



Expanding options for women and girls in
Science, **T**echnology, **E**ngineering, and **M**ath

The STEM Equity Pipeline Project is a collaborative effort between State Teams and an Extension Services Group of leading researchers and practitioners in gender equity and STEM education to:

BUILD the capacity of the formal education community to implement research-based approaches proven to increase the participation and completion of females, including those with disabilities, in STEM education;

INSTITUTIONALIZE the implemented strategies by connecting the outcomes to existing accountability systems; and

BROADEN the commitment to gender equity in STEM education.

“In the last 50 years, more than half of America’s sustained economic growth was fueled by engineers, scientists and advanced-degree technologists.”

The Talent Imperative, www.bestworkforce.org

The National Bureau of Labor Statistics projects that our greatest needs will be in computer-related fields that propel innovation across the economy.

The Talent Imperative, www.bestworkforce.org

“If we do not engage women and minorities in the engineering enterprise, we are ignoring more than 50% of America’s intellect.”

Bostonworks.com

25% of our scientists and engineers will reach retirement age by 2010.

NSF’s Women, Minorities, and Persons with Disabilities in Science and Engineering: 2007

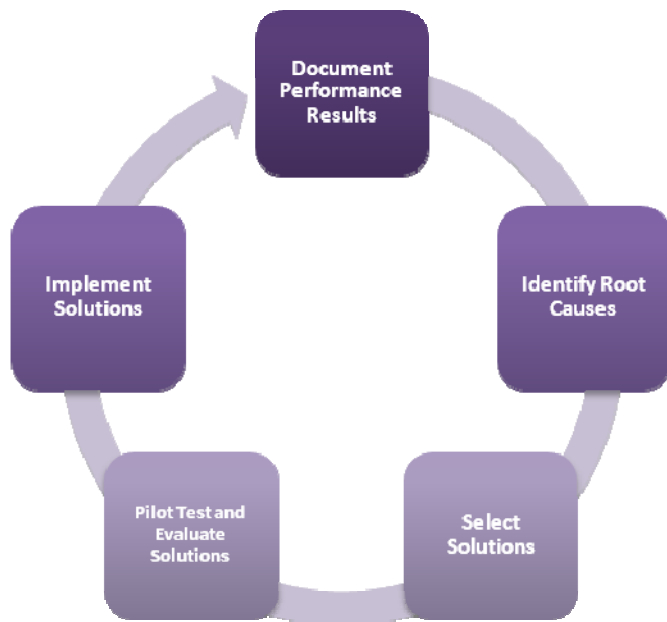
“By the year 2050 85% of the entrants into the workforce will be people of color and women”

Sisyphus Revisited, www.cpst.org

“As a consequence of lack of diversity . . . We pay an opportunity cost, a cost in designs not thought of, in solutions not produced.”

Dr. Bill Wulf, Past President, National Academy of Engineering

The 5-Step Program Improvement Cycle



Step 1: Document Performance Results.

The first step in the process is to describe state and school/college performance on the core indicators by comparing performance levels between schools/colleges, student populations, and programs over time. This step uses summary statistics and basic graphs and charts to document performance and identify improvement priorities.

Step 2: Identify Root Causes.

The second step is to analyze performance data and use additional information and methods to determine the most important and most direct causes of performance gaps that can be addressed by improvement strategies and specific solutions. This step encourages states to use multiple methods to identify and evaluate potential causes and select a few critical root causes as the focus of improvement efforts.

Step 3: Select Best Solutions.

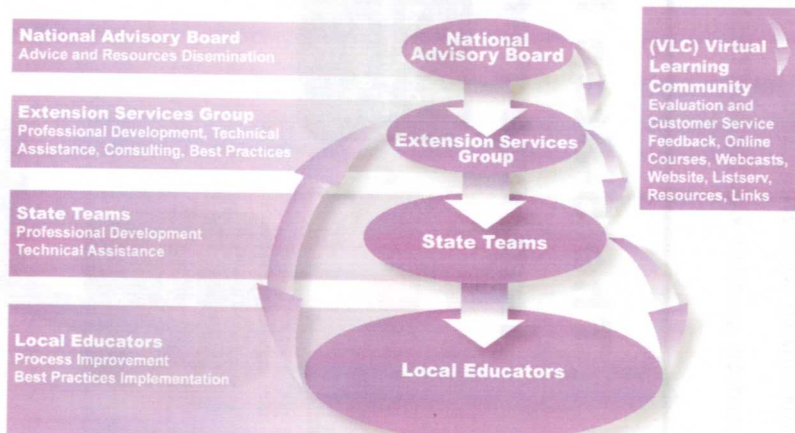
The third step is to identify and evaluate potential solutions to performance problems, including both improvement strategies and program models, by reviewing and evaluating the underlying logic of these solutions and the empirical evidence of their effectiveness in achieving performance results.

Step 4: Pilot Test and Evaluate Solutions.

The fourth step is to conduct pilot testing and evaluation of solutions. This step presents practical yet rigorous methods and tools for evaluating solutions before full implementation at the state or institutional levels.

Step 5: Implement Solutions.

The fifth step is to implement fully tested solutions based on plans that evaluate the success of the solution in reaching the expected performance results. This step also addresses how to use evaluation results to plan the next steps in state and local improvement efforts.



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Interested in promoting STEM equity? The STEM Equity Pipeline provides you with...

- An opportunity to interact with nationally-known equity experts through free webinar-style professional development
- A deeper understanding of how to improve STEM equity in your school through training on the 5-step improvement process
- Resources: curriculum, brochures, pamphlets, posters, reports, research.
- The Pipeline Press virtual newsletter with the latest information about STEM & Nontraditional careers.
- An opportunity to join the state leadership team so you can work on a plan to promote the project goals.
- Archived presentations by equity expert. Sample topics include stereotype threat, attribution theory and program assessment information.
- A calendar of events in STEM
- A guide for your professional development needs through the Professional Development Needs Assessment.
- Evaluations instruments and surveys.
- Performance Data on Women & Girls in STEM—information on the need for girls in STEM.
 - Content Expert Contact Information

How do
you join in?

Share in the resources

www.stemequitypipeline.org

Join the Listserv

<http://www.stemequitypipeline.org/ContactUs/RegistertoParticipate.aspx>

Inquire about joining the Illinois Leadership Team

by contacting Lynn Reha at lcreha@ilstu.edu or 309-454-4944.