



TOOLS FOR DETERMINING EQUITABLE REPRESENTATION OF WOMEN IN LIS PUBLICATIONS

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OUTLINE

- Precedent Method & Method Analysis
 - Precedent Article
- Methods & Tools
 - EBSCOhost API
 - OpenRefine
 - R
- Obtaining Data
- Cleaning Data
- Predicting Gender
- Results
 - Gender & Authorship
 - Gender & Journals
- Next steps





PRECEDENT METHOD & METHOD ANALYSIS





PRECEDENT ARTICLE

- Teele, Dawn Langan and Kathleen Thelen. "Gender in the Journals: Publication Patterns in Political Science." *PS: Political Science & Politics*, 50, no. 2 (April 2017): 433-447.
 - Found underrepresentation of women authors in top political science journals (even accounting for the fewer women in the field)
 - 10 "top ranked" political science journals over a 15-year period



METHODS & TOOLS





TOOLS & USES



EBSCOhost Integration Toolkit

SearchService

[EBSCOhost Integration Toolkit](#)

-
- Get citation data:
 - from specific Journals,
 - for specific Year range,
 - quickly,
 - in a structured format



OpenRefine

A free, open source,
powerful tool for working
with messy data

[OpenRefine](#)

-
- Pull in structured data (XML),
 - clean it,
 - and parse into more useful format (tabular)



[R](#)

-
- Combine data from all pull requests
 - Run package to predict gender based on Author first name
 - Create new columns derived from data in other columns
 - Compile statistics/ analyze results





JOURNALS

- College and Research Libraries
- Information Technology and Libraries
- Journal of Academic Librarianship
- Journal of Documentation
- Library & Information Science Research
- Library Hi Tech
- Library Quarterly
- Library Resources and Technical Services
- Library Trends
- portal: Libraries and the Academy



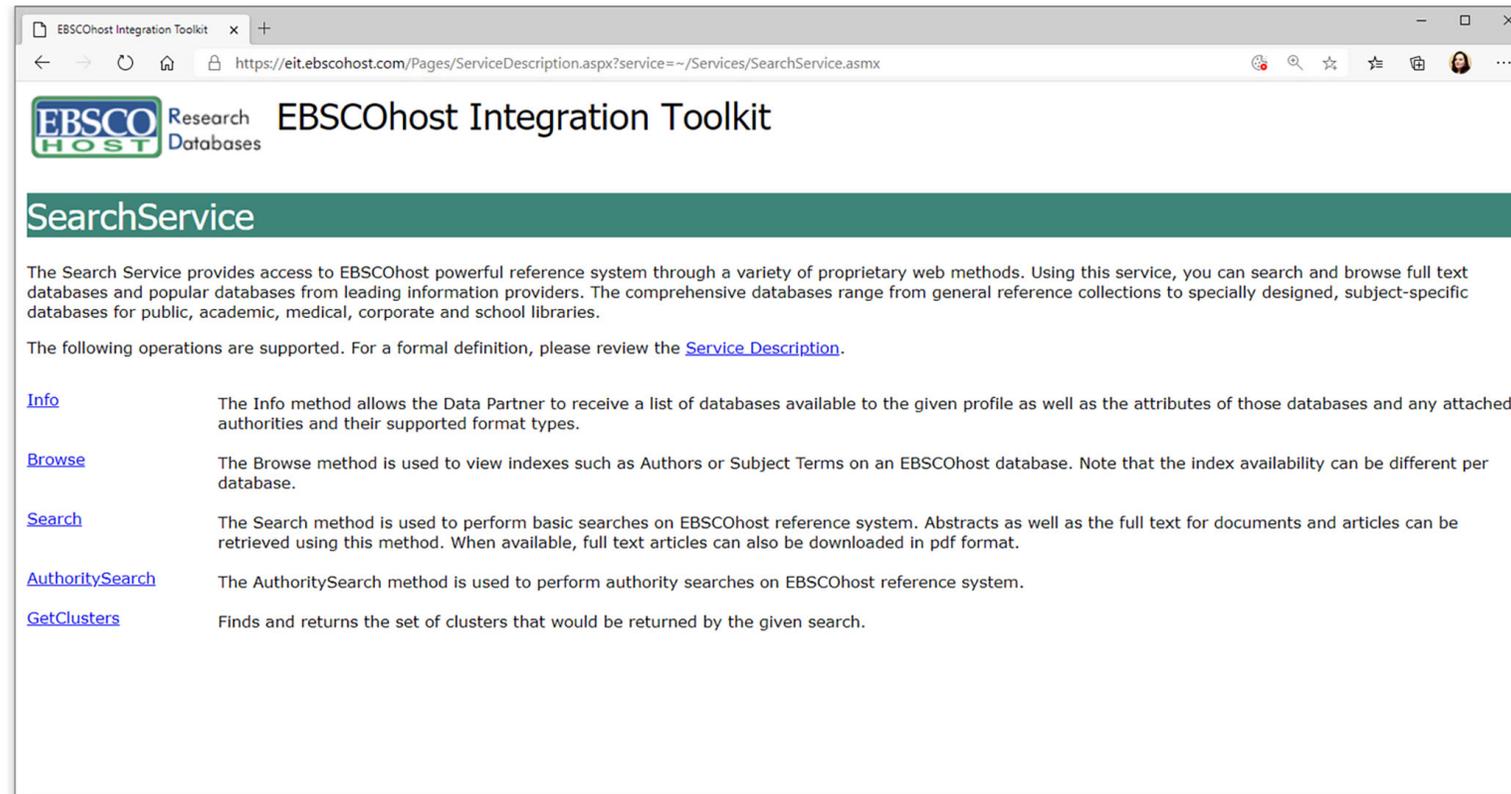


PRECEDENT METHOD & CURRENT METHOD: OBTAINING DATA

- Precedent Study
 - Obtained data using web scraping techniques
- Current Study
 - Obtained data using API



GETTING STARTED WITH THE API



The screenshot shows a web browser window with the title "EBSCOhost Integration Toolkit". The address bar displays the URL: <https://eit.ebscohost.com/Pages/ServiceDescription.aspx?service=~/Services/SearchService.asmx>. The page content includes the EBSCO Research Databases logo and the heading "SearchService". Below the heading, there is a paragraph describing the Search Service and a list of supported operations with their descriptions.

EBSCO Research Databases EBSCOhost Integration Toolkit

SearchService

The Search Service provides access to EBSCOhost powerful reference system through a variety of proprietary web methods. Using this service, you can search and browse full text databases and popular databases from leading information providers. The comprehensive databases range from general reference collections to specially designed, subject-specific databases for public, academic, medical, corporate and school libraries.

The following operations are supported. For a formal definition, please review the [Service Description](#).

- [Info](#) The Info method allows the Data Partner to receive a list of databases available to the given profile as well as the attributes of those databases and any attached authorities and their supported format types.
- [Browse](#) The Browse method is used to view indexes such as Authors or Subject Terms on an EBSCOhost database. Note that the index availability can be different per database.
- [Search](#) The Search method is used to perform basic searches on EBSCOhost reference system. Abstracts as well as the full text for documents and articles can be retrieved using this method. When available, full text articles can also be downloaded in pdf format.
- [AuthoritySearch](#) The AuthoritySearch method is used to perform authority searches on EBSCOhost reference system.
- [GetClusters](#) Finds and returns the set of clusters that would be returned by the given search.





SCHOLARLY ARTICLES

- In order to focus our study on scholarly articles, we removed:
 - Editorials
 - Reviews
 - Correction notices
 - Letters to the editor
 - Speeches
 - Table of Contents
- We went from over 9,000 articles down to about 6,000





PRECEDENT METHOD & CURRENT METHOD: PREDICTING 'GENDER'

- Precedent Study
 - Predicted gender using Python's 'genderize' package using 'Social Media accounts'
- Current Study
 - Predicted gender using R's 'gender' package ssa method – data from Social Security Administration

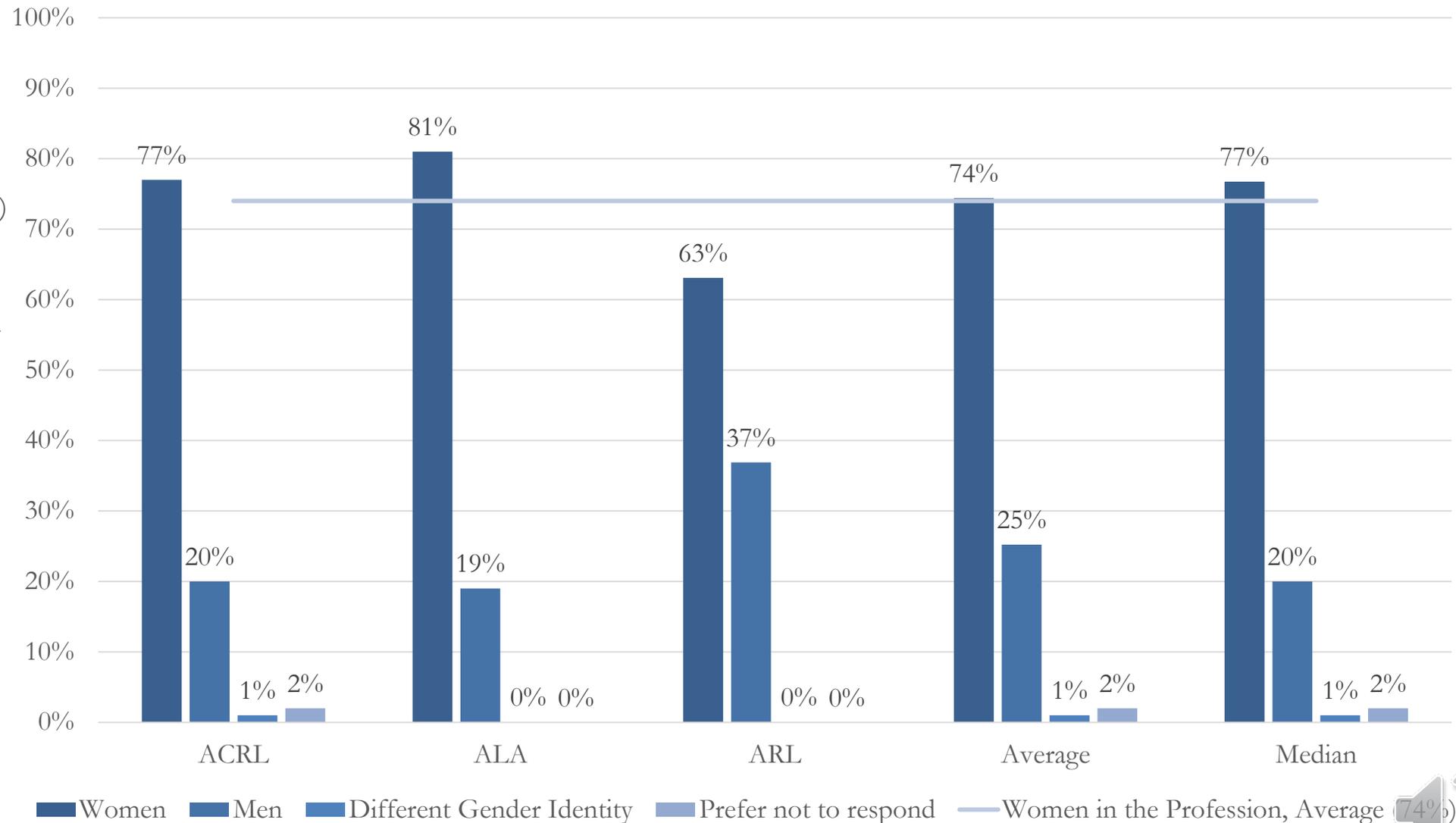


GENDER & PROFESSION

Comparison of Gender Distribution in Librarianship

Sources:

- ARL 2018-2019- US Only (All) (Figure 3: Race/Ethnicity and Sex Distribution of Professional Staff In ARL University Libraries, FY 2018–2019)
- Association of College and Research Libraries. Unpublished membership survey data. Chicago: Association of College and Research Libraries, 2018.
- Office of Research and Statistics. 2017 ALA Demographic Study. Chicago: American Library Association. 2017.



R GENDER PACKAGE: SSA METHOD

The screenshot displays the RStudio interface with the following components:

- Main Window:** A data frame with columns: name, proportion_male, proportion_female, gender, year_min, and year_max. The data is sorted by name.
- Console:** R code and output showing the creation of a data frame and the application of the gender_of function using the 'ssa' method. A warning message is displayed: "Warning message: 'data_frame()' is deprecated, use 'tibble()'. This warning is displayed once per session." The output shows the gender of the first few names: "100% -0 s remaining".
- Environment:** Shows the A_SSA data frame with 2047 observations and 6 variables.
- Packages:** Shows the installed packages, including the gender package (version 0.5.2).





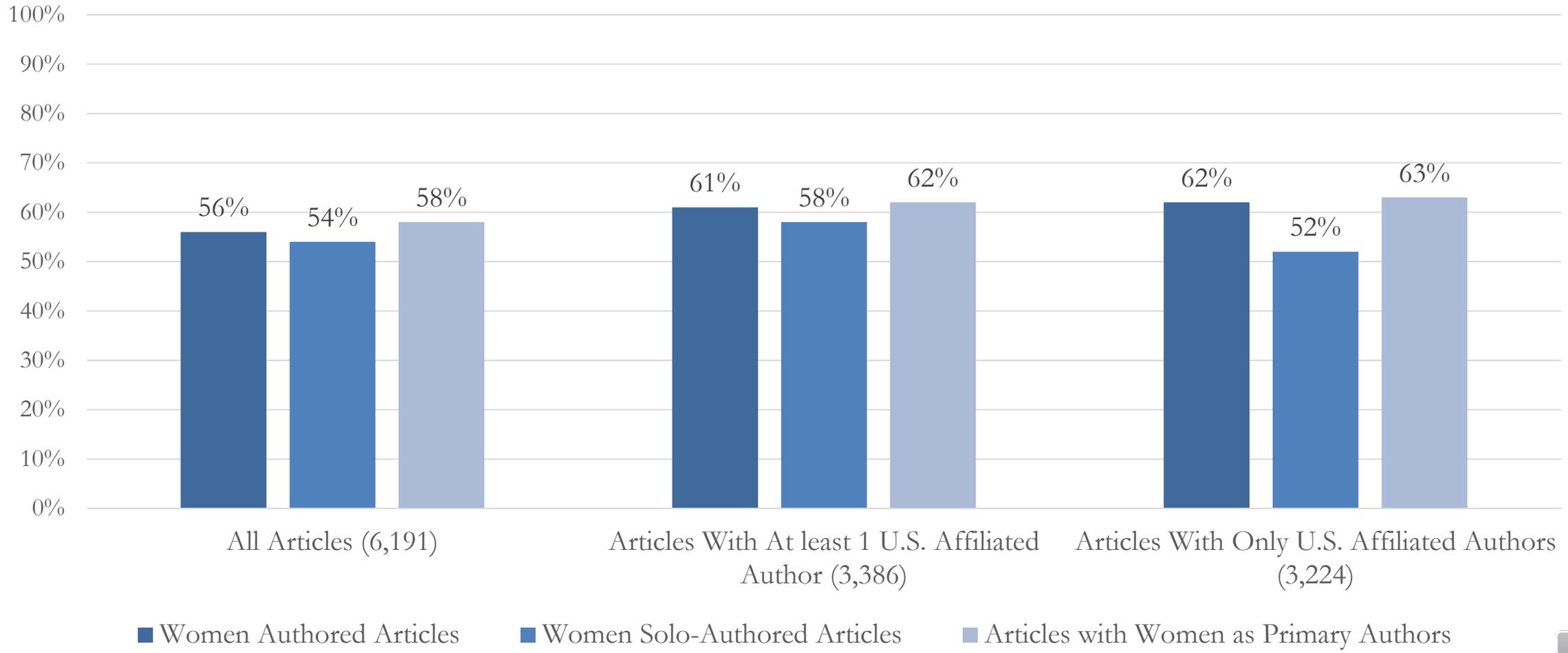
RESULTS





GENDER & AUTHORSHIP GROUPED BY SAMPLE

Percent of Women Authored Articles by Sample





GENDER & AUTHORSHIP, BY AUTHORSHIP TYPE

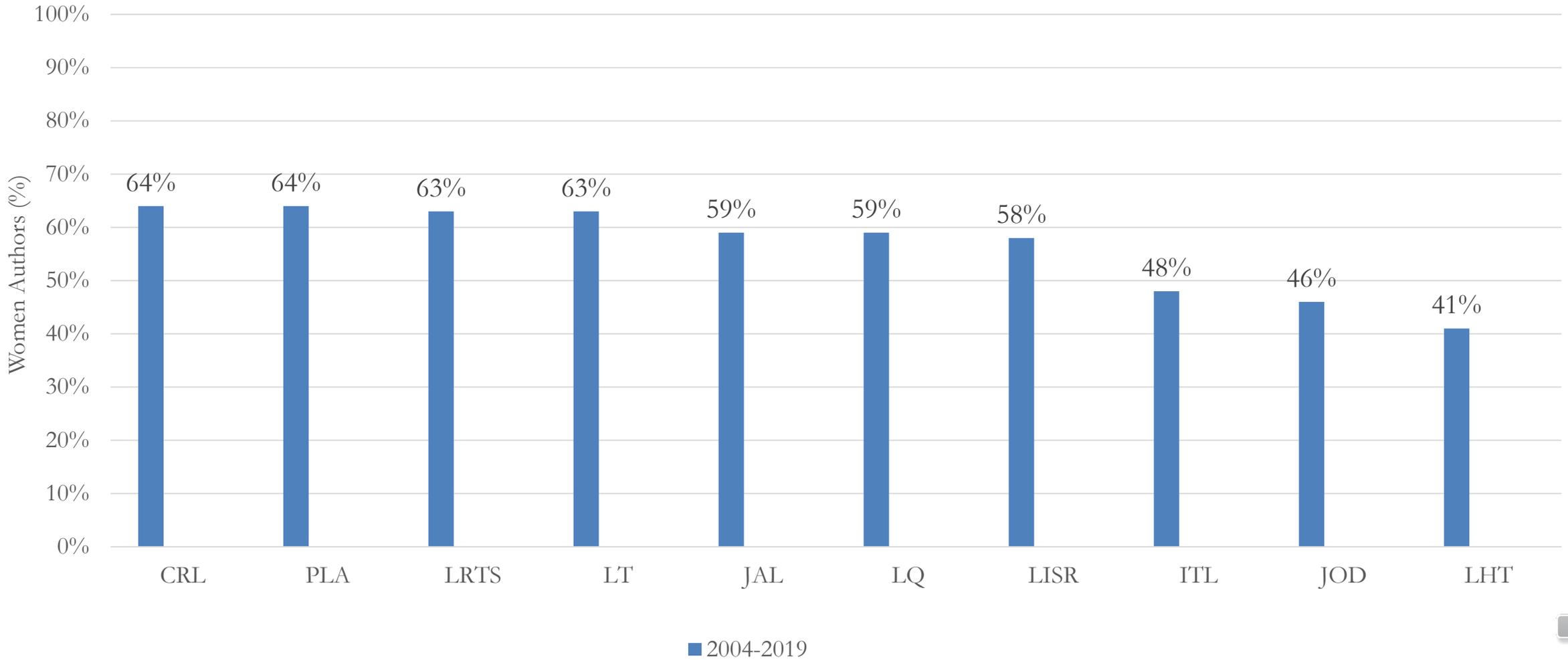
Percent of Women Authored Articles by Sample





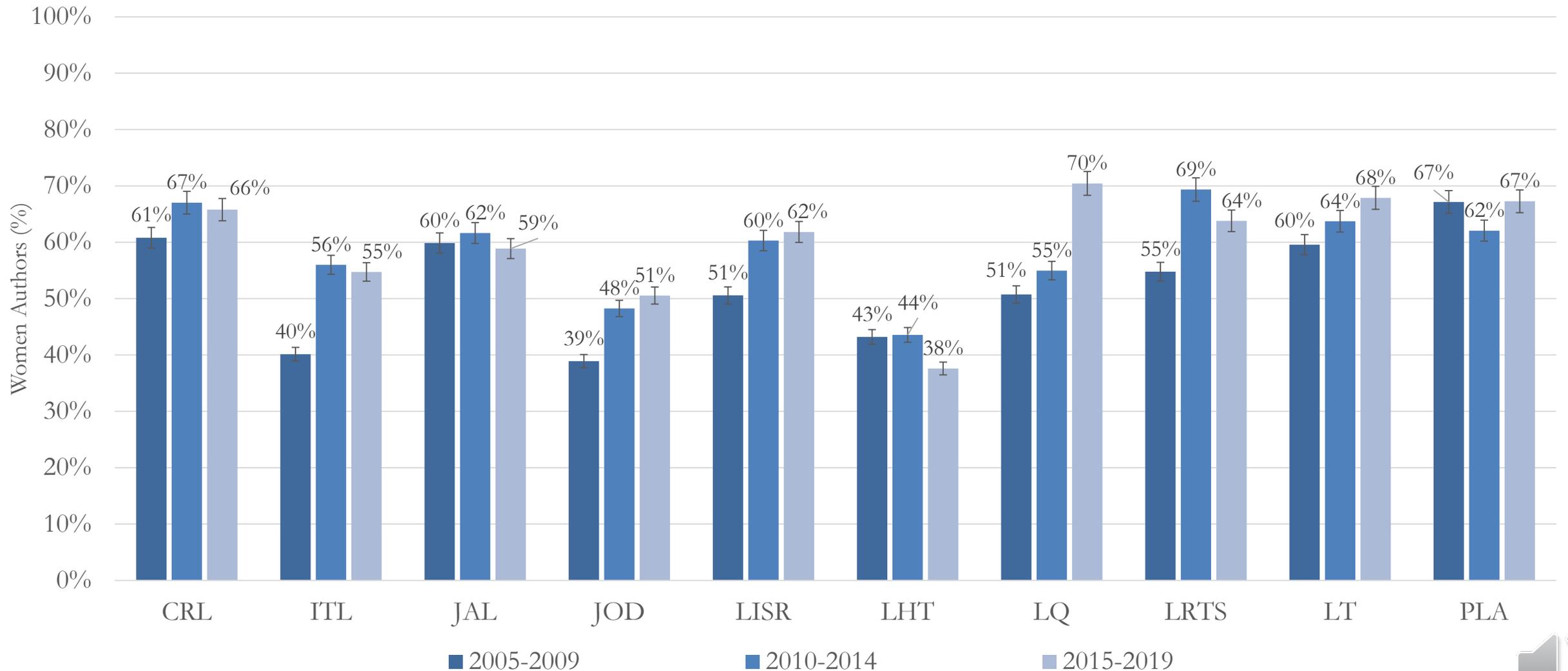
GENDER & JOURNALS, SUMMARY

Percent of Women Authored Articles by Journal 2004-2019



GENDER & JOURNALS BY YEAR

Gender Composition of Authors per 5 Year Span and Journal

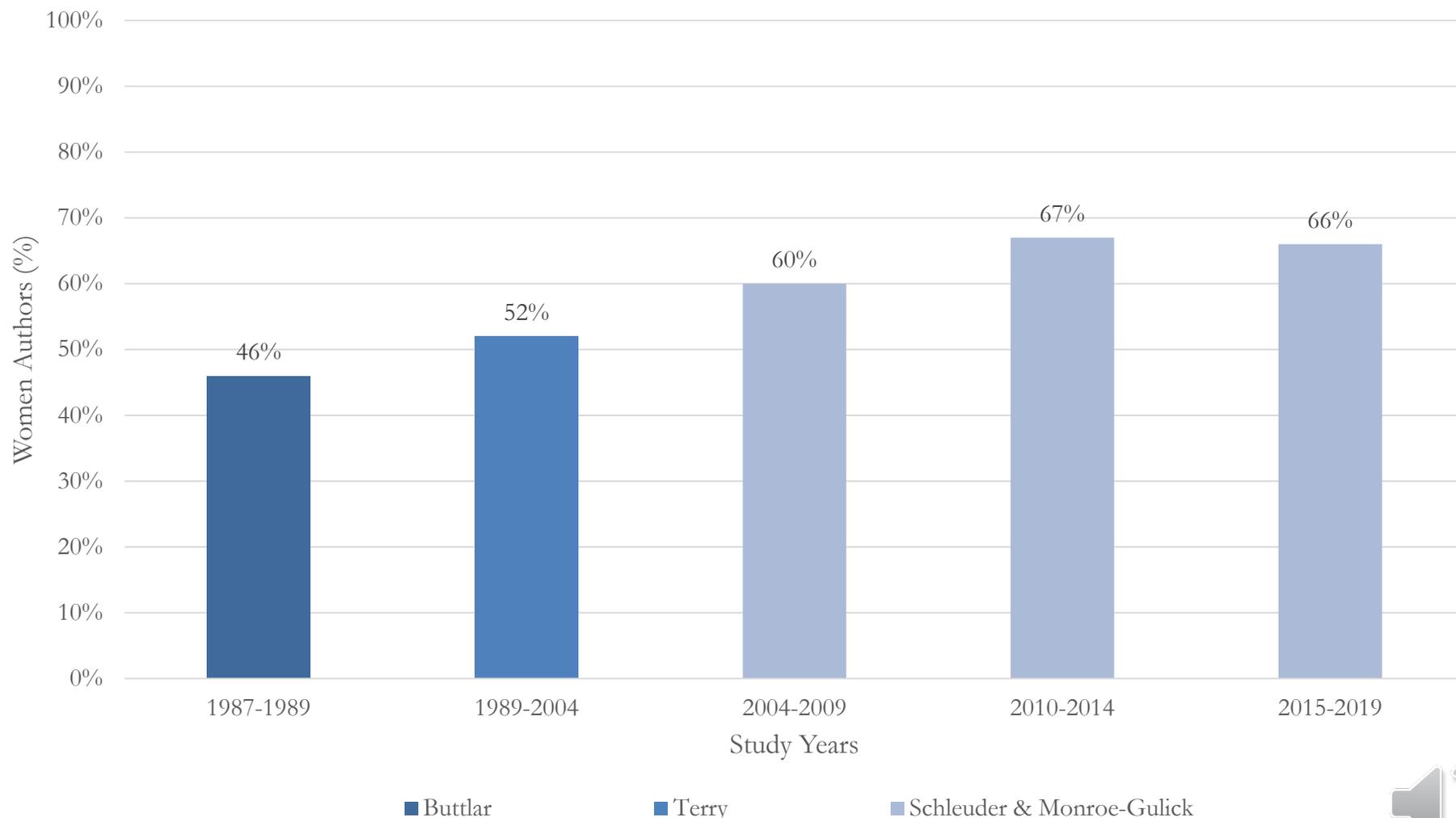




GENDER & JOURNALS: COLLEGE & RESEARCH LIBRARIES

College & Research Libraries: Gender and Authorship Studies 1987-2019

- Sources:
- Buttlar, L. (1991). Analyzing the library periodical literature: Content and authorship. *College & Research Libraries*, 52(1), 38-53.
- Schleuder, M. & Monroe-Gulick, A. (2020). "Tools for Equitable Representation for Women in LIS Publications." Library Assessment Conference.
- Terry, J. L. (1996). Authorship in "College & Research Libraries" Revisited: Gender, Institutional Affiliation, Collaboration. *College & Research Libraries*, 57(4), 377-383.





NEXT STEPS

- Subject analysis
- Update after COVID-19 impact





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