

Entrepreneurship in Science Education

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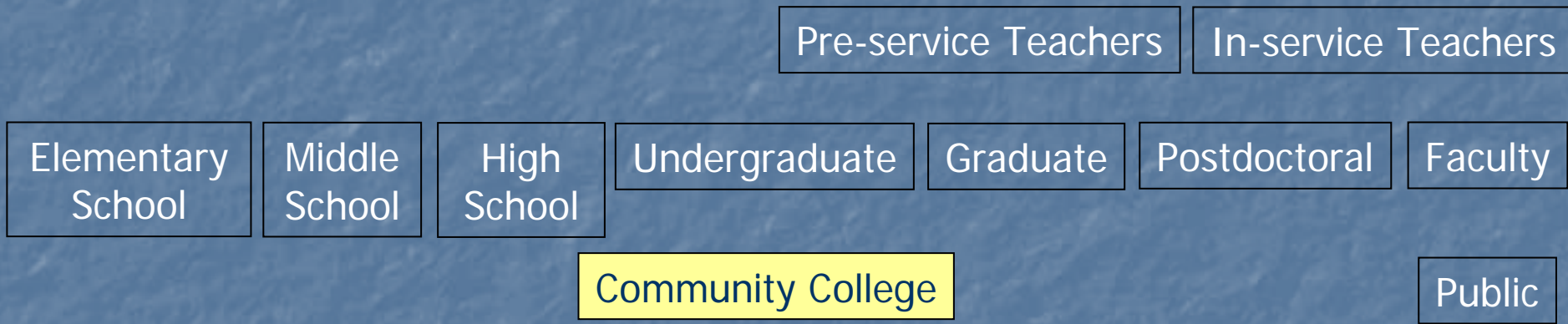


Floor of an oil well drilling rig



Marine Biology Laboratory, Woods Hole, MA

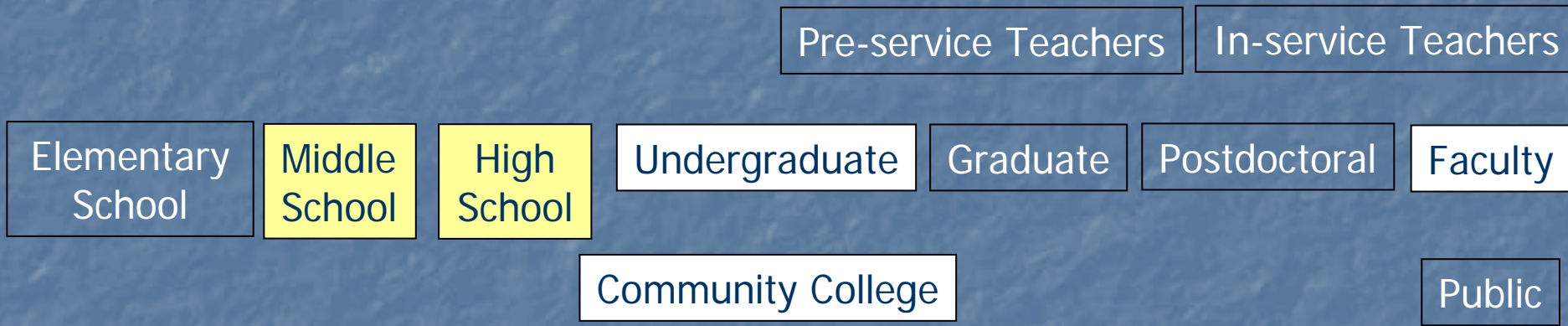
1993 NIH Bridges to the Baccalaureate



1994 Howard Hughes Medical Institute



1995 Stony Brook University - Biotechnology Teaching Center



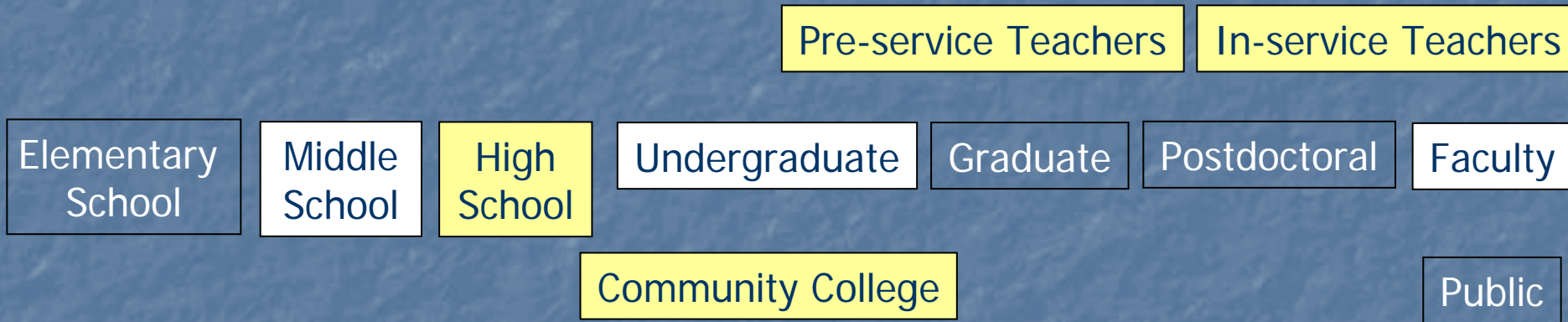
Biotechnology Teaching Center

- Introduce middle and high school students to molecular biology, biotechnology, & forensics
- Hands-on, inquiry-based
- Aligned with the New York State Learning Standards
- Teachers schedule their classes for half day or day
- Cost is \$17 per pupil

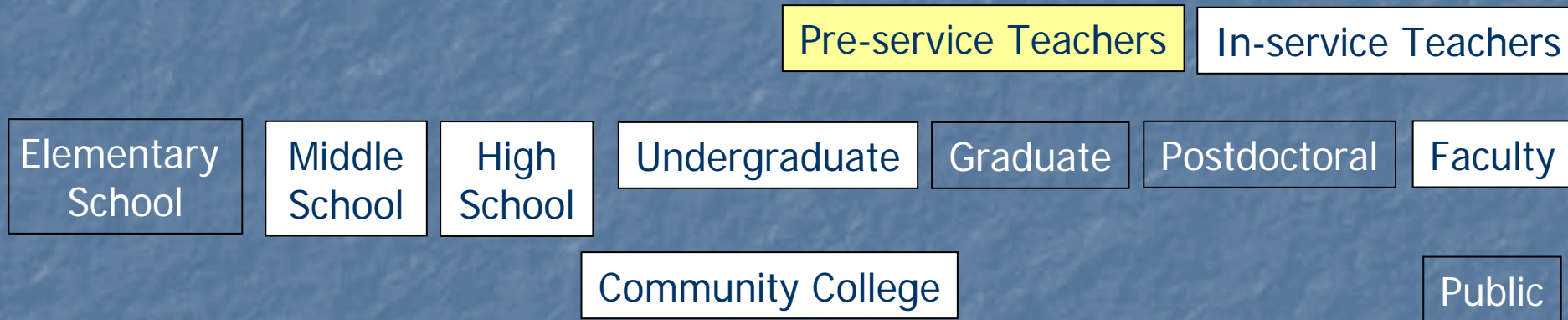
Students working in the Biotechnology Teaching Center



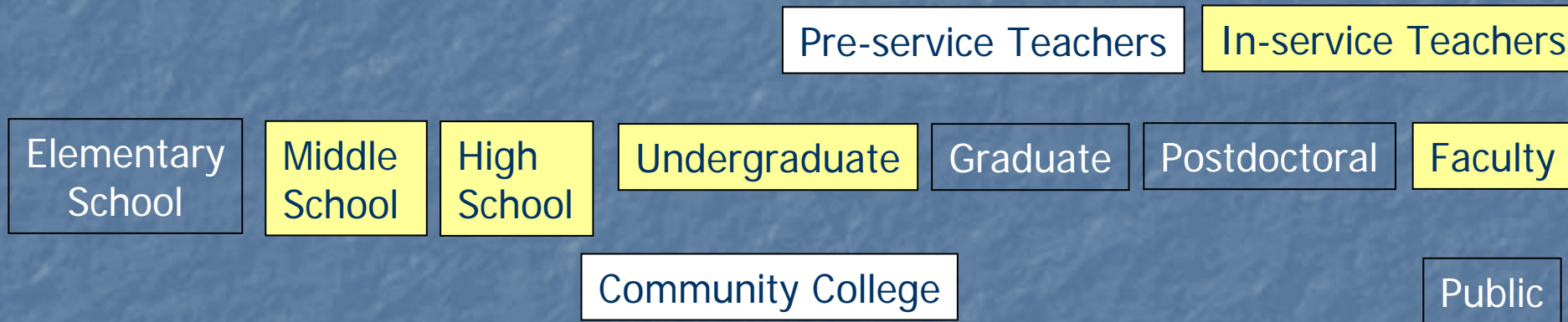
1996 NSF Advanced Technological Education



1998 Stony Brook University - Direct Biology Teacher Education



1998 Howard Hughes Medical Institute



Laboratory Renovation



+ \$150,000
+ faculty
+ students =





**Howard Hughes Medical Institute High School Scholars
meet with New York Governor George Pataki—August 2, 2002**

In-Service Teacher Workshops

Elementary School

- How Children Learn Science
- Using Children's Literature to Enhance Your Science Curriculum

Middle School

- Environmental Health Science
- Physical Science in Grades 7-8

High School

- Bioinformatics in the Biology Classroom
- i-Movie in the Science Classroom

K-12

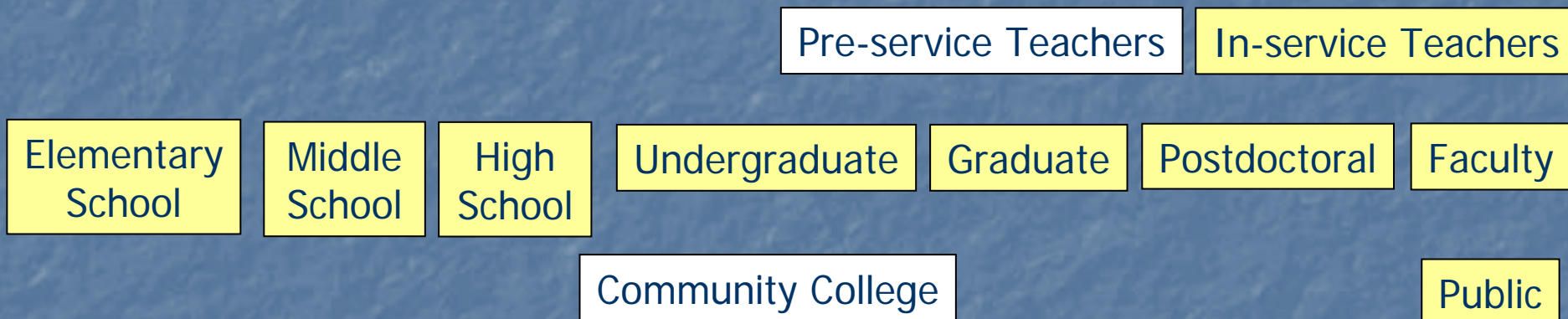
- A Marine Science – Oriented Approach to Teaching Science Standards!

In-Service Teacher Activities

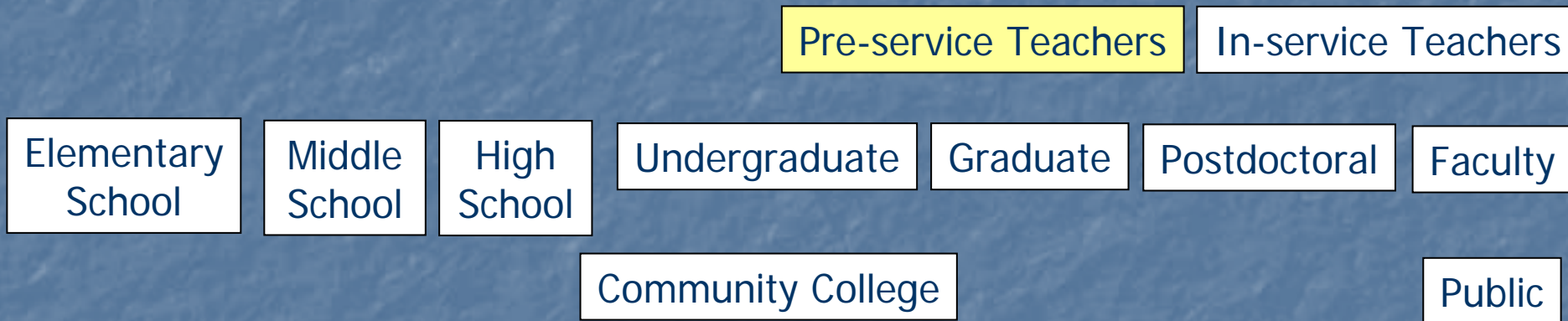
- Co-teach summer science programs for students
- Teach science workshops for other teachers
- Collaborate on grants
- Teach Stony Brook courses for teachers



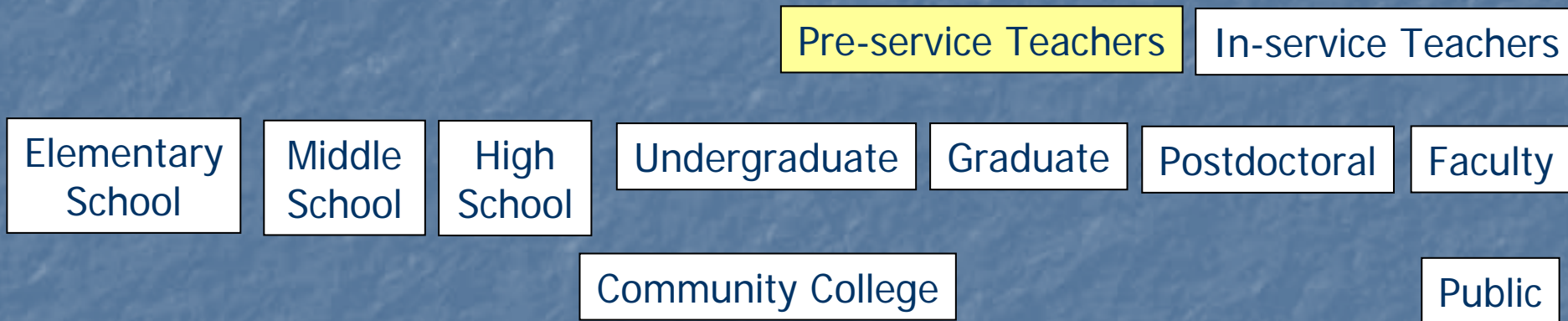
2002 Howard Hughes Medical Institute



2003 NSF Presidential Award



2004 Stony Brook University - Direct Science Teacher Education Biology, Chemistry, Earth Science, Physics

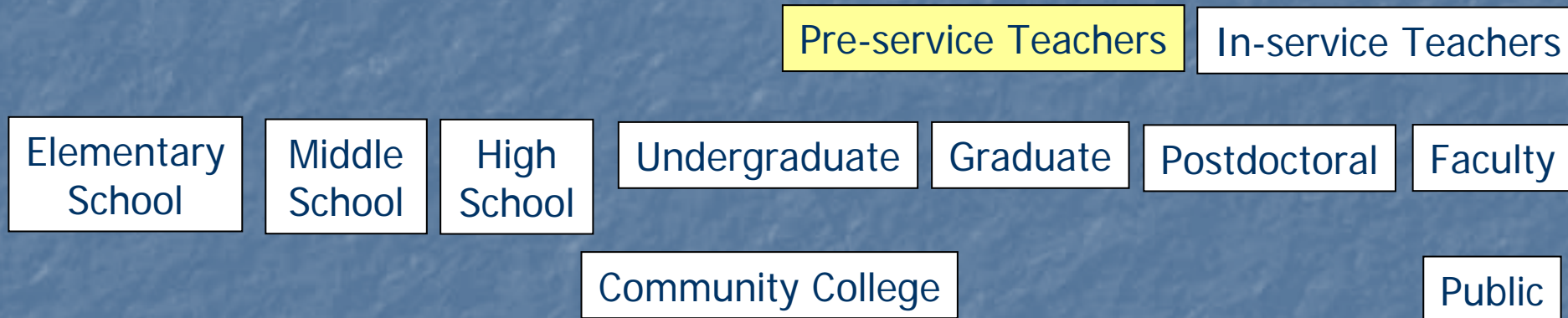


Pre-Service Teacher Activities

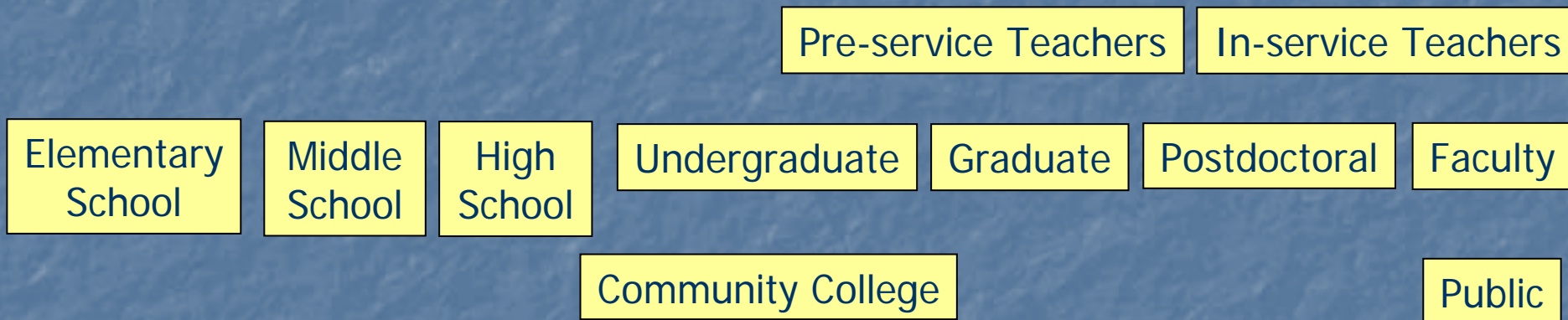
- Work in Biotechnology Teaching Center for credit and salary
- Serve as teaching assistants for undergraduate courses
- Co-direct summer science programs for students



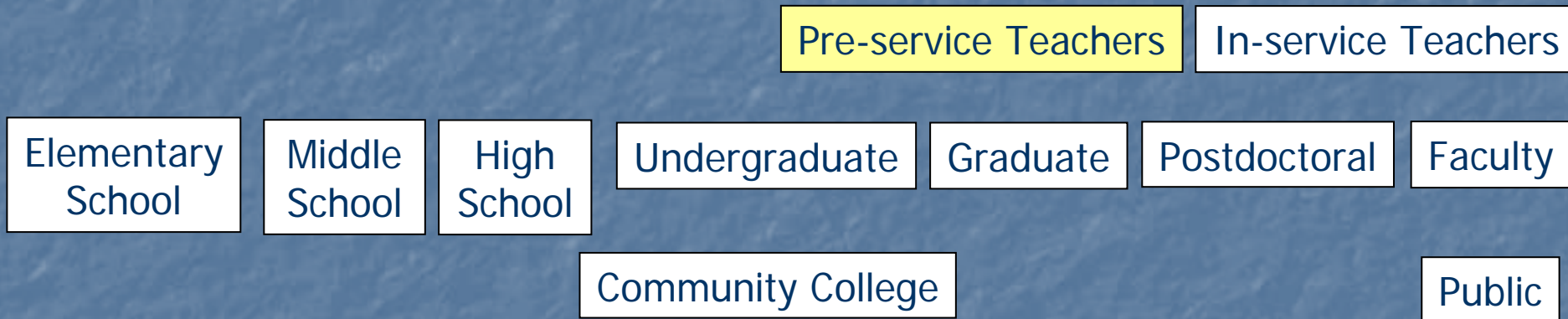
2006 NSF Robert Noyce Fellowships

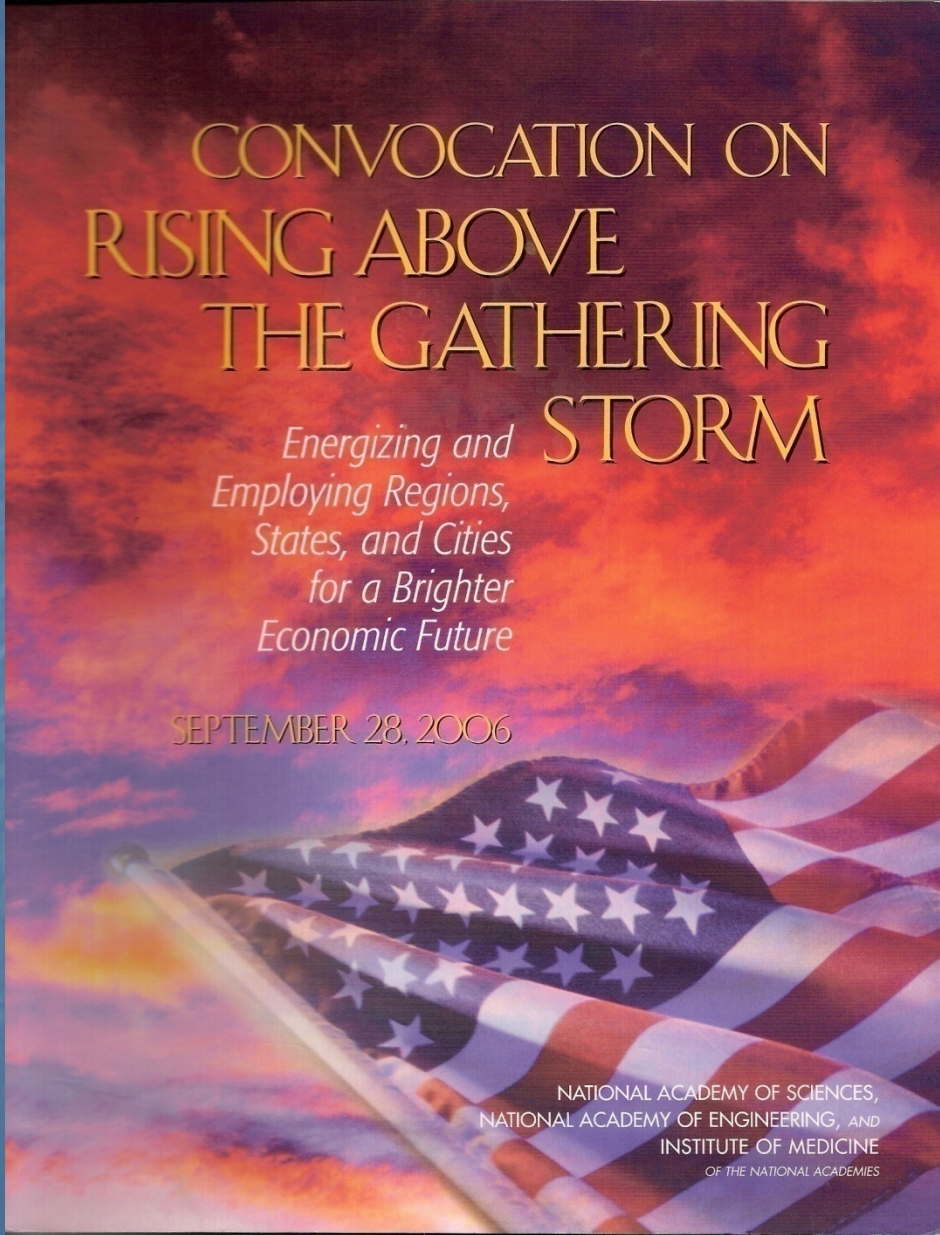


2006 Howard Hughes Medical Institute



2007 Petrie Foundation





CONVOCAATION ON
RISING ABOVE
THE GATHERING
STORM

*Energizing and
Employing Regions,
States, and Cities
for a Brighter
Economic Future*

SEPTEMBER 28, 2006

NATIONAL ACADEMY OF SCIENCES,
NATIONAL ACADEMY OF ENGINEERING, AND
INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

2007 Stony Brook University Creation of Center for Science and Mathematics Education

Howard Hughes Medical Institute

National Institutes of Health

National Science Foundation

Stony Brook University

Office of the Provost

Office of the Vice-President for Research

Dean, College of Arts & Sciences

Dean, School of Medicine

OSI Pharmaceutical Foundation

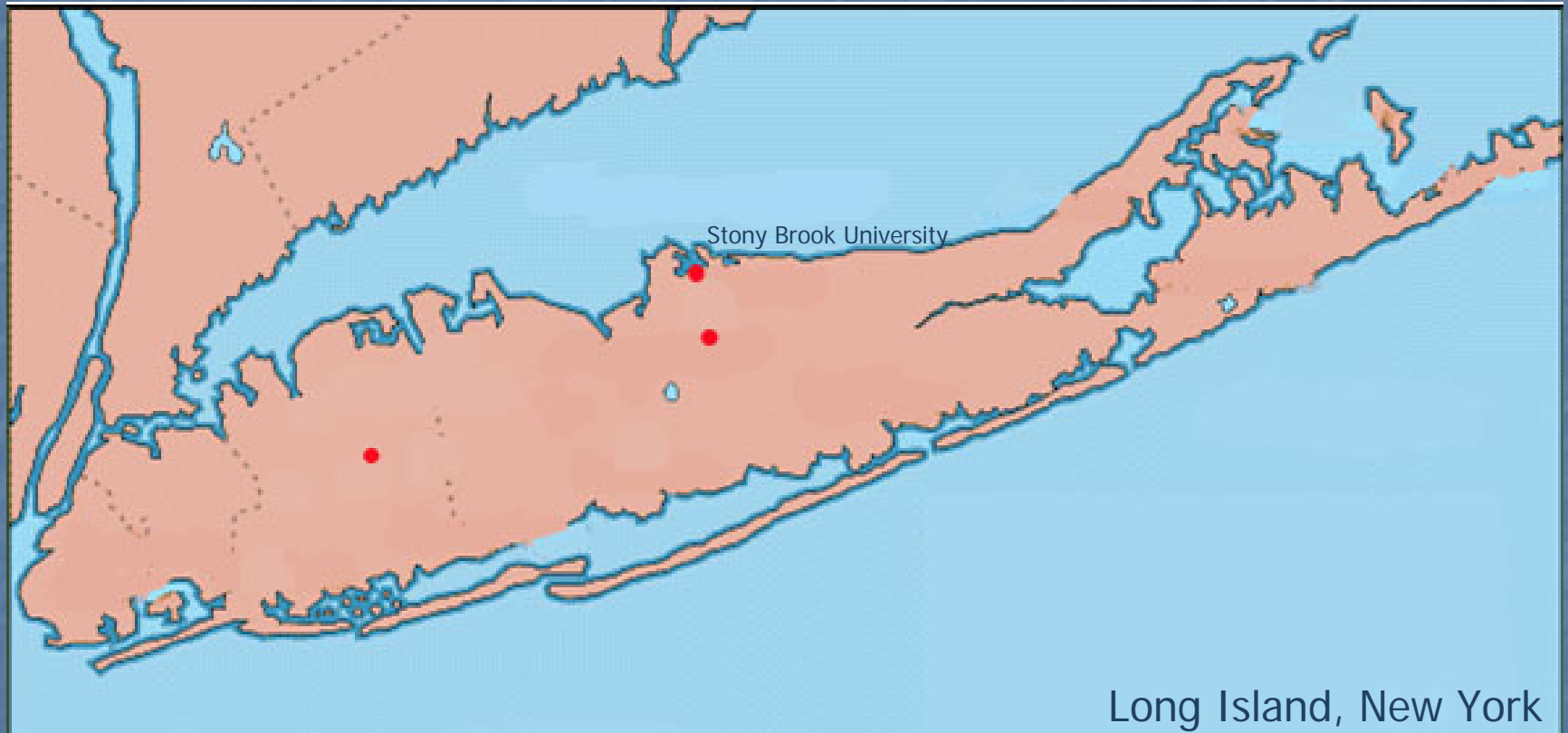
Petrie Foundation

Tensor-SUMMA Foundation

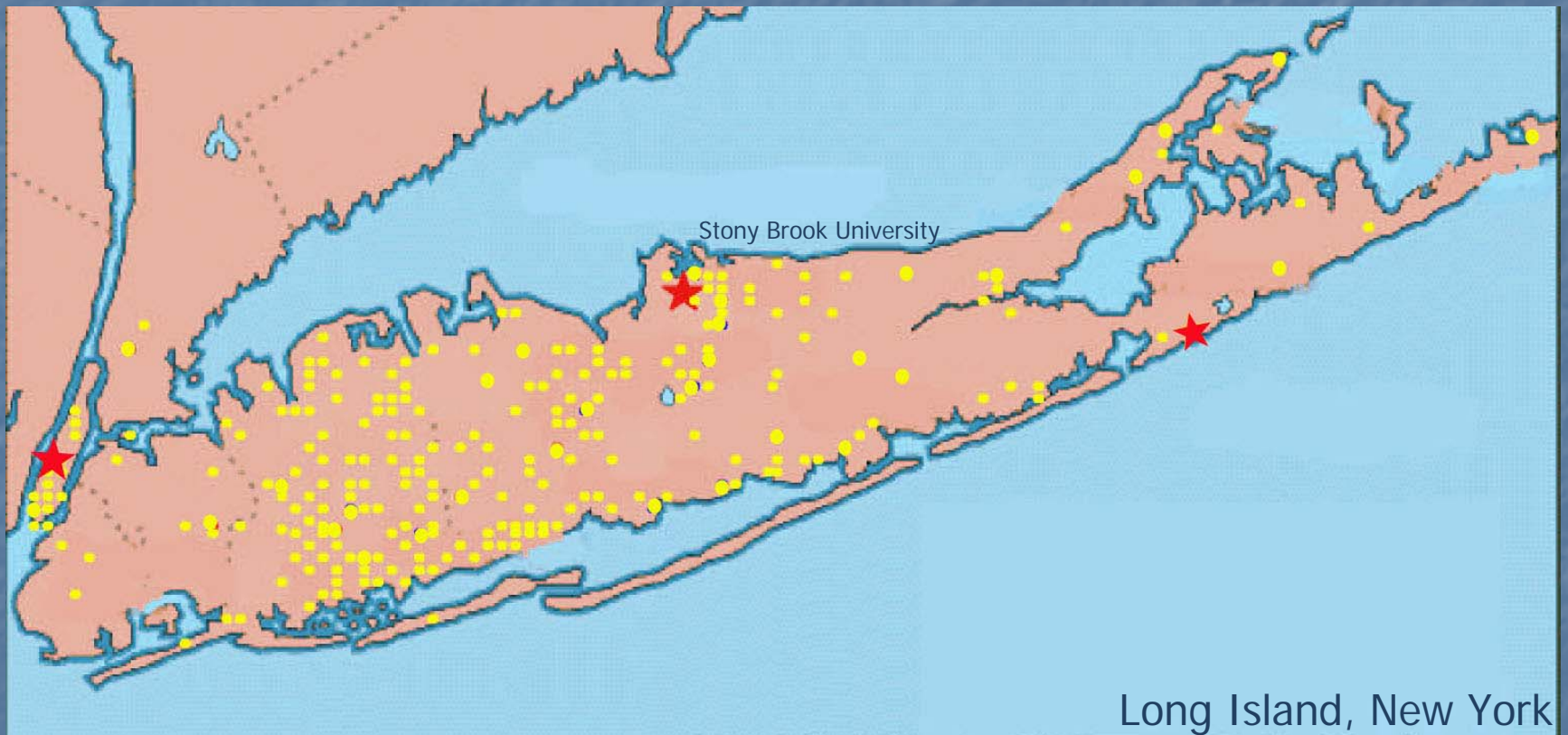


Congressmen Tim Bishop of New York & Bart Gordon (Chair, House Committee on Science and Technology) with Center faculty & students (May 5, 2008)

Participants - 1994



Participants - 2008



Participants - 2008

National:

Arizona
California
Connecticut
Florida
Illinois
Louisiana
Maine
Maryland
Massachusetts
New Jersey
New York
North Carolina
Pennsylvania
Virginia
Washington, DC



International:

Australia
Burma
Canada
China
Germany
Poland



Center Faculty & Staff

Entrepreneurship in Science Education

Center for Science and Mathematics Education

www.stonybrook.edu/ligase