## Career Outcomes for STEM

 Degree RecipientsB. Lindsay Lowell<br>Institute for the Study of International Migration (ISIM)<br>Georgetown University<br>Tel: (202) 687-2602, -2258<br>Email: lowellbl@georgetown.edu

- Presentation to a Conference on 'The Role and Status of the Master's Degree in STEM,' Council of Graduate Schools and the National Science Foundation, May 18, 2010.

Figure 3. Educational Attainment by Age Group 1940 to 2007: All High
School Graduates and All Completing at least 4 Years of College


## Estimated High School Yield: Percent of Freshman Intending to Enroll in Science and Engineering Recieving BA Degrees




0\%
$\begin{array}{lllllllllllll}1955 & 1959 & 1963 & 1967 & 1971 & 1975 & 1979 & 1983 & 1987 & 1991 & 1995\end{array}$
Note: BA graduates divided by intending students 5 years earlier

- Estimated retention of entering freshman shows space-race boom and a bust in the 1960s

Estimated College Yield: Estimated Percent of S\&E Baccelaureates Receiving S\&E MA and PhD Degrees



0\%
$\begin{array}{llllllllllllll}1951 & 1955 & 1959 & 1963 & 1967 & 1971 & 1975 & 1979 & 1983 & 1987 & 1991 & 1995 & 1999\end{array}$
Note: MAs divided by BAs 3 years earlier, and PhDs by BAs 7 years earlier

- Continuation BA to graduate STEM degrees, space-race boom, 1960s bust, recovery 1980s for MAs, PhD flatline


Figure 2 College-Bound Seniors Total SATMath Scores, 1972to 2006


Figure 4. Percent of All Degrees that are S\&E Degrees Earned by Citizens and Permanent Residents


Figure 5. Number of All Degrees Earned by Citizens and
Permanent Residents in S\&E


Source: S\&E Indic ators, 2006.

## Supply vs. Attrition: Where lies the problem? Where lies efficient \& effective public policy?



Figure X. Percent of Degree Recepients by S\&E Status One to Two Years After Graduation, Average of Cohorts 1993 to 2001


Source: S\&E Indicators 2006, Appendix table 2-12 (http://www.nsf.gov/statistics/seind06/pdf_v2.htm).

Figure 3. Percent of STEM Majors among High School Graduates who are enrolled in or have obtained a Bachelor's Degree Five Years after Graduation


BA to First J ob Transitions of Top Achieving STEM College Graduates (Top Quintile GPA)


Figure 10. Advanced Degree Graduates Across Fields, 2003


