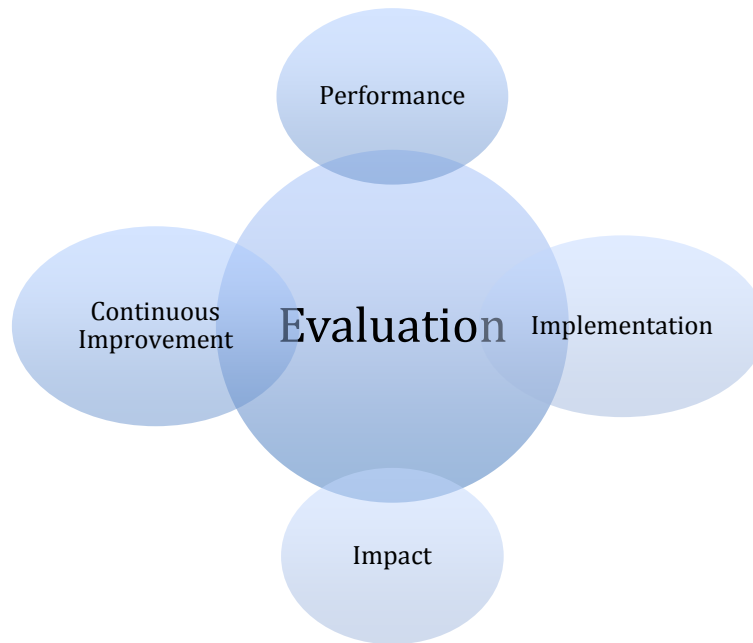
An approach to evaluation that seems especially fruitful for evaluating the scaling of innovations is called developmental evaluation (Patton, 2011).[19] Patton writes that developmental evaluation is "informed by systems thinking and sensitive to complex nonlinear dynamics." He reports that it involves asking evaluative questions, applying evaluation logic, and gathering real time data to inform ongoing decision making and adaptations." Often the evaluator becomes part of the team "to infuse team discussions with evaluative questions, thinking, and data, and to facilitate systemic data-based reflection and decision making in the developmental process."

Finally, in the context of TAACCCT and similar initiatives, evaluation should not focus so exclusively on external reporting that the potential to use evaluation to learn, to innovate, and to grow impact is lost. Balancing the complexity of implementation and evaluation is very difficult, but practitioners who find a way to integrate rather than separate evaluation from implementation will build the most opportune environment for innovation.

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[18] Schorr, L. B. (2012, Fall). Ibid, pp. 54-56.
[19] Patton, M. (2011). Ibid, pp. 1-2.

Guiding Principle 7: Integrating implementation and evaluation enhances learning for the purposes of scaling innovations and growing impact.

Scaling Innovation

The TAACCCT consortia associated TCI are implementing and scaling innovations designed to improve outcomes for diverse learners. Each consortium that is a part of the TCI Network has selected an innovation or small set of linked innovations that it believes has the potential to improve student outcomes and ultimately, program, organization and system performance. Colleges adapt the innovation(s) to fit their local needs while also committing to achieve the outcomes shared by all the partner colleges in their consortium. This flexible approach is critical to transformative change as it takes into account diverse local contexts shaped by geography, demographics, and nuanced needs inherent in implementing guided pathways, programs of study, and evidence-based reforms.

Based on the initial research of the OCCRL team, a number of different pathways, programs of study, and evidence-based strategies are being scaled by community colleges associated with TCI. Information about the scaling targets for the Round OnecConsortia follows.

Round One Consortium Name and Location	Scaling Target
Path to Accelerated Completion and Employment (Arkansas)	Test Prep: comprehensive orientation prior to taking COMPASS and a modular, refresher curriculum for students retaking the exam
Central California Colleges Committed to Change (regional consortium in California)	Open Educational Resources (OER): instructional materials, textbooks, and curricula in three industry sectors
Online Energy Training Consortium (Colorado)	Redesigned developmental education to accelerate progression to college-level coursework
Massachusetts Community College Workforce Development Transformation Agenda	Shared mechanisms among colleges, One-Stop Centers and WIBs for students'/clients' career planning, coaching, and job placement
MoHealthWINs (Missouri)	Core curriculum and intrusive student support services
Credentials, Acceleration, and Support for Employment (Oregon)	Career coaches, part of an intentional and visible menu of best practices in student support services
Health Professions Pathways (multi-state)	Core curriculum for health professions education
National STEM	Open Educational Resources (OER) in five technical STEM areas

For more information, see:

http://occrl.illinois.edu/files/Projects/CCTCI/Reports/ScalingProfiles.pdf

The TCI Network

The founding TCI Network includes eight Round One and eleven Round Two TAACCCT consortia that include over 230 colleges (see Figure 1). The Network includes consortia that have partner community college and other organizations (workforce, employer, university, community, etc.) that reside within in a region of a single state, within an entire state, or across multiple states. Some consortia focus on a single career cluster or pathway and others focus on a range of clusters and pathways tied to different workforce needs. Some consortia attempt to create new programs of study, and others focus on reforming and refining existing ones. Priorities also vary as to the focus on programs of study and strategies with some consortia focusing almost exclusively on implementing strategies to support heightened student success (e.g., assessment, advising, retention, placement). The variety of goals and approaches that is associated with TAACCCT is reflected in the large group of community colleges that comprise the TCI Network. Lists of Round One and Round Two consortia in the TCI Network appear in Appendix A.
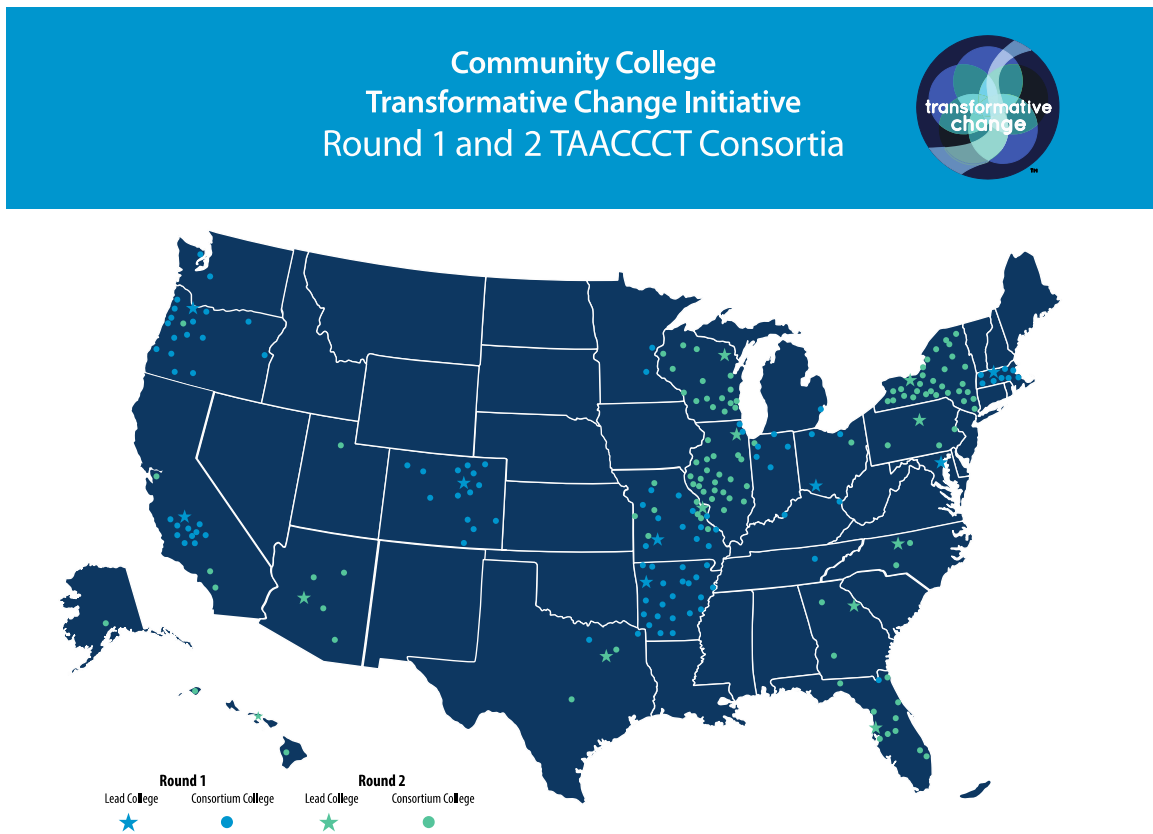
Figure 1. Current TCI Network, with 19 consortia and 231 community college members

All of the Round Three and Round Four consortia grantees will be invited to participate in the learning events of TCI and will have the opportunity to become a part of the TCI Network. Similarly, information to support transformative change will be shared with TAACCCT consortia from Rounds One and Two. These consortia will have the opportunity to join the TCI Network, attend future Learning Lab convenings, to participate in webinars and communities of practice, and to use tools and templates designed to promote the scaling of innovations and impact.

Learning Lab Philosophy

TCI operates as a "learning lab" wherein practitioners, policy makers, researchers, social entrepreneurs, and others work collaboratively to reflect, investigate, engage, and conceptualize the ways in which transformative change is implemented and scaled within and across organizations. Acting as a national platform to share resources and build connections, TCI focuses on shared learning to bring about transformative change at the program of study, organizational, consortium, and industry levels. The shared learning associated with TCI is also critical to policy change at the state and federal levels.

The Learning Lab philosophy engages diversity of stakeholders and thought leaders in working within and across consortia to accelerate transformative change associated with programs, practices, and state policies. Also, this philosophy emphasizes the need to address the concerns of underserved populations such as adult workers, TAA-eligible and dislocated workers, veteran and military engagement, and others.

Using a variety of communication methods, consortium-level teams from each round of the TAACCCT grants are better prepared to draft a transformative change plan that helps guide the implementation of innovations that are scaled within individual colleges, across the consortium colleges, and eventually to any college wishing to adopt TAACCCT strategies designed to improve student outcomes.

Premier Events

Learning Lab Convening: TCI's premier event is the Learning Lab Convening, which focuses on enabling community college practitioners and their partners to explore the ways innovations can be scaled to create transformative change. At the events in February 2013 and 2014, concurrent sessions focused on forming partnerships; understanding how mental models affect the adoption of innovation; organizational culture change; closing equity gaps; using data and technology to improve systems; developing transformative leaders; and changing state policy. The consortia identified scaling opportunities, contributors to scaling success, and scaling partners and resources.

Scaling Forum: In June 2013, the 19 TCI consortia met for a full day of further learning about scaling innovation. Keynote speaker, Kathleen Enright, President and CEO of Grantmakers for Effective Organizations, challenged participants to think about scaling as "growing impact," whether an idea, a proven tool or practice, or policy. Participants heard Round One consortia leaders present their scaling plans and initial progress, and they joined Round Two consortia leaders in roundtable discussions of strategic leadership, state and national policy, and using evidence to grow impact.

Webinars and Conference Calls: The TCI continually engages consortia members though conference calls and webinars to convey important themes about scaling innovation.
The topics include:
- Scaling developmental education reform efforts;
- Developing a scaling strategy;

- Adaptive learning solutions for student success;
- Scaling transformative change;
- Creating transformative partnerships;
- Aligning TAACCCT employer partner contributions for transformative change;
- Workforce system partners learning community; and
  Employer engagement.

Communities of Practice

TCI involves Communities of Practice that focus on the workforce system, employer engagement and other issues. These learning communities support several components of the Transformative Change Framework, including growing human capacity to scale, creating robust networks and partnerships, and facilitating learning and supports. The purposes of the TCI Communities of Practice are to:

- Gain critical insights and exchange ideas on promising practices and innovations;
- Use grantees' diverse knowledge and skills as resources to collectively find solutions to challenges;
- Access best-in-class experts to deepen knowledge and expertise on specific transformative change strategies;
- Build the capacity of grantees to implement, expand, and improve practices and programs of study through collaborative study and dialogue; and
- Create a shared agenda that contributes to the collective knowledge and wisdom of the field.

Members of the Communities of Practice meet through a variety of means such as virtual conference calls, collaborative workspace, and webinars; participants determine the agenda. The communities serve as a powerful and interactive tool to support TAACCCT consortia and focus on strategies such as advanced technology solutions, prior learning assessment, competency-based education, and developmental education. Through the Communities of Practice, the TCI Network continues to cultivate partnerships between education, employers, and workforce and community providers to better prepare students to attain credentials and transition into the workplace.

Evaluation Collaborative

Third-party evaluators for consortia associated with the TCI Network participate in a new group called the TCI Evaluation Collaborative, which held its first meeting in December 2013. The meeting included time for sharing evaluation questions and methods, strategies to support data utilization and continuous improvement, efforts to overcome barriers and challenges to conducting and using evaluation data, and opportunities to collaborate. The Evaluation Collaborative provides a venue for third-party evaluators to share and learn from one another about meaningful ways to gather, analyze, and report data, including data measuring performance and impact. The group also plans to develop measures on scaling innovation that are disseminated widely and encourage methods that support continuous improvement.

Research on Scaling Transformative Change

Scaling reform in higher education has a history of being difficult, painstaking, and often protracted (Kezar, 2011). Whereas there are insights to be gained from scaling models used in K-12 education and other disciplines, research and development on K-12 education has not produced insights into scaling innovations in the higher education context (Coburn, 2003; Dede, 2006; Kezar, 2011). There is much to be learned about the process of scaling large innovations in higher education, and specifically, in community colleges. TCI research focuses on the processes expanding or scaling the reforms developed in the TAACCCT grant to other programs, organizations, and states in order to achieve transformative change. Drawing on theories of social innovation interwoven with lessons learned in practice, TCI research uncovers the guiding principles and promising practices for scaling innovation in the community college context. Insights from this research are applicable to future rounds of TAACCCT grants as well as to future federal and other large-scale, policy-driven initiatives. In addition, TCI researchers gather data on the ways in which local contexts operate in conjunction with state systems to enable or inhibit the potential for scaling innovation and growing impact, which lends new insights into the role of state policy in scaling innovation.

Closing Thoughts

TCI has carved out an extremely important and equally challenging agenda. The opportunity to serve non-traditional and underserved learners who need access to postsecondary education and employment has never been greater. While the nation's economy is rebounding, there is growing evidence that the recovery is not distributed equally. For the good of the economy—and for the good of all of society—it is important to bring about transformative change. The TCI Network, professional development, applied research and evidence-based resources fuel TCI's learning lab philosophy that is focused on bringing innovations to scale in the context of the community college. Described as one of the "most important innovations in the history of higher education" (League for Innovation in the Community College, 2010)[20] community colleges have an important legacy to fulfill. Now, when the nation faces one of its most serious economic and social junctures in its history, community colleges have not only the opportunity but the obligation to lead transformative change.

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Appendix A
Founding TAACCCT Consortia in the TCI Network

Each consortium's lead college is listed first.

Round One Consortia:

- **Central California Community Colleges Committed to Change (C6) —** West Hills College**e,** Lemoore; Fresno City College; Madera CC Center; Porterville College; Bakersfield College; Taft College; Reedley College; Merced College; Cerra Coso CC; San Joaquin Delta College; College of the Sequoias

- **Credentials, Acceleration, and Support for Employment (CASE) —** Clackamas CC, Oregon City, OR; Blue Mountain CC; Central Oregon CC; Chemeketa CC; Clatsop CC; Columbia Gorge CC; Klamath CC; Lane CC; Linn-Benton CC; Mt. Hood CC; Oregon Coast CC; Portland CC; Rogue CC; Southwestern Oregon CC; Tillamook Bay CC; Treasure Valley CC; Umpqua CC

- **Colorado Online Energy and Training Consortium (COETC) —** CC of Denver, CO; Aims CC; Colorado Mountain College; Front Range CC; Northeastern Junior College; Red Rocks CC; Trinidad State Junior College; Pueblo CC; Arapahoe CC; CC of Aurora; Lamar CC; Otero Junior College; Morgan CC; Pikes Peak CC; Colorado Northwestern CC

- **Health Professions Pathways (H2P) —** Cincinnati State Technical and CC(OH); Anoka-Ramsey CC (MN); Ashland Community & Technical College (KY); City Colleges of Chicago (IL); El Centro College (TX); Jefferson Community & Technical College (KY); Owens CC (OH); Pine Technical College (MN); Texarkana College (TX)

- **Massachusetts: Massachusetts Community College and Workforce Development Transformation Agenda (MACCWDTA) —** Quinsigamond CC, Worcester, MA; Berkshire CC; Bristol CC; Bunker Hill CC; Cape Cod CC; Greenfield CC; Holyoke CC; Massachusetts Bay CC; Massaoit CC; Middlesex CC; Mt. Wachusett CC; North Shore CC; Northern Essex CC; Roxbury CC; Springfield Technical CC

- **MoHealthWINs —** Ozarks Technical CC, Springfield, MO; Crowder College; North Central Missouri College; East Central College; Jefferson College; St. Charles CC; Linn State Technical College; St. Louis CC; State Fair CC; Three Rivers CC; Metropolitan CC; Mineral Area College; Moberly Area CC

- **National STEM —** Anne Arundel CC(MD); Northwest Arkansas CC (AR); Florida State College at Jacksonville (FL); College of Lake County (IL); Ivy Tech CCs: Lafayette, North Central, Northeast, Northwest (IN); Macomb CC (MI); Cuyahoga CC (OH); Roane State CC (TN); Clover Park Technical College (WA); South Seattle CC (WA)

- **Path to Accelerated Completion and Employment (PACE) —** Northwest CC, Bentonville,

AR; Arkansas Northeastern College; Arkansas State University at Beebe, Mountain Home, Newport; Black River Technical College; Cossatot CC of the University of Arkansas; East Arkansas CC; Mid-South CC; National Park CC; North Arkansas College; College of the Ouachitas; Ozarka College; Phillips CC of the University of Arkansas; Pulaski Technical College; Rich Mountain CC; South Arkansas CC; Southeast Arkansas CC; Southern Arkansas University Tech; University of Arkansas CC at Batesville, Hope, & Morrilton.

Round Two Consortia:

- **ACT-On —** Tyler Junior College (TX); Cerritos College (CA); Clackamas CC (OR); University of Alaska Anchorage (AK)

- **Arizona Sun Corridor-Get Into Energy Consortium (ASC-GIEC) —** Estrella Mountain CC, Avondale, AZ; Chandler-Gilbert CC; Pima CC; Yavapai College; Northland Pioneer College

- **ATC Times Three (ATCx3) —** Athens Technical College, Elberton; Albany Technical College; Atlanta Technical College (GA)

- **Community College Consortium for Bioscience Credentials (C3BC) —** Forsyth Technical CC (NC); Alamance CC (NC); Austin CC (TX); Bucks County CC (PA); City College of San Francisco; Ivy Tech CC (IN); Los Angeles Valley College; Madison Area Technical College (WI); Montgomery County CC (PA); Rowan Cabarrus CC (NC); St. Petersburg College (FL); Salt Lake CC (UT)

- **Florida Transforming Resources for Accelerated Degrees and Employment (TRADE) —** St. Petersburg College, St. Petersburg, FL; Broward College; Daytona Beach College; Florida State College at Jacksonville; Gulf Coast College; Hillsborough CC; Indian River State College; Palm Beach State College; Pasco Hernando CC; Polk State College; Tallahassee CC; Valencia College

- **Illinois Network for Advanced Manufacturing (INAM) —** Harper College, Palatine, IL; College of Lake County; College of DuPage; Daley-City Colleges of Chicago; Danville Area CC; Elgin CC; Illinois Eastern CC; Illinois Valley CC; John Wood CC; Joliet Junior College; Kankakee CC; Kishwaukee College; Lincoln Land CC; McHenry County College; Oakton CC; Prairie State College; Richland CC; South Suburban College; Southwestern Illinois College; Triton College; Waubonsee CC

- **Making the Future: The Wisconsin Strategy —** Northwest Wisconsin Technical College, Green Bay, WI; Blackhawk Technical College; Chippewa Valley Technical College; Fox Valley Technical College; Gateway Technical College; Lakeshore Technical College; Madison Area Technical College; Mid-State Technical College; Milwaukee Area Technical College; Moraine Park Technical College; Nicolet Area Technical College; Northcentral Technical College; Southwest Technical College; Waukesha County Technical College; Western Technical College; Wisconsin Indianhead Technical College

- **MoManufacturingWINs** — St. Louis CC, St. Louis, MO; East Central College; Linn State Technical College; Metropolitan CC; Mineral Area College; North Central Missouri College; Ozarks Technical CC; St. Charles CC; State Fair CC

- **Rural Hawaii Grant Consortium** — University of Hawaii Maui College, Kahului, HI; Kauai CC; Hawaii CC

- **ShaleNET** — Pennsylvania College of Technology (PA); Westmoreland County CC (PA); Navarro College (TX); Stark State College (OH)

- **SUNY Training and Education in Advanced Manufacturing (TEAM)** — Monroe CC, Rochester, NY; Adirondack CC; Broome CC; Cayuga CC; Clinton CC; Corning CC; Dutchess CC; Erie CC; Fulton-Montgomery CC; Genesee CC; Herkimer CC; Hudson Valley CC; Jamestown CC; Mohawk Valley CC; Onondaga CC; Orange CC; Rockland CC; Schenectady CC; Suffolk CC; Sullivan CC; Tompkins-Cortland CC; Ulster CC; Westchester CC