Citation Analysis as Lens on Collections and Community

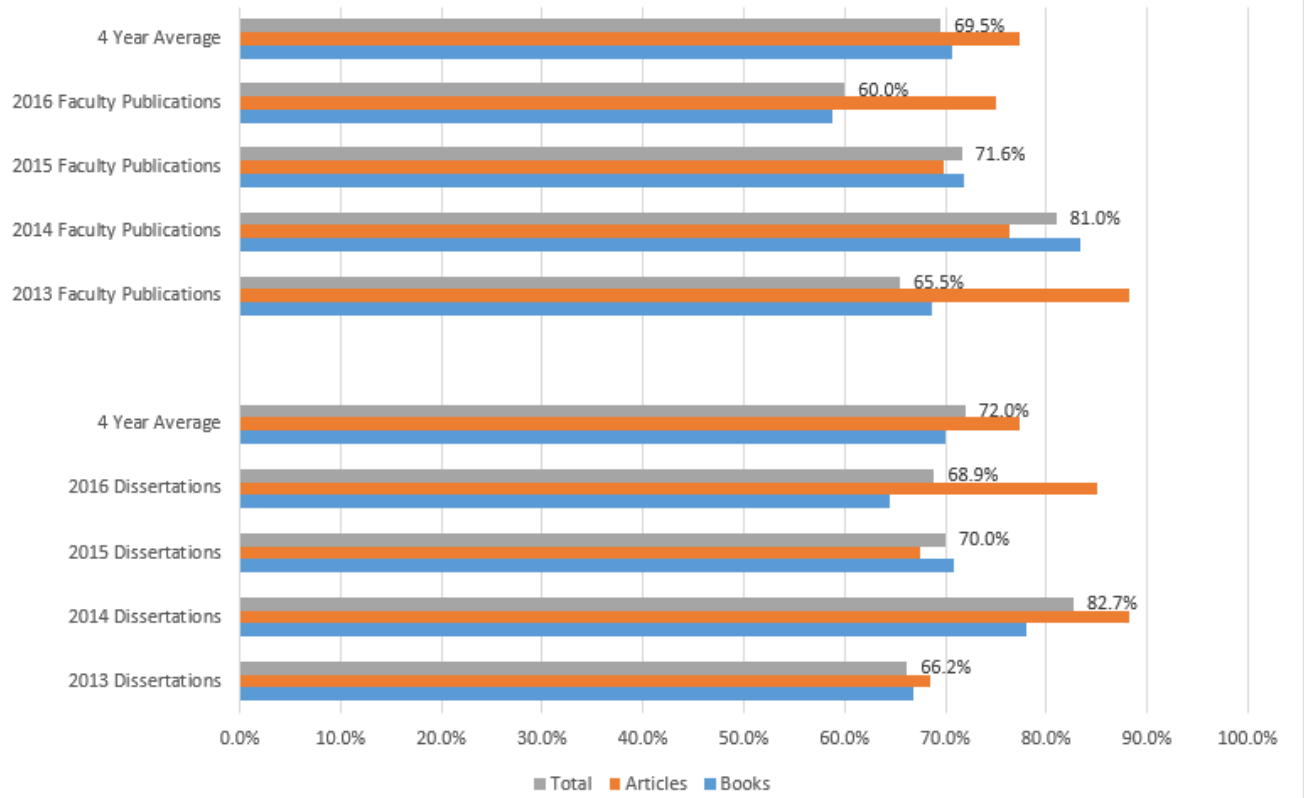A Summary Report of Library Assessment
2013-2016

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Relates to: Bicentennial Strategic Plan (Imp. 5, Obj. 5); 2016-2017 PTS Action Plan (Initiative 2; High Priority Items); Library Strategic Plan (Goal 1.1; 2.1; 2.2; 4.1).

Library mission statement: The Princeton Theological Seminary Library strengthens teaching, inspires learning, broadens access, fosters research, embraces change, and advances and preserves knowledge.

Artifacts/data: 4 years of Ph.D. and Faculty Publication citation analysis sampling (2013-2016)

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For four years, the Princeton Theological Seminary Library has undertaken an annual citation analysis project. In this work, the library examined the sources cited in a random sampling of faculty publications and doctoral dissertations published the preceding year. Citation analysis has provided the library with a unique lens on both the collection and the community, highlighting: 1) what types of sources faculty and doctoral students actually use in their published works; and 2) how many cited sources were available to researchers via the library's collections.

Citation analysis has pointed to some interesting patterns that the library has not been able to capture with other methodologies. Citation analysis confirms that the library's collections do indeed provide very high levels of support to the community's current research interests. Citation analysis has also uncovered a surprising lack of diversity in cited source types that points to the need for the library to increase promotion, access, and research skills training in locating sources beyond books and journals.

This report will illustrate the citation analysis process and provide and summarize findings from four years of data.

Citation Analysis Workflow

The library examined sources cited in a random sampling of **faculty publications** and **doctoral dissertations**.

Step 1   Gather Ph.D. Dissertations and Faculty Publications samples

Step 2   Scan or copy bibliographies into the worksheet

Step 3   Analyze citation by **source type** and **library holdings**

Step 4   Calculate totals and averages

Step 5   Compare across previous years' total and averages

What the Library Learned about Collection Support

Citation analysis confirms that the library's collections provide high levels of support to faculty and doctoral students' research interests.

Results indicate that the library provided direct access to 69.5% of books and journals cited by faculty publications, averaged over four years of publication.

Similarly, results indicate that the library provided direct access to 72.0% of books and journals cited by PTS doctoral dissertations, averaged over a four-year period.

These findings provide strong evidence that the library's collections are indeed supporting the current curricular needs and research agendas of PTS faculty and doctoral students.

Faculty Publication and Ph.D. Dissertations Citations Held by PTS Library

	Books	Articles	Total
2013 Dissertations	66.8%	68.5%	66.2%
2014 Dissertations	78.0%	88.2%	82.7%
2015 Dissertations	70.8%	67.4%	70.0%
2016 Dissertations	64.5%	85.1%	68.9%
4 Year Average	**70.0%**	**77.3%**	**72.0%**
2013 Faculty Publications	68.6%	88.3%	65.5%
2014 Faculty Publications	83.4%	76.3%	81.0%
2015 Faculty Publications	71.9%	69.8%	71.6%
2016 Faculty Publications	58.8%	75.0%	60.0%
4 Year Average	**70.7%**	**77.4%**	**69.5%**

What the Library Learned about Patron Resource Use Patterns

Citation analysis also uncovered a surprising lack of diversity on cited resource in both faculty publications and doctoral dissertations. The lack of diversity in cited resource types points to the need for the library to increase promotion, access, and research skills training in locating sources beyond books and journals.

Over a four-year period, faculty and doctoral students demonstrated an overwhelming preference for traditional resource types—books and journals. Faculty publications cited archives for only 1.3% of total sources; collected data for 0.1% of total sources; and all other resource types for 1.0% of total sources. Doctoral dissertations cited archives for only 1.7% of total sources; collected data for 0.00% of total sources; and all other resource types for 3.4% of total sources.

Of the combined totals for "all other resource types" in faculty publication and doctoral dissertations, the resource types below were most commonly cited.
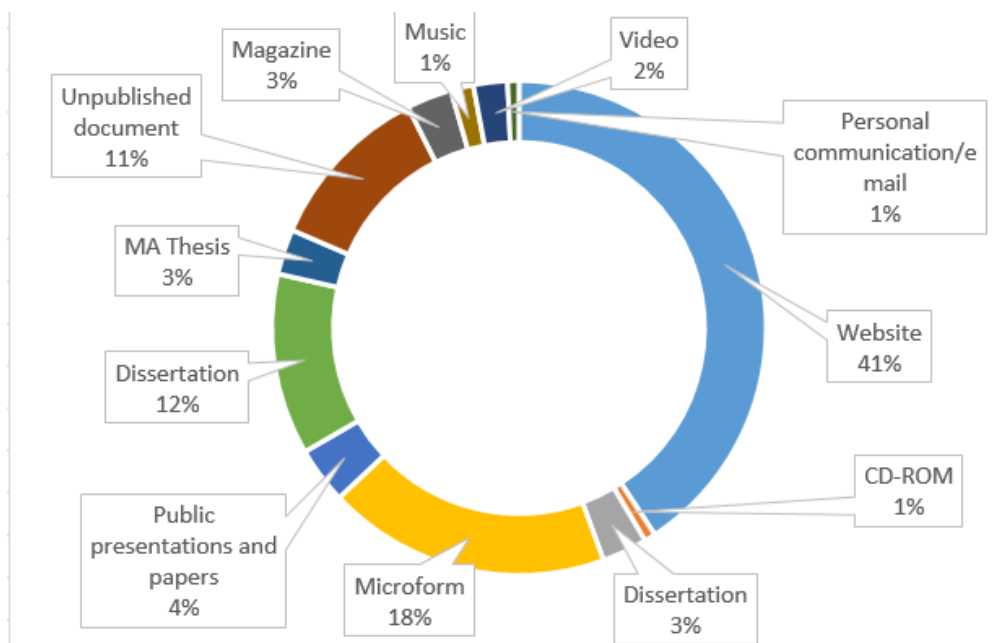
Citation Analysis Limitations

The value of this project for the library is that it provided unique and concrete evidence of how the library's collection is actually being used in by our faculty and doctoral students in publication and praxis.

While this four-year project provided some compelling evidence of library impact, citation analysis as a long-term metric has some limitations. First, because random samples of faculty

publications and doctoral dissertations are selected for analysis, the work is by design not comprehensive. Secondly, citation analysis is so time-consuming—from data gathering, source checking, and analysis—that it is not a sustainable long-term. However, as digital networks and big data network analysis tools develop in the future, it is anticipated that more comprehensive and efficient citation analysis approaches might be available in the next few years.