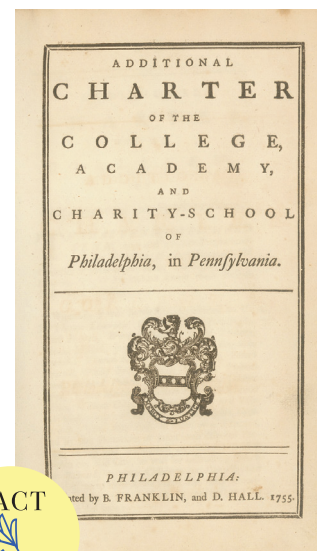


Penn Libraries Selected**Facts** | 2017



# Historical Milestones | 1750-2017

1750	Penn receives donation of books from famed cartographer Louis Evans.
1762-4	First Provost William Smith travels to England to raise money for the Library. First list of collections created.
1784	Louis XVI, King of France, gives 100 volumes.
1829	First Library printed catalog published.
1872	Penn moves to West Philadelphia, with Library quartered in College Hall.
1884	First professional librarian, James G. Barnwell, appointed to direct the Library. Dictionary catalog initiated.
1891	Furness Library opens, with 55,000 volumes. The next half-century saw the significant growth of collections & the founding of many departmental and special libraries, including: Dentistry (1914), Lea (1924), Lippincott (1927), Medicine (1931).
c1945	Libraries reach one-million-volume mark.
1962	Van Pelt Library opens.
1967	Dietrich Graduate Library Center opens.
1969	Biomedical Library opens in its present location, Johnson Pavilion.
1972	Automated circulation system introduced. Penn, Drexel and Temple become the first libraries outside Ohio to use the computerized cataloging system of OCLC.
1973	Library Data Services Office established.
1981	Three-millionth acquisition.
1985	Online catalog introduced.
1990	Opening of the Anne and Jerome Fisher Fine Arts Library marks the restoration of the landmark structure designed by Frank Furness.
1993	Four-millionth acquisition.
1995	Penn's Digital Library opens on the World Wide Web. Van Pelt-Dietrich Library Center renovation begins.
1996	The Schoenberg Center for Electronic Text and Image opens, transforming research by making special collections available worldwide for scholarly use through archive-quality digital facsimiles.
1997-8	The VPDLC renovation completed. Voyager Library Management System launched.
1999	Construction begins on the Undergraduate Study Center in Van Pelt-Dietrich.
2000	Libraries observe 250th anniversary.
2001	Five-millionth acquisition.
2002	Libraries assume responsibility for campus-wide Blackboard courseware support.
2004-5	Libraries launch digital repository, the ScholarlyCommons@Penn.
2006	The Weigle Information Commons opens in Van Pelt-Dietrich.
2010	Construction of Special Collections Center begins.
2011	Launch of the Schoenberg Institute for Manuscript Studies to bring together manuscript culture, modern technology and scholars at Penn and beyond.
2012	Education Commons opens in Franklin Field.
2013	Kislak Center for Special Collections, Rare Books and Manuscripts opens.
2015	Final phases of Kislak Center construction are completed.
2016-17	ALMA, the cloud-based Library Management Platform is launched, opening a new period in Library technology services. The Moelis Family Grand Reading Room opens.



FACT

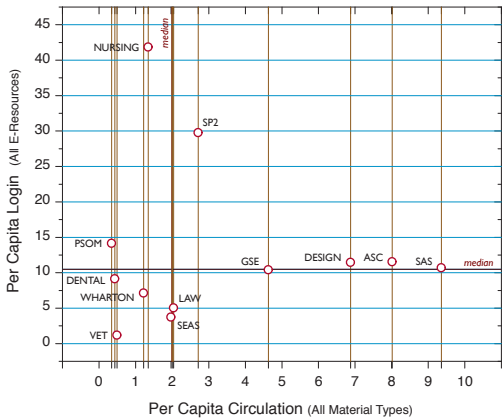
#4

Founded in 1740, and one of the nine original colonial colleges, Penn's charter is the 4th earliest in the nation, preceded only by Harvard, William and Mary, and Yale. Penn had been assembling and curating library collections since 1750, which makes the Libraries, arguably, the University's oldest continuously operating institution after the faculty.

# Penn Libraries Selected**Facts** | 2017

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Access this publication online through the Penn Library Data Farm at <http://metridoc.library.upenn.edu>. For information about Penn Library Analytics, contact Joe Zucca, Associate University Librarian for Technology Services and Strategic Initiatives, 215-573-4643 | [zucca@upenn.edu](mailto:zucca@upenn.edu) or Andy Sarno, Strategic Planning Officer, 215-746-4938 | [sarno@upenn.edu](mailto:sarno@upenn.edu)

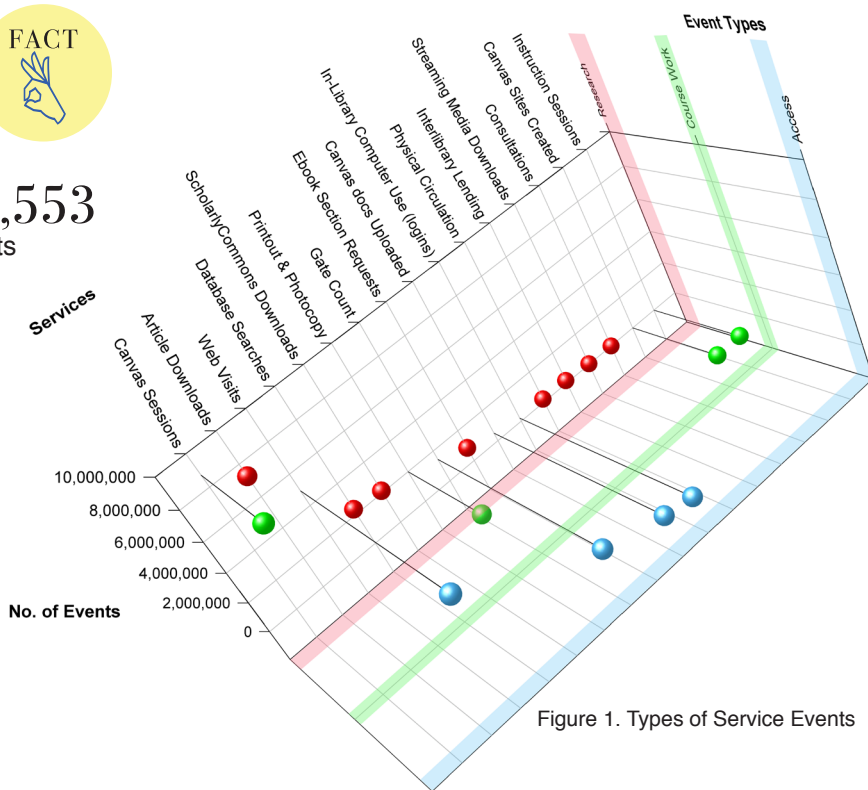
# Penn Libraries at a Glance

FACT



30,811,553

Service events  
in 2017

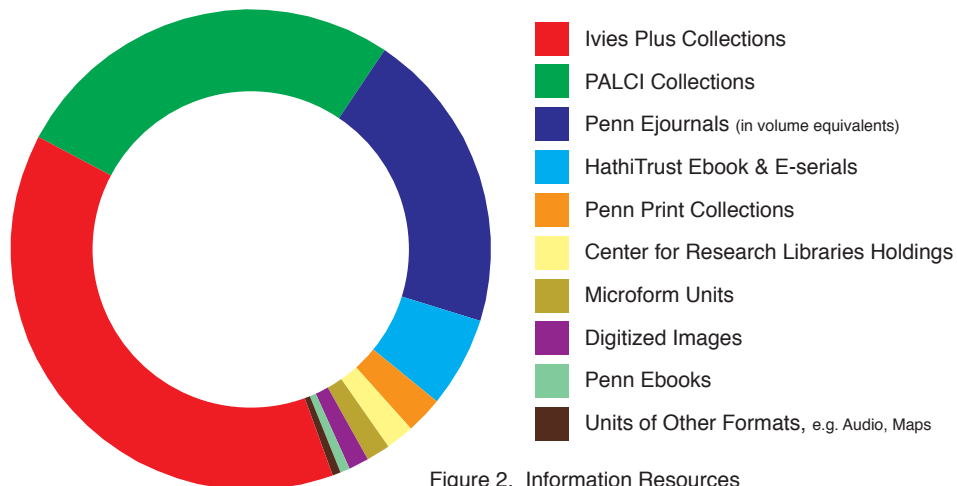


FACT



262,611,446

Journals, books and related items  
available to Penn scholars  
and staff



## Annenberg

Circulation	1,099
Volumes	9,407
Visitors	na
Net Sq. Ft.	3,425
Computers	9
Seating	54
Permanent Staff	3



## Biddle Law

Circulation	14,637
Volumes	665,687
Visitors	na
Net Sq. Ft.	66,466
Computers	45
Seating	623
Permanent Staff	31.57



## L. Levey Dental Library

Circulation	636
Volumes	36,451
Visitors	73,332
Net Sq. Ft.	5,724
Computers	35
Seating	102
Permanent Staff	4.4



## Education Commons

Circulation	na
Volumes	na
Visitors	10,000
Net Sq. Ft.	6,400
Computers	38
Seating	168
Permanent Staff	1



## Math/Phys/Astronomy

Circulation	1,966
Volumes	45,357
Visitors	24,403
Net Sq. Ft.	2,027
Computers	5
Seating	45
Permanent Staff	2



## Museum Library

Circulation	4,799
Volumes	145,123
Visitors	59,696
Net Sq. Ft.	11,671
Computers	10
Seating	175
Permanent Staff	3.57

## Library Research Annex

Circulation	11,187
Volumes	2,233,522
Visitors	na
Net Sq. Ft.	43,400
Computers	1
Seating	24
Permanent Staff	10

## Totals

Circulation <sup>†</sup>	193,999
Volumes	6,513,215
Visitors	1,485,076
Net Sq. Ft.	502,526
Computers	677
Seating	4,153
Permanent Staff	338





<b>Biomedical</b>		
Circulation	3,602	
Volumes	101,330	
Visitors	106,119	
Net Sq. Ft.	33,726	
Computers	88	
Seating	287	
Permanent Staff	14.4	



<b>Katz Center</b>		
Circulation	2,005	
Volumes	217,130	
Visitors	135	
Net Sq. Ft.	11,391	
Computers	3	
Seating	26	
Permanent Staff	4	



<b>Chemistry</b>		
Circulation	2,379	
Volumes	34,774	
Visitors	42,884	
Net Sq. Ft.	6,492	
Computers	18	
Seating	112	
Permanent Staff	3	



<b>Fine Arts Library</b>		
Circulation	15,597	
Volumes	178,346	
Visitors	104,099	
Net Sq. Ft.	19,934	
Computers	27	
Seating	375	
Permanent Staff	10	



<b>Kislak Center</b>		
Circulation	7,338	
Volumes	255,559	
Visitors	na	
Net Sq. Ft.	46,065	
Computers	12	
Seating	330	
Permanent Staff	42.92	



<b>Lippincott Library</b>		
Circulation	2,910	
Volumes	159,124	
Visitors	na	
Net Sq. Ft.	27,610	
Computers	45	
Seating	244	
Permanent Staff	10.57	



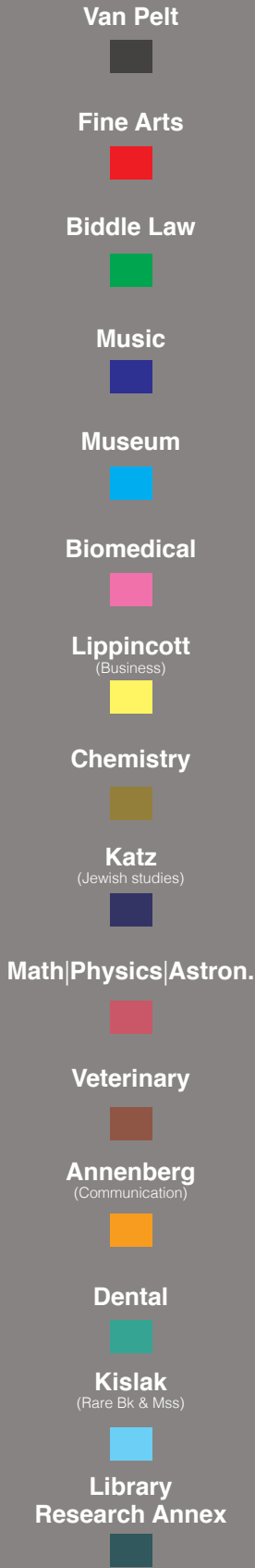
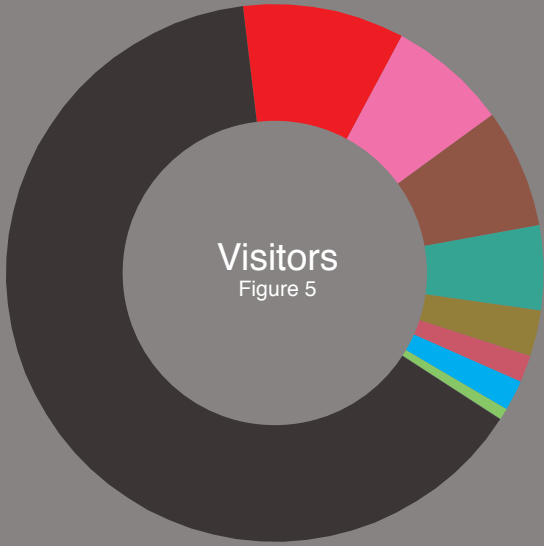
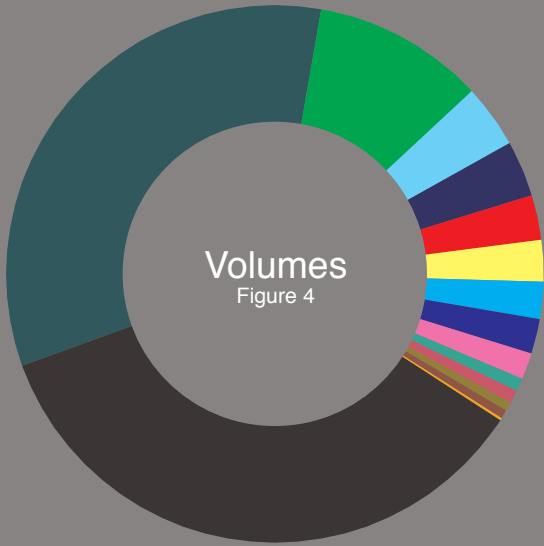
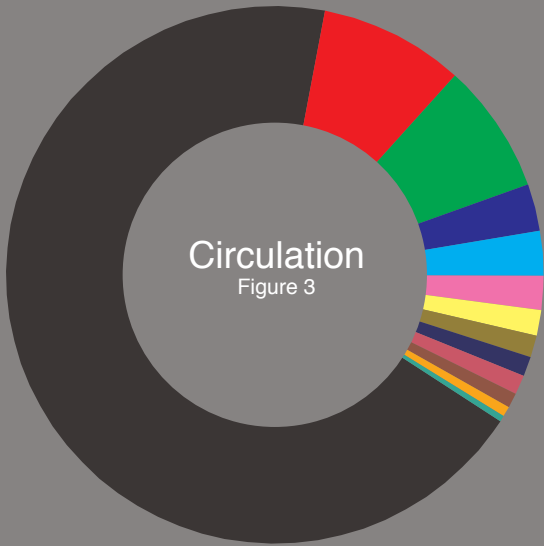
<b>Otto Albrecht Music Libr</b>		
Circulation	5,249	
Volumes	137,526	
Visitors	na	
Net Sq. Ft.	6,369	
Computers	12	
Seating	45	
Permanent Staff	4.57	



<b>Van Pelt Library</b>		
Circulation	118,964	
Volumes	2,260,656	
Visitors	952,203	
Net Sq. Ft.	204,494	
Computers	294	
Seating	1,428	
Permanent Staff	189.64	



<b>Steven Atwood Vet. Library</b>		
Circulation	1,631	
Volumes	33,223	
Visitors	112,205	
Net Sq. Ft.	7,332	
Computers	35	
Seating	115	
Permanent Staff	3.77	



† NB: The circulation figures recorded in this booklet are based on use of the Penn collection by Penn affiliates. They do not include interlibrary lending, which is represented as a distinct line of service, or in-house use. Unless otherwise noted, the data do include the use of all lendable resources, including computers and other equipment used in teaching, learning and research.

# Use of the Libraries' Collections

## Use of Physical and Digital Collections

	Current Year	Trend Index						
	FY17	FY11	FY12	FY13	FY14	FY15	FY16	FY17
*Includes non-circulating special collections								
FROM PENN COLLECTIONS								
All circulation from Penn locations*	193,999	1.00	0.94	0.81	0.76	0.70	0.61	0.58
Print items circulated - general and special collections	151,750	1.00	0.94	0.83	0.82	0.77	0.69	0.67
Course reserve items circulated (print)	20,339	1.00	0.91	0.90	0.85	0.97	0.72	0.68
Videos circulated	8,045	1.00	0.87	0.69	0.59	0.46	0.36	0.23
Sound recordings circulated	4,220	1.00	0.92	0.92	0.77	0.54	0.43	0.44
Laptop computers circulated	4,973	1.00	0.92	0.58	0.38	0.25	0.19	0.35
Other equipment	4,672	1.00	1.02	0.73	0.62	0.42	0.36	0.20
FROM PARTNERS AND NETWORK PLATFORMS								
Items circulated through interlending	165,563	1.00	1.02	1.05	1.01	1.00	0.96	0.90
E-journal Articles Downloaded	7,268,553	1.00	1.00	0.92	0.90	1.00	1.17	1.10
E-Book uses (chapter views)	860,091	1.00	1.33	1.84	2.45	3.85	4.18	3.81
Repository articles and theses views	2,128,809	1.00	1.31	1.76	1.96	2.39	2.54	2.53

## Circulation, All Formats by Borrower Status

	Current Year	Trend Index						
	FY17	FY11	FY12	FY13	FY14	FY15	FY16	FY17
[excludes Biddle Law & Special Collections]								
Grad Student	61,184	100	0.91	0.80	0.75	0.66	0.57	0.51
Undergraduate Student	41,707	100	0.94	0.79	0.69	0.56	0.43	0.38
Staff	28,919	100	0.93	0.84	0.81	0.74	0.72	0.64
Faculty	23,683	100	0.98	0.90	0.87	0.79	0.70	0.72
Grad Carrels	6,759	100	0.98	1.04	0.97	0.95	0.78	0.84
Alumni/Courtesy	4,166	100	1.14	1.23	0.94	0.89	0.80	0.75
Other	5,720	100	1.22	1.15	0.85	0.75	1.05	1.21

FACT



Every  
**2.3**  
seconds

a user begins  
a session with a  
Library resource  
online

Figures 6. Per Capita Use of Electronic Resources

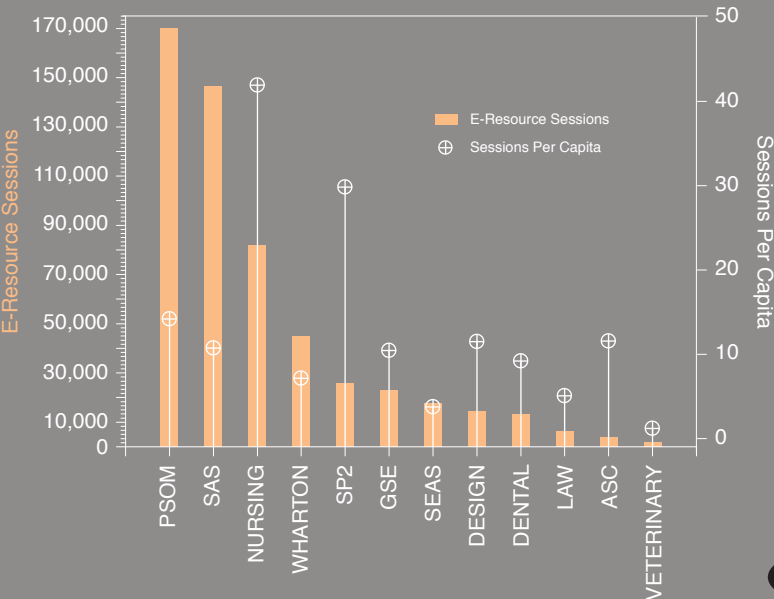
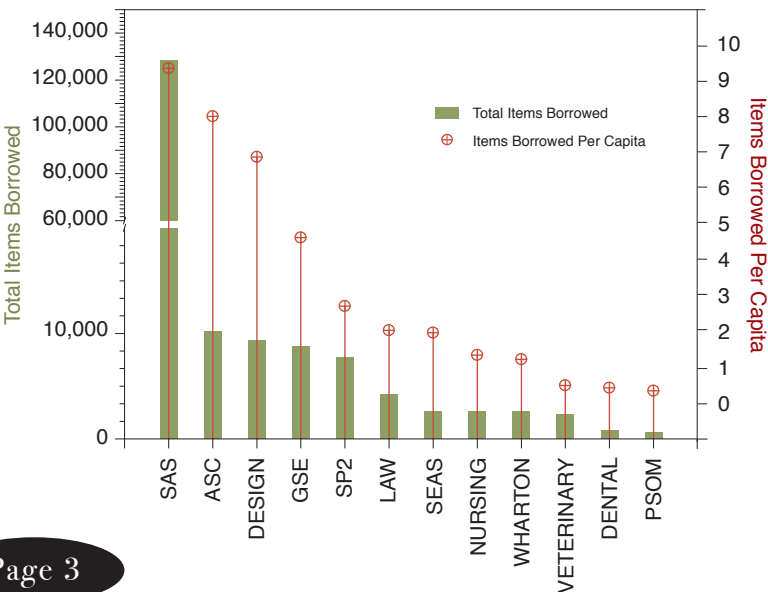


Figure 7. Per Capita Use of Penn's Print Materials

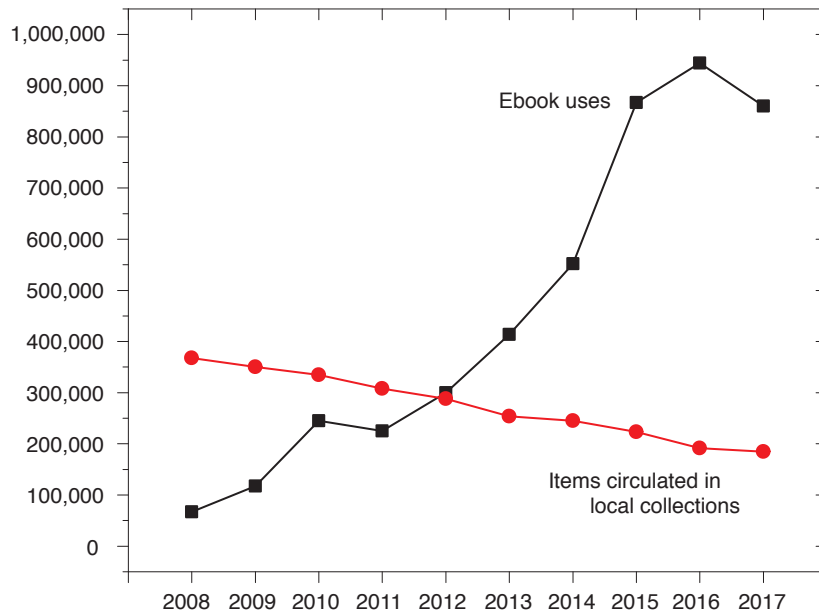


## Items Supplied by Faculty Express (a service that delivers books and articles directly to faculty offices)

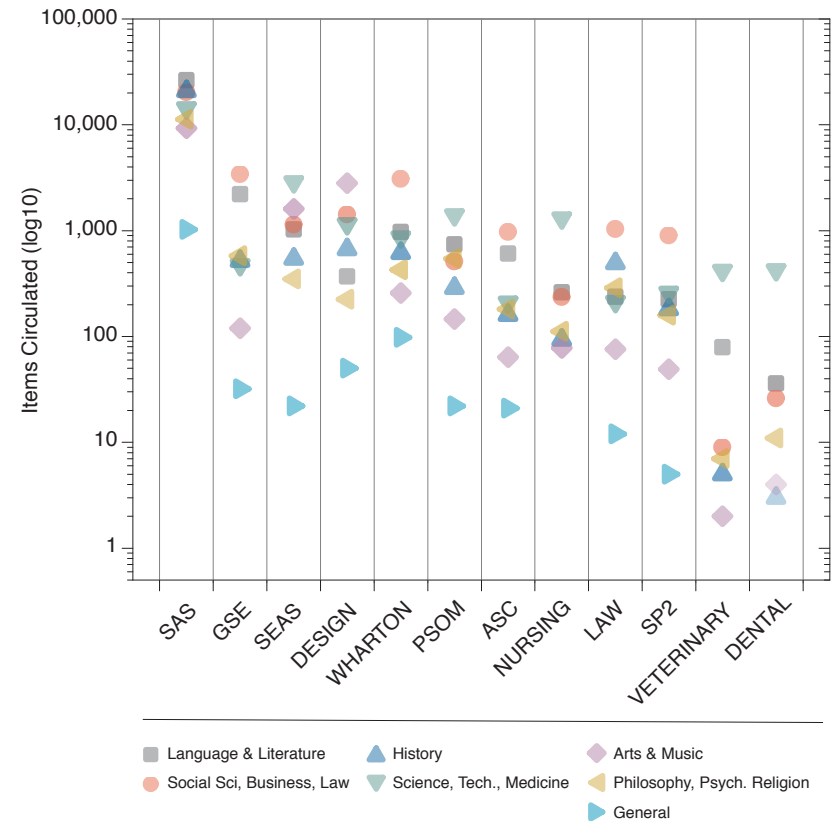
Current Year

	Trend Index							
FY17	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
17,279	1.00	1.06	1.07	0.94	1.00	0.92	0.94	0.97

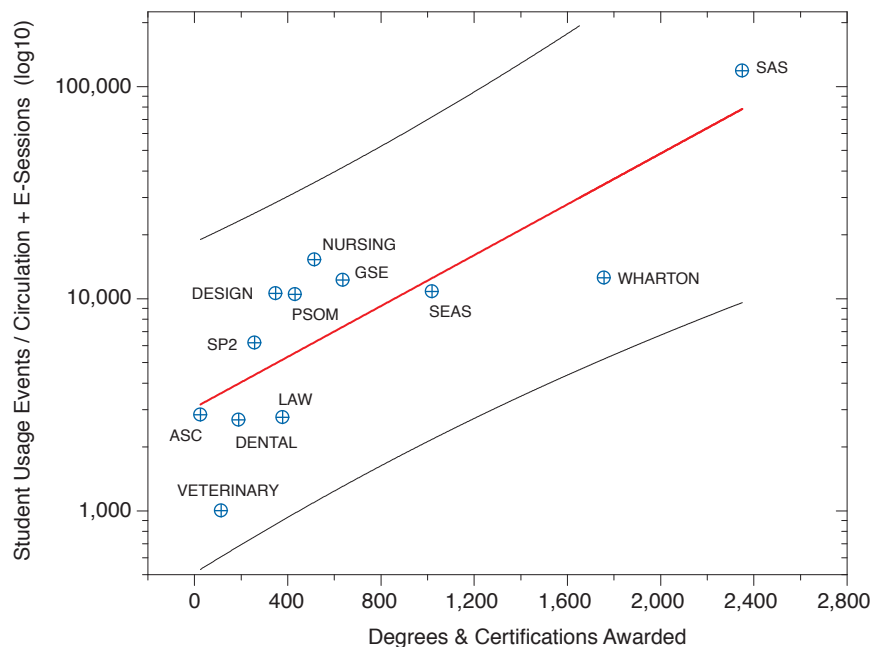
**Figure 8. Ebook Use vs. Print Circulation** (Penn's collections)



**Figure 9. Circulation by School and Subject Cluster** (Penn's collections)



**Figure 10. Collection Use Correlated with Degrees and Certificates**



**NB:** E-journals and e-books have become the preferred media for learning and research involving texts. Penn's print collection is still the preserve of specialized areas where the corpus remains largely in print. Among the Libraries' more popular services, Faculty Express continues to reach an audience with an abiding need for information in printed form. Regardless of format, scholars work across the subject spectrum of our collections and ostensibly their disciplines, as Figure 9 illustrates. A comparison of student use of print and electronic materials to degrees and other credentials conferred (see Figure 10), provides evidence that the use of library materials is directly relevant to fundamental university outputs.

## Resource Sharing Enabling Discovery

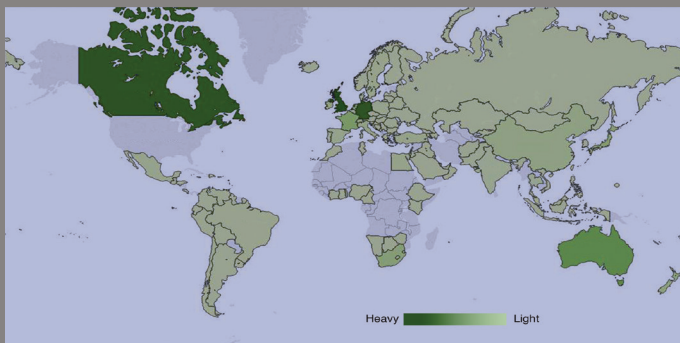


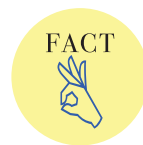
Figure 11. World-Wide Adoption of Penn Cataloging

Libraries around the world share resources in a number of ways. The most familiar is the exchange of books and other physical materials known as interlibrary loan. Interlibrary supply chains are built on several foundations, the primary and most important of which is metadata, the descriptive information that makes it possible for scholars to discover and access resources held in library collections.

Among other initiatives, this page describes Penn's contributions to an international network of metadata that powers discovery and resource sharing. Behind it is a vast cooperative cataloging system called OCLC (the Online Computer Library Center, Inc.). Penn was an early adopter of OCLC, which after 40+ years contains nearly half a million book and serial records created by Penn metadata specialists and used over a million times in library catalogs across the globe (Figure 11). Figure 12 shows the distribution of these shared catalog records by publication date; Figure 13 analyzes that distribution by subject and format.

Thanks to the Andrew W. Mellon Foundation, Penn librarians have been digging deep into the rare and unique troves of our collections, cataloging original sources once hidden from view. Their work provides a new stream of original metadata to the world's knowledge bases, describing distinctive materials that supplement past research and open new realms of inquiry. Figure 16, tracks the growing number of hidden collections earmarked for OCLC and other catalogs of record. It also includes a few illustrative examples.

Figures 14, 15 and 17 document the Libraries' efforts to acquire and also *create* information that backs Penn's investment in collaboration. Libraries can only benefit from resource sharing programs when they're prepared to build the collateral necessary for partnership and make that material available for discovery and future use.



# 1972

Penn, Temple and Drexel pioneer shared electronic cataloging using a system designed by the Ohio College Library Center

Figure 12. Adoption of Penn Cataloging Via OCLC by Publication Date

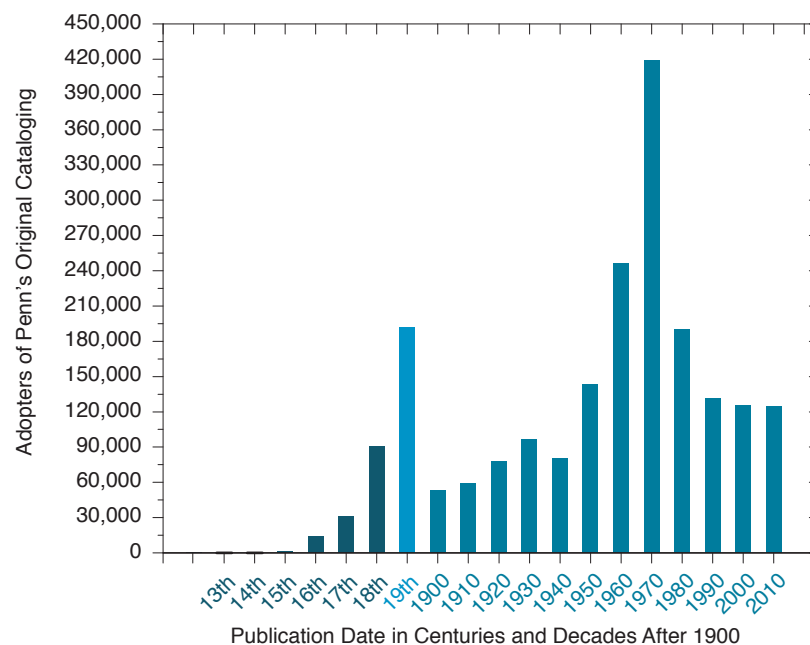


Figure 13. Adoption of Penn Cataloging Via OCLC by Subject Class

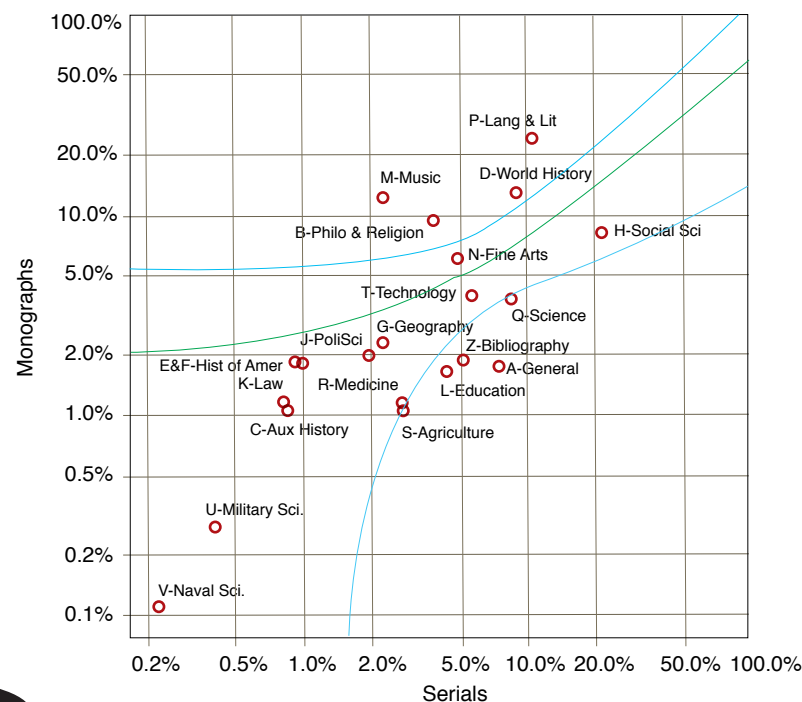




Figure 14. Circulation by Languages in Rank Order

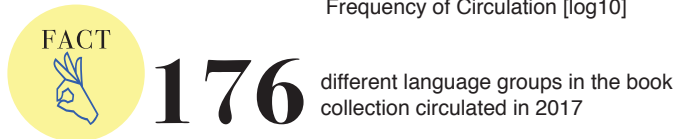
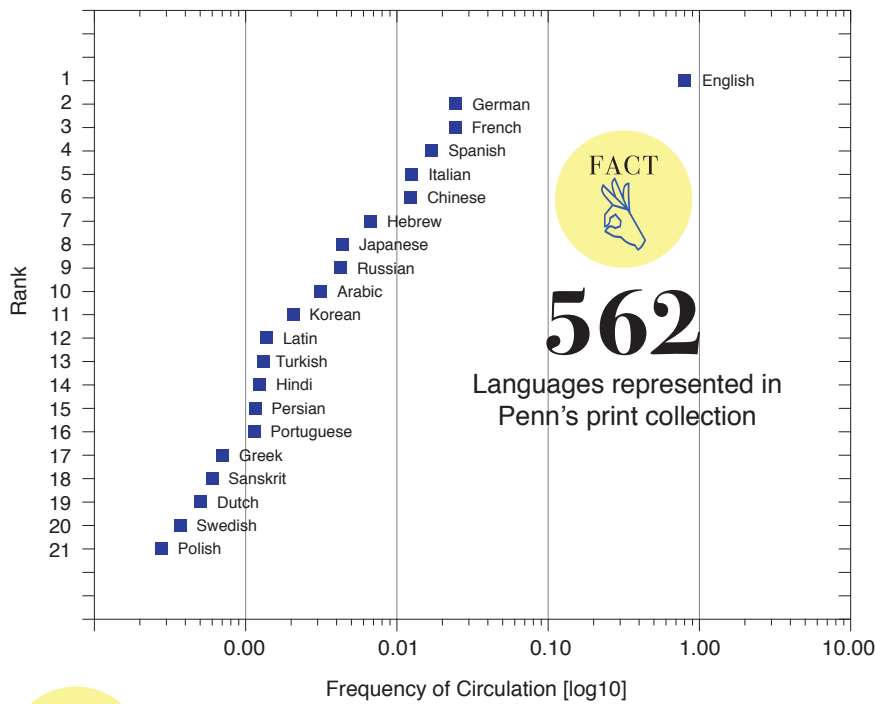


Figure 16. "Lighting-up" Hidden Collections

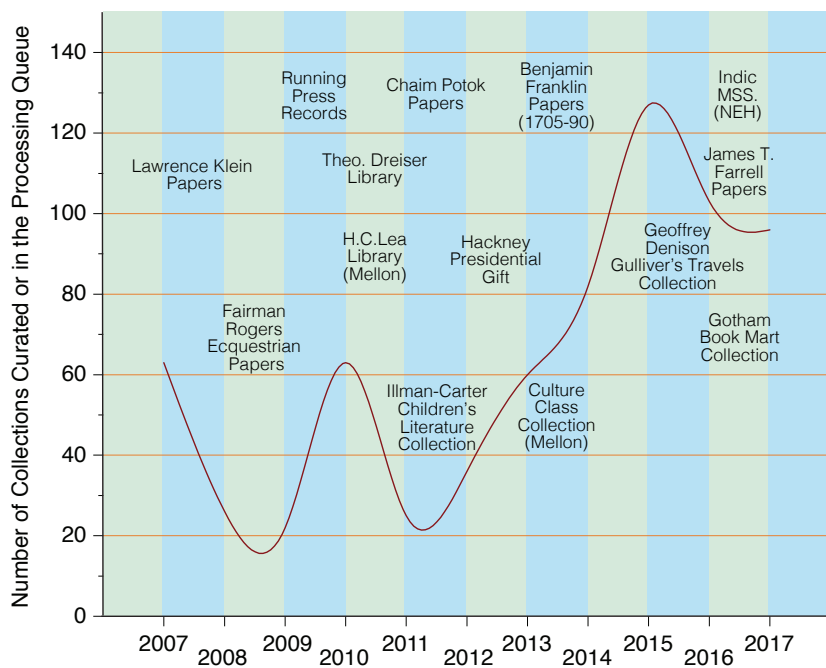


Figure 15. Production of Digitized Images by Penn

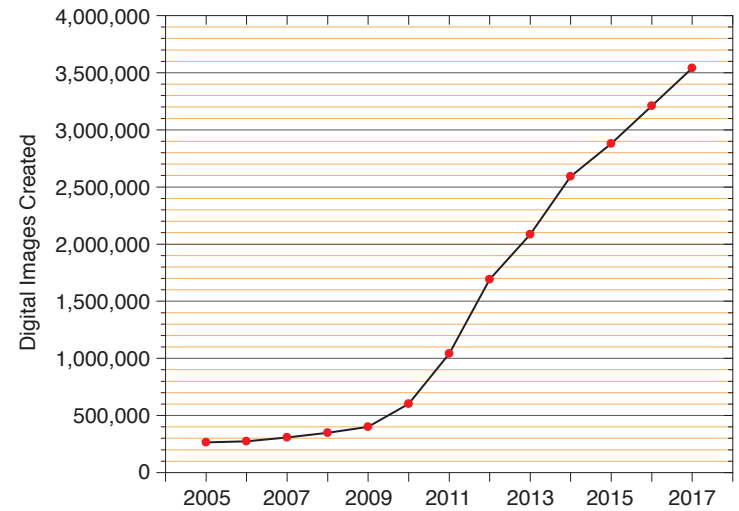
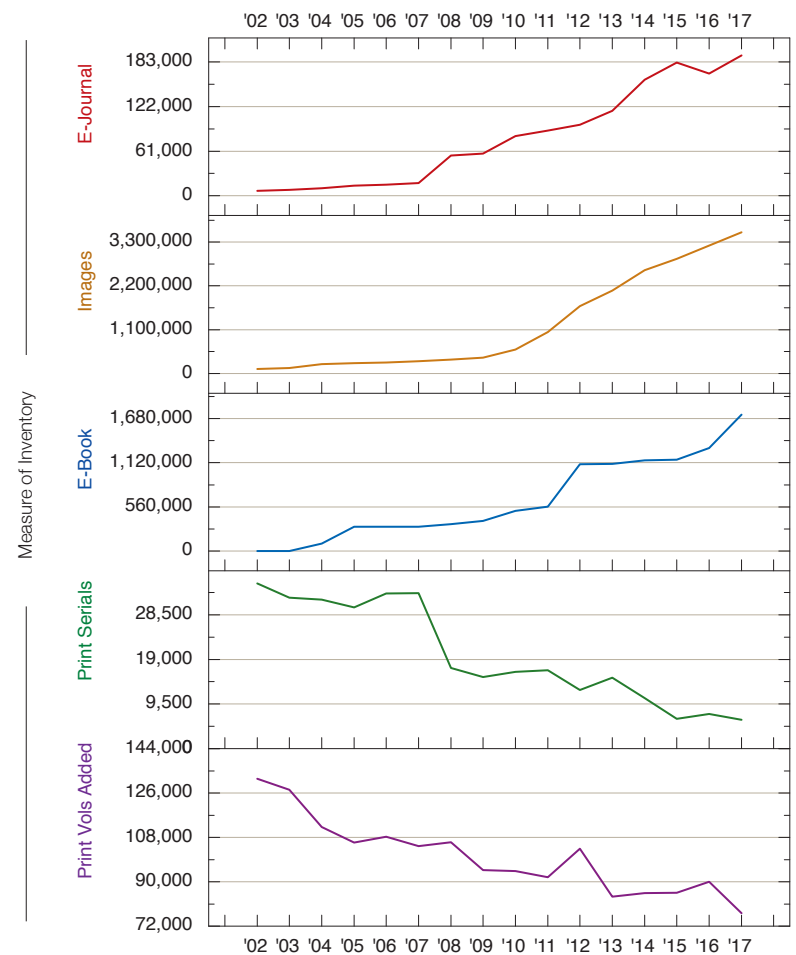


Figure 17. Penn's Resource Acquisition & Cataloging Over Time



# Resource Sharing

## From Discovery to Delivery

Penn’s work at sharing metadata *about* our collections—detailed in the previous section—dovetails with access and delivery *from* those collections. In this arena, our students and faculty enjoy extraordinary services. We have placed at their finger tips well over 100 million volumes belonging to the Ivies and other university partners. The traffic in books and articles is on a continental scale, as Figure 21 illustrates. Our reach to information has few if any limitations. We fulfill most requests in about three days; we’ve also worked with our partners to widen the scope of what’s lendable. And we’re containing the cost of inventory management and shipment in order to grow and sustain resource sharing capabilities for future scholars.

In the previous year, the volume of resource sharing slowed somewhat due to Penn’s migration to a new system of cataloging and access control. But the long range trend in interlending will continue as the Libraries strive to satisfy Penn’s voracious appetite for scholarly information, through better coordinated collecting patterns, evermore rapid supply systems, and the enrichment of catalogs.

The Ivy Plus BorrowDirect initiative, a computer mediated search and request service originally founded by Penn,-Columbia and Yale, has changed the trajectory and image of resource sharing. BorrowDirect is now an incubator for collaborative collecting, workflow redesign, and technology building. It’s also leading the partners into new areas of cooperative management and program governance. For our users, BorrowDirect supports something like the “substitution effect” familiar in consumer economics, that is, it provides a ready alternative to Penn materials in limited local supply due to demand or other constraints. Figures 18 and 20 illustrate the substitution effect in action as users and libraries both reach beyond their home collections to address demand. Indeed, partnership has become a cost-effective way of avoiding the redundant purchase of titles that perennially receive short-term, intensive use. At Penn, roughly 45% of our requests through BorrowDirect (see Fig.20) are for materials we own which aren’t available. And that percentage runs even higher for others in the cooperative.

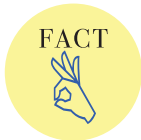
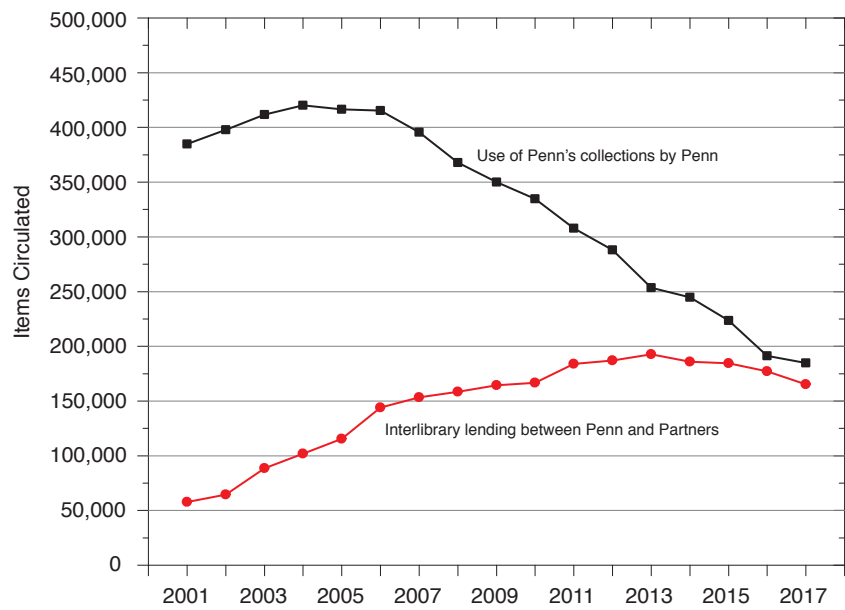
PENN BORROWS	Titles	Copies	Total	1-Yr. Chng	5-Yr. Avg
Interlibrary Loan	13,924	14,243	28,167	-11.6%	1.4%
Direct Borrowing <sup>†</sup>	40,505	n/a	40,505	-8.3%	-8.5%
RAPID <sup>°</sup>	n/a	16,646	16,646	5.7%	-11.5%
Total Items	54,429	30,889	85,318	-7.0%	-1.4%

PENN LENDS	Titles	Copies	Total	1-Yr. Chng	5-Yr. Avg
Interlibrary Loan	14,080	11,575	25,655	-12.2%	-3.4%
Direct Borrowing	39,338	n/a	39,338	-1.6%	-0.5%
RAPID <sup>°</sup>	n/a	14,842	14,842	-8.4%	0.5%
Total Items	53,418	26,417	79,835	-6.5%	-5.8%

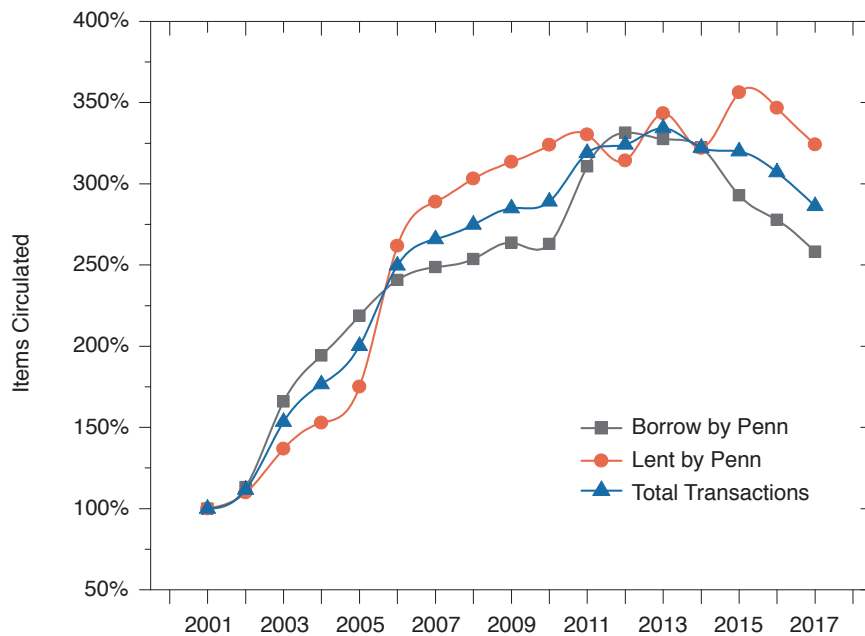
<sup>†</sup> Direct Borrowing services allow users to bypass interlibrary loan and request books directly from the IvyPlus institutions and selected schools in the Pennsylvania, New Jersey, New York, and West Virginia region. <sup>°</sup> RAPID is an expedited alternative to traditional interlibrary loan for journal articles

Figure 18. Items Supplied from Penn’s Collections & Its Partners

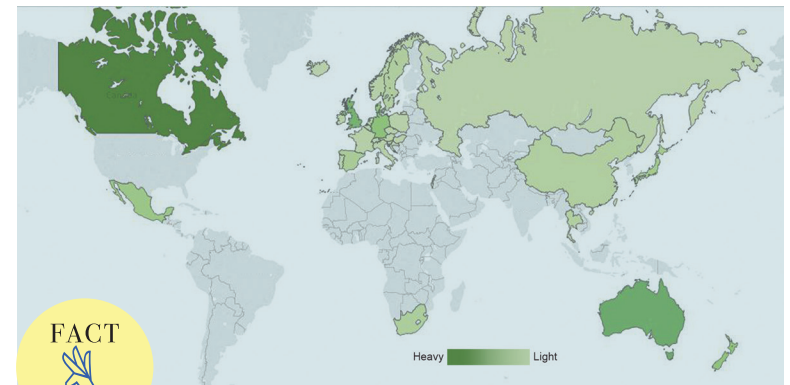


**35** The number of countries and provinces world-wide to and from which Penn lends and borrows printed and scanned materials

**Figure 19. Trends in Resource Sharing**



**Figure 21. World-Wide Resource Sharing at Penn**

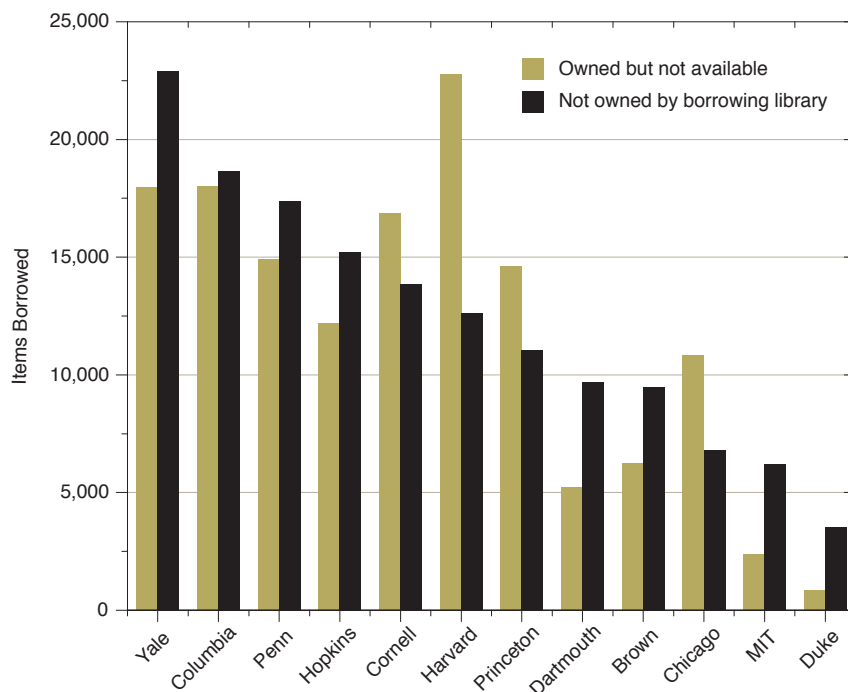


FACT

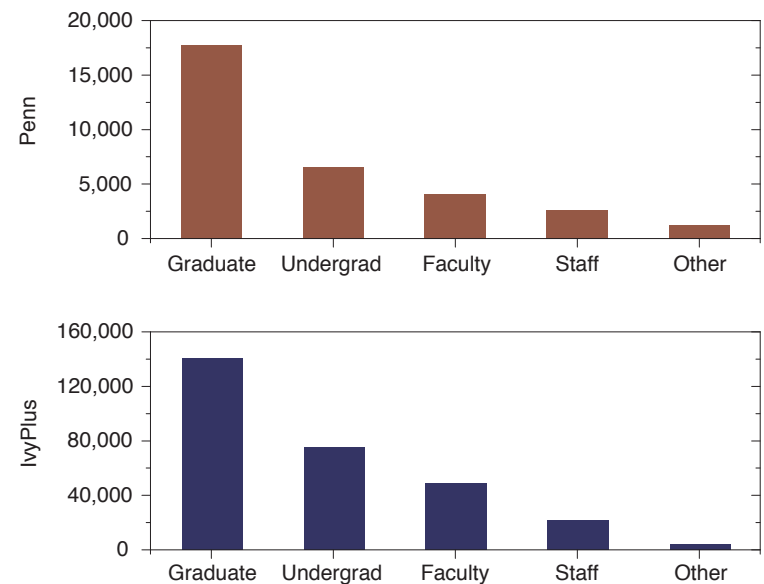
**2,194**

Items borrowed and lent around the world by Penn

**Figure 20. Resources Requested by Ivy Plus Partners [BorrowDirect]**



**Figure 22. BorrowDirect Service by Groups, Penn & IvyPlus**



# Research & Teaching Support

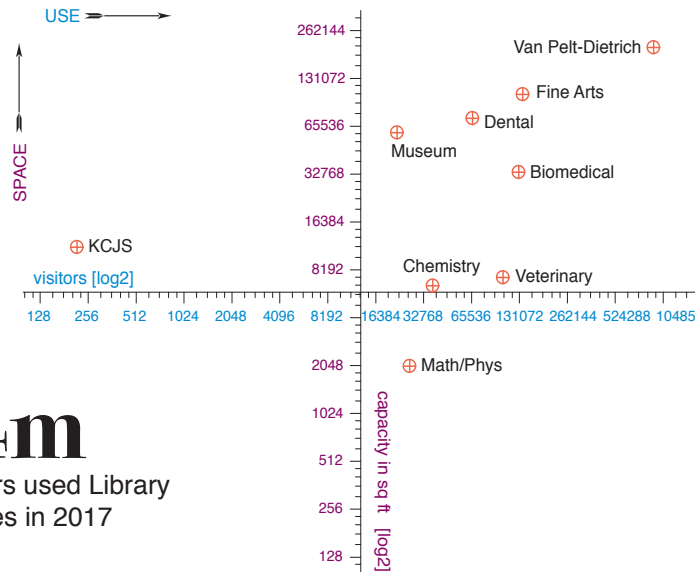
The term “library” is coming to represent a much wider spectrum of value than it did even a few years ago. Not surprisingly, a substantial portion of the 30 million service events charted on page 1 is made up of activities associated not only with “stackable assets” like books, but also many new and evolving lines of service. Think 3D printing, collaborative teaching, video and digital image production, letterpress printing, virtual and augmented reality, systematic reviews in healthcare, researcher profiling and research analytics, copyright assistance, geographic information systems, data curation, and coding. Think of these and nearly any innovation in academic work today and the word “library” will increasingly come to mind. Describing and measuring the emergent meanings of “library” is a challenge that grows with the expansion of services. As the future crystalizes, so will the benchmarks and metrics. This page illustrates a portion of today’s expansion of value-added service, from “evergreens”, like research consultation to 3D modeling.

FACT



1.4m  
visitors used Library  
spaces in 2017

Figure 23. Relative Use and Capacity of Library Spaces

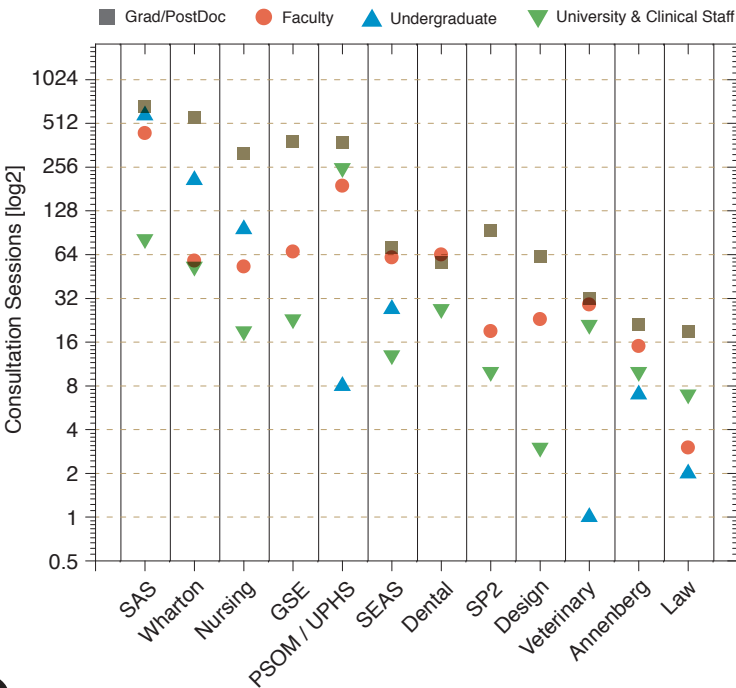


## Library Instruction and Research Consultation, 2017

[Not including Biddle Law]

Library instruction & workshop events	11,522 participants / 780 Sessions
Consultations	7,205
Virtual Reference (email, chat, etc) events	9,050

Figure 24. Consultation Sessions by Group and School

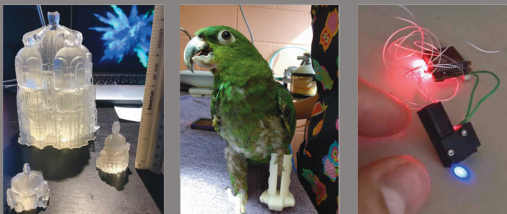


FACT



625

3D prints made for STEM researchers in 2017



FACT



18,504

The number of teaching, study, and collaborative learning events held by students, faculty, and staff in library spaces in 2017

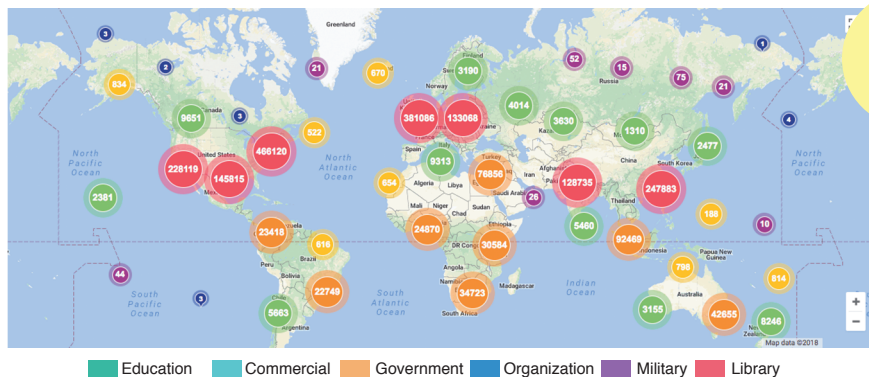
FACT



304,986

Papers and other research objects in the Penn Libraries’ VIVO site, part of the Expertise@Penn, researcher profiling service (vivo.upenn.edu)

Figure 25. World-Wide Downloads from the Scholarly Commons@Penn



FACT

49,879

Institutions. The worldwide readership of Scholarly Commons@Penn

### Courseware Users (Biddle Law not included)

	FY17	FY16	FY15	FY14
Instructors	6,043	5,845	5,443	4,098
Students	51,452	49,032	46,326	42,372

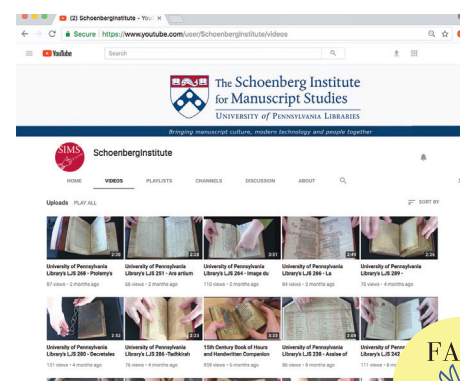
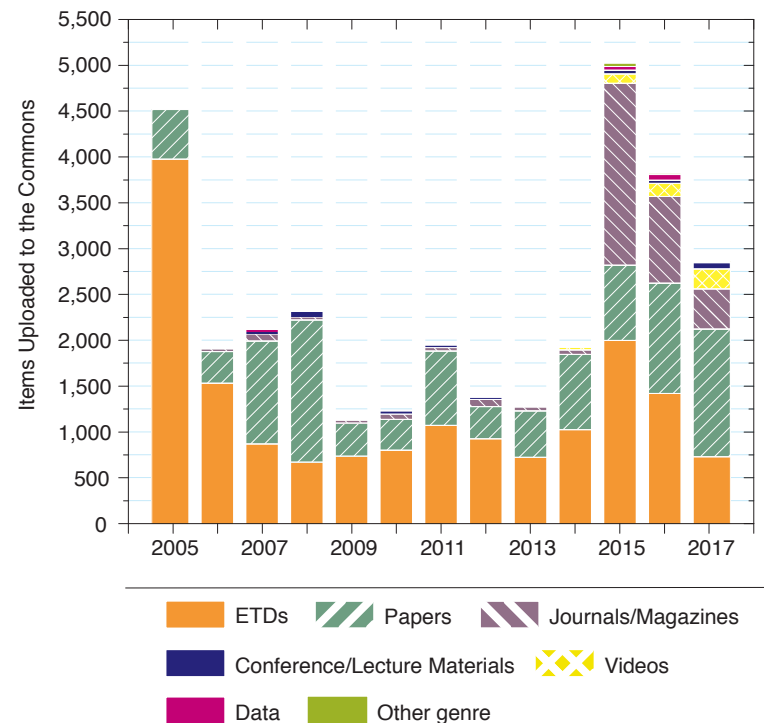
### Basic Course Site Content

Assignments	88,629	85,386	83,403	59,789
Discussion Topics	76,564	72,898	66,453	52,026
E-Reserves & Other Files Uploaded	507,375	487,071	427,953	294,320
Media Recordings Students	18,259	23,533	28,038	19,797

### Courseware: Canvas Sites Created by School [centrally managed service of the Libraries]

	FY17	FY16	FY15	FY14	FY13	1-year Change	5-Year Change
Arts & Sciences	3,403	3,028	2,920	2,830	3,327	12.4%	0.6%
Wharton	1,076	1,075	947	951	89	0.1%	86.5%
Biddle	483	483	458	259	18	0.0%	127.6%
Education	414	369	418	494	80	12.2%	50.8%
Engineering & Applied Science	325	316	329	321	320	2.8%	0.4%
Nursing	221	196	203	213	169	12.8%	6.9%
Social Policy & Practice	185	201	182	154	157	-8.0%	4.2%
Design	172	156	118	104	118	10.3%	9.9%
Annenberg	57	53	61	68	66	7.5%	-3.6%
Dental	69	38	51	41	65	81.6%	1.5%
PSOM	4	0	30	15	88	na	na
Total	6,409	5,862	5,717	5,451	4,496	9.3%	9.3%

Figure 26. Additions to the Scholarly Commons@Penn



FACT

11,812

Views of video orientations for the Schoenberg collection of manuscripts, part of the teaching mission of the Schoenberg Institute for Manuscript Studies at the Penn Libraries

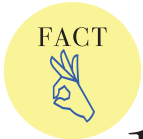
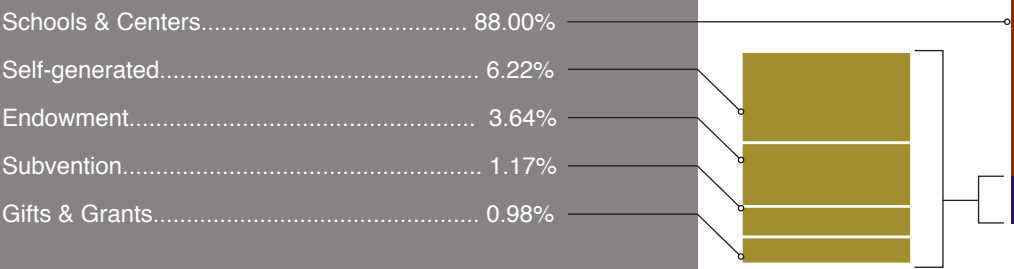


# Finances

## Library Expenditures

Total 2017 Income: \$75,333,698

### Sources of Funds



18

Penn's rank in the Investment Index of the 126-member Association of Research Libraries

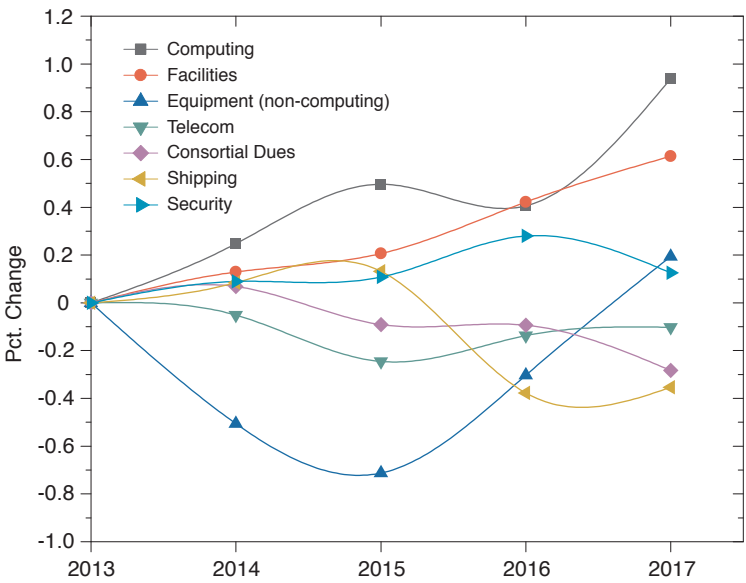
### Library Costs Allocated to Schools & Centers

Arts & Sciences	26.60%
Medicine	18.33%
Wharton	11.11%
Law†	6.94%
Engineering	6.93%
Nursing	3.52%
Education	2.86%
Dental	2.64%
Design	2.60%
Veterinary	2.07%
Social Policy & Practice	1.32%
Annenberg	1.04%
Museum	1.03%
Hospital [HUP]	.57%
International Programs [Penn Global]	.56%
Interdisciplinary	0.07%

† Includes the Law School's direct contribution to its library.

**NB:** The Penn Libraries are funded through a system of Responsibility Centered Management (RCM). Each of the University's twelve schools and its various centers picks up a portion of the tab for information services. The percentage is determined by an algorithm based on population and course units. This system works to normalize the Libraries' budget, recognizing that library service is a common good to all of Penn's communities.

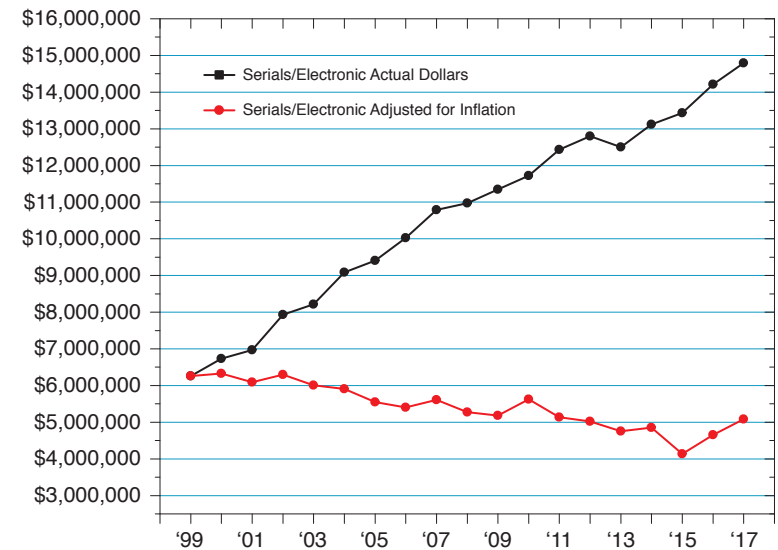
Figure 27. Changes in Operational Expenditures, 2103-17



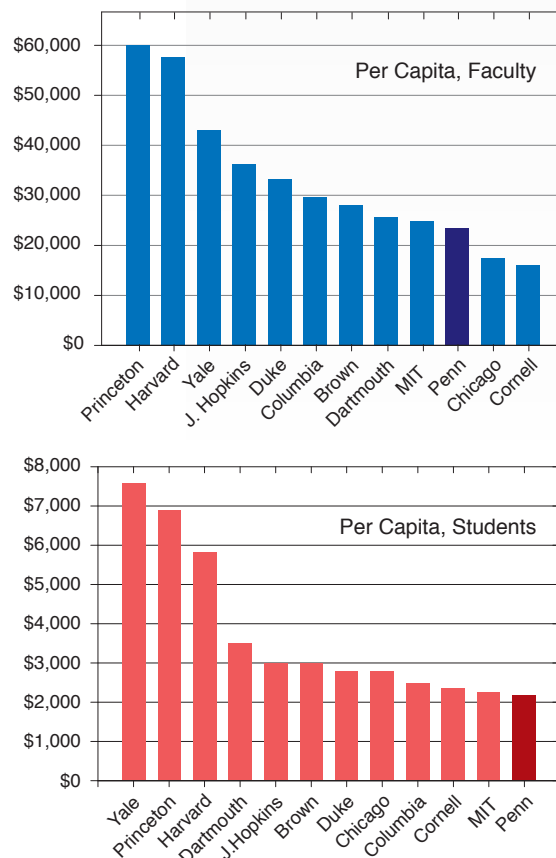
## Expenditure by Category

Compensation	\$28,619,555	37.99%
Acquisitions	\$20,202,586	26.82%
Allocated Costs	\$12,490,000	16.58%
Renovations	\$4,793,504	6.36%
Supplies & Services	\$4,060,184	5.39%
Computer Services	\$3,150,071	4.18%
Bibliographic Utilities	\$882,438	1.17%
Storage (Rent/O&M)	\$473,561	0.63%
Staff Development	\$288,415	0.38%
Preservation & Binding	\$235,923	0.31%
Equipment	\$137,462	0.18%

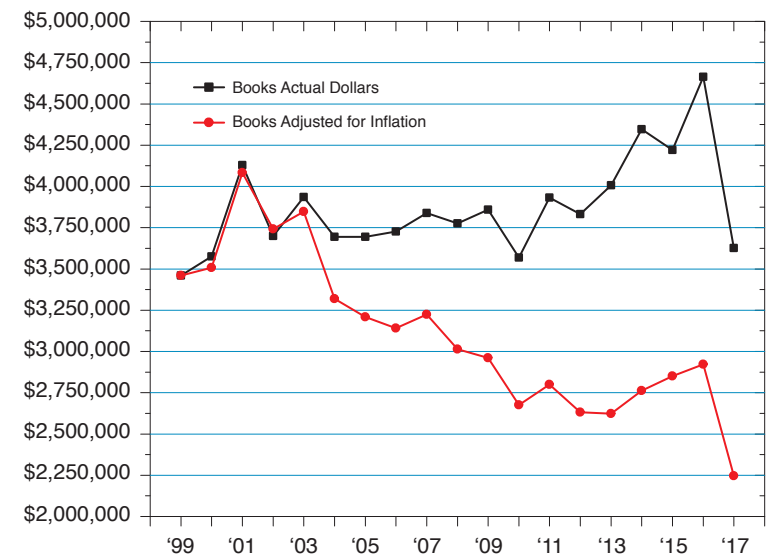
**Figure 30. Serials Expenditures Adjusted for Inflation**



**Figs. 28/29 Library Expenditures, Faculty & Students**



**Figure 31. Book Expenditures Adjusted for Inflation**



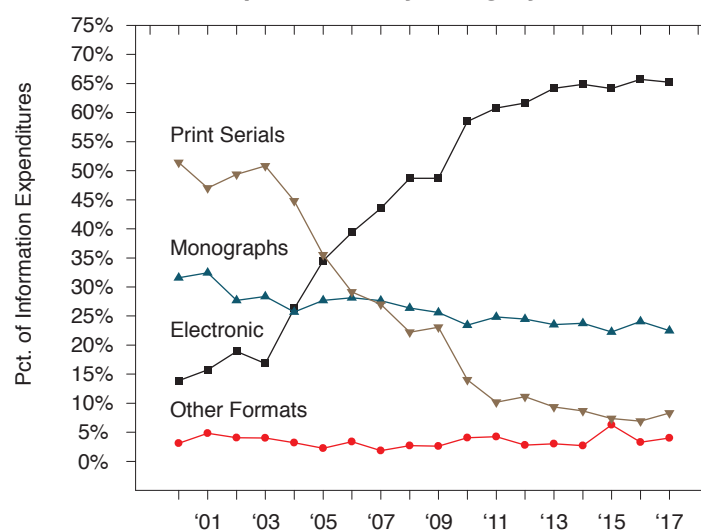
# Information Expenditures

Each year across disciplines, electronic resources command a larger share of information spending. The Libraries face the challenge of balancing these digital collection costs with print, which remains for certain communities a central form of scholarly communication. The 70,000+ volumes processed in 2017 is evidence of that need. It's an equal challenge to orchestrate the spend by subject area since our usage data clearly indicate that Penn scholars range quite broadly across subject boundaries (see Figure 9).

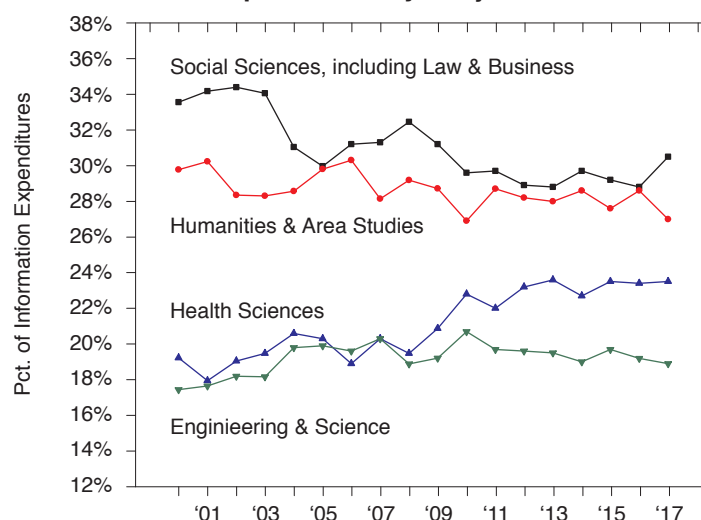
Figures 30 and 31, on the previous page, reflect what's most probably a brief pause in the upward spiral of publishing industry inflation, particularly for serials. Even with that moderation, publishers' prices continue to climb at a steeper rate than other goods and services, and still out pace library budget increases. In response, the Penn Libraries continue to leverage endowment growth, resource sharing, and to a lesser degree, cooperative acquisitions with our peers as strategies for achieving the margin of excellence in our collections.

The unit costs for print books and rates of circulation can vary quite widely across subjects. Figure 35 identifies how efficiently certain subject groups perform in terms of purchase price and cost per use. The graph is based on acquisition costs and circulation data by Library of Congress classification, from January 2016 to June 2017. The circulation counts exclude in-house use. Two variables are plotted: Average Cost Per Use (X axis) and Average Unit Cost (Y axis). The median lines divide the graph into quadrants. The most "efficient" classes, in terms of these variables, scatter in the lower left quadrant; the remaining plots rise and move to the right as items increase in expense and decrease in use. Medicine and Science, not particularly bookish fields, have a relatively favorable cost per use ratio as a result of fairly strong circulation. The humanities, the most prolific group for circulation and the group most connected to the print monograph, perform best overall.

**Figure 32. Information Expenditures by Category**



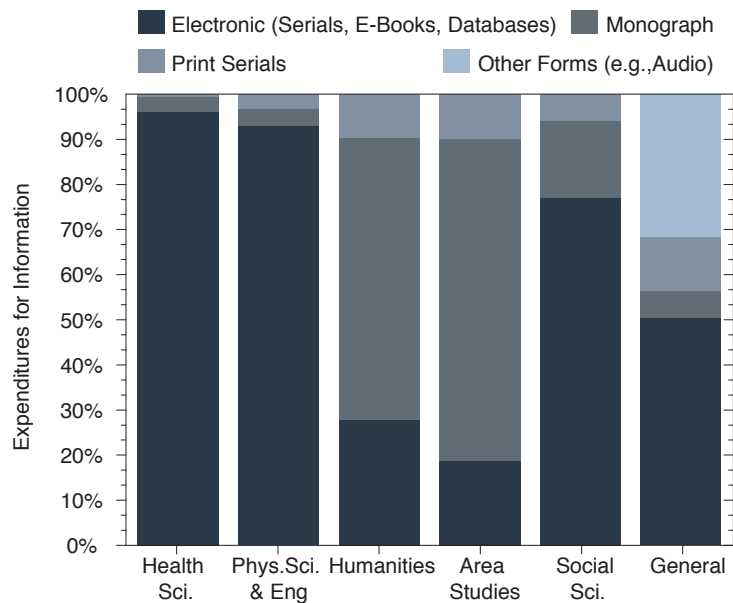
**Figure 33. Information Expenditures by Subject**



**Information Expenditures by Category & Subject Area, 2017**

Electronic Information	65.2%
Monographs	22.5%
Serials (for print and e-journals that come bundled with print)	8.3%
Other (e.g. scores, slides, audio-visual)	4.0%
Social Sciences, including Law & Business	30.5%
Humanities and Area Studies	27.0%
Health Sciences	23.5%
Engineering and Sciences	18.9%

**Figure 34. Information Expenditures by Category & Subject**

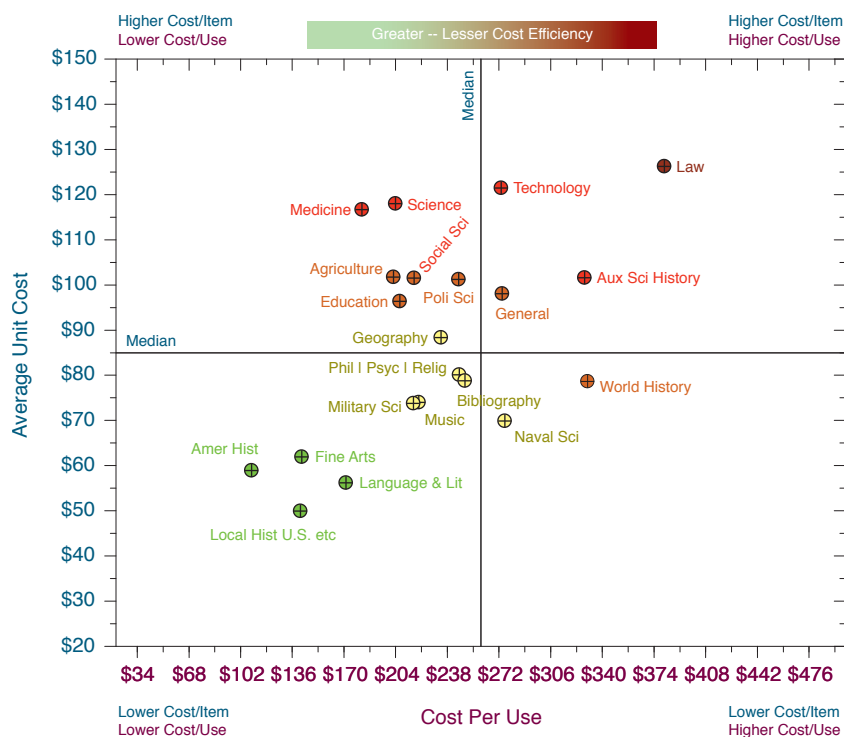


### Overview of Penn's Collection by Format

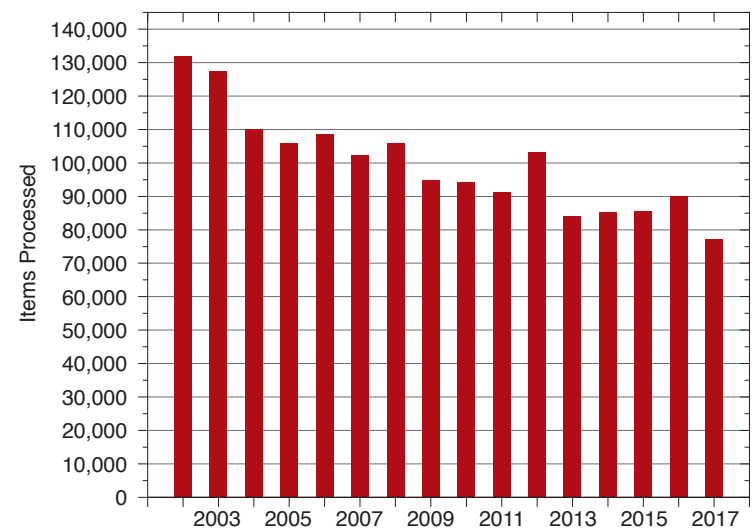
Total Volumes [print + E-Book]	8,375,051
Physical Volumes	6,540,557
Physical Audio	115,473
Physical Video	46,671
Microforms	4,252,117
Maps	139,570
Graphic Materials	1,010,565
Number of Electronic Reference Sources	1,851
Number of E-Journals	192,034
Number of E-Books	1,834,494
Number of Locally Digitized and Published Images	3,541,573
Documents Available in ScholarlyCommons@Penn	31,412
Streaming Audio Files	54,413
Streaming Video Files	29,849
Digital Penn Projects <sup>†</sup>	39

<sup>†</sup>Digital library collections created from Penn's rare and unique materials, presented on the web at [www.library.upenn.edu/digitalpenn](http://www.library.upenn.edu/digitalpenn)

**Figure 35. Cost/Use of Library Books by Subject Class**



**Figure 36. Print Materials, Multi-year Processing Trend**



# Advancement

## Annual Fundraising FY015-FY17

	FY15	FY16	FY17
Total Raised	\$6,840,137	\$5,696,163	\$8,385,283
Number of Donors	499	785	790
Grants Awarded	7	4	2
Dollars Awarded	\$812,583	\$489,798	\$176,871

## Library Expendable Endowment

Number of endowment funds	297
Market value	\$101,885,458
Income from endowment	\$4,314,735

## The Decade of Fundraising 2005-17 by Category

Collections [cash and gifts in kind]	\$41,784,529
Capital	\$18,848,941
Talent	\$4,192,860
Programs and Services	\$6,101,483

## Library Endowments Valued at \$1 Million or More

Adolph G. Rosengarten, Jr. Memorial Fund	\$24,696,257
Edmund J. Kahn Bookk Fund	\$9,794,933
Alumni and Friends Fund	\$4,217,425
Dr. Louis A. Duhring Fund	\$2,869,376
Schottenstein-Jesselson Judaica Curatorship	\$2,204,173
MacDonald Curatorship for Preservation	\$2,115,549
George Clapp Vaillant Fund	\$2,050,689
Class of 1937 Memorial Reading Room	\$1,797,091
Hazel Hussong Fund	\$1,790,881
Eugene Ormandy Fund	\$1,635,160
Rosengarten International Programs Fund	\$1,570,240
Trachtman Memorial Fund	\$1,515,213
Joseph and Helene Blair Fund	\$1,408,807
Herman V. Ames Fund	\$1,185,237
Cheney Memorial Fund	\$1,155,276
R. Jean Brownlee Fund	\$1,144,794
Margy Ellin Meyerson Conservation Fund	\$1,114,794
Edgar Fahs Smith Memorial Collection Fund	\$1,073,235
Constance L. Rosenthal Book Fund	\$1,062,505
Gokhale Library Fund	\$1,052,163
Jay I. Kislak Endowment	\$1,029,845
Horace Howard Furness Memorial Fund	\$1,005,568

Figure 37. Market Value of Library Endowment Over Time

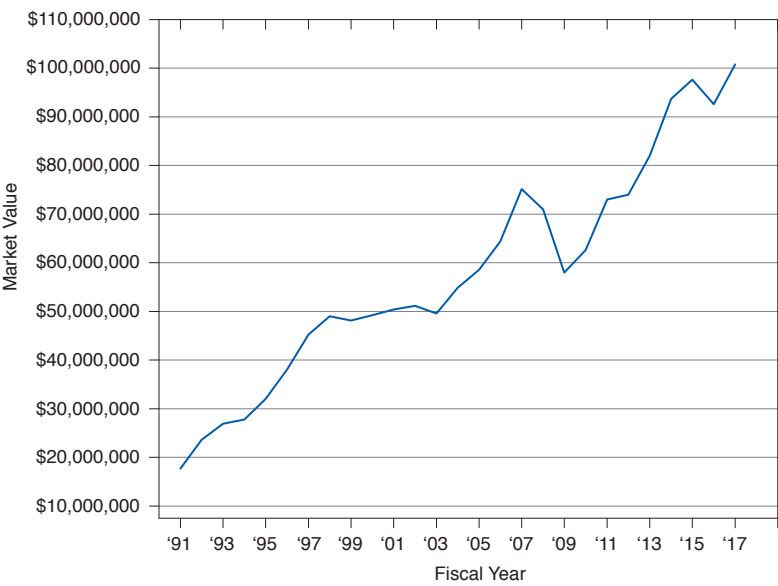
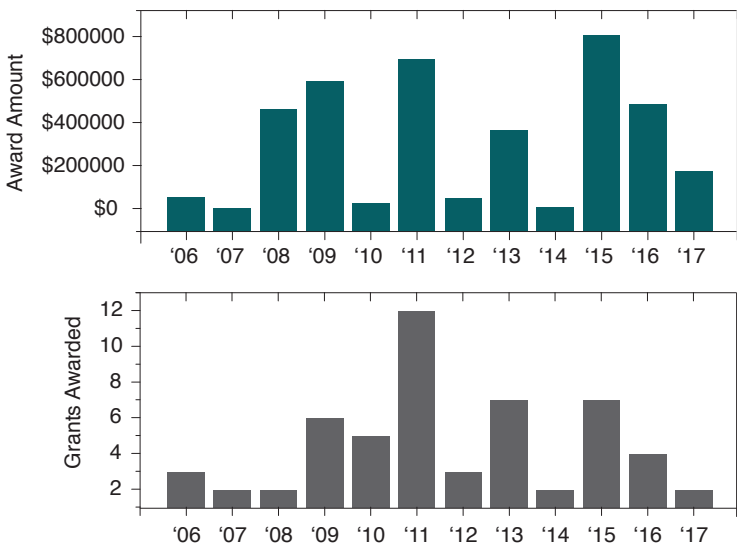


Figure 38/39. Grants: Size & Frequency of Award Over Time



## Library Space, facing page, left to right, top to bottom:

Moelis Family Grand Reading Room	Steven Miller Conservation Lab
Lippincott Library Seminar Room	Yablon Financial Resources Lab
Business Information Desk	Class of 1937 Memorial Reading Room
Class of 1928 Lounge	Goldstein Electronic Class Room



## Renewal of Library Spaces: Recent Projects



# Benchmarks & University Indicators

## Library Expenditures per Faculty and Student, Select ARL<sup>†</sup> Libraries

2016 (n=116)	High	Median	ARL low	Penn	Rank
Library Expenditures per Faculty	\$60,013	\$16,040	\$7,767	\$23,371	24
Library Expenditures per Student	\$7,594	\$924	\$357	\$2,175	19

<sup>†</sup> 2016 latest available. Excludes national archives and public libraries. Source: Association of Research Libraries

## Comparative Personnel Ratios, ARL & Penn

	High	Median	ARL low	Penn	Rank
Library Salaries, Pct. of Total Spending	58.1%	41.7%	30.3%	44.4%	37
Professional Staff as Pct. of Non-student Full-Time Equiv. (FTE)	76.0%	48.7%	26.0%	47.2%	64

ARL Rank for Total Staff (FTE)	2012	2013	2014	2015	2016
	18	15	16	18	14

## Penn's Ranks in the Association of Research Libraries, FY07-16

	fy07	fy08	fy09	fy10	fy11	fy12	fy13	fy14	fy15	fy16
ARL Investment Index	20	21	20	16	17	18	17	17	16	18
Prof'l + Support Staff	29	21	22	28	19	18	15	15	18	16
Wages and Salaries	26	25	24	23	23	20	20	20	16	16
Information Expenditures	24	20	22	21	20	24	23	23	17	24
Total Library Expenditures	20	22	19	14	14	18	17	17	16	15

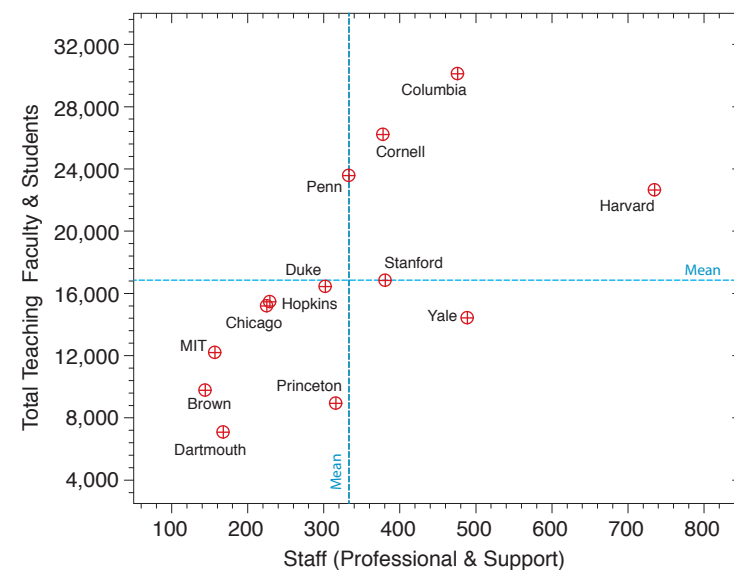
## Staffing and Salaries, Penn Libraries, 2017

Total Full-Time (FTE)	Professional	Support	Student	Total
	164	174	69	407

Professional Staff Salary	Beginning	Mean
	\$52,500	\$75,732

Figure 40. Library Staff & Academic Audience, Ivy Plus



## Ratio of Library staff to academic audience

Princeton	3.5%	Johns Hopkins	1.5%
Yale	3.4%	Chicago	1.5%
Harvard	3.2%	Brown	1.5%
Dartmouth	2.4%	Cornell	1.4%
Stanford	2.3%	Penn	1.4%
Duke	1.8%	MIT	1.3%
Columbia	1.6%		

Figure 41. Library Staff Deployment [full time equivalents]

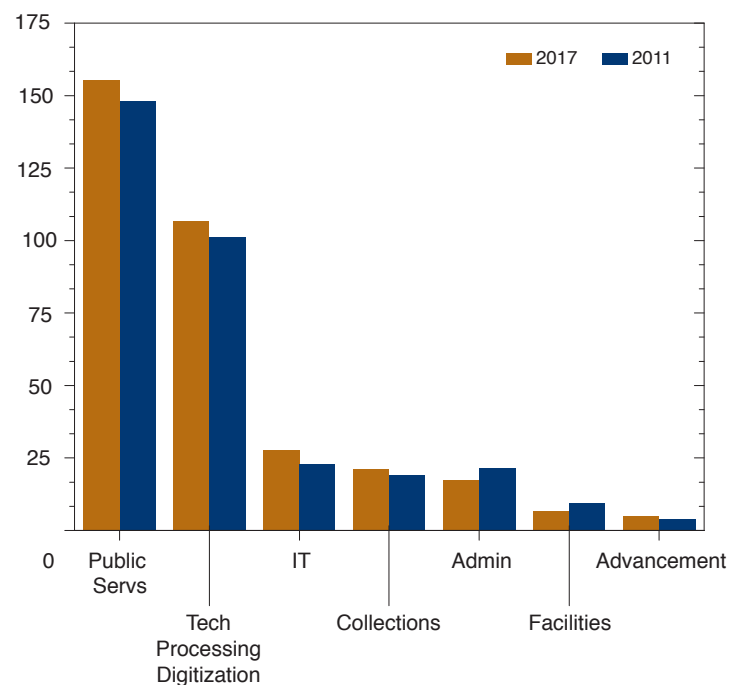


Figure 42. PhDs Awarded, Ivy Plus Group, 2016

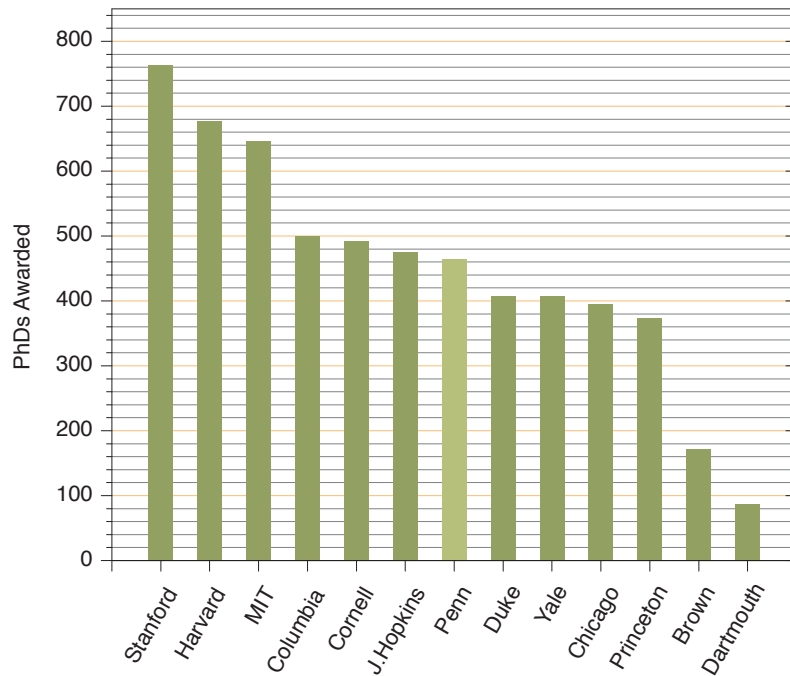


Figure 43. R & D Expenditures, Ivy Plus Group, 2016

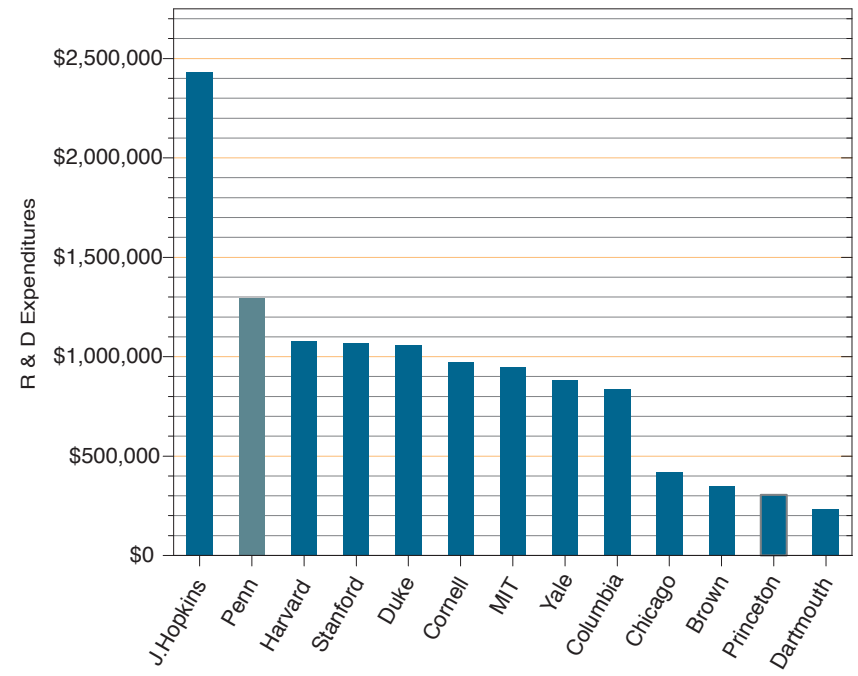


Figure 44. Library Spending as a PCT of Univ R&D Spending, 2016

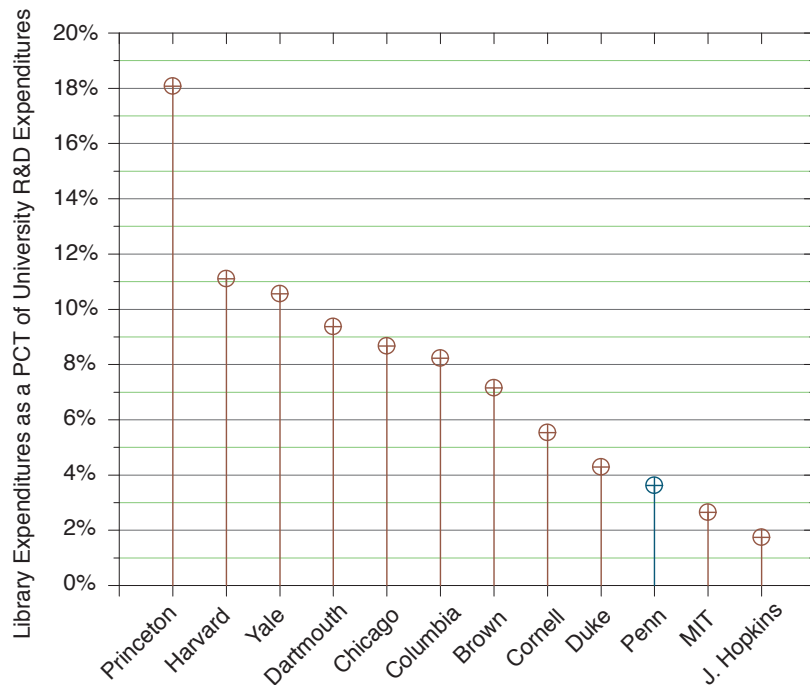
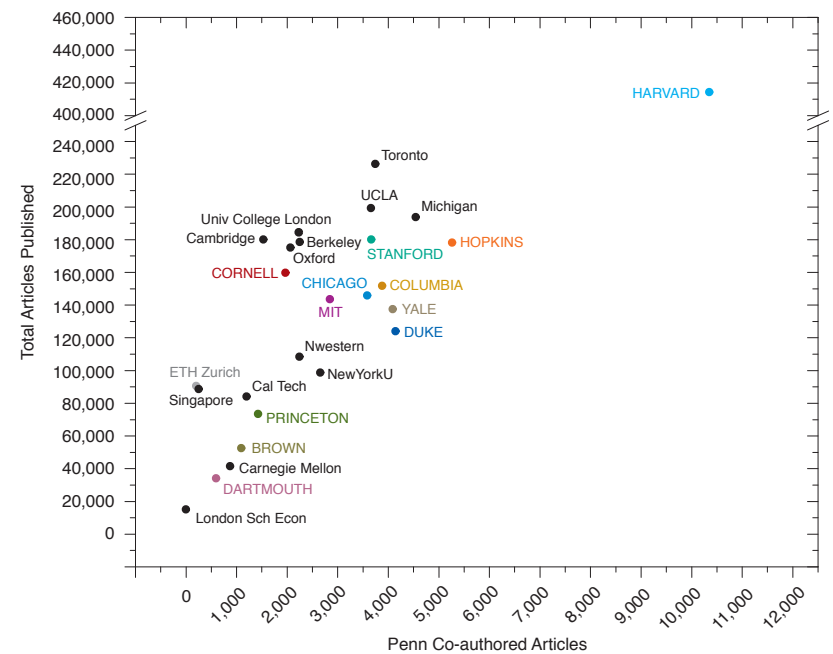


Figure 45. Penn Researchers Most Frequently Co-author With...





# Principal Officers & Advisors

## Library Administration

### **H. Carton Rogers**

Vice Provost & Director of Libraries

### **Brigitte Burris**

Asst. University Librarian for Collections and Liaison Services

### **Kim Eke**

Assoc. University Librarian for Teaching, Research and Learning Services

### **Richard Griscom**

Assoc. University Librarian for Collections and Liaison Services

### **Kim Hoftiezer**

Director, Human Resources

### **Emily Morton-Owens**

Asst. University Librarian for Digital Library Development and Systems

### **David Nerenberg**

Director, Financial & Administrative Services

### **William Noel**

Assoc. University Librarian and Director of the Kislak Center of Special Collections, Rare Books and Manuscripts; Director, Schoenberg Institute for Manuscripts Studies

### **Andy Sarno**

Strategic Planning Officer

### **Jon Shaw**

Assoc. University Librarian for User Services and Resource Management

### **Ruth Sutton**

Director of Advancement

### **Joe Zucca**

Assoc. University Librarian for Library Technology Services and Strategic Initiatives

## Penn Libraries Board of Overseers

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James Crowley

Alexandra S. Cudby

Thomas J. Cusack

Erik D. Gershwind, Vice Chair

Joseph B. Glossberg, Chair Emeritus

Scott J. Glosserman, ex officio

Sandra Grymes

Jeffrey Alan Hechtman

Christine Hikawa, Development Chair

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Wendy Commins Holman

Alan S. Jacobs

Marilyn Kramer Weitzman Kahn

Susanna E. Lachs

Warren N. Lieberfarb

Haniel Jay Lynn

Charles K. MacDonald

Edward P. Mally

Margy Ellin Meyerson

Ellen Moelis

Joshua A. Polan

Eric G. Reiter

Barbara Brizdle Schoenberg

Jeffrey L. Seltzer

Peter V. Shoemaker

Rohit Singh, ex officio

Andrew Miles Snyder

Alberto Vitale

Candice Wang Willoughby

Jill Siegel Yablon

# Sources and Notes

School abbreviations used in graphs:

ASC	I	Annenberg School for Communication
GSE	I	Graduate School of Education
PSOM	I	Perelman School of Medicine
SAS	I	School of Arts and Sciences
SEAS	I	School of Engineering and Applied Science
SP2	I	School of Social Policy and Practice

## Page 1.

Figure 1: A simple aggregation of activities that can be measured as discrete events. Most of the data derive from the Libraries business platforms, such as web and proxy servers, the Voyager Library Management System, and electronic gate counts.

## Page 3.

Figures 6 and 7: Per capita measures are based on fall 2017 population data compiled by Penn's Office of Institutional Research and published in *Quick Facts: Academic Year 2017-18*, <http://www.upenn.edu/ir/Quick%20Facts/Quick%20Facts%20Fall%202017%20-%20AY%202018%208.5x11.pdf>

## Page 4.

Figure 8: Ebook use is based on the COUNTER BR1 report, chapter views. Items charged include all circulate-able material. In-house use is not included. All circulation data are derived from the Voyager Library Management System.

Figure 10. Degrees and Certifications are from *Quick Facts: Academic Year 2017-18*, <http://www.upenn.edu/ir/Quick%20Facts/Quick%20Facts%20Fall%202017%20-%20AY%202018%208.5x11.pdf>. Student library use data derived from Voyager and EzProxy audit logs. Statistics related to the regression analysis:

Equation	$y = a + b \cdot x$
Plot	ESessions+Ciros All students
Weight	No Weighting
Intercept	3.48606 ± 0.1314
Slope	5.99081E-4 ± 1.37974E-4
Residual Sum of Squares	1.05124
Pearson's r	0.80834
R-Square (COD)	0.65341
Adj. R-Square	0.61876

## Page 5.

Figures 12 and 13: The graphs are based on Penn-created bibliographic records extracted from OCLC using WorldCat Query Collections, <https://www.worldcat.org/>. The extract includes the symbols of libraries that derived cataloging from Penn's original records.

## Pages 7 and 8.

Resource sharing data in Figures 18,19 and 22, plus the data table were compiled in Penn's MetriDoc data utility using extracts from the Relais and ILLIAD management systems. Figure 20: Data extracted directly from Relais.

## Pages 9 and 10

Fact checks: Room bookings derived from Springshare's Libcal and Microsoft Outlook; 3D modeling data from a Drupal reporting utility developed by Penn (<https://3dprint.library.upenn.edu/>); and Faculty publications data from Symplectic Elements and VIVO. Figures 25/Map: Digital Commons by bepress courtesy of Google; Figure 26: Data derived from Digital Commons reports. Tabular courseware data taken from the Canvas LMS and Google Tag Manager.

## Page 12.

Figures 28 and 29. Student and faculty population data and peer expenditure are from the Association of Research Libraries, *ARL Statistics*, Stanford University not included.

Figures 30 and 31: Serials prices data based on the *Library Journal*, "Periodicals Price Report", specifically the "Average Per Title Cost of an ISI Journal". Book prices are based on Gobi, Library Solutions, "New Book Price and Output Report, 2017".

## Page 14.

Figure 35: Average book prices taken from Gobi, Library Solutions, "Annual Book Price Update, LC Subjects All Publishers", 2016-17.

## Page 17.

Data tables of library expenditures, personnel, and ranks, from the Association of Research Libraries, *ARL Statistics*, 2016 (latest available). Also Figure 40. Figure 41: Penn Library Staff Census.

## Page 18.

Figures 42, 43 and 44: Derived from the National Science Foundation, "Survey of Earned Doctorates" and "Higher Education Research and Development Survey" (HERD). 2016 latest available data. Figure 45: Author data from the Elsevier *Scopus* database.

**Peer Comparisons:** In terms of mission and a wide range of institutional characteristics and collaborations, the IvyPlus group comprises the peer cohort for this publication. The group includes:

Brown	Harvard
University of Chicago	Johns Hopkins
Columbia	MIT
Cornell	Penn
Dartmouth	Princeton
Duke	Stanford
	Yale

**Graphs** in this publication were created in *Origin 2018* and prepared for printing in *Adobe Illustrator*. Maps, with the exception of Figure 25, were generated in Tableau.



# Penn Libraries Selected**Facts** | 2017

