Nontraditional Career Preparation
ROOT CAUSES & STRATEGIES

NAPE
National Alliance for Partnerships in Equity

The goal of Nontraditional Career Preparation is to assist you in recruiting and retaining more students into nontraditional careers through the most effective means possible. This chart provides a "quick find" to the research and is intended as a summary. Online and downloadable versions of the complete document are available on the NAPE website at www.napequity.org/root.

	ROOT CAUSE / THEORY	STRATEGIES
EDUCATION	**Academic Proficiency** When female students are academically proficient, they are more likely to persist in choosing nontraditional careers, while the opposite is more predictive for male students.	• Teach students that ability can be expanded. • Intervene to revise underestimation. • Provide math camps for female students. • Identify and assist students who aspire to science and engineering careers but lack academic proficiency. • Create incentives for taking AP courses. • Teach visual-spatial skills. • Use age-appropriate video games that appeal to female individuals.
	Access to and Participation in Math, Science, and Technology Encourage participation and success in math, science, and technology courses, especially those taught in an equitable and "hands-on" manner.	• Utilize real-life teaching strategies. • Kindle and sustain interest in math. • Make math and science a requirement. • Make other programs available such as after-school or weekend or summer camps. • Invite, involve, and educate parents.
	Curriculum Essential elements of a bias-free curriculum include relevancy, inclusive images and text, and hands-on instructional practice.	• Foster interest and curiosity, as well as skill, in math and science. • Provide comprehensive professional development. • Stress professional development self-assessment. • Utilize intervention programs for information technology (IT) in formal education. • Identify and correct bias in curricular and professional materials.
	Instructional Strategies Female students prefer learning experiences that they help to design, that are learner centered, and that involve them in a community.	• Provide comprehensive pre-service and in-service professional development relating to gender issues. • Stress professional development self-assessment. • Utilize intervention programs for IT in formal education. • Incorporate student experiences in the instructional process. • Utilize either virtual or hands-on science activities.
	School/Classroom Climate Students who experience a school climate supportive of nontraditional careers and gender equity are more likely to participate in nontraditional careers.	• Facilitate informal support groups. • Enforce civil rights and sexual harassment policies and practices. • Address climate issues. • Practice inclusive hiring processes. • Heed recommendations. • Strengthen support systems and eliminate barriers. • Schedule students in nontraditional programs in cohorts whenever possible. • Support nontraditional student clubs and after-school activities.
	Support Services Students enrolled in nontraditional career and technical education programs who receive support services are more likely to succeed.	• Provide tutoring, child care, transportation, and tuition assistance. • Post tutoring locations and hours in a highly visible area of the classroom. • Make loaner laptops available to students.
FAMILY	**Family Characteristics** Characteristics and engagement of family of origin have a strong influence on career choice.	• Design activities to promote family roles in gender-neutral career guidance. • Invite, involve, and educate parents. • Involve parents in developing their child's career plan. • Engage male and female students by providing activities that they may not have been culturally socialized to participate in.

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	ROOT CAUSE	THEORY	STRATEGIES
CAREER INFORMATION	**Materials and Practices: Assessment, Interest Inventories, and Marketing and Recruitment**	Career guidance materials and practices that adhere to equitable standards can increase participation in classes that lead to nontraditional careers. Traditional awareness-raising recruitment methods such as brochures, talks, or demonstrations alone are helpful, but insufficient to impact career decision making.	• Educate career counselors about the changing composition of the workforce. • Provide greater intensity of recruitment intervention. • Feature both genders performing workplace roles and highlight accomplishments of both. • Practice effective career guidance. • Provide nontraditional career guidance to female and male students. • Provide information about high-wage, high-skill careers. • Make societal benefits of careers known.
	Early Intervention	Providing information about nontraditional careers at the ages at which young people are more open to considering nontraditional careers and haven't yet excluded essential preparation will increase participation in nontraditional careers.	• Conduct interventions for elementary and middle school students. • Target elementary and middle school students, especially for math interventions. • Intervene early in youths' development.
	Characteristics of an Occupation: Job Satisfaction/Career-Family Balance/ Occupational Perception/Wage Potential	Careers that give back to the community, directly or indirectly, can attract both male and female students to nontraditional fields. Providing comprehensive information about high-wage, high-skill careers, especially STEM, promotes participation in nontraditional careers.	• Provide information about workplace policies and practices that support both long- and short-term flexibility. • Provide comprehensive employment counseling that is sensitive to the unique needs of women. • Teach negotiation skills. • Educate both genders about work/life balance. • Increase career choices for female students and provide counseling to help male students clarify values. • Review relevant findings—provide on-site childcare, encourage flexible work schedules, set an example. • Teach money management skills (financial literacy) to all. • Provide information about high-wage, high-skill careers.
INTERNAL/INDIVIDUAL	**Self-Efficacy**	The strength of female students' self-efficacy is directly related to entry and persistence in a nontraditional career.	• Utilize real-life teaching strategies. • Teach female students to self-affirm. • Teach that intelligence is incremental. • Provide information about self-efficacy.
	Attribution	Both attribution and fixed traits can affect motivation and confidence to achieve in a nontraditional career.	• Assess and retrain students. • Attribute success to hard work, not to innate intelligence. • Use pedagogical techniques that encourage students to verbalize their questions and express difficulties without fear.
	Stereotype Threat	Achievement is positively influenced by the reduction in stereotype threat.	• Provide professional development on supportive learning environments. • Address the limited development of expressive traits in male students and instrumental traits in female students.
SOCIETAL ISSUES	**Media (negative)**	The constant and often gender stereotypical exposure of electronic media solidifies gender stereotyping.	• Teach critical thinking about the way in which the media portray CTE and nontraditional careers. • Emphasize the role of education.
	Media (positive)	National media portrayal of individuals performing the job duties of a nontraditional career in a positive light increases participation of the nontraditional gender in that career.	• Provide positive nontraditional role models through established media. • Emphasize the role of education. • Provide programs that build positive body image.
	Peers	The opinions of peers, especially during adolescence, can influence nontraditional career choice.	• Involve men in IT intervention efforts for women. • Involve like-minded peers in programs. • Facilitate information support groups.
	Role Models/Mentoring	A mentoring relationship with a nontraditional role model, especially one who blends career and non-career activities well, is a significant factor in a student's decision to pursue a nontraditional career.	• Provide training and support for mentors and mentees. • Ensure positive role models. • Showcase role models with good work/life balance. • Choose a mentoring format that fits the educational setting. • Provide positive, attainable role models. • Conduct nontraditional student support groups and peer counseling. • Strengthen support systems and eliminate barriers.
	Collaboration	Collaboration between educational entities and community-based organizations and businesses impacts the pipeline for nontraditional careers.	• Factors for quality collaborations include an intermediary, leadership, open communication, community development, and sustainability.

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