Stimulating Creativity in Undergraduate STEM Education

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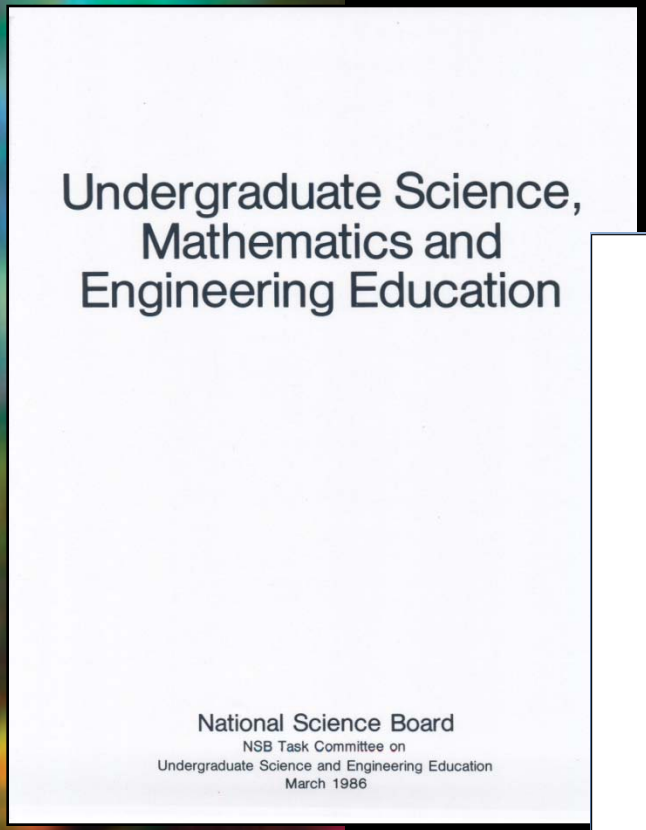
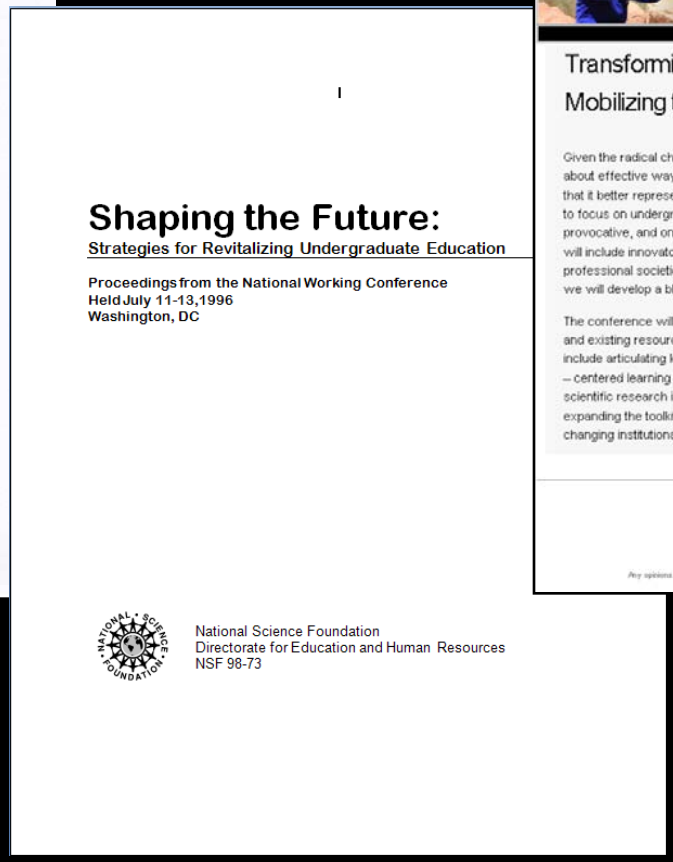
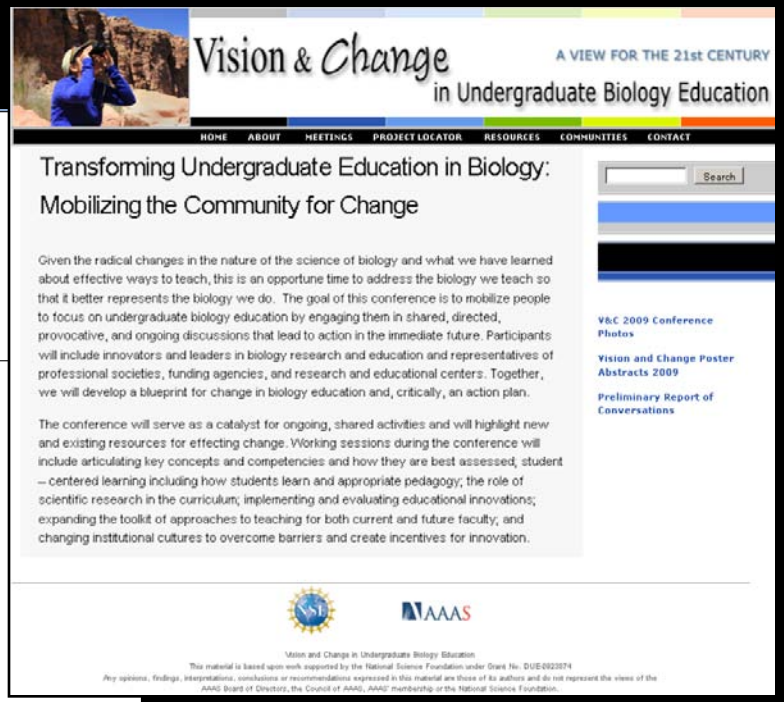
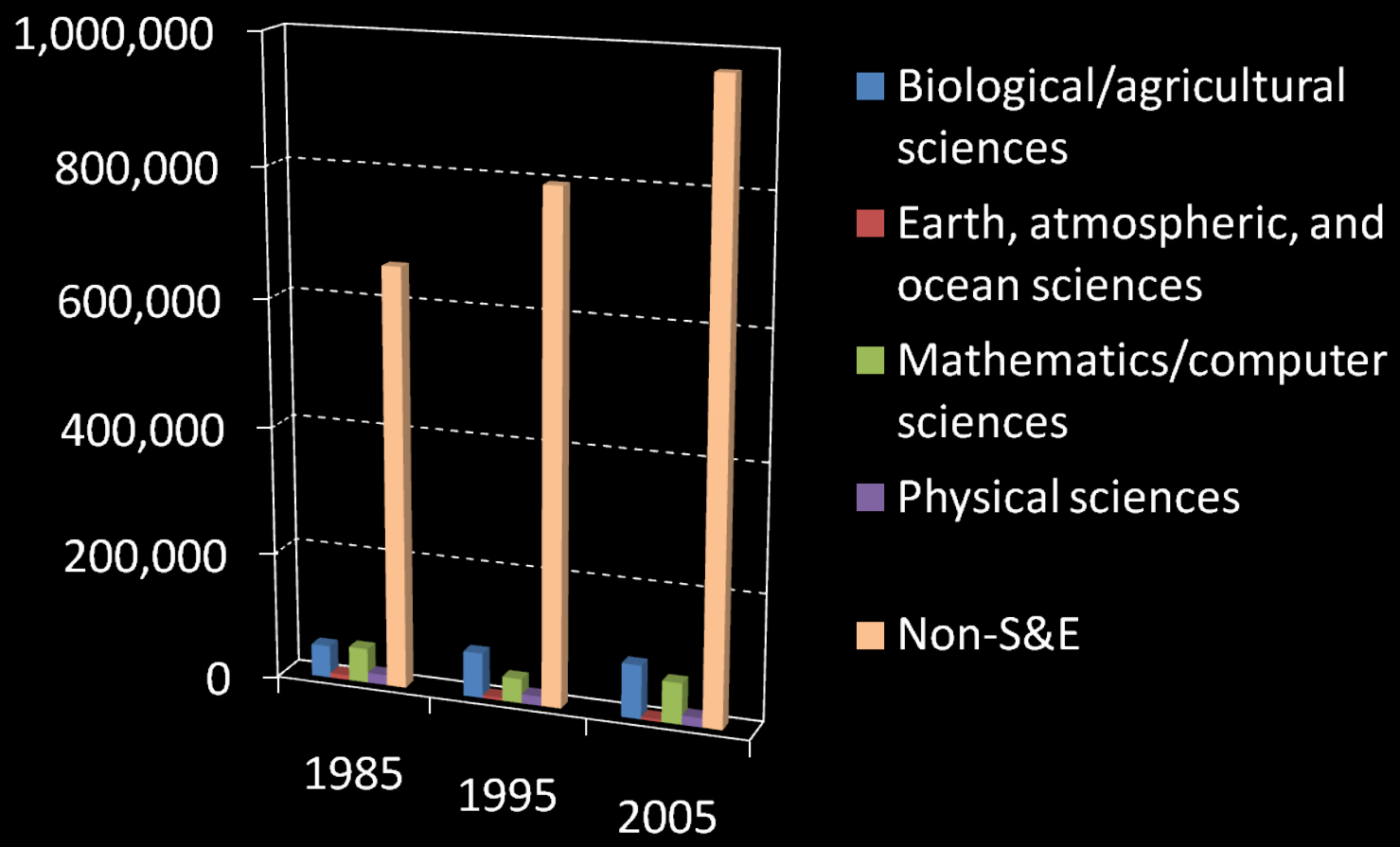
Fortifying STEM Undergraduate Education







Participation in STEM Education



Source: Appendix Table 2-27. 2008 Science and Economic Indicators. NSF, Division of Science Resources Studies.

Comparisons Between STEM and Non-STEM Students

	Institution Type			Institution Selectivity			First Degree Level		
	4-year	2-year	Other	Less Selective	Selective	Very Selective	Cert-ificate	Asso-ciate's	Bach-elor's
Students who entered STEM field, total	51.7%	39.8%	8.5%	48.1%	19.3%	32.6%	11.2%	40.6%	48.2%
Students who did not enter STEM field, total	38.1%	47.2%	14.7%	61.9%	17.0%	21.1%	20.4%	44.4%	35.3%

Source: "Students Who Study Science, Technology, Engineering, and Mathematics (STEM) in Postsecondary Education." Stats in Brief. Natl. Center for Education Statistics. U.S. Dept. of Education. July 2009.

Persistence in STEM Fields

- Switching out of STEM occurs, although more so for some fields than others
- Most Bachelor recipients who enter a STEM field receive their degree in that field
- Persistence in STEM fields varies by level of math completed in high school, ethnicity and parents' education

Challenges Ahead

- Increasing entry and persistence: *pedagogical and other strategies*
- Addressing demographic patterns: *targeted programs*
- Understanding the complexities of undergraduate education: *research and assessment needs*