

Mardigian Library
2016-17 Assessment
Final Report

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Introduction/Background

As libraries increasingly rely on digital resources, traditional assessment methods such as circulation data, number of titles acquired, etc. have become less meaningful. In response, universities and academic libraries have begun to review and revise assessment criteria and strategies.

In 2015, the Mardigian Library's Leadership Advisory Council (LAC) began discussing how to revamp assessment strategies to better determine the impact we have on student success, retention, and graduation. The project to redefine the assessments had several goals:

- Support and align assessment efforts with the campus-wide initiative to review learning outcomes and the best ways to assess student success
- Evaluate how well our services support student success criteria across the undergraduate and graduate curriculum, and the mission of both the library and university
- Identify assessment strategies that are meaningful and relatable in addition to being measurable
- Create assessment strategies that are sustainable and manageable so data can be compared over time to see trends
- Make informed decisions about how we help our students and use our resources wisely
- Make assessment efforts and results available (transparent) to our users

In September 2015, LAC identified three target areas to review: User Services, Collections, and Instruction and Learning Services. A team was established for each target area; all library staff members participated on one of the three teams.

- Teams reviewed literature for trends in academic library assessment.
- Each team completed a template assessment plan for their area, considering mission, goals, possible areas to assess, etc. All plans were shared at the Full Staff Meeting in January 2016.
- Team leaders compiled and reviewed proposed assessment strategies. Strategies were revised based on feedback from Institutional Research (IR) and Enrollment Management and Student Life (EMSL).
- Each team evaluated and prioritized strategies, selecting two or three to pilot test.
- An Assessment Implementation Team was established in March 2016.

Assessment Implementation Team

The Assessment Implementation Team selected seven strategies for pilot testing, focusing on different library services. Based on the results (see [Mardigian Library Assessment Strategies Development 2015-17 Report](http://library.umd.umich.edu/pdf/Assessment_Summary_Report_2015_2017.pdf))¹, the team decided whether to continue, revise, or discontinue the pilot strategies for 2016-17.

¹ http://library.umd.umich.edu/pdf/Assessment_Summary_Report_2015_2017.pdf

This Report

The 2015-17 report included some preliminary test data for 2016-2017. This document is a revised, full assessment of 2016-17 based on accurate data collected after scripts were put in place and a re-analysis by Institutional Research.² Strategies being discontinued based on the pilot project are not included in this report.

The analysis of the 2016-17 data in this report is the baseline for future comparisons.

Benchmarks for assessment strategies are still under development and will require more than one cycle of data collection. The library is still in the early stages of testing strategies, and is continuing to learn about best practices in use at other university libraries.

Select Key Findings

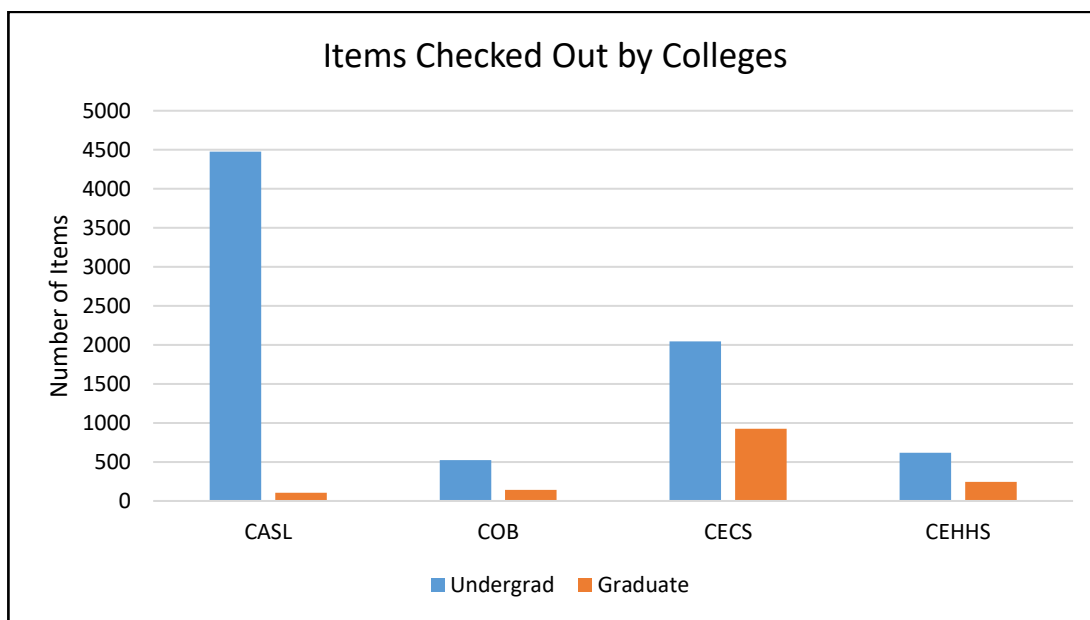
- CASL students checked out the most items, followed by CECS, CEHHS, and COB (p.5+)
 - Among graduate students, CECS students checked out the most items, followed by CEHHS, COB, and CASL
- CASL is the largest user of electronic resources, followed by CEHHS, CECS, and COB (p. 8+)
 - Among graduate students, CECS is the largest user of electronic resources, followed by CEHHS, CASL, and COB
- GPA tended to be higher for students who checked out library resources (+0.09) and for students who accessed a library database (+0.29) (p.11+)
- Graduation and retention rates improved 3.8-4.9% for students who used library resources (p. 13+)

² Univ. of Michigan-Dearborn, Institutional Research. (2017). *2016/17Library Usage Analysis; Project 853*.

Assessment Strategies and Analysis of Data³

A. Analysis of usage data: “The relative distribution of library database access activity by unit as compared to the relative distribution of students enrolled in each unit reveals that CASL students (35.3% of students) accounted for a greater percentage of database access activity (57.7% of database access activity) than expected (Table 1). CEHHS had database access activity similar to CASL. Conversely, CECS students (33.8% of students) accounted for a smaller percentage of database access activity (15.6% of database access activity) than expected. COB had database access activity similar to CECS. Another way of looking at these trends by unit is in terms of mean database access activity. **CASL and CEHHS students overall, and, in particular, graduate students, tended to have greater database access activity** (10.38 and 9.63, respectively) and COB and CECS students tended to have lesser database access activity overall (4.02 and 2.93, respectively).”⁴

- a. ITEMS CHECKED OUT by college: **CASL students checked out the most items, followed by CECS, CEHHS, and COB. Among graduate students, CECS students checked out the most items, followed by CEHHS, COB, and CASL.**

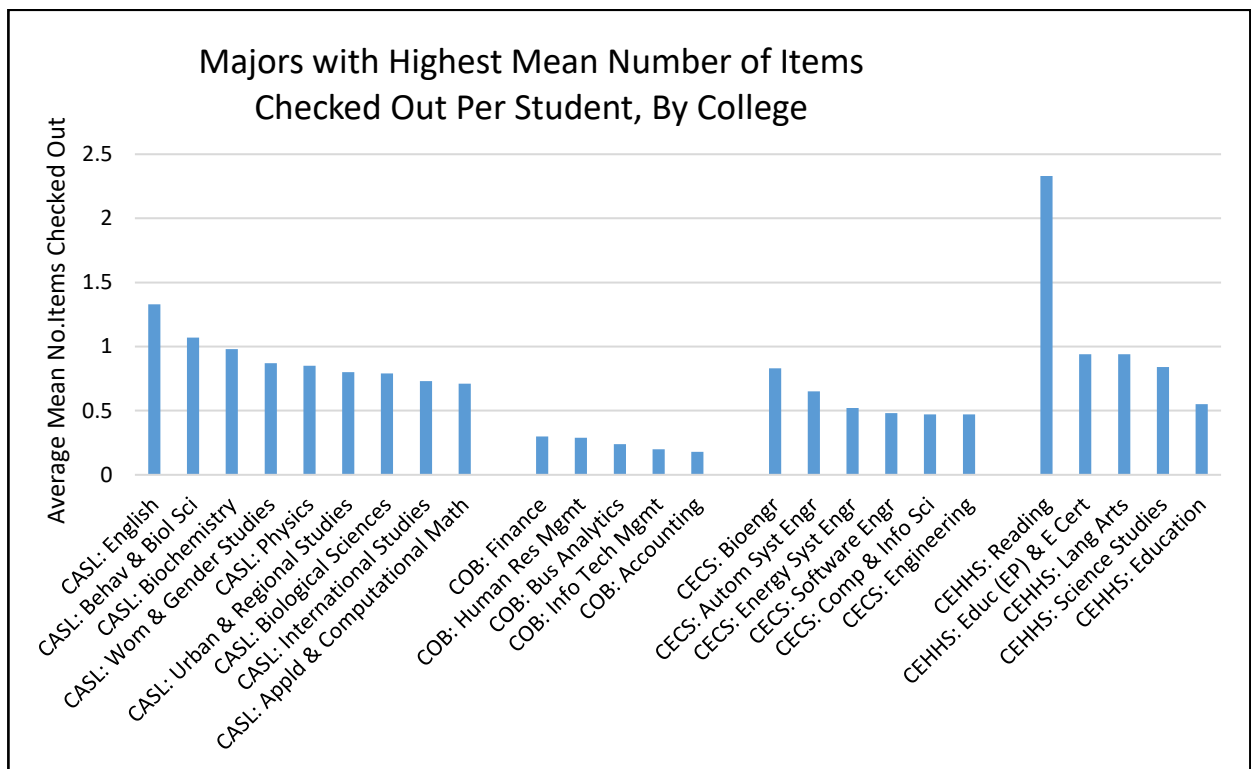


³ No data sets returned from Institutional Research (IR) include unique identifiers, such as the UMID, so specific individuals cannot be identified and privacy is maintained. IR works with the team to pull student data, remove unique identifiers, and compare/analyze results.

⁴ Univ. of Michigan-Dearborn, Institutional Research. (2017). *2016/17 Library Usage Analysis; Project 853*.

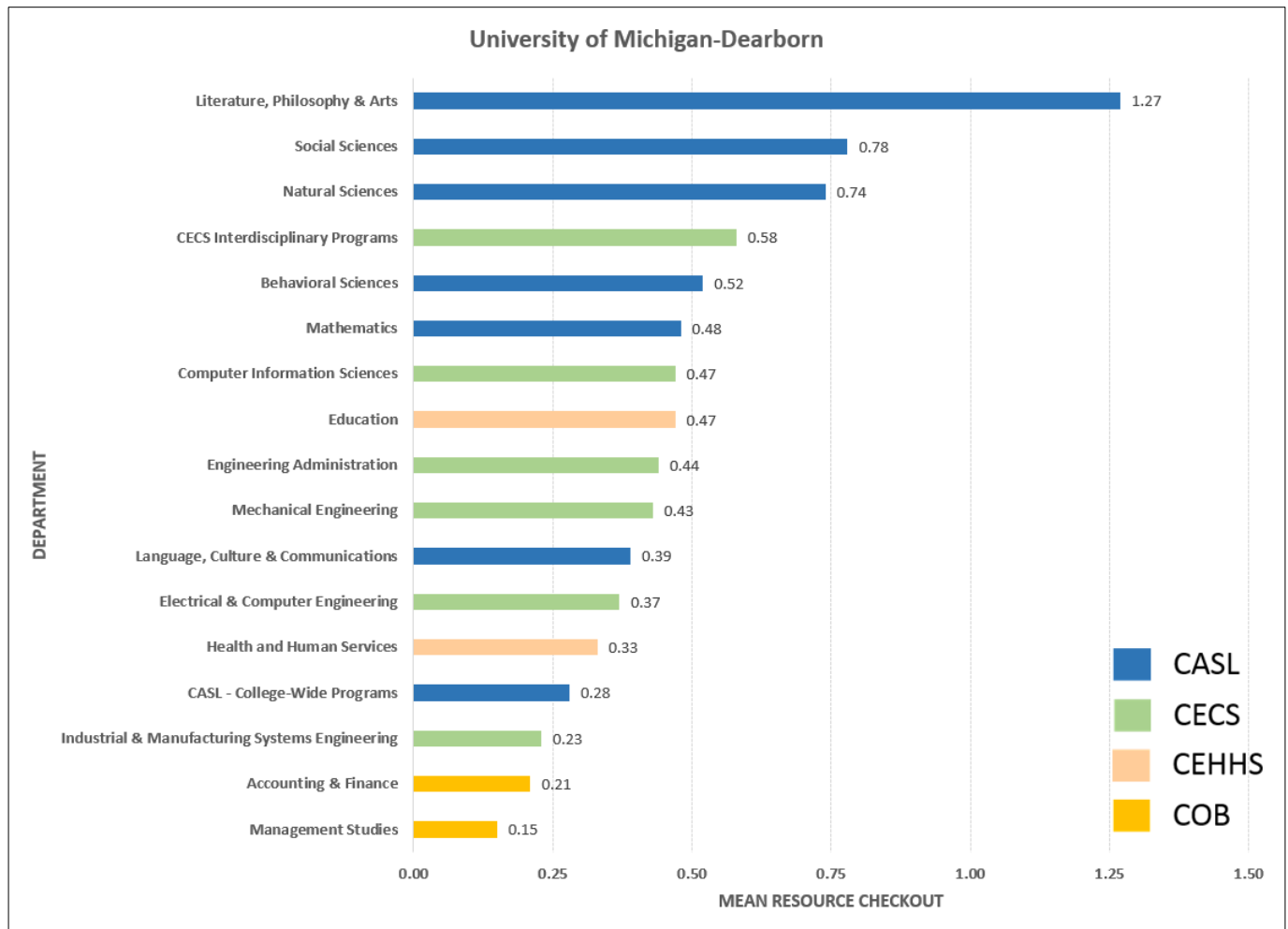
Top Users: The **majors with the highest mean number of items checked out per student** (excluding subjects with only 1-5 students or non-candidate for degree students) are:⁵

1. CASL: English, Behavior & Biological Sciences, Biochemistry, Women's & Gender Studies, Physics, Urban & Regional Studies, Biological Sciences, International Studies, and Applied & Computational Math.
2. COB: Finance, Human Resource Management, Business Analytics, Information Technology Management, and Accounting.
3. CECS: Bioengineering, Automotive Systems Engineering, Energy Systems Engineering, Software Engineering, Computer and Information Science, and Engineering.
4. CEHHS: Reading, Education (EP) & E-Certification, Language Arts, and Science Studies.



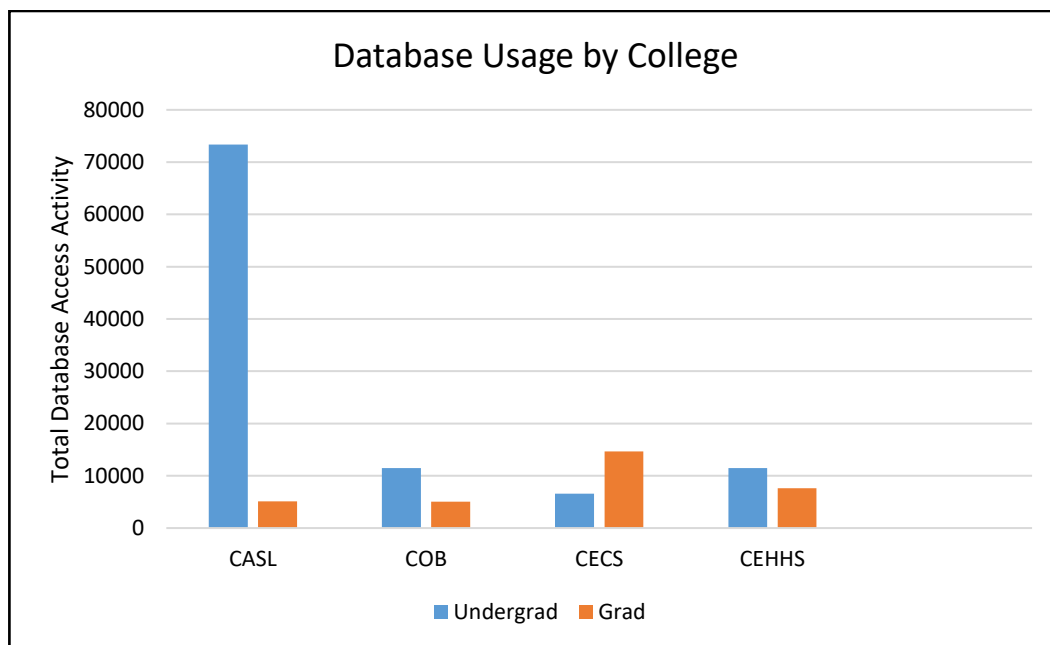
⁵ Univ. of Michigan-Dearborn, Institutional Research. (2017). *2016/17 Library Usage Analysis; Project 853*.

Departments with Highest Mean Number of Items Checked Out Per Student⁶



⁶ Univ. of Michigan-Dearborn, Institutional Research. (2018). *ML Supplemental analysis of 2016/17 Usage Data; Project 958*.

- b. DATABASE USAGE by College: CASL is the largest user of electronic resources, followed by CEHHS, CECS, and COB. Among graduate students, CECS is the largest user of electronic resources, followed by CEHHS, CASL, and COB.⁷

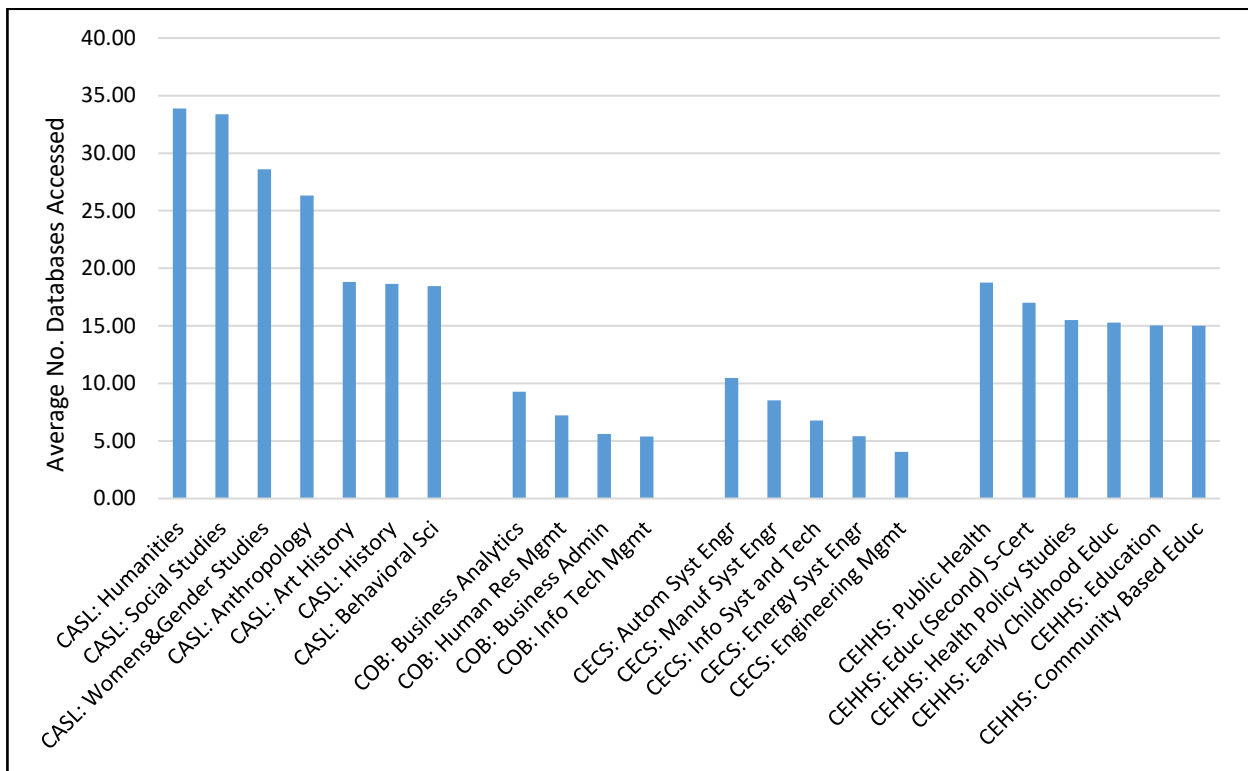


Top Users: The **majors with the highest mean database usage per student** (excluding subjects with only 1-5 students or non-candidate for degree students) are:

1. CASL: Humanities, Social Studies, Women's & Gender Studies, Anthropology, Art History, History, and Behavioral Sciences.
2. COB: Business Analytics, Human Resource Management, Business Administration, and Information Technology Management.
3. CECS: Automotive Systems Engineering, Manufacturing Systems Engineering, Info Systems and Technology, Energy Systems Engineering, and Engineering Management.
4. CEHHS: Public Health, Education Secondary & S- Certification, Health Policy Studies, Early Childhood Education, Education, and Community Based Education.

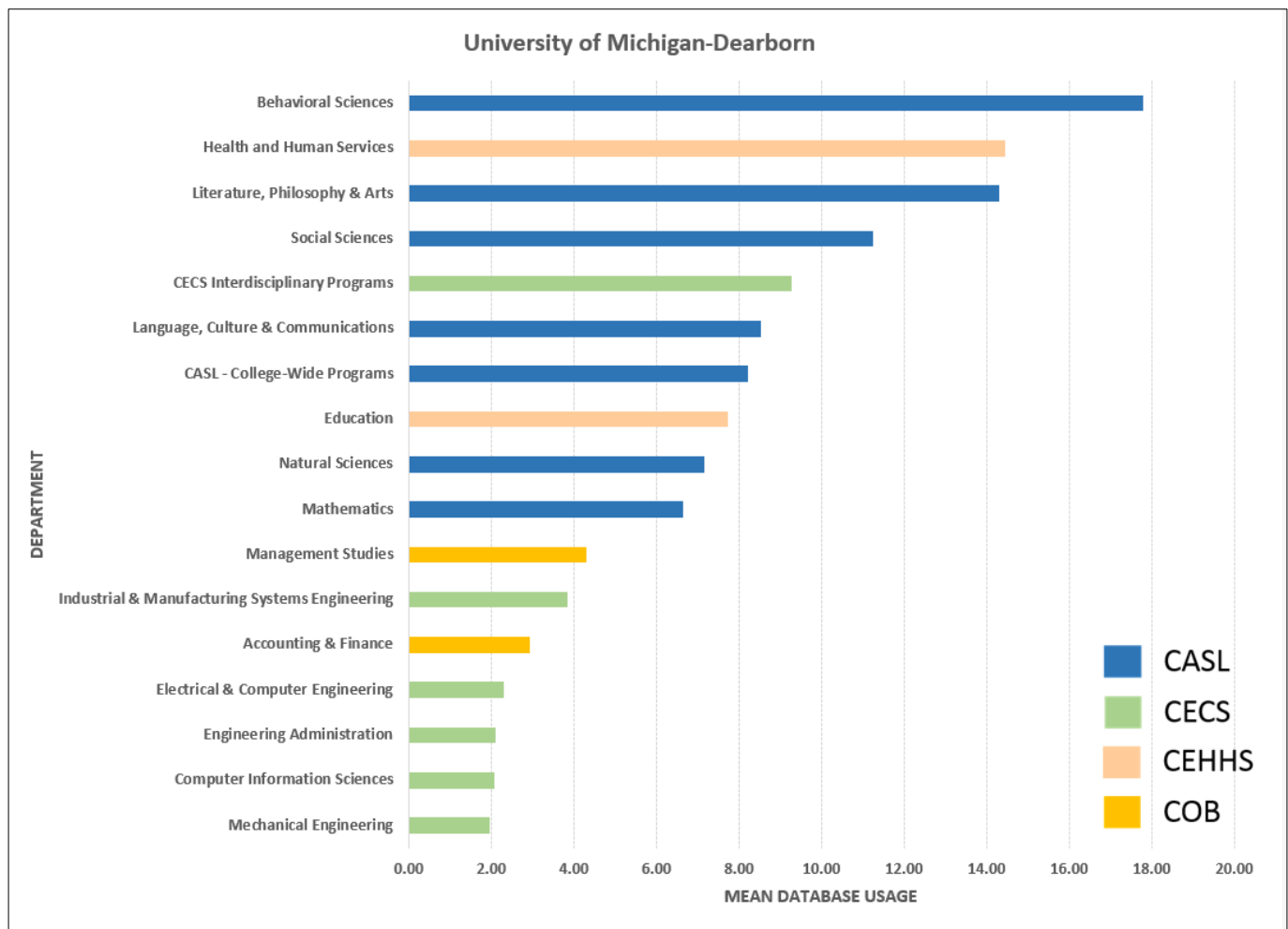
⁷ Univ. of Michigan-Dearborn, Institutional Research. (2017). *2016/17 Library Usage Analysis; Project 853*.

Majors with Highest Mean Database Usage Per Student, By College⁸



⁸ Univ. of Michigan-Dearborn, Institutional Research. (2017). *2016/17 Library Usage Analysis; Project 853*.

Departments with Highest Mean Database Usage Per Student⁹



⁹ Univ. of Michigan-Dearborn, Institutional Research. (2018). *ML Supplemental analysis of 2016/17 Usage Data; Project 958*.

B. Question: Does use of physical and electronic library materials have a positive impact on GPA?¹⁰:

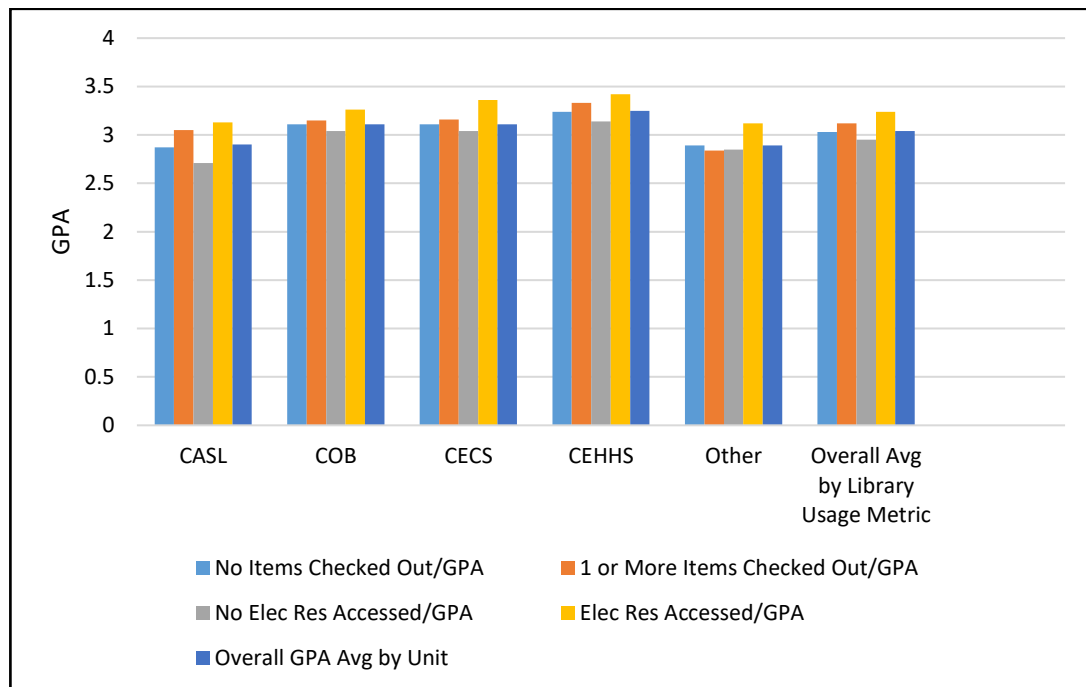
Student term **GPA tended to be higher for students who checked out library resources (+0.09) and for students who access a library database (+0.29)**, despite overall library usage being relatively higher in CASL and CASL having generally lower term GPA. It should be noted that only about 15% of enrolled students in Summer 2016, Fall 2016 and Winter 2017 checked out one or more library resources while database usage corresponded to roughly 34% of enrolled students.

Mean grade point average (GPA) of students who checked out 1+ library resources and students who accessed 1+ library databases, as compared to those who did not, by unit. Column percentages are the percent of total counts (i.e., sample population) in each column.

Unit	Resources Checked Out		Databases Accessed		Overall Average by Unit
	0 (%)	1+ (%)	0 (%)	1+ (%)	
CASL	2.87 (29.0)	3.05 (6.3)	2.71 (19.4)	3.13 (16.0)	2.90 (35.3)
COB	3.11 (17.8)	3.15 (1.5)	3.04 (13.1)	3.26 (6.2)	3.11 (19.2)
CECS	3.11 (28.4)	3.16 (5.3)	3.04 (26.3)	3.36 (7.4)	3.11 (33.7)
CEHHS	3.24 (7.9)	3.33 (1.4)	3.14 (5.6)	3.42 (3.6)	3.25 (9.2)
Other	2.89 (2.3)	2.84 (0.2)	2.85 (2.1)	3.12 (0.4)	2.89 (2.5)
Overall Average by Library Usage Metric	3.03 (85.4)	3.12 (14.6)	2.95 (66.5)	3.24 (33.5)	3.04

¹⁰ Univ. of Michigan-Dearborn, Institutional Research. (2017). *2016/17 Library Usage Analysis; Project 853*.

Impact of Library & Database Usage on GPA¹¹



¹¹ Univ. of Michigan-Dearborn, Institutional Research. (2017). *2016/17 Library Usage Analysis; Project 853*

C. Question: Does use of physical and electronic library materials have a positive impact on retention and graduation? Grand Valley State University (GVSU) reports finding that students who received library instruction had a 4% or greater rate of enrolling for the following academic year, which they defined as a significant correlation between library instruction and retention. Based on their findings, we asked IR to compare/analyze mean library resource checkout and database usage with retention/graduation rate from fall 2016 to fall 2017.

“Library usage data were tabulated with student success using Fall 2016-to-Fall 2017 retention and graduation rates combined as a measure of “student success”. The tables below illustrate library usage by degree- and certificate-seeking students (“students”) in Fall 2016 and their subsequent retention or graduation, or, separately, their disenrollment from the institution at official census date in Fall 2017. Overall, the Fall 2016-to-Fall 2017 student success rate was 86%, and this **percentage increased to almost 89% for students who accessed library databases 1 or more times in Fall 2016 (Table 1). A similar pattern is seen for students who checked out one or more library resources in Fall 2016 in that just over 89% of those students were successfully retained or graduated by Fall 2017 (Table 2).**”¹²

Table 1. Fall 2016 library database usage and Fall 2017 student success. Row percentages are included in parentheses.

	Fall 2017		
	Retained or Graduated	Disenrolled	Total
Fall 2016 Accessed Library Databases 1+ times	3,189 (88.8%)	402 (11.2%)	3,591
Did Not Access Library Databases	4,412 (83.9%)	846 (16.1%)	5,258
Total	7,601 (85.9%)	1,248 (14.1%)	8,849

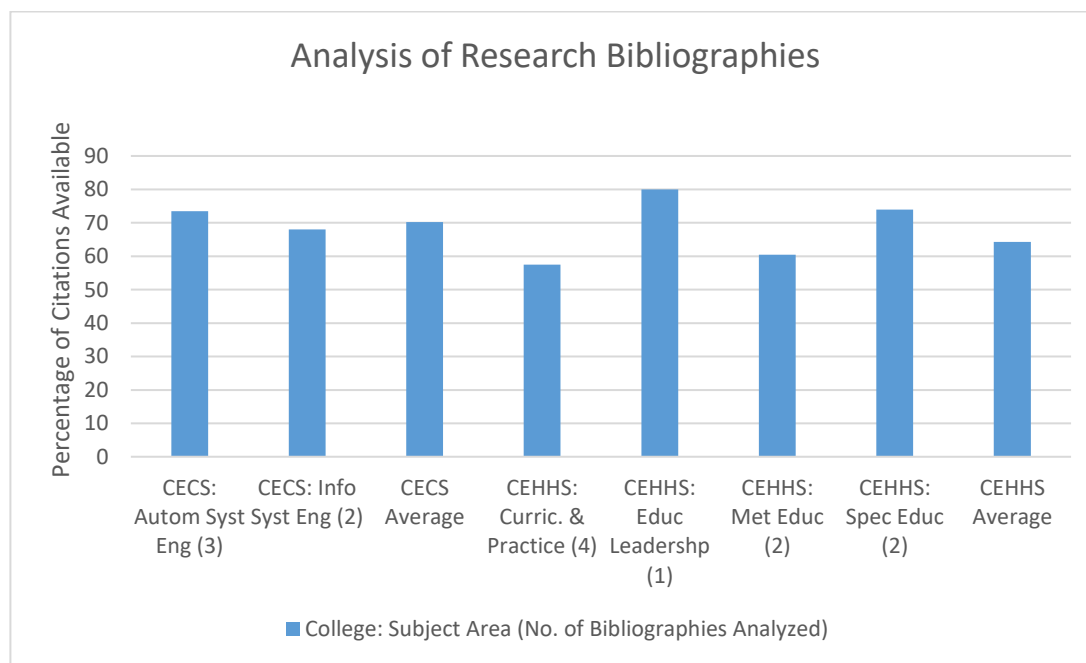
¹² Univ. of Michigan-Dearborn, Institutional Research. (2018). *ML Supplemental analysis of 2016/17 Usage Data; Project 958*.

Table 2. Fall 2016 library resource checkout and Fall 2017 student success. Row percentages are included in parentheses.

		Fall 2017		
		Retained or Graduated	Disenrolled	Total
Fall 2016	Checked-Out Library Resources 1+ times	1,312 (89.1%)	161 (10.9%)	1,473
	Did Not Check-Out Library Resources	6,289 (85.3%)	1,087 (14.7%)	7,376
	Total	7,601 (85.9%)	1,248 (14.1%)	8,849

D. Question: Does the library's collection meet the research needs of students and faculty?

Bibliographies from a selection of student theses, capstone projects, and faculty publications (articles) were analyzed to determine percentage of resources that could have been obtained through the library. The university does not have an easily accessible list of faculty publications. Items analyzed in the first pilot test were selected from student dissertations. For a second round of analysis, a selection of faculty publications were selected by searching faculty names in Google Scholar.



E. Question: Which library services do faculty use and value the most? A survey of faculty was conducted in February 2017, with ninety faculty participating.

Responses from non-open-ended questions.

Question	Top 3 Answers		
Q3: What would help you take full advantage of library's resources?	Library website (55%)	Consultation with a librarian (18%)	Library instruction session (15%)
Q4: How would you prefer to learn about new library resources?	Email (66%)	Library newsletter (15%)	Library website (13%)
Q8: Who or what has most influenced how effectively you've been able to use the library?	Library website (45%)	Librarian (42%)	Library instruction session (15%)

Q9: Which of these ways for learning about the library were most helpful to you?	Library website (73%)	Librarian (63%)	Another faculty member (40%)
Q10: How did you learn basic library information, such as interlibrary loan?	Library website (55%)	Librarian (34%)	Another faculty member (17%)
Q11: How frequently do you use the library resources either on or off campus?	Several times a week (29%)	Once per month (22%)	Every couple of weeks (18%)
Q12: How easy has it been for you to learn to use library resources in the building and online?	Easy (43%)	Somewhat easy (25%)	Very easy (17%)
Q17: Each discipline is assigned a subject specialist librarian. Which of these services have you partnered with a subject specialist librarian?	Request material purchases for library collection (53%)	Refer students for a research consultation with specialist librarian (48%)	Develop specific librarian instruction sessions for your classes (30%)
Q18: Do you use library databases?	Yes (82%)	No (17%)	
Q19: Where do you access them (the databases)?	Both on and off campus (85%)	Off campus (11%)	On campus (4%)

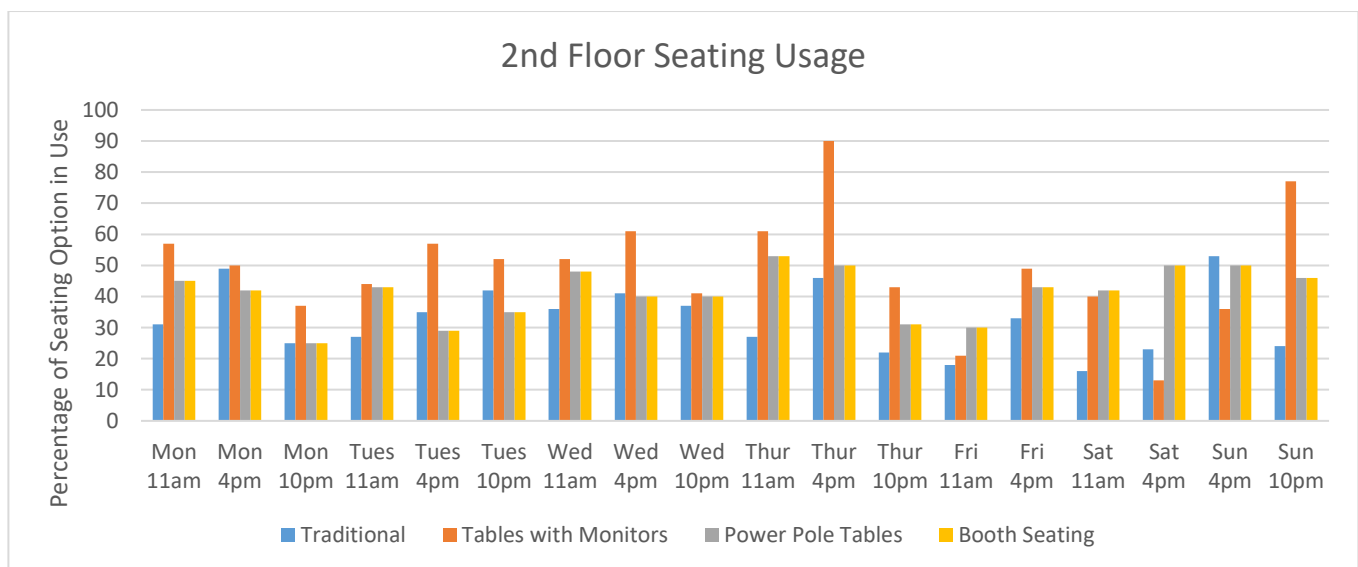
E. Question: When is the library being used and which library study environments are students using? Several weeks each semester, Users Services staff conduct a Quatrics “walk-around” tablet survey, using an Excel file to collect and store data. They count use of various spaces and furniture options, as well as usage of various technology.

a. Building Usage Findings

- Monday, Tuesday, and Wednesday were the busiest week days. Sunday was the busiest weekend day.
- At the busiest times recorded, there are almost as many people on the 2nd floor as there are on all 3 of the other floors combined.
- When occupied, group study room 2030 averages about 3 people; group study room 2040 averages 3-4 people.
- The student assistants conducting the survey indicated that the white noise system on the 2nd floor seems to be doing its job, except at extremely busy times of the day.

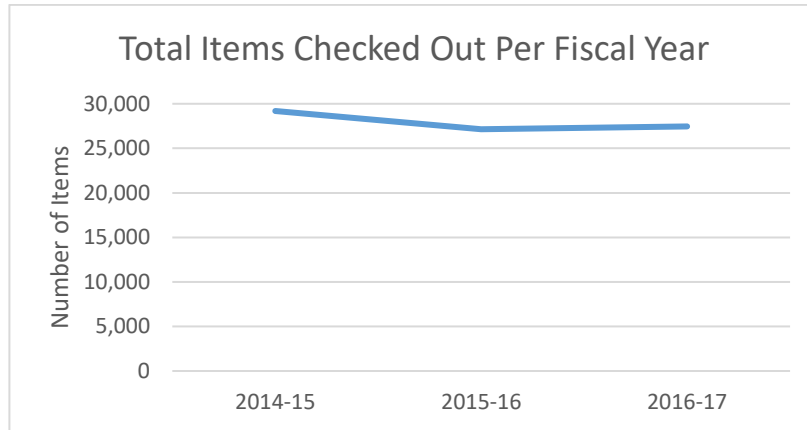
b. Furniture Usage:

- The tables with monitors were the most popular, but the survey needs to be revised to also track whether or not the monitors are actually in use. Casual observation revealed that the tables are in use, but the monitors are not.
- Traditional table seating is still in use, but it is frequently the least popular in terms of use. Non-traditional seating includes tables with monitors, power pole tables, and booth seating.

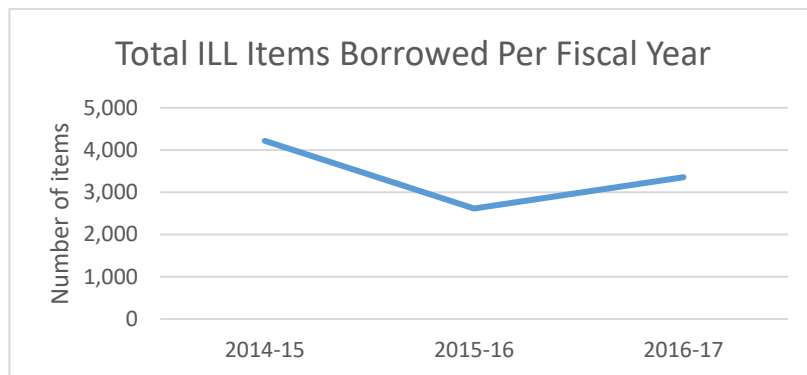


Traditional Assessment Statistics

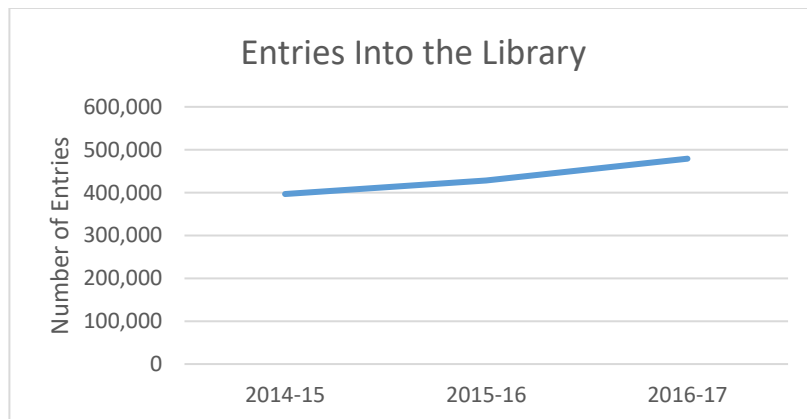
Checkout statistics



Interlibrary loan statistics



Door count statistics



Other Library Assessment Initiatives

- A. **Research Education:** During the 2016-2017 academic year, the Research Education Program (Program) at the Mardigian Library began to formalize their assessment initiatives. The Program also formalized their learning outcomes that need to be assessed. The full report is available at <https://library.umd.umich.edu/pdf/ResearchEducationAssessmentReport2016-17.pdf>.
- B. **Database Usage Costs:** A preliminary cost-per-use report was prepared for electronic database usage. Librarians reviewed the report and will use the data in 2017-18 to:
- Promote and market underused databases to faculty and students
 - Suggest databases for cancellation at time of renewal
 - Provide feedback to U-M Ann Arbor about low usage databases for possible renegotiation of terms.

Summary

A considerable amount of progress was made during 2016-17, with further work to be accomplished. As we learn more about assessment and how academic libraries are changing their strategies, we can build on the work of others and potentially replicate findings.

- Benchmarks
 - Each ongoing strategy needs to be reviewed to determine a benchmark or target result. It may take several cycles of analysis before benchmarks or targets can be set for some strategies.
- Transparency of the library's Assessment Strategies Project
 - A summary of the library's assessment project and quarterly reports is available through the library's homepage <http://library.umd.umich.edu/us/assessment.php>.
- Additional Assessment Strategies
 - Additional assessment strategies for the three target areas (User Services, Collections, and Instruction and Learning Services) need to be identified, tested, and put into production. Two additional areas identified to be defined and assessed are:
 - Web services
 - Partnerships & Outreach
 - Additional student and faculty surveys should be conducted. Although these types of surveys tend to be more subjective than analytical, valuable feedback can be obtained.

The redesign of the library's assessment strategies is going well. We look forward to reviewing the analysis of data from the 2017-18 academic year, and to adding new assessment strategies.