#### Session I-06: Improving Retention & Student Success through Cohort-Building & Networking

**NSF STEP Grantees Meeting Workshop** 



Dr. Anant R. Kukreti Lead PI



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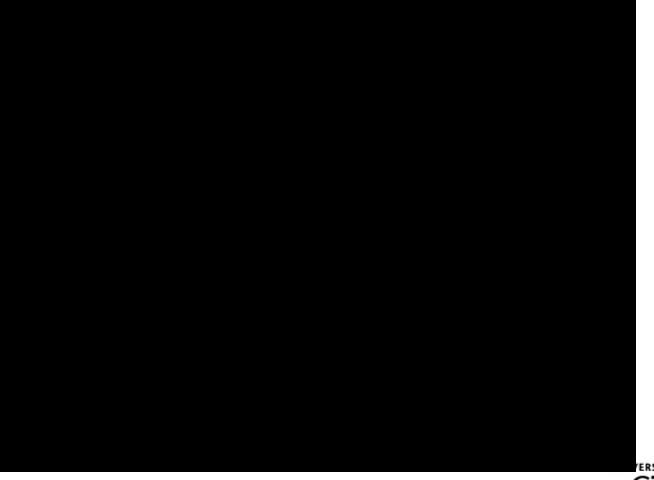


Dr. Latiera Brunson Evans Evaluator

University of Cincinnati College of Engineering and Applied Science March 2012



#### Student Video 1 – Cohort Building





#### Improving Retention & Student Success through Cohort Building & Networking

- Grant Goals
  - Student Retention & Student Achievement
- Implementation Strategies
  - Cohort Building
  - Networking



# **Cohort Building – What It Is**

Building productive academic relationships

- Among students
- Between students and faculty
- Between students and the UC administration



### **Cohort Building Strategies**

- Summer Bridge Program
- Cohort course scheduling
- Collaborative learning
  - Cooperative courses (calculus, physics)



### **Cohort Building Strategy**

#### Summer Bridge

- Academic interdependence
- Nightly study session
- Instructors and staff weekly meetings



### **Cohort Building Strategy**

#### **Cohort Course Scheduling**

- Summer bridge academic year course recommendations
- Math and science course registration
- Long-term affiliations formed



### **Cohort Building Strategy**

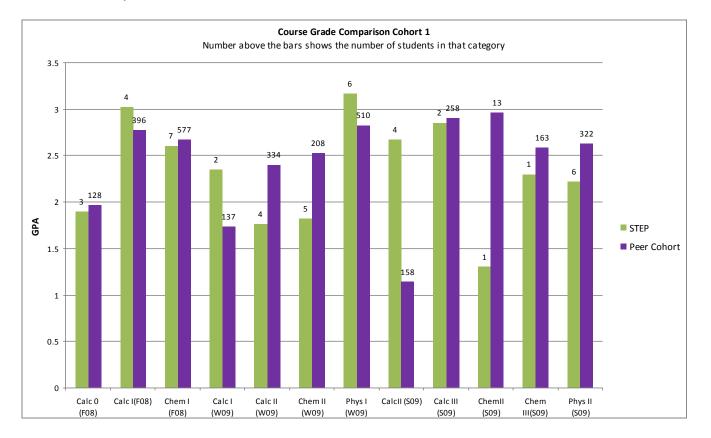
#### Supplemental Cooperative Learning Classes in Freshmen Math & Science Courses

- receive additional instruction time
- develop problem-solving skills
- study in groups of 3-4
- build long-term relationships



#### Impact of Summer Bridge & Supplemental Cooperative Learning Classes

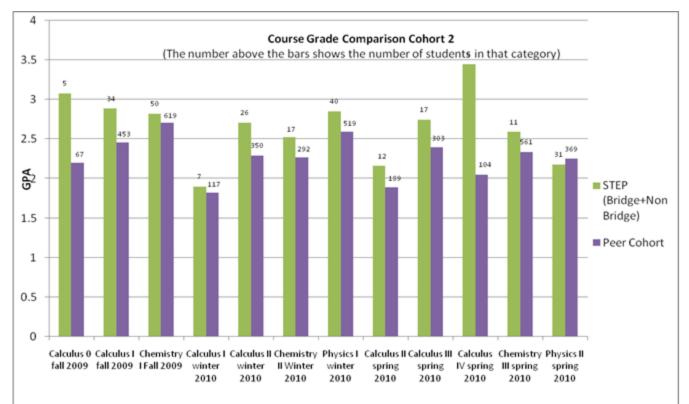
Performance of STEP and Peer Cohort in Freshmen Math & Science Courses: **2008-2009** (participation in cohort building activities was on volunteer basis – not all did)





#### Impact of Summer Bridge & Supplemental Cooperative Learning Classes

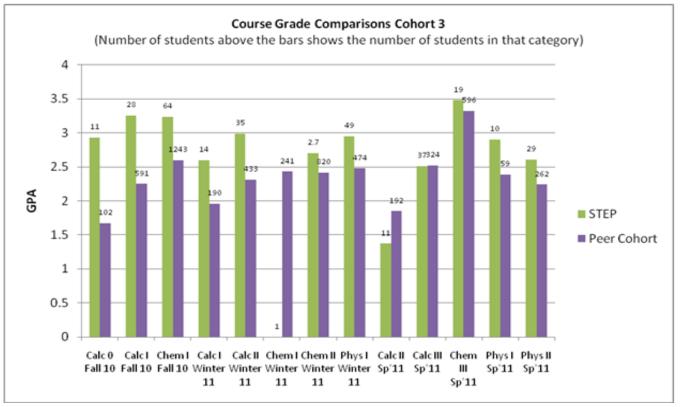
Performance of STEP and Peer Cohort in Freshmen Math & Science Courses: 2009-2010





#### Impact of Summer Bridge & Supplemental Cooperative Learning Classes

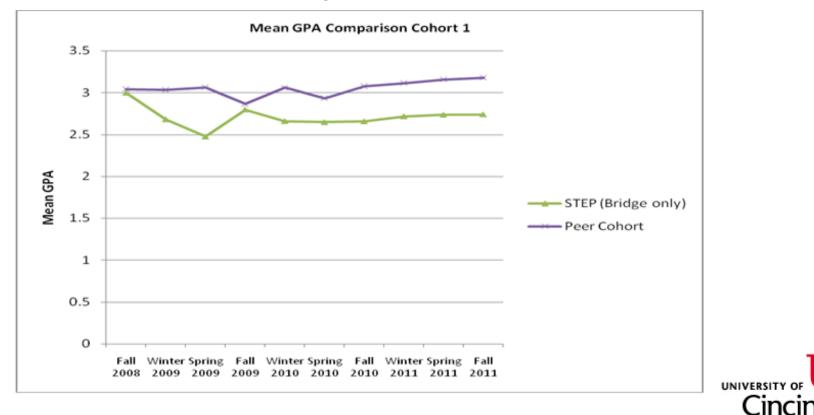
Performance of STEP and Peer Cohort in Freshmen Math & Science Courses: 2010-2011





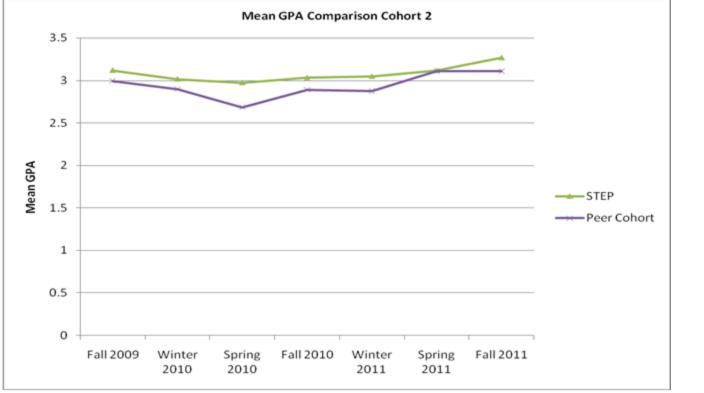
#### **GPA Outcomes**

GPA of STEP and Peer Cohort for students who started in Fall 2008: Cohort 1 (participation in cohort building activities was on volunteer basis – not all did)



#### **GPA Outcomes**

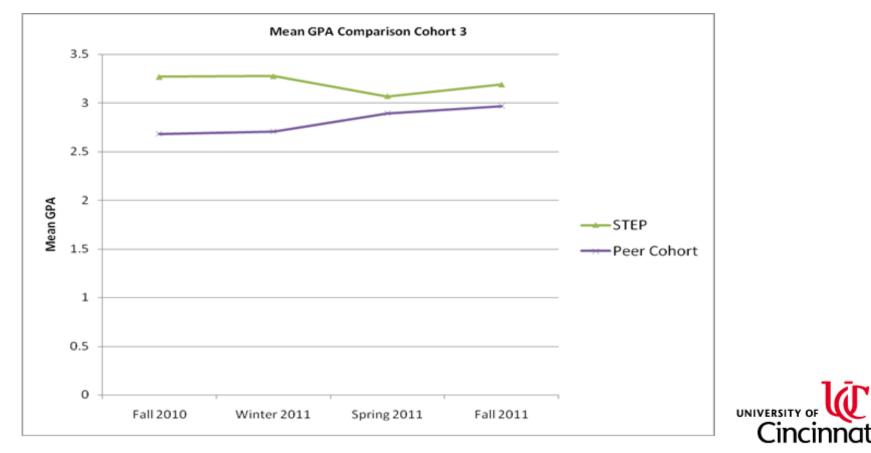
GPA of STEP and Peer Cohort for students who started in Fall 2009: Cohort 2





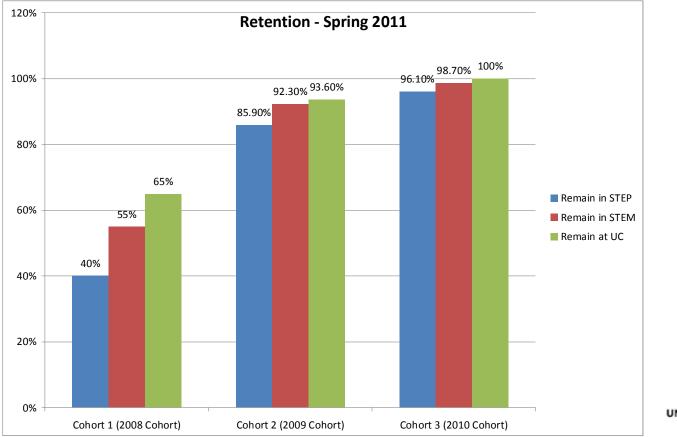
#### **GPA Outcomes**

GPA of STEP and Peer Cohort for students who started in Fall 2010: Cohort 3



#### **Retention Outcomes**

#### Retention of STEP Cohorts





# **Cohort Building Group Activity**

- Discuss activities that your project has used to build cohort relationships
- Discuss the key benefits from these activities
- Report back to group



#### Student Video 2 - Networking



#### Improving Retention & Student Success through Cohort Building & Networking

- Grant Goals
  - Student Retention & Student Achievement
- Implementation Strategies
  - Cohort Building
  - Networking



#### **Networking Strategies**

- Monthly socials
- Progress reports
- STEP advisors
- Industry mentoring
- LeMons Competition project



#### **Monthly Socials**





### **Monthly Socials**

Socials bring students together to:

- meet representatives from the university, faculty, and industry
- discuss academic strategies for success
- learn about co-op opportunities
- investigate undergraduate research experience options
- explore the option for graduate school
- connect with each other



#### **Progress Reports**

- opportunity to meet instructors
- periodic feedback on performance
- long-term relationships with instructors
  - research opportunities
  - recommendation letters



#### **STEP Advisors**

- Quarterly Meeting
  - Instructor reports
  - Course work
  - Community engagement
  - Personal and academic concerns



# General Electric Aviation Mentoring Program

- Students interact with engineering professionals to:
  - assist in their overall academic and professional development
  - help students understand the educational and career related skills needed for a successful engineering career
- 23rd Year



# Toyota/E3 24 Hours LeMons

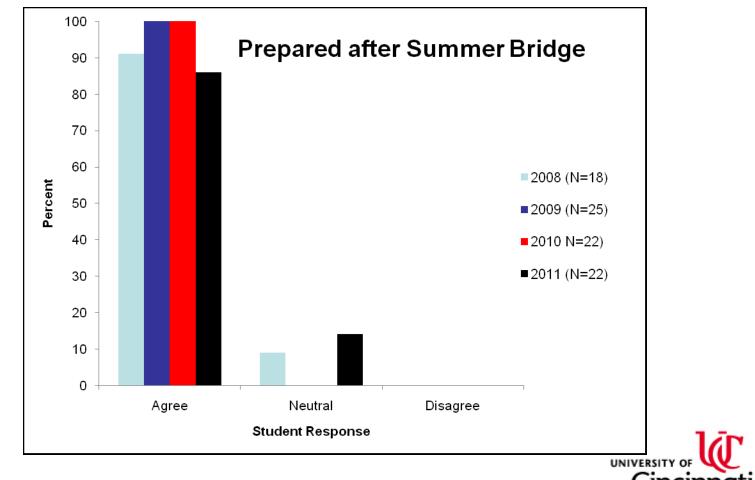
- E3 Students and Toyota engineers transform a couple of very old, beaten-up Toyotas into race cars for an endurance race called "The 24 Hours of LeMons."
- Networking for industry
  - Co-op recruitment for underrepresented engineers for Toyota
  - Toyota has hired three E3 students in the past three years

#### Toyota/E3 24 Hours LeMons

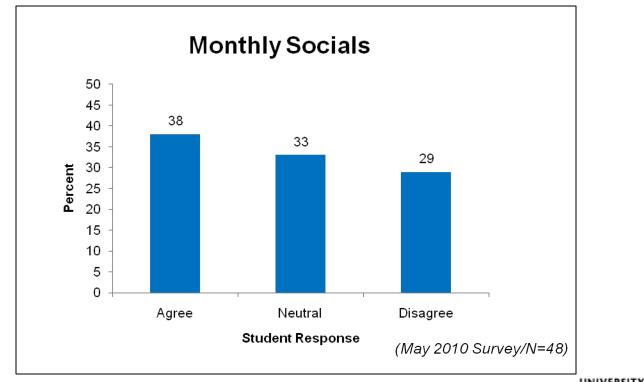




#### Summer Bridge - "I feel prepared to succeed at UC"

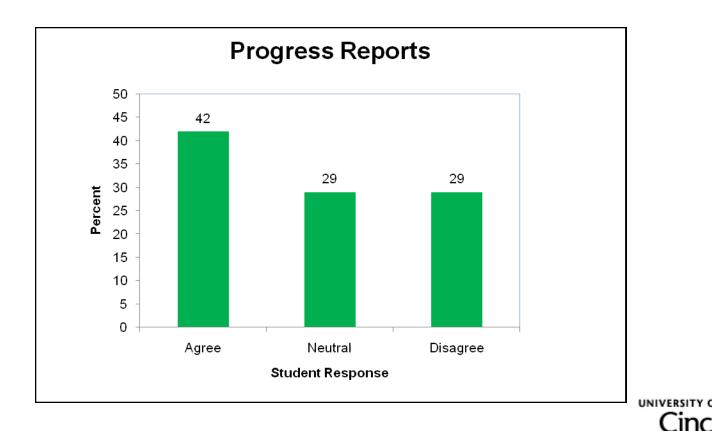


*"The monthly socials and guest speaker sessions were informative."* 



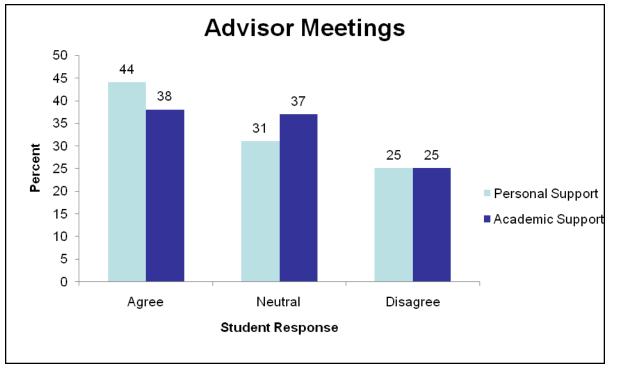
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*"The required <u>Progress Reports</u> facilitated a positive relationship with my teachers."* 



The quarterly meetings with my Program Advisor were helpful in providing me personal support "

*"The quarterly meetings with my Program Advisor were helpful in providing me <u>academic support</u>"* 



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### **Networking Group Activity**

Create an activity (not something someone is currently doing) that promotes networking

- Intended outcomes
- Report out



#### Summary: Strategy Assessment vs. Goals

- What strategies proved effective
- What strategies need review and realignment



### Summary Goal 1: Retention

- Challenges
  - Coordinating Student Participation in Various Programs (Bridge and others)
- Successes

- Retention: 82% vs. 74% for College



#### **Goal 2: Achievement**

#### Challenges

- An early challenge was student participation in the activities.
- Successes
  - Better performance in freshmen math and science courses
  - Better performance in overall Everything needs to connect to student success



#### **Questions/Discussion**

# For more information on the UC STEP Program:

#### http://www.e3.uc.edu/STEP/



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