Round	14
Grant #	M91
Applicant Name	Michael J. Dancs
Applicant Position	Associate Professor of Mathematics
Applicant Institution	Clayton State University
Applicant Email Address	MichaelDancs@clayton.edu
Other Team Members	Catherine Matos, CatherineMatos@clayton.edu
Type of Project	Creation of ancillaries for pre-existing OER
Course Number(s) and Title(s)	Math1404: Introductory Statistics
Final Semester of the Project	Spring 2020
Proposed Grant Funding Amount:	\$4,000.00
Currently- Existing Resource(s) to be Revised / Ancillaries Created	Introductory Statistics (OpenStax): https://openstax.org/details/books/introductory- statistics WeBWorK: http://webwork.maa.org/
Project Description	 WeBWorK (http://webwork.maa.org) is a no-cost and open-source online homework system supported by the Mathematical Association of America and the National Science Foundation, currently used at hundreds of colleges and universities, including several USG institutions. WeBWorK is distributed with a large set of contributed problems (the Open Problem Library) and provides the means for instructors to edit existing problems and create completely new ones. Although the WeBWorK software is free to use, students sometimes struggle due to a lack of features available on commercial platforms, e.g.: guided solutions, similar examples, and personalized feedback. While WeBWorK does provide a framework for these features, individual problems must be specifically designed and written to leverage this functionality, and there are very few that currently do so. An issue particular to Introductory Statistics courses is the wide variety of technologies available to perform tedious computations; from traditional reference tables to scientific calculators to professional data analysis software. Final results often vary slightly depending on which technology is used, but many existing WeBWorK problems require a specific convention or technology to get the correct answer (often without explicit indication of what should be used). Instructors who

requisite technology will have difficulties using these problems.We propose to create a collection of enhanced Introductory Statistics problems and assignments to address the above deficiencies in the existing WeBWork library by both revising existing OPL problems and creating new exercises. Content will roughly follow Chapters 8 through 12 in the OpenStax Introductory Statistics text but should be usable across a wide variety of texts (or with no text at all). Specifically: 		prefer an alternate methodology or students who do not have access to the
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