

The Case for Open Educational Resources: Cost & Pedagogy

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KBOR OER Steering Committee

2nd of 4 Webinars

MARK YOUR CALENDARS

Intro to Creative Commons - Oct 26 @3:30

Repositories and Platforms - Dec 2nd @3:30

Agenda:

1. OER (very brief intro)
2. Cost
3. Pedagogy
4. Q & A

Open

Educational

Resources

Hewlett Foundation Definition:

“OER are teaching, learning, and research resources that (1) reside in the public domain or (2) are released under an intellectual property license that **permits their free use and repurposing by others**”

Open = Free + Permissions

5 Rs:

- Retain
- Reuse
- Revise
- Remix
- Redistribute

Spectrum of Rights



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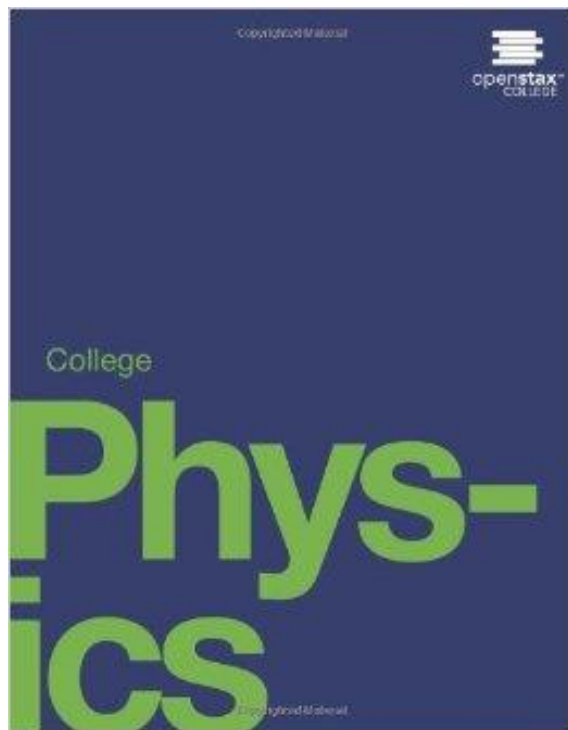


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Examples of OER: OpenStax Physics



Details

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Richard Baraniuk:

The birth of the open-source learning revolution

TED2006 · 18:34 · Filmed Feb 2006
Subtitles available in 26 languages

 View interactive transcript



New **TED**TALKS every day at www.TED.com

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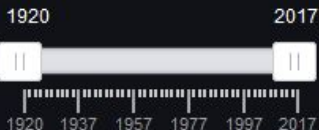
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NARROW BY YEAR ▼



1 - 100 of 201 for "nebula"



cost

The Number Of Hungry And Homeless Students Rises Along With College Costs

February 8, 2017 · 5:00 AM ET
Heard on All Things Considered

KIRK CARAPEZZA

FROM 89.7 **WGBH**
Boston's Local NPR



LA Johnson/NPR

Sara Goldrick-Rab:

"..they're working, and borrowing, and sometimes still falling so short that they're going without having their basic needs met."

Bloom

Maslow



"The UT Arlington Food Pantry provides students with the opportunity to receive a mixture of non-perishable foods to supplement their monthly food costs."



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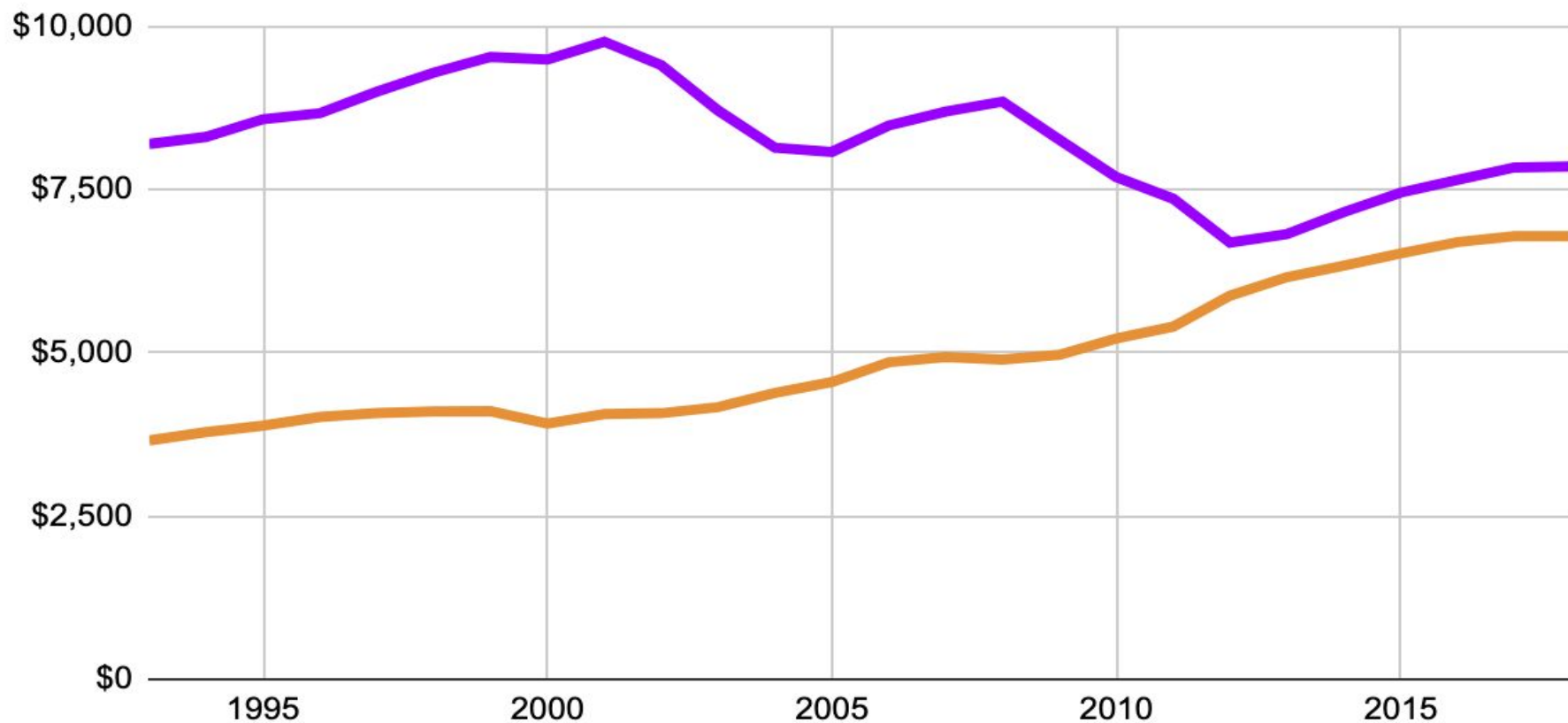


SAN DIEGO STATE
UNIVERSITY

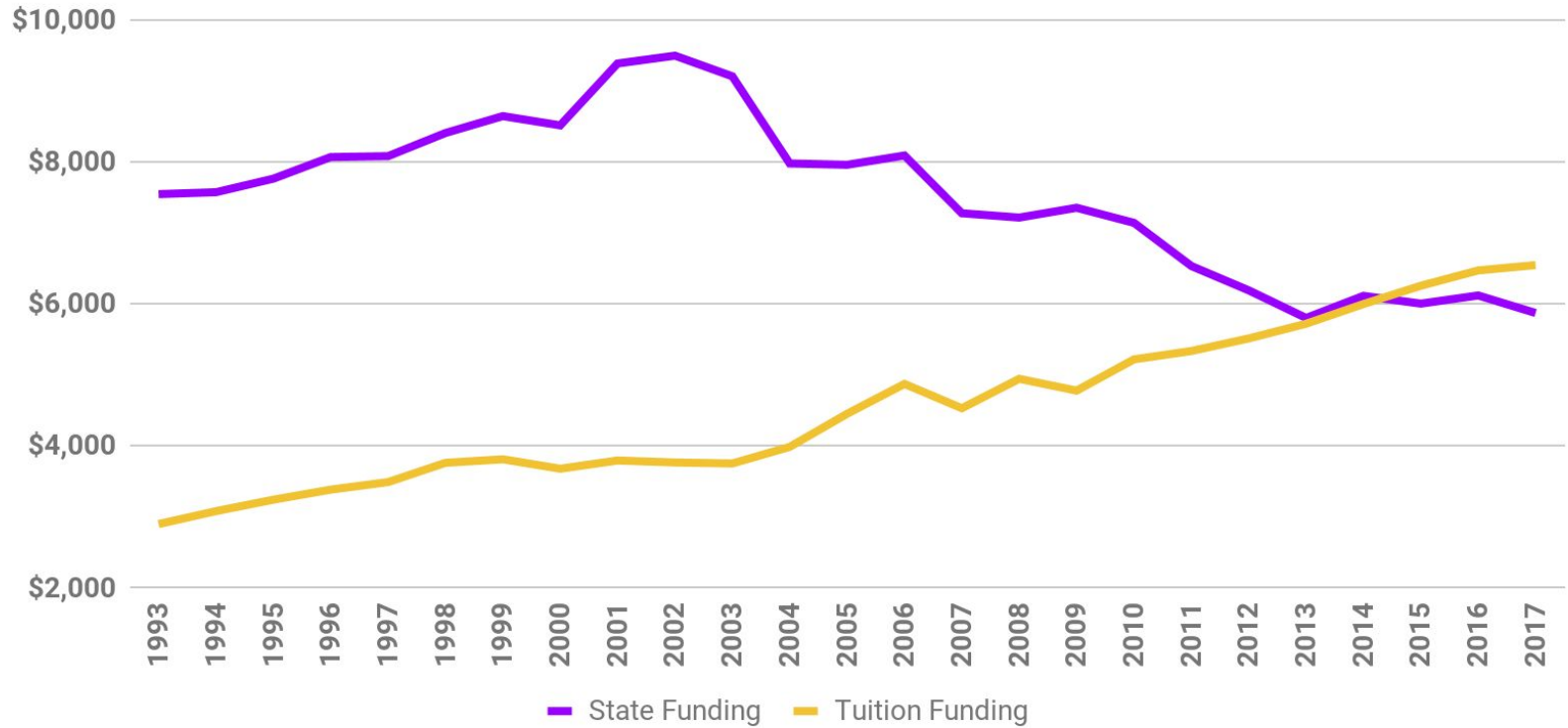


Higher Education Funding - US

State Funding Tuition Funding

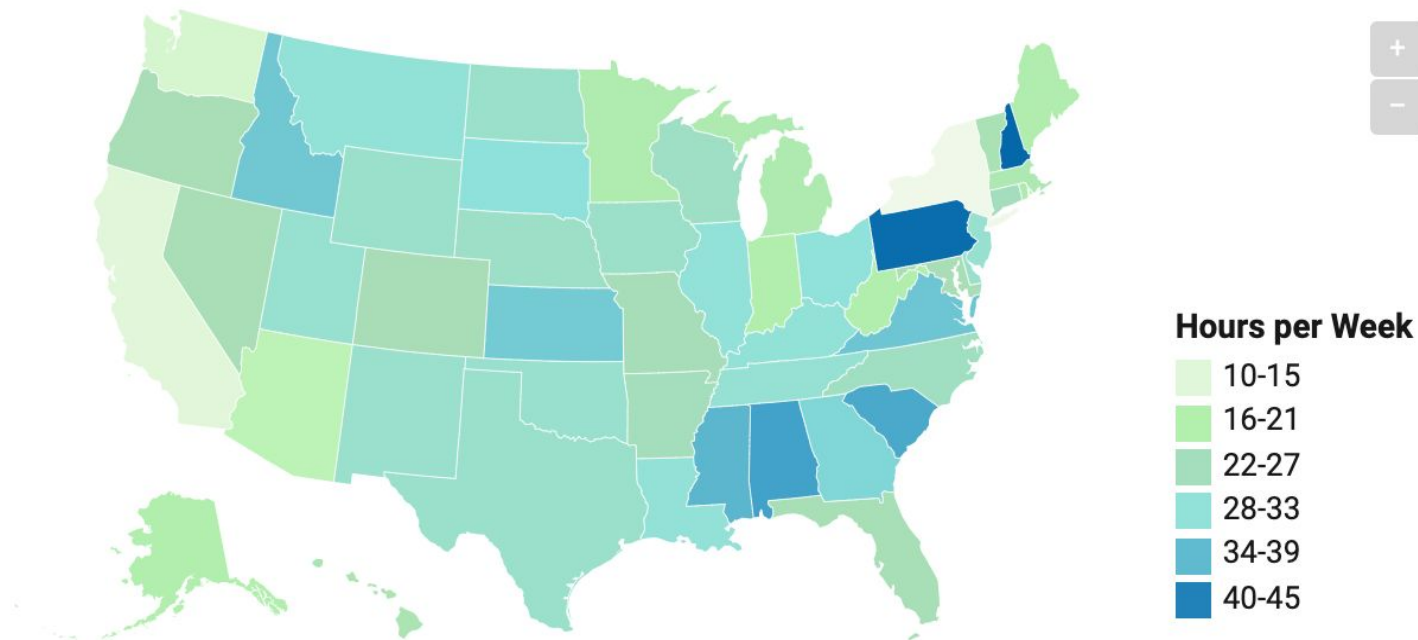


Higher Education Funding - Kansas



The Myth of Students Working Their Way Through College

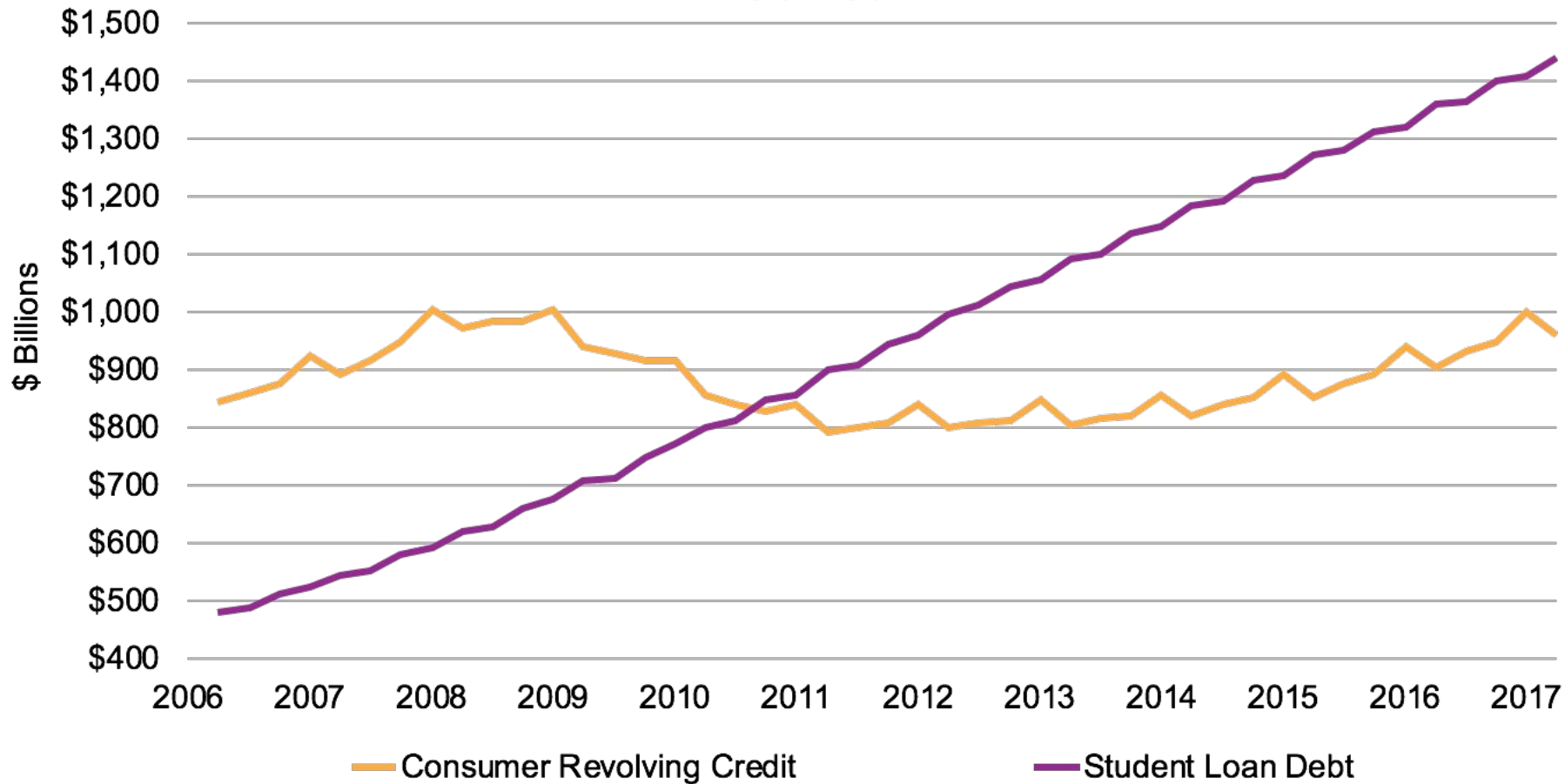
Using federal and state data, the Education Trust found that relatively few students would be able to finance their education by working just 10 hours per week. Some would have to work more than 40 hours a week — a full-time job.



Note: Hours per week assumes students work 50 weeks per year.

Map: Audrey Williams June • Source: [The Education Trust](#) • [Get the data](#) • Created with [Datawrapper](#)

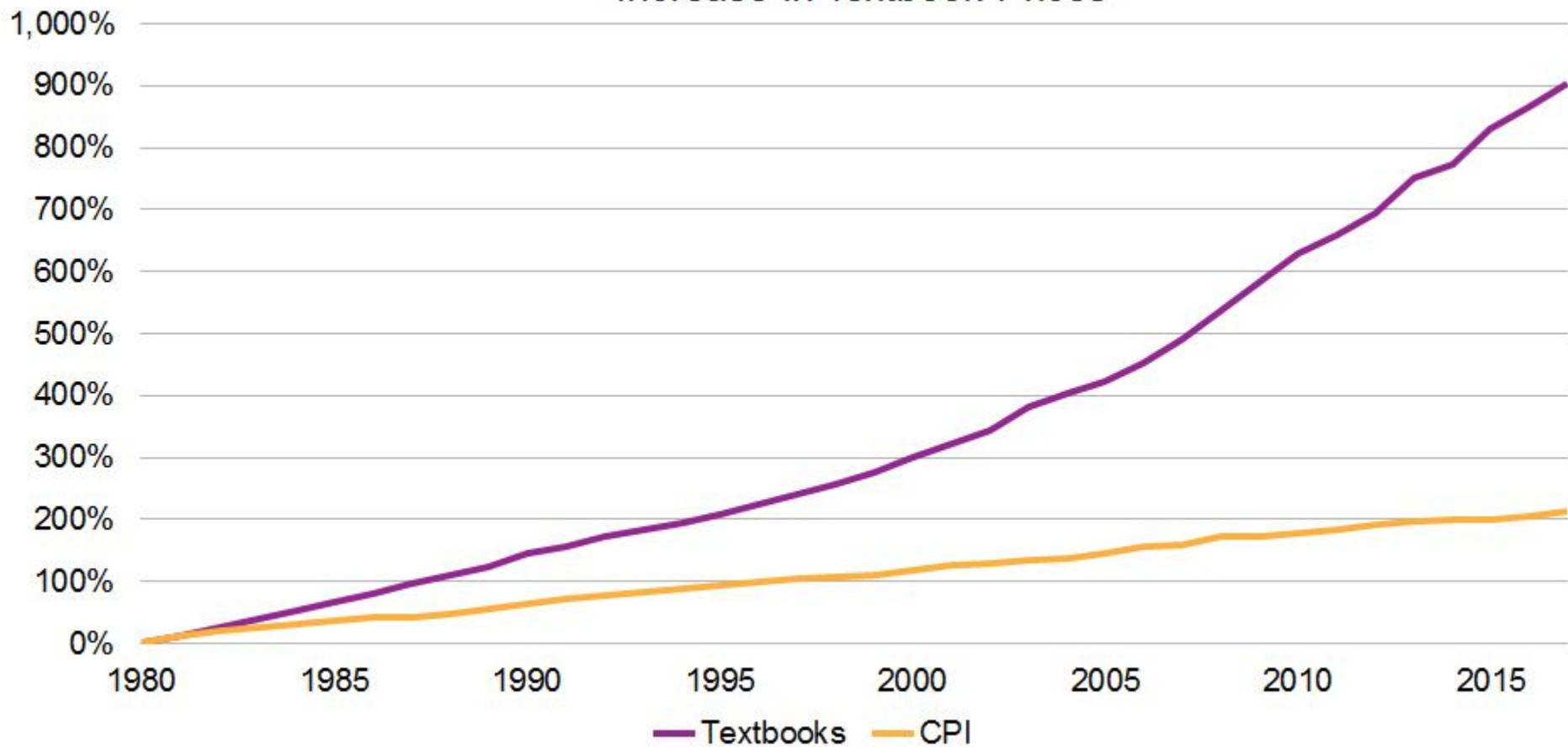
US Debt



- Tuition & Fees
- Room & Board
- Books & Supplies
- Personal Expenses
- Transportation

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- **Books & Supplies**
- Personal Expenses
- Transportation

Increase in Textbook Prices



Data: Bureau of Labor Statistics



NBC NEWS

TOP VIDEOS

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FEATURE > **FRESHMAN YEAR**

FRESHMAN YEAR AUG 6 2015, 11:35 AM ET

College Textbook Prices Have Risen 1,041 Percent Since 1977

by **BEN POPKEN**

How are Students Coping with the Cost?

- Purchase an older edition
- Delay purchase
- Never purchase
- Share the textbook
- Piracy

A student just emailed to ask me what her options are for buying books so she will know HOW MUCH PLASMA SHE NEEDS TO DONATE.

↑ <https://twitter.com/DarkLiterata/status/1166757178352517122?s=20>

<https://twitter.com/tjulrich/status/1167404016915099650?s=20>



In your academic career, has the cost of required textbooks caused you to:

| 2012 | 2016 | |
|-------|-------|------------------------------------|
| 63.6% | 66.5% | Not purchase the required text |
| 49.2% | 47.6% | Take fewer courses |
| 45.1% | 45.5% | Not register for a specific course |
| 33.9% | 37.6% | Earn a poor grade |
| 26.7% | 26.1% | Drop a course |
| 17.0% | 19.8% | Fail a course |

What are your biggest cost challenges as a student?

| | |
|----------------------------|--------|
| Tuition | 61.65% |
| Course materials | 39.56% |
| Housing costs | 38.10% |
| Food expenses | 31.02% |
| Living expenses | 30.18% |
| Transportation | 18.49% |
| Technology | 15.45% |
| Additional school supplies | 7.66% |
| Daycare | 3.04% |
| Other | 2.16% |

Taking Time: Now is the Moment for an Open Educational Resource Revolution



Meggie Mapes

Follow

Mar 19 · 6 min read ★

These are trying times.

Problem Summary: Affordability

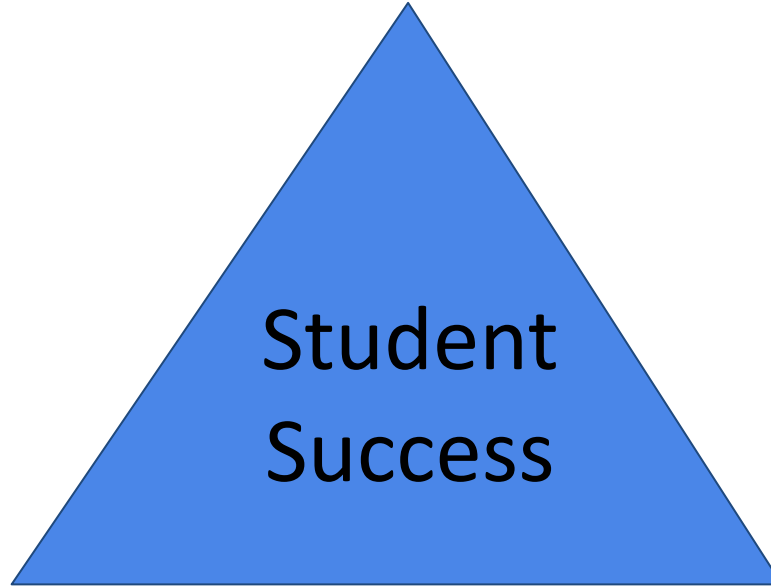
- course material costs are up
- students are working and borrowing more
- and deploying coping strategies that entail risk
- COVID exacerbates these issues

Solution: OER

- Access for ALL students
- 1st day, perpetual
- Research-supported efficacy
- Greater flexibility for students

PEDAGOGY

Affordability



Student
Success

Accessibility

Achievement

Clarification: What I mean by accessibility for this discussion is the ability to access or obtain course materials.

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Open = Free + Reuse Rights

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PROJECT MANAGEMENT FOR INSTRUCTIONAL DESIGNERS

ABOUT PM4ID

Project Management for Instructional Designers (PM4ID) is – as the name suggests – a book about project management tailored specifically for instructional designers. This book is a revise / remix of a pre-existing, openly licensed project management textbook which was donated to the commons by a benefactor that desires to be attributed as Anonymous.

PM4ID includes many new features and improvements to the original book, including:

- Alignment of book chapters with the PMBOK, which supports readers in preparing for the Project Management Professional certification,
- A series of video cases of project managers working in the instructional design area, integrated into every chapter,
- Multiple versions of the book, including HTML, PDF, ePub, Kindle, and a text-to-speech mp3 audio version of the book



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Studies of Efficacy and Perception

- “Two key qualities faculty consider when selecting learning materials for their students are proven **efficacy** and trusted **quality** (Allen and Seaman 2014).”
- Originally, “Hilton (2016) synthesized research regarding the relationship between OER use and student performance (proven efficacy) as well as student and faculty perceptions of OER (trusted quality).”
 - 16 OER efficacy and perceptions studies published 2002 - August, 2015.

Open educational resources, student efficacy, and user perceptions: a synthesis of research published between 2015 and 2018

<https://link.springer.com/article/10.1007%2Fs11423-019-09700-4>

Research picks up for 2015-2018

- Five criteria

1. OER were the primary learning resource used in a higher education setting and had some type of comparison made between them and CT (commercial textbooks).
2. The research was published by a peer-reviewed journal, part of an institutional research report, or a graduate thesis or dissertation.
3. The study included results related to either student efficacy or faculty and/or student perceptions of OER.
4. The study had at least 50 participants.
5. The study needed to have been written in English, and be published between October of 2015 and December of 2018.

Research - Efficacy

- 25 peer-reviewed studies examining efficacy
- Studies involved 184,658 students - 41,480 who use OER
- 143,178 who used CT
- Results
 - 3 studies - no statistical significance
 - 10 studies - no significant differences or mixed
 - 11 studies - favored OER
 - 1 study - favored CT

“A consistent trend across this OER efficacy research (spanning from 2008 to 2018) is that OER **does not harm student learning...While the impact of OER on student learning appears to be small, it is positive.** Given that students save substantial amounts of money when OER is utilized, this is a particularly important pattern.”

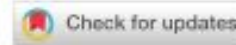
Research - Perception

- 29 studies of student and faculty perceptions of OER
- Studies involved 13,302 students and 2,643 faculty
- “Every study that has asked those who have used both OER and CT as primary learning resources to directly compare the two has shown that **a strong majority of participants report that OER are as good or better.**”
- “In the five studies in which the ratings of students using CT were compared with the ratings of students who used OER, two studies found higher ratings for CT, two reported higher ratings for OER and one showed similar ratings.”

Efficacy of Open Textbook Adoption on Learning Performance and Course Withdrawal Rates: A Meta-Analysis

Virginia Clinton , Shafiq Khan

First Published September 13, 2019 | Research Article |



<https://doi.org/10.1177/2332858419872212>

Article information 



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“Based on a systematic search of research findings, there were no differences in learning efficacy between open textbooks and commercial textbooks ($k = 22$, $g = 0.01$, $p = .87$, $N = 100,012$). However, the withdrawal rate for postsecondary courses with open textbooks was significantly lower than that for commercial textbooks ($k = 11$, OR (odds ratio) = 0.71, $p = .005$, $N = 78,593$).”

“Isn’t it amazing that what serves social justice also serves effective pedagogy and is empirically supported?”

-Rajiv Jhangiani, Ph.D.

Questions

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