The 3rd Annual
Expanding Undergraduate Success in STEM Conference

BSP
Inspiration • Cooperation • Growth • Community

hhmi
Howard Hughes Medical Institute
1992
BSP begins
The Biology Scholars Program (BSP)

<table>
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<tr>
<th>Funding</th>
<th>HHMI, NIH, Moore Foundation, California Wellness Foundation, and UC Berkeley</th>
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<td>Goal</td>
<td>To <em>enlarge</em> and <em>diversify</em> the pool of students who succeed in biology majors and careers</td>
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<td>Members</td>
<td>3500 UCB undergraduates (1992-present)</td>
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<td>3200 graduates; ~60% minority, 70% women, 80% low income/1st generation; most interested in health careers</td>
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<td>Success</td>
<td><strong>BSP Minority vs. Non-BSP Majority</strong></td>
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<td>• Enter UCB with <em>lower</em> SATs and GPAs</td>
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<td>• Graduate in <em>biology majors in ~ same %</em> and with <em>nearly equivalent GPAs</em></td>
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BSP Demographics

BSP Participants | All Intended Biology Majors Entering as Freshmen

- **Women**: 74% (65%)
- **Underrepresented Minority**: 58% (8%)
- **First Generation College**: 69% (23%)
- **HS API Rank 1 to 5**: 52% (14%)
- **Weighted HS GPA 3.5 to 4.0**: 22% (9%)
- **SAT Math 200 to 600**: 58% (13%)

*Note: 2002-2008 entering freshmen cohorts, intended biological and biomedical sciences majors
Andrew Eppig, UCB E&I*
Origin of this conference?

2014 Awarded HHMI Grant

1. Continue Biology Scholars Program (BSP)
2. Research Why and How BSP ‘Works’
3. Disseminate ‘Best Practices’ at Berkeley
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Shift from

Localized Responsibility

A Program/Office/Position

‘Few of Us’
To

Distributed Responsibility

The Institution

‘All of Us’
Who’s Here?
Participant Affiliations

- American Association of Colleges & Universities
- Berkeley Community Fund
- Berkeley Connect Program
- Bioengineering
- Biosciences Division
- Career Center
- Center for Education, Equity & Excellence
- Center for Educational Partnerships
- Center for Teaching & Learning
- College of Chemistry
- College of Engineering
- College of Natural Resources
- Environmental Science & Policy Management
- Helen Wills Neuroscience Institute
- Incentive Awards Program
- Integrative Biology
- Interdisciplinary Studies
- Jepson Herbarium
- Joint Medical Program
- Lawrence Hall of Science
Participant Affiliations

- Library Administration
- Mathematics
- Math & Physical Sciences Centers & Programs
- Molecular and Cell Biology
- Museum of Paleontology
- Office of Equity and Inclusion
- Physics
- Plant and Microbial Biology
- Pre-Post Doc Fellowship Program
- Psychology
- QB3 Institute
- School of Education
- School of Optometry
- School of Public Health
- SMASH Academy
- Undergraduate Interdisciplinary Studies Program
- Upward Bound Program
- Other affiliated
Institutional Roles

- Staff (67)
- Faculty (23)
- Grad Students (16)
- Undergrads (8)
- Post-docs (9)
- Program Coordinators and Directors (9)
- Administrators (5)
- Did not State (5)
Student Population of Interest

- URM (68)
- 1st to College (27)
- Low-income (13)
- Women (10)
- With Disabilities (4)
- Immigrants (2)
- ESL (1)
Today?
AM

**Keynote**
- Case for Institutional Change

**Research Update**
- Why BSP Works

**Undergrad STEM Experience**
- Student Perspective

‘**BSP Way**’
- Terms and Phrases
- How Generalizable, Valuable, Feasible?
PM

Breakout Groups
- Advising, Mentoring, and Teaching
- Critique the Value/Feasibility of ‘BSP Way’

Plenary
- Group Report Back
- ‘Next Steps’
Keynote

Dr. Kelly Mack

AAC&U
Research

Dr. Mica Estrada

UCSF
BSP Student Panel

Yessenia Hernandez-Cruz
Quijai Johnson
Gabriel Santamaria
Quotes

• ‘I teach science, I don’t teach students.’
  Faculty member on teaching

• ‘This is science, leave your culture at the door.’
  PI to an African American BSP student entering his lab

• ‘You may like science but science doesn’t like you.’
  Staff advisor to a BSPer who received a ‘C’ in Chem 1A and 3A

• ‘If we’d admit the right students there’d be no problem.’
  Faculty member on underrepresentation in STEM
‘The BSP Way’
About Diversity
About Diversity

S/he gets ‘it.’