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Using a Student Textbook Survey to Advance an OER Initiative

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Using a Student Textbook Survey to Advance an OER Initiative

Abstract

Learn how one library created, administered, and used the results of a student textbook survey in order to advance an OER initiative. We will cover fundamental details, including how we modified an existing survey, chose an administration tool, and promoted the survey. Additionally, we will share our approach to analyzing data and sharing results with various campus stakeholders. This session will focus on the practical aspects of the project in hopes that other libraries will feel empowered to conduct local surveys that support programmatic goals.

Keywords

textbook survey, OER, undergraduate students, private college

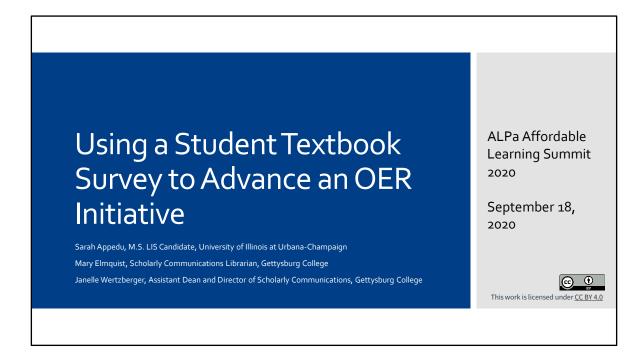
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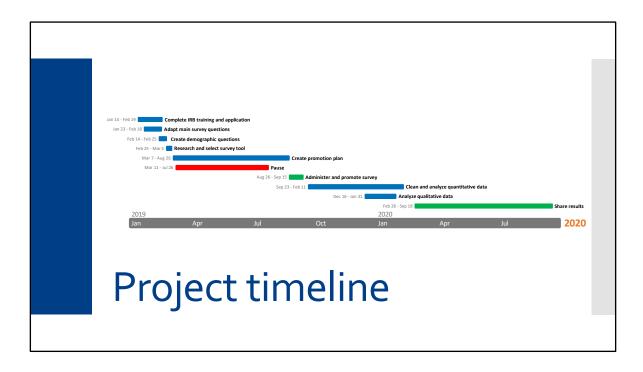


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Quick introductions

Ask attendees if they have conducted a textbook survey on their campus (just reply in chat)



Janelle

We created this presentation in hopes of being inspirational and practical at the same time. We also want to be completely transparent about what it took for us to do this project so you can make well-informed decisions about whether to do something similar. So I'll start with the project timeline before we dive into the details. You'll notice that we started talking about conducting a student textbook survey in January of last year and originally planned to administer it in March. You might also have noticed the big red bar that says "PAUSE" — you'll hear more about that later.

Sarah will speak about how we created and administered the survey. Mary will discuss data analysis. I'll come back again at the end to share how we've used our data to move things forward at Gettysburg.

[over to Sarah]

Survey creation and administration

Sarah

- We kicked off in January 2019 by watching Florida's report on their 2018 Student Textbook survey, which is definitely the most well-known student textbook survey survey and one we cited often. Joining us was Sharon Birch, an Educational Technologist with a Ph.D. in sociology who assisted us with this project from the start. Mary will talk about Sharon's role more later, but I want to emphasize that Janelle and I are not social scientists and that this was a totally new kind of project for both of us. We learned so much during this process, so we're glad to be here sharing some of that with you. (Mary wasn't hired yet at the time and will appear in the narrative later)
- We then started brainstorming how we could do a survey on our own campus, which
 would give us local data to talk about. We knew that we wanted to adapt Florida's
 questions, making them more relevant to our context while giving us similar enough
 data that we could make comparisons.
- We also discussed several other topics that lead to even more conversations down the line, including: asking Florida for permission to adapt their questions; applying for Institutional Review Board approval; determining what demographic information to collect; and creating a dissemination plan.

 At the time, we thought a 20% response rate would be a good goal to aim for, and our target date for launching the survey was Open Education Week, the first week in March. 	

Creating Survey & Demographic Questions

- Adapt Florida questions
- Gather demographic information from Institutional Analysis
- Sent to Sharon for approval

Respectful Collection of Demographic Data





Demographic data may be critical to your mission as a community center, legally required diversity disclosure of a corporation, or an idle curiosity of a blogger to understand their followers.

Whatever your reason, this article establishes some guidelines for respectful design of your form and language for collecting demographic data.

- We knew the questions had to be completed fairly early as they were required to be submitted with the IRB application.
- After getting permission from Florida, we began making revisions. This was an
 iterative process done over the course of several meetings. And it was a group
 effort, including our assistant at the time Kevin and our student assistant Hana.
- Some of the changes include: (mention Google folder)
 - We narrowed our scope to one semester instead of the full year
 - Used "books" instead of "textbooks"
 - Customized list of course materials for our setting: added studio art materials, lab notebooks, clickers, access code
 - Adapted options for measures to reduce cost
 - Updated consequences for context: changed earn poor grade/fail to struggle academically
 - There were also a few questions that we cut all together
- Added a question at the beginning for "are you Gettysburg student" for quality control—only required question
- We ended up with 11 questions in total

- We also spent time developing our demographic questions, which we felt deserved an equal amount of thoughtfulness.
- Early on, we identified class year, race, gender, first-generation status, international student status, and major/minor as demographics we were interested in.
- Kevin reached out to the Office of Institutional Analysis for information about how they ask for student demographics. Since we wanted to make comparisons between our survey group and the Gettysburg population, we wanted to match their language as much as possible. After looking at that:
 - We decided not to ask about citizenship as it was not relevant, but did choose to ask about International student status
 - We resisted the binary presentation of gender and wanted to find a more inclusive way to ask
 - We added a section about ethnicity, which was not originally on our list
- We also read the article "Respectful Collection of Demographic Data", which really shaped how we approached the questions.
 - We realized we needed clear reasons for asking the questions, and the article advised those reasons be transparent to the participant. Our two reasons were:
 - To determine whether our survey response group is representative of the entire student body
 - We want to know whether the cost of textbooks affects some Gettysburg College students differently than others.
 - We put the demographic questions after the main survey questions so that they wouldn't affect their experience of the survey. We also put these reasons at the top of the page so they could be read before moving forward.
 - We phrased the question about gender as "What is your gender", with the options of Woman, Man, Nonbinary, and Prefer to self identify instead of other. This gives people agency over how they are represented, and we did this for all demographic questions where appropriate.
 - Instead of asking about socio-economic status, we asked about Pell Grant, which seemed less invasive. Pell Grants are federal grants awarded to students with exceptional financial need, and while this doesn't cover all students who may struggle financially it is helpful for making comparisons.
- 9 demographic questions total
- Once done, we sent them to Sharon for approval.

IRB Training and Application

- Online Training
- Consent Form
- · Category 2 Exemption Application
 - Research question: We want to learn how much money Gettysburg College students spend on textbooks and required course materials, strategies students use to reduce textbook costs, textbook formats preferred by students, and how students are affected by textbook costs. Our goal is to better understand how textbook costs impact the success of OUR students. The Library is expanding support for faculty who wish to reduce or eliminate the cost of course materials for students. This survey will help provide local context for that work.

- Once our questions were completed, we could focus on preparing the IRB application.
- Firstly, someone had to complete a required CITI online training, which must be done every 5 years, and this fell to Janelle.
 - Took a week-ish, several hours (approx. 3-4)
 - Completed the training 2/15/2019, a little less than a month after our initial conversation.
- Meanwhile, I began working on drafting a consent form. I worked off of an example provided on the IRB website and browsed through a few examples online. Since our project was pretty straightforward, the consent form was pretty simple. You can read it over in the public Google folder.
- Once the training and consent form were completed, we turned our attention to the application.
- We applied for Category 2 Exemption: "Research that only includes interactions involving educational tests, survey procedures, interview procedures, or observation of public behavior..."
- Project title: Gettysburg College Student Textbook and Course Materials Survey
- Research question: We want to learn how much money Gettysburg College

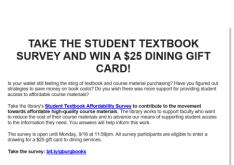
students spend on textbooks and required course materials, strategies students use to reduce textbook costs, textbook formats preferred by students, and how students are affected by textbook costs. Our goal is to better understand how textbook costs impact the success of OUR students. The Library is expanding support for faculty who wish to reduce or eliminate the cost of course materials for students. This survey will help provide local context for that work.

- We returned to this several times.
- The application also asked us to provide information about data and privacy, including who would have access to data, and to what extent the responses would be anonymous.
- Finally, we had to indicate the type of consent we would be using. We used "implied consent", which means our consent form was included in the welcome page of the survey and clicking through to the survey questions was considered implied consent to the form.
- The application was submitted 2/25/2019. It takes up to 2 weeks, but our application was approved on 2/25/2019

Selecting a Survey Tool



- We did not spent much time investigating survey tools before deciding to move forward with Lime Survey, which we selected because it's Open Source and because Sharon had wanted to experiment with it and thought this was a good excuse to do so.
 - Additionally, Survey monkey requires payment for more than 10 questions
 - Google forms has questionable security
- We settled on the tool early on as it had to be included in the IRB proposal, but it wasn't until early March that Janelle and I met with Sharon to discuss Lime Survey and learn basic survey administration.
- Sharon had created an instance of Lime Survey on Gettysburg sites, so it was on a Gettysburg server.
- All three were set up as admins—log in required to access data
- At this point, we were ready to begin plugging in our questions and building out the survey.





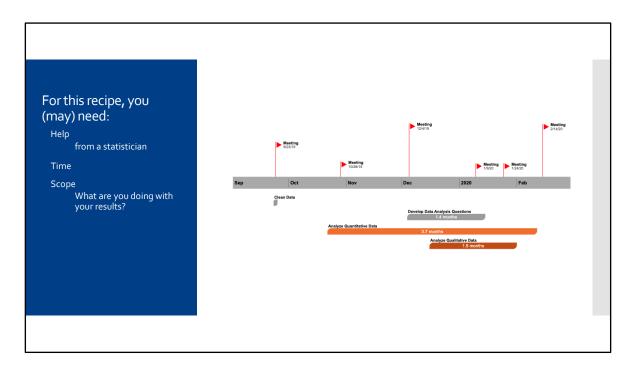
Planning Survey Promotion

- Janelle and I also met in early March to set up a plan for promoting the survey to students.
- We wanted to provide an incentive for taking our survey which would help our marketing campaign. We decided to raffle off one \$25 dining gift card, which participants could choose to enter a drawing for after completing the survey.
- We also created a tiny URL to use for our promotional materials.
- After brainstorming some ideas, I set up meeting with the chair of Marketing committee to discuss a plan.
- Our promotional strategy included:
 - Student digest every day with different titles
 - We ended up doing faculty and staff digest posts as well for transparency
 - Email to library staff: one right after open and one a few days before close, encouraging them to share with students and to let student employees take it during work time
 - Email to library student employees: one right after open and a few days before close
 - Library webpage banner, student landing page, CUB screens, napkin holders, handouts
 - A short blurb on the campus newspaper's website

- Library table with Hana and other library students
- Social media
 - Mallory posted in each classes' Facebook page
 - Created instagram versions of our promotional materials
- Posters hung around campus
- But, things don't always go as planned. After checking in with the Bookstore we learned that they were in the middle of their own survey, unrelated to ours, but we thought students may get confused or surveyed-out. So we changed gears. Our proposed start date of early March was put on hold, and ultimately we realized that administering the survey during the first week of the fall semester was not only better because it avoided conflicting with the Bookstore survey, but also because students would have just bought their books and would likely remember the experience more accurately.
 - This also meant we could advertise the survey at the library orientation event and leverage the start-of-semester energy where tons of students are in the library asking questions and getting situated for the semester.
- So, after a few months' hiatus, it wasn't until late July that I began building the survey in Lime Survey and putting our promotion plan into action.
- The survey went live on the first day of class and was open for three weeks
- In the end, we had 577 responses to start digging through. And with that, I'm going to hand things over to Mary to talk about the data analysis phase.



So now that we've got to the point on our timeline of *having* the data, I want to talk a little bit about what we did with it.



- To lay out some (caveats? Points of note?):
 - We had a lot of help from a trained statistician, Sharon Birch, to whom we
 extend endless gratitude. I'll talk more about her help in the areas where it's
 most relevant (hint: most of them), but for the scope of our project, having
 her on our team was invaluable.
 - You may have noticed on our timeline, just the data analysis part took several
 months of iterative work, mostly because of the scope of the analysis we
 wanted to do on the data we got. I've got a zoomed in version of the timeline
 here that just represents our data analysis process; the red flags indicate
 meetings where Sharon joined us--to train us and to talk about how we were
 going to present that data.
 - On that note, one reason we relied so much on Sharon was how we wanted
 to present our results, and the audience we knew we wanted to present to.
 A big part of our goal here was to generate local quantitative data that we
 could talk about with faculty and administrators—people who, in many
 cases, know much more about how statistics work than we do. We wanted
 the way we analyzed and presented our data to lay a really solid foundation
 for our arguments about the importance of OER and affordable course
 materials.

- We also realized pretty early on that we might want to share this
 more widely than just on our own campus, so our relative
 meticulousness was both a result of and a reason for us thinking
 about publishing our final results.
- This is all to say that, the way we did this might be extremely overboard for you, depending on what resources you have and what you want to do with the results from a survey like this. I'm going to talk in some detail about what all we did, but for you, it may make much more sense to pick out some parts that seem most helpful and easiest—there are definitely things I'll talk about that you could functionally do in a Google Form by exporting out to a sheet or similar.

Data cleaning Making the data analyzable • Removing incomplete responses • Edit "incorrectly" formatted answers

- This happened in two(ish) steps.
 - We designed our survey to be anonymous. The substantial content of the survey was through LimeSurvey, but the information needed for the prize drawing was collected entirely separately and then deleted as soon as the drawing was done, so we were able to just download our data straight from LimeSurvey and did not need to do any separate anonymization.
 - The slightly more intensive and tedious task was the actual cleaning. Sarah went through the excel spreadsheet to:
 - Remove the responses of anyone who didn't complete "enough" of the survey.
 - Edit the response of anyone who answered a "whole numbers only" question with a dollar sign or with words into just a number.
- After that, we had whittled down those 577 responses to 438 in an spreadsheet, and we were ready to start analysis...almost.

From research questions to data questions

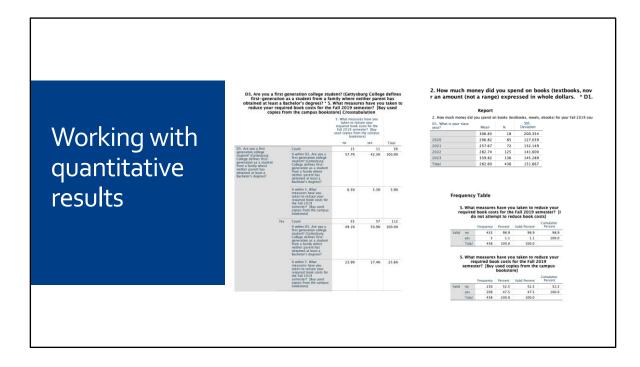
We want to learn how much money Gettysburg College students spend on textbooks and required course materials, strategies students use to reduce textbook costs, textbook formats preferred by students, and how students are affected by textbook costs. Our goal is to better understand how textbook costs impact the success of OUR students.



- We knew, in a way, what we were looking for based on our original research question:
 - We want to learn how much money Gettysburg College students spend on textbooks and required course materials, strategies students use to reduce textbook costs, textbook formats preferred by students, and how students are affected by textbook costs. Our goal is to better understand how textbook costs impact the success of OUR students.
- But we had to translate that to the specific questions we wanted to ask of our data.
- Sharon once again came in and helped in two ways.
 - This was the point at which she helped us do some comparisons of our demographic data to the overall demographic breakdown of Gettysburg College students. Since we hadn't sought out a representative sample (one that specifically matched the demographics of the population), it wasn't surprising that our respondent group had some slight differences.
 - Our group had more first year students, more women, slightly more first-generation students and Pell Grant recipients, and

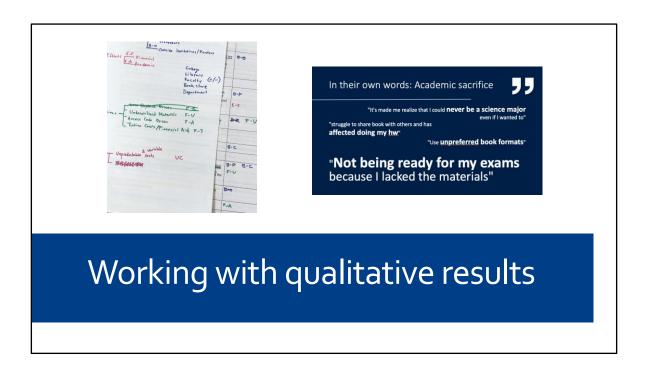
was overall a little less white than our general College population.

- Even with those differences, with the *size* of our sample in particular (around 16% of our student population), we definitely felt like we could draw *meaningful* conclusions, if not *statistically significant* ones. (One of those distinctions that having a statistician on our team made at least someone easier to understand.)
- This was also where we got the first idea of what we were doing with our statistical analysis software, SPSS. Sharon gave us the rundown on the types of analysis we'd be able to do—the specific features and functions of the software that would be best to use.
- So, with that knowledge, we were able to sit down and make up a big list (or more accurately a big chart) of each question we wanted to ask—each individual analysis we wanted to run on our data.



- There were three kinds of analysis that made up the vast majority of what we did with our data:
 - Frequencies: This is probably the simplest analysis: how many times did someone answer question 1 with response "A", "B", etc. and what percentage of the whole response group is made up of each. It's a really helpful way to look at responses from the *whole* group.
 - Cross tabulations: This is how we were able to analyze responses from
 particular demographic groups. So, it's a little hard to explain exactly
 how these work, but the name, "cross-tabulations" gets at it—it
 generates a table on which the columns represent responses to one
 question and the rows represent responses to another. All of the
 responses get compared to each other, so you can see, for example,
 what percentage of students who said "I am a sophomore" also said "I
 use reserve textbooks from the library."
 - Means comparisons: Again, this one is basically what it says on the tin: these were used to compare averages between specific groups. We didn't use this a whole ton, but it was helpful to compare, for example, how much each class year spent on textbooks, on average.

- This was the process that took the most time, by far. It was also the most dynamic process. Running analyses often meant that we noticed some interesting thing in the data, and then we decided to run different analyses to try to eke out more meaning.
 - I don't want to get too into the weeds about it, but one other benefit
 of using this kind of sophisticated statistical software was that it was
 relatively easy to create new variables to look at data in new ways;
 variables, in this case meaning new groupings or manipulations of
 existing responses. For example, although we asked for how much
 students spent in whole dollar amounts, we were able to easily create
 new variables that dropped those responses into ranges—allowing us
 to talk about that question in a slightly different, easier-to-understand
 way.



- I want to take a quick diversion into what we did with our qualitative results— the responses that students left in free response fields.
 - We did some light thematic analysis on the responses for each question with an open text box. However, because we had relatively few responses (in comparison to our participant group and our student population) we generally shied away from reporting on any numbers from this analysis.
 - That said, the thematic analysis was really helpful for reporting qualitatively on our qualitative data. Because we identified these themes, when it came time to present, we were able to talk about the ideas we'd seen repeated and pull out representative quotes to display.

Organizing and talking about A B C D E F G H 1 Q4. Percentage of the total cost of books and other course materials covered I 2 Frequency | Percent | Ind Percent-lutter Percent 3 Vaid | Nor response | 11 | 2.5 | 2.5 | 2.5 | 2.5 | 5 | None | 2.40 | 5.6.8 | 5.6.8 | 76.3 | 6 | Less Shard 2 | 11 | 2.5 | 2.5 | 78.8 | 7 | 26-60% | 3 | 0.7 | 0.7 | 79.5 | 8 | ST-175% | 7 | 1.6 | 1.1 | 5.5 | 1.1 | 9 | Financial and other course materials was covered by financial aid for Fall 2019? All Participants: What percentage of the total cost of books and other course materials was covered by financial aid for Fall 2019? **ST-1756*** | 7 | 1.6 | 1.1 | 5.5 | 1.1 | 9 | Financial aid did for corer any books/materials **Did not receive any financial aid secretary portice of was covered.** **Not save what if any portice of was covered.**

- So, once we started to pull this data, we had to sift through it, again with significant help from Sharon. She really helped us in:
 - Pulling out what was meaningful and figuring out how to visualize it.
 Once we had run analysis in SPSS, the tables that we generated were pulled into Excel so that we could view it, clean it up, and visualize it more easily. Sharon helped us go through each of the charts and figure out which items were interesting and showed enough of a pattern or difference that they would be worth talking about. She also helped us figure out what kinds of charts and graphs would most accurately represent and compare what we found.
 - Sharon was also a huge help as we prepared to tell our story. We didn't
 want to draw any overblown or erroneous conclusions or give our
 audience a chance to nitpick us about language we used. Again, having
 a trained statistician was great for making sure that we knew what we
 were saying and (at least for the most part) why we were saying it that
 way.
- And with that, I want to hand it over to Janelle to talk about how we've used and presented our data in the context of our OER initiatives.

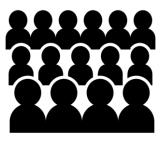
Using the data to move our local OER initiative forward

Janelle



Decisionmakers Faculty

Stakeholders
Students
Administrators throughout campus
Faculty



Created by ProSymbols from Noun Project

Those of us working in this space recognize how badly things can go wrong when the people choosing which textbooks must be purchased are not the people actually purchasing the textbooks. We target a lot of our OER outreach at faculty because they are the actual decisionmakers in terms of textbook adoptions.

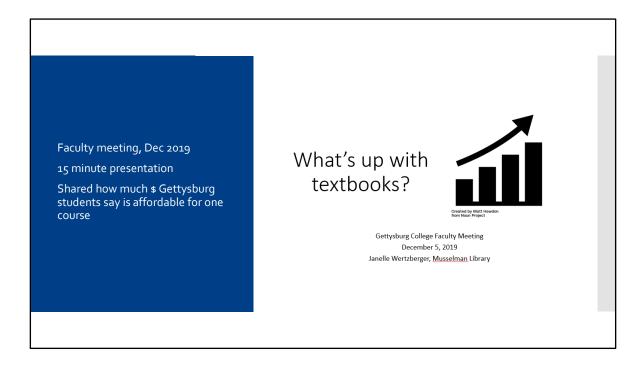
However, we also widen the aperture to include a broader group of stakeholders. Students are at the top of this list, because they bear the burden of the cost of textbooks and it is their academic success which may suffer because of that high cost. Students can't decide which books they are assigned, but they can add pressure to the decisionmakers. Student advocacy looks a little different on every campus. On ours, we haven't gotten any traction in student government, but we've had more interest from student journalists and good coverage in the student newspaper and podcast.

Administrators from all parts of campus are in the position to tip the scales, as well-

- Deans and provosts and office directors within the academic division are obviously invested in academic success and are interested in any variable that could improve success and retention. On our campus, this includes people in Academic Advising, the Center for Teaching & Learning, department chairs, and divisional deans.
- Our administrator colleagues in the student affairs division who specifically support

- first-generation students, international students, and low SES students are very interested in this work
- We think that our colleagues in Financial Aid and Admissions will be interested, but we haven't made a lot of connections YET.

After thinking about audience, we turned our attention to identifying sharing opportunities. Today it's really clear how the COVID pandemic disrupted our momentum in this area, but we did get in a few presentations before everything shut down.



The first one happened in December of last year. I was fortunate enough to speak with our new college president about textbook affordability early in the fall, and he urged the Faculty Council to invite me to a faculty meeting to share more. I only had 15 minutes to talk about textbook costs and market factors and impact on student success and OER, but I used this opportunity to share one of our key findings from the survey: the amount of money Gettysburg students say is reasonable to pay for books per course. That teaser also allowed me to advertise the session in which we would present the full survey results.

If you're interested in the actual presentation, you can find it in Gettysburg's institutional repository, The Cupola.





In late February, the three of us delivered that presentation in our Friday Forum series, which is open to all employees. We also invited student journalists because we wanted them to cover the study. We were able to spend time really diving into the data and showing how first-generation students and Pell Grant recipients suffer the most from high textbook prices. We also used this presentation to advertise the open textbook workshops scheduled during Open Education Week, which was the very next week.

This presentation is also in The Cupola, in case you're interested in the details of our results.



In early March, just before the spring break from which many of our students never returned, we offered a pair of open textbook workshops. Many of you have done these – this is the workshop model that combines a library presentation with an opportunity for faculty to review an open textbook and earn a small stipend. We worked some of our survey results into that presentation – not as many as we presented the week before, but some key results we hoped would encourage professors to seriously consider choosing OER. (This presentation is also in The Cupola if you're interested.)

What happened next? We had plans to present at the divisional meetings of department chairs the week after spring break. We did this, but it was a complete fail due to COVID. Our college extended spring break by a week in order to pivot to remote instruction, so everyone was completely – and understandably – preoccupied with that as well as the general welfare, and suddenly faculty were less interested in what textbooks cost in high enrollment courses and how we might be able to help.

We've also submitted a manuscript to a peer-reviewed, open access journal and have our fingers crossed that we'll be able to share this work more widely through that venue.

Key survey findings that propel our work First year students spend more than students in other classes

\$50 "reasonable cost" per course

Textbook prices disproportionately impact our most vulnerable students

We've been sitting with our results for many months now, and a few takeaways have been especially helpful in our communications with decision makers and stakeholders.

- We learned that first year students spent more on textbooks than any other students

 a lot more. First years spent about \$340 on average in the Fall 2019 semester,
 while seniors only spent \$207 on average for the same semester. Sophomores and juniors were in between.) This has led us to focus more on 100-level course instructors for outreach.
- We knew that the word "affordable" was subjective and that there was potentially a
 large gap between what professors think is a reasonable cost and what students
 perceive as reasonable. The survey gave us an actual number, and that number is
 \$50 per course (not per book). I always emphasize the "per course not per book"
 part because many faculty find it inconceivable that a class requiring multiple books
 could ever come in below \$50.
- Finally, because of the way we carefully planned our demographic data collection,
 we were able to learn that textbook prices negatively impact our first-generation
 students and Pell Grant recipients more than students who aren't members of one
 or both of those groups. Because our campus is focusing attention on equity, this is a
 useful finding that opens up discussions with various people around campus.

Who is conducting textbook surveys?

- Florida Virtual Campus (2010, 2012, 2016, 2018)
- U.S. Student PIRG
- Multiple institutions in British Columbia
- American University
- Brigham Young University
- · University of Hawaii at Manoa
- · Old Dominion University
- Gettysburg College
- · ... your institution may be next?

I'd like to end with a slide that shows which institutions have conducted textbook surveys that are similar to ours. (I'm not promising that this is complete, but these are some that we found for purposes of the literature review in our manuscript.)

Remember our survey - like many others - was based on the Florida survey, which sadly has been discontinued due to lack of funding. Lots of institutions were relying on Florida results to move their own programs ahead. Now we won't be able to. But if we collate the survey results across many institutions, we can continue to expand our understanding of this issue. An advantage of this approach is that we can get data from a more diverse group of institutions.

Maybe one of those institutions is yours! We wanted to share this "under the hood" presentation with librarian colleagues in hopes that your school is next on the list. All of our information is openly available in our institutional repository or in an open google folder (except the article manuscript, which is under review at an open access journal) — and we would be overjoyed if you found it helpful in conducting your own survey.



This presentation is available at: https://cupola.gettysburg.edu/librarypubs/144

Openly licensed survey materials are available at: https://drive.google.com/drive/folders/1pZwsu522Udtz41YAyzZ856UuT_NIJxM4?usp=sharing

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