

Affordable Learning Georgia Textbook Transformation Grants

Final Report

Date: 12/18/2015

Grant Number: 103

Institution Name(s): Clayton State University

Team Members (Name, Title, Department, Institutions if different, and email address for each): Lari Arjomand, Nikki Finlay, Reza Kheirandish, Gay Solomon

Project Lead: Jesse Zinn

Course Name(s) and Course Numbers: Principles of Macroeconomics ECON 2105, Principles of Microeconomics ECON2016

Semester Project Began: Spring 2015

Semester(s) of Implementation: Fall 2015

Average Number of Students Per Course Section: 34

Number of Course Sections Affected by Implementation: 11

Total Number of Students Affected by Implementation: 380

1. Narrative

A. Describe the key outcomes, whether positive, negative, or interesting, of your project. Include:

- Summary of your transformation experience, including challenges and accomplishments

The goals of this project were to lower cost of materials for students in ECON 2105 and ECON 2106; maintain quality of content in the course materials; improve overall student satisfaction with the courses; improve retention, progression, and graduation rates; and inspire colleagues to emulate this project and lower material costs in other courses at Clayton State University. We believe that we have been successful with the short-term aspects of these goals and we are optimistic that the project will achieve its long-term goals as well.

The project began when the economics faculty met in Fall 2014 to discuss some issues with the previous textbooks we were using in ECON 2105 and ECON 2106. In that meeting we discussed some competing textbooks. Our main concerns were the quality of the text, the quality of the associated online homework submission program, and the

cost to students. The price students were paying for the book were using at the time ranged from about \$85 for the online version to around \$135 for physical copies of the text. We had not made any decisions at that point, but we were strongly considering a different textbook with a price tag of around \$60.

Soon after that meeting, a colleague in the College of Business mentioned to us that there are principles-level economics textbooks available at no cost through OpenStax College. We agreed to divvy the chapters and review “Principles of Economics,” by Timothy Taylor, which is the combined macroeconomics and microeconomics textbook offered by OpenStax.

Upon review, we found the textbook to our liking. It covers the standard material, is peer review by economics professors from across the country, and has a solid support system at OpenStax. So, we decided to switch to this book and apply for the ALG grant to help offset the costs for our time and energy of this transition.

Four of us used Sapling, a homework management system that partners with OpenStax. The results were about the same as we experienced with Launchpad. There were some flash issues for some students, but we found Sapling to be reliable and relatively easy to use, once we got the hang of it.

The main challenge of our transformation experience has been developing new lecture materials to go along with the OpenStax text. We may have underestimated the time it would take to revise our materials. It did not help that the supplemental materials OpenStax provides are minimal. In particular, their Powerpoint slides contain only the images (primarily graphs and pictures) that appear in the book. They did not contain any definitions or examples, as is usual for slides provided by a publisher. Nor did the slides contain any of the numerous tables that appear in the text. One of us contacted OpenStax to request the files containing the tables and a representative of the publisher refused, suggesting instead that we copy-paste the tables from the electronic versions of the book ourselves – which we were already doing.

Another challenge with the transformation has been dealing with student confusion over typos in the text. We sincerely hope that the next edition of the book addresses these typos.

In terms of accomplishments, we saved our students up to \$45,540 in the Summer and Fall semesters of 2015, without compromising the quality of their education.

We were the first at Clayton State University to be awarded a textbook transformation grant from Affordable Learning Georgia. We do not think it is a stretch to say that we have been instrumental in catalyzing a campus-wide movement to lower textbook costs. When news of the grant was announced, word spread quickly and the provost reached out to the college deans to form a Learning Materials Committee. Two of our team-

members, Nikki Finlay and Jesse Zinn, were asked to join this committee. The objective of the Learning Materials Committee is to foster the use of low-cost learning materials across the curriculum at Clayton State. A highlight of this committee's efforts was an expo held in April 2015 that was attended by faculty and several publishers and distributors of low-cost materials. This expo helped other faculty to become familiar with low-cost resources and opportunities.

It seems that these efforts have brought success, as the faculty at Clayton State have since been awarded six more grants from Affordable Learning Georgia across round 3 and 4 of the program. These grants range across the curriculum, from the social sciences and humanities to the hard sciences, so it is safe to say that the vast majority of Clayton State Students will benefit from these efforts.

- Transformative impacts on your instruction

Lari Arjomand: The transformation in principles of microeconomics (ECON 2106) during summer semester 2015 in my class was very easy and smooth.

Nikki Finlay: The transformation in ECON 2106 was very smooth, with no big changes necessary. ECON 2105, however, was another story. I will have to rethink my teaching approach in macroeconomics a bit in order to adjust to the new book.

Jesse Zinn: I knew that all of my students would have access to the text immediately, without having to wait for a time when they would have the required funds to buy an expensive book. I took advantage of this by requiring reading assignments that were due before the first class meetings each week, starting with the second overall class meetings, in all of my Fall 2015 courses in ECON 2105 and ECON 2106. These assignments consisted of questions designed to guide the students through the chapters before my lectures and familiarize themselves with the vocabulary and essential concepts.

2. Quotes

- Provide three quotes from students evaluating their experience with the no-cost learning materials.
 1. "The text is much easier to understand and to follow. It is less confusing in explaining the topics, and has good number of examples to help you to follow the subjects."
 2. "The textbook was very helpful, especially when I completed my homework. I look forward to using it in Microeconomics, so keep it around for a while."
 3. "Greatly appreciated OpenStax as a learning resource. College is already expensive enough and each year it stresses me out when I have to see my student loans skyrocket and then have to pay out an extra \$600, out of pocket, on textbooks. OpenStax is also an awesome way for student to minimize how much they have to carry with them on campus. I liked only needing my laptop and my notebook for class. It is "on-the-go" for my busy schedule as well."

3. Quantitative and Qualitative Measures

3a. Overall Measurements

Student Opinion of Materials

Was the overall student opinion about the materials used in the course positive, neutral, or negative?

Total number of students affected in this project: 380

- Positive: 50 % of 18 number of respondents
- Neutral: 28 % of 18 number of respondents
- Negative: 22 % of 18 number of respondents

Student Learning Outcomes and Grades

Was the overall comparative impact on student performance in terms of learning outcomes and grades in the semester(s) of implementation over previous semesters positive, neutral, or negative?

Choose One:

- X Positive: Higher performance outcomes measured over previous semester(s)
- Neutral: Same performance outcomes over previous semester(s)
- Negative: Lower performance outcomes over previous semester(s)

Student Drop/Fail/Withdraw (DFW) Rates

Was the overall comparative impact on Drop/Fail/Withdraw (DFW) rates in the semester(s) of implementation over previous semesters positive, neutral, or negative?

Drop/Fail/Withdraw Rate:

30 % of students, out of a total 374 students affected, dropped/failed/withdrew from the course in the final semester of implementation.

Choose One:

- X Positive: This is a lower percentage of students with D/F/W than previous semester(s)
- Neutral: This is the same percentage of students with D/F/W than previous semester(s)

- ___ Negative: This is a higher percentage of students with D/F/W than previous semester(s)

3b. Narrative

We gather data on the numbers of D's, W's, and F's in ECON 2105 and ECON 2106 courses over three semesters: Spring, Summer, and Fall of 2015.

The dropped/failed/withdrew in these courses rate decreased from 33.3% in Spring 2015 to 30.2% in Fall 2015.

Not only did these rates fall, but there was also a somewhat positive trade-off between the D's and F's in our courses. Specifically, the percentage of D's went from 9.7% of students in Spring to 12.6% in Fall, while F's went from 14.9% in the Spring to 8.2% in the Fall. If students are not going to do well, then it's better for them to get D's than F's, so this is another indicator of improvement, though we will take it with a grain of salt.

Interestingly, as we exclude our analysis to the face-to-face only courses (i.e. neither online only hybrid courses) there was an even more dramatic decrease in the dropped/failed/withdrew rates, as this measure went from 35.2% of students in these courses in the Spring to only 16.5% in the Fall.

There are a number of cofactors, besides the implementation of a low-cost textbook, that may be influencing these findings. A major factor is the increase in teaching experience from one academic year to the next, particularly for Professor Zinn who was still in his first year of full-time teaching in Spring 2015. Another cofactor is that some of us began teaching fully online and hybrid courses in Fall 2015, which may partly explain the dramatic differences between the outcomes for these courses and the traditional, face-to-face courses.

Finally, the survey data also suggests that this transformation was a success, as 50% of respondents felt positively about the change, to 28% who felt neutral, and 22% who felt negatively.

4. Sustainability Plan

We plan to continue using the book from OpenStax for the foreseeable future. We will update our courses to new editions of the text as they are published.

5. Future Plans

We will always consider the cost of learning materials for students in all the classes that we teach. This program has shown us that lowering costs for students is a worthwhile endeavor. We are currently awaiting approval of a minor in economics program, along with the courses that will support this program. The cost to students will factor into our decisions

6. Description of Photograph

(left-right) Dr. Nikki Finlay, instructor of record; Dr. Jesse Zinn, team leader and instructor of record.