



## Step Three: Choose Best Solutions

### The Five Step Improvement Process

#### 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.

### Choose Best Solutions

**Don't be too quick to adopt best practices before getting the facts straight**

- How do you identify possible strategies and model practices?
- How do you evaluate strategies and models?
- How do you compare and assess alternative solutions and make a decision?

### Review Research Summary Strategies

Chapter 6 Tables 18 and 21

Improving Performance on Perkins III Core Indicators: Summary of Research on Causes and Improvement Strategies

Authors: Robert Sheets, Mimi Lufkin, and David Stevens for the National Centers for Career & Technical Education [www.napequity.org](http://www.napequity.org)

### Identify Potential Strategies and Models

- Review What Others Propose
  - NSF- New Formulas for America's Workforce <http://www.nsf.gov/chr/hrd/Newformulas/newformulas.jsp>
- Benchmark Peers and Leading Performers Programs and Practices That Work <http://www.napequity.org/page.php?157>  
Best Practices in STEM Education <http://www.stemequitypipeline.org/ProfessionalDevelopment/BestPractices.aspx>  
National Girls Collaborative Program Directory <http://www.pugetsoundcenter.org/ngcp/directory/index.cfm>
- Develop Your Own Solutions

### Assessing and Comparing Alternative Strategies

- Sound Theory
- Strong Evidence
- Costs/Time of Further Testing
- Resources
- Stakeholder Support

### Strategy Resources

Implement and model gender-fair institutional strategies

- Checking Your School for Sexism [http://02b47b1.netsolhost.com/foundation/e107\\_images/custom/\(10h\)%20CheckingforSexism.pdf](http://02b47b1.netsolhost.com/foundation/e107_images/custom/(10h)%20CheckingforSexism.pdf)
- Destination Success, MAVCC <http://www.mavcc.org/>
- Gender Equity Item Bank, Midwest Equity Assistance Center <http://www.meac.org/Resources/pdf/assessment.pdf>

Review career guidance materials and practices for gender bias and nontraditional exposure and support

- Guidelines for Identifying Bias in Curriculum and Materials, Safe Schools Coalition <http://www.safeschoolscoalition.org/guidelinesonbias-screen.pdf>
- Careers for Men in Early Childhood Education, National Association for the Education of Young Children [http://sales.naeyc.org/Itemdetail.aspx?Stock\\_No=594&Category=CBrochure&SText=](http://sales.naeyc.org/Itemdetail.aspx?Stock_No=594&Category=CBrochure&SText=)
- Am I a Fair Counselor, Destination Success, MAVCC [http://02b47b1.netsolhost.com/foundation/e107\\_images/custom/\(10i\)%20FairCounselor.pdf](http://02b47b1.netsolhost.com/foundation/e107_images/custom/(10i)%20FairCounselor.pdf)
- Could This Be Your Life, New Jersey Nontraditional Career, Resource Center, Rutgers Univ. <http://www.ncrc.rutgers.edu/life/index.html>

Evaluate all school materials for gender bias and positive nontraditional images

- Gender Equity Tip Sheets <http://02b47b1.netsolhost.com/foundation/page.php?14>
- Bias Evaluation Instrument, Nova Scotia Department of Education [http://www.ednet.ns.ca/pdfdocs/studentsvcs/bias\\_evaluation/bias\\_eval\\_ss.pdf](http://www.ednet.ns.ca/pdfdocs/studentsvcs/bias_evaluation/bias_eval_ss.pdf)
- Are You Man Enough to Be a Nurse, Oregon Center for Nursing [http://www.oregoncenterfornursing.org/documents/poster\\_67k.jpg](http://www.oregoncenterfornursing.org/documents/poster_67k.jpg)

# Step Three: Choose Best Solutions continued

## Invite, involve and educate parents

- Talented Girls Bright Futures, Publication by Project Lead the Way  
<http://www.pltw.org/inforeq.shtml>
- American Careers Parent Magazine, Nontraditional Careers Edition, Career Communications, Inc.  
<http://www.napequity.org/page.php?18>

## Conduct middle school programs

- Minot Public Schools, Minot, North Dakota, Programs and Practices That Work, 2005 Award Winner

<http://pages.minot.k12.nd.us/votech/File/fair.htm#2009>

## Conduct pre-technical training programs

- Rosie's Girls, Northern New England Tradeswomen  
[http://www.vtworksforwomen.org/programs\\_for\\_girls/rosies\\_girls.html](http://www.vtworksforwomen.org/programs_for_girls/rosies_girls.html)
- Technical Opportunities Program, Chicago Women in the Trades  
[http://www.chicagowomenintrades.org/artman/publish/article\\_206.shtml](http://www.chicagowomenintrades.org/artman/publish/article_206.shtml)

## Provide nontraditional role models, mentors, and job shadowing

- Girls E-Mentoring in Science, Engineering and Technology GEM-SET, University of Illinois, Chicago

<http://www.uic.edu/orgs/gem-set/>

- IGNITE, Seattle Public School System  
<http://www.ignite-us.org/>
- Nontraditional Student Mentoring Program, Northeast Community College  
<http://www.napequity.org/page.php?16>
- MentorNet  
<http://www.mentornet.net/>

## Conduct nontraditional student support groups and peer counseling

- Computer Clubhouse, Boston's Museum of Science  
<http://www.computerclubhouse.org/>
- Men In Childcare  
<http://www.meninchildcare.com/>
- Assembly for Men in Nursing  
<http://aamn.org/>

## Conduct targeted recruitment activities

- Summer Camps  
<http://www.stemequitypipeline.org/Resources/OnlineResources/Programs/default.aspx>
- Men Teach <http://www.menteach.org/>
- Cisco Gender Initiative Strategies, I am an Engineer, Cisco Systems, Inc.  
[http://gender.ciscolearning.org/Strategies/Strategies\\_by\\_Type/U.S.\\_High\\_Schools/Index.html](http://gender.ciscolearning.org/Strategies/Strategies_by_Type/U.S._High_Schools/Index.html)

## Conduct professional development with teachers at all levels

- Generating Expectations for Student Achievement, Graymill <http://www.graymill.com/>
- NAPE Professional Development Institute, March 29 – April 1, 2009, Washington, DC  
<http://www.womenwork.org/network/conferences.htm>
- STEM Equity Pipeline Project  
<http://www.stemequitypipeline.org/>

## Increase competence in diversity and sexual harassment prevention

- Gender Equity Tip Sheets  
<http://02b47b1.netsolhost.com/foundation/page.php?14>
- Teaching Tolerance, Southern Poverty Law Center  
<http://www.tolerance.org/index.jsp>
- Project Implicit, Harvard University  
<https://implicit.harvard.edu/implicit/>

## Provide a continuum of support services

- Tutoring
- Child care
- Transportation
- Financial Aid
- Books, Equipment, Tools, Clothing
- Tuition
- Modification of Curriculum, Equipment
- Student/Teacher Aides
- More

## Collaborate with community-based organizations

- Operation SMART, Girls, Inc.  
<http://www.girlsinc.org/about/programs/operation-smart.html>
- National Girls Collaborative Project, Program Directory  
<http://www.pugetsoundcenter.org/ngcp/>
- Expanding Your Horizons  
<http://www.expandingyourhorizons.org/>
- Girl Scouts  
[http://www.girlscouts.org/program/program\\_opportunities/science/](http://www.girlscouts.org/program/program_opportunities/science/)

## Invite, involve, and educate business

- Cisco Systems, Inc. Gender Initiative, Cisco Systems, Inc.  
[http://gender.ciscolearning.org/Tools\\_Resources/Gender\\_Module.html](http://gender.ciscolearning.org/Tools_Resources/Gender_Module.html)
- Society of Women Engineers  
<http://societyofwomenengineers.swe.org/>

## Worksheet Activity

- Select a few potential strategies that you think could impact your root cause theory
- Brainstorm with your group advantages and disadvantages to the selected strategy
- Determine if it is a strategy you want to consider by placing Yes or No in the Results column

