

# The Budget Proposal as a Constructive Collections Engagement Tool and Practice

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Minnesota State University Mankato



Make a drawing of 4 librarians parachuting into a stadium of cheering fans.

Hi, Thanks for coming to our presentation. Before we get started, I'd like to thank NASIG for this opportunity to present our work. We are librarians from Minnesota State University Mankato, or MNSU, a regional, public, comprehensive university serving about 14,000 FTE students. Today, we'll be talking about a project to develop a new report that can be used for Journal Collection Review, among other things. We call this report the Budget Proposal for reasons I'll explain in a moment.

My name is Nat. I'm going to start us off by providing a background and overview for our project, Evan will demonstrate the outcomes of our project so far, and Pat will describe the obstacles we've encountered, as well as future directions. Heidi couldn't join us today for personal reasons, but she contributed mightily to the work we are presenting, so she's here in spirit. The four of us collaborate as members of the library's Collection Management Technology team, or CMT team.



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collection-analysis/  
research

We know it can sometimes be difficult to follow along with a presentation or see all the little things on the slides, so you can download our deck at “[libguides.mnsu.edu/collection-analysis/research](https://libguides.mnsu.edu/collection-analysis/research).” We will be showing you lots of tables, so it will definitely be easier to use the downloadable version.

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collection-analysis/research](https://libguides.mnsu.edu/collection-analysis/research)



Make a drawing of a librarian requesting funds to purchase library resources. The librarian is submitting the request to a Dean, Provost, and President.

Let me start by explaining why we call our new report the Budget Proposal. At MNSU, we have a fairly new administration. The President, Provost, and our Dean have each only served a couple of years in their respective posts. Many of the Assistant and Associate Vice Presidents and Vice Provosts are even more recent. Our new VP of Finance joined us late in the fall.

These administrators are each generating new ideas about how to conduct university business. At the start of Academic Year 2024, the President and our Dean said the university would move toward a “zero-based budgetary approach,” or a “needs-based budget,” as the VP of Finance later called it. There have been few details provided, but it has seemed to me the goal is to stop basing future budgets on past budgets. Instead, future budgets will be based on new, or re-stated, priorities and needs.

I am the convenor of our library’s Journals Review Committee, or JRC. The JRC is responsible for a little over half of the library’s collections budgets. When I heard that the administration wanted to change how budgets are handled, I thought to myself that we should respond pro-actively and constructively, even with little information to start. At the very least, we could start developing new materials to support communication with our administration. I wanted to be prepared in case we would need to provide more detailed justification for our budget requests.

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collection-analysis/research](https://libguides.mnsu.edu/collection-analysis/research)

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Make a drawing of a person planting a tree.  
Behind them, there are stumps of trees that  
have been cut down.



The CMT team started working on the idea for a new report, simply called the Budget Proposal, or BP. The BP would draw on other reports, including the reports we previously developed to support our bi-annual process of collection review. These reports include the Collection Review report and the Package Level Analysis report, or PLAR, both of which we developed in the past to help us make strategic cuts and stay under budget.

Unlike the Collection Review report and the PLAR, however, we wanted the Budget Proposal to function in a new way. Instead of focusing on cuts, our goal was to create a new report to support keeps. The new report is intended to showcase the value provided by our journals and journal packages.

We were excited by the concept of the Budget Proposal because it would allow us to think positively about our journals collection. Most of the time, we must think negatively. Our journals budgets have been flat for the past decade. Given inflation, we've cut hundreds of subscriptions and numerous journal packages to stay under budget. The BP would allow us to 'flip the script,' so to speak, to focus on positive arguments to keep our journals and journal packages.

Collection Analysis

START HERE

THE COLLECTIONS POWER BI (CPBI) ✓

JOURNALS COLLECTION REVIEW

JOURNAL DATA ✓

OTHER JOURNAL REPORTS

PHYSICAL COLLECTIONS DATA & REPORTS

MANKATO RESEARCH ON COLLECTIONS, COLLECTION ANALYSIS & LICENSING

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Southworth, H., Rusch, E., Gustafson-Sundell, N. (2024, February 21). *Subject-Package Measures to understand the value provided by journal packages*. [Conference presentation]. Electronic Resources Minnesota (ERMN) conference, online. <https://link.mnsu.edu/ermn24>

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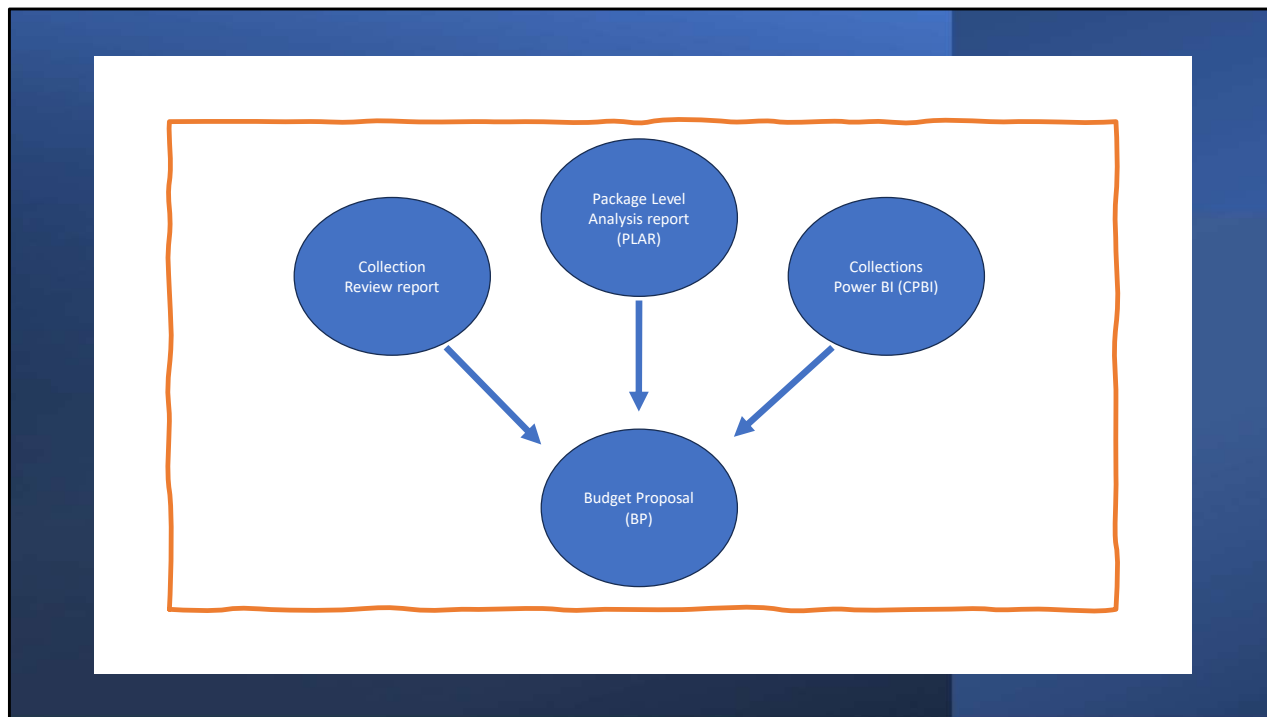
Gustafson-Sundell, N. (2024, January 17). *Negotiation: One library spills the beans*. [Professional Development Presentation]. Spell It Out: E-Resource Licensing Lunch & Learn Series hosted by Minitex. <https://link.mnsu.edu/license2>

Southworth, H. (2023, November 28). *The Southworth ratio: A tool for the analysis of journal usage trends*. [Conference Presentation]. 2023 Charleston Conference, Virtual. [https://cornerstone.lib.mnsu.edu/lib\\_services\\_fac\\_pubs/213/](https://cornerstone.lib.mnsu.edu/lib_services_fac_pubs/213/)

Lienemann, P., Luck, A., Gustafson-Sundell, N. (2023, November 28). *Post Cancellation Access journal collections to improve library services*. [Conference Presentation]. Charleston Conference. [https://cornerstone.lib.mnsu.edu/lib\\_services\\_fac\\_pubs/213/](https://cornerstone.lib.mnsu.edu/lib_services_fac_pubs/213/)

We were also excited to develop the Budget Proposal because it gave us a chance to re-invigorate our thinking. Over the past year, the BP has served as an umbrella project for several sub-projects. We've developed new Key Performance Indicators, or KPIs, for our journals and journal packages. These KPIs are included on a summary sheet called the Budget Proposal Overview. As the CMT discussed ideas for these KPIs, Heidi proposed an idea for a whole new category of metrics, which we call Subject-Package measures. These Subject-Package measures are very easy and cheap to produce, but they are very powerful. The BP Overview also links out to Focus Reports for each package. While developing these Focus Reports, we explored new instruments for communication, including novelty data visualizations.

Evan will touch on each of these new developments during his demonstration, but I wanted to mention we've done deeper dives on a couple of these topics over the past year and they are available at the link we previously provided.



To provide some context for the Budget Proposal, I'll very briefly demonstrate the reports that feed into it. As I mentioned, these include the Collection Review report and the Package Level Analysis report, or PLAR, both of which we developed several years ago to help us make strategic cuts. A third report also feeds into the Budget Proposal, called the Collections Power BI, or CPBI. The CPBI is an interactive dashboard of charts and tables, available online across our campus. We created the CPBI primarily as an outreach tool, so that librarian liaisons can communicate effectively about collections to departments. The CPBI is very useful for several purposes, for example, to support accreditation reviews, but it also helps when we make collection review decisions.

In the future, I imagine we will only publish the CPBI and the Budget Proposal to our library and campus. The Collection Review report and PLAR will be subsumed into the Budget Proposal.

A	C	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK
CostData ID	Title	Venue Count	ELM Venue Count	OA Venue Count	Platform Count	ER Sub Start	ER Sub End	ER NonSub Start	ER NonSub End	NonSub Coverage Gap	ER PCA Start	ER PCA End	Printer Coverage Start	Printer Coverage End	Any ER Print Access	Current ER Access	Link Resolver # Requests 2019	Link Resolver # Clicked Requests 2019	Link Resolver # Requests 2020	Link Resolver # Clicked Requests 2020	Per Browsers 2019	NonSub Usage 2013	NonSub Usage 2014	NonSub Usage 2015	NonSub Usage 2016	NonSub Usage 2017	
3011	Library HI Tech	2	0	0	2	1997	2021	1998	2020	0			1983	2008	1	1	1	23	11	23	12	15	0	8	4	14	
3012	Library HI Tech News	1	0	0	1	1999	2021						1984	2008	1	1	1	2	0	1	1	0	0	0	0	0	
3013	Library Management	2	0	0	2	1993	2021	1992	2020	0			0	0	1	1	1	17	5	18	4	16	17	16	4	18	
3014	Library Review	1	0	0	1	1994	2017						0	0	1	0	0	31	12	7	1	0	0	0	0	0	
3015	Logistics Information Management	0	0	0	1	1994	2003						0	0	1	0	0					0	0	0	0	0	
3016	Management Decision	3	0	0	3	1994	2021	1992	2021	0			0	0	1	1	1	108	52	69	45	28	23	24	21	111	
3017	Management Development Review	2	0	0	2	1992	1997	1992	1997	0			0	0	1	0	0	3	3	0	0	0	0	0	0	0	
3018	Management of Environment	2	0	0	2	2003	2021	1992	2020	0			0	0	1	1	1	2	2	1	1	9	6	4	1	3	
3019	Management Research News	1	0	0	1	1998	2009						0	0	1	0	0	6	3	5	1	0	0	0	0	0	
3020	Management Research Review	2	0	0	2	2010	2021	1993	2020	0			0	0	1	1	1	5	3	2	2	26	37	19	11	27	
3021	Managerial Auditing Journal	2	0	0	2	1994	2021	1992	2020	0			0	0	1	1	1	6	4	2	1	5	15	3	3	2	
3022	Managerial Finance	2	0	0	2	1998	2021	1992	2020	0			0	0	1	1	1	11	3	6	4	0	14	0	0	13	
3023	Managerial Law	1	0	0	1	1998	2007						0	0	1	0	0	1	0	0	0	0	0	0	0	0	
3024	Managing Service Quality: An	1	0	0	1	1994	2014						0	0	1	0	0	3	3	5	4	10	5	0	0	0	
3025	Marketing Intelligence & Plans	2	0	0	2	1994	2021	1992	2020	0			0	0	1	1	1	18	7	22	10	7	9	2	1	8	
3026	Measuring Business Excellence	2	0	0	2	2000	2021	2000	2020	0			0	0	1	1	1	2	1	1	1	2	2	2	1	2	
3027	New Library World	1	0	0	1	1994	2018						0	0	1	0	0	10	5	3	2	19	16	7	9	9	
3028	Nutrition & Food Science	2	0	0	2	1994	2021	1995	2020	0			0	0	1	1	1	18	7	3	2	1	7	1	4	1	
3029	OCLC Systems & Services: Intel	2	0	0	2	1994	2015						0	0	1	0	0	1	0	1	1	0	0	0	0	0	
3030	On the Horizon	1	0	0	1	2000	2021						0	0	1	1	1	16	6	14	8	0	0	0	0	0	
3031	Online and CD-ROM Review	2	0	0	2	1999	1999	1998	1999	0			0	0	1	0	0	2	0	0	0	0	0	0	0	0	
3032	Online Information Review	3	0	0	3	2000	2021	1998	2020	0			0	0	1	1	1	6	3	18	8	5	18	7	17	3	
3033	Participation and Empowerment	2	0	0	2	1999	1999	1995	1999	0			0	0	1	0	0					2	10	0	0	0	
3034	Performance Measurement	1	0	0	1	2000	2021						0	0	1	1	1	6	2	5	3	0	0	0	0	0	
3035	Personnel Review	2	0	0	2	1994	2021	1992	2020	0			0	0	1	1	1	31	16	22	10	28	30	20	34	32	
3036	Police Studies: Intra Review of	1	0	0	1	1995	1996						0	0	1	0	0	3	0	0	0	0	0	0	0	0	
3037	Policing: An International Journal	2	0	0	2	1997	2021	1995	2020	0			0	0	1	1	1	57	26	93	51	302	188	466	159	290	
3038	Pricing Strategy and Practice	1	0	0	1	1997	1997	1995	1997	0			0	0	1	0	0					0	1	1	0	0	
3039	Program	1	0	0	1	1997	2017						0	0	1	0	0	3	1	0	0	2	1	0	2	0	
3040	Property Management	2	0	0	2	1994	2021	1995	2020	0			0	0	1	1	1	1	1	6	2	6	2	1	0	0	
3041	Qualitative Market Research	2	0	0	2	1998	2021	1998	2020	0			0	0	1	1	1	5	2	14	6	17	2	11	9	2	
3042	Quality Assurance in Education	1	0	0	1	1994	2021						0	0	1	1	1	6	3	14	8	0	0	0	0	0	
3043	Records Management Journal	2	0	0	2	1998	2021	2003	2020	0			0	0	1	1	1	0	0	1	0	0	0	0	0	0	
3044	Reference Reviews	1	0	0	1	1997	2018						0	0	1	0	0	69	23	55	14	0	0	0	0	0	
3045	Reference Services Review	2	0	0	2	1997	2021						1973	2008	1	1	1	9	5	25	17	0	0	0	0	0	
3046	Review of Environment and Final	2	0	0	2	2006	2021	2003	2020	0			0	0	1	1	1					0	1	3	0	3	

We first started developing the Collection Review report in AY2017. Basically, it's just a list of all of our individually subscribed journals and all journals in subscription journal packages matched to data from a variety of sources. It provides an overview of all of the costs we can control via subscriptions. The Collection Review report includes data from the ILS, COUNTER reports, vendor pricelists, ScImago, ILL, and more. There are over 100 data variables, including calculated metrics, such as cost per use and Southworth Ratio, as well as holdings analysis.

I apologize the image on the screen is too small to read. The point of showing a small snip of it here is just to give a sense that the Collection Review report is a huge table with tons of data. It is quite powerful, but only legible for people who really like Excel.

A	Q	R	S	T	U	V	W	AC	AD	AE	AF	AG	AH	AI	
Package	Subscription Usage Package-Level, JR1, 2016	Subscription Usage Package-Level, JR1, 2017	Subscription Usage Package-Level, JR1, Trend	Subscription Usage Package-Level, JR1, 5 Yr Mean	Subscription Usage Package-Level, JR1, 3 Yr Mean	Subscription Usage Package-Level, JR1, 5 Yr Volatility (range/mean)	Subscription Usage Package-Level, JR1, 3 Yr Volatility (range/mean)	Usage % HTML, 2013	Usage % HTML, 2014	Usage % HTML, 2015	Usage % HTML, 2016	Usage % HTML, 2017	Usage % HTML, Trend	All Platform Usage FAMJ, JR1, 2017	All Platform Usage FAMJ, JR1, 15
APS	141	270		194	241	1.06	0.71	0%	1%	12%	7%	4%		256	688
SCE	799	1,102		631	804	1.25	0.73	43%	21%	24%	31%	34%		1,122	2,537
ASM	642	702		742	669	0.58	0.09	44%	58%	51%	53%	59%		1,388	3,334
ASME	167	213		236	219	0.47	0.50	51%	75%	71%	76%	58%		208	652
BioOne	793	774		840	821	0.52	0.15	41%	50%	46%	50%	47%		3,739	9,422
Cambridge	1,482	2,348		1333	1797	1.31	0.48	8%	9%	41%	11%	10%		7,562	20,061
Isevier	63,893	66,537		59,287	65,605	0.35	0.04	56%	0%	58%	65%	63%		66,480	195,491
Emerald	3,742	4,528		2,750	3,849	1.26	0.33	48%	66%	69%	69%	70%		5,935	14,909
Euclid Prime	4	6		10	5	2.79	0.40	0%	0%	0%	0%	0%	N/A	6	20
GeoScienceWorld	906	510		654	656	0.79	0.60	20%	20%	28%	59%	61%		511	1,980
EEE	1,549	1,933		1,268	1,535	0.91	0.53	3%	9%	7%	12%	52%		1,819	4,410
OP Science	689	795		574	696	0.73	0.27	16%	14%	20%	40%	27%		772	1,998
David	1,955	5,187		2,033	2,940	2.45	1.19	47%	78%	67%	72%	71%		4,431	8,792
Project Muse	5,162	5,032		4,701	5,008	0.51	0.07	55%	61%	64%	67%	65%		15,789	49,370
Age	24,541	38,582		28,538	29,705	0.49	0.47	10%	8%	7%	8%	45%		48,111	130,341
Springer	16,638	23,123		18,143	19,145	1.25	0.34	8%	34%	38%	44%	63%		33,575	86,964
RF	29,106	36,060		28,060	31,553	0.70	0.22	18%	33%	27%	32%	38%		45,083	129,861
RF_FRESH	Inc. Above	Inc. Above	Inc. Above	Inc. Above	Inc. Above	Inc. Above	Inc. Above	Inc. Above	Inc. Above	Inc. Above	Inc. Above	Inc. Above	N/A	1,735	4,350
Wiley	27,412	36,711		24,999	28,775	1.17	0.50	43%	43%	37%	45%	52%		51,343	148,451

The Collection Review report is especially useful when we roll up the data for summarization at the package level. By rolling up the data in this way, we gain a great deal of insight into these packages which would not have been available otherwise.

We created our first Package Level Analysis report in AY19, as shown on the screen. The PLAR simplified our collection review process enormously that year because we could see clear differences we had never seen before in how our various journal packages performed.

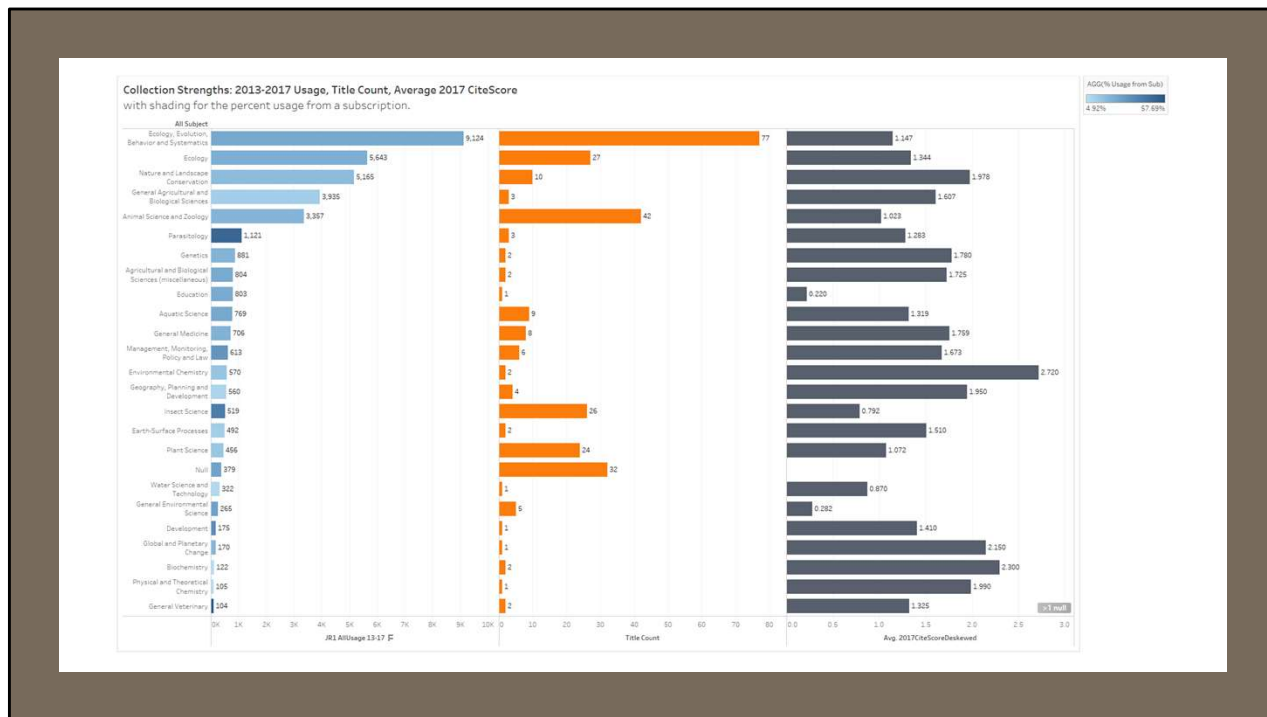


# 1. Package Review

Subscription Usage Package-Level, JR1, Trend	Subscription Usage Package-Level, JR1, 5 Yr Mean	Subscription Usage Package-Level, JR1, 3 Yr Mean	Subscription Usage Package-Level, JR1, 5 Yr Volatility (range/mean)	Subscription Usage Package-Level, JR1, 3 Yr Volatility (range/mean)	Subscription Cost Per Use FAMJ, 2018/2017	All*-platform Cost Per Use FAMJ, 2018/2017	% Usage from Sub Only	% Unique Holdings from Sub Only FAMJ
	194	241	1.06	0.71	\$ 51.07	\$ 51.07	100.00%	31.58%
	631	804	1.25	0.73	\$ 15.27	\$ 14.47	94.74%	25.00%
	742	669	0.58	0.09	\$ 8.57	\$ 4.07	49.86%	10.53%
	236	219	0.47	0.50	\$ 64.29	\$ 63.06	98.08%	40.00%
	840	821	0.52	0.15	\$ 34.23	\$ 5.04	14.71%	39.43%
	1333	1797	1.31	0.48	\$ 9.35	\$ 2.84	30.40%	42.40%
	59,287	65,605	0.35	0.04	\$ 4.85	\$ 4.38	90.32%	88.22%
	2,750	3,849	1.26	0.33	\$ 3.49	\$ 2.56	73.41%	12.71%
	10	5	2.79	0.40	N/A	N/A	100.00%	67.50%
	654	656	0.79	0.60	\$ 23.51	\$ 22.77	96.87%	47.17%
	1,268	1,535	0.91	0.53	\$ 15.75	\$ 14.18	90.05%	50.00%
	574	696	0.73	0.27	\$ 14.09	\$ 13.74	97.54%	84.75%
	2,033	2,940	2.45	1.19	\$ 5.19	\$ 3.62	69.76%	43.14%
	4,701	5,008	0.51	0.07	\$ 4.25	\$ 1.24	29.17%	29.98%
	28,538	29,705	0.49	0.47	\$ 2.68	\$ 2.07	77.09%	47.92%

For the PLAR, we developed new KPIs. Aside from traditional KPIs like usage, cost-per-usage, and usage trend, the Subscription Usage Ratio was especially helpful as we sought potential cancellations. The Sub Usage Ratio indicates how much usage is specific to the subscription platform, so it's a quick way to see the impacts of coverage overlaps with other sources of access.

We discussed the usefulness of the Sub Usage Ratio KPI at ER&L in 2019.

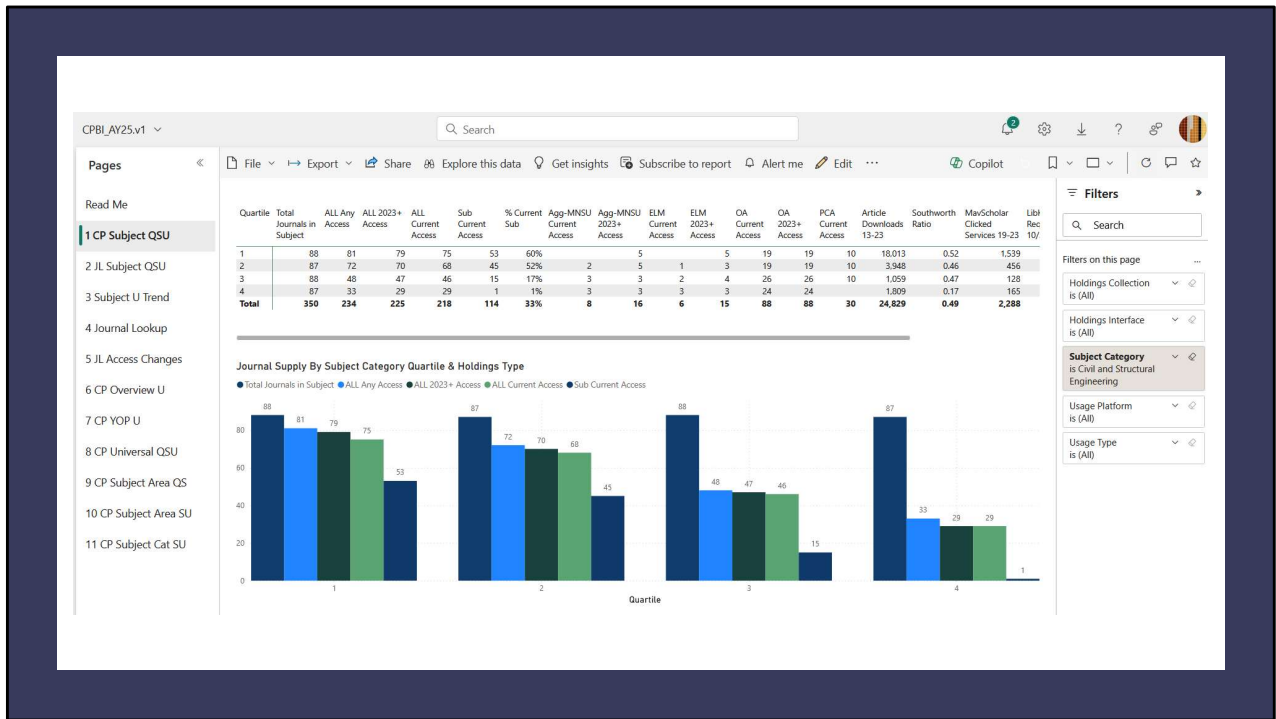


In 2020, we presented again to ER&L, but our focus that year was on new experiments to use data visualization for package analysis.

We had a lot of fun creating data viz based on both the Collection Review and PLAR. Back then, we were still using Tableau, although we moved onto Python, briefly, because we could automate report production in Python, before we settled on Power BI as our favorite tool for data visualization.

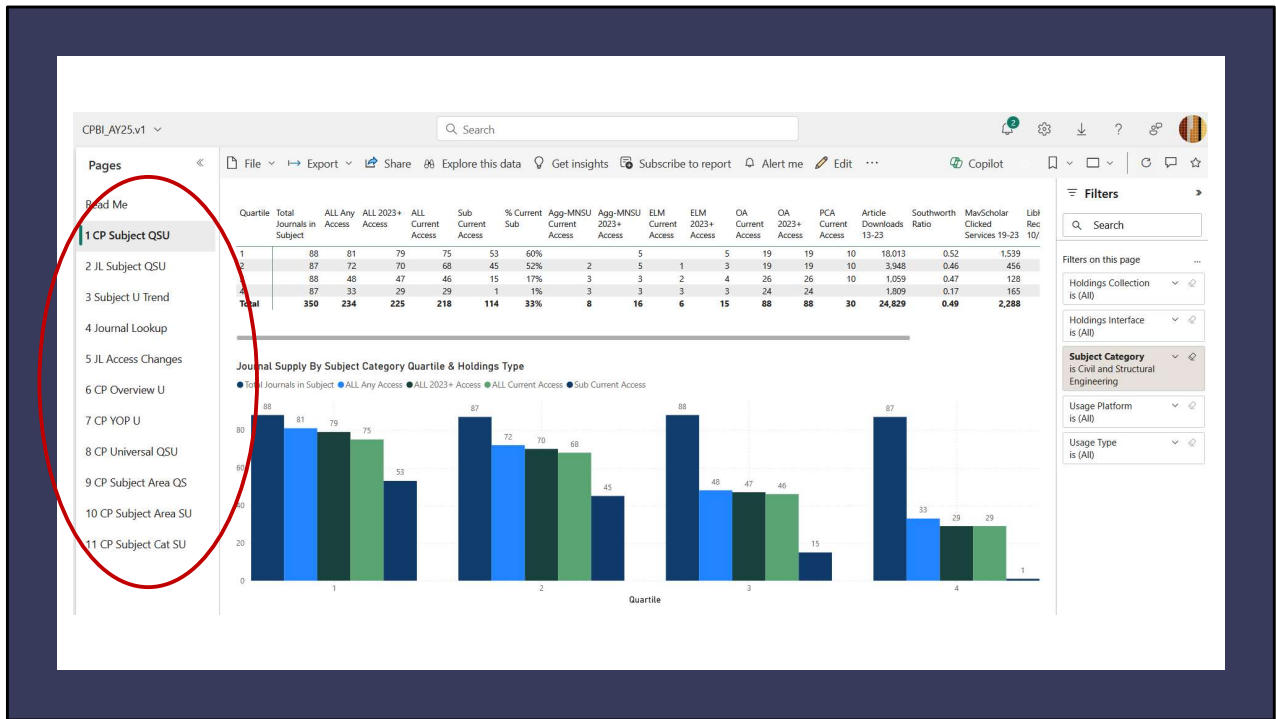
Power BI is especially useful on our campus because we can share our reports across campus online. Power BI is used by our Institutional Research & Assessment folks to share data about enrollments, completion, and so on, so departments and administrators are already somewhat literate using Power BI.

We think data visualization provides the best means to communicate about collections within the library and across campus. Even will be sharing some of our most recent experiments with collections visualization, if not exactly data visualization.

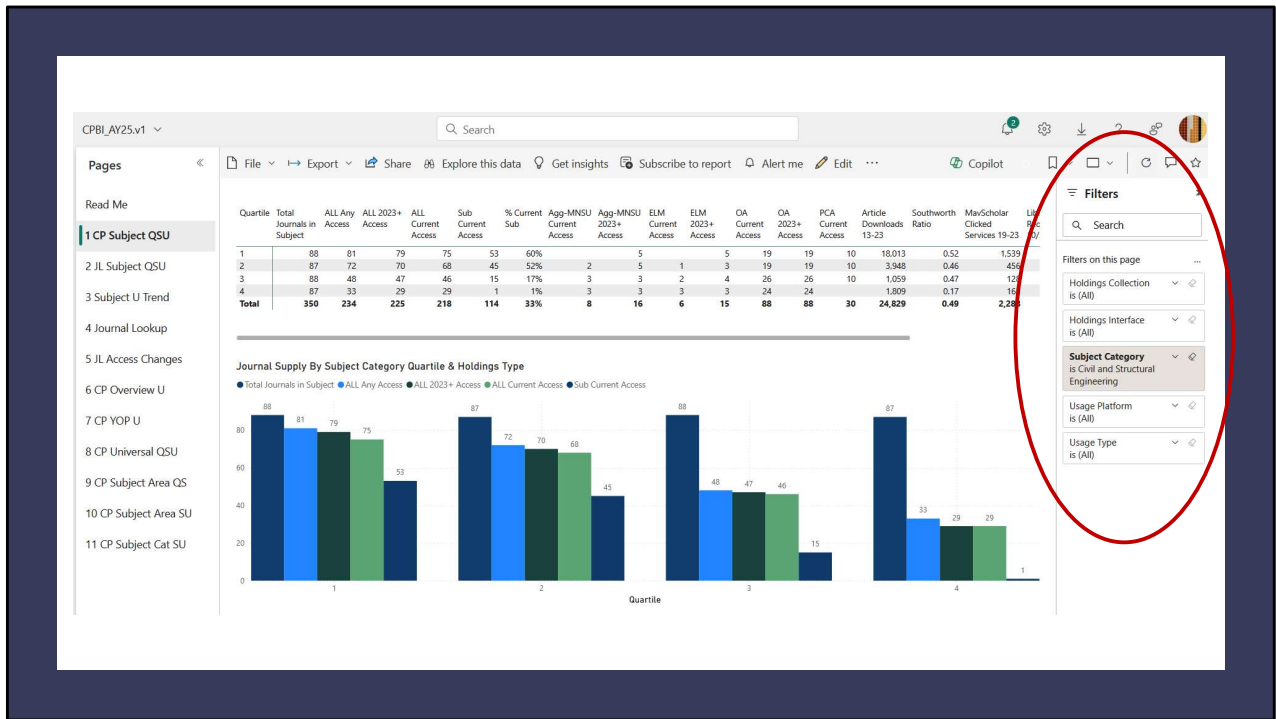


So now, let's see if our technology will cooperate while I quickly show you our Collections Power BI, or CPBI, live.

[The deck includes screenshots with my narrative.]



The current version of the CPBI includes 11 pages of charts and tables.



Most pages are interactive, primarily by using filters. This page is currently filtered to show the journal supply and usage for the Civil and Structural Engineering subject category.



There are numerous elements on the page. Journal supply is broken out by quartile, derived from the Scimago journal rank. The table at the top of the page shows holdings analysis by sources of supply, as well as KPIs such as usage, usage trend, and more.



Here I've changed the filter to show journal supply for the Accounting subject category.

CPBI\_AV25.v1

File Export Share Explore this data Get insights Subscribe to report Alert me Edit Copilot

Filters

Search

Filters on this page

Quartile is (All)

Subject Category is (All)

Usage Platform	Accounting	Acoustics and Ultrasonics	Advanced and Specialized Nursing	Aerospace Engineering	Aging	Agricultural and Biological Sciences (miscellaneous)	Agronomy and Crop Science	Algebra and Number Theory	Analysis	Analytical Chemistry	Anatomy	Anesthesiology and Pain Medicine	Arts and Humanities	Biomedical Engineering	Business	Chemical Engineering	Chemistry	Computer Science	Earth and Planetary Science	Engineering	Environmental Science	Health Sciences	Life Sciences	Mathematics	Medicine	Physics	Psychology	Public Health	Science	Social and Behavioral Sciences	Statistics	Theoretical Computer Science	Transportation Engineering	Unlabeled		
AAAS																																				
ACM		1.54%																																		
ACP																																				
ACS						4.44%				7.67%																										
AEA																																				
AIP			15.44%	0.04%																																
Allen Press	0.02%																																			
AMA																																				
Annual Reviews										0.05%																										
APA (Psychiatry)																																				
APA (Psychology)						0.32%																														
APS (American Physical Society)																																				
APS (American Physiological Society)																																				
ASCE				0.38%		0.19%																														
ASM						1.05%																														
ASME		3.09%		3.22%																																
BioOne							5.39%	1.65%																												
BMI																																				
Cambridge	2.12%			1.33%		0.13%	1.93%	0.73%																												
DeGruyter			0.02%	0.13%		0.05%		0.24%																												
Duke						0.07%																														
Ebsco	11.25%	1.16%	24.29%	1.20%	7.41%	3.78%	0.52%	1.46%	2.63%	2.01%	1.98%	12.49%																								
Elsevier	24.28%	59.85%	18.58%	41.85%	29.43%	10.86%	39.46%	50.98%	53.83%	56.69%	5.75%	37.91%																								
Emerald	1.76%			0.06%				0.07%																												
Lucid																																				
Gale	0.16%		0.14%	0.06%	0.64%	1.22%	0.30%	6.83%	3.59%	0.05%		0.04%																								
GeoScienceWorld																																				
HighWire								0.00%																												
Human Kinetics																																				
IEEE		14.29%		27.05%						0.00%																										
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%		

We don't have time to look at every page. I just wanted to provide a sense of what the CPBI is, because it feeds into the Budget Proposal.

Here is page 11. This is an example of what we call Subject-Package measures. This table shows the percentage of article downloads per package and per subject category. Evan will show you how Subject-Package measures contribute to the Budget Proposal in just a moment. Please bear with me while I pass the microphone to him.



# The Budget Proposal



## **Budget Proposal Overview**

Key Performance Indicators



## **Subject Package Measures Report**



## **Package Level Focus Reports**

Hi, I'm Evan. Ultimately my plan is to walk through the Budget Proposal Overview, explaining our thinking on each of the Key Performance Indicators in the report. We will take a side-track to look at Subject Package measures, which are a perfect complement to our KPIs in demonstrating the value of packages to our campus and that create data that can feed directly into the last report I will mention, which is the Package Level Focus Reports which are geared to individual journal packages.

I want restate the purpose of the Budget Proposal. As Nat said, our hope is to flip the script from focusing on cutting the weakest of our packages, to emphasizing the value our journal packages and express why they are needed. Our hope is to demonstrate the unique values that each package provides.

## Cuts from Cost Per Use

Cuts may not distribute loss evenly across curriculum.

Subject specific packages tend to have higher cost per use.

Some large providers of content, may not be replacable

In doing so, we are recognizing that multiple metrics are needed to express the unique values of the different packages. This brings me to second underlying driver for this work. Couldn't we save a lot of trouble and simply rank the packages by cost per use, cutting the package with the highest CPU as inflation eats at our budget? Cost Per Use is an important metric and a component of the Budget Proposal, but we have recognized challenges with relying on it exclusively.

- a. A cut of a package does not spread the loss evenly across the curriculum or against the needs of our patrons. A cut to meet a budget need might create huge holes in our collection.
- b. Secondly, some of the highest cost per use packages are geared towards specific academic programs. Generally we have found that subject-specific packages tend to have higher cost per use. We might devastate accreditation efforts. At some point, we might need to see certain packages as the cost of offering certain programs.
- c. Some general packages that have comparatively higher CPUs are the backbone of our collections, and might not be feasible to replace that content with single subscriptions and aggregator access.

## Key Performance Indicators and Package Comparisons



As we begin to dive into the KPIs I want to make that point that these metrics do not have equal weight, in fact I suspect we all in this room would have differing opinions about what metrics would be more important than others. As a person who might be a little over enthusiastic about looking at journals data, I would welcome a discussion about how we might value differing KPIs. But I think at least initially this deviates from our goal. Emphasizing that one metric is superior to another suggests comparison between the packages in a way that is not our hope with this project. We want to identify what makes some packages special and promote them based on those unique attributes.

	A	C	D	E	G	H	I	J	K	M	N
		Planned FY25 Cost	Cost Type	Use	Active Journals	(Known) Full OA Journals	3 Yrs Sub Downloads	3 Yrs Total Downloads	3 Yrs Sub Usage Ratio	Utility Value Indicator (Cost per 3 Yrs Sub Usage)	Supply Value Indicator (Cost per 3 Yrs Cita. Docs.)
1	<b>Ongoing Subscriptions &gt;\$10,000</b>										
2	<a href="#">American Chemical Society Journals</a>	\$ XX,YYY	est	RA	86	17	4353	4353	100%	\$ 5.94	\$ 0.14
3	<a href="#">American Society Of Civil Engineers ASCE Journals</a>	\$ XX,YYY	est	RA	34		2166	2190	99%	\$ 9.04	\$ 1.53
4	ASME Digital Collection Journals	\$ XX,YYY	est	RA	33		396	396	100%	\$ 39.11	\$ 1.54
5	Cambridge University Press Journals	\$ XX,YYY	est	R	431	105	7731	18565	42%	\$ 3.26	\$ 0.43
6	<a href="#">Elsevier ScienceDirect Journals Complete</a>	\$ ZX,YYY	firm	R	2627	819	192034	196052	98%	\$ 1.58	\$ 0.17
7	<a href="#">GeoScienceWorld</a>	\$ XX,YYY	est	R	54		1152	1242	93%	\$ 12.35	\$ 0.86
8	<a href="#">IEL (IEEE/IET Electronic Library)資料庫</a>	\$ XX,YYY	firm	RTA	263	57	11774	11784	100%	\$ 4.48	\$ 0.26
9	<a href="#">JSTOR Archival Journals and Primary Sources Collection</a>	\$ XX,YYY	est	R	N/A	N/A	N/A	N/A	N/A		N/A
10	New York Times (Website)	\$ XX,YYY	firm	G	N/A	N/A	N/A	N/A	N/A		N/A
11	<a href="#">Ovid Nursing FullText+</a>	\$ XX,YYY	est	R	283	212	25719	29601	87%	\$ 0.80	\$ 0.19
12	Oxford Selected Journals	\$ XX,YYY	est	R	19		2736	5846	47%	\$ 3.56	\$ 2.29
13	Portfolio Management Research	\$ XX,YYY	firm	T	12		N/A	N/A	N/A		\$ 14.40
14	<a href="#">Project Muse Standard Collection</a>	\$ XX,YYY	est	R	375		14154	34522	41%	\$ 0.81	\$ 0.46
15	PsycArticles	\$ XX,YYY	est	R	105		388	30871	N/A		\$ 1.07
16	<a href="#">SAGE Premier Journals</a>	\$ ZX,YYY	firm	R	1180	210	111540	129830	86%	\$ 1.05	\$ 0.66
17	Science	\$ XX,YYY	est	R	1		1329	2384	56%	\$ 10.26	\$ 3.10
18	<a href="#">Springer Nature Journals</a>	\$ XX,YYY	est	R	2706	688	70115	110387	64%	\$ 1.00	\$ 0.07
19	Star Tribune (microfilm)	\$ XX,YYY	est	Lass	N/A	N/A	N/A	N/A	N/A		N/A
20	<a href="#">Taylor &amp; Francis Journals Complete</a>	\$ ZX,YYY	firm	R	2329	340	132901	162411	82%	\$ 1.00	\$ 0.38
21	<a href="#">Wiley Online Library Journals (including Anthrosource)</a>	\$ ZX,YYY	est	R	1717	324	132810	166473	80%	\$ 1.12	\$ 0.26
22											
23	<b>Ongoing Subscriptions &lt;\$10,000</b>										

The challenge with this is, when we then present our users a spreadsheet (we like spreadsheets by the way) that is going to lead someone to want to compare packages. It may well cause an administrator to point out weaknesses of some packages in the hopes of looking for potential cuts...we are not opposed to cutting, but we also don't want poor performance in one KPI to outweigh a package's attributes.

As a side note, we did make some adjustments to how we use conditional formatting in this report. In the past, we have used a sort of hot and cold spectrum for conditional formatting where both positive and negative metrics are highlighted with extreme ends of the color spectrum. In this report we are only adding conditional formatting to cells that suggest a positive attributes for a package. Does non-highlighted cells suggest a weakness, perhaps, but at least it is not drawing someone to the weakest package for a particular KPI.

	A	C	D	E	G	H	I	J	K	M	N
		Planned FY25 Cost	Cost Type	Use	Active Journals	(Known) Full OA Journals	3 Yrs Sub Downloads	3 Yrs Total Downloads	3 Yrs Sub Usage Ratio	Utility Value Indicator (Cost per 3 Yrs Sub Usage)	Supply Value Indicator (Cost per 3 Yrs Cita. Docs.)
1	<b>Ongoing Subscriptions &gt;\$10,000</b>										
2	<a href="#">American Chemical Society Journals</a>	\$ XX,YYY	est	RA	86	17	4353	4353	100%	\$ 5.94	\$ 0.14
3	<a href="#">American Society Of Civil Engineers ASCE Journals</a>	\$ XX,YYY	est	RA	34		2166	2190	99%	\$ 9.04	\$ 1.53
4	ASME Digital Collection Journals	\$ XX,YYY	est	RA	33		396	396	100%	\$ 39.11	\$ 1.54
5	Cambridge University Press Journals	\$ XX,YYY	est	R	431	105	7731	18565	42%	\$ 3.26	\$ 0.43
6	<a href="#">Elsevier ScienceDirect Journals Complete</a>	\$ ZXX,YYY	firm	R	2627	819	192034	196052	98%	\$ 1.58	\$ 0.17
7	<a href="#">GeoScienceWorld</a>	\$ XX,YYY	est	R	54		1152	1242	93%	\$ 12.35	\$ 0.86
8	<a href="#">IEL (IEEE/IET Electronic Library)資料庫</a>	\$ XX,YYY	firm	RTA	263	57	11774	11784	100%	\$ 4.48	\$ 0.26
9	<a href="#">JSTOR Archival Journals and Primary Sources Collection</a>	\$ XX,YYY	est	R	N/A	N/A	N/A	N/A	N/A		N/A
10	New York Times (Website)	\$ XX,YYY	firm	G	N/A	N/A	N/A	N/A	N/A		N/A
11	<a href="#">Ovid Nursing FullText+</a>	\$ XX,YYY	est	R	283	212	25719	29601	87%	\$ 0.80	\$ 0.19
12	Oxford Selected Journals	\$ XX,YYY	est	R	19		2736	5846	47%	\$ 3.56	\$ 2.29
13	Portfolio Management Research	\$ XX,YYY	firm	T	12		N/A	N/A	N/A		\$ 14.40
14	<a href="#">Project Muse Standard Collection</a>	\$ XX,YYY	est	R	375		14154	34522	41%	\$ 0.81	\$ 0.46
15	PsycArticles	\$ XX,YYY	est	R	105		388	30871	N/A		\$ 1.07
16	<a href="#">SAGE Premier Journals</a>	\$ ZXX,YYY	firm	R	1180	210	111540	129830	86%	\$ 1.05	\$ 0.66
17	Science	\$ XX,YYY	est	R	1		1329	2384	56%	\$ 10.26	\$ 3.10
18	<a href="#">Springer Nature Journals</a>	\$ XX,YYY	est	R	2706	688	70115	110387	64%	\$ 1.00	\$ 0.07
19	Star Tribune (microfilm)	\$ XX,YYY	est	Lass	N/A	N/A	N/A	N/A	N/A		N/A
20	<a href="#">Taylor &amp; Francis Journals Complete</a>	\$ ZXX,YYY	firm	R	2329	340	132901	162411	82%	\$ 1.00	\$ 0.38
21	<a href="#">Wiley Online Library Journals (including Anthrosource)</a>	\$ ZXX,YYY	est	R	1717	324	132810	166473	80%	\$ 1.12	\$ 0.26
22											
23	<b>Ongoing Subscriptions &lt;\$10,000</b>										

You can see from the Overview the various packages in the first column with the corresponding data moving to the right. Packages are broken into those estimated to be \$10,000 or more for the upcoming year. There is a short list of smaller packages at the bottom. Our process for developing the KPIs wasn't super scientific. The four of us sat in a room and brainstormed different variables and combinations that have been important for other reports and projects such as the collection review, PLAR, and CPBI that Nat introduced. We have other metrics that seemed interesting, but we settled on this grouping as most relevant to making the case to fund continued subscriptions to these packages.

## Measures for Assessing Value in Collections

- Supply
  - Number of journals in a package
  - Articles published (Citable Documents)
- Quality
  - Citation metrics
  - Scimago Scientific Journal Rankings (SJR)
- Usage
  - COUNTER data
  - Link resolver, ILL data, etc.

As we step into the KPIs it is important to stress that most of the metrics we use here and in other reports touch upon 3 categories for assessing how collections add value to our campus. We will see each of these playing roles within the KPIs.

- a. A first category is Supply or the amount of content a package provides our campus or a subject area. The number of journal titles or the number of citable documents are examples of supply metrics.
- b. We also use Quality as a way of assessing value. This looks at how much high quality content that a package adds to our overall holdings. In this case we use established citation metrics and specifically Scimago's Scientific Journal Rankings, in part because of the data's accessibility to us.
- c. The last category is Usage. In this case we are asking how much of our overall usage is provided by content in this package. We are ultimately using Counter statistics, but there are of course other data that can be brought in, such as link resolver data, ILL data, etc.

	C	D	E	G	H	I	J	K	M	N
	Planned FY25 Cost	Cost Type	Use	Active Journals	(Known) Full OA Journals	3 Yrs Sub Downloads	3 Yrs Total Downloads	3 Yrs Sub Usage Ratio	Utility Value Indicator (Cost per 3 Yrs Sub Usage)	Supply Value Indicator (Cost per 3 Yrs Cita. Docs.)
1	<b>Ongoing Subscriptions &gt;\$10,000</b>									
2	\$ XX,YYY	est	RA	86	17	4353	4353	100%	\$ 5.94	\$ 0.14
3	\$ XX,YYY	est	RA	34		2166	2190	99%	\$ 9.04	\$ 1.53
4	\$ XX,YYY	est	RA	33		396	396	100%	\$ 39.11	\$ 1.54
5	\$ XX,YYY	est	R	431	105	7731	18565	42%	\$ 3.26	\$ 0.43
6	\$ ZXX,YYY	firm	R	2627	819	192034	196052	98%	\$ 1.58	\$ 0.17
7	\$ XX,YYY	est	R	54		1152	1242	93%	\$ 12.35	\$ 0.86
8	\$ XX,YYY	firm	RTA	263	57	11774	11784	100%	\$ 4.48	\$ 0.26
9	\$ XX,YYY	est	R	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	\$ XX,YYY	firm	G	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	\$ XX,YYY	est	R	283	212	25719	29601	87%	\$ 0.80	\$ 0.19
12	\$ XX,YYY	est	R	19		2736	5846	47%	\$ 3.56	\$ 2.29
13	\$ XX,YYY	firm	T	12		N/A	N/A	N/A	N/A	\$ 14.40
14	\$ XX,YYY	est	R	375		14154	34522	41%	\$ 0.81	\$ 0.46
15	\$ XX,YYY	est	R	105		388	30871	N/A	N/A	\$ 1.07
16	\$ ZXX,YYY	firm	R	1180	210	111540	129830	86%	\$ 1.05	\$ 0.66
17	\$ XX,YYY	est	R	1		1329	2384	56%	\$ 10.26	\$ 3.10
18	\$ XX,YYY	firm	R	2706	688	70115	110387	64%	\$ 1.00	\$ 0.07
19	\$ XX,YYY	est	Lass	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	\$ ZXX,YYY	firm	R	2329	340	132901	162411	82%	\$ 1.00	\$ 0.38
21	\$ ZXX,YYY	est	R	1717	324	132810	166473	80%	\$ 1.12	\$ 0.26
22										
23	<b>Ongoing Subscriptions &lt;\$10,000</b>									

Ultimately any of these categories need to be tempered by the cost. Cost is obviously an important input into collection analysis, but differs from the three categories just mentioned because we wouldn't see it as adding value, unless I suppose masterful negotiations got us a deal! As I stated earlier one our underlying goals is that we can't assess packages solely on cost per use. So as we apply cost to the three value metrics, each of them plays a different role in judging the performance of the package. You can see the first column of the budget proposal is cost. This version is adjusted for sharing outside of our university. You can see the column next to it clarifies if the cost listed is a negotiated set price or a price we are estimating based on historical inflation.

There is also a brief classification of the type of resource we are looking at or its purpose. For most of these the packages, and the ones we are focused on today, they are categorized as R for research. We also have categories of resources that more of general interest like the NY Times or collections that function more as a tool like the Portfolio Management Research.

Before the Overview gets into the KPIs, we have columns with some raw numbers that give a quick comparison to the cost. This is valuable as context since we are sharing the cost right away in the second column. Administrators may have no sense of the size of any of the packages and how different they are. As a result we provided the most basic supply

metric to get a sense of size...the number of titles in the package. We also provide the number of OA titles within the package, which both could suggest a package is a good citizen, but also how much of the content would remain if we couldn't subscribe.

Our first KPI is called the sub usage ratio. In the spreadsheet we include columns for the two raw numbers that determine this metric. The first of these is for usage that comes directly from the journal package's platform. We call this sub downloads. In the subsequent column is the number of total downloads, which adds usage that has come from aggregator access to the sub usage number to give total number of uses from journals in the package. Sub Usage Ratio simply tells us what percentage of total downloads came directly from package's platform. We have chosen to use the last 3 years of data for these metrics to balance out any 1 year spikes or dips. Ultimately sub usage ratio is useful in helping us to see what usage couldn't be replaced with full text aggregator access. While that might not seem like a positive notion, essentially that a publisher wouldn't share their content with other providers, it tells our administrators that a drop of this package leaves interlibrary loan as our only access for many of the titles from a package with a high sub usage ratio.

Before moving on, another point of note is that we chose in this case to show the numbers in addition to the calculated KPI. Part of the reason for this is it provides a quick context when someone looks at the cost. Like with showing the number of journals, the amount of usage can perhaps alleviate the sticker shock of some of our more expensive packages.



	Utility Value Indicator (Cost per 3 Yrs Sub Usage)	Supply Value Indicator (Cost per 3 Yrs Cita. Docs.)	Supply-Quality Value Indicator (Cost per 3 Yrs Q1 Cita. Docs.)	Southworth Ratio Current 4/8 (20-23/16-23)	Southworth Ratio Lagging 4/8 (17-20/13-20)	Current YOP Usage Ratio (2023 & 2022 YOP/ All YOP)	Most Recent 6 Yrs YOP Usage Ratio	Pre-2000 YOP Usage Ratio	Q1 Journal Ratio	Q1 Citable Docs (3 Yrs)
1 Ongoing Subscriptions >\$10,000										
2 American Chemical Society Journals	\$ 5.94	\$ 0.14	\$ 0.17	0.46	0.53	17%	44%	8%	73%	155316
3 American Society Of Civil Engineers ASCE Journals	\$ 9.04	\$ 1.53	\$ 2.65	0.43	0.59	28%	54%	5%	38%	7395
4 ASME Digital Collection Journals	\$ 39.11	\$ 1.54	\$ 4.22	0.38	0.41	9%	34%	3%	27%	3672
5 Cambridge University Press Journals	\$ 3.26	\$ 0.43	\$ 0.78	0.42	0.52	5%	20%	37%	49%	32178
6 Elsevier ScienceDirect Journals Complete	\$ 1.58	\$ 0.17	\$ 0.23	0.48	0.53	18%	51%	4%	57%	1338654
7 GeoScienceWorld	\$ 12.35	\$ 0.86	\$ 1.21	0.41	0.38	3%	16%	33%	37%	11713
8 IEL (IEEE/IET Electronic Library)資料庫	\$ 4.48	\$ 0.26	\$ 0.29	0.65	0.70	27%	64%	3%	63%	178742
9 JSTOR Archival Journals and Primary Sources Collection	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10 New York Times (Website)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11 Ovid Nursing FullText+	\$ 0.80	\$ 0.19	\$ 0.45	0.58	0.62	19%	62%	2%	27%	46268
12 Oxford Selected Journals	\$ 3.56	\$ 2.29	\$ 3.23	0.40	0.45	9%	27%	23%	79%	3010
13 Portfolio Management Research	N/A	\$ 14.40	\$ 162.62	N/A	N/A	N/A	N/A	N/A	8%	103
14 Project Muse Standard Collection	\$ 0.81	\$ 0.46	\$ 1.22	0.46	0.46	7%	25%	26%	25%	9475
15 PsycArticles	N/A	\$ 1.07	\$ 1.50	0.47	0.46	20%	45%	13%	51%	12571
16 SAGE Premier Journals	\$ 1.05	\$ 0.66	\$ 1.19	0.49	0.50	10%	44%	7%	45%	98457
17 Science	\$ 10.26	\$ 3.10	\$ 3.10	0.34	0.63	15%	28%	25%	100%	4229
18 Springer Nature Journals	\$ 1.00	\$ 0.07	\$ 0.13	0.51	0.53	25%	58%	3%	41%	543969
19 Star Tribune (microfilm)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20 Taylor & Francis Journals Complete	\$ 1.00	\$ 0.38	\$ 0.88	0.54	0.51	10%	46%	4%	40%	150762
21 Wiley Online Library Journals (including Anthrosource)	\$ 1.12	\$ 0.26	\$ 0.40	0.52	0.49	13%	47%	6%	50%	368543

The next three KPIs pull their concepts from the 3 value categories we mentioned earlier, usage, supply, and quality. The first, Utility Value Indicator is really a variation on cost per use. In this case we are using 3 years worth of usage data. While this number isn't a true cost per use since 3 years of usage is corresponding to 1 year of cost, again 3 years of usage data does smooth out usage spikes or dips that are possible in some of our subject specific packages or other smaller packages. Also while not necessarily the intended goal, but the lower number brings a CPU-type dollar amount into a more palatable range for some of our audience.

The second of this set of KPIs, Supply Value Indicator, compares a package's supply of content to its cost. This divides the subscription cost of the package by the number of citable documents produced over 3 years. Citable documents is a metric used to create Scimago Journal Rankings and is a basic number we use to represent the number of articles produced by a journal and then aggregate that to provide the number of articles published in the journal package over 3 years. I think the Supply Value Indicator is an especially important alternative to cost per use. There are a variety of factors that play into usage. Are our students discovering these articles? What is the number of students in these majors? What are the types of research projects assigned in the curriculum? All these questions can shape our usage numbers. A package may provide excellent content for the cost, but other factors on our campus are impacting usage of the articles. Supply Value Indicator helps us

assess whether we are getting sufficient content for our cost. When you think about the cost of Elsevier you might cringe, but they are supplying articles at a rate of .17 cents per article. If we imagine usage as being indefinite, meaning that the user simply needs something on their topic rather than a specific citation, affordable supply of content might be seen as more valuable than a straight cost per use metric.

The third of this set of KPIs is called the Supply-Quality Value Indicator. As the title suggests this metric incorporates quality into the mix. In some ways this is a counter to the previous supply metric I just discussed. If we imagine more of our usage as being definite...essentially that our users need to have access to specific journal content rather than any article related to their topic, we might imagine that having access to the most important journals in a discipline is more important than simply having a large supply of articles for our students to choose from. The Supply-Quality Value Indicator looks at the cost per article supplied but only for those journals that are in the top quartile of Scimago Journal Ranking. These are the most heavily cited journals within their respective disciplines. In this case it does create a value for the supply of high quality content, but our audience can also compare the difference between this number and the previous KPI. If we look at packages like ACS and IEEE we see very little difference between the overall supply indicator and the supply of top quartile journals, meaning that almost all of the articles supplied in the package are in highly cited journals. Conversely if a package is filling out its holdings with lesser journals, it might dampen the impact of a high Supply Value Indicator number for a package. Ultimately this quality-focused metric might be emphasized in accreditation visits and could be something promoted by graduate programs to their perspective students.

As we move to the right we see two iterations of the Southworth ratio. This is a figure proposed by our colleague Heidi Southworth, who couldn't be with us today. It is a way of tracking whether usage is trending up or down for a given journal or package. The number divides the last 4 years of usage by the last 8 years. Thus if the number is above a .5, usage is trending upwards, if it is below .5 it is getting less use than in the past. This again allows us to positively show which packages are improving. Because we have enough data to look back to 2013, we can also provide a picture of how these packages were trending 4 years ago. Interestingly two of the biggest movers 4 years ago are amongst our biggest movers lately in Ovid and IEEE. Both packages are subject oriented and this might be something we would want to emphasize in communication with the departments relevant to these journals.

The next set of columns utilize YOP usage data. This tells us what was the year of publication that our users clicked on. We have three different ways to look at Year of Publication data. The first divides the number of articles retrieved from the last two years of publications by the number of articles retrieved overall. The higher the percentage, the greater the usage is coming from the most recent articles published. We can see that our engineering packages show particularly high percentage of usage from the most recent 2 years. Along with our sub usage ratio this can give us some clue as to when aggregator access wouldn't be a good alternative as much of that content has embargos on the most recent issues. This concept of whether the content is replaceable is useful, but I also think a a more simple way to think

about a package with high use of its recently published articles is that it makes the case that having up to date, current subscriptions is important. I wonder as well whether this might indicate a higher level of definite use...meaning patrons are needing something specific rather than whatever happened to come up in a keyword search. Additionally we have year of publication metrics for percentage of downloads that were in the most recent 6 years. Again the higher percentage suggests more recent usage. While the first YOP metric is a good comparison against short embargoes in aggregators, the six year figure aligns more with a JSTOR embargo. Lastly we offer the percentage of pre-2000 downloads. This number might not add much to advocating for one of these packages, but might help make the case (or allow us to avoid) purchasing journal archives. Interestingly it might also suggest a more definite use where someone sought a specific citation.

The last columns on the budget proposal provide the numbers for the supply of high quality journals by looking at the number of Quartile 1 citable documents. Here we use the Q1 Journal Ratio to measure the percentage of citable documents in a package that come from Quartile 1 journals. A couple of the subject specific packages, ACS and IEEE, are particularly strong here.

## Key Performance Indicators

- Sub-Usage Ratio
- Cost based metrics
  - Utility-Value Indicator
  - Supply-Value Indicator
  - Supply-Quality Value Indicator
- Southworth Ratios
- Year of Publication Usage Ratios
- Quartile 1 Journal Ratio

The KPIs give us differing focus point for advocating to maintain or even increase our subscription budget. The KPIs we have included in the budget report are not the only metrics we have considered, and we would love to hear if you have other measures that you think could help to advocate for subscriptions. To sum these up, Sub Usage Ratio gives us a sense of replicability or uniqueness in access that a package provides. Utility-Value Indicator, Supply-Value Indicator, and Supply-Quality Value Indicator provide opportunities to weigh package cost against our three categories of value, Usage, Supply, and Quality. Southworth Ratio allows us to understand usage trends. Year of Publication data provides insight on replaceability, but also expresses the value for current research. Lastly, the Q1 Journal Ratio measures the amount of high-quality journals within a package.

## Subject Package Measures



AMERICAN PSYCHOLOGICAL ASSOCIATION

**SPRINGER NATURE**



CAMBRIDGE



GeoScienceWorld



As mentioned at the beginning, the Budget Proposal is meant to have two components. The Overview, which we walked through Package Level Focus reports, which pull attributes from the KPIs we just mentioned to emphasize the unique value any individual package provides. We are going to walk through a couple of examples of these, but I want to introduce another report that can feed into these package specific reports.

In the Budget Proposal Overview we provided metrics that demonstrated the value of a package to our campus in general. Yet we know that packages have different subject matter identities. Some are more oriented to the sciences or to the humanities. Subject specific packages may provide little value across campus, but might be essential to a specific academic program. While some subject orientation can be inferred from some of the metrics we just discussed, our KPIs do not address the value of a package to a specific subject area. Earlier this year our colleague Heidi Southworth came up with an idea to create a simple table that could demonstrate which packages were most important to a given discipline and then similarly show how a journal package's usage or supply was distributed amongst various subject areas. To meet this demand we created a report we call Subject Package Measures. I want to briefly show this report, because these subject oriented measures provide another data point for advocating for collections, and are

something that we can easily integrate into the Package Level Focus reports we had been planning.

	A	B	F	P	U	X	Z	AH	AI	AN	AP	AQ	AR	AS	AT	AV			
1	Subject Category	Relevance	ACS	ASCE	Cambridge	Ebsco	Elsevier	Emerald	IEEE	IOPscience	JSTOR	Ovid	Project Muse	Proquest	Sage	Springer	Taylor & Francis	University of Chicago	Wiley
12	Earth-Surface Processes	2	0%	0%	1%	5%	37%	0%	0%	0%	13%	0%	0%	2%	1%	6%	17%	0%	15%
13	Ecological Modeling	1	0%	0%	0%	0%	65%	0%	0%	0%	1%	0%	0%	12%	0%	10%	3%	0%	7%
14	Ecology	2	0%	0%	0%	1%	18%	0%	0%	0%	11%	0%	0%	19%	1%	17%	3%	0%	24%
15	Ecology, Evolution, Behavior and Systematics	2	0%	0%	0%	2%	17%	0%	0%	0%	17%	0%	0%	21%	0%	12%	3%	1%	24%
16	Economic Geology	1	0%	0%	0%	0%	39%	0%	0%	0%	0%	0%	0%	1%	0%	14%	6%	0%	0%
17	Economics and Econometrics	3	0%	0%	1%	13%	27%	1%	0%	0%	19%	0%	1%	8%	4%	7%	6%	1%	9%
18	Economics, Econometrics and Finance (miscel	3	0%	0%	1%	12%	5%	3%	0%	0%	19%	0%	0%	19%	16%	6%	8%	0%	9%
19	Education	3	0%	0%	0%	15%	10%	1%	0%	0%	8%	1%	2%	7%	17%	7%	23%	0%	8%
00	E-learning	2	0%	0%	0%	17%	31%	2%	0%	0%	7%	0%	0%	1%	1%	9%	14%	0%	16%
01	Electrical and Electronic Engineering	3	0%	0%	0%	1%	22%	0%	67%	0%	0%	0%	0%	1%	1%	4%	1%	0%	2%
02	Electrochemistry	1	19%	0%	0%	1%	44%	0%	0%	1%	0%	0%	0%	1%	0%	6%	2%	0%	25%
03	Electronic, Optical and Magnetic Materials	1	2%	0%	0%	1%	42%	0%	32%	4%	0%	0%	0%	0%	1%	7%	2%	0%	8%
04	Embryology	1	0%	0%	0%	0%	4%	0%	0%	0%	0%	0%	0%	4%	0%	0%	5%	0%	70%
05	Emergency Medical Services	2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%
06	Emergency Medicine	1	0%	0%	2%	4%	48%	0%	0%	0%	0%	4%	0%	13%	1%	10%	1%	0%	16%
07	Emergency Nursing	3	0%	0%	1%	28%	26%	0%	0%	0%	0%	32%	0%	12%	0%	0%	0%	0%	0%
08	Endocrine and Autonomic Systems	1	0%	0%	0%	5%	61%	0%	0%	0%	0%	10%	0%	2%	0%	1%	0%	0%	20%
09	Endocrinology	1	0%	0%	0%	2%	42%	0%	0%	0%	0%	0%	0%	5%	0%	9%	0%	0%	31%
10	Endocrinology, Diabetes and Metabolism	1	0%	0%	0%	6%	26%	0%	0%	0%	0%	0%	0%	10%	2%	15%	0%	0%	34%
11	Energy (miscellaneous)	2	1%	0%	0%	2%	86%	0%	0%	0%	1%	0%	0%	2%	0%	4%	1%	0%	1%
12	Energy Engineering and Power Technology	2	1%	0%	0%	1%	63%	0%	17%	0%	0%	0%	0%	4%	1%	2%	2%	0%	4%
13	Engineering (miscellaneous)	3	1%	8%	0%	9%	26%	0%	12%	1%	10%	0%	1%	5%	2%	7%	6%	0%	12%
14	Environmental Chemistry	1	12%	4%	0%	1%	40%	0%	0%	0%	3%	0%	0%	3%	0%	20%	2%	0%	15%
15	Environmental Engineering	1	0%	4%	0%	1%	78%	0%	0%	0%	0%	0%	0%	3%	1%	6%	3%	0%	2%
16	Environmental Science (miscellaneous)	3	0%	2%	0%	9%	33%	0%	0%	2%	5%	0%	0%	7%	7%	9%	15%	0%	8%
17	Epidemiology	1	0%	0%	2%	13%	40%	0%	0%	0%	5%	0%	0%	9%	1%	16%	1%	0%	7%

Here we can see an example of a Subject Package Measure report. The basic idea is to divide up our numbers for say usage or supply across the Scimago subject areas to demonstrate how each journal package adds value for that discipline. We presented this idea at a local Minnesota conference this spring, and Nat explained how to generate these tables, we can point you in that direction if you are interested. On the left hand side you can see the rows of the table are Scimago subject areas. The columns are the various journal packages. In this example, the table employs usage data, so the percentage listed is the percentage of content used in this subject area by a given journal package. This can tell how important a package is for a given subject. Some of these subject areas align very closely with academic programs at MSU others not so much. The second column labeled “relevance” is our subjective categorization for which subjects are well aligned with specific programs on our campus.

The table allows us to potentially advocate for a package in two ways. The first is by demonstrating that a package is essential for a given discipline. This is easiest to do when the Scimago subject category is a good fit for an academic program. For instance in this example we can see that the subject of Electrical and Electronic Engineering gets 67% of usage from the IEEE package. As a subject specific package related to that subject, this might not be surprising, but when compared to some of our general packages IEEE might not look as good by other metrics. Showing that the package is essential for our electrical

engineering program is easy from this table.

The other way of using this table to advocate is to demonstrate how many subject areas rely on a general package. In this version of the table, we have chosen to highlight cells where a package provides 10% or more of the usage for a subject area. We can see that a few of general packages meet that 10% threshold for numerous subject areas. If in the IEEE example we are impressed with the depth of the packages support in a subject area, some of our general packages have impressive breadth of subject areas they serve.

We can recreate the table with other metrics than usage, for instance we have a tab on this iteration provides similar information for supply so the number of citable documents it provides. We have a tab for the number of quartile 1 titles, so our quality metric. Again this subject package measures report creates subject oriented value that we can incorporate into the budget report. So lets go back to the budget report and look at Package Level Focus Reports.

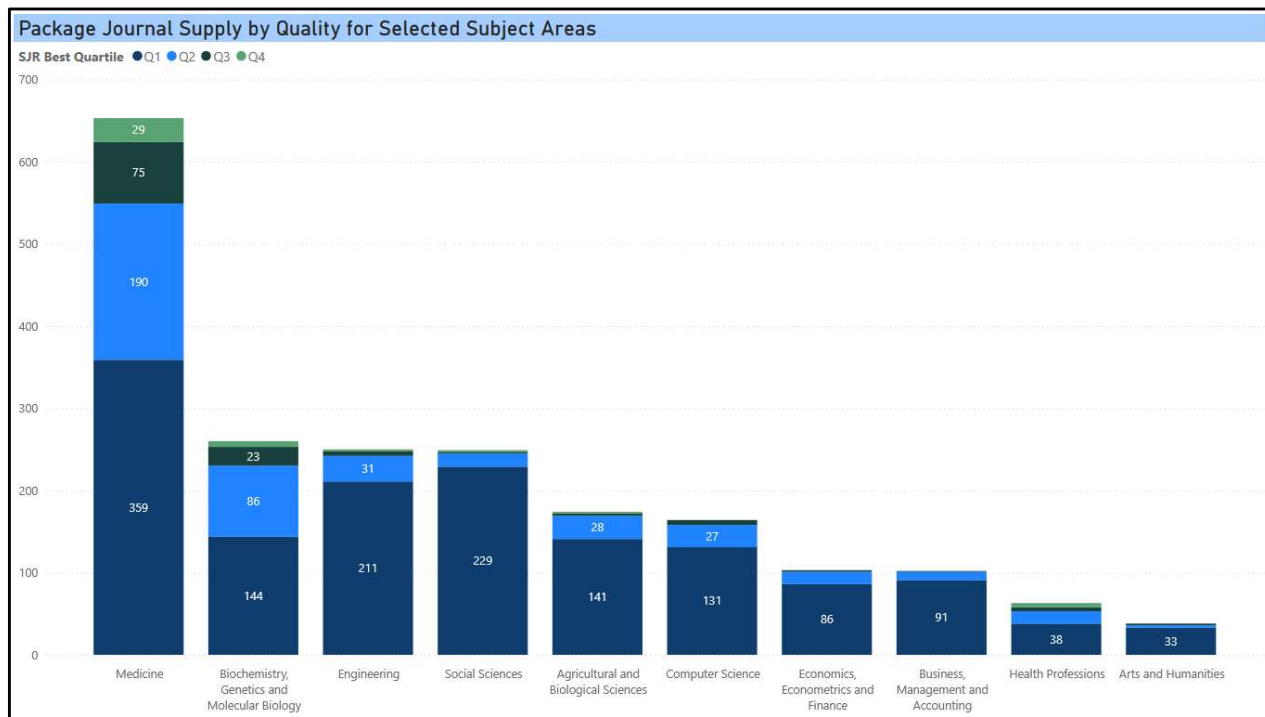


# Package Level Focus Reports

	A	C	D	E	G	H	I	J	K	M	N
		Planned FY25 Cost	Cost Type	Use	Active Journals	(Known) Full OA Journals	3 Yrs Sub Downloads	3 Yrs Total Downloads	3 Yrs Sub Usage Ratio	Utility Value Indicator (Cost per 3 Yrs Sub Usage)	Supply Value Indicator (Cost per 3 Yrs Cita. Docs.)
1	<b>Ongoing Subscriptions &gt;\$10,000</b>										
2	<a href="#">American Chemical Society Journals</a>	\$XX,YYY	est	RA	86	17	4353	4353	100%	\$ 5.94	\$ 0.14
3	<a href="#">American Society Of Civil Engineers ASCE Journals</a>	\$XX,YYY	est	RA	34		2166	2190	99%	\$ 9.04	\$ 1.53
4	<a href="#">ASME Digital Collection Journals</a>	\$XX,YYY	est	RA	33		396	396	100%	\$ 39.11	\$ 1.54
5	<a href="#">Cambridge University Press Journals</a>	\$XX,YYY	est	R	431	105	7731	18565	42%	\$ 3.26	\$ 0.43
6	<a href="#">Elsevier ScienceDirect Journals Complete</a>	\$ZXX,YYY	firm	R	2627	819	192034	196052	98%	\$ 1.58	\$ 0.17
7	<a href="#">GeoScienceWorld</a>	\$XX,YYY	est	R	54		1152	1242	93%	\$ 12.35	\$ 0.86
8	<a href="#">IEL (IEEE/IET Electronic Library)資料庫</a>	\$XX,YYY	firm	RTA	263	57	11774	11784	100%	\$ 4.48	\$ 0.26
9	<a href="#">JSTOR Archival Journals and Primary Sources Collection</a>	\$XX,YYY	est	R	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	<a href="#">New York Times (Website)</a>	\$XX,YYY	firm	G	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	<a href="#">Ovid Nursing FullText+</a>	\$XX,YYY	est	R	283	212	25719	29601	87%	\$ 0.80	\$ 0.19
12	<a href="#">Oxford Selected Journals</a>	\$XX,YYY	est	R	19		2736	5846	47%	\$ 3.56	\$ 2.29
13	<a href="#">Portfolio Management Research</a>	\$XX,YYY	firm	T	12		N/A	N/A	N/A	N/A	\$ 14.40
14	<a href="#">Project Muse Standard Collection</a>	\$XX,YYY	est	R	375		14154	34522	41%	\$ 0.81	\$ 0.46
15	<a href="#">PsycArticles</a>	\$XX,YYY	est	R	105		388	30871	N/A	N/A	\$ 1.07
16	<a href="#">SAGE Premier Journals</a>	\$ZXX,YYY	firm	R	1180	210	111540	129830	86%	\$ 1.05	\$ 0.66
17	<a href="#">Science</a>	\$XX,YYY	est	R	1		1329	2384	56%	\$ 10.26	\$ 3.10
18	<a href="#">Springer Nature Journals</a>	\$XX,YYY	firm	R	2706	688	70115	110387	64%	\$ 1.00	\$ 0.07
19	<a href="#">Star Tribune (microfilm)</a>	\$XX,YYY	est	Lass	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	<a href="#">Taylor &amp; Francis Journals Complete</a>	\$ZXX,YYY	firm	R	2329	340	132901	162411	82%	\$ 1.00	\$ 0.38
21	<a href="#">Wiley Online Library Journals (including Anthrosource)</a>	\$ZXX,YYY	est	R	1717	324	132810	166473	80%	\$ 1.12	\$ 0.26
22											
23	<b>Ongoing Subscriptions &lt;\$10,000</b>										

Package Level Focus reports are where we have pulled these positive metrics from the budget proposal overview and subject package measures into quick guide to create a positive impression. Again, the goal here is to advocate, but more importantly is to provide a contrast to the spreadsheet approach of our overview and other reports we use to make decisions about journal subscriptions. As we have created these so far, they have some uniformity, but ultimately they should reflect the unique contributions that each package provides. As a result I will walk through two contrasting examples of Focus reports to get a feel for what we are trying to do.

Let's start with Elsevier. Elsevier is a package that we need to always think about when communicating with our administration. While the version of the Overview we showed had prices exed out, when we share the information the price of Elsevier's package will definitely stand out.



We have chosen to use power point slides as a way to present the Package Level Focus Reports. There are a few reasons for this. While we do have tables and charts, as you will see, part of the goal is to create a visual and memorable way to seeing the positive attributes of a given package. Powerpoint provides a great way to see the visuals we have created. We also imagine that if the Dean was presenting information to his boss' he could grab slides and plopp them directly into his presentation, rather than show the entire report.

While Elsevier's price tag is high, its value cannot be understated. It just plain provides us with an enormous supply of titles, those titles are of high quality, and frankly our campus heavily uses our Elsevier package. And while it is widely seen as a STEM oriented package it actually serves a much wider breadth of disciplines with both content and quality. So the initial slide in the focus report attempt to communicate with a chart that conveys the most in one image. This is chart typical of our the CPBI charts. In this case it is showing the supply of journal titles for various subject areas. Within each bar there is a breakdown of the level of high quality titles with each subject title list. So while we know our administrators would imagine that medicine, biochemistry and engineering would be well served by our Elsevier package, we are also seeing the impact for our campus in the social sciences and business, each of these subject areas also have considerable quartile 1

publications...so of high quality.

**Percent of Article Downloads Supplied by Package for Program-Level Subject Categories**

Accounting	24%	Health Informatics	21%
Agricultural and Biological Sciences (miscellaneous)	11%	Health Professions (miscellaneous)	4%
Agronomy and Crop Science	39%	History	3%
Anthropology	1%	Industrial and Manufacturing Engineering	52%
Arts and Humanities (miscellaneous)	11%	Literature and Literary Theory	0%
Automotive Engineering	32%	Management Information Systems	36%
Biochemistry	47%	Marketing	30%
Building and Construction	61%	Mathematics (miscellaneous)	8%
Business and International Management	27%	Mechanical Engineering	53%
Business, Management and Accounting (miscellaneous)	3%	Music	0%
Chemistry (miscellaneous)	21%	Nursing (miscellaneous)	12%
Civil and Structural Engineering	59%	Orthopedics and Sports Medicine	11%
Communication	2%	Pediatrics, Perinatology and Child Health	26%
Computer Science (miscellaneous)	64%	Philosophy	0%
Critical Care Nursing	10%	Physical Therapy, Sports Therapy and Rehabilitation	9%
Cultural Studies	0%	Physics and Astronomy (miscellaneous)	14%
Dentistry (miscellaneous)	15%	Psychology (miscellaneous)	18%
Earth and Planetary Sciences (miscellaneous)	13%	Public Administration	0%
Economics and Econometrics	26%	Public Health, Environmental and Occupational Health	15%
Economics, Econometrics and Finance (miscellaneous)	5%	Social Sciences (miscellaneous)	2%
Education	11%	Social Work	16%
Electrical and Electronic Engineering	20%	Sociology and Political Science	9%
Emergency Nursing	26%	Soil Science	54%
Engineering (miscellaneous)	24%	Speech and Hearing	11%
Environmental Science (miscellaneous)	35%	Sports Science	14%
Finance	46%	Statistics and Probability	20%
Food Science	53%	Strategy and Management	19%
Gender Studies	1%	Tourism, Leisure and Hospitality Management	24%
Geography, Planning and Development	19%	Urban Studies	18%
Geology	56%	Visual Arts and Performing Arts	0%

The next page is one we would typically use to highlight a couple of strengths in coverage or usage for a few disciplines. In this case we chose to simply include a table that shows what percentage of usage for various subject areas Elsevier provides. While this does show a few areas they do not provide any content. It really provides detail to one of the points we made with the previous chart...basically that Elsevier serves across our campus. So many disciplines use content from here. This table has been edited to show those subject areas we thought were well aligned with our curriculum. Where the last chart focused on supply and quality, this table looks at usage. Some of these numbers really jump off the page. For instance, our Construction Management program is a strength of our institution and draws students to our campus. 61% of our downloads in the Scimago Buildings and Construction subject area came from Elsevier. For a valued and unique campus program, Elsevier is essential. Examples like this show the depth of support this package supplies, but by including the larger list of relevant subject areas it also demonstrates the breadth of coverage. If this was shown in a larger administrative meeting, I don't think any Dean and most department chairs could look at this and not think Elsevier has value for us and our campus.

- This multi-disciplinary journal package is focused in the STEM disciplines.



The next section of the focus reports are simple points of emphasis for a package. For some packages we might have a simple expression of its value others like Elsevier we will have several. This section draws on another project we have been working on. That is to take advantage of the ease with which we can generate high quality images using Artificial Intelligence and use those to create a visual in the hopes of generating a lasting impression. We are in the process of developing a small library of images that can be used to demonstrate different points would want to make regarding collection data. We are still just playing around with the concept, but we saw the package focus reports as a good way to test out how these images helped create a memorable perspective.

The images were generated using Open AI's Dall-E 3. We have put some time into creating prompts to generate effective imagery. One of the goals we have as a group concerned with data is that eventually these AI images could represent actual numbers. Could images present proportional representations of real numbers while also supplying metaphors for concepts we are trying to get across. As of right now our ability to generate images that are proportional is not there, but will be something we will be testing as AI image generation improves. As a result these images are focused on creating a metaphor or memorable view that might stick with our audience.

Let's look at the first. This is perhaps a less inspired image, but we are trying to convey that

even though Elsevier does serve across the various disciplines of the university, its strength is still in the STEM fields. With name recognition for its platform Science Direct, we are not fighting that perception completely and creating a modern science image.

- This package has a sub usage ratio of 98%. To access the content, we must have this package.



The second slide is meant to convey that with a very high sub usage ratio the only way for us to access this content is through a direct subscription. The metaphor is that we couldn't get to the castle without the ferry, we need a subscription to get where we want to go.

- This journal package is important across more academic disciplines than any other journal package.
- It provides large proportions of article downloads for more subject categories than other packages.



This image is trying to show just how fruitful this package is. It is so strong in so many different disciplines in usage, quality, and supply that it is almost overwhelming!



- Although the cost of this journal package is higher than all others, it provides by far the most citable documents of all journal packages.



The image of the dragon is trying to show that even though the cost is high, it is providing the greatest pile of riches. This is an example of where we were hoping to create proportional images. Could the size of the pile of riches and the size of the dragon actually represent cost in comparison to supply or usage? Could this be compared to another package with differing sizes of dragons or piles of gold?

- This journal package provides a very high volume of top quality research articles relative to cost.
- It is a top-tier package based on cost per Q1 citable document.



The last image is emphasizing high quality of the content. This connects us back to the Supply-Quality Value Indicator...a lot of highly cited journals are in this package. We hope the high school trophy case emphasizes that point.

Active Journals	2627
(Known) Full OA Journals	819
3 Yrs Sub Downloads	192,034
3 Yrs Total Downloads	196,052
3 Yrs Sub Usage Ratio	98%
Utility Value Indicator (Cost per 3 Yrs Total Usage)	\$ 1.58
Supply Value Indicator (Cost per 3 Yrs Cita. Docs.)	\$ 0.17
Supply-Quality Value Indicator (Cost per 3 Yrs Q1 Cita. Docs.)	\$ 0.23
Southworth Ratio Current 4/8 (20-23/16-23)	0.48
Southworth Ratio Lagging 4/8 (17-20/13-20)	0.53
Current YOP Usage Ratio (2023 & 2022 YOP/ All YOP)	18%
Most Recent 6 Yrs YOP Usage Ratio	51%
Pre-2000 YOP Usage Ratio	4%
Q1 Journal Ratio	57%
Q1 Citable Docs (3 Yrs)	1,338,654
Q1 Journals	1502
Q2 Journals	570
Q3 Journals	215
Q4 Journals	56

The last page of the focus report provides a summary of the KPIs that can be a re-confirmation that our points are coming from data and the KPIs reference in the budget proposal overview.

The benefits of the focus reports is that we can pull from the CPBI, Subject Package Measures, the Budget Proposal Overview, and our developing image library to create a positive impression of the package.

**Percent of Article Downloads Supplied by Package for Program-Level Subject Categories**

Building and Construction	21%
Civil and Structural Engineering	22%
Strategy and Management	6%

“The ASCE journals? We would be totally lost without them; it's a core component to what we teach our students, a building block of our research, and a mainstay of our mission as a public regional university. Our accreditors ABET would pop a major gasket if we didn't have access.”

-Dr. Steve Druschel, CIVE

But let’s look at one more example to give us a different view of what we are thinking. I am going to look at the American Society of Civil Engineering Journal package. Like many subject specific packages this may not come out as strong if we focused exclusively on cost per use. This is where we hope we can really make a strong impression, but also knowing that a package focus report should look differently than a giant general package like Elsevier.

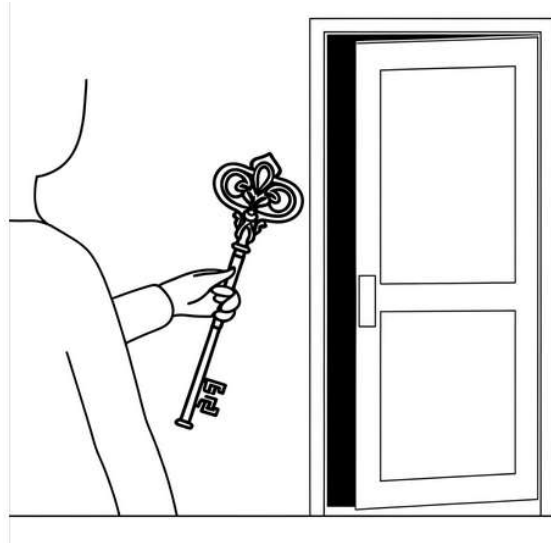
If we look at the first slide we start right out showing the subject areas ASCE titles serve. And as one might expect it is not the expansive list of disciplines we saw with Elsevier, but targeted to the fields associated with civil engineering. While some context might be needed when comparing this next to a large general package, the key is to make clear that this is really important to its respective discipline. This is where you see the quote from a civil engineering professor about the ASCE package. We can show all the numbers we want, and I don’t want to diminish the KPIs, but Dr. Druschel’s comments make clear it is essential to teaching and learning and is likely necessary for accreditation. I think the quote mixed with subject data helps to emphasize the role of subject specific packages for serving the university. At what point is this package no different than the need of a microscopes for us to teach microbiology? We hope that our administrators will see this package from that perspective.

- This package has a sub usage ratio of 99%. To access the content, we must have this package.



As we work through the images, we again have a high sub usage ratio meaning this content is not replaceable through other sources, we will need a subscription to meet the needs of this program.

- This journal package is subject specialized. It is recommended by accreditors.



In this last slide we want to reemphasize that this package is directly connected to accreditation and seen as essential for offering this program on our campus.

Now I am going to pass it over to Pat, but know we are still playing with the idea of images as a way of emphasizing points we are trying to make memorable and would be interested in there are other approaches or ideas for creating understanding amongst administrators for the value of our journal packages.

# Subject Level Brief Report

Electrical and Electronic Engineering

Thank you Evan for the clear description of the Budget Proposal.

You may recall he mentioned that the BP is designed to demonstrate unique value and highlight needs to campus decision makers – but we can also use this data for our work with faculty members.

Heidi provides library support for our Engineering Department and prepared this *Subject Level Brief Report* for the Electrical Engineering program.

This subject report draws from the Budget Proposal and is a way to communicate with departments – showing faculty members (and potentially accreditation reviewers) how we are supporting their programs.

(Just a note - this Subject Report also looks forward to our next undertaking, *The Accreditation Support Project* – which is a conference proposal for ACRL 2025).

## Scimago

Journals are assigned to 27 major thematic categories (Scimago Subject Areas) as well as to 309 specific subject categories (Scimago Subject Categories) according to Scopus® Classification.

For this report:

Scimago Subject Area = Engineering

Scimago Subject Category = Electrical and Electronic Engineering

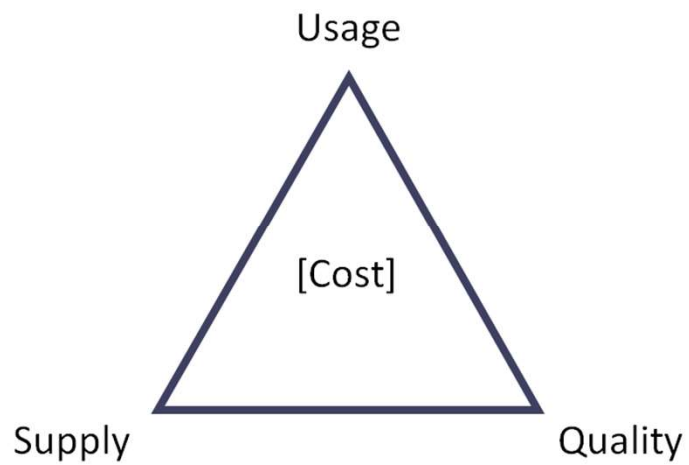
For the first step of the report, we need to define the content. As Evan mentioned, we use Scimago's Scientific Journal Rankings because of the data's accessibility to us.

Engineering is one of the twenty-seven subject areas, and Electrical and Electronic Engineering is the broader subject category (out of 309).

This report *is* under development. Heidi knows her departments very well, and while creating this report, she identified that faculty members would likely want to know what topics are covered in "electrical and electronic engineering." So we think a future development would include further definition of the subject categories as well.



*Categories of Value*



After listening to Evan's section, this report will seem very similar to the BP. We use the same categories of value (Usage, Supply, and Quality) and of course Cost is also a related factor.

# Supply

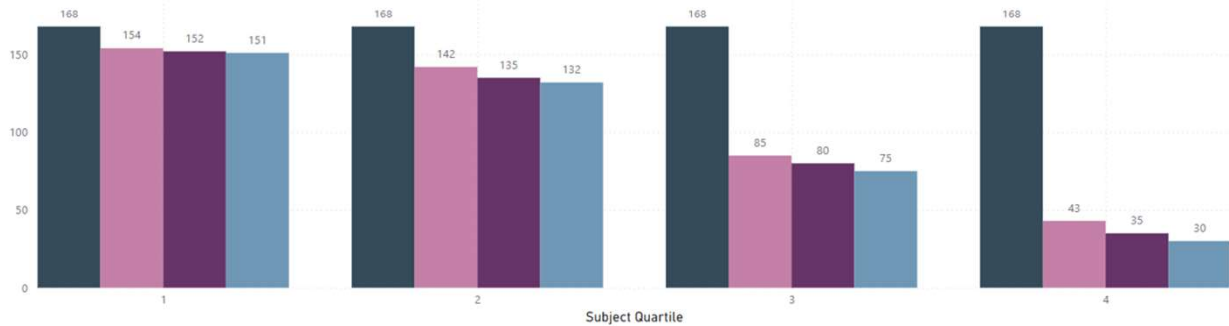
Of the journals in the “electrical and electronics engineering”  
subject category, what do we have access to?

Starting with Supply – for this faculty work, we especially want to identify what we have access to.

Subject Quartile	Total Journals in Subject	Any ER Coverage	Recent & Current ER Coverage	Current Only ER Coverage	DISTINCT ER Venues	DISTINCT ER Providers	ALL OA Venues	ALL ELM Venues	DISTINCT ELM Venues	ALL PCA Venues	Article Downloads 13-22	Southworth Ratio	MavScholar Clicked Services 19-22	ILL Requests 19-22	% Comparative Price
1	168	154	152	151	26	13	29	4	3	14	18,195	0.62	889	2	60.21%
2	168	142	135	132	29	14	92	8	2	25	5,796	0.50	583	1	24.34%
3	168	85	80	75	25	13	39	19	4	22	1,277	0.39	123	5	9.62%
4	168	43	35	30	18	10	22	23	4	4	1,017	0.36	80	8	5.83%
<b>Total</b>	<b>672</b>	<b>424</b>	<b>402</b>	<b>388</b>	<b>43</b>	<b>19</b>	<b>182</b>	<b>54</b>	<b>5</b>	<b>65</b>	<b>26,285</b>	<b>0.58</b>	<b>1675</b>	<b>8</b>	<b>100.00%</b>

Journals Supply by Subject Quartile (ranked within subject)

● Total Journals in Subject ● Any ER Coverage ● Recent & Current ER Coverage ● Current Only ER Coverage



**Of the 672 journals in Electrical and Electronic Engineering, we have access to 424 (63%).**

This snapshot shows the journals and access coverage in the Electrical Engineering category quartiles.

- The first column is the total number of journals in the quartile (168 for this category).
- The second column is any coverage
- The third column is recent & current coverage
- Final column – only current coverage

Overall, we have access to 63% of the journals in this category, which should be pretty reassuring to most faculty members.

# Quality

What percentage of Q1 journals do we have access to?

Either through our academic preparation or helping students with resources, we are all likely aware there are differences in journal quality. That last image showed that we have access to 63% of all the journals in this category – but would that mean as much if they were almost all from the lower quartiles? We also want to be able to talk about the quality of our holdings, how many of the first quartile journals do we have.

Subject Journal List

Title	Scimago Rank	Best Quartile	Any ER Coverage	Recent & Current ER Coverage	Current Only ER Coverage	DISTINCT ER Venues	DISTINCT ER Providers	Article Downloads 13-22	Southworth Ratio	MavScholar Clicked Services 19-22	Print Browsers	ILL Requests 19-22	Citable Docs. (3years)
Sensors and Actuators Reports	4227	1	1	1	1	1	1	1	1.00				23
Signal Processing	2710	1	1	1	1	1	1	58	0.30		1		1117
Signal Processing: Image Communication	4240	1	1	1	1	1	1	75	0.12		4		515
Solar RRL	1162	1	1	1	1	2	1	0					771
Sustainable Computing: Informatics and Systems	3682	1	1	1	1	1	1	27	0.65		2		214
Sustainable Energy, Grids and Networks	3065	1	1	1	1	1	1	14	1.00		5		190
Systems and Control Letters	1584	1	1	1	1	1	1	18	0.71				424
Telecommunications Policy	3048	1	1	1	1	2	2	234	0.51		21		218
Telematics and Informatics	1702	1	1			1	1	601	0.41		49		370
Vehicular Communications	1182	1	1	1	1	1	1	18	0.76		2		116
Advances in Nano Research	3630	1											89
Dianli Xitong Zidonghua/Automation of Electric Power Systems	5167	1											1763
Electronic Structure	5515	1						0					61
Flexible and Printed Electronics	5197	1						0					148
Journal of Guidance, Control, and Dynamics	2558	1						0					658
Materials Horizons	432	1						0					581
Nano Futures	4537	1						0					43
Nature Electronics	103	1						2	1.00				268
Power System Technology	5529	1											1632
Quantum Science and Technology	1220	1						3	0.00				273
Smart Materials and Structures	4891	1						35	0.29		0		1453
Superconductor Science and Technology	5485	1						22	0.05				698
Synthesis Lectures on Image, Video, and Multimedia Processing	1500	1											1
Zhongguo Dianji Gongcheng Xuebao/Proceedings of the Chinese Society of Electrical Engineering	5176	1											2366

**If we look at the list of journals for “electronic and electrical engineering” of the 168 titles that are marked as Q1 (highest ranked journals in the category), we have access to 154 of them (91%).**

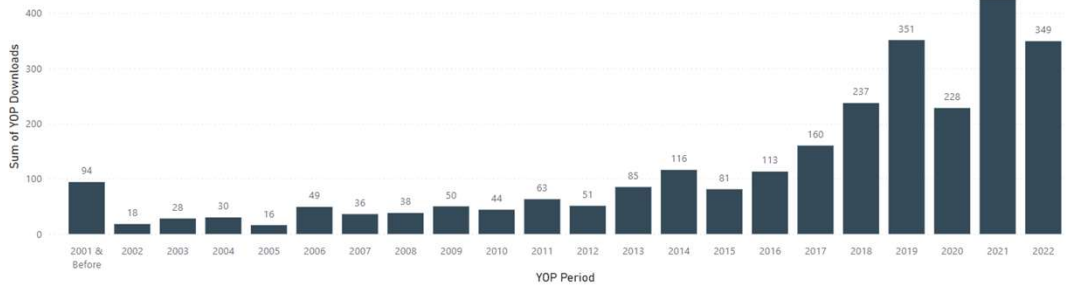
This is a list of the first quartile journals with some metrics (Southworth Ratio, Article Downloads, Citable Docs, etc) attached. Our more discerning faculty should be happy to hear we have access to 91% of these journals.

# Usage

Which of our resources have the most downloads for this subject category?

Next up is usage – it's not just how many things are being use, but more what providers are the most important for this subject?

2022 Article Downloads (as available from vendors) Distributed by Year of Publication



Platform	2001 & Before	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	9999	Total	
ACM						2						1			1			1	4	2	8	1	1		21	
ACS													2			1									1	1
ASME														2		1										3
EBSCOhost		3						1	1				3	1							1	1				11
Emerald				1	1																	1				3
IEEE Xplore	74	8	22	19	11	26	30	29	37	23	45	31	42	62	51	75	97	146	262	148	262	241			1741	
ProQuest	1		2						2			2	4	1					3		2					17
Sage		2																	12		2				14	30
ScienceDirect licensed content	11	10	4	6	4	19	3	3	13	16	14	11	35	42	25	33	51	42	60	28	94	88	1	3	616	
Springer				1			2	3			3	2	2	3	1	2	8	24	15	23	56	16			161	
Taylor & Francis	3			3		1						1				3			2			4	1		2	20
Wiley Online Library						1				3	1	1	2	6		2	3	4	12	15	8	2		1	61	
<b>Total</b>	<b>94</b>	<b>18</b>	<b>28</b>	<b>30</b>	<b>16</b>	<b>49</b>	<b>36</b>	<b>38</b>	<b>50</b>	<b>44</b>	<b>63</b>	<b>51</b>	<b>85</b>	<b>116</b>	<b>81</b>	<b>113</b>	<b>160</b>	<b>237</b>	<b>351</b>	<b>228</b>	<b>426</b>	<b>349</b>	<b>1</b>	<b>21</b>	<b>2685</b>	

**IEEE Xplore (65%) and ScienceDirect (23%) are the top two providers for journal content.**

This shows our user’s article downloads for 2022 by Year of Publication. The top bar chart is total downloads, and the table on the bottom shows the same information broken down by provider. Unsurprisingly IEEE is very important for our Electrical Engineering program (accounting for 65% of the 2022 downloads for this subject), followed by ScienceDirect sourcing an additional 23% of the downloads.

## Southworth Ratio (SR)

SR = 4 years All Article Downloads ÷ 8 years All Article Downloads (way to measure usage over time)

- If SR < 0.50 = Usage potentially trending down
- If SR > 0.50 = Usage potentially trending up

SR Ratio for Journals in the Electrical and Electronic Engineering

Subject Quartile	SR
1	0.62
2	0.50
3	0.39
4	0.36



*Note the increase in use of Q1 Journals*

We also include the highly illustrative Southworth Ratio to gauge journal trends (once again that is 4 years of article downloads over 8 years of downloads). For the Electrical/Electronic Engineering category, there is a trend increase for Q1 journals (the trend also shows less reliance on lower quality journals - win win).



### SR for individual titles in Electrical and Electronic Engineering (useful for showing trends within the discipline)

#### Subject Journal List

Title	Scimago Rank	Best Quartile	Any ER Coverage	Recent & Current ER Coverage	Current Only ER Coverage	DISTINCT ER Venues	DISTINCT ER Providers	Article Downloads 13-22	Southworth Ratio
Journal of Energy Storage	2522	1	1	1	1	1	1	64	0.97
IEEE Transactions on Dielectrics and Electrical Insulation	4911	1	1	1	1	1	1	28	0.96
IEEE Transactions on Network and Service Management	1835	1	1	1	1	1	1	35	0.94
IEEE Wireless Communications Letters	667	1	1	1	1	1	1	45	0.93
IEEE Transactions on Wireless Communications	331	1	1	1	1	1	1	193	0.91
Proceedings of the IEEE	303	1	1	1	1	1	1	264	0.90
China Communications	4606	1	1	1	1	1	1	10	0.89
IEEE Transactions on Vehicular Technology	828	1	1	1	1	1	1	384	0.88
IEEE Electron Device Letters	3358	1	1	1	1	1	1	162	0.88
IEEE Solid-State Circuits Magazine	5044	1	1	1	1	1	1	18	0.88
IEEE Transactions on Communications	556	1	1	1	1	1	1	112	0.86
IEEE Circuits and Systems Magazine	4796	1	1	1	1	1	1	14	0.86
IEEE Communications Letters	1658	1	1	1	1	1	1	65	0.86
Nano Energy	302	1	1	1	1	1	1	146	0.86
IEEE Transactions on Industrial Informatics	350	1	1	1	1	1	1	286	0.85
IEEE Journal of Selected Topics in Quantum Electronics	2994	1	1	1	1	1	1	142	0.85
IEEE Transactions on Industry Applications	1269	1	1	1	1	1	1	828	0.84
IEEE Transactions on Medical Imaging	378	1	1	1	1	1	1	56	0.84
IEEE Electrification Magazine	5144	1	1	1	1	1	1	24	0.83
IEEE/ACM Transactions on Networking	1109	1	1	1	1	2	2	79	0.82
Nature Nanotechnology	50	1	1	1	1	1	1	22	0.82
IEEE Sensors Journal	4592	1	1	1	1	1	1	241	0.82
IEEE Transactions on Power Systems	307	1	1	1	1	1	1	164	0.81
IEEE Transactions on Robotics	472	1	1	1	1	1	1	60	0.80
IEEE/ASME Transactions on Mechatronics	1152	1	1	1	1	1	1	131	0.80
IEEE Journal on Emerging and Selected Topics in Circuits and Systems	2004	1	1	1	1	1	1	5	0.80

A further breakdown of journal usage within the category is useful to show trends within a discipline.

Not being the Engineering liaison, I'm interested (but unsurprised) to see that top trending journals involve topics like Energy Storage, Network Management, Wireless Communication.

# Cost

What are the costs associated with access to journals?

And then finally, cost is always there, lurking in the background.

## Cost Per Article & Cost Per Usage

- IEEE
  - 203 Journals
  - CPA = \$0.98
  - CPU = \$4.36
- ScienceDirect
  - 1,758 Journals
  - CPA = \$0.64
  - CPU = \$1.72

### Thoughts:

- How to show Inflation?
- How to show total cost without getting into a shouting comparison match between departments?
- Costs for ILL could be interesting to compare.
- Cost compared to immediate POD?

With our reports, we can provide information about cost/article and cost/usage. But there are other factors involved that could be accounted for more.

## Comparative Price for Journals per Quartile

Subject Quartile	% Comparative Price
1	60.21%
2	24.34%
3	9.62%
4	5.83%

### Thoughts:

- Show Comparative Price over time?
  - Have Q1 journals risen in price?
- Inflation?

Another issue – comparative price for journals per quartile. How does that factor into the equation?

## Working with faculty to improve advocacy

As I said at the beginning, these Subject Reports are built off the Budget Proposal, so in addition to sharing data with faculty members, we are also sharing our strategy for how we are advocating for their programs. Which means ideally, when we're in these department meetings, the Subject Report is not just a presentation but a tool to improve discussion.

Possible topics of discussion with faculty:

- A reminder that library resources are a part of the academic ecosystem - we need department information to better support departments.
- Ask for feedback to improve the argument.
  - Professors providing quotes ('this resource provides X for our program; without it we'd be lost') and context to the data ('we need Y because of Z'. Z is important because...).

## Future Implementation steps

Although we are near the end, we are still in the development stage. Next AY, we will be sharing the BP with our library colleagues on the Journal Review Committee and our Dean for feedback. We will also continue working with the teaching faculty to improve our advocacy.

I do want to point out that while the Budget Proposal is an affirmative tool for why to keep journals/journal packages, it also works really well as a collection development tool. The resources that do not shine (or take a lot of polish to gleam), are likely candidates for cancellation (something we can keep in reserve for the inevitable cuts).

## Questions for attendees:

What are you doing?  
KPIs – better evidence for advocacy?

We had anticipated Admin more proactively adopting this budget strategy – which didn't happen fully. There is a benefit, we are able to workshop our concept more before it takes effect. If anyone has any comments or ideas to share, we'd be happy to entertain them.

- What are you doing?
- Better elements for advocacy?