

Are Private Universities Exempt from Student Concerns About Textbook Costs? A Survey of Students at American University

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Abstract

A survey conducted in the fall of 2015 at American University in Washington, DC shows that rising textbook prices similarly affect students at an expensive private university as those at community colleges and state schools. Research on high textbook costs that has demonstrated corollary unwanted behavior changes in students, including not purchasing the book, resorting to illegal online downloads, and poor study habits, were confirmed at American University as well. Solutions that have been proposed to this problem of prohibitive textbook prices, including Open Educational Resources (OER), could have an equally profound impact at American University, and potentially similar private universities, as has been demonstrated at less selective and more affordable counterparts.

Key Words

textbooks; cost; higher education; OER; open educational resources

Introduction

Textbooks are typically an important part of the post-secondary instructional model (Altbach et al., 1991, Fischer et al., 2015), and traditional print textbooks have long been regarded as a foundational instrument for knowledge transfer (Lowe, 2009, Williams, 2014). At the same time, textbooks may also be “developing into a systematic barrier to student learning” (Stein et al., 2017, p. 404). A significant factor is that textbooks can be prohibitively expensive. One study across multiple general education courses at seven different community and state colleges found that the average textbook price was \$90.61 (Hilton et al., 2014). In fact, from 1977 to 2015, textbook prices rose by 1,041% -- over three times the rate of inflation and faster than any other consumer product (Bureau of Labor Statistics, 2014).

Students have responded to high textbook prices in many ways, most notably by not purchasing required textbooks. In fact, in one of the largest (n=22,906) surveys of students about their textbook habits conducted by the Florida Virtual Campus (2016), 66.6% of students surveyed had not purchased a textbook because of cost. A separate study of 2,039 students found that nearly all students (94%) who skipped buying or renting some of their required textbooks due to cost did so while simultaneously recognizing that doing so would negatively impact their academic performance in that course (Senack, 2014).

The Florida Virtual Campus survey, which was previously conducted in 2010 and 2012, is widely referenced in research about the effects of textbooks on students and in studies of open educational resources (OER), the tool most often cited as a solution to skyrocketing textbook prices. Unfortunately, because it is only offered to students enrolled in Florida’s public colleges and universities, it may not

reveal the full picture of how students enrolled in private colleges and universities behave with respect to textbook costs. This is a critical oversight of approximately 4 million students enrolled in private non-profit colleges in 2015, or approximately 20% of students enrolled in higher education (NCES, 2016).

The purpose of this paper is to present survey data demonstrating the effects of textbook costs on students at American University, a mid-sized, private, research university in Washington, D.C. The survey asked students questions related to textbook costs and the effects of those costs on their behaviors. In addition to filling a gap in the literature, this study explores a key question as to whether the results of previous OER research could apply to private schools. On some campuses, “that’s not a problem here” is cited as a reason not to prioritize lowering textbook costs. After all, what’s \$90 a book compared to an annual tuition bill of \$45,808 (American University, 2018)?

Methodology & Context

During the fall 2015 semester, students in 13 courses at American University participated in a survey about how textbook costs affect them. The surveyed courses were selected across undergraduate levels (100 - 400-level courses), schools and colleges, and disciplines. All of the courses included in the survey were traditional face-to-face courses. A majority of the courses selected had a single required or recommended textbook. Students were asked questions about both their general habits as well as their use of the particular textbook assigned in their course. The full survey, influenced by research from Bliss (2013), Florida Virtual Campus (2016), the Open Education Group (2018), and the Student PIRGs (2014), can be found in the appendix. The list price of the textbooks for the courses surveyed ranged between \$40 and \$325, with a majority of the textbooks priced at \$100 or more. Students who completed the survey were invited to enter a drawing for one of two \$25 gift cards to incentivize survey completions. Method of survey capture was contingent upon professor preference for distribution, and students completed surveys via paper copies handed out in-person or via an online survey administered through email and the university’s learning management system. Three hundred and sixty-five students were invited to participate, and 110 students responded, yielding a 30% response rate. The respondents were approximately evenly distributed across undergraduate years, but the survey was not controlled to be representative of the undergraduate student population at American. This survey was developed and administered to get a better sense of the pervasiveness of the textbook cost concerns, and understand the various ways students were adapting to costs.

American University is a private, mid-sized, research II institution in Washington, D.C. Its undergraduate enrollment is approximately 8,000 and the cost of attendance in the 2015-16 Academic Year was \$59,438. Concomitant to the survey collection, students at American University had been informally reporting to administrators and professors that textbook costs were overwhelming their budgets and some students simply couldn’t afford to purchase the required texts. This reporting coincides with changes to the institution’s system for awarding financial aid. Over approximately the previous decade, admissions reports that financial awarding had shifted from about 70% based on merit to about 70% based on need. This shift did not change the academic profile of matriculating students, but it did shift the economic profile of those students. As the student population changed, attention to non-tuition, ancillary costs increased. As part of the response to growing student concerns about textbook costs, American began a pilot program to support faculty use of OER in 2015, which continues to expand today. The survey was developed to assess the impact of textbook costs on student academic behaviors and to inform the OER pilot program. Accordingly, the questions in the survey are focused on student textbook expenditures and behaviors, not OER specifically.

Significant Findings

The analysis below focuses on three key areas of findings related to student perceptions of textbook costs and value, student access to textbooks, and student behaviors related to cost. The present survey employs descriptive statistics to draw a rough sketch of the myriad ways textbook costs affect students at American University. As discussed throughout, key findings from the present study track to findings of prior research elsewhere. Results from this survey are consistent with the current research on textbook prices and student behavior: high textbook costs cause unwanted behavior changes in students, including not purchasing the book, resorting to illegal online downloads, and poor study habits.

Textbook Costs and Student Perceptions of Textbook Value

Students were asked several questions related to specific textbook costs. 80% (n=88) of students indicated that 2-4 courses required expensive textbooks during the surveyed semester, with 3 courses being the most common response at 35% (n=38). Expensive textbooks were defined as those costing \$75 or more. Less than 10% (n=10) of students reported only needing to buy no more than 1 textbook costing \$75 or greater (see Figure 1).

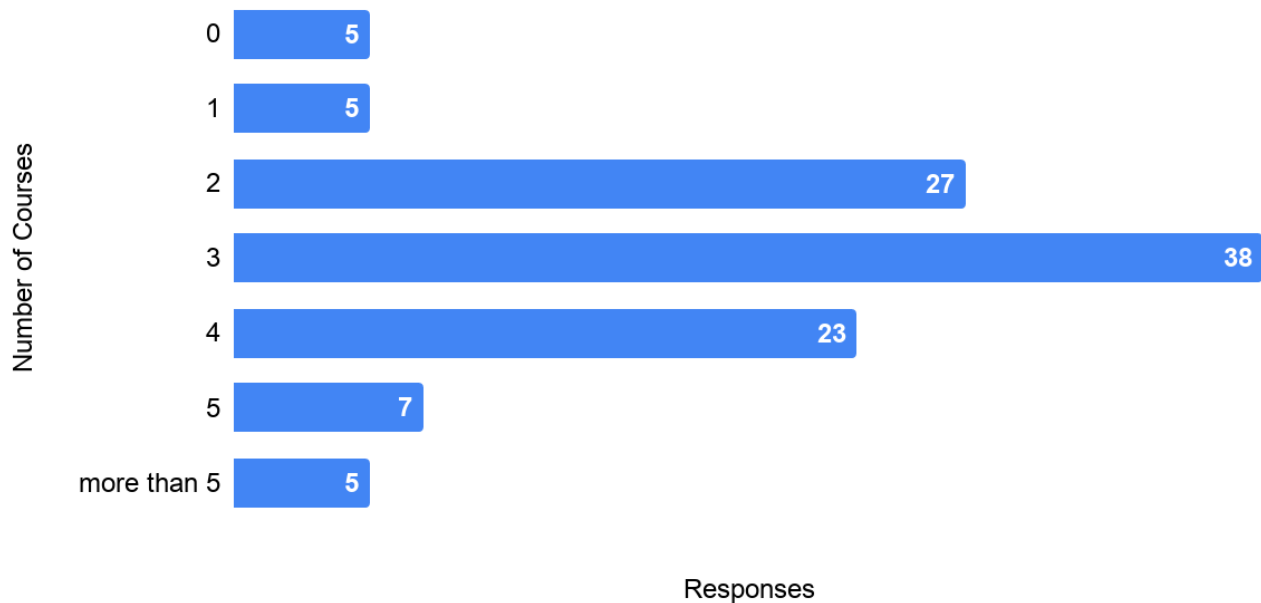


Figure 1: How many of your courses required expensive (\$75 or more) textbooks this semester?

As shown in Figure 2, students were also asked to estimate the total dollar amount spent to acquire all their course materials for the Fall 2015 semester. “Course materials” was defined as textbooks, access codes, required subscriptions, etc. 29% (n=30) of the students reported spending \$201-\$300 to obtain their course materials, while the weighted mean price for total course material expenditure was \$288.50. This translates to \$577 over a typical academic year. These findings accord with expenditure data found in prior studies (Hill, 2015, Florida Virtual Campus, 2016).

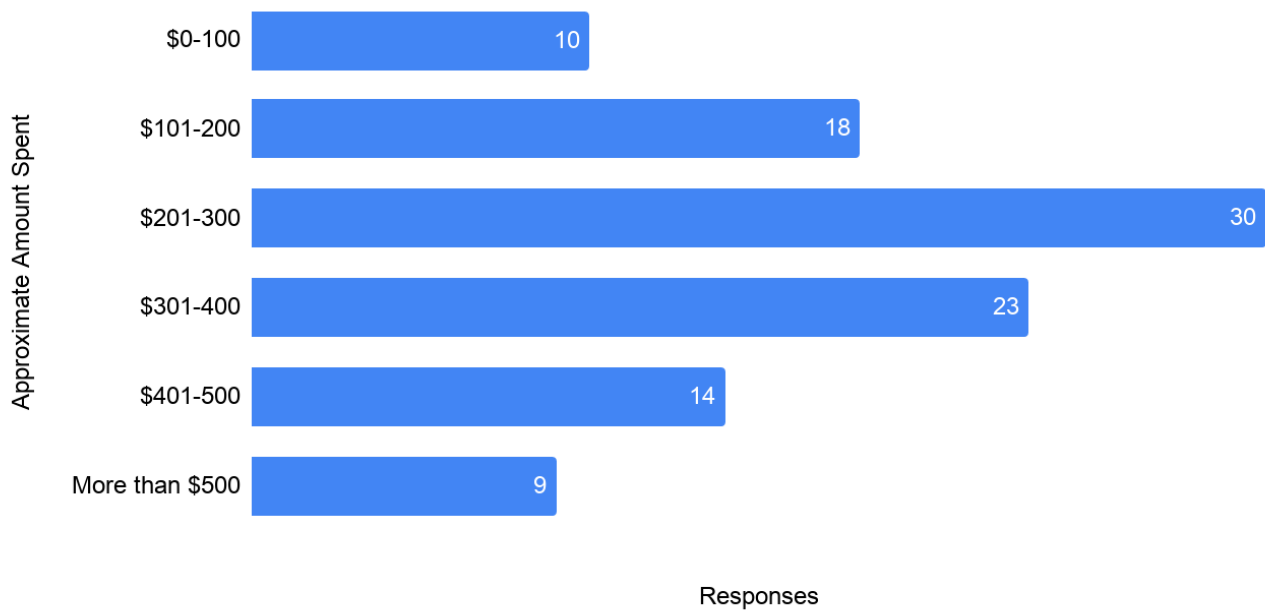


Figure 2: Approximately how much money did you spend to acquire all of your course materials this semester?

Students were asked to indicate the frequency of performing a variety of study-related tasks in their course-assigned textbook. As seen in Figure 3, the most commonly selected action was skimming or searching for information.

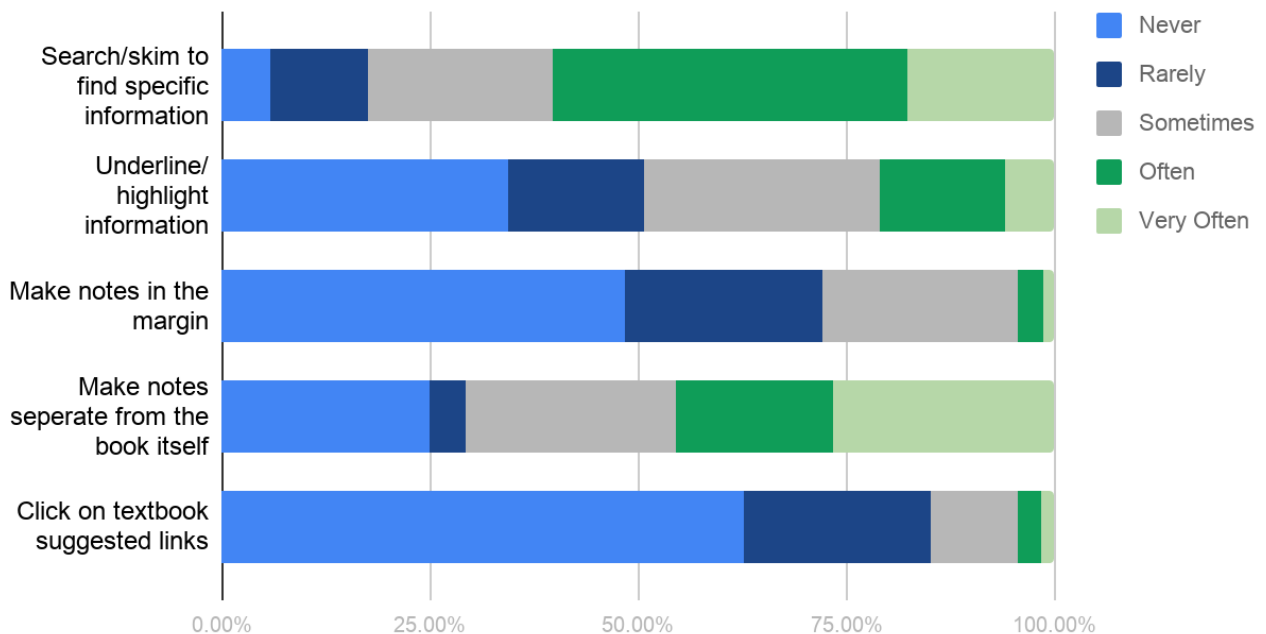


Figure 3: When studying from [Assigned Textbook], how often do you do each of the following?

Students were also asked to estimate the amount of time they dedicated to studying from particular types of course materials when preparing for exams. Students rated the textbook as their least

preferred method of study behind their own class notes and information their professor provided such as slides or lecture notes (Figure 4).

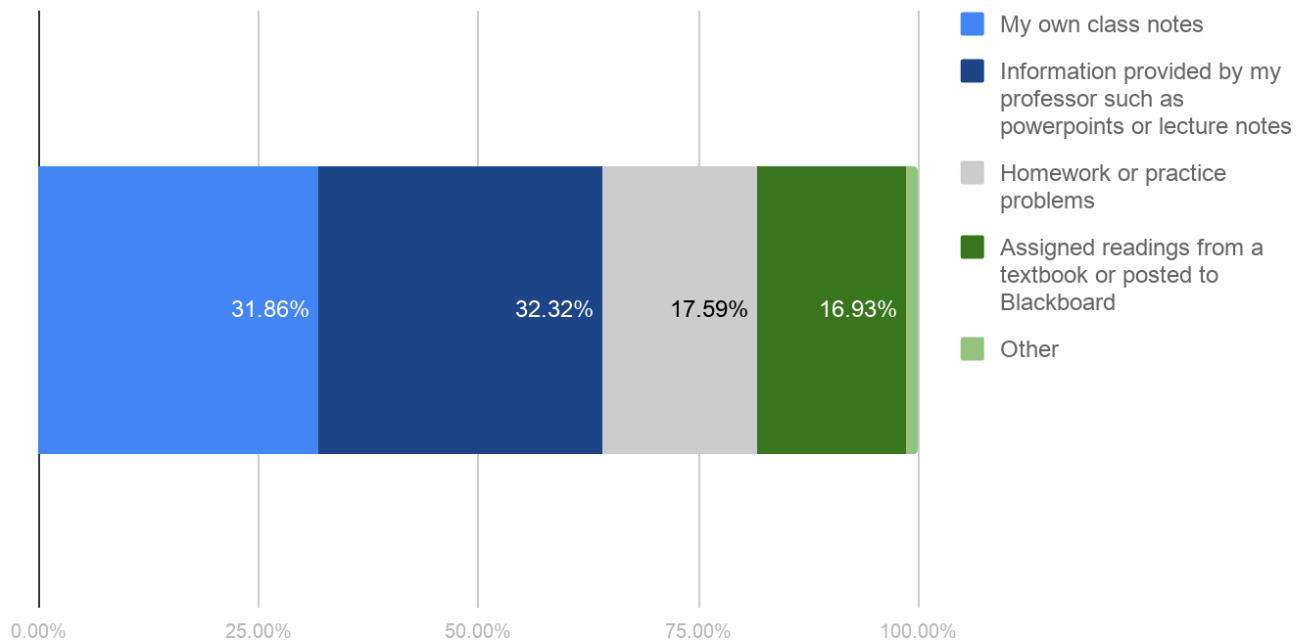


Figure 4: In general, when you prepare for your tests/exams, what percent of studying do you devote to each of the following?

Nineteen percent of comments to a general open-ended question (“What else would you like to share about how the cost of course materials influences your learning habits?”) related to the ways faculty used -- or rather didn’t use -- their assigned textbooks. For example:

- “Professor either don't test/rarely test textbook material; if they do, they will only test information discussed in class.”
- “Prohibitive and unnecessary (some courses require expensive textbooks you use infrequently)”

Figure 7, discussed below, uses tagging to demonstrate the themes of all responses to this question.

Student Access to Textbooks

Students were asked if they had ever decided to not acquire a required textbook or course material because of its high cost, to which 67% (n=70) of the students said yes. This figure is similar to the findings of other studies (Florida Virtual Campus, 2016; Senack, 2014).

Analyzing responses by academic year (Figure 5), only 32% of freshmen reported that they decided not to purchase a required textbook/course material because of the cost, while 75% of sophomores, juniors, and seniors report doing so.

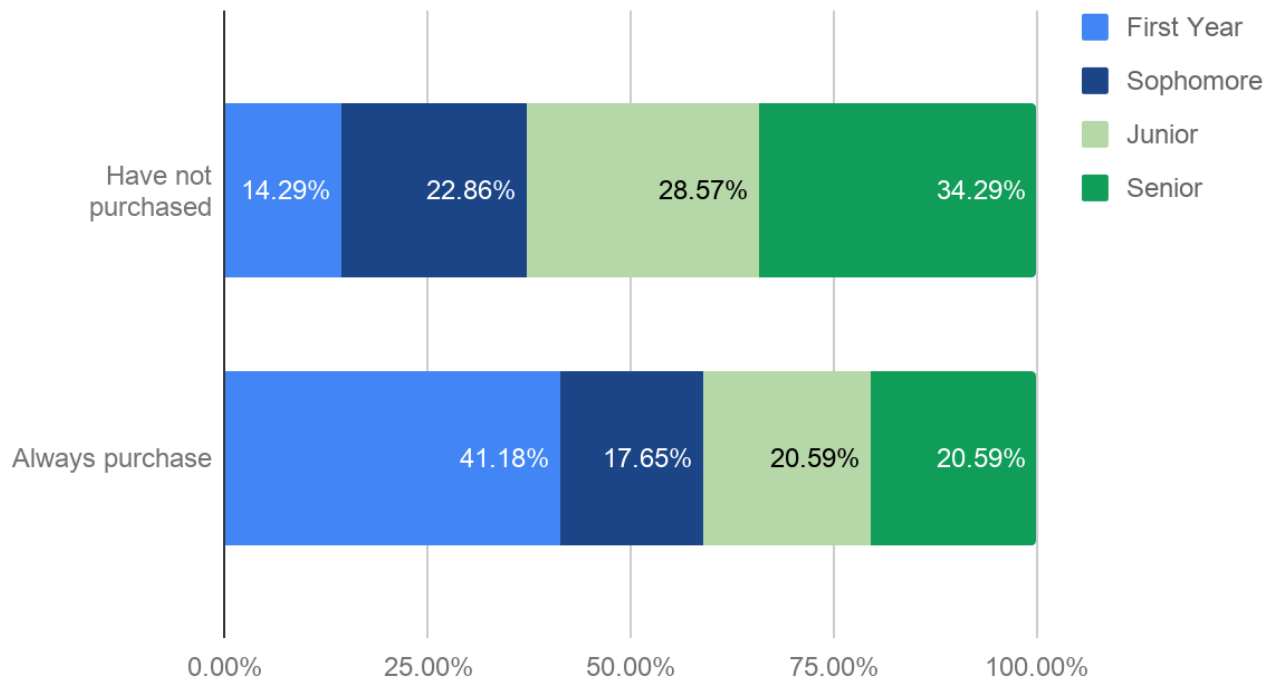


Figure 5: Year in School and Purchasing Behavior

Responses to the general open-ended question also indicate that students have learned over time to avoid purchasing some textbooks. For example:

- “I think it’s stupid to buy textbooks. Too expensive! Never buy them anymore!”
- “I honestly don’t end up using most of my textbooks. I’ve reached a point where I buy books later into the semester, and only those I’ve seen used.”
- “They are RIDICULOUSLY expensive and professors often require them when they aren’t necessary”
- “Class says required and most of the time it’s not”

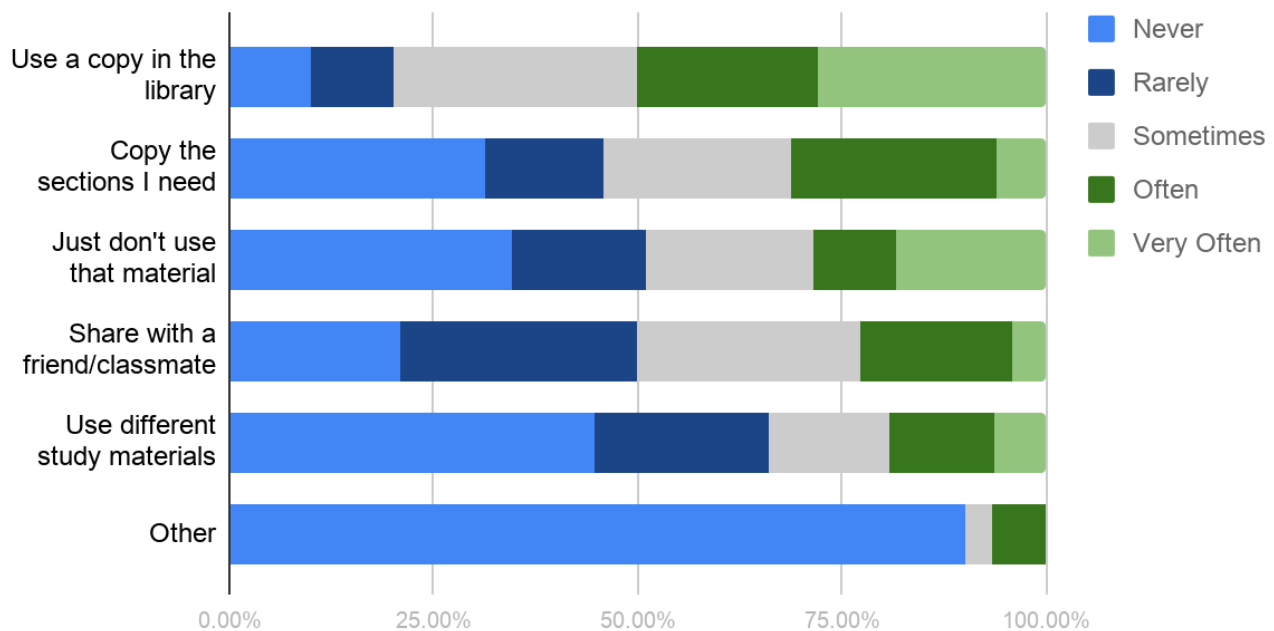


Figure 6: If you do not purchase or rent a required textbook or other course material, how do you procure the required material?

Free responses also indicated the library course reserves were used, with 10% of commenters adding details about using course reserves. Despite rating the library as a relatively frequently used source for accessing required course materials, free responses indicate that relying on course reserves was not an ideal learning scenario.

- “I depend on the course reserves [m]ore tha[n] I'd like to! Sometimes they are already withdrawn.”
- “I have to spend a large amount of time making sure that my textbooks are cheap. I also have to go to the library whenever I want to do work for my microeconomics class since I could not afford the textbook.”
- “The price of textbooks, even renting used textbooks, is a tremendous burden. I have discovered that I can find most of the book I need through the Washington Research Library Consortium for free. But when books are not available through these means, I will share with classmates or never access those books at all.

In addition to the limitations of relying on access through the library course reserves system, students identified additional negative effects from limited access to course materials. In fact, 12% of text comments drew a link between cost of text and negative learning effects. For example, students explained:

- “When studying, I find highlighting the text is incredibly beneficial. Unfortunately, with the prices of textbooks I tend to rent rather than buy, as it is more cost effective. With rented textbooks I am not able to highlight.”
- “Some textbooks are really expensive and I will decide not to buy the hard copy. But digital copy makes it harder to focus since it's on a digital device”
- “[N]ot buying the book because it is too expensive leaves me to use course reserves but that limits my access to the information to allow me to succeed in class.”

Although most responses indicated that students had some level of access to the materials they needed, a small number of respondents indicated use of illegal online downloads in various places throughout the survey. Filtered to remove multiple mentions by a single respondent, 4 individual respondents, or 3.6%, indicated some level of use of illegal downloads.

Student Consequences Related to Cost

Over 52% (n=58) of respondents provided answers to the open-ended question “What else would you like to share about how the cost of course materials influences your learning habits?” Beyond the themes of high costs, low perceived value, and reduction in access reported above, text responses indicated additional consequences of textbook costs.

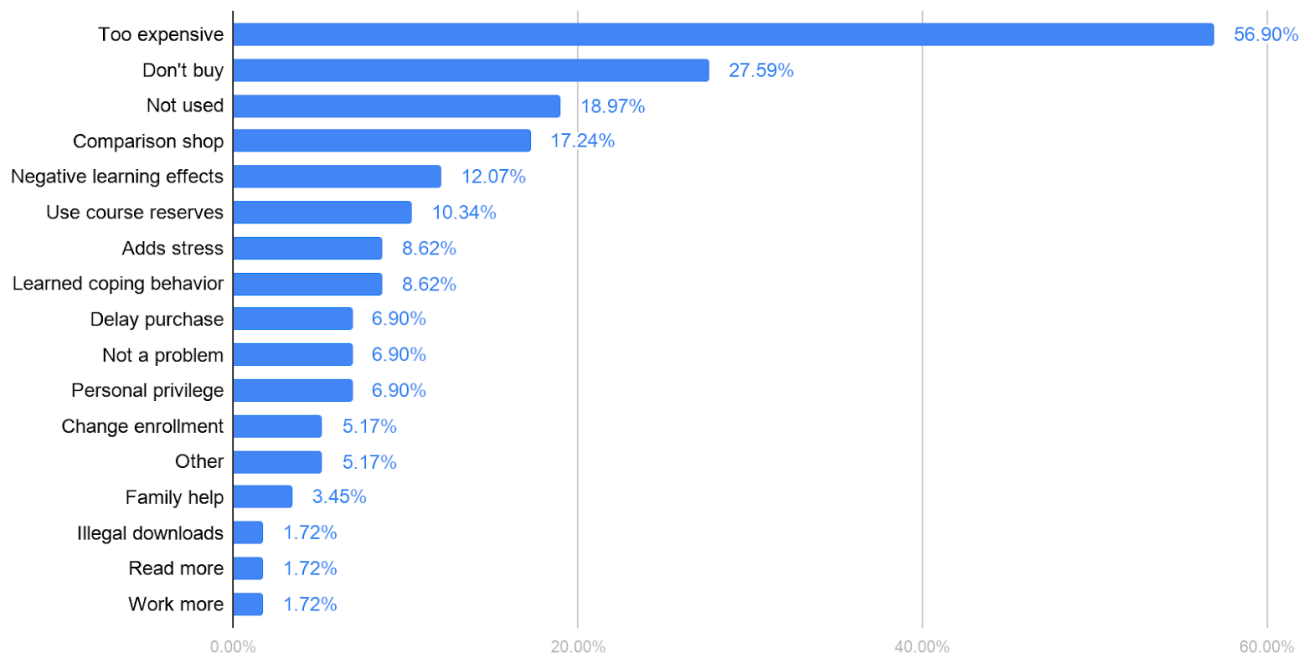


Figure 7: What else would you like to share about how the cost of course materials influences your learning habits?

Similar to the learned behavior of not purchasing a textbook at all, respondents indicate that they comparison shopped, spending time and effort trying to find the least expensive method of accessing course materials.

- “Prices do matter when I make my decision of whether or not to get an item for a class, unless it is absolutely required (ie. an access code for an online portal). I would rather put in more of my time to find cheaper or free versions of textbooks or course material instead of spending the money.”
- “It is often too expensive to buy textbooks so I often either don't buy them or try to rent/buy cheaper option like older versions.”

In addition to the problems caused by not having the textbook at all, students mentioned other, subtler, negative learning effects from high textbook costs. These comments focus on the difference in prices between purchased and rented texts as well as between physical or digital versions. Often rented and digital texts are the lowest cost available versions.

- “When studying, I find highlighting the text is incredibly beneficial. Unfortunately, with the prices of textbooks I tend to rent rather than buy, as it is more cost effective. With rented textbooks I am not able to highlight.”
- “Some textbooks are really expensive and I will decide not to buy the hard copy. But digital copy makes it harder to focus since it's on a digital device”

Students' free responses also indicated that the high cost of textbooks was a stressor.

- “While I have never not bought a book that I needed and couldn't find elsewhere, the cost of textbooks causes significant financial stress on me and takes away from other semester needs (food, rent, etc.)”
- “[M]ore money [per textbook means] more stress to do well because you spent so much for one class”

Similarly, Ikhahihifo et al. (2017) observed stress levels related to costs and noted opposite reactions from students enrolled in courses that used free OER in lieu of cost-bearing commercial resources.

In free responses, students report that textbook costs impact their course registration practices. For example:

- “I don't take a certain class because of the expensive or multiple textbooks. It's really ridiculous.”
- “I know people who have dropped out of classes because the book was too expensive”

These responses reflect prior research findings. For example, Senack (2016) found that textbook prices affected course enrollment decisions of close to 50% of students surveyed (n=4,704). Similarly, the Florida Virtual Campus (2016) found that nearly 50% of respondents (n=20,557) had avoided registering for a course because of textbook costs.¹

Discussion

The results of the present survey suggest that surveyed students at American University have comparable experiences with regard to textbook cost and access to those of students at public 4- and 2-year institutions, which have been the focus of much research and outreach related to OER and low-cost textbook programs. These findings suggest that despite their many differences, experiences related to textbook costs may be comparable across institution type. Although American is a private research institution where the cost of attendance for the 2015-16 academic year was \$59,438, when faced with expensive textbooks, students adopted many of the same coping mechanisms as students at community colleges and other lower-cost institutions. These mechanisms included not purchasing all required texts, relying instead on course reserves, illegal downloads, or never referencing the text at all. Additionally, the present study suggests that the academic value of textbooks may be misaligned to the high price of textbooks, and that students experience negative learning effects stemming from those high prices.

Cost/Value Reinforcement Cycle

In particular, responses related to textbook costs and their perceived value indicate that prices may be misaligned to students' perceptions of textbooks' academic value. Respondents indicated that they spent approximately \$288.50 on textbooks for one semester. Extrapolating out, this averages to \$577 a year, less than half the College Board's estimate of roughly \$1,200 spent by students on course materials a year (2017). However, Hill (2015) produces a more realistic estimate of \$600 for actual

expenditures on textbooks, which is in line with the present study's findings. Text responses indicate that students find textbook prices too high, and more than half (67%; n=70) of the respondents in this survey indicated that they had foregone a required textbook because of cost.

Not only are prices high, but responses indicate a relatively low perception of the academic value of textbooks. Students indicated a low preference for studying from textbooks when preparing for exams, ranking textbooks as the least frequently used study resource. In fact, most respondents (75%) reported spending only between 0 and 2 hours per week studying from their course-assigned textbook. They also indicated that their primary action in textbooks was skimming for specific information. This may mean that students tend to use the textbook as a reference on-demand, rather than as a primary source of course content for learning. Additionally, in free responses students indicated that their professors don't incorporate required texts in meaningful ways. Taken in concert, these findings indicate that students experience of textbooks in practice doesn't align with their monetary value. Instead, students find textbooks of limited academic utility in their independent work, and this perception is reinforced by faculty who don't use the books. If students think textbooks are too expensive, aren't incorporated into courses meaningful ways, and are used infrequently for studying, it's no wonder that they sometimes opt not to purchase required texts.

Adding in data suggesting that students may learn to forego textbooks over the course of their academic careers further bolsters this analysis. While only 32% of first year students reported not purchasing a text because of cost, a staggering 75% of sophomores, juniors, and seniors report doing so. This suggests that there is a difference between the way first year students value textbooks and the way their more senior peers do. Indeed, according to a 2014 National Association of College Stores (NCAS) report, first year students spent nearly twice as much as upperclassmen (qtd. in Hill 2015 "Asking"). It's possible that through their experience of textbooks during their first year, student learn that the practical academic value of textbooks doesn't align with their high costs. They could learn this by observing their own study habits, the practices of students around them (particularly when taking courses with a mix of first year and upper-class students), and the way their professors appear to value required texts. This observation that students may learn not to buy required texts over time has been noted in other research as well (Stein et al. 2017).

Cost, Access, and Negative Effects on Learning

We may reasonably assume that students who forego expensive required texts must still learn material covered in those required texts and thus require some level of access. The 67% of students who indicated that they had not purchased a required text due to cost were asked a follow up question about how they accessed that required material. Students rated the library as their most common source. This indicates high importance of the library and of the course reserves process. American has a textbook-focused course reserves program, placing at least one copy of every required general education textbook and textbook over \$125 on course reserves. However, despite the relative importance of the library as a source for course materials, it is not without problems. As free responses indicate, the number of texts on reserve is limited, and students may find that the text they need is already in use. Additionally, course reserves are necessarily more convenient for students who live on campus, as those who do not may need to travel to campus specifically to complete their homework or other studying, adding time and likely additional transportation costs to studying.

In addition to using course reserves, students indicated their second most frequent method of accessing material in textbooks they had not purchased was copying the sections they needed from somewhere else. It's important to note that this behavior likely constitutes a copyright violation. Similarly, a small number of respondents indicated relying on illegal downloads for their textbooks. Notably, 2014 data from the National Association of College Stores shows that students at 4-year institutions report using illegal downloads far more frequently than their counterparts at 2-year institutions (qtd. in Hill 2015 "Asking"). That students turn to illicit mechanisms to acquire expensive required course material is cause for concern.

Conclusion & Future Research

Although a number of studies that look at how students deal with the rising cost of textbooks have been conducted, a unique purpose of this study was to explore whether the predominant findings held up at a much more expensive private university -- a setting with student demographics not often associated with issues like affordability and access as much as their community college counterparts. As this survey data shows, however, assumptions about students' ability or willingness to purchase expensive textbooks may be unfounded, and students at American could benefit from increased efforts to mitigate textbook costs. Although students at AU incur significantly higher tuition costs, they similarly face negative consequences related to the high cost of textbooks.

From prior research, we know that students often choose to forgo purchasing required textbooks and other course materials; we know this decision is linked to cost; and we know that students are also aware this decision may lead to lower grades. What we now also know is this: 67.31% -- almost exactly the same two-thirds number reported by Senack (2014) and Florida Virtual Campus (2016) -- of surveyed American University students have also chosen not to acquire required textbooks or other course materials because of prohibitive costs.

Escalating textbook costs in higher education negatively impact students' academic success, especially students who are most financially vulnerable. However, a problem occurs when we instinctively associate "financially vulnerable" with only Pell-eligible students, or only community colleges and less-prestigious universities. That students at American University struggle to cope with rapidly rising textbook costs illustrates a key point: regardless of financial status, two-thirds of students aren't buying textbooks due to concerns over, not just financial value, but academic value as well. As has been demonstrated, campus-wide initiatives to adopt OER can minimize the negative effects of prohibitive textbook costs without negatively affecting academic performance (Hilton, 2016).

Although our survey findings cannot be generalized to represent the experiences of students across American University, the results nevertheless track to findings from other comparable studies and suggest fruitful areas for additional research:

- Has inability or refusal to purchase textbooks by AU students also led to an inability to enroll in courses they need as part of their degree program? Has time to degree completion been affected? Or even something more benign like student satisfaction in degree program as a result of taking non-ideal courses due to textbook cost?
- Are the present findings comparable to student behaviors at other private universities elsewhere in the country?

- Much like the oversight of students enrolled in private non-profit colleges with relation to textbook affordability studies, a similar problem exists in the body of research done on open educational resources. The COUP (Cost, Outcomes, Usage, Perceptions) framework developed by the Open Education Group (2018) is a common lens through which OER research can be seen. Across all areas of the framework, community colleges have largely been the focus (e.g. Bliss et al., 2013, Hilton & Laman, 2012, Hilton et al., 2013, Hilton et al., 2014, Ikaiahifo et al., 2017, Rowell, 2015, Wiley et al., 2016). What findings may emerge from applying the COUP framework to analyzing student behaviors at private non-profit colleges?

The problems created by costly textbooks -- most notably unwanted changes in student behavior -- are significant drivers of interest in OER. "When the value of purchasing textbooks is brought into question by students, leading them to engage in alternative resource-seeking behaviours... teachers should be concerned," writes Stein et al. (2017, p.415). "Lecturers who select appropriate, accessible and affordable textbooks for their courses may play a key role in facilitating positive academic outcomes for students and reducing the likelihood of students accessing inappropriate or inadequate alternative resources."

This paper serves as one piece of evidence to suggest teachers and learners as American University are not immune to the crippling effects of high textbook costs that students around the world are facing.

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Appendix: Survey

Q1 What academic year are you?

- Freshman
- Sophomore

- Junior
- Senior

Q2 What is your GPA?

Q3 How many of your courses required expensive (\$75 or more) textbooks this semester?

- 0
- 1
- 2
- 3
- 4
- 5
- More than 5

Q4 How do you pay for your education? (Select all that apply)

- Student loan(s)
- Scholarship(s)/Grant(s)
- Other (please specify)
- None of the above

Q5 Do you have paid employment this semester?

- Yes
- No

[Conditional response: If "Yes" to Q5, then Q6. If "No" to Q5, then bypass Q6 and go to Q7]

Q6 How many hours per week do you work on average?

- 1-11 hours/week
- 11-20 hours/week
- More than 20 hours/week

Q7 Approximately how much money did you spend to acquire all of your course materials this semester? (Include cost for textbooks, access codes, required subscriptions, etc. in your estimate.)

- \$0-\$100
- \$101-\$200
- \$201-\$300
- \$301-\$400
- \$401-\$500
- More than \$500

Q8 Have you ever decided not to acquire a required textbook or other course material because it was too expensive?

- Yes
- No

Q9 Where do you generally acquire your course materials?

Likert scale of "Never, Rarely, Sometimes, Often, Very Often" for each option below

- AU physical campus store

- AU online campus store
- Off-campus physical store (e.g. Barnes & Noble)
- Off-campus website (e.g. amazon.com)
- From a friend or classmate
- Other (please specify)

Q10 What kind of course materials do you generally acquire?

Likert scale of "Never, Rarely, Sometimes, Often, Very Often" for each option below

- I rent print textbooks
- I rent digital textbooks (e.g. E-textbooks)
- I purchase new print textbooks
- I purchase used print textbooks
- I purchase digital textbooks (e.g. E-textbooks)
- Other (please specify)

[Conditional response: If Yes to Q8, then Q11. If No to Q8, then bypass Q11 and go to Q12]

Q11 If you do not purchase or rent a required textbook or other course material, how do you procure the required material?

Likert scale of "Never, Rarely, Sometimes, Often, Very Often" for each option below

- I share with a friend/classmate
- I use a copy in the library
- I copy the sections I need from somewhere else
- I use different study materials
- I just don't use that material
- Other (please specify)

Q12 In general, when you prepare for your tests/exams, what percent of studying do you devote to each of the following? (Your responses should add up to 100).

- My own class notes
- Information provided by my professor such as powerpoints or lecture notes
- Assigned readings from a textbook or posted to Blackboard
- Homework or practice problems
- Other (please specify)

Q13 At the end of the semester, what do you generally do with your textbooks? (Select all that apply)

- I keep most or all of my textbooks
- I try to resell textbooks for courses that are not in my major
- I try to resell the most expensive textbooks
- I try to resell the textbooks I do not think I will use again
- I try to resell all of my textbooks
- Other (please specify)

Q14 What else would you like to share about how the cost of course materials influences your learning habits?

The next 5 questions ask about your habits using the textbook [ASSIGNED TEXTBOOK] for your course [SURVEYED COURSE].

Q15 What version of [ASSIGNED TEXTBOOK] do you use?

- Purchased new print copy
- Purchased used print copy
- Purchased digital copy
- Rented print copy
- Rented digital copy
- I do not have a copy of [ASSIGNED TEXTBOOK]
- Other (Please specify):

[Conditional response: If any “print” option was selected in Q15, then Q16. If no “print” option was selected in Q15, then bypass Q16 and go to Q17 or Q18]

Q16 What factors affected your decision to use a print version of [ASSIGNED TEXTBOOK]? (Select all that apply.)

- Cost
- Convenience
- I learn best reading print
- This was the available option when I was making my decision
- Other (please specify)

[Conditional response: If any “digital” option was selected in Q15, then Q17. If no “digital” option was selected in Q15, then bypass Q17 and go to Q18]

Q17 What factors affected your decision to use a digital version of [ASSIGNED TEXTBOOK]? (Select all that apply.)

- Cost
- Convenience
- I learn best reading digitally
- This was the available option when I was making my decision
- Other (please specify)

[Conditional response: If “I do not have a copy” was selected in Q15, then Q18. If “Other” was selected in Q15, then bypass Q18 and go to Q19]

Q18 What factors affected your decision not to acquire a copy of [ASSIGNED TEXTBOOK]? (Select all that apply.)

- Cost
- I do not learn well from textbooks
- Textbook not in stock
- Other (please specify)

Q19 When did you acquire [ASSIGNED TEXTBOOK]?

- 2-4 weeks **after** the class started
- Less than 2 weeks **after** the class started
- Less than 2 weeks **before** the class started
- 2-4 weeks **before** the class started
- More than a month **before** the class started
- I do not have a copy

[Conditional response: If any “print” option was selected in Q15, then Q20. If no “print” option was selected in Q15, then bypass Q20 and go to Q21]

Q20 When studying from [ASSIGNED TEXTBOOK], how often do you do each of the following?

Likert scale of “Never, Rarely, Sometimes, Often, Very Often” for each option below

- Skim to find specific information
- Highlight/Underline
- Make notes in the margins
- Make notes separate from the book itself
- Look at textbook-suggested online material
- Other (please specify)

[Conditional response: If any “digital” option was selected in Q15, then Q21. If no “digital” option was selected in Q15, then bypass Q21 and go to Q22]

Q21 When studying from [ASSIGNED TEXTBOOK], how often do you do each of the following?

Likert scale of “Never, Rarely, Sometimes, Often, Very Often” for each option below

- Search to find specific information
- Use digital software to underline/highlight information
- Use digital software to make notes in the margins
- Make notes separate from the book itself
- Click on textbook-suggested links
- Other (please specify)

Q22 About how many hours per week do you spend reading or studying from [ASSIGNED TEXTBOOK]?

- 0 hours/week
- 1-2 hours/week
- 3-4 hours/week
- 5-6 hours/week
- 7-8 hours/week
- 8-9 hours/week
- over 9 hours/week

Q23 What is your current grade in this course?

- A
- B
- C
- D
- F
- Unknown

Thank you for completing this survey. To be entered into a drawing for a \$25 Starbucks gift card, please provide your email address below. Note, your email address will not be included as survey data and will only be used for gift card distribution.

¹ Notably, the opposite has also shown to be true. Ikahihifo et al. (2017) found that students enrolled in courses employing free OER instead of cost-bearing materials chose to reinvest their savings in other academic purchases including enrolling in and paying for additional courses.