



2nd Largest County in U.S.

140,776 people

18,661 square miles

Elevation -~7,000ft

>\$22/mb

Coconino Community College

“If we could get access to affordable, reliable and fast access to research networks and instrumentation we can be more collaborative and sensitive to research needs that reflect community needs and are cultural sensitivity.



Among the fastest growing counties in the U.S.

More than 4.3 Million people

9,244 square miles

Elevation 1,000ft

< \$1/mb

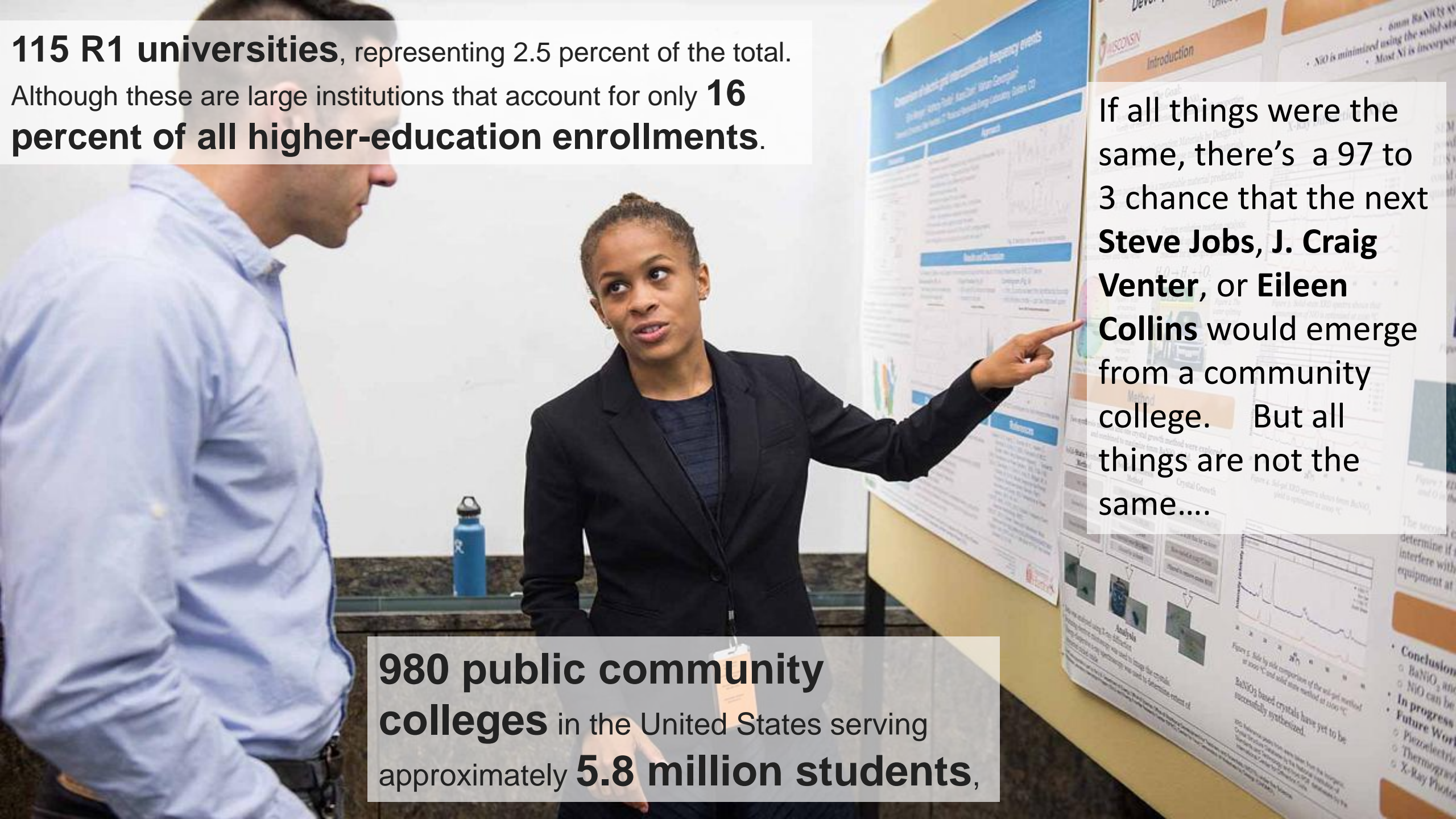
10 Maricopa Community Colleges

We need convenient and effective ways to collaborate with researchers at universities and faculty at other community colleges to bridge the gap between science and workforce applications.

115 R1 universities, representing 2.5 percent of the total. Although these are large institutions that account for only **16 percent of all higher-education enrollments**.

If all things were the same, there's a 97 to 3 chance that the next **Steve Jobs, J. Craig Venter, or Eileen Collins** would emerge from a community college. But all things are not the same....

980 public community colleges in the United States serving approximately **5.8 million students**,



MCC Team Wins NCAS Rover Competition at Glenn Research Center

In spite of the obstacles posed by lack of research funding and high teaching loads, undergraduate research is being conducted in community colleges across the nation. The reasons for supporting undergraduate research include the need to:

- increase the number of students (especially minority students) majoring in science, technology, engineering, and math (STEM) fields;
- promote better understanding of STEM fields;
- improve student engagement and persistence in college;
- assist people in becoming better consumers of research;
- develop better understanding of the scientific method and research processes; and the potential for institutional recognition.*



Jenna Connolly

**UNDERGRADUATE RESEARCH AT COMMUNITY COLLEGES*

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National Council of Instructional Administrators Council on Undergraduate Research

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Quad Chart for: Sun Corridor Network Arizona Community College Research Expansion

Challenge Project Seeks to Address:

Research and specialized network connectivity at Arizona community colleges are limited and generally unavailable to academic or to specialized technical programs. This project connects one of the nation's largest community college systems and the northern NAU collaborator to the Sun Corridor Network.

Deliverables:

NAU and SCN will improve campus network performance, increasing external connectivity to each campus by connecting them to SCN as a regional aggregator

By building new collaborations and by expanding connectivity, NAU and SCN improve undergraduate science and technical instruction for over 200,000 students in the Phoenix metropolitan area and northern Arizona.



Broader Impact:

The network expansion advances the use of science-oriented workflows, high performance computing in undergraduate research, instrument sharing, STEM education, and homework gap connectivity and introduces wide area and campus networking capacities that align with cybersecurity academic requirements.

Arizona State University
Chandler Gilbert Community College
Coconino Community College
Estrella Mountain Comm College
Northern Arizona University
Phoenix College
University of Arizona

<https://sites.google.com/nau.edu/nsf-scn/home>

<https://www.nsf.gov/awardsearch/showAward?AWD=D=1925632>