Distance Education and Learning Technologies in Graduate Education

Revitalizing Graduate STEM Education for the 21st Century

May 22, 2015

Two Strategic Objectives at NC State

- **Driving student success**
  - Primarily undergraduate
  - Flexibility for progress toward degree
  - Blended models for improving outcomes in critical path courses
- **Extending our core strengths nationally and globally**
  - Primarily graduate
  - Engineering and other STEM, Management, Ag and Life Sciences, Education, …
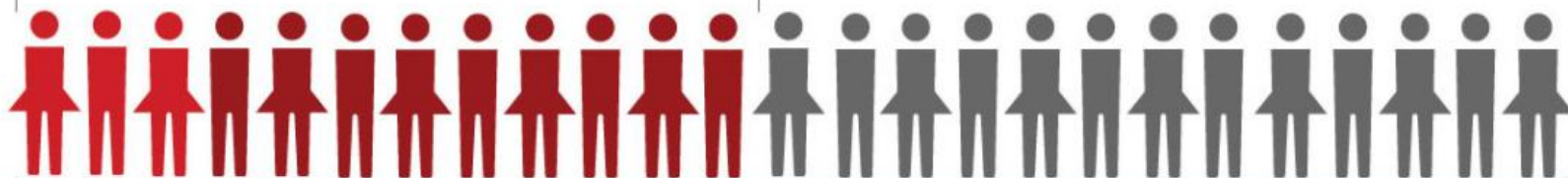
1,811
course sections
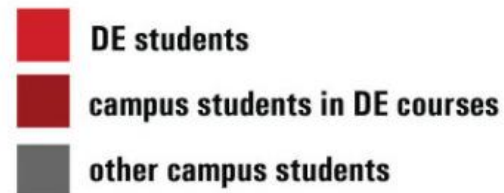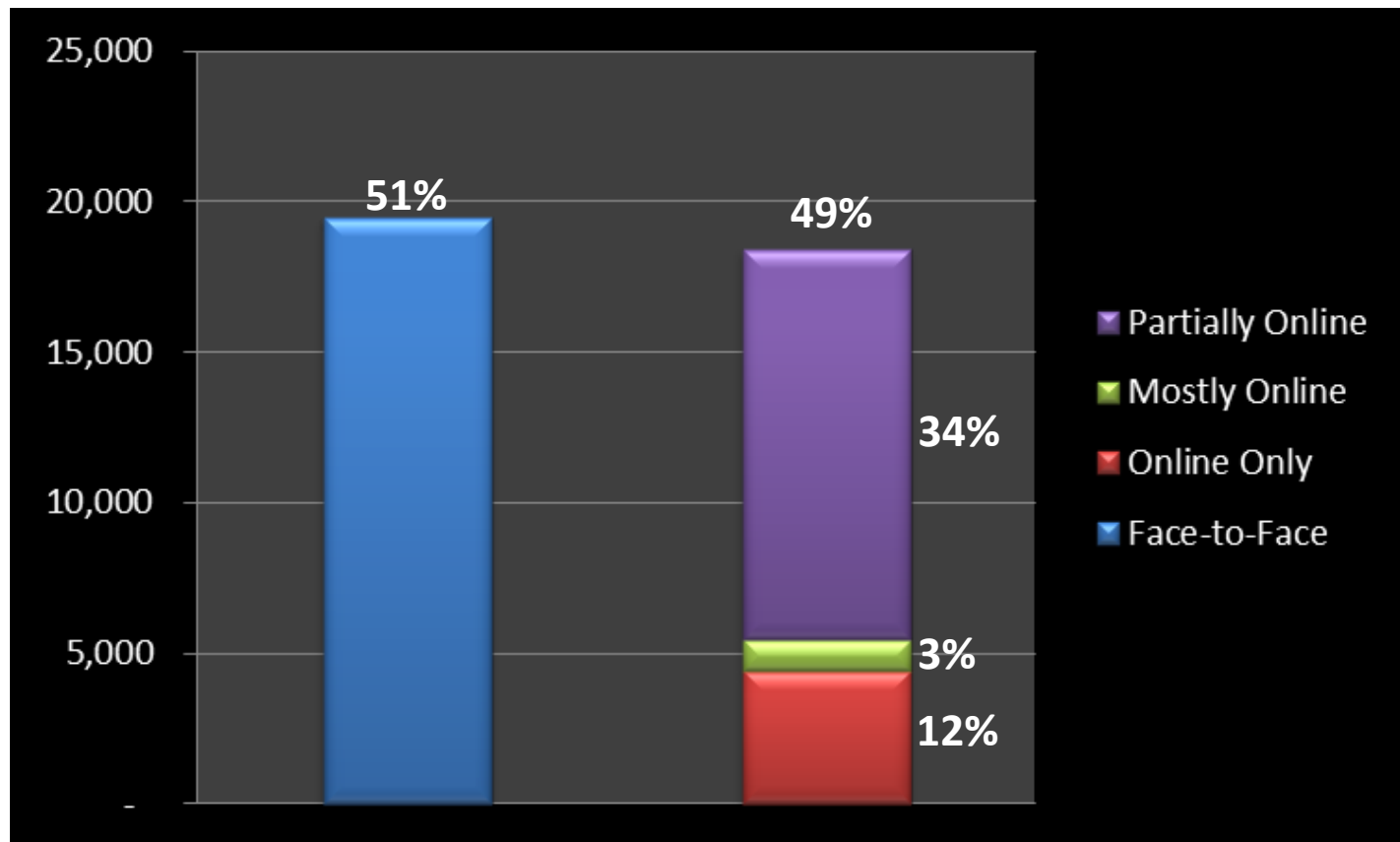
89
degree, certificate
and licensure programs

731
faculty

Student Population FY 2014–15

DE students: 19,155

- DE students
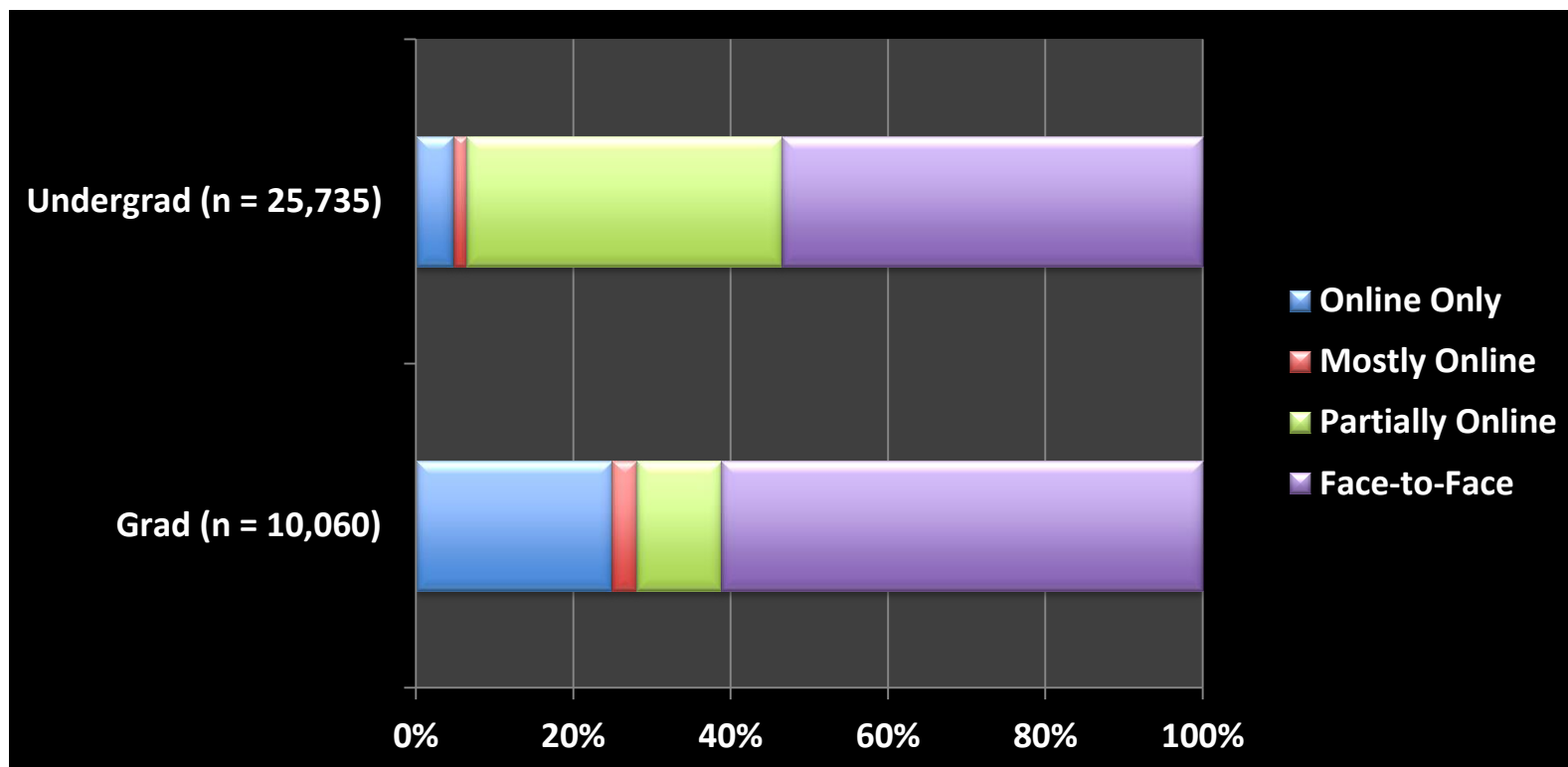- campus students in DE courses
- other campus students

Unduplicated Overall Student Headcount by Course-Taking Type, Academic Year 2013-14, NCSU
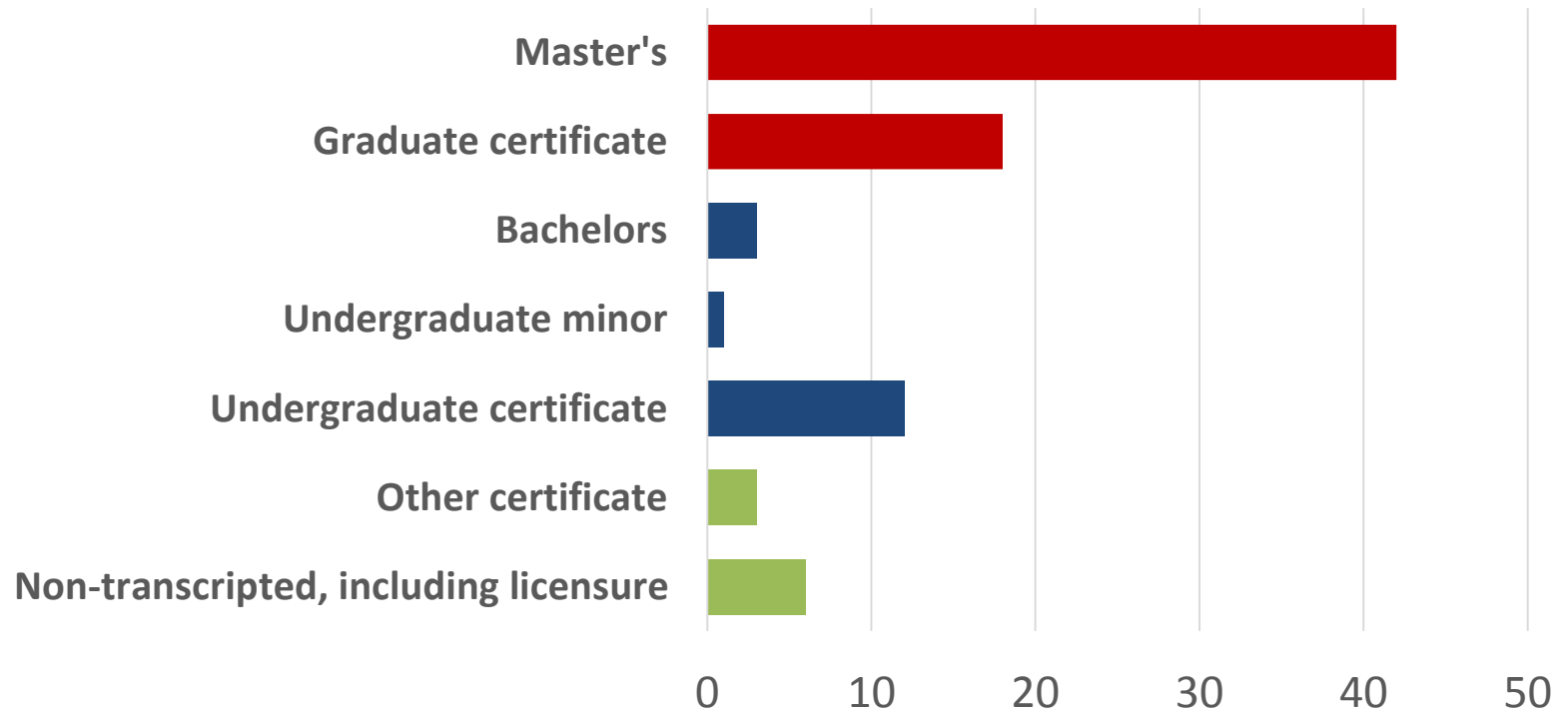

Source: Data from SIS

Percentage of Undergraduate and Graduate Students by Course-Taking Type, Academic Year 2013-14, NCSU
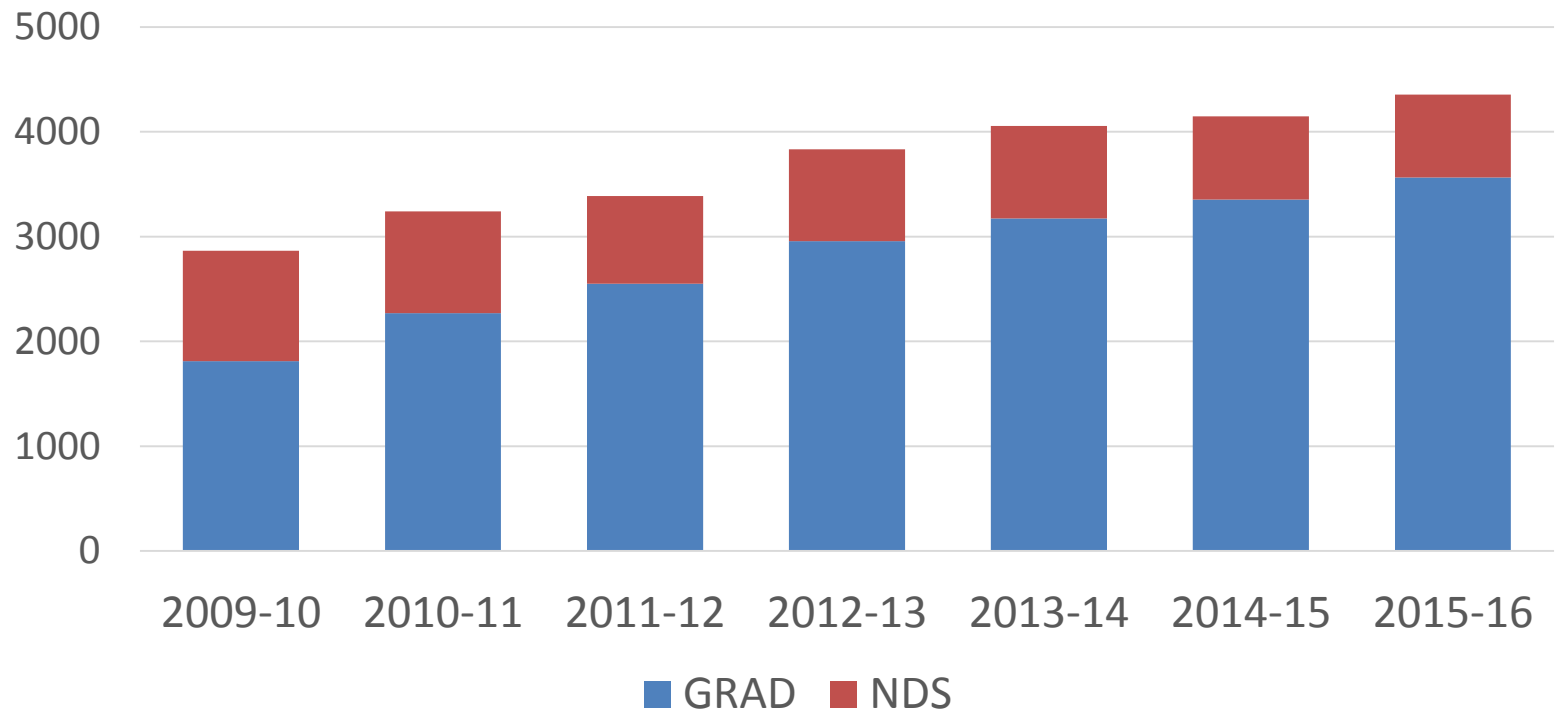

Source: Data from SIS

NC State's online programs

US News online program rankings

- #6 (tie) in Best Online Graduate Computer Information Technology Programs

- #9 (tie) in Best Online Graduate Engineering Programs

- #18 (tie) in Best Online MBA Programs

- #29 (tie) in Best Online Graduate Education Programs
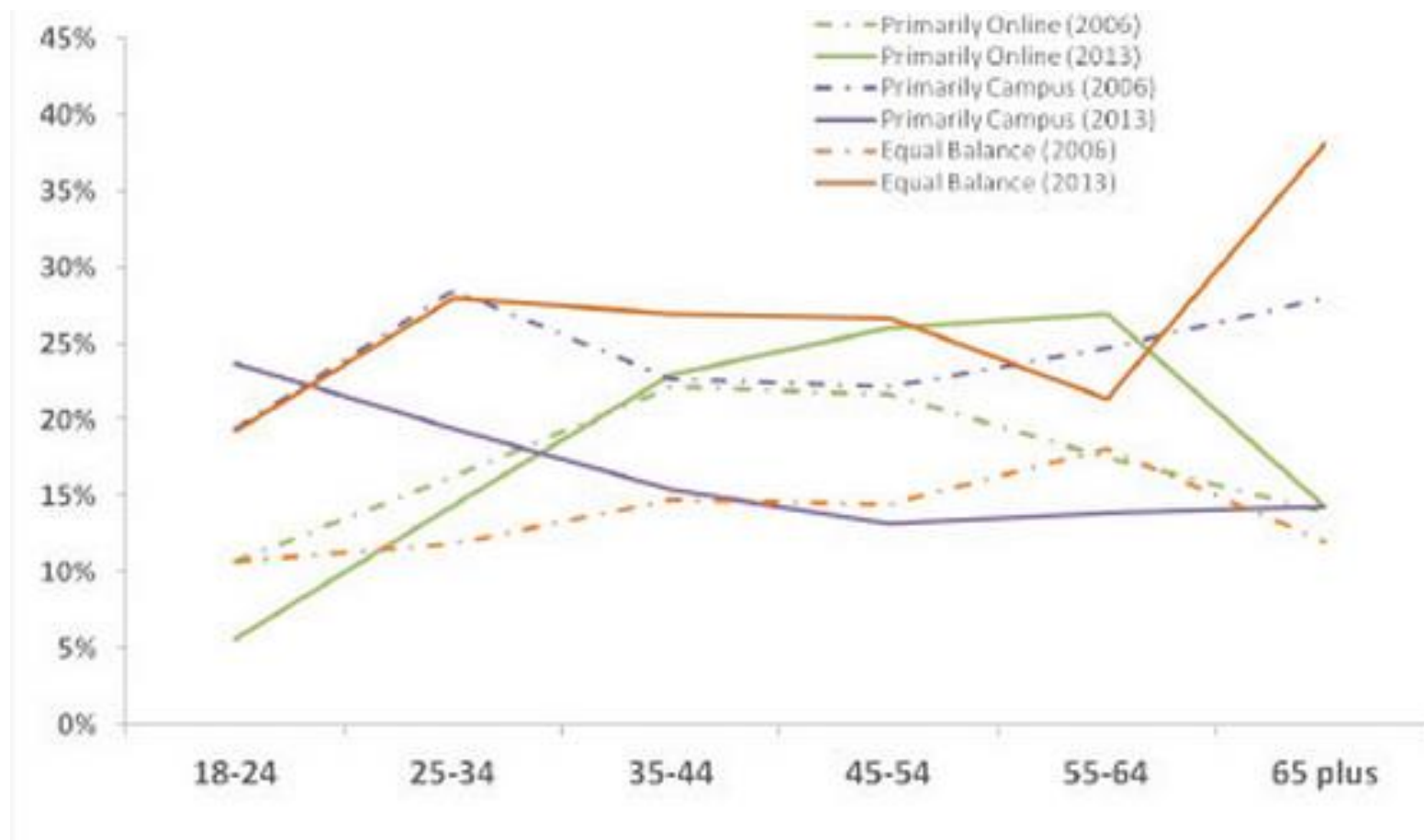
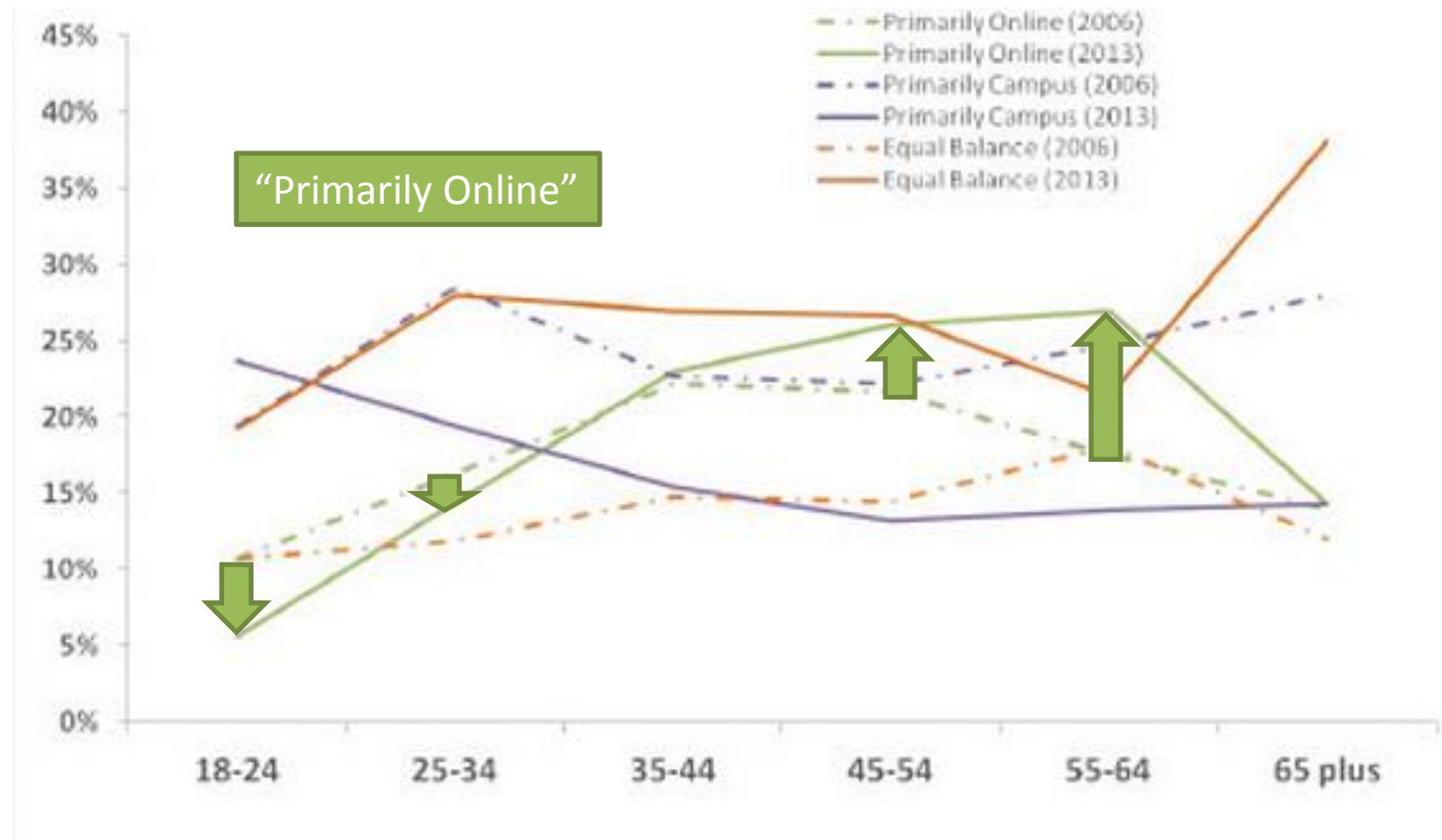# Graduate online enrollment

Some emerging trends

- Blended approaches
- Doctoral programs
- Learning analytics
- Virtual reality
- Alternative credentialing

Delivery modality preferences by age group, 2006 and 2013

Source: Eduventures Consumer Surveys, 2006 and 2013

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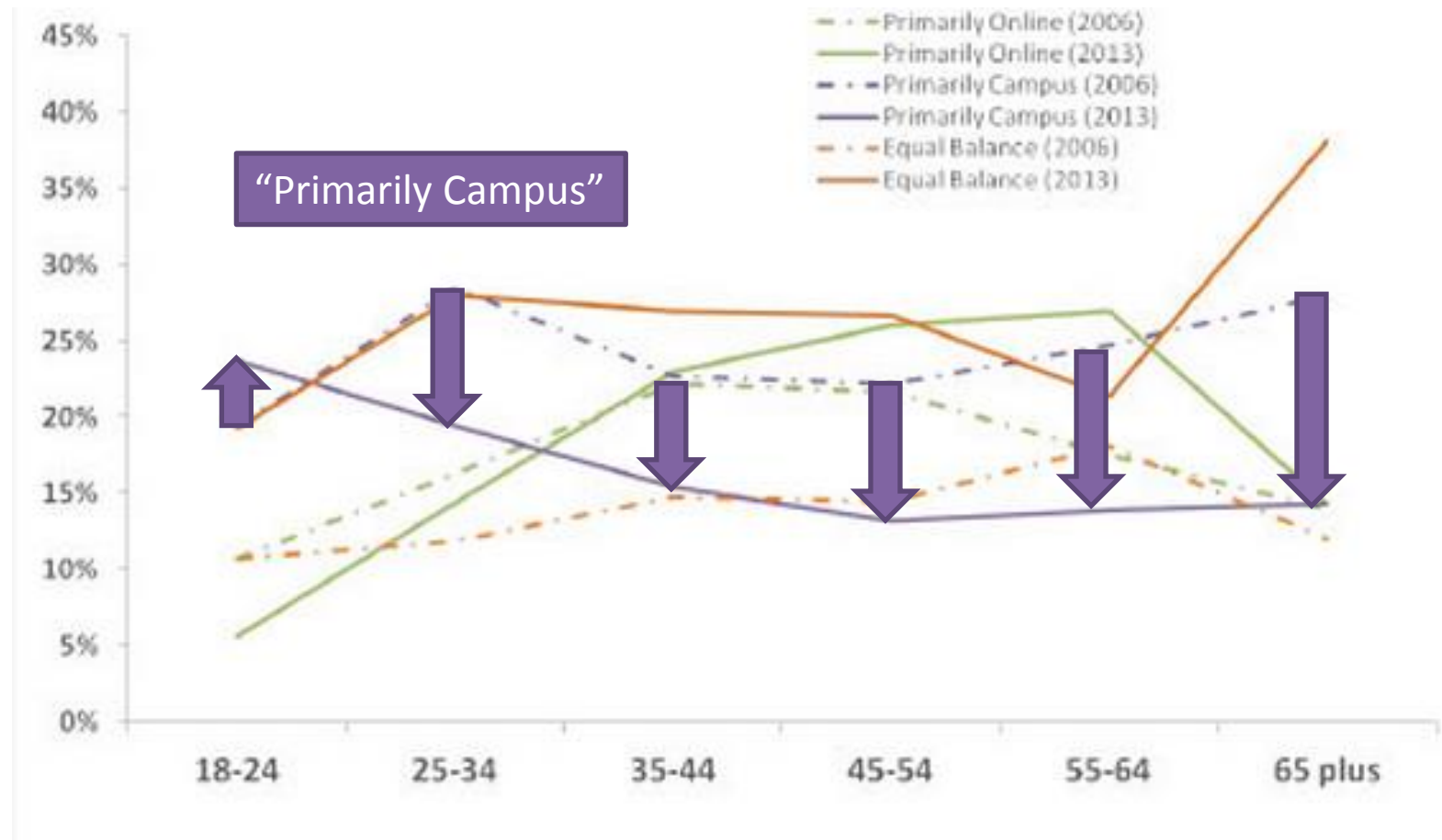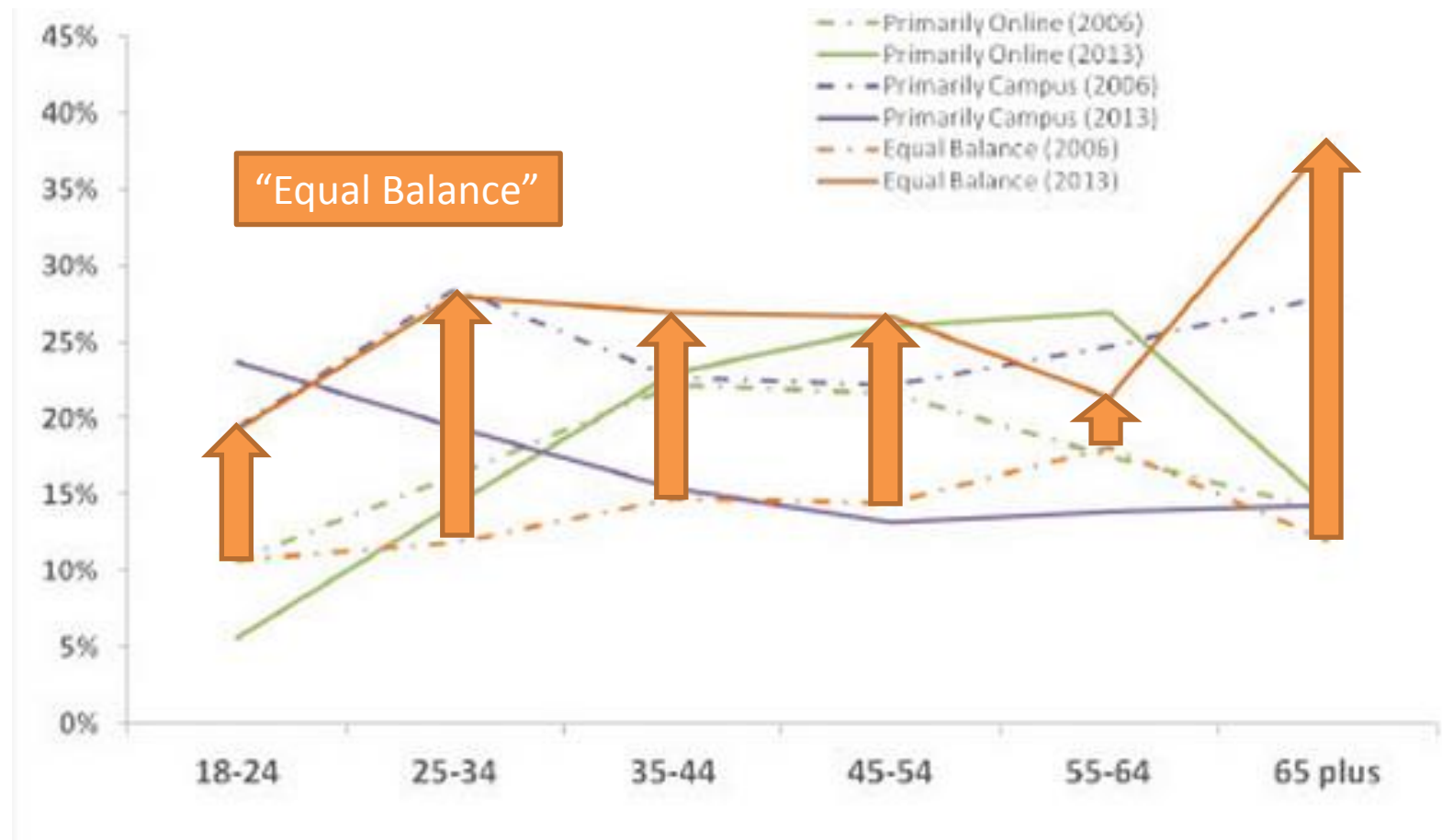# Delivery modality preferences by age group, 2006 and 2013

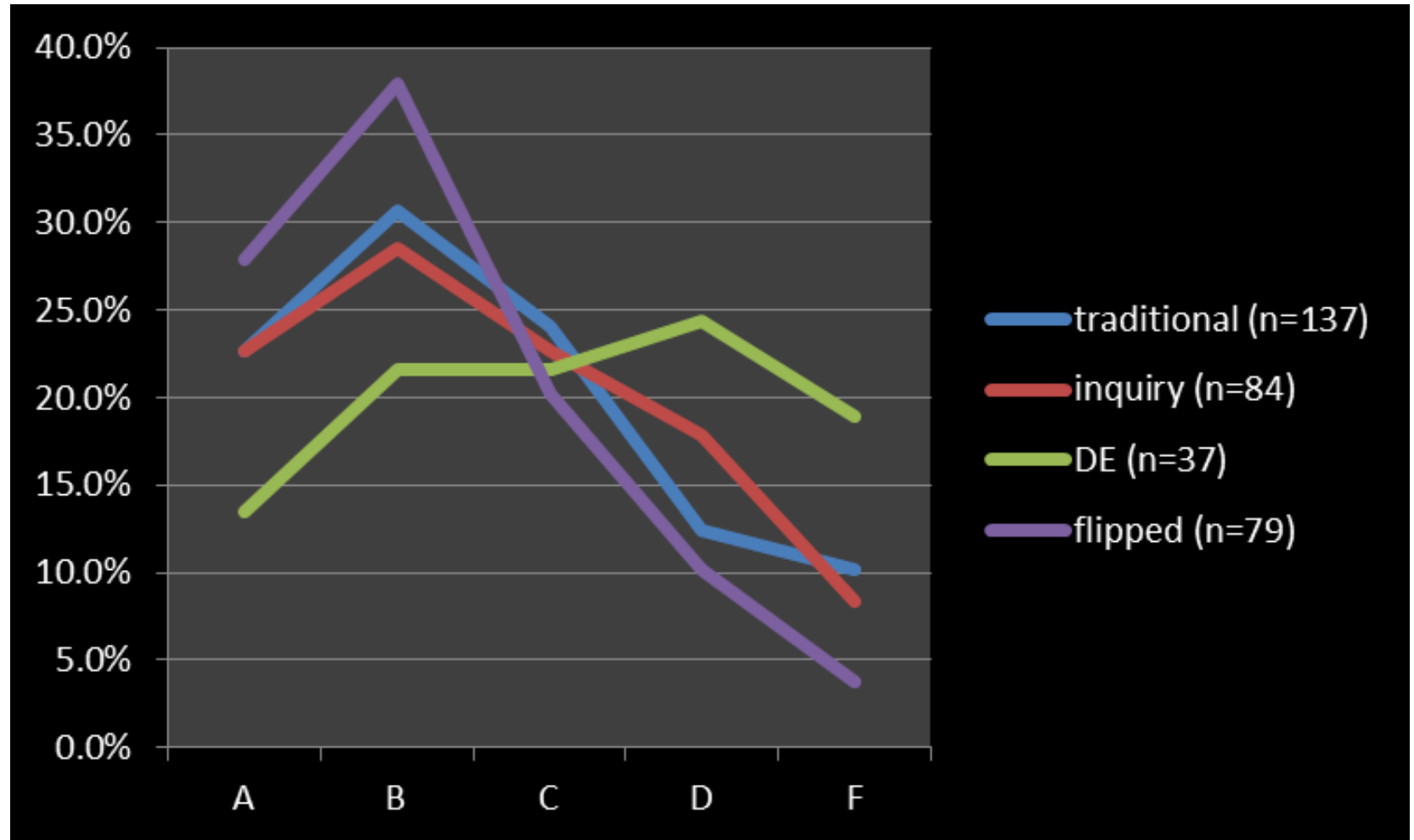Source: Eduventures Consumer Surveys, 2006 and 2013

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CH223, Fall '13
Grade Distributions

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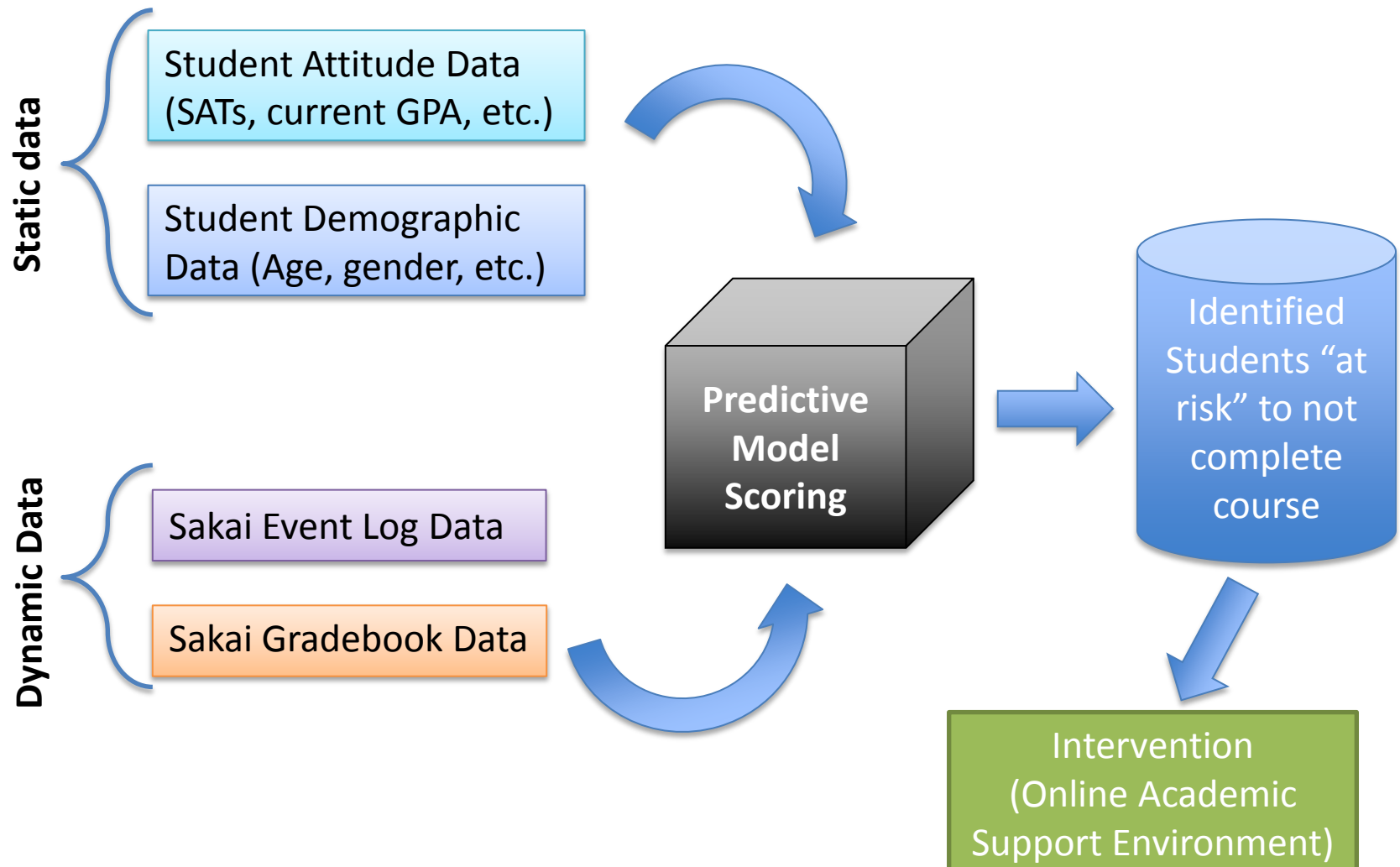- Virtual reality
- Alternative credentialing

- **NC State Professional Doctor of Design**
  - Launches 2018
  - *"The NC State Professional Doctor of Design Program is structured to allow **practicing design professionals** to complete the program through distance education with the ability to **work remotely while attending one week-long workshop each semester**."*
- **Other examples**
  - Johns Hopkins – EdD
  - USC – EdD in Organizational Change and Leadership
  - UNC – Doctor of Physical Therapy
  - UFL – multiple online doctorates
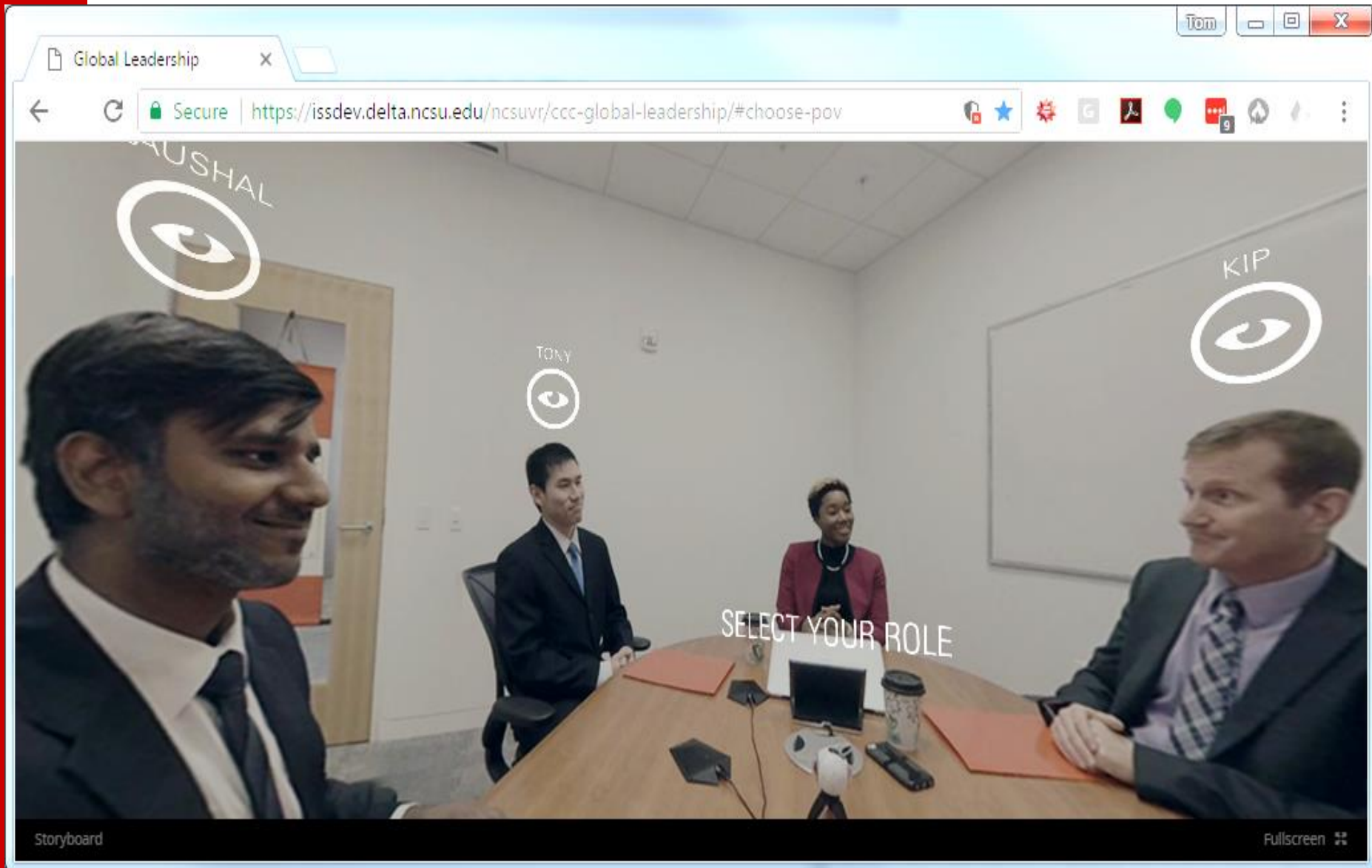 - and many more…

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Open Academic Analytics Initiative

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https://issdev.delta.ncsu.edu/ncsuvr/ccc-global-leadership/

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What is Alternative Credentialing?

Recognition of knowledge gained through non-degree coursework

What forms can it take?

Digital badges
are online representations of skills learned by students, typically with visual iconography.

Certificates
are credentials typically issued by educational institutions to students who have completed significant programs of study that do not culminate in a degree.
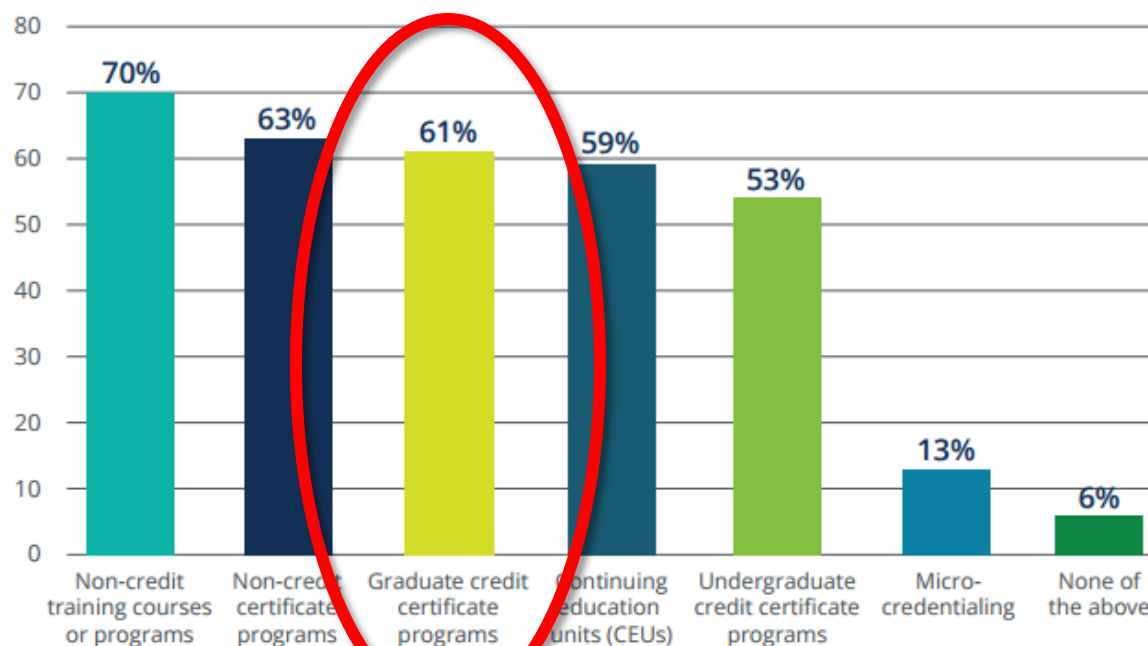
Micro-credentials
are granular, digitally presented certifications offering evidence that an individual has mastered a specific skill or area of knowledge, with links to detailed criteria, endorsements, or demonstrations of their learning.

Source: Jim Fong, UPCEA, Peter Janzow, Pearson, and Kyle Peck, Penn State.
Demographic Shifts in Educational Demand and the Rise Of Alternative Credentials.
http://www.upcea.edu/rise-of-alt-creds, June 2016

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96% of provosts believe that universities are doing a good job in preparing students for the work force. *Inside Higher Ed 2014 CAO survey*

33% of U.S. business leaders agree with them.

2013 Gallup U.S. Business Leaders Poll on Higher Education