Project for Inclusive Undergraduate STEM Success

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The STEM Gateway program is funded through a U.S. Department of Education TITLE V grant, 2011-2016, 100% grant funded (total anticipated funding $3.82 million).
BACKGROUND TO THE GRANT

INNOVATION IS NOW GLOBAL AND STEM JOBS ARE FOLLOWING WAGES FOR STEM WORKERS ARE HIGH AT ALL LEVELS OF EDUCATIONAL ATTAINMENT.

THERE IS ADDED PRESSURE TO FIND MORE STEM WORKERS DUE TO BABY BOOMER RETIREMENTS.

STEM IS PROJECTED TO GROW AT 17 PERCENT THROUGH 2018.

THE NATION NEEDS MORE WOMEN AND MINORITIES IN STEM JOBS FOR MANY REASONS.

WE ARE CURRENTLY RELYING ON FOREIGN-BORN WORKERS TO PLUG THE GAPS IN OUR STEM WORKFORCE.
BACKGROUND TO THE GRANT

STEM Pipeline – Leaking Badly

277,550
Majoring in STEM

166,530
STEM Graduates by 2011

1,303,050
College Ready Fall 2005

277,550
Majoring in STEM

166,530
STEM Graduates by 2011

(Data: NCES; Graphic: Bill & Melinda Gates Foundation)
BACKGROUND TO THE GRANT

38% of students do NOT graduate with a STEM major.

62% STEM MAJOR CAREERS

National Science and Math Initiative
STEM fields top the list of aspired-to majors among UNM freshmen
STEM disciplines suffer the greatest undergraduate student attrition at UNM

Summary of declared and aspired majors, UNM Fall 2006 freshmen cohort
Hispanic-student enrollment is growing although the percentage of Hispanics among graduates is stagnant.

Hispanic STEM graduates are declining compared to total Hispanic graduates.

Despite overall decreasing enrollment...

... White, non-Hispanic students remain about half of each graduating class with an equal proportion attaining STEM degrees.
Recalling that the tide turns after the first year ...

Summary of declared and aspired majors, UNM Fall 2006 freshmen cohort
... the grant focuses on the entry points to STEM majors: The gateway courses.
Transforming course experiences to be gateways, rather than gatekeepers.
BACKGROUND TO THE GRANT

STEM Gateway Components

- GATEWAY SCIENCE AND MATH COURSE REFORM
- BEGINNING-STUDENT SOCIALIZATION WITH STEM EXPERIENCES: STEM STUDENT INTEREST GROUPS
- PEER-ASSISTED COLLABORATIVE LEARNING: PEER LEARNING FACILITATORS
- DATA-DRIVEN DECISION MAKING

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