This document provides institutional context and framing to aid external evaluators of my research portfolio. The important contextual features are

1. Boise State University's embrace of the Boyer model of scholarship.
2. Grouping of papers into 4 projects, each described relative to workload allocation.

1. Boyer Model

Boise State tenure and promotion policies endorse the Boyer model of scholarship, described in University Policy, section III.B.2, and in more detail in College Policy, beginning on page 9. For the purposes of this document, two of the four Boyer categories are most relevant:

Scholarship of Discovery and Creation. This is the traditional academic work product, resulting in new knowledge disseminated through peer reviewed journal articles or similar publications.

Scholarship of Teaching and Learning. Disciplinary expertise is applied to study and inform educational practice, typically but not necessarily resulting in peer reviewed publications.

Some of my work is also potentially classifiable in the Boyer category Scholarship of Application and Engagement, particularly as it has informed my long term efforts to effect institutional changes in teaching practices and culture.

2. Research Projects

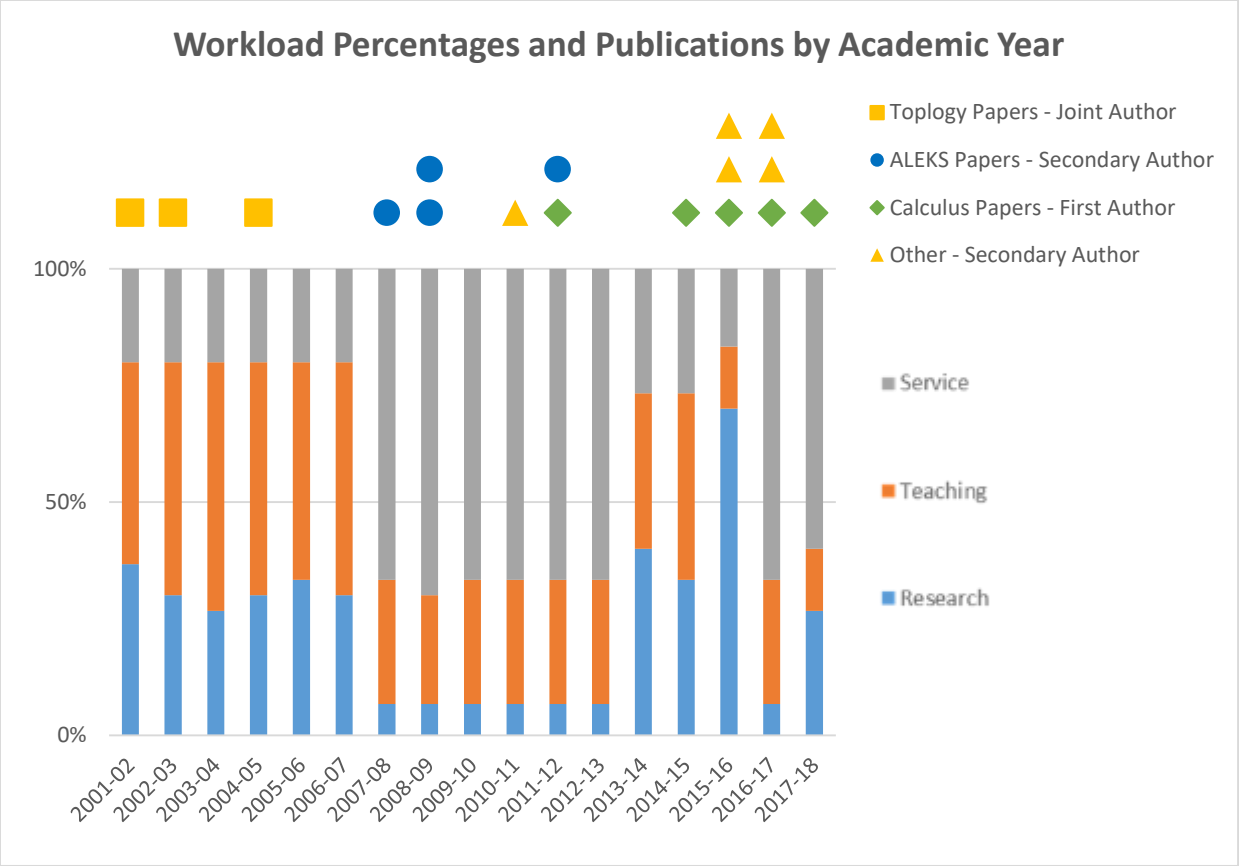
Papers from each project are grouped in the web archive. Relationship to workload is shown in the chart below.

Quantum Topology, 2001—2005. The tail end of the research program that I began in graduate school. All of the work is squarely within the first Boyer category – Discovery and Invention. In this phase of my career I had a typical teaching/service/research workload with 30-40% of time dedicated to research. In this area of mathematics, authorship is not arranged by first author, second author, etc. All contributors are considered equal contributors.

ALEKS Project, 2007—2012. A pedagogical and course design project incorporating the use of a computer learning system (ALEKS) into Calculus and Precalculus. Within the Boyer model this is primarily in the category of Teaching and Learning, but possibly Application and Engagement as well, particularly as the work informed changes to classroom practices and broader departmental and institutional culture. I was department chair, with less than 10% of time available for research. As a result, I am typically second or third author.

Calculus Project, 2011—. An ongoing effort to transform Calculus. Primarily scholarship of Teaching and Learning, but possibly Application and Engagement due to broader impacts on practices. I was the principle investigator and project leader, and I am first author on all of the important papers. For three years of the project I was able to devote considerable time to research, as I was between official administrative assignments.

Other Projects, 2003—. I have been continuously engaged in a series of student success and institutional transformation initiatives, mostly in an administrative or other leadership role. I have been a secondary author on a few papers that have come out of these initiatives.


Workload Percentages and Publications by Academic Year
Toplogy Papers - Joint Author
ALEKS Papers - Secondary Author
Calculus Papers - First Author
Other - Secondary Author
Service
Teaching
Research
100%
50%
0%
2001-02
2002-03
2003-04
2004-05
2005-06
2006-07
2007-08
2008-09
2009-10
2010-11
2011-12
2012-13
2013-14
2014-15
2015-16
2016-17
2017-18