

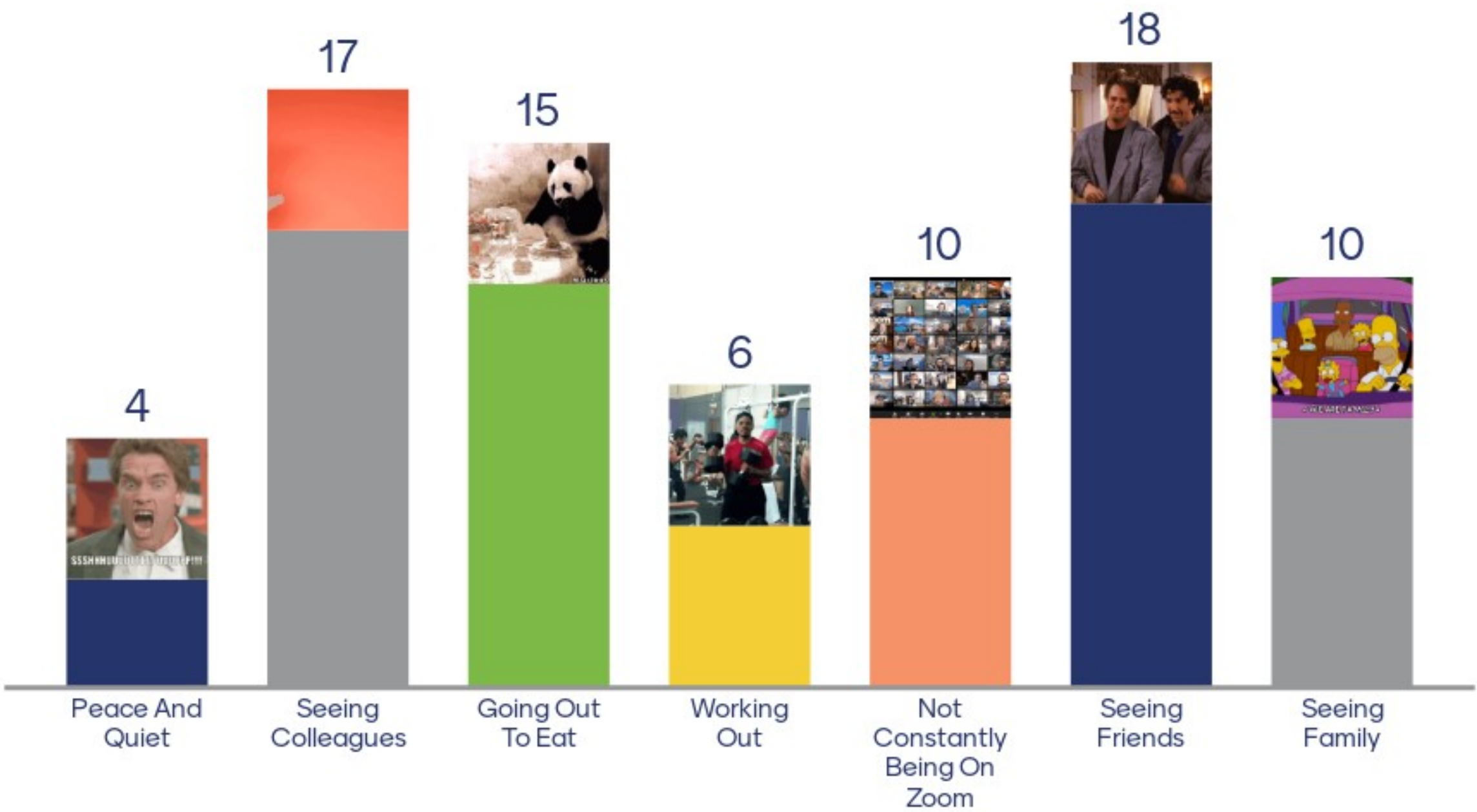
Working Towards An Equitable Education Together



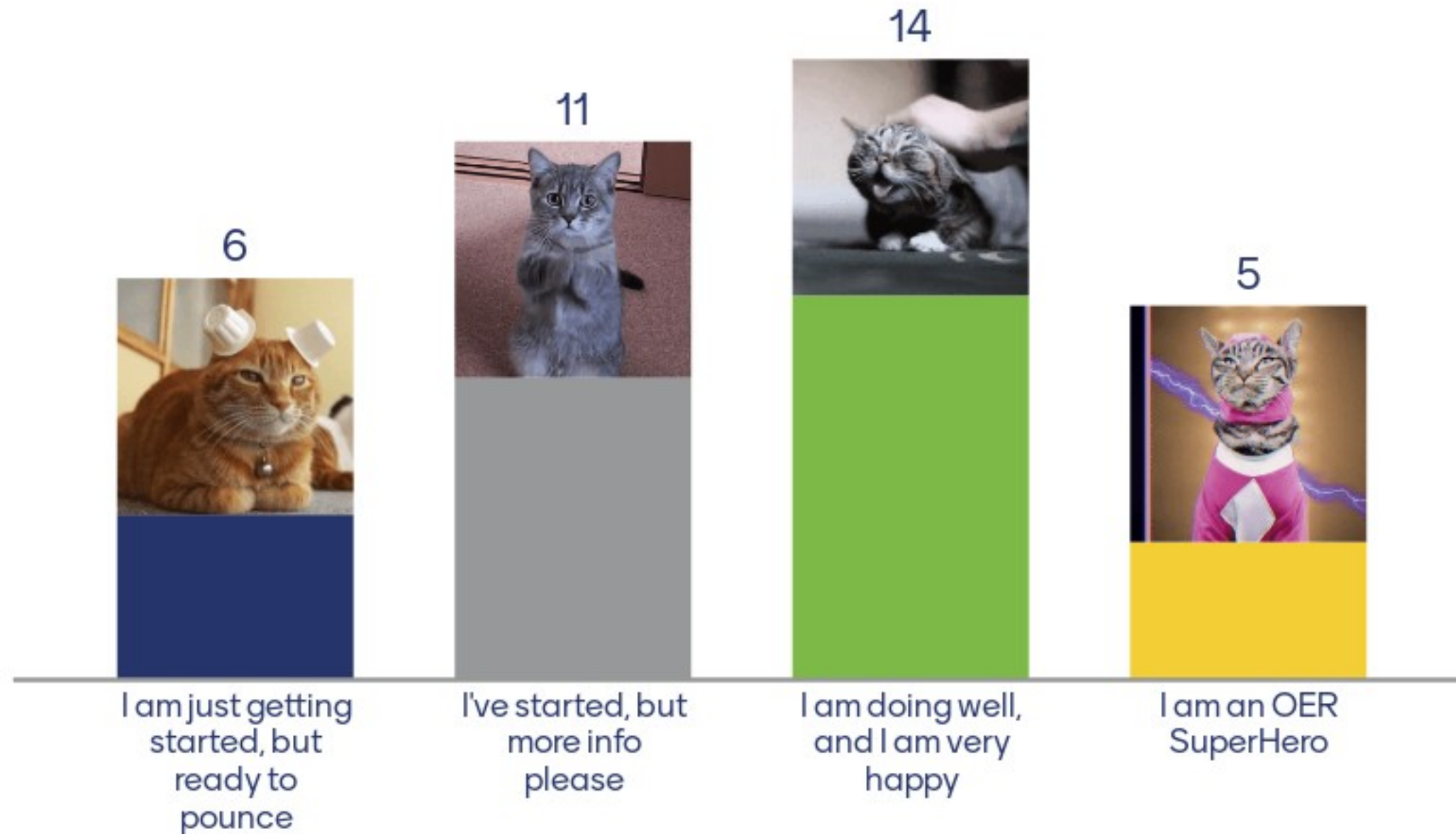
Daniel Williamson, Managing Director, OpenStax
@new_edu | dcwill@rice.edu



What are you missing most during social distancing?



Which image best represents where you are on your OER journey?



**“What’s possible is greater
than what is past.”**

What is OpenStax?



**Rice
University**

Reports to the
President's office



**501(c)(3)
Nonprofit**

Money invested back
into the content



Dr. Richard Baraniuk

Founded by a Rice
faculty member



41 books

Published since
2012

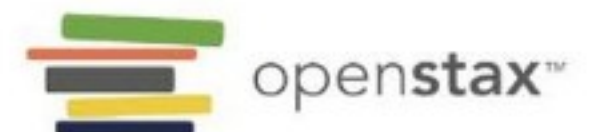


Our nonprofit mission

OpenStax's mission is **to improve educational access and learning for everyone.**



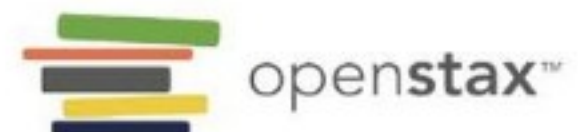
- Increase access to high-quality open educational content in order to provide students financial relief
- Improve academic freedom and flexibility for faculty to allow for innovative teaching practice
- Conduct learning science research to advance understanding of best practices.



Grant funding

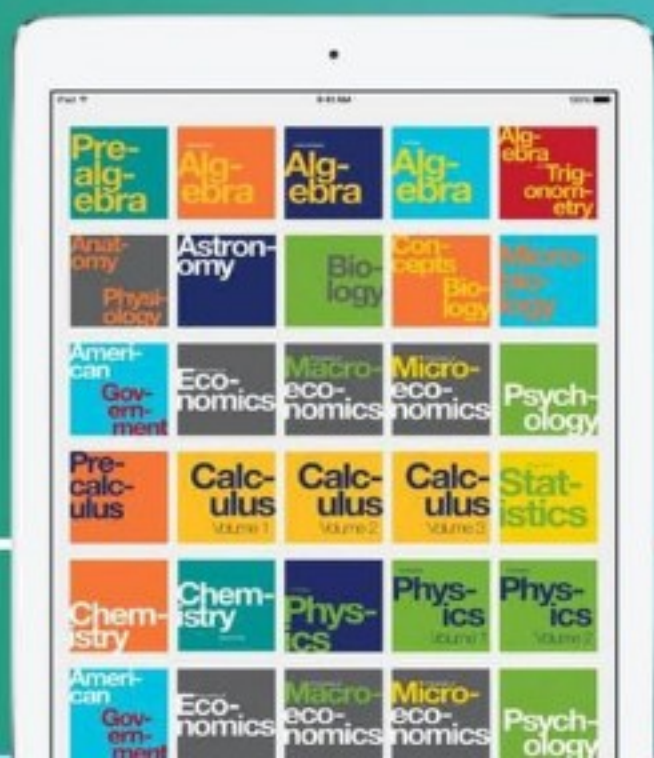
- New titles we currently don't have (pay all authors, reviewers, editors, etc.)
- Teaching & learning academic research
- New initiatives such as Tutor

Bill & Melinda Gates Foundation
William and Flora Hewlett Foundation
Laura and John Arnold Foundation
Arthur and Carlyse Ciocca Charitable Foundation
Ann and John Doerr
National Science Foundation
Girard Foundation
Google Inc.
Calvin K. Kazanjian Economics Foundation
Maxfield Foundation
Michelson 20MM Foundation
Open Society Foundations
Charles Koch Foundation
Brian D. Patterson USA-International Foundation
Bill and Stephanie Sick Foundation
Chan Zuckerberg Initiative
Stuart Family Foundation
Memo Treviño
Rusty and John Jagers



Improving access

*38 free and open
textbook library*



Science

Anatomy and Physiology
Astronomy
Biology
Chemistry 2e.
Chemistry: Atoms First 2e.
College Physics
Concepts of Biology
Microbiology
University Physics
University Physics - Polish ver.

Social Studies

American Government 2e.
Introduction to Sociology 2e.
Principles of Economics 2e.
Principles of Macroeconomics 2e.
Principles of Microeconomics 2e.
Psychology

Humanities

U.S. History

Math

Algebra and Trigonometry
Calculus
College Algebra

Elementary Algebra
Intermediate Algebra
Introductory Statistics
Pre-algebra
Precalculus



Business

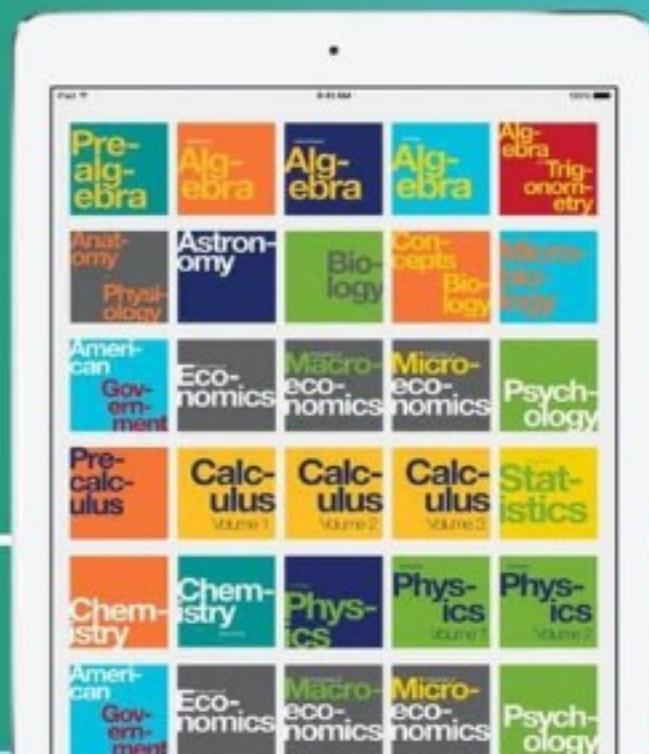
Business Ethics
Introduction to Business
Introductory Business Statistics
Principles of Accounting 1 & 2
Organizational Behavior
Entrepreneurship
Business Law
Principles of Management

High School

AP Biology
AP Physics
AP Prin. of Macroeconomics 2e.
AP Prin. of Microeconomics 2e.

Improving access

Growing the library



Forthcoming titles

Additive Manufacturing
Intellectual Property
College Success

High School Series

High School Physics
High School Statistics

Co-Req Series

College Algebra with co-requisite
Precalculus with co-requisite
Algebra & Trigonometry with co-requisite

Translations

Introductory Statistics (Spanish)
Introductory Business Statistics (Spanish)
University Physics, Volumes 1-3 (Spanish)
Chemistry (Spanish)
PreCalculus (Spanish)
Calculus, Volumes 1-3 (Spanish)
Psychology (Polish)

What titles do you wish we had available?

Social Problems

Environmental Science

Social Problems

world history

Abnormal Psychology

Criminology

Immunology

Introduction to Philosophy
Introduction to Ethics

Music appreciation Art
appreciation



What titles do you wish we had available?

social inequalities

western history

Physics for life science

International Relations

western civilization

Corporate Finance

world history

Social Problems. Marriage and Family.

Genetics



What titles do you wish we had available?

Immunology

business ethics

Human Resource Management
Sales Management

environmental science

Workforce programs

Environmental Science

positive psychology

english composition

Career texh



What titles do you wish we had available?

World History

Genetics

global history

neuroanatomy and behavior

Free tutoring

social problems

Biochemistry

Physics for life science

communication



What titles do you wish we had available?

social problems

science inquiry

cultural studies

Culture and Society's

Manufacturing, Workforce,
Machining

Spanish

Business mathematics

composition

Physics for medicine



What titles do you wish we had available?

ancient History

Linear Algebra

Complex Variable

Diversity, Abnormal Psychology,
Social Psychology,
Developmental Psychology

Career tech

human relations

integrated social science

Biotech Concepts

Abnormal psychology



What titles do you wish we had available?

Social Problems

Chinese

Creative writing

Next Generation Science
standards chemistry

Intermediate Accounting

What can we expect in terms of
online labs for sciences by
openstax



Formats students & faculty use



Astronomy

Book details

Instructor resources

Student resources

Partner resources

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Summary

Astronomy is designed to meet the scope and sequence requirements of one- or two-semester introductory astronomy courses. The book begins with relevant scientific fundamentals and progresses through an exploration of the solar system, stars, galaxies, and cosmology. The *Astronomy* textbook builds student understanding through the use of relevant analogies, clear and non-technical explanations, and rich illustrations. Mathematics is included in a flexible manner to meet the needs of individual instructors.

Senior Contributing Authors

Andrew Fraknoi, Foothill College
David Morrison, NASA Ames Research Center



Faculty often need more than a book

Online homework (from partners)

Online labs (from partners)

PowerPoint slides

Pronunciation guides

Solution Manuals

Test banks

Community Resource on OER Commons

And more!

AMBASSADOR
EDUCATION SOLUTIONS

BARNES & NOBLE
education
COURSEWARE

BLENDING EDUCATION

BluPoint 

CARNEGIE
LEARNING
LONG + LIVE + MATH

CAROLINA
DISTANCE LEARNING

Chem101

 Classavo

CogBooks™

 connect for education
www.mywebtext.com

COPIA 

eMATH

EXPERT 

 GraphLock

 junction.

KNEWTON | alfa

 Lrnr

 Sapling Learning
macmillan learning

Mc
Graw
Hill
Education

odigia


openstax™
TUTOR beta


panOpen


perlego

Perusall

Realizeit 

RICE | ONLINE
LEARNING

simbio


TOP HAT

VISIBLE BODY®

WebAssign.

WILEY

xyz homework

zyBooks

openstax



ALLY
AN OPENSTAX

And it's working...

25,000 Faculty Adopters



10 million students

\$900 million saved



6,400+
institutions
using
OpenStax
content

- Houston Community College System
- University of Texas at Austin
- University of Houston
- Harvard University
- California State University System
- Stanford University
- Baylor College of Medicine
- Rice University
- Ivy Tech Community College System
- Austin Community College
- Maricopa Community College System
- Arizona State University
- Michigan State University
- Purdue University
- University of Georgia



OpenStax Use Across World



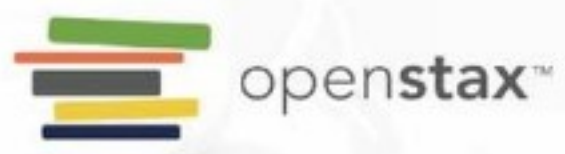
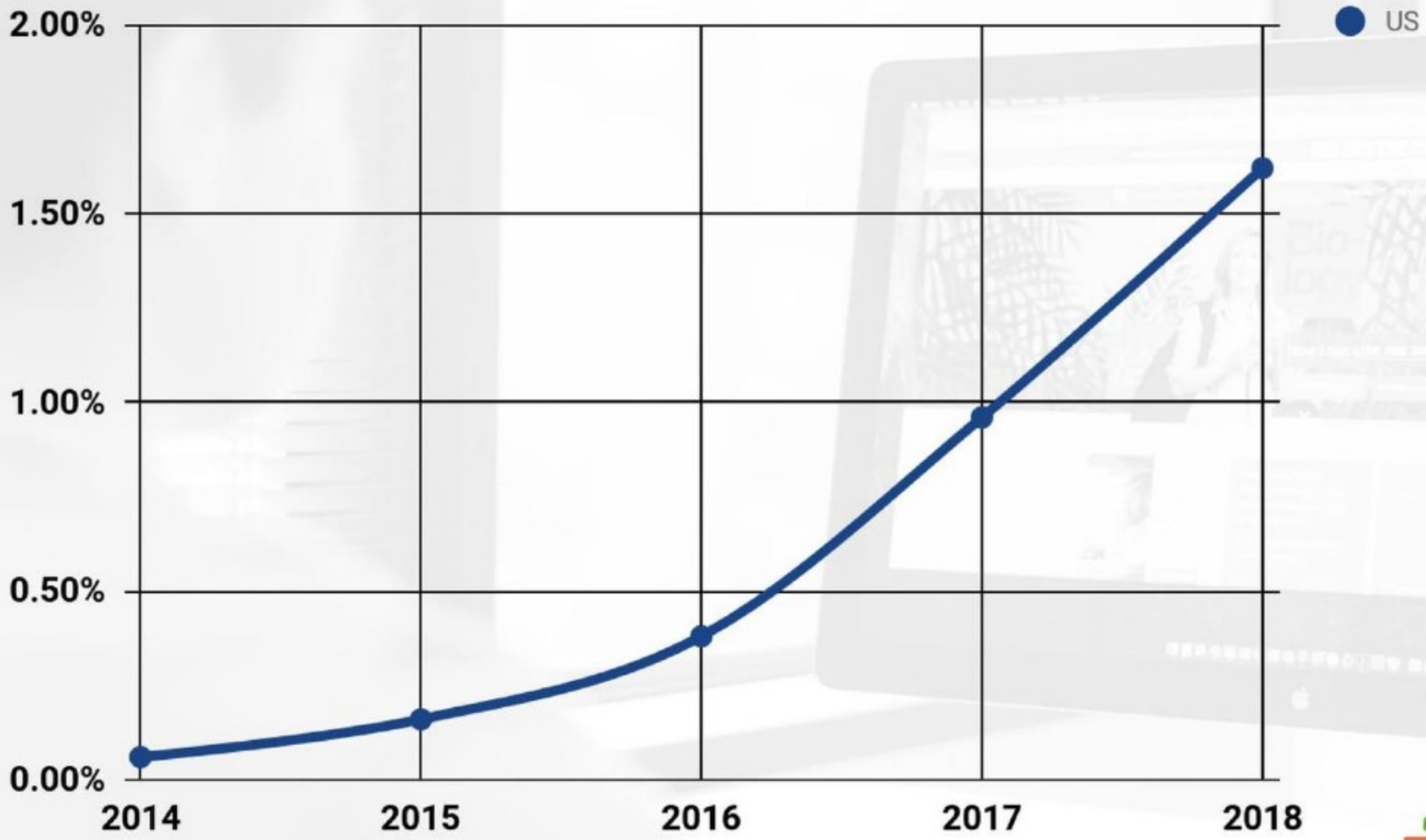
explore on your own:
openstax.org/global-reach



Number of Students in the US



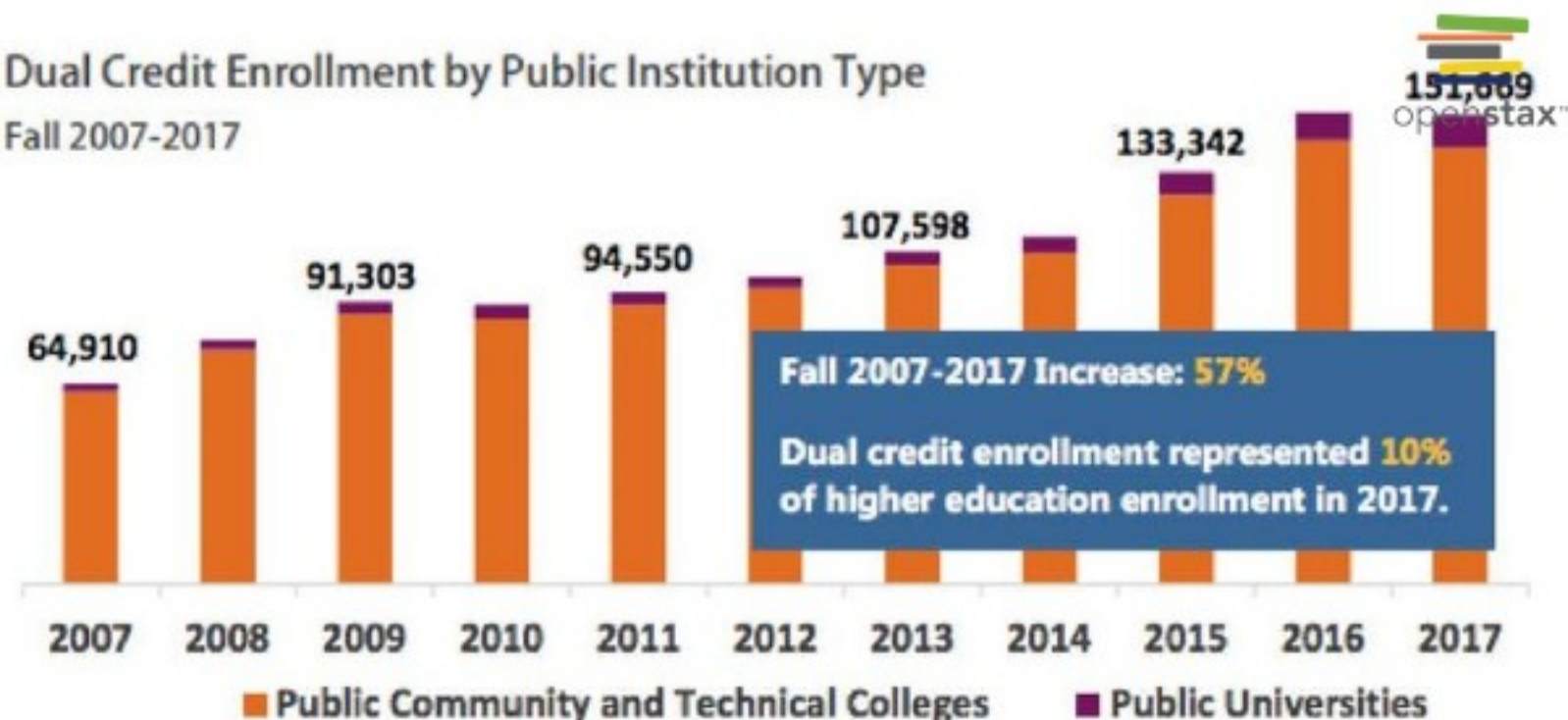
Estimated Percent of Student Seats Using Openstax



Opportunities for OER

Dual Credit Courses

Dual Credit Enrollment by Public Institution Type
Fall 2007-2017



Source: <http://www.thecb.state.tx.us/reports/PDF/1514.PDF?CFID=94940675&CFTOKEN=13399171>

- **Challenge:** Dual Credit course enrollment is increasing in popularity.
 - School districts often end up shouldering the cost for expensive dual credit textbooks.
- **Opportunity:** New TX policy (HB 3650) requires districts and IHE to consider OER in dual credit course offerings

OpenStax Institutional Partner Program

openstax.org/institutional-partnership

- Free coaching, strategic planning services, training, and support with the goal of increasing use of open educational resources
- Cohort model, with 9-12 institutions participating each year.
- **Over 150% average increase** in use of OER at participating campuses

Equity first approach to content development

bit.ly/OSDEIGuide

- OpenStax is committed to ensuring that all students can see themselves in the titles that we produce.
- In order to improve transparency, we general guidelines for development and improvement.
- This is an ongoing and continually evolving effort. We will seek input and monitor changes in terminology, sensitivity, policies, and descriptions in our materials.

Improving Representation and Diversity in OER Materials DRAFT ONLY



OpenStax's mission is to provide equity and access to education for everyone. We deeply value the diverse users of our books, and seek to include and impact each faculty and student user in a positive and considerate manner. During our development processes, OpenStax undertakes substantial efforts to properly represent genders, races, cultures, geographies, ethnic backgrounds, disabilities, nationalities, ages, sexual orientations, socio-economic status, and diverse viewpoints in our books. We also seek to avoid any offense, and ensure that every student can see themselves in our books. We hold primarily to the notion, expressed by Jasmine Roberts (Ohio State), that we should not leave it to underrepresented groups to spearhead these conversations and efforts.

To that end, we have created general guidelines for development and improvement. This is an ongoing and continually evolving effort. We will seek input and monitor changes in terminology, sensitivity, policies, and descriptions in our materials. We will also welcome and engage with individuals and groups who share our commitment and/or have specific guidance, feedback, or suggestions.

Research to Improve Learning

openstax.org/research



- Evaluating the impacts of **zero cost book program** at Houston Community College
- Exploring ways to **close the achievement and excellence gap in Advanced Placement courses.**

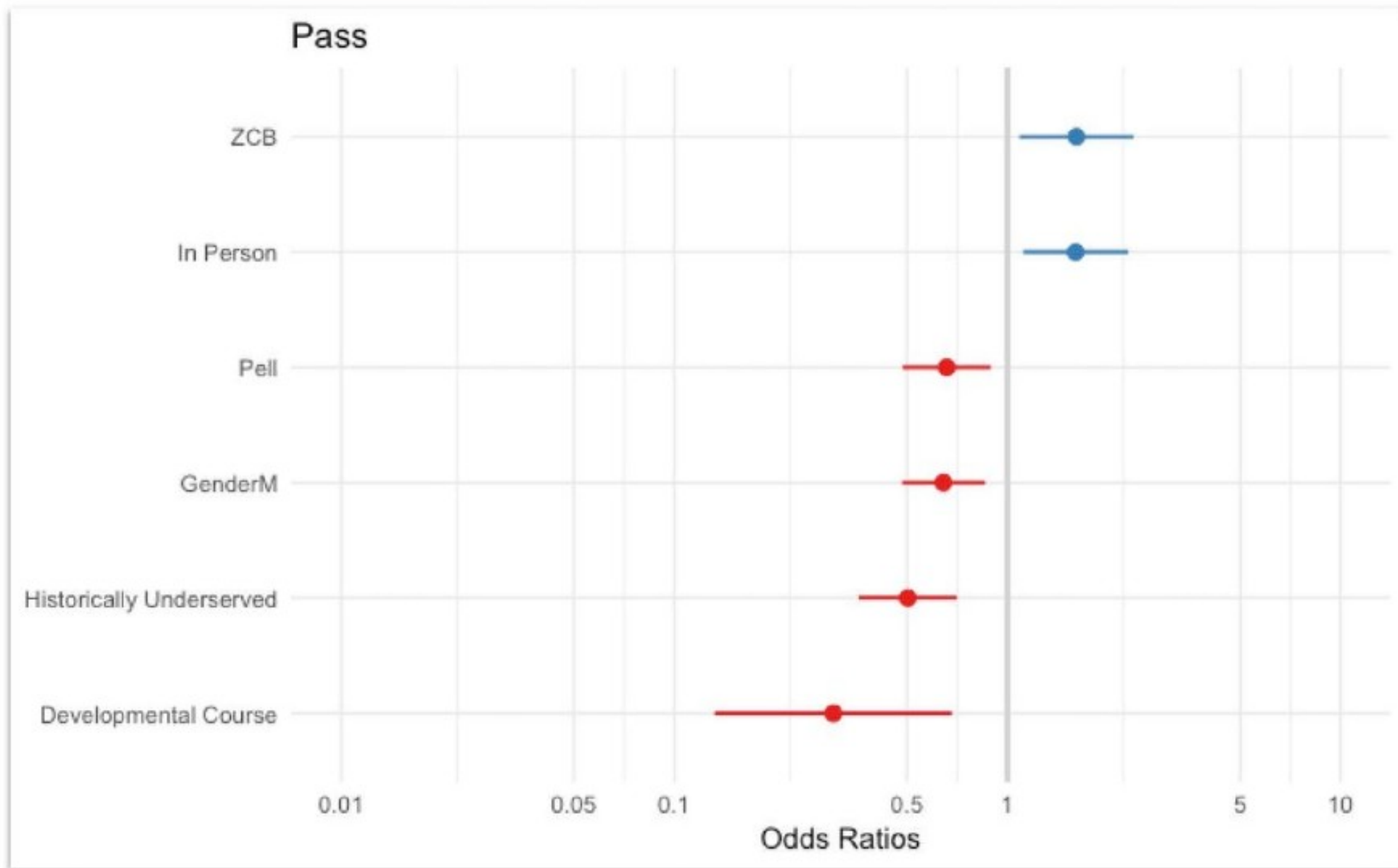


Impact of Zero Cost Books (ZCB) Adoption at Houston Community College

Pass ~ In Person + Pell + Gender + Developmental Course + Historically Underserved + ZCB + (1|Course:Instructor)



- ZCB courses were associated with an improved probability of passing over non-ZCB courses.
- The ZCB effect corresponds to an effect size (d) of 0.26



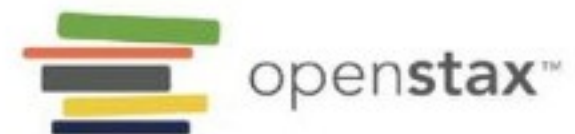


Engaging Students in the Conversation

bit.ly/OS-Internship



- **Elevate student voices** and prioritize positive student impact when making critical decisions about campus and government policies, course resources, ed tech development, and more
- **Deepen the diversity, equity, and inclusion** of student voices in open education conversations
- Present student intern projects at the **2019 Open Education conference** in Phoenix and the **2020 Creator Fest** conference in Houston



Engaging in Customization

openstax.org/blog/saying-goodbye-cnx



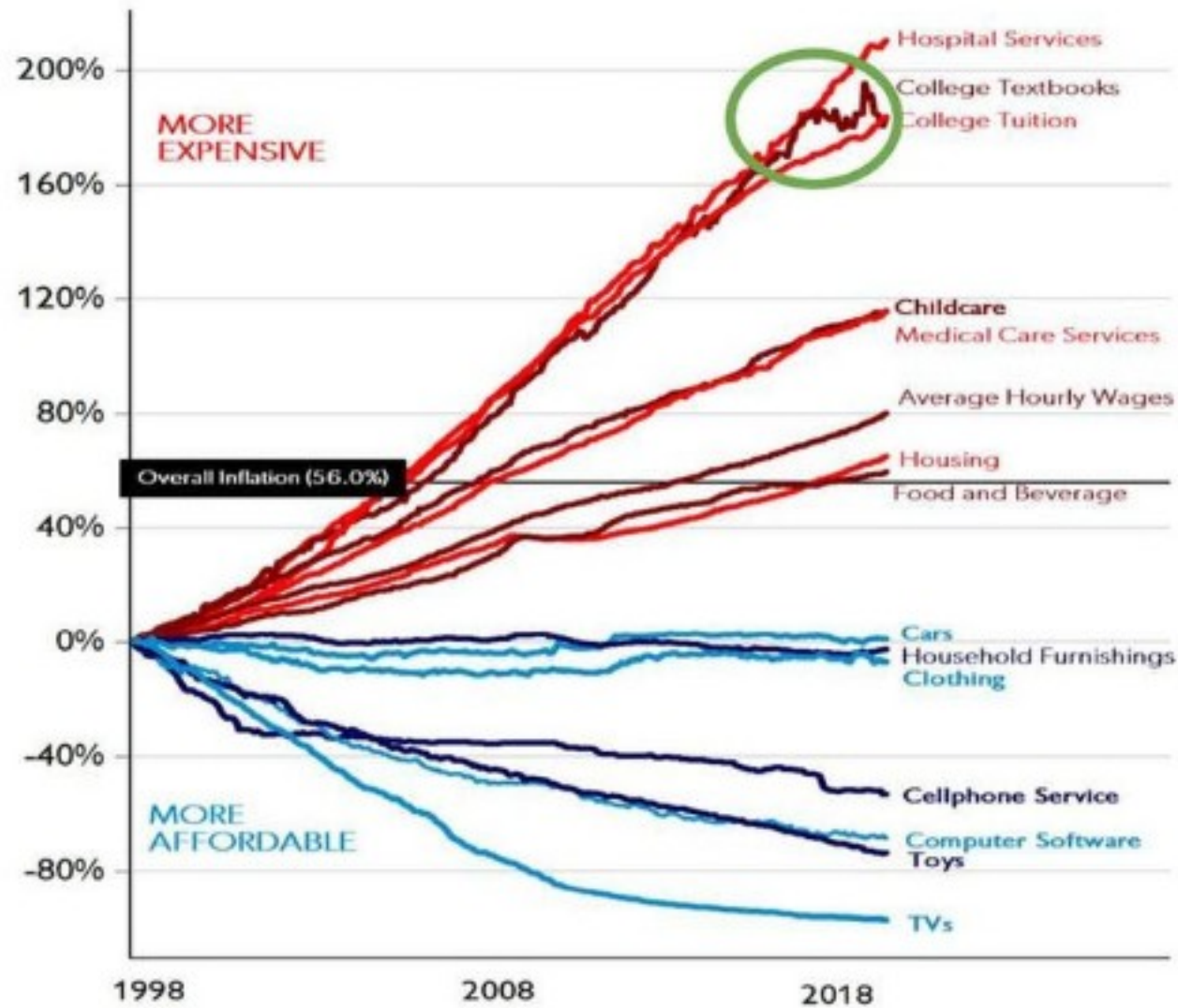
- **Google docs for Customization!** In fall of 2020, we will roll out Google Doc versions of all our titles. Faculty will be able to make copies of these titles and customize to their heart's content!

The screenshot shows a Google Docs interface for a document titled "2.4 Continuity". The document is in .DOCX format. The top toolbar includes a "Request edit access" button and a "Share" button. The document content is as follows:

2.4 Continuity

Learning Objectives

- 2.4.1. Explain the three conditions for continuity at a point.
- 2.4.2. Describe three kinds of discontinuities.
- 2.4.3. Define continuity on an interval.
- 2.4.4. State the theorem for limits of composite functions.
- 2.4.5. Provide an example of the intermediate value theorem.



Bureau of Labor Statistics

“

The ‘textbook bubble’ is finally starting to deflate, due to the creative destruction and competition from free/ low-cost textbooks from groups like OpenStax

”

Prof. Mark Perry, Economist
American Enterprise Institute

Pearson's Digital-First Strategy Will Change How Students Get Textbooks



Bill Rosenblatt Contributor @Media

2,246 views | Jul 28, 2019, 11:26pm

Pearson Textbooks Will Now Be Digital-First



Ellen Duffer Contributor @

I write about the publishing industry and its digital innovations.

What the McGraw-Hill, Cengage merger means for textbook prices

Published: May 9, 2019 3:28 p.m. ET



The textbook market is already dominated by only five players, and consumer advocates worry further concentration could be bad news for students



NEWS RELEASE

MAJOR TEXTBOOK PUBLISHER MERGER WILL COST STUDENTS

For Immediate Release
MONDAY, JULY 29, 2019

Publishers' Pending Merger Faces Growing Opposition

Concerned about limited purchasing options and potential price increases, students and consumer groups challenge the proposed merger of two major textbook publishers.

By Lindsay McKenzie | July 30, 2019



A Textbook Giant Is Going 'Digital First.' That Might Not Be Good for Affordability.

By Will Jarvis | JULY 17, 2019 PREMIUM

EDWEEK Market Brief

MARKET TRENDS EXCLUSIVE DATA WEBINARS TOPICS MORE

Marketplace K-12 July 30, 2019



Pearson Goes 'Digital-First' in College. What Does That Mean for K-12?

Sean Cavanagh
Managing Editor

Newsweek

Tue, Aug 06, 2019

U.S. | World | Business | Tech & Science | Culture | Sports | Health

U.S.

STUDENTS URGE DOJ TO BLOCK MCGRAW-HILL, CENGAGE MERGER: 'SKYROCKETING' TEXTBOOK PRICES WILL CONTINUE 'UNCHECKED'

BY JENNI FINK ON 7/30/19 AT 4:27 PM EDT



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Pearson ditches print textbooks for college students in digital-first strategy

BRIAN BARRETT GEAR 08.04.19 07:00 AM

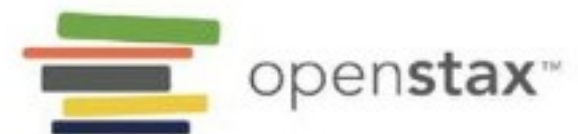
THE RADICAL TRANSFORMATION OF THE TEXTBOOK

Beyond Affordability

bit.ly/IA-Blog



“You don’t solve the textbook affordability problem by forcing all students to buy textbooks.”



The Struggle for Equity in Education



- Student debt is still on the rise. Now nearly \$1.5T
 - Debt is racialized, and disproportionately impacts youth of color, especially black youth¹
- 42% of community college students experience food insecurity²
- 51% of community college students experience housing insecurity²
- 12% of community college students were homeless²

¹ Racial disparities in Student Loan Debt and the Reproduction of The Fragile Black Middle Class. Houle and Addo. February 2018. <https://www.ssc.wisc.edu/cde/cdewp/2018-02.pdf>

² Still hungry and homeless in college. Goldrick et. al April 2018. <http://wihopelab.com/publications/Wisconsin-HOPE-Lab-Still-Hungry-and-Homeless.pdf>

College Made Them Feel Equal. The Virus Exposed How Unequal Their Lives Are.

When they were all in the same dorms and eating the same dining hall food, the disparities in students' backgrounds weren't as clear as they are over video chat.



**“What’s possible is greater
than what is past.”**

~ Ben Affleck, Good Morning America 2/21/20

Thank you

For more information visit
[OpenStax.org](https://openstax.org)



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daniel@openstax.org | [@new_edu](https://twitter.com/new_edu)

