

PIPE-STEM

Program Improvement Process for
Equity in Science, Technology,
Engineering, and Math™



The Issue

Federal law and funding have long been concerned with providing equity and academic parity for the nation's students. However, gendered and racial disparities in education remain and are particularly prevalent in courses and career selection for Science, Technology, Engineering, and Math (STEM).

Research tells us there are many factors, or “root causes,” that intersect and layer in unique ways to encourage or discourage students from pursuing certain pathways. Although root causes can be consistently identified, specific causes will vary based on each institution's demographics and efforts. There is no one-size-fits-all solution.

To meet the workforce demands of the 21st-century, our schools and institutions must improve access, equity, and diversity in the pipelines that lead to STEM fields. Program, achievement, and demographic data must be disaggregated by gender and race/ethnicity to provide insight and motivation to make changes in program and instructional practices.

NAPE's Solution

NAPE has developed a process that engages teams of administrators, teachers, and counselors in conducting a data-based student performance gap analysis, identifying root causes for the gaps, and developing an action plan with research-based strategies proven to close gaps.

NAPE Resources and Products

NAPE's five-step *Program Improvement Process for Equity™* for STEM is a data-driven, decision-making, institutional change process focused on increasing the participation, completion, and transition of females and other underrepresented groups in STEM-related programs of study.

The process includes five modules (organize, explore, discover, select, act) delivered via webinar and in-person workshops over the course of 1 year.

NAPE offers PIPE-STEM for any type of educational organization, such as K-12 serving schools, community colleges, universities, and state and regional entities.

Participation includes a data dashboard to assist organizations in making their data understandable, meaningful, and actionable, as well as full access to webinars, research-based materials, effective practices, tools, and resources.

Application

NAPE proudly provides a five-step *Program Improvement Process for Equity* in STEM that is based on practical yet rigorous methods and tools to guide state and local efforts to improve access, equity, and diversity in STEM fields.



Learn more at napequity.org/pipestem

National Alliance for Partnerships in Equity

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