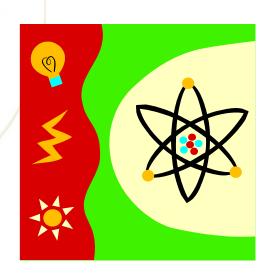
# Core Indicator 6S1-6S2 Nontraditional: Overview of 5-Step Process for increasing participation/completion

Georgia Department of Education
Career, Technical and Agricultural Division
Gilda Lyon, CTAE/STEM Coordinator
glyon@doe.k12.ga.us
404-463-1977



### **Goal/Objectives**

Participants will become familiar with the 5-step process to increase enrollment in those pathways identified as nontraditional and continuous improvement in all other pathways.

- To provide a brief overview of the process (Steps 1-5)
- To provide tools and materials to utilize the process
- To provide interactive/hands-on strategies for awareness, recruitment and retention
- To implement strategies in FY 12 to address the <u>root</u> causes for under-represented groups (LEP, SWD, gender and race) in identified pathways including STEM programs

### Rationale

- Georgia did not meet the benchmark established by the feds in Perkins III
- If Georgia continues to use the same process to increase enrollment, we will continue to have limited results/outcomes
- Title IX, VI, II, and Section 504 demands that all students have equal opportunities to participate in and benefit from all CTAE programs including LEPs, gender, SWDs, and race.

### I. Perkins Legislation IV

Funds shall be appropriated for services that prepare individuals for nontraditional fields of employment

- 99-00 Purchased two resources: "Taking the Road Less Traveled" tool kit and "Destination Success"
- 06-09 State membership in the National Alliance for Partnerships in Equity (NAPE)
- 08-09 Contracted with national trainer in a collaborative effort with TCSG
- 08-09 will update "Taking the Road Less Traveled" with new CD. Each high school will receive a copy at GACTE 09
- 09-10 Begin work on creating a more effective way to collect NTO data
- 09-10 Created a NTO web page
- 09-10 Create a NTO Advisory Council in the fall of 09 X

### **Local Plan (Grant Application)**

- Core Indicator 6S1: <u>Participation</u> in career and technical programs leading to nontraditional employment
  - Addressed during local program reviews
  - Addressed during Office for Civil Rights Compliance Reviews

(Disproportionate enrollment-usually a counseling issue; however, instructors should be working with counselors to analyze the date, identify root causes and develop strategies to overcome the issues; will become more important to funding formula)

### **Local Plan (Grant Application)**

- Core Indicator 6S2: <u>Completion</u> of career and technical programs leading to nontraditional employment
  - Addressed during local program reviews
  - Addressed during Office for Civil Rights Compliance Reviews

(Disproportionate enrollment-usually a counseling issue; however, instructors should be working with counselors to analyze the date, identify root causes and develop strategies to overcome the issues; will become more important to funding formula)

### II. Title IX (1972)

 Federal law to prohibit gender discrimination in education regulations require that schools take steps to ensure that disproportionate enrollment of students of one gender in a course is not the result of discrimination

#### Addressed in Civil Rights Compliance Reviews:

- Annual notice of discrimination includes all protected groups including gender (sex)
- Continuous nondiscrimination notice includes all protected groups including gender (sex)
- Student course selection should be based on future career goals not gender
- Annual evaluation of course and recruitment materials

### **Reality Check**

Educators must make certain that young people get the message that career choices are a function of talent, interest and personal desires based on good current career information NOT gender.

### **5-Step Process**

Step 1

• Gather Performance Results/Performance Level (Data)

Step 2

Identify and Confirm Roots Causes

Step 3

Choose Best Solutions (Strategies)

Step 4

Implementation of Best Solutions (Strategies)

Step 5

• Evaluation of Performance Results/Continue the Process



# Performance Data/Results for 6S1 O7-08 will set the benchmark

- ✓ Gather <u>07-08</u> data on ALL pathways:
  - ► Local school 07-08 performance levels
  - ➤ System 07-08 performance levels
  - ➤ State 07-08 performance levels
- ✓ Identify NTO state identified pathways that you offered in 07-08 for <u>special attention</u>
- ✓ <u>Analyze</u> the data to determine gaps of underrepresented groups (LEP, SWD, race and gender) in the identified CTAE pathways in your system
- ✓ List your conclusions/discoveries



### **Examples for Step 1-Analyze data**

The data indicates that the system level of performance is higher than the local performance level in the Transportation Support pathway (Where are the schools that are doing well? Discuss possible reasons for the higher performance levels.)

The data indicates that school A's local performance level in Early Childhood Education is much higher than the system level. (What are they doing to enroll males?)





### Identify Root Causes-identify conditions or

factors that cause or permit gaps to occur

- Methods for identifying and confirming root causes
  - ✓ Data results
  - ✓ Review the literature
  - ✓ Review program review
  - ✓ Conduct focus groups
  - ✓ Brainstorm
  - ✓ Conduct interviews
  - ✓ Conduct surveys

- Identify potential causes within your control
  - ✓ Strongest evidence to support
  - ✓ Address most critical need
  - ✓ Provides the best opportunity to have high impact on performance
  - ✓ Available resources/support

### **Examples for Step II**

Through a <u>brainstorming session</u> the team discovers a lack of early exposure and the career guidance materials and practices at the middle school contribute to the 2.1% performance level in **Agriculture Mechanics** 

By interviewing middle school students the team discovered a lack of early intervention contributes to the 0 % performance level in **Welding** at school B





### **Choose the Best Solutions**

 Review and research potential improvement strategies that will best address your identified and confirmed root causes

### **Examples for Step III**

- Provide counselors at the middle school with an update regarding available programs to include publications and other materials to assist in their career development program
- Provide a "DIVA DAY" at the high school prior to school starting at the high school.
- Provide professional learning with instructors regarding awareness and recruitment of students in nontraditional pathways to include instructional strategies.

### Suggested timeline for the Process

**Gather Performance Results**  August 2011-October 2011 Step 1 **Identify and Confirm Roots Causes November 2011-February 2012** Step 2 **Choose Best Solutions** March 2012-May 2012 Step 3 **Implementation of Best Solutions**  September 2012-May 2013 Step 4 Evaluation of Performance Results/Continue the Process **May 2013** 



Step 5

### **Available Resources:**

- Taking the Road Less Traveled II
- Destination Success
- www.napequity.org/page.php?187
  - ✓ Power point 5-Step Program Improvement Process Training
  - ✓ Perkins IV Core Indicator Guidelines
  - ✓ Building CTAE Tables for GA Core Indicators Matrix
  - ✓ GaDOE Targeted Nontrad Program Pathways
  - ✓ Template for CTAE Nontrad Enrollment Disaggregated (Local Data)
  - ✓ Root Causes and Strategies Research Literature Review





### Targeted CTE nontraditional program pathways

Nontraditional Pathways	Under-represented Gender
Agriculture Mechanics	Female
Construction	Female
Architectural Drawings & Designs	Female
Metals	Female
Transportation, Logistical Operations	Female
Aircraft Support	Female
Computer Systems and Support	Female
Manufacturing	Female
Engineering	Female
Early Childhood Education	Male
Nursing	Male
Health Informatics	Male
Medical Services	Male
Cosmetology	Male
Nutrition & Food Science	Male



### Taking the Road Less Traveled II: Georgia Educator's Tool Kit to Prepare Students for

**Nontraditional Careers** is a great professional development resource that is designed to help states meet the Perkins IV core indicator regarding participation and completion of secondary and postsecondary students in nontraditional programs.

National Alliance for Partnerships in Equity (NAPE)



Check the back of this flyer for MAVCC's tip sheet on using the tool kit.

MAVCC also provides a presentation outline for professional learning at

<a href="http://www.mavcc.com/downloads.htm">http://www.mavcc.com/downloads.htm</a>

GACTE 2009/NTO



#### The Modules

- PDF versions of each module are provided as follows:
  - To view at a computer
  - To print (color)
  - To print (black and white)
- Prompts are included in each module. Prompts include:
- <u>Click here</u> prompt will take user to a resource included on the CD, or to download free versions
  of software that you may need to use elements of CD.
- Examples: Adobe Acrobat, PowerPoint Viewer
- "Available at" or "go to" references followed by web address such as www.napequity.org, will
  take user to a specific website.
- Blue, underlined items are active links that will take user to title of document/resource.
   Example: self-assessment
- "Food for Thought" handouts and selected forms are provided as Word documents for customization.
- PowerPoint presentations are provided in each module and are available in multiple formats. All
  presentations can be accessed and customized using PowerPoint® 97-2003 or PowerPoint® 2007
  and can be viewed in PowerPoint® viewer. Below are the extensions for all formats:
  - PowerPoint® 2003 customizable (ppt extension)
  - PowerPoint® 2003 viewable (pps extension)
  - PowerPoint® 2007 viewable (ppsx extension)
- PowerPoint® 2007 customizable (pptx extension)

#### ➤ The Photo Gallery

- Photos are provided in jpeg format to allow flexibility of use.
  - To view photos, enter Photo Gallery from main menu and double click to open file
  - To download and save to your hard drive, double click to open the photo, then right click and choose "Save as" from the menu.
  - Additional photos are available at the NAPE website at <a href="https://www.napequity.org/page.php?181">www.napequity.org/page.php?181</a> and at the MAVCC website, <a href="https://www.mavcc.com">www.mavcc.com</a>, at the Taking the Road Less Traveled II link.

Note: Submit your nontraditional careers photos (with permission from students/workers) to NAPE or MAVCC for inclusion.

#### > Templates and Sample Brochures

- Brochure templates are provided in Microsoft Word for customization.
- Sample brochures are provided as PDF versions to give you ideas.
- Glossary. A glossary of terms has been provided to support the information and ideas presented in this toolkit. It may be printed for use in workshops and to supplement the modules.
- Website Resource List. This list will be checked periodically and updated and posted at the Taking the Road Less Traveled II link at the MAVCC website, www.maycc.com.



# Root Causes and Strategies Research Literature Review





Home About NAPEEF Directory NAPE Home



**Nontraditional Career Preparation:** 

Root Causes and Strategies click for downloadable document

#### Education

#### Root Causes

- Academic Proficiency
- Access to and Participation in Math, Science and Technology
- Curriculum
- Instructional Strategies
- School/Classroom Climate
- Support Services

#### Career Information

Root Causes

#### Family Root Ca

- Materials and Practices, including Assessment, Interest Inventories, and Marketing and Recruitment
- Early Intervention —
- Characteristics of an Occupation: Job Satisfaction/Career-Family Balance/Occupational Perception/Wage Potential

#### Interna

#### Root Causes

- Self-Efficacy
- Attribution
- Stereotype Threat

#### Societal Issues

#### Root Causes

- Media (negative)
- Media (positive)
- Peers
- Role Models/Mentoring
- Collaboration



Dr. John D. Barge, State School Superintendent "Making Education Work for All Georgians" www.gadoe.org









## Strategies for Increasing Girls in STEM Fields

Research from Diane F. Halpern, Psychology, Claremont McKenna College

American Association of University Women Publication- Why So Few?



Teach students that academic abilities are expandable and improvable

Provide prescriptive, informational feedback.



Expose girls to female role models who have succeeded in math and science

Foster long-term interest and provide concrete strategies to promote greater interest in math and science.

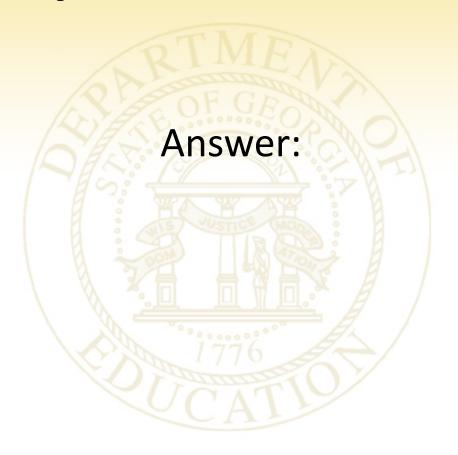
### **Example:**

The length of a rectangular garden is 4 yards more than its width. The area of the garden is 60 square yards. Find the dimensions of the garden.

The length of Jennifer Lopez's swimming pool is 4 yards more than its width. The area of the pool is 40 square yards. Find the dimensions of the pool.

Provide students, especially girls, with specific training in spatial skills

### **Spatial Skills Test**



# Comments and Questions

Thank you for attending.