



Textbook Transformation Grants, Round Twelve (Fall 2018-2019) Proposal Form and Narrative

Notes

- The proposal form and narrative .docx file is for offline drafting and review. Submitters must use the InfoReady Review online form for proposal submission.
- The only way to submit the official proposal is through the online form in Georgia Tech's InfoReady Review. The link to the online application is on the [Round 12 RFP Page](#).
- The italic text we provide is meant for clarifications and can be deleted.

Applicant, Team, and Sponsor Information

The **applicant** is the proposed Project Lead for the grant project. The **submitter** is the person submitting the application (which may be a Grants Officer or Administrator). The submitter will often be the applicant – if so, leave the submitter fields blank.

Institution(s)	Kennesaw State University
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Submitter Name	
Submitter Email	
Submitter Phone #	
Submitter Position	

Please provide the first/last names and email addresses of all team members within the proposed project. Include the applicant (Project Lead) in this list. Do not include prefixes or suffixes such as Ms., Dr., Ph.D., etc.

	Name	Email Address
Team Member 1	Tamara Powell	tpowel25@kennesaw.edu
Team Member 2		

	Name	Email Address
Team Member 3		
Team Member 4		
Team Member 5		
Team Member 6		
Team Member 7		
Team Member 8		

If you have any more team members to add, please enter their names and email addresses in the text box below.

Please provide the sponsor's name, title, department, and institution. The sponsor is the provider of your Letter of Support.

Kerwin Swint
 Interim Dean, College of Humanities and Social Sciences
 Kennesaw State University

Project Information and Impact Data

Title of Grant Project	<i>"No-Cost Instructional Materials for Social Statistics"</i>
Type of Grant	<i>No-or-Low-Cost-to-Students Learning Materials</i>
Requested Amount of Funding	\$10,800
Course Names and Course Numbers	SOCI 3303: Statistics for Sociology
Final Semester of Project	Fall 2019
Average Number of Students Per Course Section Affected by Project	30 (at KSU only; numerous social science departments in USG institutions offer similar courses that would find the materials useful and will

	hopefully adopt them; adoption at more institutions would greatly increase this figure)
Average Number of Sections Affected by Project in One Academic Year	1 (at KSU only; numerous social science departments in USG institutions offer similar courses that would find the materials useful and will hopefully adopt them; adoption at more institutions would greatly increase this figure)
Total Number of Students Affected by Project in One Academic Year	30 (at KSU only; numerous social science departments in USG institutions offer similar courses that would find the materials useful and will hopefully adopt them; adoption at more institutions would greatly increase this figure)
Average Number of Students Affected per Summer Semester	0 (at KSU only; numerous social science departments in USG institutions offer similar courses that would find the materials useful and will hopefully adopt them; adoption at more institutions would greatly increase this figure)
Average Number of Students Affected per Fall Semester	30 (at KSU only; numerous social science departments in USG institutions offer similar courses that would find the materials useful and will hopefully adopt them; adoption at more institutions would greatly increase this figure)
Average Number of Students Affected per Spring Semester	0 (at KSU only; numerous social science departments in USG institutions offer similar courses that would find the materials useful and will hopefully adopt them; adoption at more institutions would greatly increase this figure)
Title/Author of Original Required Materials	<i>The Essentials of Statistics: A Tool for Social Research</i> by Joseph Healey <i>How to Use SPSS</i> by Brian Cronk
Original Total Cost Per Student	\$228
Post-Project Cost Per Student	\$0
Post-Project Savings Per Student	\$228
Projected Total Annual Student Savings Per Academic Year	\$6840 (at KSU only; numerous social science departments in USG institutions offer similar courses that would find the materials useful and will

	hopefully adopt them; adoption at more institutions would greatly increase this figure)
Using OpenStax Textbook?	Yes

Narrative Section

1. Project Goals

The proposed project endeavors to produce no-cost, high-quality, and interactive educational resources for the SOCI 3303: Statistics for Sociology course at Kennesaw State University and courses in social statistics offered by most social science departments across the University System of Georgia.

In order to achieve this goal, we will perform the following pedagogical transformations:

- Create educational resources that satisfy faculty requirements for coverage and accuracy of substantive information;
- Create educational resources that satisfy student requirements for accessibility and understanding of substantive information;
- Create educational resources that apply substantive material to real-world data and situations;
- Make all substantive and applied educational resources readily available for adoption and use; and
- Encourage the adoption of the substantive and applied resources in face-to-face, hybrid, and fully-online versions of social statistics courses at Kennesaw State University and other USG institutions.

Social science students often struggle with statistics. Providing no-cost, high-quality, and interactive resources will improve learning and retention in these courses and social science degrees in general, ultimately leading to improved graduation rates. Therefore, once it is complete, this proposed project will improve student success, retention, progression, and graduation. And by doing so, students will be better positioned for the current and future

workforce. Employers continually say that they want candidates who can think critically and work with quantitative data. Indeed, jobs in data science and data analysis are increasing at a fast rate. Students who graduate with an understanding of social statistics will have these very desirable and highly marketable abilities and experiences.

2. Statement of Transformation

The American Sociological Association recommends that Bachelor's degrees in Sociology require instruction on social statistics.¹ (The ASA also recommends instruction in theory and research methods.) Because of this recommendation, most (78%) Sociology departments around the country require a course in social statistics.² Until recently, KSU's Sociology program did not require or even offer a separate course on social statistics. But starting with the 2017-2018 academic year, KSU's sociology program now regularly offers a course on social statistics. Countrywide, social statistics courses in Sociology departments share very similar topics and structures. The courses usually start with basic univariate descriptive statistics; for example, they cover the requirements of data, levels of measurement, measures of central tendency, measures of spread and dispersion, and the normal curve. Courses usually follow that section with material on introductory inferential statistics, including information on the empirical rule, the Central Limit Theorem, confidence intervals, one-sample hypothesis tests, and t-tests of the differences between means and proportions. Courses conclude with material on bivariate and multivariate inferential statistics, covering the techniques of cross-tabulation, analysis of variance, correlation, and regression. KSU's equivalent course – SOCI 3303: Statistics for Sociology – follows the same structure and content coverage.

Current Textbooks

With regards to course materials, SOCI 3303 at KSU and similar courses in Sociology departments³ and other social science departments⁴ in the University System of Georgia require an expensive textbook. Some of the most frequently assigned textbooks are: *Statistics: A Tool for Social Research* by Healey (Cengage, \$199); *The Essential of Statistics: A Tool for*

¹ <http://www.asanet.org/sites/default/files/asa-booklet-2017.pdf>

² <http://www.asanet.org/sites/default/files/asa-booklet-2017.pdf>

³ Examples of similar social statistics courses offered in Sociology departments around the state include SOCI 3002 at Augusta University; SOCI 3010 at Georgia State University, and SOCI 4003 at University of West Georgia.

⁴ Examples of similar social statistics courses offered in social science departments around the state include CRIM 4003: Statistics for Social Sciences at University of West Georgia; CRJU 3002: Research Methods and Statistical Analysis in Criminal Justice at University of North Georgia; CRJU 3107: Statistics for Criminal Justice and Sociology at Columbus State University; CRJU 3234: Justice Studies Research Methods at Georgia Southern University; CRJU 3610: Statistical Analysis in Criminal Justice at Georgia State University; PMAP 4041: Policy Data Analysis at Georgia State University; PSYC 2003: Statistics in Psychology at University of West Georgia; PSYC 2020: Psychological Statistics at Georgia Tech; PSYC 2231: Psychological Statistics at Georgia Southern University; PSYC 3070K: Quantitative Methods at University of North Georgia; PSYC 3211/3212: Research Methods and Data Analysis I/II at Columbus State University; PSYC 3510: Introduction to Research Design and Data Analysis at Georgia State University; and PSYC 3530: Advanced Research Design and Data Analysis at Georgia State University.

Social Research by Healey (Cengage, \$169); *Social Statistics for a Diverse Society* by Frankfort-Nachmias and Leon-Guerrero (Sage, \$122); *Essentials of Social Statistics for a Diverse Society* by Leon-Guerrero and Frankfort-Nachmias (Sage, \$122); *Statistics: The Art and Science of Learning from Data* by Agresti, Franklin, and Klingenberg (Pearson, \$224); *Fundamental Statistics for the Social and Behavioral Sciences* by Tokunaga (Sage, \$100); *Statistics for People Who (Think They) Hate Statistics* by Salkind (Sage, \$87); and *Statistics for the Behavioral and Social Sciences: A Brief Course* by Aron, Coups, and Aron (Pearson, \$120).

In addition to statistics textbooks, many social science courses also assign a book on SPSS (“Statistical Package for the Social Sciences,” which is IBM data analysis software used most frequently in the social sciences). Because sociology graduates often work in social research fields where they design research projects, collect data, analyze data, write reports, and propose policy recommendations, courses on social statistics include extensive instruction on SPSS and the analysis of real-world data. These SPSS manuals are an additional cost to students. Some of the more popular manuals are the *SPSS Survival Manual* (\$47, Open University Press); *How to Use SPSS* (\$49, Routledge); and *IBM Statistics Step by Step* (\$57, Routledge). There is a free SPSS manual on the Social Science Research and Instructional Center’s website⁵, but the coverage and structure are limited and mismatched for social science courses. Not only does this free text not map onto the schedule for a 14- or 15-week full-term semester, it skips some important topics (for example, one-sample hypothesis tests and dummy variables) and pays scant attention to others (for example, confidence intervals and two-way analysis of variance). The very short length of each chapter (between 5 and 18 pages, with a mean chapter length of almost 11 pages) focuses mostly on the simple generation of results and limits any discussion of application and interpretation. For these reasons it is rarely used by instructors.

KSU’s SOCI 3303 currently requires *The Essentials of Statistics: A Tool for Social Research*, which lists on Amazon for \$150 to buy outright. On the website for KSU’s bookstore, the price is \$158 for a new book and \$118 for a used book. KSU bookstore’s listed price for *How to Use SPSS* is \$70 for a new book and \$52 for a used book. Students who purchase both of these texts new from the KSU bookstore would spend \$228. They would save only \$58 by purchasing both copies used, which would cost a total of \$170. Clearly there is a need for no-cost instructional materials on social statistics and SPSS that fit easily into semester-long social statistics courses.

Therefore, this proposed project will produce and/or identify no-cost, high-quality, and interactional educational resources to replace those expensive textbooks and will produce supplementary and coordinated textual material to augment any OERs. This proposed project will also produce no-cost, high-quality, and interactional educational resources to replace texts on using SPSS. Thus, both the substantive and applied requirements for a social statistics course will be provided for by this project.

Creating New Text Content

There are several Open Educational Resources (OER) on statistics, but only three have some (very limited) applicability to courses on social statistics. (For example, three of the OERs that

⁵ <https://ssric.org/node/686>

are not appropriate for a social statistics course are *Combinatorics Through Guided Discovery*⁶ and *Think Bayes: Bayesian Statistics in Python*⁷ which are designed for mathematics courses and *Think Stats: Probability and Statistics for Programmers*⁸ which is designed for computer science students.) The OERs that have been considered for this project are *Introductory Statistics*⁹ from OpenStax College, *Statistics*¹⁰ from OpenIntro, and *Online Stats Book*¹¹ by David Lane. The latter two from OpenIntro and David Lane have coverage issues and organizational problems that make them poor fits for a social statistics course. The most promising OER for a social statistics course is OpenStax's *Introductory Statistics* – as its summary says, the text “follows scope and sequence requirements of a one-semester introduction to statistics course and is geared toward students majoring in fields other than math or engineering.”¹² However, there are numerous topics in *Introductory Statistics* that are not usually covered in undergraduate-level social statistics courses (for example, the poisson and hypergeometric distributions, the Central Limit Theorem for sums, and manual identification of outliers). In addition, there is much more emphasis placed on hand-calculations and a lack of examples from the social sciences. (Computational examples use data on dice rolls, lap times, pinkie length, cookie recipes, women's heights, fuel efficiency, and textbook cost.) Furthermore, the text spends a disappointingly small amount of attention to definitions, descriptions, and explanations. The bulk of the text is devoted to long lists of practice problems, over 100 for each chapter. In conclusion, even the best OER on statistics has major issues and would be a challenging fit for social statistics courses. It could not be used as a stand-alone resource for instructors or students. Therefore, this proposed project will focus on filling the gap in social statistics OERs by creating and identifying no-cost, high-quality educational resources to be used with the OER text so that social science students will receive appropriate and useful instruction in social statistics.

The project lead, Dr. Baunach, has previously authored a workbook for social statistics courses (*Social Statistics: The Workbook*, Kendall Hunt, \$48 for the paper-version) and used that workbook in her social statistics courses at Georgia State University. (Dr. Baunach was a faculty member in the Department of Sociology at Georgia State University from 1996 to 2016. She joined the Department of Sociology and Criminal Justice at Kennesaw State University in 2016.) While at GSU, Dr. Baunach taught multiple sections of SOCI 3010: Social Statistics every year, requiring students to purchase her workbook (for which she received no royalties) and Healey's *The Essentials of Statistics* textbook. Previously, Dr. Baunach had authored two editions of the study guide for Healey's *The Essentials of Statistics* and had authored the online quizzes and PowerPoint sets for several different social statistics and social research methods textbooks. This project will take those materials and use Dr. Baunach's statistical expertise to produce no-cost content that contains elements of the workbook (which focused on examples and

⁶ <https://open.umn.edu/opentextbooks/BookDetail.aspx?bookId=182>

⁷ <https://greenteapress.com/wp/think-bayes/>

⁸ <http://greenteapress.com/thinkstats/index.html>

⁹ <https://openstax.org/details/introductory-statistics>

¹⁰ <https://www.openintro.org/stat/textbook.php>

¹¹ <http://onlinestatbook.com/2/index.html>

¹² <https://openstax.org/details/introductory-statistics>

applications) and adds other theoretical and background information and material. Although Dr. Baunach owns the copyright to *Social Statistics: The Workbook*, the material created for this project will be new and updated. The new text content created for this proposed project will be designed to enforce and extend the information in the OER resources described in the previous paragraph. In addition to text, it will include video, multimedia, and interactive activities to support and reinforce the learning.

Creating New Multimedia Content

Dr. Baunach also developed the online SOCI 3303 course for KSU. For that course she created over 50 instructional videos, covering statistical information, practice problems, and SPSS applications. As a part of this proposed transformation project, these videos will be updated and improved with the assistance of Dr. Powell, the instructional designer for this project. The project will result in at least as many instructional videos, possibly more.

Additional multimedia content will also be created in order to engage students and improve learning. This additional content will include interactive quizzes, puzzles, games, etc. Social statistics texts provided by the big publishers do not provide these kinds of activities and applications. Thus the materials created for this project will exceed what is currently available to instructors.

Publishing the New Textbook and Multimedia Content

With the assistance of Dr. Powell, the instructional designer for this project, all created text materials will have a printable PDF version and a SoftChalk version. All materials will be made accessible, using closed-captioning and other appropriate accessibility services. All produced materials will be uploaded to and hosted on the GALILEO Open Learning Materials website; thus making them freely available to everyone.

Using and Evaluating the New Textbook and Multimedia Content

The new materials will be piloted in the SOCI 3303 course in Fall 2019. Students will be able to access all of the materials through D2L Brightspace. Because Dr. Baunach is the only instructor teaching SOCI 3303 at KSU, comparisons of student success across sections before adoption of the new materials and after adoption of the new materials will be possible and appropriate. Students' course grades, assignment grades, withdrawal rates, completion rates, and satisfaction rates will be compared. Students will also complete a survey of their satisfaction with the text and multimedia content materials.

Benefits to Students

Students will benefit from this proposed project in multiple ways: (1) students will be more likely to obtain the new materials; (2) students will be more likely to read, view, and complete the new materials; (3) students will have greater success rates in the course; and (4) students will have greater satisfaction with the course.

The high cost of instructional materials is a big challenge for students and their families. Students frequently refrain from purchasing assigned textbooks because of expense. In fact, according to Affordable Learning Georgia, the cost of textbooks has risen over 1000 percent

since 1977, a rate of increase more than triple that of general inflation.¹³ The College Board estimated that students at public four-year in-state schools – that is, students very similar to KSU and other USG students – spent an average of \$1,250 on books and supplies in 2017-2018, representing approximately 5 percent of the total cost of attending the undergraduate institution that year (inclusive of tuition and fees, room and board, transportation, and other expenses).¹⁴ As the Federal Reserve System has noted, student debt tripled from \$340 billion to over \$1.3 billion between 2001 and 2016; although the primary driver of this increase is tuition, students also take on debt to afford other associated costs like textbooks.¹⁵ Beyond individual effects on mental and physical health,¹⁶ the ramifications of the increase in student debt are societal-wide, including curtailed access to other credit and reductions in household formation.¹⁷ Therefore, the high cost of textbooks is more than an individual issue, it is a societal problem.

A 2011 report on textbook cost concluded that open textbooks could reduce student spending on textbooks by 80 percent.¹⁸ More specifically, this proposed project would save each SOCI 3303 student at KSU \$228. For an entire semester, with 30 registered students in SOCI 3303, the total savings would be \$6,840. If social statistics courses at universities around Georgia replace costly textbooks with the no-cost materials to be produced by this proposed project, the saving could be much, much higher. According to the Board of Regents degrees conferred report, a total of 655 Bachelor's degrees in Sociology were awarded in FY 2018.¹⁹ If even half of those students had no-cost texts for their social statistics courses, the savings could exceed \$74,000!

Because the materials produced for this proposed project will be no-cost, it is reasonable to assume that students will be more likely to purchase them and then read them. And because engagement and interactivity will be a prime concern in the creation of the materials, it is reasonable to assume that students will be more likely to read them and retain their information. Given that other Affordable Learning Georgia grantees have found that student learning outcomes improved for half of the project teams,²⁰ it is reasonable to assume that student success will increase. With the reduction in cost and the increase in student success, it is reasonable to assume that DFWI rates will decrease and RPG rates will increase. As stated previously, most sociology students struggle with their statistics courses; many students put off the course until the end of their collegiate careers because they dread and fear the course. Improving the quality and delivery of the instructional materials will encourage students to take

¹³ https://affordablelearninggeorgia.org/documents/JG_USGTL_ALG_101.pptx

¹⁴ <https://trends.collegeboard.org/college-pricing/figures-tables/average-estimated-undergraduate-budgets-2017-18>

¹⁵ <https://www.federalreserve.gov/econres/notes/feds-notes/student-loan-debt-and-aggregate-consumption-growth-20180221.htm>

¹⁶ <https://www.sciencedirect.com/science/article/pii/S0277953613002839?via%3Dihub>

¹⁷ <https://www.federalreserve.gov/econres/notes/feds-notes/student-loan-debt-and-aggregate-consumption-growth-20180221.htm>

¹⁸ https://www.affordablelearninggeorgia.org/documents/Report_On_Textbook_Costs_And_Trends_-_January_2011.pdf

¹⁹ https://www.usg.edu/assets/research/documents/deg_conferred/srpt602_p_rpa_fy2018.pdf

²⁰ https://affordablelearninggeorgia.org/documents/JG_USGTL_ALG_101.pptx

the social statistics course earlier in their collegiate careers and refrain from delaying the degree completion. Finally, taking all pieces to this equation of increased purchase, increased reading/viewership, increased retention of information, increased success, decreased DFWI rates, and increased RPG rates, it is reasonable to assume that students will report increased satisfaction with and a better perception of the course and its materials.

Benefits to Faculty

Faculty will benefit from this proposed project by having access to high-quality instructional materials that can easily be incorporated in web-based Learning Management Systems like D2L Brightspace. Currently, many of the published textbooks on social statistics have very limited supplemental resources. Most publishers will provide PowerPoint sets and an instructor's manual, but very little else. This proposed project will meet the demands and needs of social statistics instructors by providing numerous multimedia materials that will engage students and increase learning. Faculty wishing to expand their supplementary offerings or use a flipped-classroom model will also benefit from the materials produced for the proposed project.

Faculty will be able to adopt instructional materials that they know will not change with the production schedule whims of publishers. The content of social statistics textbooks changes very, very little from edition to edition, but the relatively unchanging nature of the material does not stop publishers from producing new editions every two to three years. Faculty will no longer have to worry about these changing editions.

Faculty will benefit from the set of "instructor's resources" that will be produced by the proposed project. These useful resources will include sample syllabi, assignments, schedules, documents, etc. These resources will be designed according to research-based best practices for distance learning. Both project team members have been trained in Quality Matters standards, and both have designed online courses that have met and been approved by Quality Matters.²¹ Indeed, the instructional designer for this project, Dr. Tamara Powell, is currently the Interim Executive Director for Technology Enhanced Learning, a Provost's Office level appointment. There is no one at KSU who is more knowledgeable and accomplished regarding distance learning.

Benefits to Departments

Although KSU's Sociology program only offers one section of SOCI 3303 each academic year, other USG institutions offer multiple sections every semester. Many of these departments struggle to offer enough sections. Although not a system in the USG, Emory University's Department of Sociology reluctantly permits its sociology majors to take a statistics course outside the department (QTM 100), even though the course is directed at students in the hard sciences and fails to meet the unique needs and demands of social science students. (For additional arguments against instruction housed in non-Sociology courses, please see the American Sociological Association's *The Sociology Major in the Changing Landscape of Higher Education*, 2017.²²) Thus, sociology departments struggle to offer enough seats of social

²¹ <https://www.qualitymatters.org>

²² <http://www.asanet.org/sites/default/files/asa-booklet-2017.pdf>

statistics and face a challenge in finding faculty willing to regularly teach a work-intensive course that students dread.

These challenges are multiplied in the distance learning environment. The start-up costs for an online social statistics course are enormous. For example, when the lead member of the current team created online course materials, over 50 original short videos were necessitated to cover all of the required topics. By making no-cost, high-quality instructional materials ready for the online learning environment readily available, departments will find it easier to find faculty to staff courses and will be better able to schedule sufficient sections of the course to guarantee students' retention, progression, and graduation.

3. Transformation Action Plan

The transformation action plan will proceed in multiple phases, which are described below.

Phase 1: Organization and Planning

Phase 1 will begin by identifying available no- and low-cost materials for social science courses. These materials will be evaluated to determine their utility. For example, resources on the MERLOT²³ website will be investigated. Phase 1 will continue by developing a list of topic areas and associated materials that will need to be created.

Phase 2: Content Creation

Phase 2 will focus on the development of the new materials, including textual materials and multimedia materials. Text material will be written and transformed to PDF and SoftChalk formats. Videos and other multimedia content will be designed, created, and (for videos) recorded. All content will be made fully accessible through closed captioning and other methods. All content will be created under a Creative Commons Attribution License.

Phase 3: Publication

Phase 3 will ensure that all new materials are uploaded to and accessible through the GALILEO Open Learning Materials website. Instructor's Resources will be published in a separate area so that it is available to faculty members only.

Phase 4: Implementation

Phase 4 will see the new materials implemented in the Fall 2019 semester.

Phase 5: Evaluation

Phase 5 will ensure that all evaluation data – including grades, DFWI rates, completion rates, etc. – are collected and analyzed. The final report will also be written and submitted to the granting agency.

²³ <https://www.merlot.org/merlot/index.htm>

Phase 6: Revision and Update

Phase 6 will edit and improve the transformed materials, as needed, which will continue annually while the materials are in use.

4. Quantitative and Qualitative Measures

This transformation process will be evaluated using the following metrics: (1) students' textbook use rates; (2) students' success rates; (3) course retention rates; and (4) students' reported satisfaction. Please note that all necessary IRB approval will be sought and received prior to any data collection.

Textbook Use

KSU's SOCI 3303 currently requires *The Essentials of Statistics: A Tool for Social Research*, which lists for \$158 on the bookstore's website (\$118 for a used copy). *How to Use SPSS* lists for \$70 on the bookstore's website (\$52 for a used copy). Students will be surveyed during the Fall 2018 semester to determine how many students purchased the textbooks; the Fall 2018 semester will serve as a pre-test. The materials to be produced for this proposed project will be implemented with the Fall 2019 semester. Students taking SOCI 3303 that semester will also be surveyed to determine (a) how many purchased the textbooks and (b) how many accessed the no-cost materials. These data will be compared across the two semesters to determine if the no-cost materials increase textbook usage.

In order to implement the survey for the SOCI 3303, which is an online course at KSU, the Surveys feature of D2L Brightspace will be utilized. Currently, SOCI 3303 uses the Surveys feature to administer two optional surveys: an "Early Feedback Survey" and a "Final Feedback Survey." The "Early Feedback Survey" is distributed about one month into the start of the semester and asks students three questions: (1) What is not working in this course; (2) What has worked well in other courses that you think could be implemented in this course; and (3) What is working well in this course. The "Final Feedback Survey" is distributed during the final two weeks of the semester and asks students 12 questions, including the same three questions from the "Early Feedback Survey" and then nine additional questions addressing student usage of special multimedia features of the course: "Module Intro" videos, "Module Wrap-Up" videos, and "Mini-Lecture" videos. Students are asked if they ever watched any of the videos, found any of the videos useful, or if they ever re-watched any of them. Because there is already an expectation of check-in and assessment in the course, adding a third short survey will be straightforward and not burdensome to the students. The new survey will explain that the survey is being used as part of an Affordable Learning Georgia textbook transformation grant (if approved and received). Students will then be asked to answer the following questions: (1) Did you purchase Healey's *The Essentials of Statistics* textbook (asked Fall 2018 and Fall 2019); (2) Did you purchase Cronk's *How to Use SPSS* (asked Fall 2018 and Fall 2019); and (3) Did you access the OpenStax *Statistics* textbook (asked Fall 2019 only). As with the feedback surveys, the textbook survey will be anonymous and optional. (It will not be graded.) All necessary IRB approval will be sought and

received prior to any data collection. Survey responses will be analyzed using tests of differences for means and proportions. (Which are also statistical techniques taught in the course.)

Student Success

Once again, the Fall 2018 semester will be used as a pre-test. Averages for individual assignment grades and final course grades will be collected and retained. The same data will be collected for the Fall 2019 semester, after the availability of the new materials. These data will be compared across the two semesters to assess the impact of the transformed materials.

KSU's SOCI 3303 has numerous graded assignments: 13 module quizzes, one midterm exam, one final exam, and 12 SPSS assignments, which comprise a majority of a student's final course grade. (There are also Discussion Board assignments.) In summary, there are 28 grades that will be collected and statistically compared across the two semesters, Fall 2018 and Fall 2019. As above, all necessary IRB approval will be sought and received prior to any data retention and analysis. Grades will be analyzed using tests of differences for means.

Course Retention

DFWI rates will be collected for both the Fall 2018 and Fall 2019 semesters. These data will be compared to assess the impact of the transformed materials. The proportion of students earning each one of these types of grades (D's, F's, W's, and I's individually) and the total proportion of students any of these types of grades (DFWI's collectively) will be analyzed using tests of differences for proportions. Any necessary IRB approval will be sought and received prior to any data retention and analysis.

Student Satisfaction

After receiving IRB approval, we will survey the students in KSU's SOCI 3303 in both the Fall 2018 and Fall 2019 semesters. The survey will be administered through D2L Brightspace. Survey questions will address the ease, accessibility, and helpfulness of the high-cost Healey textbook and the new no-cost OpenStax *Statistics* textbook and other material to be produced by the proposed project. In addition to closed-ended questions on student satisfaction, open-ended questions will elicit more detailed, qualitative feedback.

Because we will have data for 2018 (before implementation of the new materials) and 2019 (after implementation of the new materials), we will be able to compare changes in satisfaction with the course and instructional materials. The initial 2018 data may also influence the content and delivery of the materials to be produced by the proposed project. For example, if 2018 students note that multimedia explanations are much more helpful than textual material, the team will keep that feedback in mind while producing the new materials.

As described above, the Surveys feature of D2L Brightspace will be used to survey the students in both semesters, and IRB approval will be sought and received prior to any data collection and analysis. Possible survey questions include, but are not limited to:

- I found Healey's *The Essentials of Statistics* textbook: very easy to understand, somewhat easy to understand, somewhat difficult to understand, very difficult to understand (asked Fall 2018 and Fall 2019)

- I found Healey's *The Essentials of Statistics* textbook: very easy to purchase, somewhat easy to purchase, somewhat difficult to purchase, very difficult to purchase (asked Fall 2018 and Fall 2019)
- I found the material in Healey's *The Essentials of Statistics* textbook: very applicable to my studies, somewhat applicable to my studies, somewhat inapplicable to my studies, very inapplicable to my studies (asked Fall 2018 and Fall 2019)
- I found Healey's *The Essentials of Statistics* textbook: very helpful in learning the material, somewhat helpful in learning the material, somewhat unhelpful in learning the material, very unhelpful in learning the material (asked Fall 2018 and Fall 2019)
- I found Cronk's *How to Use SPSS* book: very easy to understand, somewhat easy to understand, somewhat difficult to understand, very difficult to understand (asked Fall 2018 and Fall 2019)
- I found Cronk's *How to Use SPSS* book: very easy to purchase, somewhat easy to purchase, somewhat difficult to purchase, very difficult to purchase (asked Fall 2018 and Fall 2019)
- I found the material in Cronk's *How to Use SPSS* book: very applicable to my studies, somewhat applicable to my studies, somewhat inapplicable to my studies, very inapplicable to my studies (asked Fall 2018 and Fall 2019)
- I found Cronk's *How to Use SPSS* book: very helpful in learning the material, somewhat helpful in learning the material, somewhat unhelpful in learning the material, very unhelpful in learning the material (asked Fall 2018 and Fall 2019)
- I found the OpenStax *Statistics* textbook: very easy to understand, somewhat easy to understand, somewhat difficult to understand, very difficult to understand (asked Fall 2019 only)
- I found the OpenStax *Statistics* textbook: very easy to purchase, somewhat easy to purchase, somewhat difficult to purchase, very difficult to purchase (asked Fall 2019 only)
- I found the material in the OpenStax *Statistics* textbook: very applicable to my studies, somewhat applicable to my studies, somewhat inapplicable to my studies, very inapplicable to my studies (asked Fall 2019 only)
- I found the OpenStax *Statistics* textbook: very helpful in learning the material, somewhat helpful in learning the material, somewhat unhelpful in learning the material, very unhelpful in learning the material (asked Fall 2019 only)

Depending on each survey question's design, be it closed- or open-ended, different statistical techniques will be used in the analysis. Closed-ended questions will be analyzed using cross-tabulation and tests of means/proportions differences. Open-ended questions will be analyzed using content analysis, where themes will be pulled from the responses and compared.

5. Timeline

The timeline for the proposed project is:

September 2018

- September 28: Notification of award
- Begin review of existing online materials for use and adaptability (Baunach)
- Design student satisfaction survey (Baunach)
- Obtain IRB approval for student satisfaction survey (Baunach)

October 2018

- October 29: Attend kick-off meeting (Baunach and Powell)
- Continue review of existing online materials for use and adaptability (Baunach)
- Decide on topics to be covered and their order for the textual content (Baunach)
- Decide on topics to be covered for the multimedia content (Baunach and Powell)
- Begin to write textbook material (Baunach)

November 2018

- Continue writing text material (Baunach)
- Begin to design multimedia content (Baunach and Powell)

December 2018

- Continue writing text material (Baunach)
- Continue designing multimedia content (Baunach and Powell)
- Begin to create multimedia content (Baunach and Powell)
- Administer student satisfaction survey to Fall 2018 section of SOCI 3303 (Baunach)
- Collect data on textbook use, student success, and course retention data for Fall 2018 section of SOCI 3303 (Baunach)
- Write and submit end-of-semester project status report (Baunach and Powell)

January 2019

- Continue writing text material (Baunach)
- Continue designing and creating multimedia content, including SoftChalk files (Baunach and Powell)
- Identify and address accessibility requirements, including closed captioning (Baunach and Powell)

February 2019

- Continue writing text material (Baunach)
- Continue designing and creating multimedia content (Baunach and Powell)
- Continue identifying and addressing accessibility requirements (Baunach and Powell)

March 2019

- Continue writing text material (Baunach)
- Continue designing and creating multimedia content (Baunach and Powell)
- Continue identifying and addressing accessibility requirements (Baunach and Powell)

April 2019

- Begin creating instructors' materials, including syllabus, schedules, and example assignments (Baunach)
- Begin proofreading materials for grammar and spelling (Baunach and Powell)

May 2019

- Continue creating instructors' materials (Baunach)
- Continue proofreading materials for grammar and spelling (Baunach and Powell)
- Write and submit end-of-semester project status report (Baunach and Powell)

June 2019

- Continue creating instructors' materials (Baunach)
- Continue proofreading materials for grammar and spelling (Baunach and Powell)

July 2019

- Make all transformed materials available on GALILEO Open Learning Materials website (Powell)

August – December 2019

- Teach Fall 2019 section of SOCI 3303 (Baunach)

December 2019

- Administer student satisfaction survey to Fall 2019 section of SOCI 3303 (Baunach)
- Collect data on textbook use, student success, and course retention data for Fall 2019 section of SOCI 3303 (Baunach)
- Write and submit final project report, including information of student success impacts, changes in DFWI rates, and student performance (Baunach and Powell)

January 2020 and later

- Maintain and update files as needed (Baunach and Powell)

6. Budget

The budget for the proposed project is:

- Professional development funds for Baunach: \$5,000
- Professional development funds for Powell (instructional designer): \$5,000
- Travel to attend kick-off meeting: \$800
- Total: \$10,800

7. Sustainability Plan

The lead team member, Dr. Baunach, intends on offering at least one section of this course every year for the foreseeable future. Thus she will be reviewing and revisiting the text on at least an annual basis. This will allow her to identify any needed revisions. Should revisions be needed, it is relatively easy to revise an online text. The multimedia content can also be updated as needed. Furthermore, because the time-to-publication is virtually nonexistent for online texts, examples and data can be updated quickly and easily to make the material more engaging for students.