

Mentoring and Persistence of Low-Income First Generation College Students in STEM fields

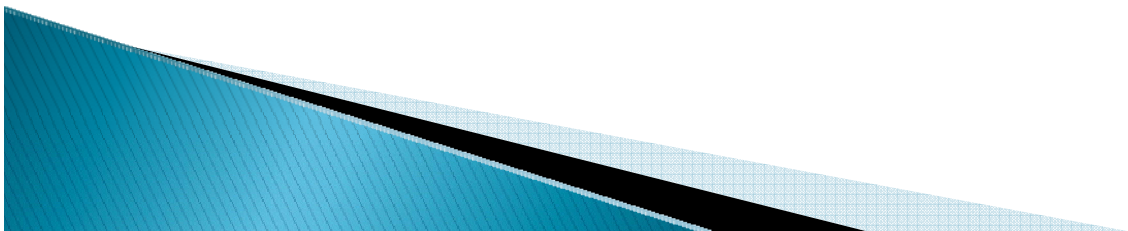
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National Science Foundation
WHERE DISCOVERIES BEGIN

Recruit and Retain with Mentoring

- ▶ Programs and initiatives promoting recruitment
- ▶ Programs promoting retention or persistence
- ▶ **Mentoring is a Key Factor**
 - Distinguishes students who get interested
 - Distinguishes students who stay



A focus on gender, race, class →
alternative pathways



Vocational/Technical Entry Points



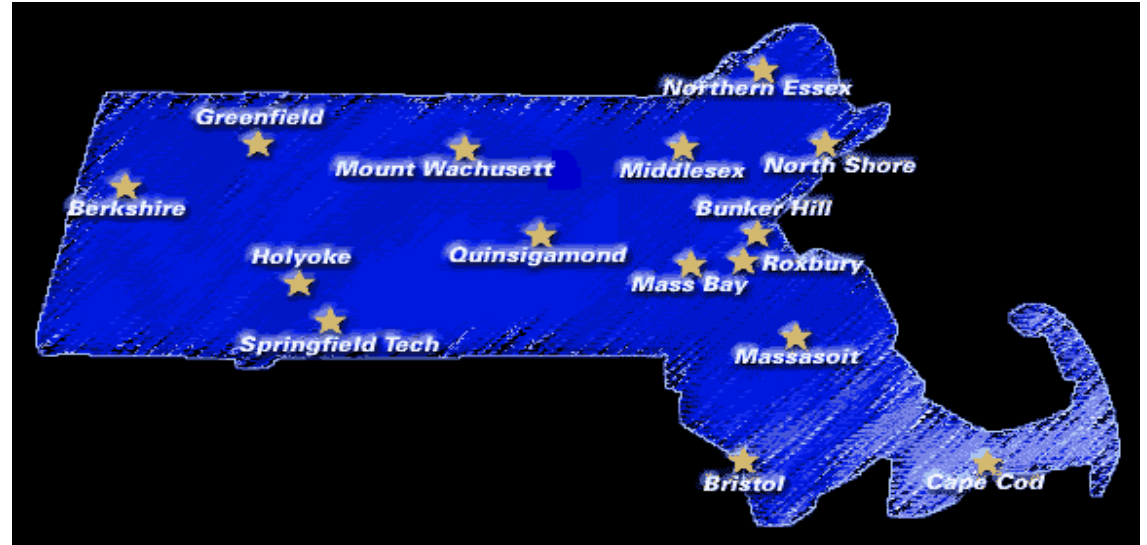
Different definitions of college

Inspired by peers or faculty in community college setting

Credits do not transfer...need extended window of time

Packard & Babineau (in press); Babineau & Packard (2006)

Community College Pathways



College mentors get students “on track”;
information access and quality uneven

College mentors inspire students to continue

Non-college supporters: resources

Computer Systems
Engineering Technology
(Certificate)



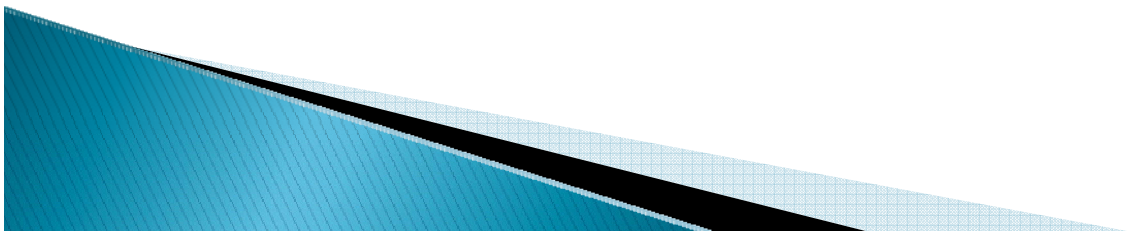
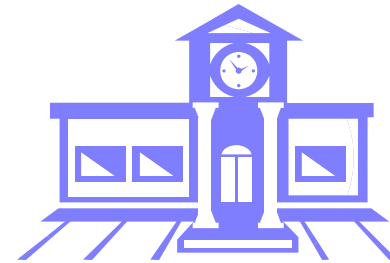
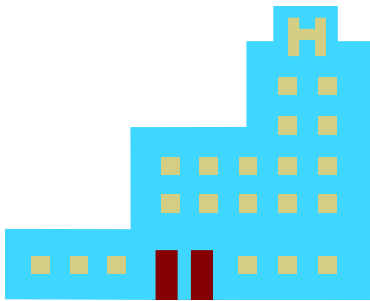
Computer Systems
Engineering Technology
(Associate's Degree)



Computer Engineering
(Transfer)

Workplace Case Studies

- ▶ Combining work and school– major challenge
- ▶ Tuition reimbursement policies facilitate
- ▶ Supervisor and co-worker facilitate



Summary: Key Factors in Persistence



Time and Money=Window



Success in Challenging Courses

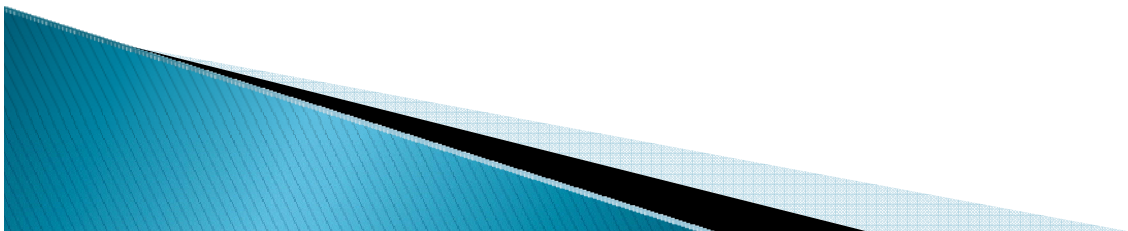


Mentoring – In the field and from Home or Work



What do you mean by *Mentoring*?

For what goal?



Mentoring: Two main functions

▶ Socio-Emotional

- Encouragement, role modeling, inspiration

▶ Instrumental

- Academic, College, Career mentoring
 - Skills or Competencies (expertise-driven)
 - Facilitate with Resources (nonexpertise)

Mentor Roles that increase Instrumental-expertise:
Coach, Develop/Challenge, and Sponsor

Higgins & Thomas (2001); Laden (1999); Packard (2004-5)



Multiple Mentors: Advisory Board

- ▶ “Chair” of Board: mainly coach, encourage
- ▶ Insider or Teammate
 - Essential “Step ahead” or Peer Coaches
- ▶ Developer–invests in competencies
 - In field, whether a professor or supervisor
 - Challenge student to do better work
- ▶ Sponsor– connections to opportunities (jobs)
- ▶ “Sage advice” guide has positive balance or spiritual/energy resources

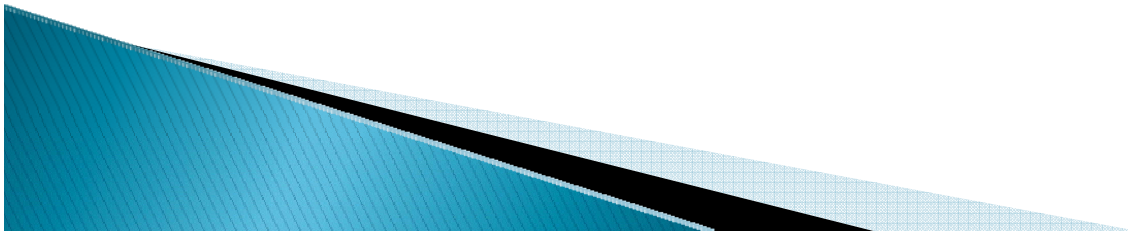
Packard (2003)



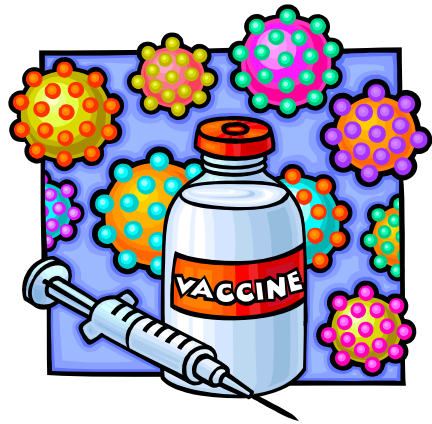
Contexts of Mentoring



**You can't choose your family,
but you can choose your
mentors.**



A Healthy Dose of Entitlement



Program and Policy Implications

- ▶ Mentoring programs emphasize instrumental and strategy
- ▶ Advising for advisors
- ▶ College-level academics in vocational programs
- ▶ Increase relevant work opportunities
- ▶ Degree designs that facilitates transfer
- ▶ Governmental aid timeframe and programs

Please visit www.mtholyoke.edu/~bpackard for references or email bpackard@mtholyoke.edu for additional information.

