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Diane Carroll and Joel Cummings, 2010. "Data Driven Collection Assessment using a Serial Decision Database." *Serials Review*. 36 (4):227-239.

Table 1. Number of titles added as the SDD was built and description of columns on the sample SDD (Tables 2 and 3).

Source of Data	Number of Titles	Unique titles added	Total number of Titles	Table	Description on Sample SDD
ILS-Bibliographic Record				2A	Bibliographic Record: Title; pISSN; eISSN
Multiple Sources				2A	Subscription Status; Library location and Format
ILS- Order Records with Invoices for FY08-09	4,101	4,101	4,101	2A	Order Record: Number; Vendor; Location; First Paid Date
				2B	Order Record: Fund Code; 2009 List Price; cost by collection
ILS-Serial Records	3,713	1,536	5,637	2B	Serial Record: Number; Print Title Subscription Status
ILS-Electronic Resource Management Records	11,830	8,873	14,510	2C	ERM: E-access Provider; Coverage dates and Download Use Data; Post Cancellation Rights
Subscription Agent	4,490	307	14,817	3A	Subscription agent: ILS number; Publisher; Title number; Start date; Expiration date; Format; Frequency
Citation Databases	4,383	1164	15,981	3B	Citation: WSU Authored Papers; WSU Cited papers; WSU Authored Papers from Annual Reports
WSU Print Usage Data	628	92	16,073	3B	Usage: Print usage; Print circulation
Interlibrary Loan	73	17	16,090	3B	Interlibrary loan: ILL 1997 to present; ILL prior to 1997
Additional Information				3C	Ulrich's Serials Analysis System: Subject; List Price; Publisher
Calculated Values				3C	Calculated: Total Downloads/Use; Total Uses; Journal Cost/ total Uses; Priority

TITLES	Table 2A: Information from the bibliographic and order record in the Serial Decision Database							
Titles from all data sources	ILS Bibliographic record		From ILS and subscription agent	Location from Order or checkin record; format from many sources	Information from the Order Record in the Innovative ILS. This is the base of the serials decision database			
Title	pISSN	eISSN	Subscription status in 2009	Library location and Format	Order Record #	Vendor	Location	FY09 First Paid Date
Biosystems Engineering	1537-5110	1537-5129	Current	Internet via ScienceDirect ejournal	o1017457	EBSCO	WSU Online	2/4/2009
HortScience	0018-5345		Current	AgSci-Prt and online via Highwire Amer Soc Horticultural Sci	o2857182	EBSCO	WSU AgSci	12/17/2008

TITLES	Table 2B. Order and Serial records information in the Serials Decision database							
Titles from all data sources	Information from the Order Record in the Innovative ILS. This is the base of the serials decision database						Serial Record-Additional print titles that may not have order records	
Title	Fund Code	2009 List Price	Hum/Soc Collection	SEA Collection	Animal Health Collection	Serial Record Number	Print Title Subscription Status	
Biosystems Engineering	EL600	\$1,237		\$1,237				
HortScience	14600	\$1,370		\$1,370		c1160801	Active Purchase	

TITLES	Table 2C. Information from ERM coverage database, license record and sources of journal usage data						
Titles from all data sources	Sample of coverage dates and download usage data from Electronic Resource Management (ERM) and ScholarlyStats by provider. Matched by ISSN and title.						ERM License Record
Title	E-access Provider	Highwire Coverage	Highwire Download Use 2008	ScienceDirect Coverage	ScienceDirect Download Use 2008	Post Cancellation Rights	
Biosystems Engineering	Elsevier ScienceDirect			2002-	381	SD: Electronic	
HortScience	Highwire Amer Soc Horticultural Sci	1990-	453			ASHS: Print	

TITLES							
Table 3A. Information from subscription agent in the Serials Decision Database							
Titles from all data sources							
Sample of data available from subscription agents.							
Title	ILS Number	Publisher Name	Title Number	Start Date	Expiration Date	Format	Frequency
Biosystems Engineering	o1017457	Elsevier	123-715-088	1/1/2009	12/31/2009	Online	Monthly
HortScience	o2857182	Amer Soc Horticultural Science	399-908-003	1/1/2009	12/31/2009	Print	Irregular

TITLES							
Table 3B. Information from citation databases, Interlibrary loan, and print usage in the Serials Decision Database							
Titles from all data sources							
Web of Science®		Local data		Print usage		ILLiad	
Title	WSU Authored Papers from 2006-08 (1 or more; Priority: 1>10; 3<5)	WSU Cited Papers from 2006-08 (5 or more; Priority: 1>40; 3<10)	WSU Authored Papers from WSU Annual Reports (2005-2008)	Print Usage 2008/ Science libraries only (1 or more; Priority: 1>250; 3<40)	Journal Circulation Use 2003-2008. Total/6 years (Priority: 1>250; 3<40)	ILL 2008; (Priority: 1>15; 3<10;1997 to present)	ILL 2008; Prior to 1997)
Biosystems Engineering	6	37	7				
HortScience	55	201	49	114	11	8	7

TITLES							
Table 3C. Data added to the Serials Decision Database from Ulrich's and Calculated Values.							
Titles from all data sources							
Ulrich's Serials Analysis System Subject				Calculated values for journals			
Title	Ulrich's Serials Analysis System Subject (1/2009)	Ulrich's Serials Analysis System List Price (1/2009)	USAS Publisher (1/2009)	Total download use in 2008	Total Recorded Uses for 2008	Journal cost/ total uses	Priority
Biosystems Engineering	AGRICULTURE_CROP PRODUCTION AND SOIL	\$1,237.00	Academic Press	381	431	\$2.87	1
HortScience	GARDENING AND HORTICULTURE	\$400.00	American Society for Horticultural Science	453	898	\$1.53	1

Table 4. Assignment of priority based on data elements in the SDD,

	High Use (1)	Medium Use (2)	Low Use (3)
Number of WSU authored papers from 2006 to 2008 (Web of Science®)	>10	5 to 10	<5
Number of WSU cited papers from 2006 to 2008 (Web of Science®; 5 or more)	>40	10 to 40	<10
Print usage	>250	40-250	<40
Full text/PDF download usage	>250	40-250	<40
Interlibrary loan requests over the last 12 months (1997 to present)	>15	5 to 15	<5

Table 5. Sample of abbreviated SDD provided to Science, Engineering and Agriculture faculty for titles under consideration for cancellation.

Title	Pullman Campus Library location and format	Cost/total uses	Online access	Percent of downloads from JSTOR	Percent of downloads from Aggregators	WSU Authored papers from WSU Annual Reports (2005-2008)	WSU Authored papers from 2006-08 Web of Science®	WSU Cited papers from 2006-08 Web of Science®	Print usage 2008	Total downloads in 2008	Ulrich's Serials Analysis System Subject
AAPG Memoir	Owen-Prt	\$33.90									EARTH SCIENCES_GEOLOGY
Acarologia	AgSci-Prt	\$98.82							3		BIOLOGY_ZOOLOGY
Acta Zoologica	Internet via Wiley	\$110.01								9	BIOLOGY_ZOOLOGY
Advances in Geophysics	Owen-Prt	\$223.07									EARTH SCIENCES_GEOPHYSICS
African Journal of Ecology	Internet via Wiley	\$21.61	Retain Online Access via Aggregator		39%	4	1	3		46	BIOLOGY
Agricultural History	Internet via Metapress	\$0.88	Retain Online Access via JSTOR	87%						175	AGRICULTURE

Table 6. Sample of abbreviated SDD provided to Humanities and Social Science faculty to prioritize titles.

Humanities and Social Sciences Journal Titles April 2009	Library Location and Format	Summary of Usage Information	WSU Authored papers from 2006-08 Web of Science®	WSU Cited papers from 2006-08 Web of Science®	Total Recorded Uses for 2008	Journal cost/use for titles with use data	2009 Estimated Price (Total)	Priority (Rate as 1, 2, or 3)	Hum/Soc - Topic
Advertising Age	HollTerr Reserve-Prt and online via EBSCOhost	High Use		3	2,287	\$0.07	\$165		Communications
Advertising Age and Point	HollTerr-Prt	No Use Data					\$0		Communications
Advertising Red Books. Agencies	HollTerr-Prt	No Use Data					\$1,785		Communications
Adweek	HollTerr-Prt and online via EBSCOhost	High Use			210	\$1.58	\$331		Communications
African Archaeological Review	Internet via SpringerLink	Low Use			7	\$56.81	\$398		Anthropology
American Anthropologist	HollTerr-Prt and online via Wiley and backfiles via JSTOR	High Use	2	59	4,290	\$0.12	\$507		Anthropology
American Antiquity	HollTerr-Prt and online via JSTOR backfiles only	High Use	4	114	2,726	\$0.09	\$243		Anthropology
American Ethnologist	HollTerr-Prt and online via Wiley and backfiles via JSTOR	High Use		11	870	\$0.46	\$398		Anthropology
American Journal of Physical Anthropology	Internet via Wiley	High Use	4	38	288	\$7.78	\$2,240		Anthropology

Table 7. Analysis of number of titles, cost, cost per download for titles included in the 2009 SDD.

	Permanent Collection Subscriptions						Access only			
	Current Print, Microform	Current Print and Aggregator*	Current Print and JSTOR Archive**	Current Print and Online	Current online only	Other***	Current Consortial	Current Aggregator****	Open Access*****	Other***
Number of titles	2,575	489	154	531	4,678	1,736	1,918	1,264	780	532
Cost	\$377,709	\$48,614	\$47,246	\$274,329	\$3,163,119	\$38,300	\$0.00	\$34,290	\$0.00	\$40,119
Download	-	149,519	88,558	106,612	861,281	45,155	132,280	123,430	3,615	71,897
Cost per download	\$146.68	\$99.42	\$306.79	\$2.57	\$3.67	\$0.85	\$0.00	\$0.28	\$0.00	\$0.56

	Permanent Collection Subscriptions						Access only			
	Current Print, Microform	Current Print and Aggregator*	Current Print and JSTOR Archive**	Current Print and Online	Current online only	Other***	Current Consortial	Current Aggregator****	Open Access*****	Other***
Number of titles	18%	3%	1%	4%	32%	12%	13%	9%	5%	4%
Cost	9%	1%	1%	7%	79%	1%	0%	1%	0%	1%
Download		9%	6%	7%	54%	3%	8%	8%	0%	5%

*Current print and Aggregator: Cost was for print titles; Downloads were included in Access Only Total as only the print were part of the permanent collection; Cost per download was the cost of the print subscription.

**Current Print and JSTOR Archive: Cost was for print; JSTOR costs were included in Permanent Collection Other; Cost per use was the cost of the print subscription.

***Other: Permanent included non-current subscription with post-cancellation rights, JSTOR archives downloads that were not associated with a current subscription and other archives such as Nature; Access only includes aggregator collections that do not list usage by title and non-current aggregator title access. Not all titles in aggregator collections were added to the SDD.

****Current Aggregator: Current <= one month embargo; Costs for aggregators paid for by statewide program and were not included in the total cost.

*****Open access use includes providers where WSU IP addresses were registered.

Table 8. Number and percentage comparisons of titles held permanently or access only in the WSU collection

	Permanent Total	Access only Total	Total
Number of titles	10,163	4,494	14,657
Cost	\$3,949,317	\$74,409	\$4,023,726
Download	1,101,606	480,741	1,582,347
Cost per download	\$3.59	\$0.15	\$2.54

	Permanent Total	Access only Total	Total
Number of titles	69%	31%	100%
Cost	98%	2%	100%
Download	70%	30%	100%

Table 9. Calculation of cost per cited papers for publisher and packages from lowest to highest cost.

Collections or Packages from the 2010 SDD	Cost/Cited paper	2010 SDD WSU Cited papers from 2007-2009 (ISI)	Cost range	Type of Purchase
BioMed Central	\$0	1 to 499	Open Access	Membership
DOAJ	\$0	500 to 999	Open Access	Membership
PubMed Central	\$0	1000 to 1499	Open Access	None
National Academy of Science	\$1	2000 to 2499	\$1,000 to \$19,999	Individual title
ASBMB	\$2	1500 to 1999	\$1,000 to \$19,999	Individual title
American Phytopathological Society	\$2	1500 to 1999	\$1,000 to \$19,999	Individual title
Ecological Society of America	\$3	500 to 999	\$1,000 to \$19,999	Individual title
Science (AAAS)	\$5	2000 to 2499	\$1,000 to \$19,999	Individual title
Emerald	\$5	1000 to 1499	\$1,000 to \$19,999	Package
Nature (Nature Publishing)	\$5	1500 to 1999	\$1,000 to \$19,999	Individual title
American Physical	\$8	2000 to 2499	\$20,000 to \$39,999	Individual title
BioOne	\$9	1500 to 1999	\$1,000 to \$19,999	Package
Highwire	\$10	5000 to 10,000	\$80,000 to \$99,999	Individual title
American Chemical Society	\$10	5000 to 10,000	\$40,000 to \$59,999	Package
AIP Scitation AIP	\$13	3000 to 3499	\$40,000 to \$59,999	Individual title
AACR	\$15	1 to 499	\$1,000 to \$19,999	Individual title
Cell Press	\$16	1500 to 1999	\$20,000 to \$39,999	Individual title
PsycArticles	\$16	1500 to 1999	\$20,000 to \$39,999	Package
University of Chicago Press	\$17	1000 to 1499	\$20,000 to \$39,999	Individual title
AMA	\$22	1 to 499	\$1,000 to \$19,999	Package
Ovid	\$22	1000 to 1499	\$20,000 to \$39,999	Package
Oxford	\$24	3000 to 3499	\$60,000 to \$79,999	Package
Atypon	\$25	500 to 999	\$1,000 to \$19,999	Individual title
IOPscience Extra	\$32	2000 to 2499	\$60,000 to \$79,999	Package
IngentaConnect	\$34	500 to 999	\$20,000 to \$39,999	Individual title
Palgrave	\$36	1 to 499	\$1,000 to \$19,999	Individual title
ACM	\$37	1 to 499	\$1,000 to \$19,999	Package
Wiley	\$38	Over 10,000	Over \$300,000	Package
Portland Press	\$48	1 to 499	\$1,000 to \$19,999	Individual title
ScienceDirect	\$49	Over 10,000	Over \$300,000	Individual title and title sharing
SpringerLink	\$52	5000 to 10,000	Over \$300,000	Individual title and title sharing
SIAM	\$56	1 to 499	\$1,000 to \$19,999	Package

Sage	\$57	1500 to 1999	\$100,000 to \$149,999	Package
Cambridge	\$63	500 to 999	\$40,000 to \$59,999	Package
ECS Digital Library	\$64	1 to 499	\$1,000 to \$19,999	Package
MetaPress	\$64	1 to 499	\$1,000 to \$19,999	Individual title
ASCE	\$64	1 to 499	\$1,000 to \$19,999	Package
Nature Publishing (except Nature)	\$65	1500 to 1999	\$100,000 to \$149,999	Individual title
Royal Society	\$69	1 to 499	\$1,000 to \$19,999	Individual title
Royal Society of Chemistry	\$92	1 to 499	\$20,000 to \$39,999	Package
Project MUSE	\$93	1 to 499	\$1,000 to \$19,999	Package
ASME	\$101	1 to 499	\$1,000 to \$19,999	Package
Taylor and Francis	\$179	500 to 999	\$100,000 to \$149,999	Individual title
IEEE	\$258	500 to 999	\$100,000 to \$149,999	Package
SPIE	\$458	1 to 499	\$20,000 to \$39,999	Package
Duke	\$1,269	1 to 499	\$1,000 to \$19,999	Package



Potential Journal Cancellations

The Owen Science and Engineering Library and the Fischer Agricultural Sciences Library will be cancelling a number of journals to accommodate continuing and excessive journal price inflation. While allocations for the Owen and Fischer Libraries Serials budget are not finalized, it is expected that the Owen and Fischer Libraries will have to cancel subscriptions in excess of hundred thousand dollars.

Below is a list of titles that are being considered for cancellation. For some of these titles, the libraries will be able to retain online access via consortial agreements or other means - for details, please see our usage data spreadsheet (also linked from the top of the table below). We are asking for your input on the titles in this proposed cancellation list. Faculty, staff, and student input is a vital part of these decisions. Please contact your librarian or Joel Cummings with your questions, concerns, or comments about any of the titles on this list. Please respond before September 9th.

This list was generated by examining a number of data sources. These included WSU's online and print usage data, price and inflation patterns for individual titles, counts of journals cited by WSU authors, counts of papers recently published by WSU authors, past faculty input, and data from Thomson Reuter's Journal Citation Reports. The total price of all journals listed here is greater than the expected final cancellation; this will allow the libraries to more easily retain access to journals that you request us to retain subscriptions.

It is likely that cancellations in other parts of the libraries, and widespread funding problems at other institutions may impact consortially negotiated subscriptions which include materials collected by Owen and Fischer Libraries. If this happens, this list may require adjustments, and we will keep you informed and involved in these changes.

--- Joel Cummings.

Journal Titles (usage data spreadsheet)	Price
AAPG Memoir	219.92
Acarologia	296.47
Acta Zoologica	990.06
Advances in Geophysics	223.07
African Journal of Ecology	1167.08
Agricultural History	154.50

Figure 1.

Augmentative and Alternative Communication : AAC

0743-4618

Internet via Informa Healthcare

Price: 448.05

Cost Per Use: 3.556

Priority	% Use from JSTOR	% Use from Aggregators
2		76.57

Usage

Owen/Fischer Print Usage.	Circ. of Bound Journals	Article Downloads	Total Use	2007 SDD Use Stats	2006 SDD Use Stats
		111	126	90	38

Authored Papers

Worqs –	ISI	Ebscohost	Cited Papers
	1		14

JCR Data:

Total Cites	Impact Factor	5 yr Impact Factor	Immediacy Index	Articles	Cited-Half Life	Eigenfactor	Article Influence Score
526	1.235		0.308	26	9.4	0.00046	



WSU Libraries is selecting the journals most important to WSU faculty – and saving \$1.6 million a year – thanks to a database created by **Diane Carroll**, head of collections.

“It is an amazing tool that provides us with information for collection management and details about our faculty and productivity,” said **Beth Blakesley**, assistant dean of libraries.

The serials decision database keeps track of the articles contributed to scholarly journals by WSU authors, the articles referenced by WSU faculty, and the university’s access to these articles via WSU Libraries. Some of the findings recently released – reflecting use from all WSU campuses from 2006-2008 – include:

- WSU faculty contributed 4,832 articles in 1,689 journals.
- The five top journals were Phytopathology, 99 articles; Sleep, 69; Plant Disease, 65; Journal of Animal Science, 59; and HortScience, 55.
- WSU Libraries has print or online access to 1,415 (84 percent) of the journals and 4,417 (91 percent) of the articles.
- WSU authors referenced 119,718 articles in 3,512 journals (more than five references required to be included).
- The five top journals were Proceedings of the National Academy of Sciences, 2,078; Journal of Chemical Physics, 1,954; Science, 1,883; Nature, 1,715; and Journal of Biological Chemistry, 1,510.
- WSU Libraries has print or online access to 2,541 (72 percent) of the journals and 107,318 (90 percent) of the articles.

- Of the 119,718 articles referenced by WSU authors, 315 are in e-journal aggregators that provide access but no ownership; 1,371 are in open-access journals; 10,461 are in titles accessed via consortial agreements with other institutions; 12,400 are in titles not held by WSU Libraries; and 95,171 are in subscriptions paid by WSU Libraries.
- It would cost more than \$1.6 million annually to replace the titles that are part of consortial agreements.

In 2008:

- Only 3 percent of journal articles requested via interlibrary loans - because WSU Libraries didn't have immediate access to them - were requested more than five times. This is an indication, Carroll said, that WSU Libraries is partnering with faculty to make immediately available the journals deemed most important and necessary to WSU.
- Users accessed articles from more than 55,000 e-journals registered on WSU IP addresses, with more than 1,650,000 downloads.
- Considering a full-time equivalent (FTE) WSU population of 29,000 faculty, staff and students, downloads averaged about 57 each.
- The five top journals downloaded were Science, 21,805; USA Today, 15,563; Proceedings of the National Academy of Sciences, 14,812; Journal of Biological Chemistry, 11,980; and Nature, 11,267.