

A Picture Is Worth a Thousand Words: Data Visualization for Collection Assessment

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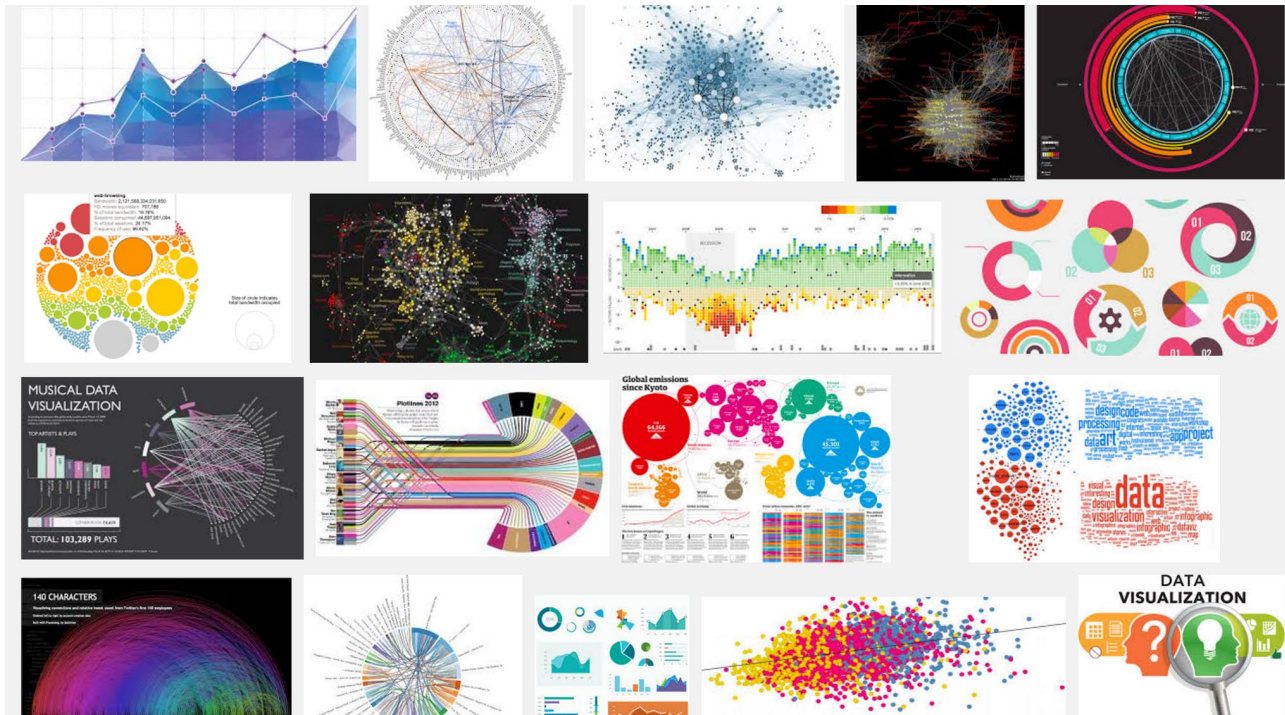
*Sponsor:
Collection Assessment &
Evaluation Interest Group*

*Co-sponsor:
RUSA CODES Collection Development
Planning Education & Assessment Committee*



What is Data Visualization?

- Visual representation of abstract data to help:
 - Explore: Identify trends and patterns in data
 - Explain: Understand complex data more easily



Data Visualization for Library Collection Analysis

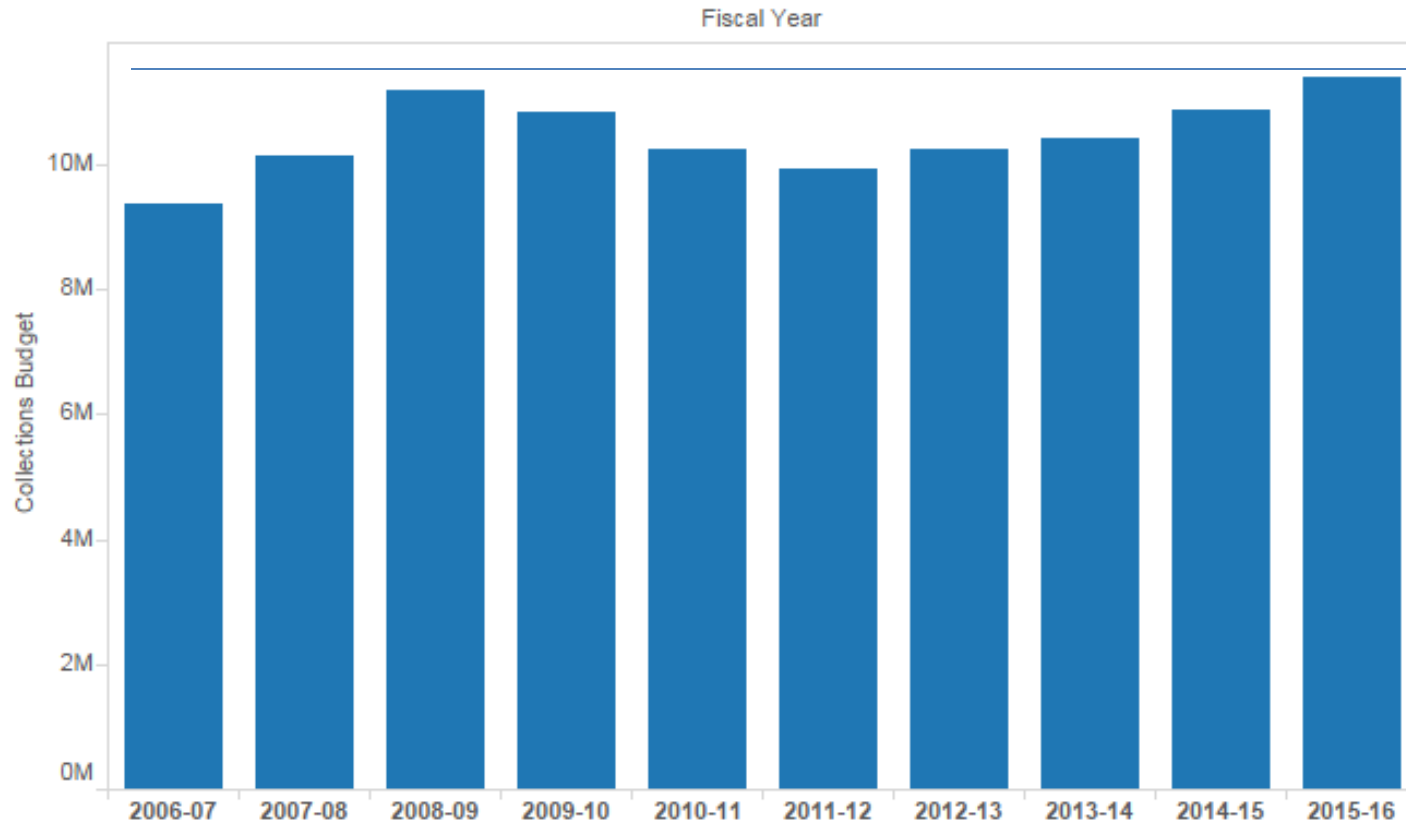
- [Demo Dashboards](#)
 - Serials cancellation project
 - Citation analysis project
 - Comparative analysis of approval vs. firm ordered monographs
- Tableau Overview
 - Product options
 - Download our template and connect your data

Collections and Access Budget FY07-16

Budget over time.
After 3 years of
budget cuts (FY09-1..

Fluctuations in
Collections and
Access Budget by M..

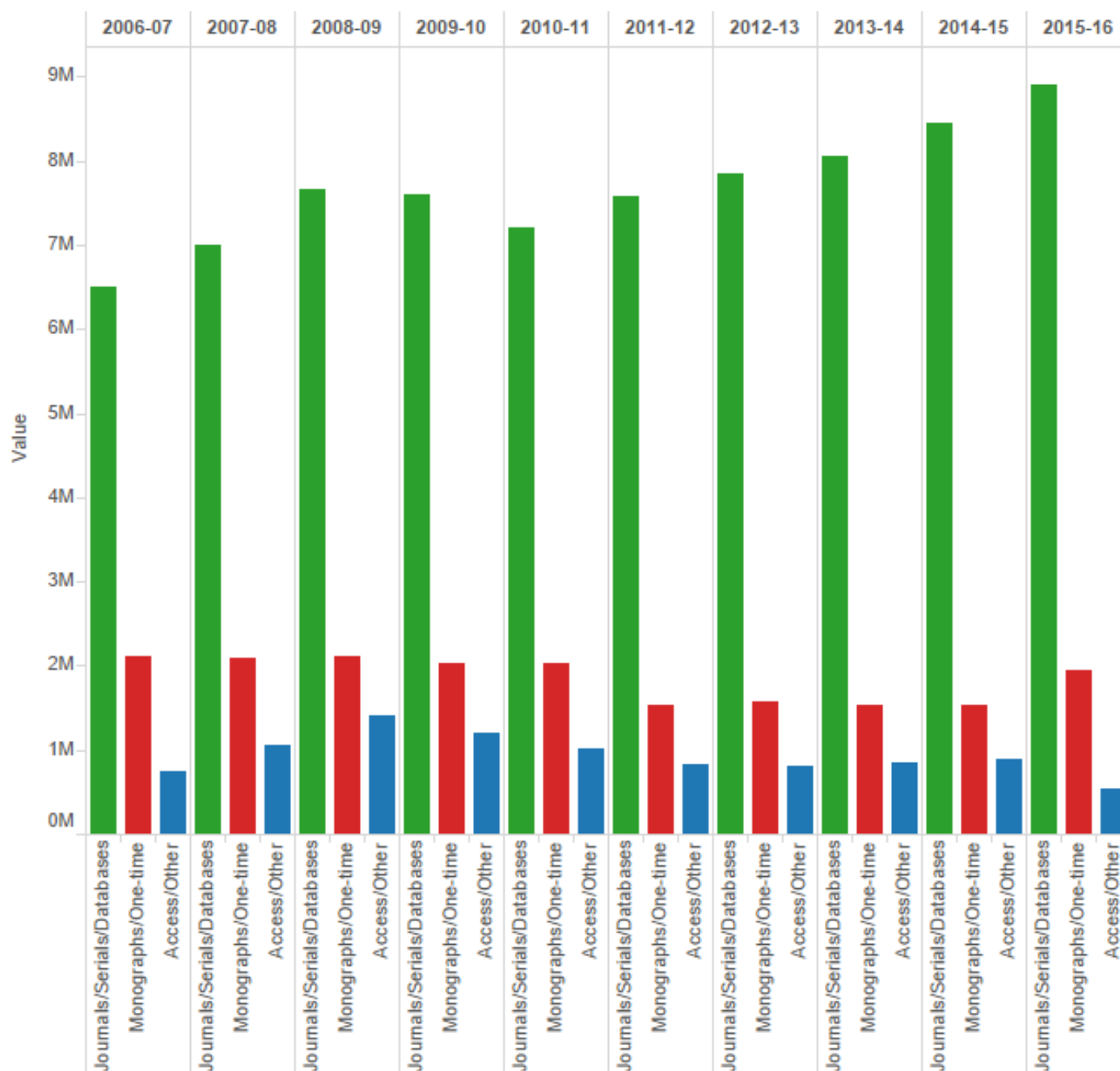
Budget breakdown by
material type over
time.



Fiscal Year

Measure Names

- Journals/Serials/Databases
- Monographs/One-time
- Access/Other



Example Dashboard 1:

SERIALS REVIEW & CANCELLATION PROJECT

Data Sources

- ILS data including fund codes and subscription costs (.txt)
- COUNTER usage reports (.xls)
- Impact Factors (.xlsx)
 - Journal Citation Reports, Scimago (.txt, .xlsx)
- Faculty feedback; rank journals in order of importance to teaching/research

Hyperlink 2	Normal
Good	Neutral

Styles

✕ ✓ f_x

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	T	
1	Cancel	FUND	TITLE *(blue lines = e-journals)	22	CALL #	LOCATION	FORMAT	ord type	RECORD #	VENDOR	Paid FY12	Sub per.	Paid FY13	Sub per.	LAST PAID	Search Chinook (by ISN, print & online)	
2		antsu	A.S.A. monographs	0066-9679	C	Class Sep	lib	print	s.o.	o6927592	coutt	91.95	v.47	170.54	v.48,v.49	\$ 170.54	Search Chinook
3		antsu	American antiquity	0002-7316	E51 .A52	per	print	sub	o6600529	sbuks	228.58	12 V 77	249.85	2013	\$ 249.85	Search Chinook	
4		antsu	Ancient Mesoamerica [electronic resource]	http://lib.antsu.edu	F1434 .A56	Inter	web	e	s	o5890160	sbuks	\$389.50	12 V 23	\$408.98	13 V 24	\$408.98	Search Chinook
5		antsu	Anthropologica	0003-5459	E78.C2 .A53	per	print	sub	o6613408	sbuks	136.75	12 V 54	139.15	13 V 55	\$ 139.15	Search Chinook	
6		antsu	Anthrozoös [electronic	http://lib.antsu.edu	QL85 .A57	Inter	web	e	s	o692170x	sbuks	\$429.48	2012	\$407.95	2013	\$407.95	Search Chinook
7		antsu	Archaeology in Montana	0044-8591	CC21 .A82	per	print	sub	o4092260	sbuks	46.9	2012	46.9	2013	\$ 46.90	Search Chinook	
8		antsu	Archaeology in Oceania	0003-8121	CU1 .A72	per	print	sub	o6606209	sbuks	182.88	2012	194.5	2013	\$ 194.50	Search Chinook	
9		antsu	Arctic anthropology	0066-6939	GN1 .A7445	per	print	sub	o6258724	sbuks	250.5	2012	263.25	2013	\$ 263.25	Search Chinook	
10		antsu	Asian ethnology	1882-6865	GR330 .F6	per	print	sub	o464511x	sbuks	106.73	2011 V 70	106.85	12 V 71	\$ 106.85	Search Chinook	
11		antsu	Cambridge anthropology : a journal of the Department of Social Anthropology,	0305-7674	GN1 .C29	per	print	sub	o1075779	sbuks	209.5	2012	219.18	2013	\$ 219.18	Search Chinook	
12		antsu	Cambridge archaeological	0959-7743	CC1 .C35	per	print+internet	sub	o5890421	sbuks	349.93	12 V 22	378.05	2013 V 23	\$ 378.05	Search Chinook	
13		antsu	Collaborative			web	e	s	o7497660	sbuks	\$98.15	2013			\$98.15	Record	
14		antsu	Collection Puruṣārtha / Centre d'études de l'Inde et		GN635.S57	P8	nor	print	s.o.	o1106909	harra	50.56	v.29	53.12	v.30	\$ 53.12	supressed
15		antsu	Contributions to Nepalese	0376-7574	DS493 .C68	per	print	sub	o1653623	sbuks	82.41	2012	82.78	2011 V 38	\$ 82.78	Search Chinook	
16		antsu	Cultural survival quarterly	0740-3291	GN357 .C9	per	print	sub	o6623384	sbuks	85.5	2012	87.9	2013	\$ 87.90	Search Chinook	
17		antsu	Ethnology	0014-1828	GN1 .E85	per	print	sub	o6626270	sbuks	70.73	2011 V 50	82	2013 V 51	\$ 82.00	Search Chinook	
18		antsu	Expedition	0014-4738	CC21 .P557	per	print	sub	o6626476	sbuks	35.88	2012	35.88	2013	\$ 35.88	Search Chinook	
19		antsu	Idaho archaeologist	0893-2271	E61 .I3	per	print	sub	o6629374	sbuks	39.38	2012	41.78	2013	\$ 41.78	Search Chinook	
20		antsu	Journal of anthropological	0091-7710	GN1 .S64	per	print	sub	o6630650	sbuks	76.88	2012	76.88	2013	\$ 76.88	Search Chinook	
21		antsu	Journal of California and Great Basin anthropology	0191-3557	E78.C15	J62	per	print	sub	o6633547	sbuks	73.48	2011 V 31	86.17	12 V 32 # 1	\$ 86.17	Search Chinook
22		antsu	Journal of ethnobiology	0278-0771	GN476.7	J68	per	print	sub	o6616732	sbuks	94.3	2012	107.63	2013	\$ 107.63	Search Chinook
23		antsu	Journal of Mediterranean archaeology [electronic	http://lib.antsu.edu	DE1 .J69	Intern	web	e	s	o5335498	sbuks	\$246.00	2012 V 25	\$246.00	13 V 26	\$246.00	Search Chinook
24		antsu	Journal of Middle Atlantic	0883-9697	E78.M65	J68	nor	print	s.o.	o6931583	coutt	34	v.27 2011			\$ 34.00	Search Chinook
25		antsu	Journal of South Asian and Middle Eastern studies	0149-1784	DS41 .J63	per	print	sub	o6636366	sbuks	35.88	2012	35.88	2013	\$ 35.88	Search Chinook	

Data Visualization in Excel

- Conditional Formatting
 - data bars
 - icon sets
- Pivot Tables
- Slicers

Data Visualization in Excel

Serials Analysis 2014 (final) - Excel

TABLE TOOLS















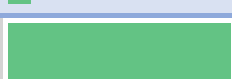









FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW ACROBAT DESIGN

Clipboard Font Alignment Number Styles Cells Editing

AutoSum Fill Clear Sort & Filter Find & Select

A1 : Original Sort Order

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Orig	Journal Title	Order Record	Print ISSN	Online ISSN	Subject	Librarian	Fund	Fund 2	Subscription Cost	2013 Usage	Cost Per Use	Cost Per Use2
2	4	Aerospace Engineering	o2703828	5277-7728	3513-1053	Engineering	Jack	engsu	4444805	\$2,584.00	87	\$29.70	\$29.70
3	5	Anthropology Journal	o290326x	6017-6218	4949-9377	Anthropology	George	antsu	4444137	\$476.00	43	\$11.07	\$11.07
4	6	Art Catalogue	o2802284	3230-2654	3771-7393	Art	Ashley	artsu	4444987	\$95.00	5	\$19.00	\$19.00
5	7	Art Review	o2703361	2394-4926	2951-8957	Art	Ashley	artsu	4444987	\$101.00	177	\$0.57	\$0.57
6	8	Biography Journal	o2703993	7649-8742	9644-1556	General/Interdisciplinary	Jill	gensu	4444397	\$399.00	0	#DIV/0!	\$399.00
7	9	Book Review Weekly	o2802259	7816-2614	3049-5471	Literature	Barbara	litsu	4444370	\$500.00	22	\$22.73	\$22.73
8	10	Business	o2703889	9843-9957	6507-6796	Business	Philip	bussu	4444247	\$168.00	0	#DIV/0!	\$168.00
9	11	Chemical Reactions	o2703300	3843-3646	7716-6704	Chemistry	Jack	chesu	4444765	\$1,569.00	539	\$2.91	\$2.91
10	12	Chemistry Journal	o2703695	5768-7163	9426-5179	Chemistry	Jack	chesu	4444765	\$1,427.00	24	\$59.46	\$59.46
11	13	Classics Review	o2703890	7500-6558	4534-7813	Classics	Jill	classu	4444038	\$283.00	0	#DIV/0!	\$283.00
12	14	Computer Science Journal	o2703725	6530-3171	3282-7349	Computer Science	Jack	cscsu	4444924	\$1,489.00	149	\$9.99	\$9.99
13	15	Computer Science Journal	o2703981	4328-7461	3079-3250	Computer Science	Jack	cscsu	4444924	\$2,543.00	66	\$38.53	\$38.53
14	2	Comunicação & informação	o2759852	0014-5987	5485-9821	Communication	George	comsu	4444529	\$145.00	#N/A	#N/A	\$145.00
15	16	Dancer Quarterly	o2685851	3747-1602	5787-3237	Dance	Jill	dansu	4444061	\$191.00	1760	\$0.11	\$0.11
16	17	Earth Sciences Journal	o2734072	5306-4002	2172-1495	Earth Sciences	Jack	escsu	4444412	\$961.00	57	\$16.86	\$16.86
17	18	East Coast Newspaper	o2686442	6311-5698	7260-4993	General/Interdisciplinary	Jill	gensu	4444397	\$566.00	5192	\$0.11	\$0.11

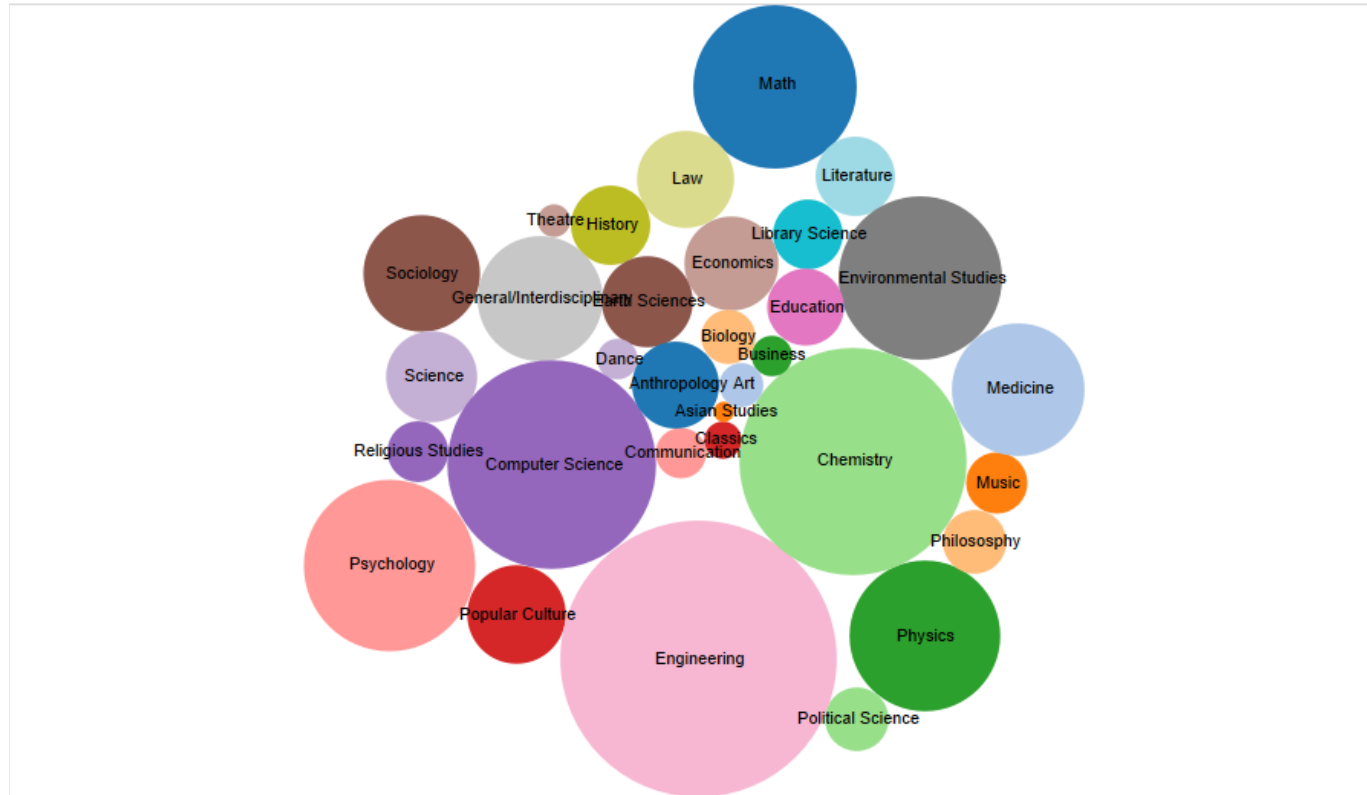
Subscription Cost ▼	2013 Usage ▼	Cost Per Use ▼
 \$2,584.00	87	 \$29.70
 \$476.00	43	 \$11.07
 \$95.00	5	 \$19.00
 \$101.00	177	 \$0.57
 \$399.00	0	 \$399.00
 \$500.00	22	 \$22.73
 \$168.00	0	 \$168.00
 \$1,569.00	539	 \$2.91
 \$1,427.00	24	 \$59.46
 \$283.00	0	 \$283.00
 \$1,489.00	149	 \$9.99
 \$2,543.00	66	 \$38.53

Excel v. Tableau?

	Excel	Tableau
Combine multiple data sets	Manually or using a formula like VLOOKUP	Link and create relationships between data sources
Updating data	New version needs to be manually uploaded	Data sources can be refreshed
Filters, Slicers, Sort	Yes	Yes
Graphs, charts	Yes	Yes
Publishing/Distribution	Static, interactive spreadsheets	Dynamic, interactive online dashboards

Serials Review Dashboard Draft 1

University Libraries Serials Analysis



- Fund
- ☒ antsu
 - ☒ artsu
 - ☒ asnsu
 - ☒ biosu
 - ☒ bussu
 - ☒ chesu
 - ☒ classu
 - ☒ comsu
 - ☒ cscsu
 - ☒ dansu
 - ☒ ecosu
 - ☒ edusu
 - ☒ engsu
 - ☒ envsu
 - ☒ escsu
 - ☒ gensu
 - ☒ hissu
 - ☒ lawsu
 - ☒ libsu
 - ☒ litsu
 - ☒ matsu
 - ☒ medsu
 - ☒ mussu
 - ☒ phisu
 - ☒ physu
 - ☒ polsu
 - ☒ popsu
 - ☒ psysu
 - ☒ relsu
 - ☒ scisu
 - ☒ socsu
 - ☒ thesu

Journal Title	Print ISSN	Subject	Librarian	Fund	Cost Per Use	Subscription Cost
Aerospace Engineering	5277-7728	Engineering	Jack	engsu	\$30	\$2,584
Anthropology Journal	6017-6218	Anthropology	George	antsu	\$11	\$476
Art Catalogue	3230-2654	Art	Ashley	artsu	\$19	\$95
Art Review	2394-4926	Art	Ashley	artsu	\$1	\$101
Biography Journal	7649-8742	General/Interdisciplinary	Jill	gensu	\$399	\$399
Book Review Weekly	7816-2614	Literature	Barbara	litsu	\$23	\$500
Business	9843-9957	Business	Philip	bussu	\$168	\$168
Chemical Reactions	3843-3646	Chemistry	Jack	chesu	\$3	\$1,569
Chemistry Journal	5768-7163	Chemistry	Jack	chesu	\$59	\$1,427
Classics Review	7500-6558	Classics	Jill	classu	\$283	\$283

- Librarian
- ☒ Ashley
 - ☒ Barbara
 - ☒ George
 - ☒ Jack
 - ☒ Jill
 - ☒ Philip

Serials Review Dashboard Draft 2

I want to explore data by I want to explore data over time by

I want to filter journals by

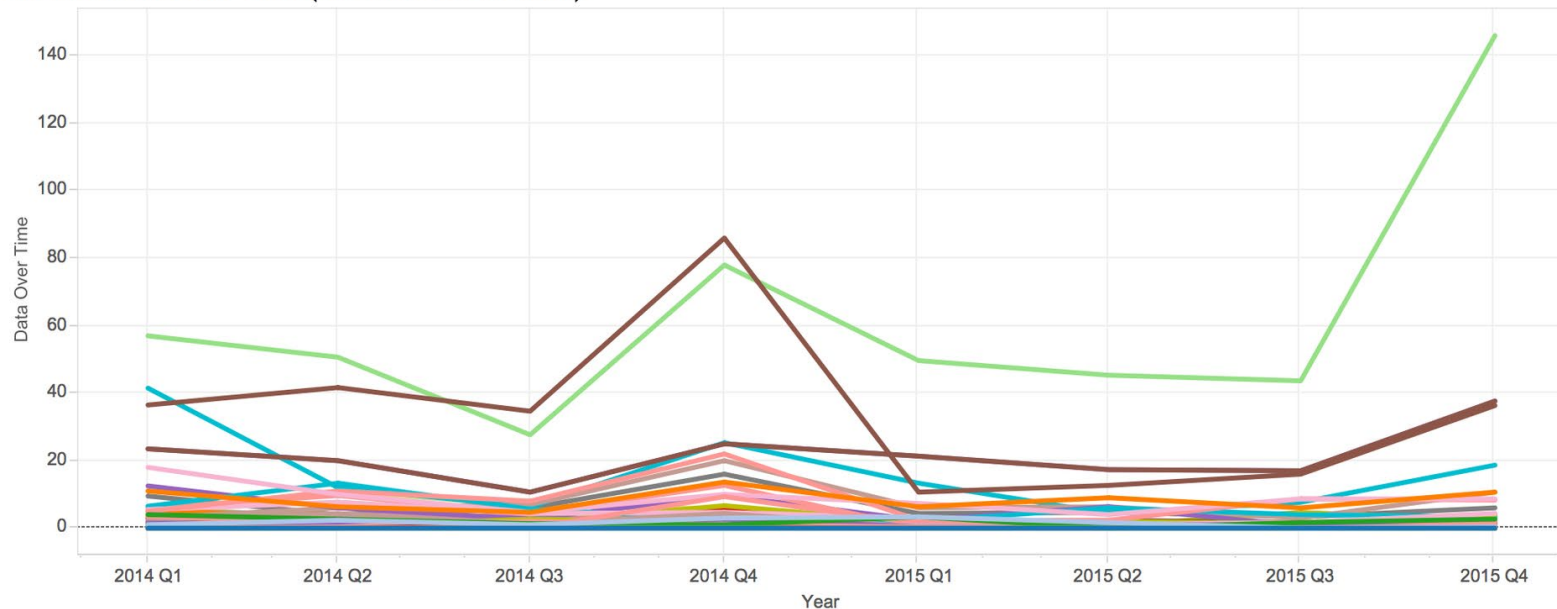
Subject

 Fund Librarian Journal Title

I want to explore the following dates

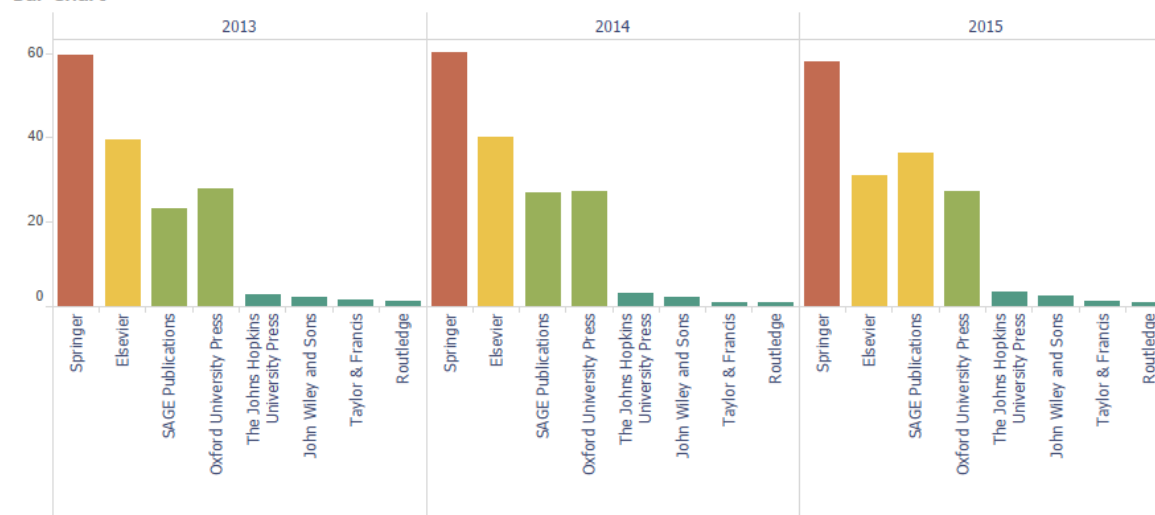
January 2014 December 2015

Journal Data Over Time (select to use as filter)



Serials Review Dashboard Draft 3

Bar Chart



Color Ramp
0.82 60.33

View Data
Price per Use

Organize Data By
Top Publishers

Year Aggregation
☒ Individual Years
☐ Average of Selected Years

Years Selected
Multiple values

Journals by Data - (Applies View Data and Years Selected)

Journal	Publisher	Platform	View Data
Actualités Pharmaceutiques Hospitalières	Elsevier	ScienceDirect	697.2
Agricultural Administration and Extension	Elsevier	ScienceDirect	697.2
Bioinorganic Chemistry	Elsevier	ScienceDirect	697.2
BRQ Business Research Quarterly	Elsevier	ScienceDirect	697.2
Dermatologic Clinics	Elsevier	ScienceDirect	697.2
Electrodeposition and Surface Treatment	Elsevier	ScienceDirect	697.2
Emergency Medicine Clinics of North America	Elsevier	ScienceDirect	697.2
Engineering in Agriculture, Environment and Food	Elsevier	ScienceDirect	697.2
European Journal of Solid State and Inorganic Chemistry	Elsevier	ScienceDirect	697.2
Heart Rhythm	Elsevier	ScienceDirect	697.2
Immuno-analyse & Biologie Spécialisée	Elsevier	ScienceDirect	697.2
ImmunoMethods	Elsevier	ScienceDirect	697.2
Insulin	Elsevier	ScienceDirect	697.2
International Journal of Museum Management and Cura..	Elsevier	ScienceDirect	697.2

Serials Review Dashboard 4

Bar Chart



View Data
Use

Organize Data By
Year

Filter for Use
Include all Records

Year Aggregation
☒ Individual Years
☐ Average of Selected Years

Years Selected
All

Journals by Data - (Applies View Data and Years Selected)

* Select 1 or multiple journals to filter bars for only those journals

* Click this header to reset journal filter.

Journal	Publisher	Platform	View Data
Cell	Elsevier	ScienceDirect	12,328
Angewandte Chemie International Edition	John Wiley and Sons	Wiley Online Library	8,378
Geophysical Research Letters	John Wiley and Sons	Wiley Online Library	8,029
NeuroImage	Elsevier	ScienceDirect	6,481
Icarus	Elsevier	ScienceDirect	6,120
Advanced Materials	John Wiley and Sons	Wiley Online Library	5,946
Journal of Geophysical Research: Atmospheres (1984--..)	John Wiley and Sons	Wiley Online Library	5,538
Negotiation Journal	John Wiley and Sons	Wiley Online Library	9,659
	Springer	Springer	30
Journal of Geophysical Research: Space Physics (1978--..)	John Wiley and Sons	Wiley Online Library	4,149
Molecular Cell	Elsevier	ScienceDirect	4,032

Broad Disciplines
All

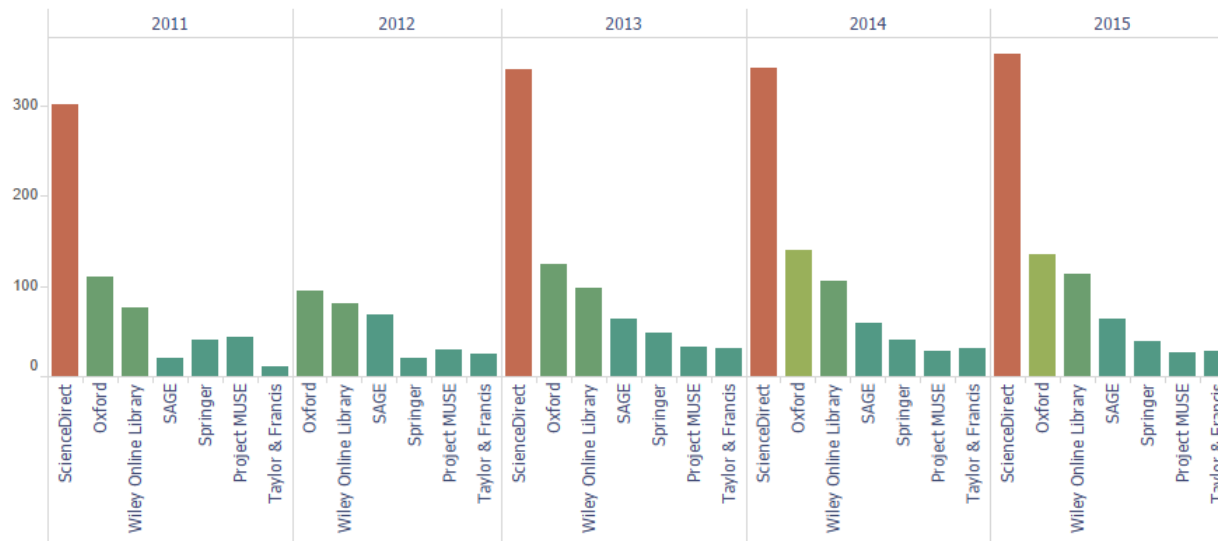
Detailed Subjects
All

Subject Specialist
All

Color Ramp
37.74  71.02

Serials Review Dashboard 4

Bar Chart



View Data

Use

Organize Data By

Platform

Filter for Use

Include all Records

Year Aggregation

- ☒ Individual Years
☐ Average of Selected Years

Years Selected

(All)

Journals by Data - (Applies View Data and Years Selected)

* Select 1 or multiple journals to filter bars for only those journals

* Click this header to reset journal filter.

Journal	Publisher	Platform	View Data
Cell	Elsevier	ScienceDirect	12,328
Angewandte Chemie International Edition	John Wiley and Sons	Wiley Online Library	8,378
Geophysical Research Letters	John Wiley and Sons	Wiley Online Library	8,029
NeuroImage	Elsevier	ScienceDirect	6,481
Icarus	Elsevier	ScienceDirect	6,120
Advanced Materials	John Wiley and Sons	Wiley Online Library	5,946
Journal of Geophysical Research: Atmospheres (1984—...)	John Wiley and Sons	Wiley Online Library	5,538
Negotiation Journal	John Wiley and Sons	Wiley Online Library	9,659

Broad Disciplines

(All)

Detailed Subjects

(All)

Subject Specialist

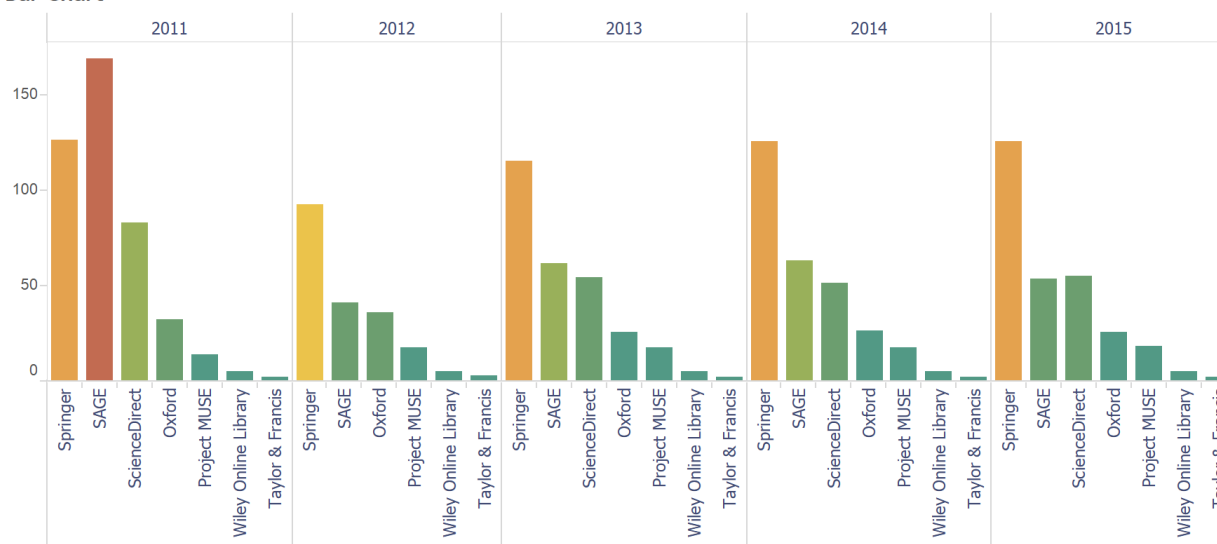
(All)

Color Ramp

10.5 358.5

Serials Review Dashboard 4

Bar Chart



View Data
Cost per Use

Organize Data By
Platform

Filter for Use
Include all Records

Year Aggregation
☒ Individual Years
☐ Average of Selected Years

Years Selected
All

Journals by Data - (Applies View Data and Years Selected)

* Select 1 or multiple journals to filter bars for only those journals

* Click this header to reset journal filter.

Journal	Publisher	Platform	View Data
Medical Photonics	Elsevier	ScienceDirect	694.7
Annals of Allergy, Asthma & Immunology	Elsevier	ScienceDirect	690.1
Journal of Arrhythmia	Elsevier	ScienceDirect	690.1
Forensic Science International Supplement Series	Elsevier	ScienceDirect	676.0
Journal of Orthopaedics, Trauma and Rehabilitation	Elsevier	ScienceDirect	676.0
Oral Science International	Elsevier	ScienceDirect	676.0
Revue Française d'Allergologie	Elsevier	ScienceDirect	676.0
Clinical Gastroenterology and Hepatology	Elsevier	ScienceDirect	629.0
Annales de Chirurgie Plastique Esthétique	Elsevier	ScienceDirect	588.9
Journal of Young Pharmacists	Elsevier	ScienceDirect	588.9
Value in Health Regional Issues	Elsevier	ScienceDirect	562.2

Broad Disciplines
All

Detailed Subjects
All

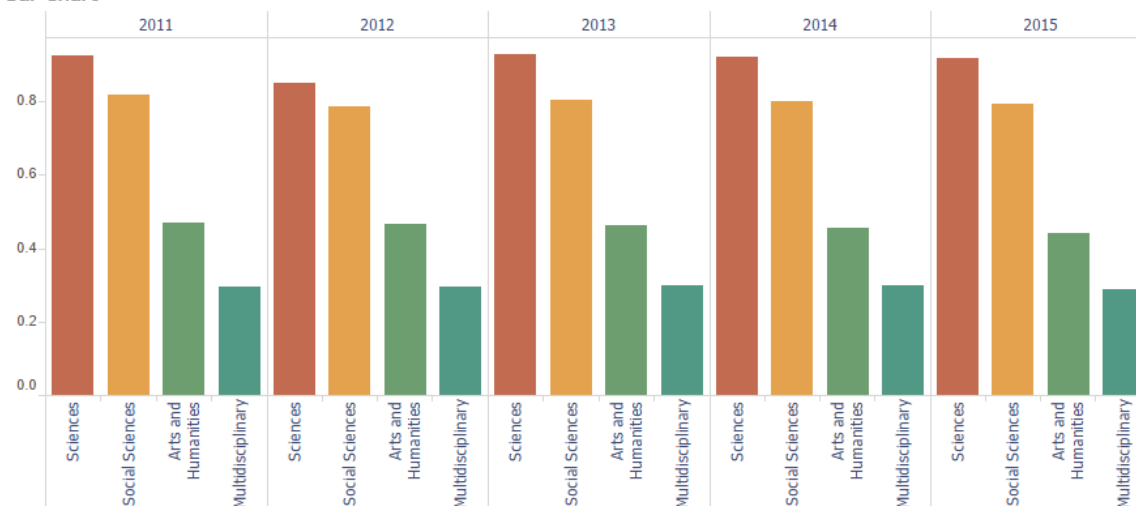
Subject Specialist
All

Color Ramp
2.1 169.6

II
1

Serials Review Dashboard 4

Bar Chart



View Data

SJR Impact Factor

Organize Data By

Discipline

Filter for Use

Include all Records

Year Aggregation

☒ Individual Years
☐ Average of Selected Years

Years Selected

(All)

Journals by Data - (Applies View Data and Years Selected)

* Select 1 or multiple journals to filter bars for only those journals

* Click this header to reset journal filter.

Journal	Publisher	Platform	View Data
CA: A Cancer Journal for Clinicians	John Wiley and Sons	Wiley Online Library	37.38
Cell	Elsevier	ScienceDirect	23.59
The Quarterly Journal of Economics	Oxford Journals	Oxford	22.54
	Oxford University Pre..	Oxford	22.54
The Journal of Finance	John Wiley and Sons	Wiley Online Library	17.14
Econometrica	John Wiley and Sons	Wiley Online Library	16.30
Immunity	Elsevier	ScienceDirect	13.28
The Lancet Oncology	Elsevier	ScienceDirect	11.22

Broad Disciplines

(All)

Detailed Subjects

(All)

Subject Specialist

(All)

Color Ramp

0.2886 0.9287

Example Dashboard 2:

CITATION ANALYSIS

Data Source

- Citation data: Scopus
- Usage data: EBSCONet (downloads)
- Journal metrics:
 - Journal Impact Factor (JIF) from 2012 edition of Journal Citation Report (JCR)
 - 2012 SCImago journal rank (SJR)

1,689 citations retrieved from the 51 journals

J Rank	Title	Count	Percent	Cumulative	IF	5 year IF	Rank	Availability	Format	SJR	Usage 2013	LC	LC Sub
1	Journal of Public Relations Research	91	9.06%	9.06%	0.875	1.722	32	Available	Online	1.32	393 H	HM	
2	Journalism and Mass Communication Quarterly	50	4.98%	14.04%	0.354	0.691	53	Available	Online	0.77	427 P	PN	
3	Public Relations Review	39	3.88%	17.92%	0.749	1.098	37	Available	Online	0.66	415 H	HM	
4	AIDS Care	23	2.29%	20.22%	1.834	2.147	9	Available	Online	0.92	272 R	RA	
5	Journal of Communication	20	1.99%	22.21%	2.011	3.627	7	Available	Online	1.28	696 P	P87	
6	AIDS Education and Prevention	17	1.69%	23.90%	1.484	2.069	29	Available	Online	1.05	123 R	RA	
7	Journal of Personality and Social Psychology	15	1.49%	25.39%	4.877	6.988	3	Available	Online	4.48	H	HM	
8	Journal of Advertising	13	1.29%	26.69%	1.016	1.859	26	Available	Online	1.14	637 H	HF	
9	Health Communication	12	1.20%	27.88%	1.221	1.744	21	Unavailable	Have new	0.6	189 R	R118	
9	International Journal of Advertising	12	1.20%	29.08%	2.311	2.47	3	Available	Online	0.9	67 H	HF	
9	Journal of Marketing Research	12	1.20%	30.28%	2.254	3.527	23	Available	Online	3.91	956 H	HF	
12	International Journal of STD and AIDS	11	1.10%	31.37%	1	1.107	123	Unavailable	Never	0.5	R	RC	
13	Communication Research	10	1.00%	32.37%	2.028	2.486	6	Available	Online	2.32	696 P	P91	
13	International Journal of Intercultural Relations	10	1.00%	33.36%	0.94	1.322	25	Available	Online	0.67	270 G	GN	
15	AIDS	9	0.90%	34.26%	6.407	6.131	3	Unavailable	have print	3.16	R	RA	
15	AIDS and Behavior	9	0.90%	35.16%	2.979	3.532	10	Available	Online	1.57	274 R	RA	
15	Journal of Applied Communication Research	9	0.90%	36.05%	0.681	0.927	41	Available	Online	0.45	144 H	HM	
15	Journal of Experimental Psychology	9	0.90%	36.95%	1.82	2.292	40	Available	Online	3.32	682 B	BF	
19	Applied Cognitive Psychology	8	0.80%	37.75%	1.469	1.856	54	Available	Online	0.84	176 B	BF	
19	Communication Monographs	8	0.80%	38.54%	0.768	2.476	35	Available	Online	1.54	199 P	PN	
19	Human Communication Research	8	0.80%	39.34%	2.082	2.461	4	Available	Online	1.75	166 P	P	
19	Journal of Adolescent Health	8	0.80%	40.14%	2.966	3.849	11	Available	Online	1.24	889 R	RJ	
19	Journal of Marketing	8	0.80%	40.93%	3.368	5.717	11	Available	Online	5.59	2459 H	HF	
19	Political Communication	8	0.80%	41.73%	2.415	2.33	1	Available	Online	2.56	72 J	JF	
19	Sexually Transmitted Diseases	8	0.80%	42.53%	2.594	2.77	37	Unavailable	open acce	1.13	R	RC	
26	American Journal of Public Health	7	0.70%	43.22%	3.93	4.826	4	Available	Online	1.74	3151 R	RA	
26	Journal of Acquired Immune Deficiency Syndromes	7	0.70%	43.92%	4.653	4.569	10	Unavailable	have older	2.23	R	RC	
26	Journal of Advertising Research	7	0.70%	44.62%	1.788	1.472	10	Available	Online	0.49	525 H	HF	
26	Journal of Applied Gerontology	7	0.70%	45.31%	0.7	1.238	23	Available	Online	0.56	1 H	HQ	
26	Journal of Communication Management	7	0.70%	46.01%				Available	Online		H	HF	
26	Journal of Health Communication	7	0.70%	46.71%	2.079	2.307	5	Available	Online	1.06	273 R	R118	
26	Memory and Cognition	7	0.70%	47.41%	2.049	2.303	32	Available	Online	1.44	154 B	BF	
26	Public Opinion Quarterly	7	0.70%	48.10%	1.522	2.941	8	Available	Online	2.06	906 H	HM	
26	Sexually Transmitted Infections	7	0.70%	48.80%	2.611	2.701	34	Available	Online	1.2	3 R	RA	
35	American Journalism	6	0.60%	49.40%				Available	Online		P	PN	

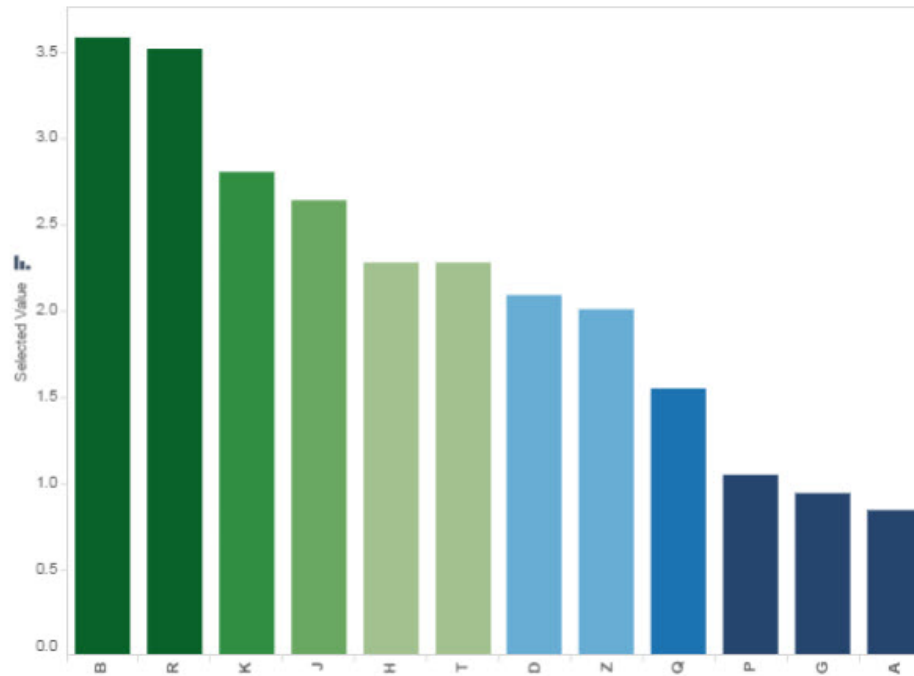
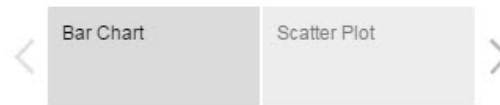
Data Analysis in Excel & SPSS

- Excel
 - Pivot table for local core journal list
- SPSS
 - Citation count vs. Usage
 - Citation count vs. Impact factor
 - Usage vs. Impact factor

Exploratory Data Analysis with Tableau

- Citation count, impact factor, usage
 - By individual journal title
 - By LC class and subclass
- Filter by LC Class
- Limit the number of titles displayed
- Remove outliers easily

Citation Analysis



B	3.583
R	3.514
K	2.802
J	2.642
H	2.283
T	2.278
D	2.090
Z	2.005
Q	1.549
P	1.051
G	0.940
A	0.844

Color Ramp



Select Value

Impact Factor

Select Item Level

Journal by LC Class

Visible LC/Titles

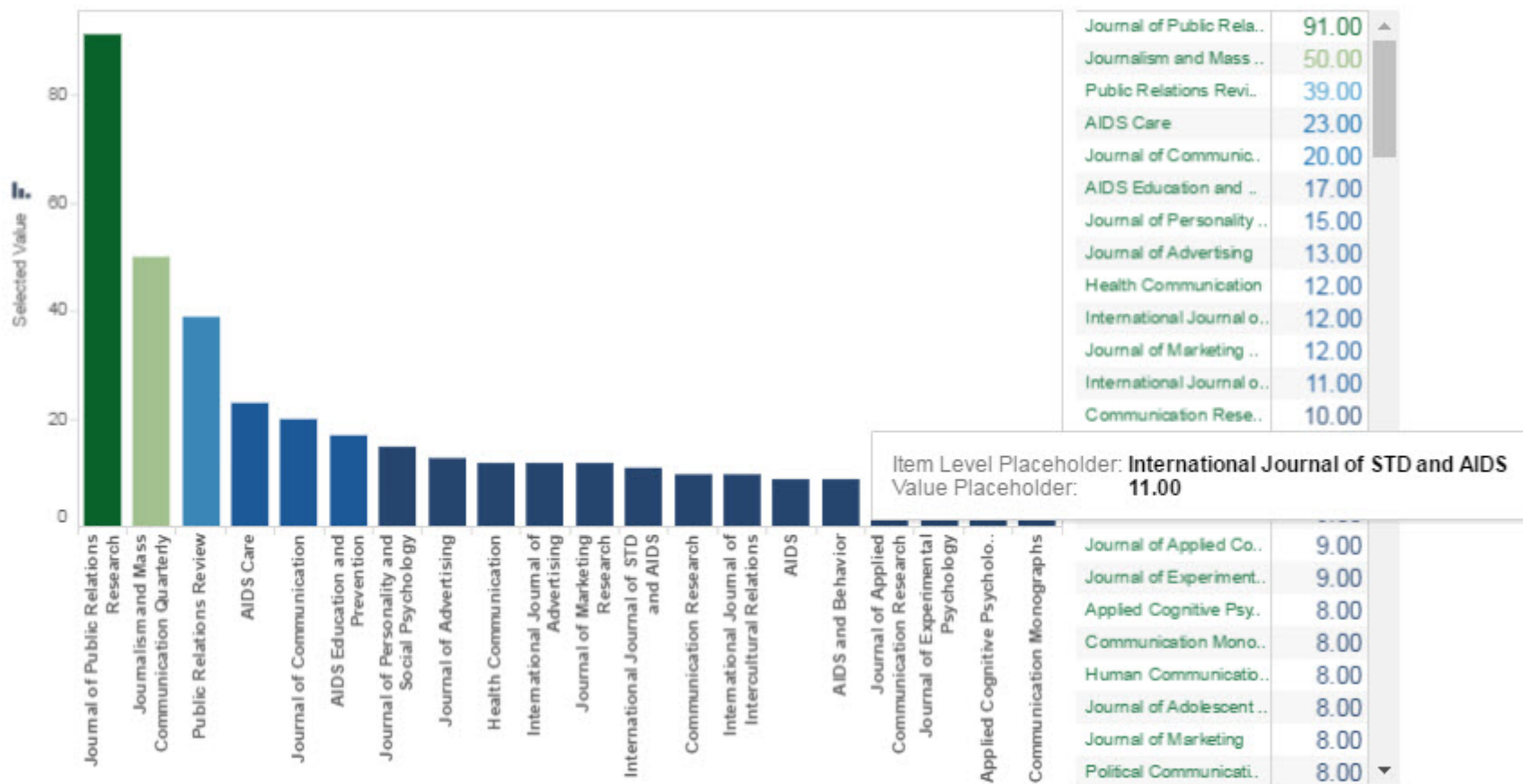
1 147

Filter by LC Class

(All)

Citation Analysis





Color Ramp

8.00 91.00

Select Value

Citation Count

Select Item Level

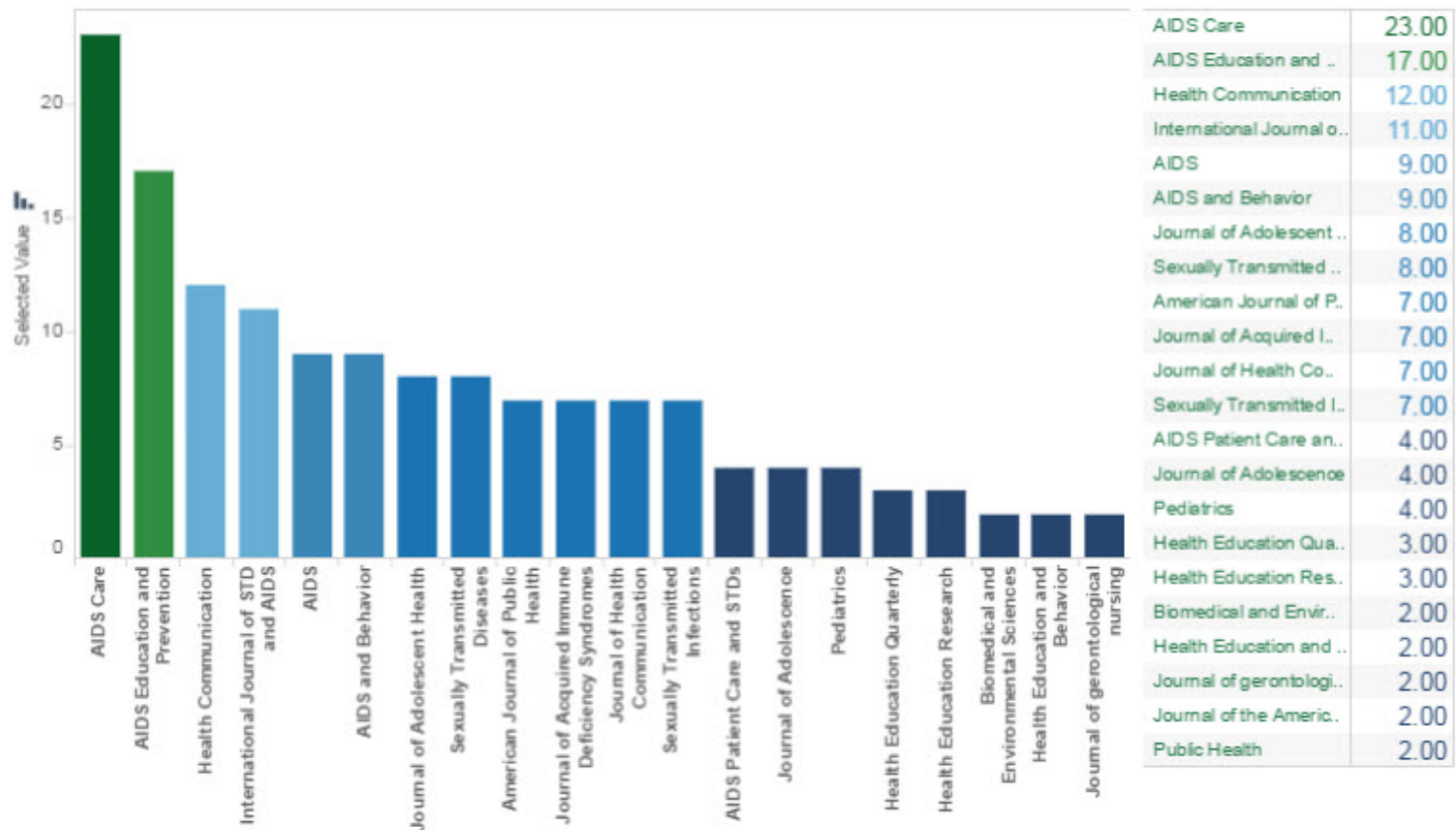
Journal by Title

Visible LC/Titles

1 20

Filter by LC Class

(All)



Color Ramp



Select Value

Citation Count

Select Item Level

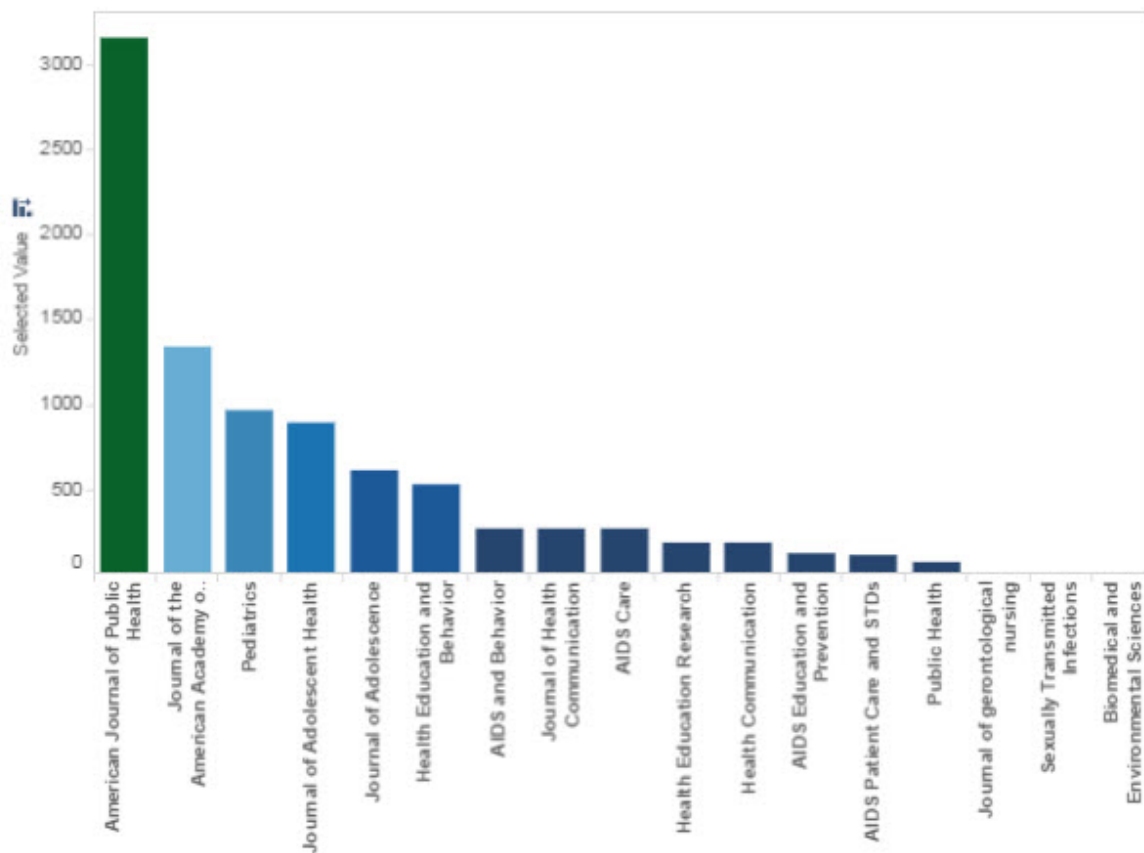
Journal by Title

Visible LC/Titles



Filter by LC Class

(Multiple values)



American Journal of P..	3,151
Journal of the Americ..	1,340
Pediatrics	969
Journal of Adolescent ..	889
Journal of Adolescence	610
Health Education and ..	524
AIDS and Behavior	274
Journal of Health Co..	273
AIDS Care	272
Health Education Res..	191
Health Communication	189
AIDS Education and ..	123
AIDS Patient Care an..	110
Public Health	75
Journal of gerontologi..	15
Sexually Transmitted I..	3
Biomedical and Envir..	2

Color Ramp



Select Value

Usage in 2013

Select Item Level

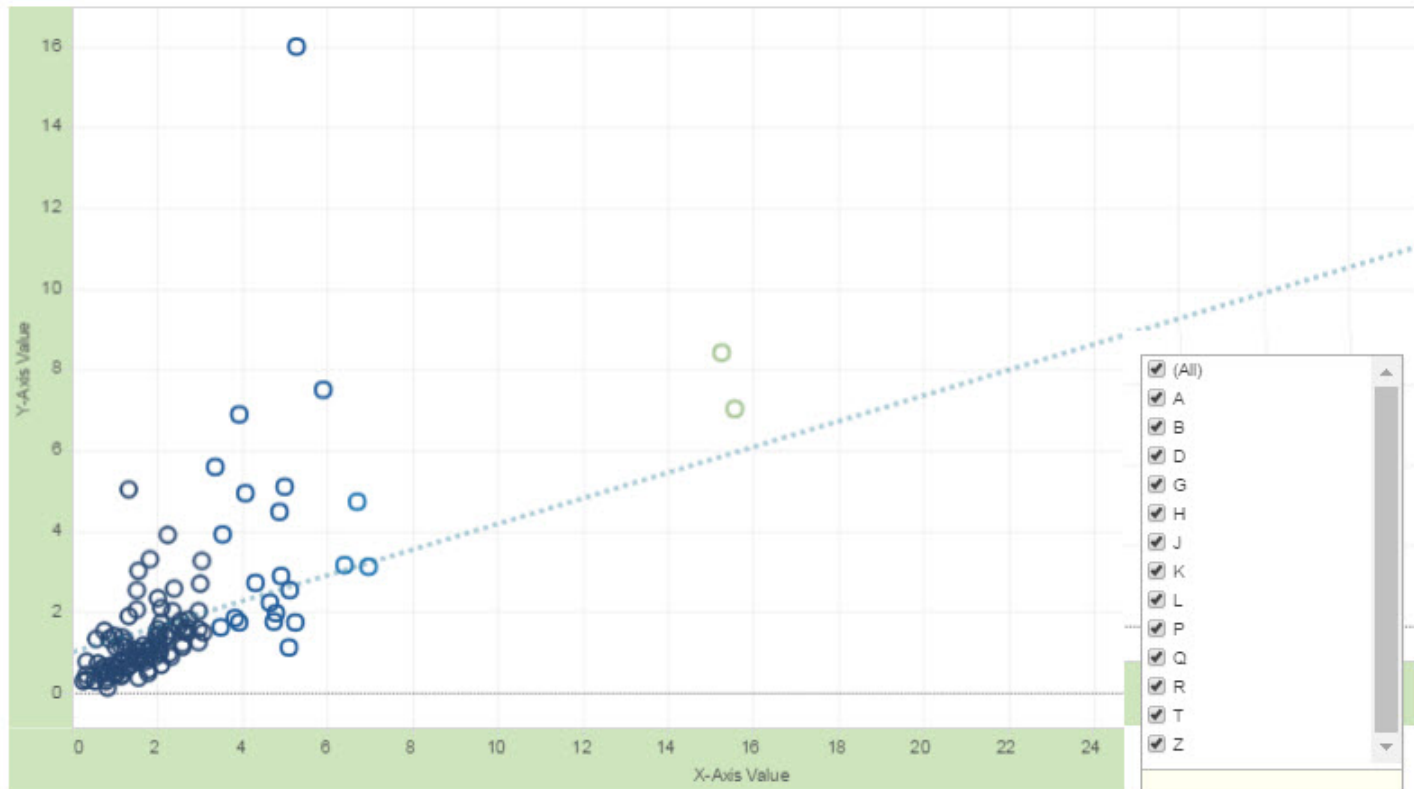
Journal by Title

Visible LC/Titles



Filter by LC Class

(Multiple values)



- ☒ (All)
- ☒ A
- ☒ B
- ☒ D
- ☒ G
- ☒ H
- ☒ J
- ☒ K
- ☒ L
- ☒ P
- ☒ Q
- ☒ R
- ☒ T
- ☒ Z

Value Placeholder

0.23  29.98

X-Axis Value

Impact Factor

Citation Count

Impact Factor

Scimago Journal Rank

Usage in 2013

Y-Axis Value

Scimago Journal Rank

Citation Count

Impact Factor

Scimago Journal Rank

Usage in 2013

Select Item Level

Journal by Title

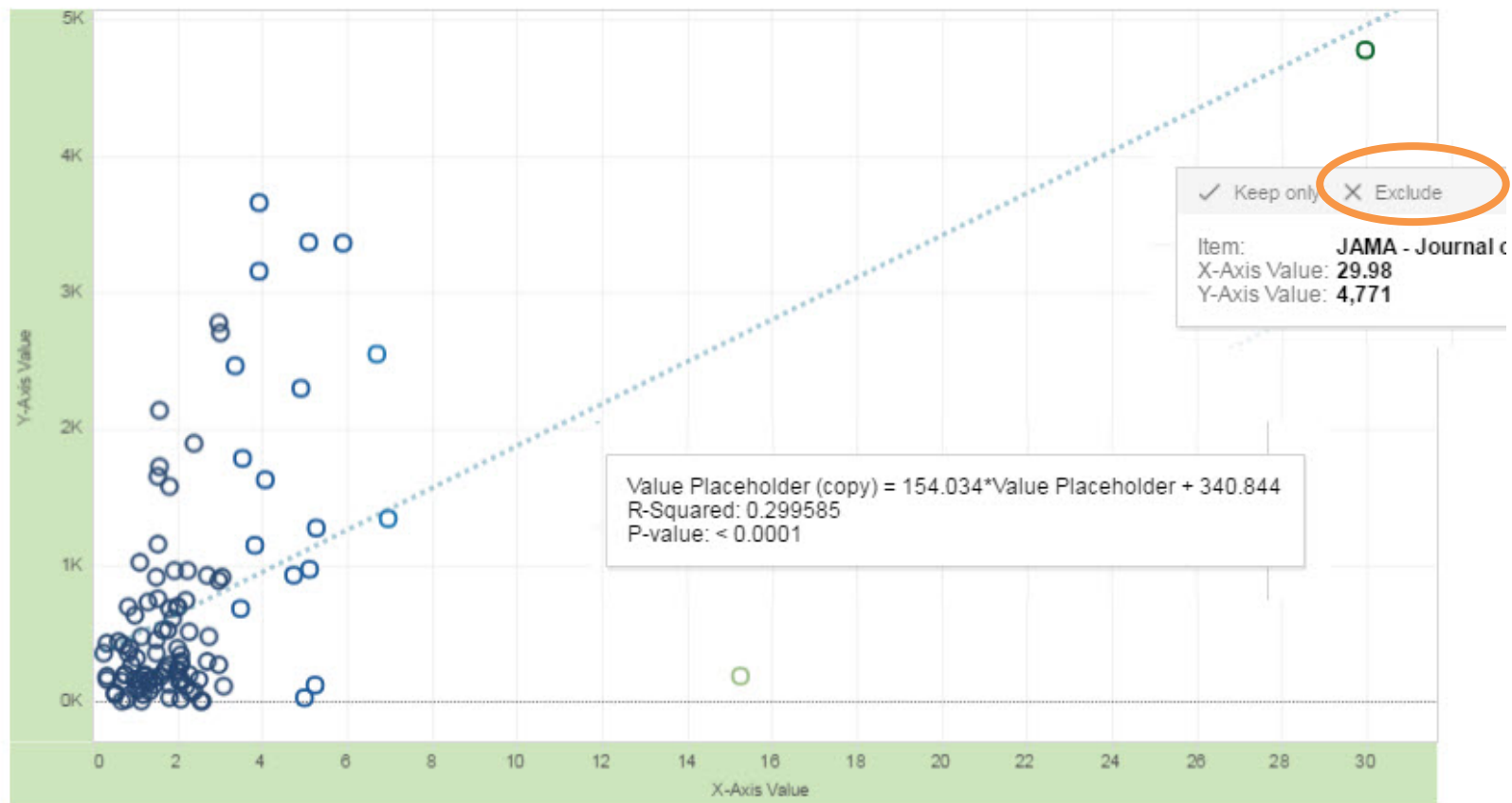
Journal by Title

Journal by LC Class

Journal by LC Subclass

Filter by LC Class

(All)



Value Placeholder

0.23 29.98

X-Axis Value

Impact Factor

Y-Axis Value

Usage in 2013

Select Item Level

Journal by Title

Filter by LC Class

(All)

Example Dashboard 3:

APPROVAL VS FIRM ORDERS

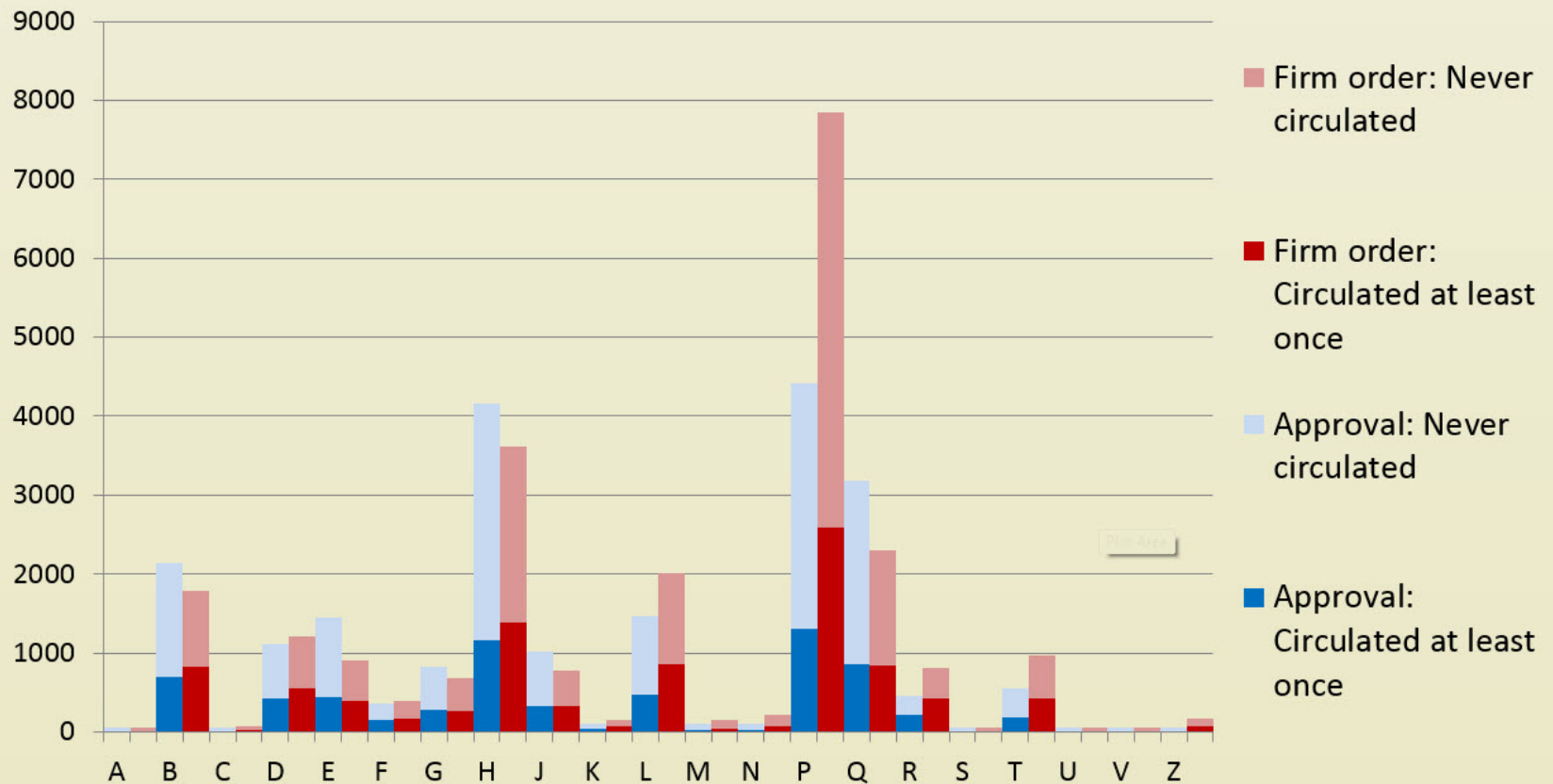
Data Source

- Circulation data for books acquired from 2011 to early 2015
- Approval books: 21,521
- Firm ordered books: 24,139

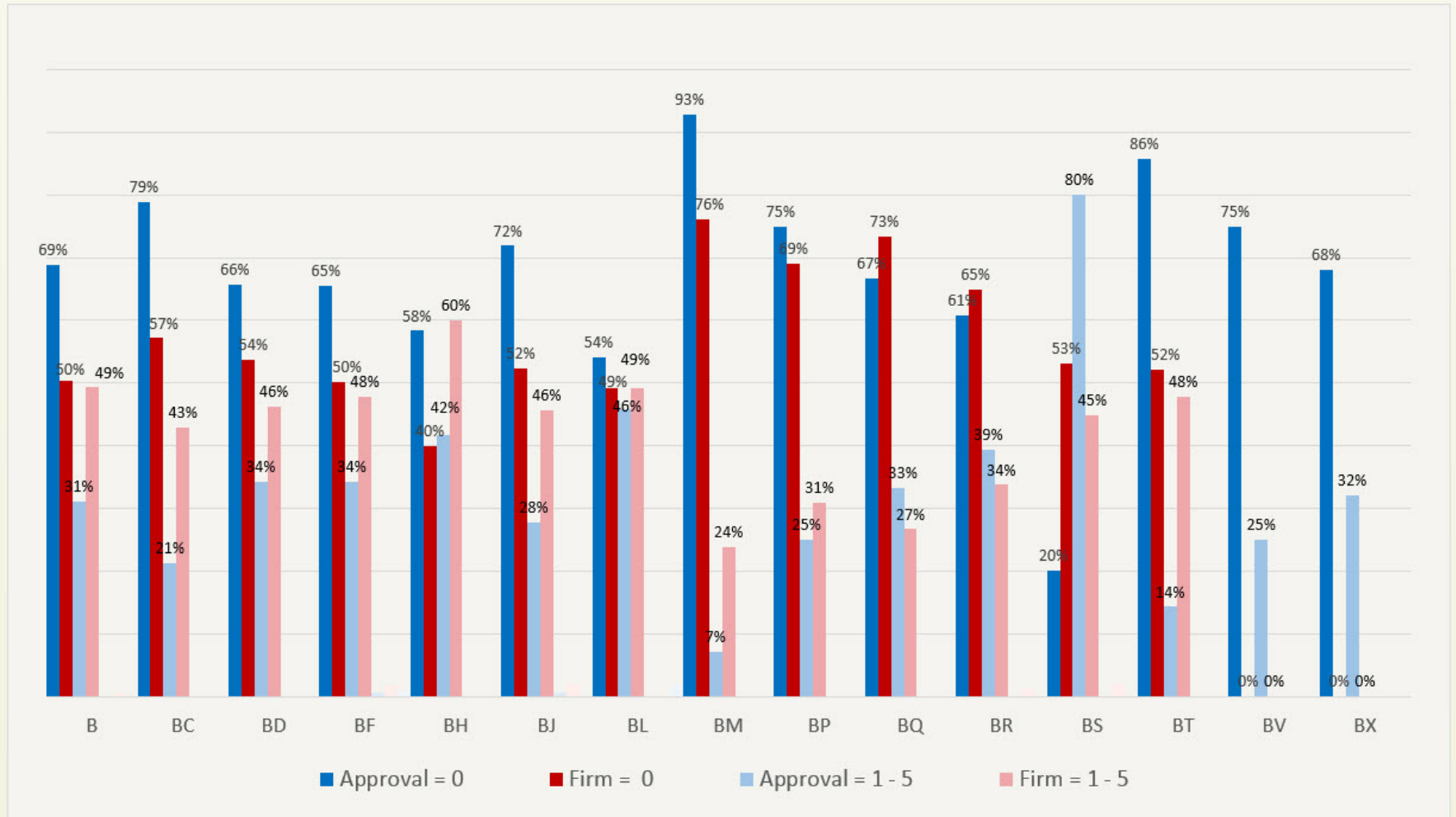
RECORD #(BIBLIO)	CALL #(BIBLIO)	SUBGROUP	MAIN LC	TITLE	BCODE	ODATE	FUND	LOCATION	TOT CHKOUT
b56431545	AM153 .D98 2012	AM	A	Virtuality and the art ca		4/25/2012	000a	arstk	0
b63743164	AM7 .M466 2014	AM	A	Museums and social ai		2/13/2014	000a	anstk	0
b5366937x	AM7 .R463 2011	AM	A	Representing enslaver		9/6/2011	000a	anstk	0
b64480628	AZ221 .R49 2013	AZ	A	Scribes and scholars : i		3/27/2014	000a	anstk	0
b58970046	B104 .S57 2013	B	B	Philosophische Tempe		6/14/2013	000a	anstk	1
b64126122	B105.A3 B69 2014	B	B	Rethinking the politic		3/4/2014	000a	anstk	0
b55776541	B105.A35 A455 2012	B	B	Agency without actors		2/20/2012	000a	anstk	0
b63746220	B105.A35 B74 2014	B	B	Shared agency : a plan		2/14/2014	000a	anstk	0
b60576285	B105.A35 R43 2013	B	B	Reasons and causes : c		10/2/2013	000a	anstk	0
b55840589	B105.A35 S27 2012	B	B	The things we do and i		3/5/2012	000a	anstk	0
b56393787	B105.A35 S85 2012	B	B	Action and existence : a		4/16/2012	000a	anstk	0
b64518292	B105.A55 A54 2013	B	B	Animal minds & anim		4/7/2014	000a	anstk	0
b55129079	B105.A55 B76 2011	B	B	Surface encounters : tl		1/4/2012	000a	anstk	0
b58251492	B105.A55 J64 2012	B	B	POWER, KNOWLEDGE, a		1/17/2013	000a	anstk	2
b59917295	B105.A55 R33 2013	B	B	Animal bodies, Renaiss		9/19/2013	000a	anstk	1
b57572768	B105.A55 S5613 2011	B	B	Deux leçons sur l'anim		10/4/2012	000a	anstk	0
b58908444	B105.A55 S74 2013	B	B	Animals and the limits		5/23/2013	000a	anstk	0
b58721411	B105.A55 W35 2013	B	B	Animal studies : an int		4/26/2013	000a	anstk	1
b5655526x	B105.A55 W45 2012	B	B	Thinking animals : why		5/11/2012	000a	anstk	1
b68705566	B105.A55 W56 2014	B	B	Interspecies ethics / C		8/28/2014	000a	anstk	0
b55776644	B105.A8 V37 2012	B	B	Authenticity as an eth		2/20/2012	000a	anstk	0
b58084836	B105.B64 K76 2012	B	B	Body drift : Butler, Hay		12/12/2012	000a	anstk	0
b57574595	B105.B64 S4713 2011	B	B	Variations sur le corps		10/4/2012	000a	anstk	0
b54845543	B105.C45 G38 2012	B	B	Philosophy for young i		11/8/2011	000a	anstk	0
b57806925	B105.C477 P75 2012	B	B	The conscious brain : h		10/22/2012	000a	anstk	1
b68103372	B105.C74 P53 2014	B	B	The philosophy of crea		7/18/2014	000a	anstk	1
b63489843	B105.C75 R65 2013	B	B	Anti-crisis / Janet Roit		1/8/2014	000a	anstk	0
b55128816	B105.D58 N67 2012	B	B	The problem of distra		1/4/2012	000a	anstk	0
b64416513	B105.E46 B73 2013	B	B	Emotional insight : the		3/11/2014	000a	anstk	0
b58086171	B105.E46 C75 2012	B	B	Reason, will and emot		12/12/2012	000a	anstk	0
b55624625	B105.E46 M67 2011	B	B	Morality and the emot		2/6/2012	000a	anstk	1
b54922239	B105.E46 S37 2011	B	B	Thinking through feeli		11/16/2011	000a	anstk	0
b57870895	B105.E9 J36 2012	B	B	What we talk about wi		11/5/2012	000a	anstk	0
b54845750	B105.E9 M375 2011	B	B	Semblance and event		11/8/2011	000a	anstk	0
b56431508	B105.E9 N64 2012	B	B	Varieties of presence		4/25/2012	000a	anstk	0
b58155296	B105.F75 T45 2013	B	B	Thinking about friend		12/28/2012	000a	anstk	0

Data Visualization in Excel

Comparison Based on LC Classification:



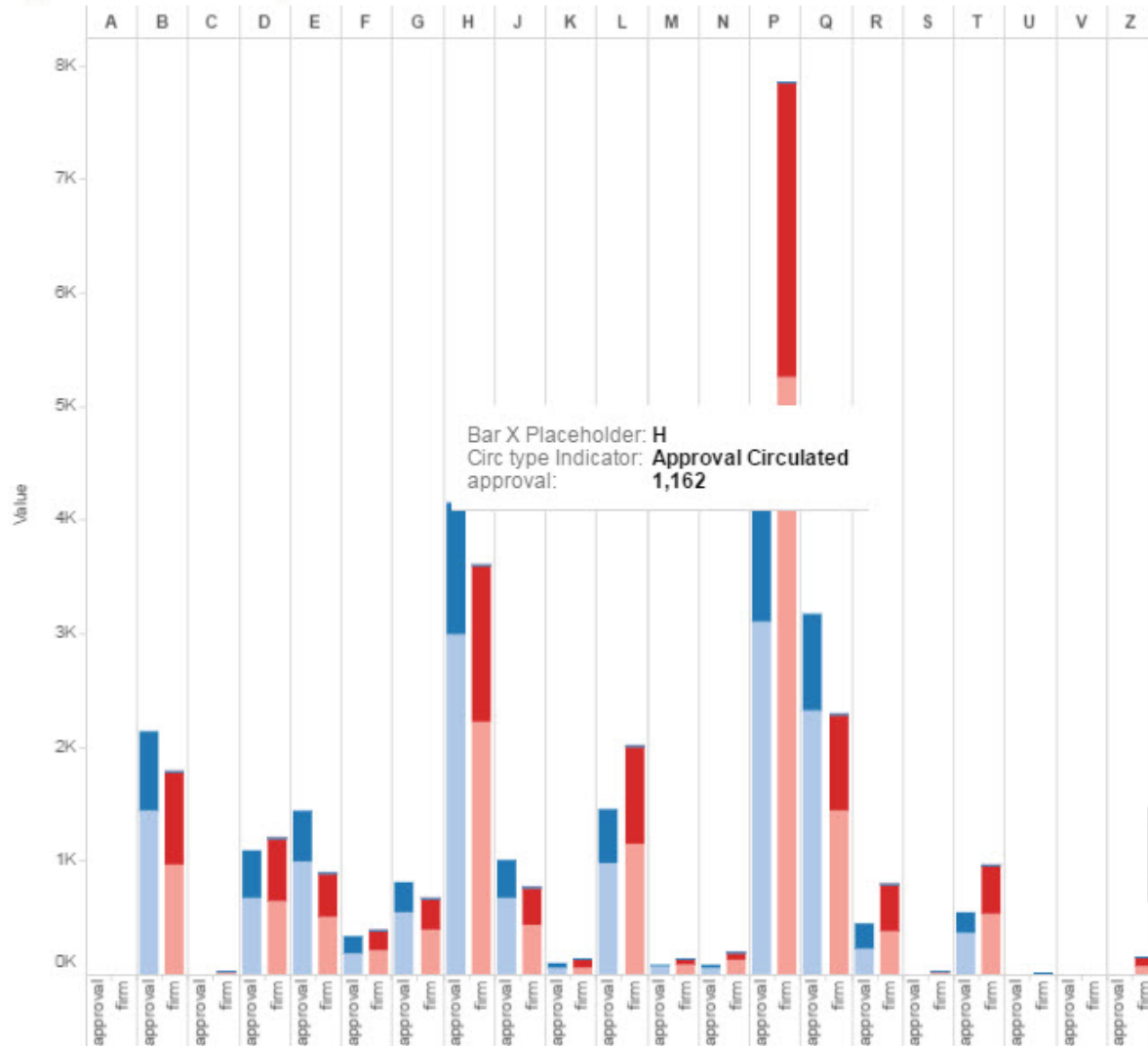
Circulation Distribution Groupings Across LC Subclassification B



Exploratory Data Analysis with Tableau

- All LC subclasses
- Individual selector
- Separate year analysis
- Filter different number of checkouts

Approval and Firm Comparison



Purchase type

(All)

Tot Chkout

0 219

LC

(All)

LC Sub

(All)

Selector

(All)

Year of Year Formatted

2011 2015

SAG

(All)

Circ type Indicator

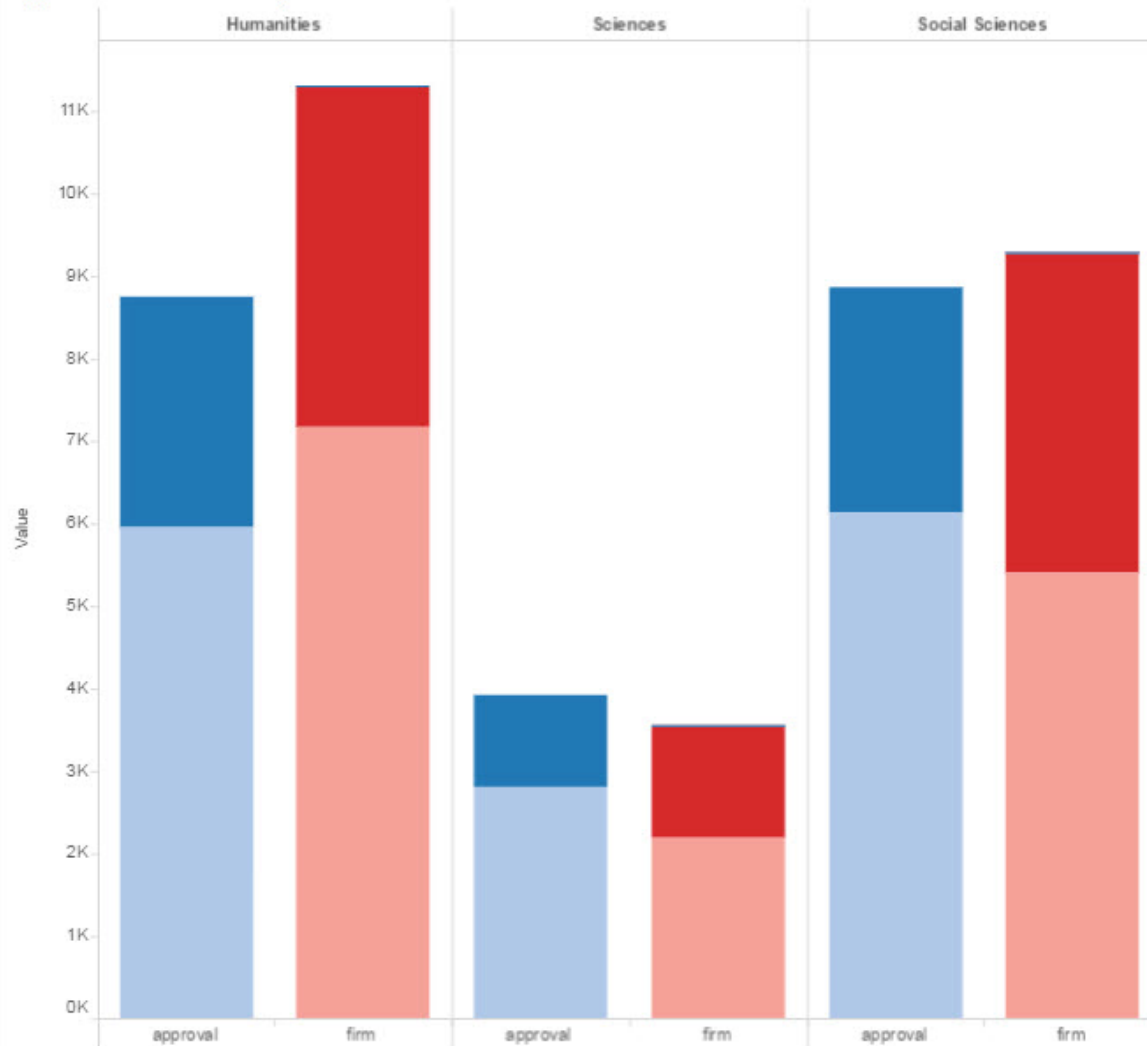
- Approval Circulated
- Approval Non Circulated
- Firm Circulated
- Firm Non Circulated

Bar X Selector

LC

LC
Year
Selector
SAG

Approval and Firm Comparison



Purchase type

(All)

Tot Chkout

0 219

LC

(All)

LC Sub

(All)

Selector

(All)

Year of Year Formatted

2011 2015

SAG

(All)

Circ type Indicator

- Approval Circulated
- Approval Non Circulated
- Firm Circulated
- Firm Non Circulated

Bar X Selector

SAG

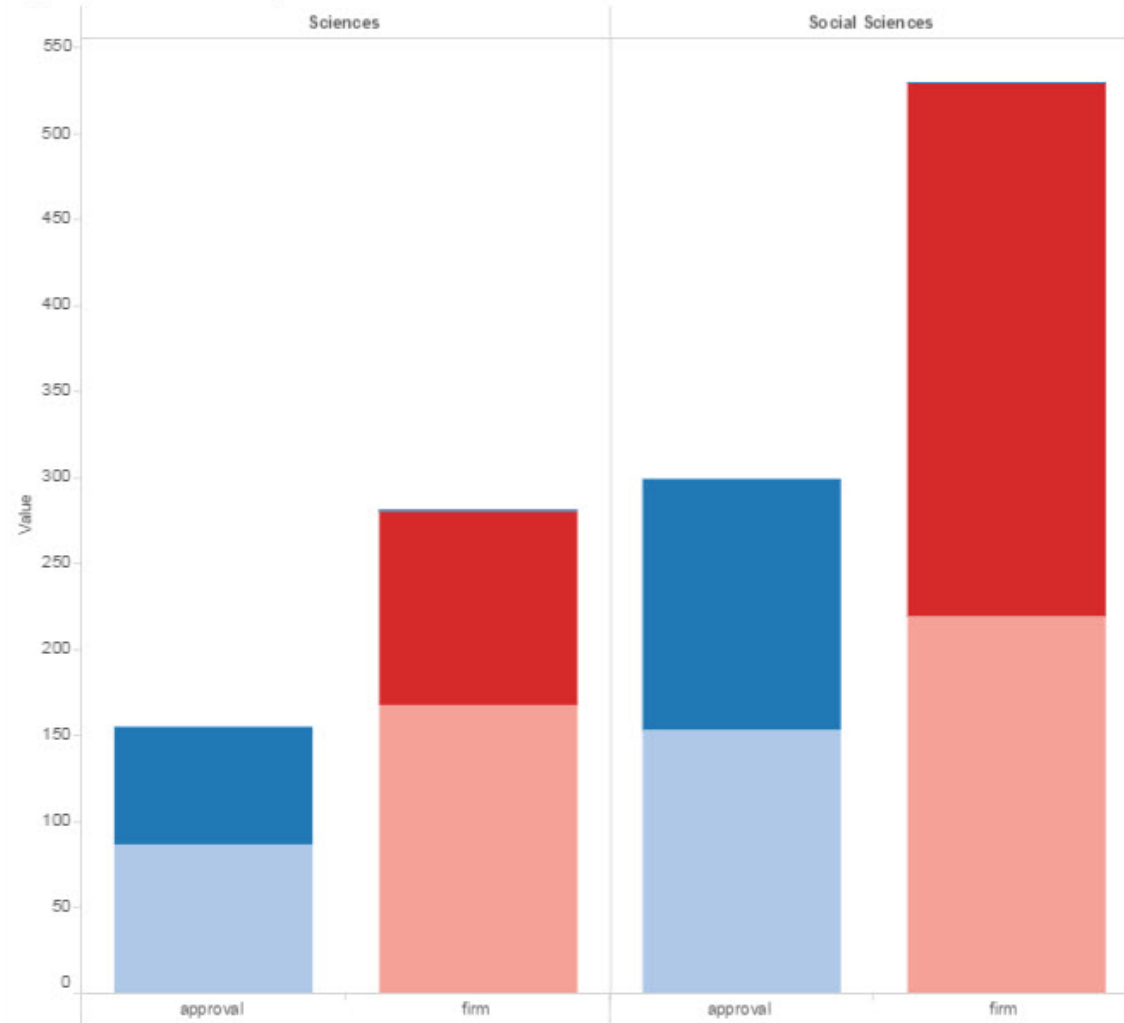
LC

Year

Selector

SAG

Approval and Firm Comparison



Purchase type

(All)

Tot Chkout

0 13

LC

R

LC Sub

(All)

(All)

☒ (All)

☒ R

☒ RA

☒ RB

☒ RC

☒ RD

☒ RF

☒ RG

☒ RJ

☒ RM

☒ RS

☒ RT

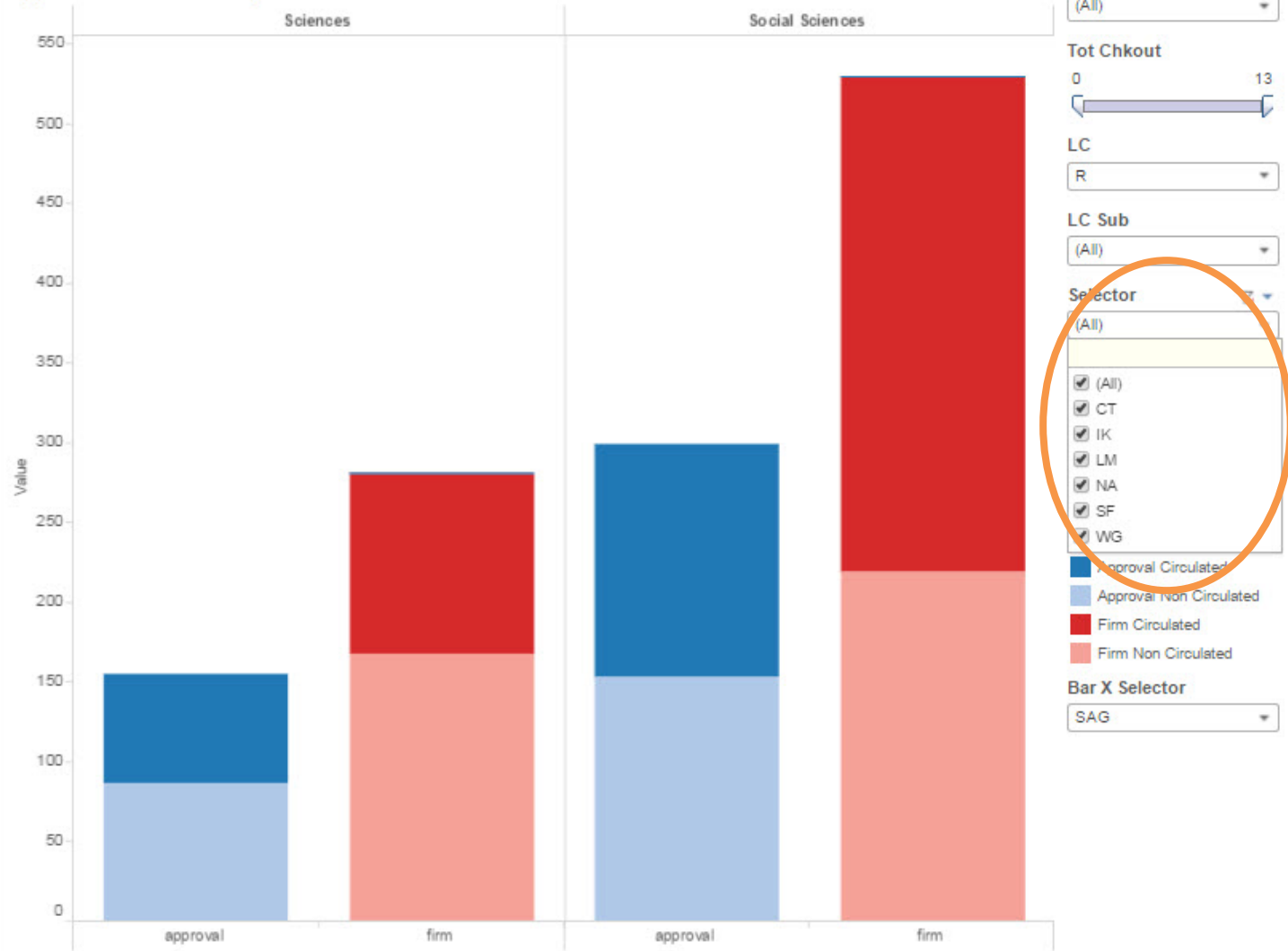
☒ RZ

☐ Firm Non Circulated

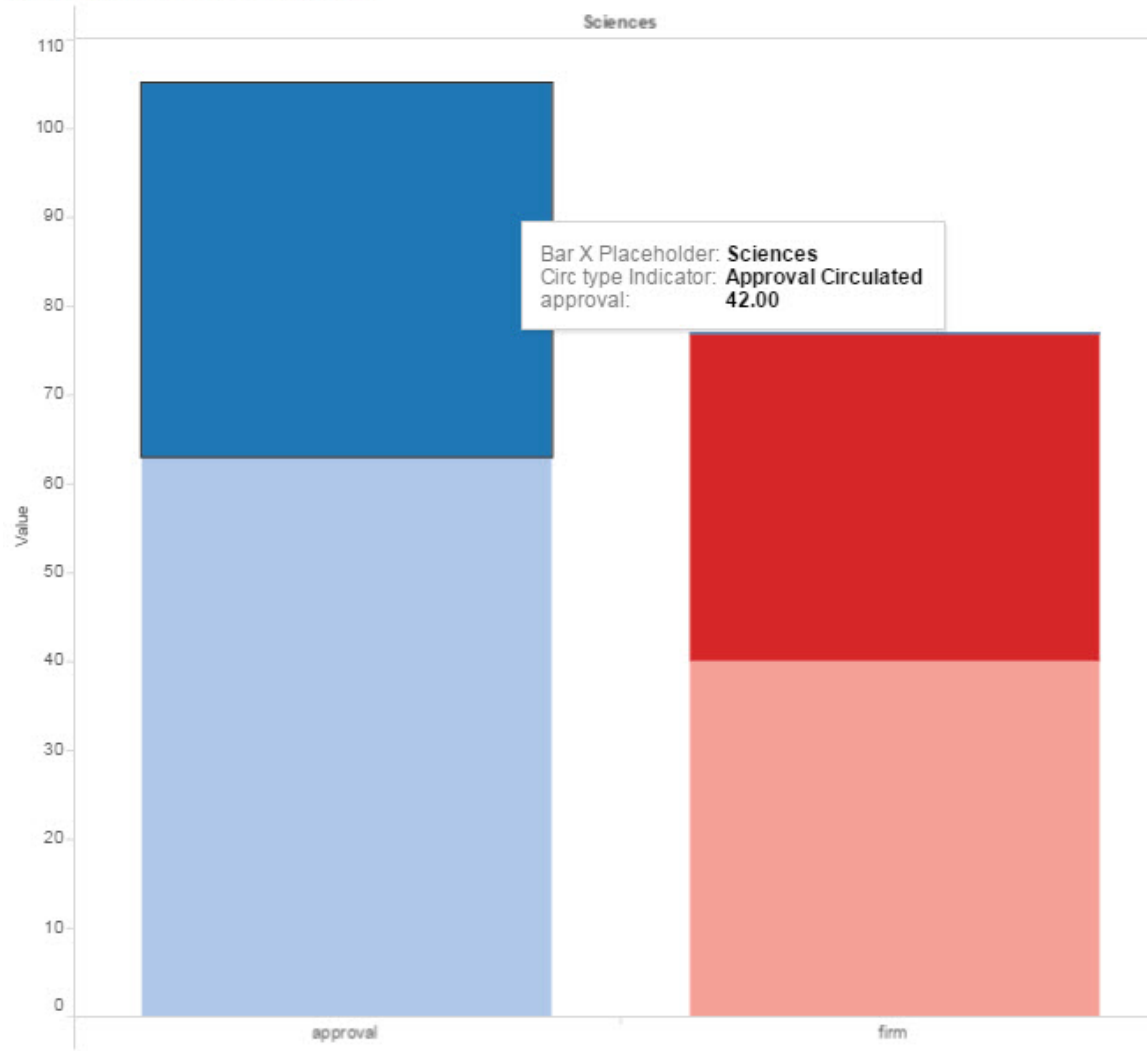
Bar X Selector

SAG

Approval and Firm Comparison



Approval and Firm Comparison



Purchase type

(All)

Tot Chkout

0

8

LC

R

LC Sub

(All)

Selector

CT

Year of Year Formatted

2011

2015

SAG

Sciences

Circ type Indicator

Approval Circulated

Approval Non Circulated

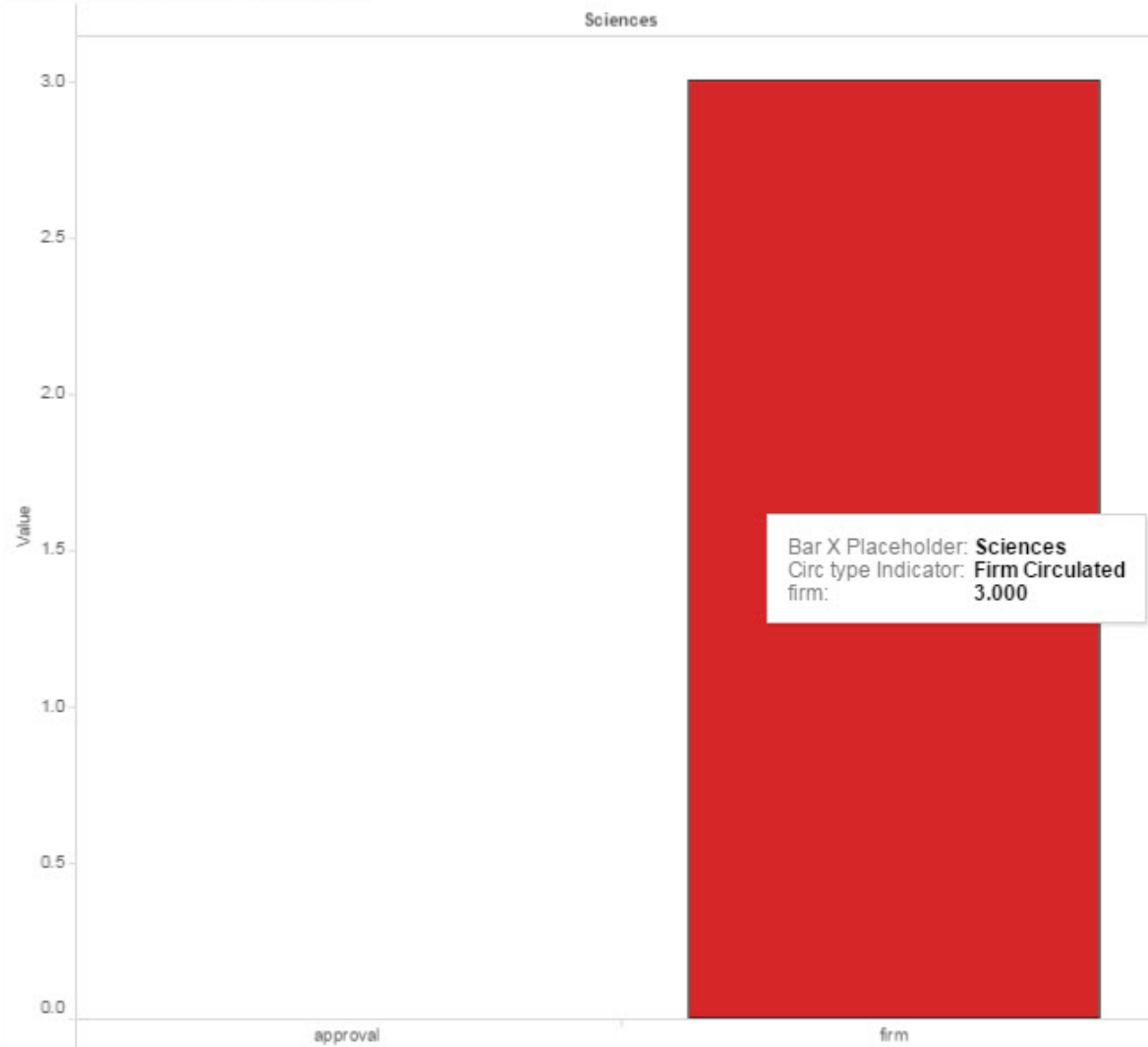
Firm Circulated

Firm Non Circulated

Bar X Selector

SAG

Approval and Firm Comparison



Purchase type

Firm

Tot Chkout

5 8

LC

R

LC Sub

R

Selector

CT

Year of Year Formatted

2011 2015

SAG

Sciences

Circ type Indicator

Firm Circulated

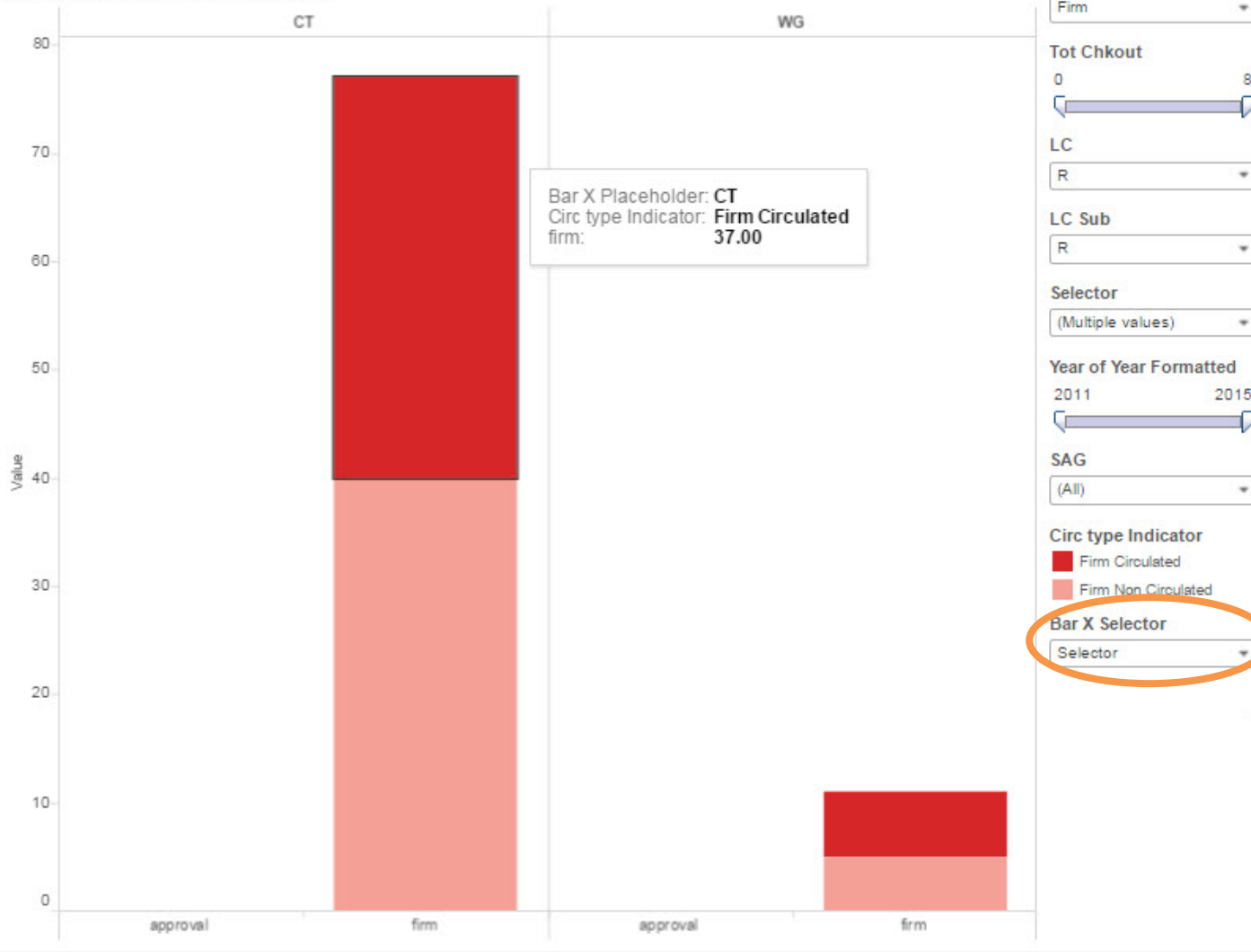
Bar X Selector

SAG

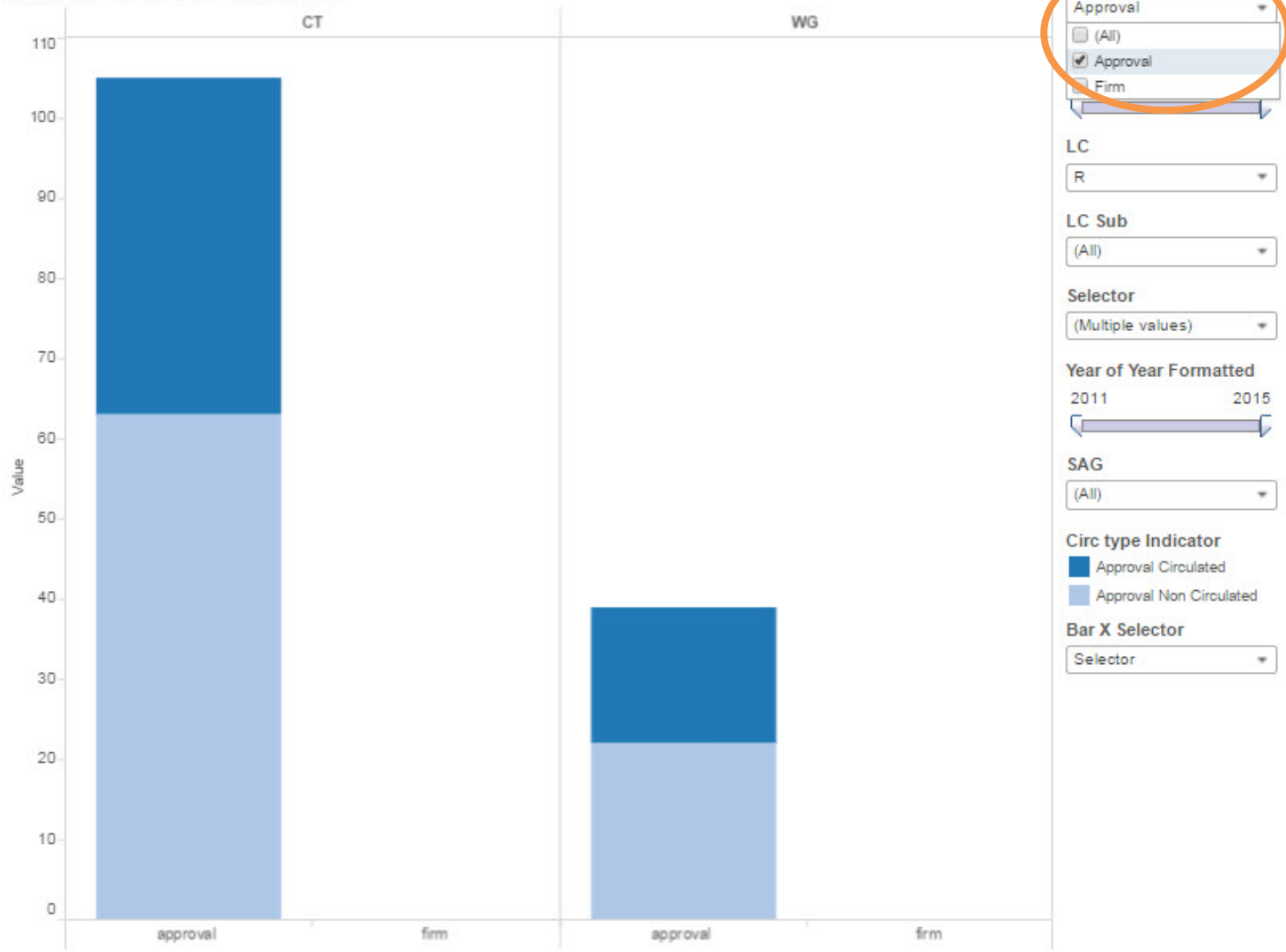
Approval and Firm Comparison



Approval and Firm Comparison



Approval and Firm Comparison



Approval and Firm Comparison

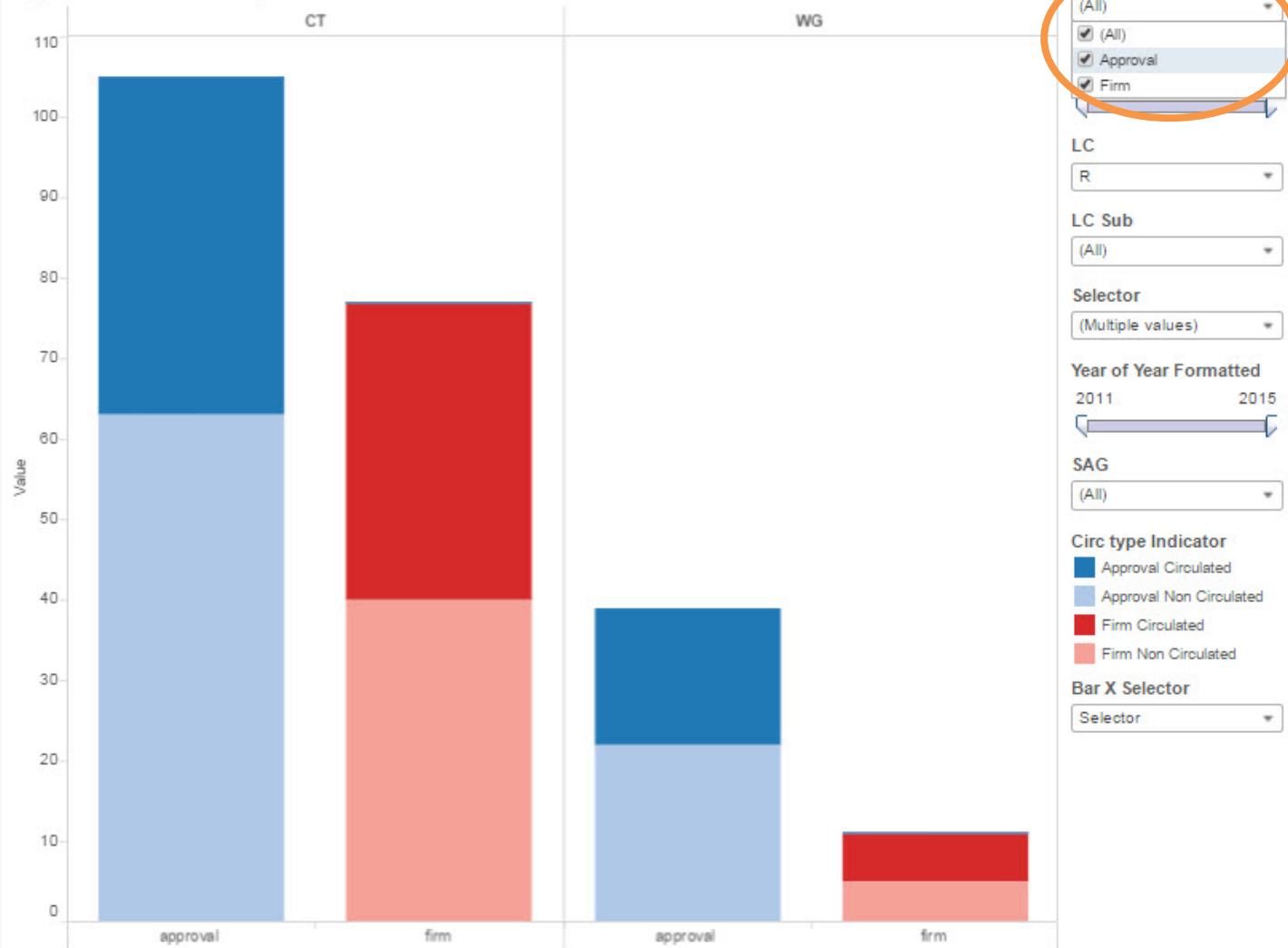


Tableau Desktop: Options in Detail

Public Edition Tableau Version 9.3	Professional Edition Tableau Desktop Version 9.3	Enterprise Edition Tableau Desktop Version 9.3
--	--	--

Cost: App. \$ 2,000

Cost: Free

Cost: App. \$1,000

Environment: Desktop Application

Environment: Desktop Application

Environment: Desktop Application

Max Dataset Size: No Limit

Max Dataset Size: 1,000,000 Records

Max Dataset Size: No Limit

Data Sources: Hundreds, including live servers

Data Sources: Excel, Access, Text, Stats

Data Sources: Excel, Access, Text, Stats

Publishing: Public Tableau Cloud Only
Publishing: (1) Locally (2) Public Tableau Cloud (3) Tableau Server Cloud
Publishing: (1) Locally (2) Public Tableau Cloud

Tableau: Server

Views 111

Data Sources 17

















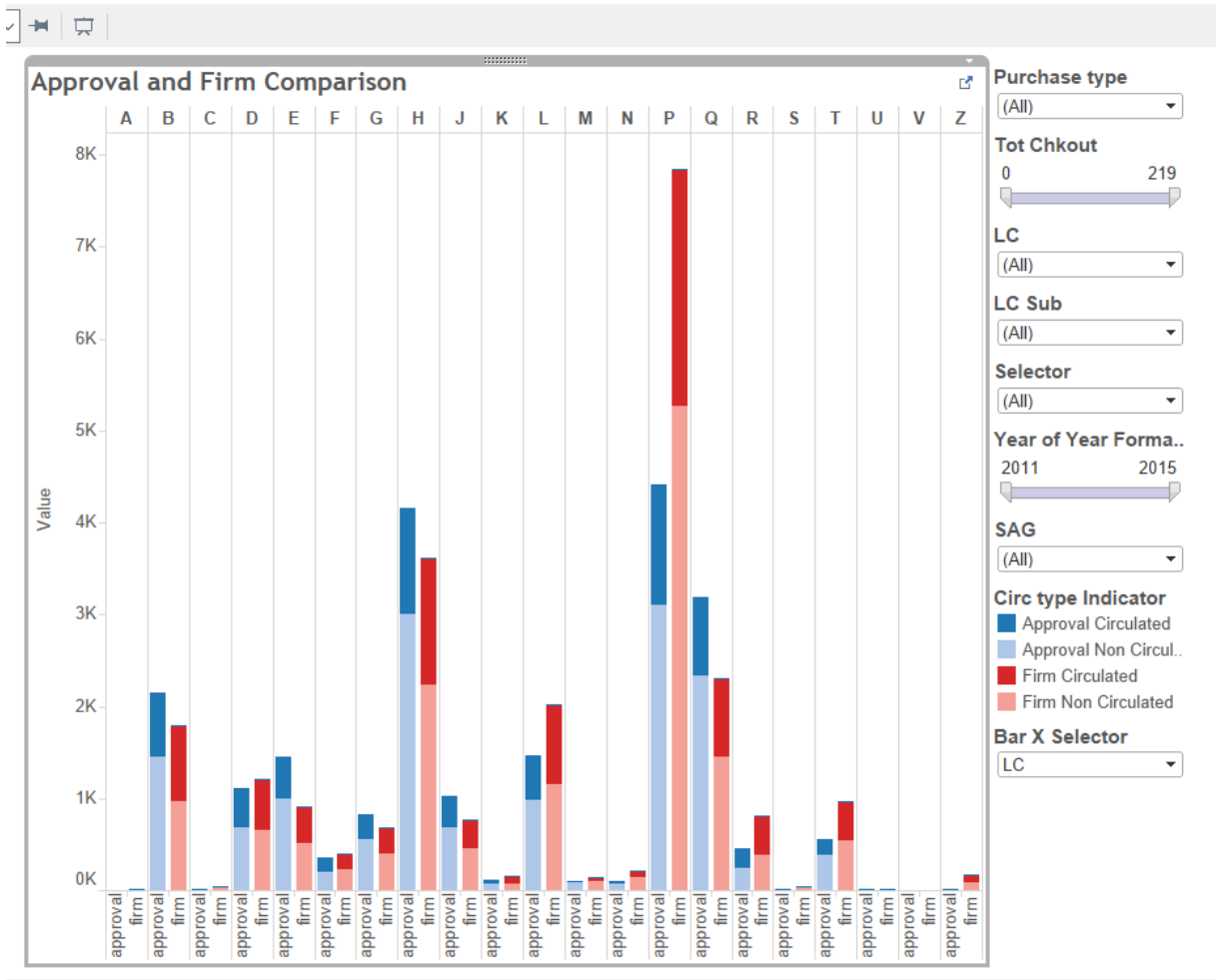
Name	Connection type	Connects to	Live / Last extract
 ARL Statistics Publication-8... ...	Excel	 ARL_Data_2006-2014.xlsx...	Live
 CenterProject_CombinedDa... ...	Excel	 CenterProject_CombinedDa...	Live
 Custom SQL Query (iii) ...	PostgreSQL	 sierra-db.lib.uh.edu	Live
 CustomerInfo+ (ProductsC... ...	Excel	 ProductsCustomersOrders....	Live
 DataSet (Acquisitions_Data... ...	Excel	 Acquisitions_Dataset_2016...	Live
 ill (ILL_Book_Borrowed_Co... ...	Excel	 ILL_Book_Borrowed_Comp...	Live
 MISO_U_Houston_Grad_St... ...	Text File	 MISO_U_Houston_Grad_St...	Live
 Monograph_Raw_Data_201... ...	Excel	 Monograph_Raw_Data_201...	Dec 9, 2015, 2:15 PM

Tableau: Reader



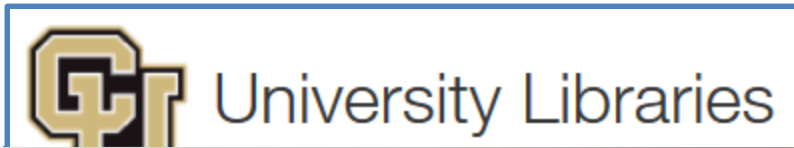
Serials Review Project: Workflow

A Picture Is Worth a Thousand Words: Data Visualization for Collection Assessment

[\[Serials Review\]](#) [\[Citation Analysis\]](#) [\[Approval\]](#) [\[Serials Template\]](#)



Serials Review Project: 2 Excel Tables



SJR

Scimago Journal & Country Rank

Enter Journal Title, ISSN or Publisher Name



Home

Journal Rankings

Country Rankings

Viz Tools

Help

About Us

All subject areas



All subject categories



All regions and countries



2015



☐ Display only Open Access Journals

Display journals with at least 0

Citable Docs. (3years)



Apply

Download data

1 - 50 of 29713



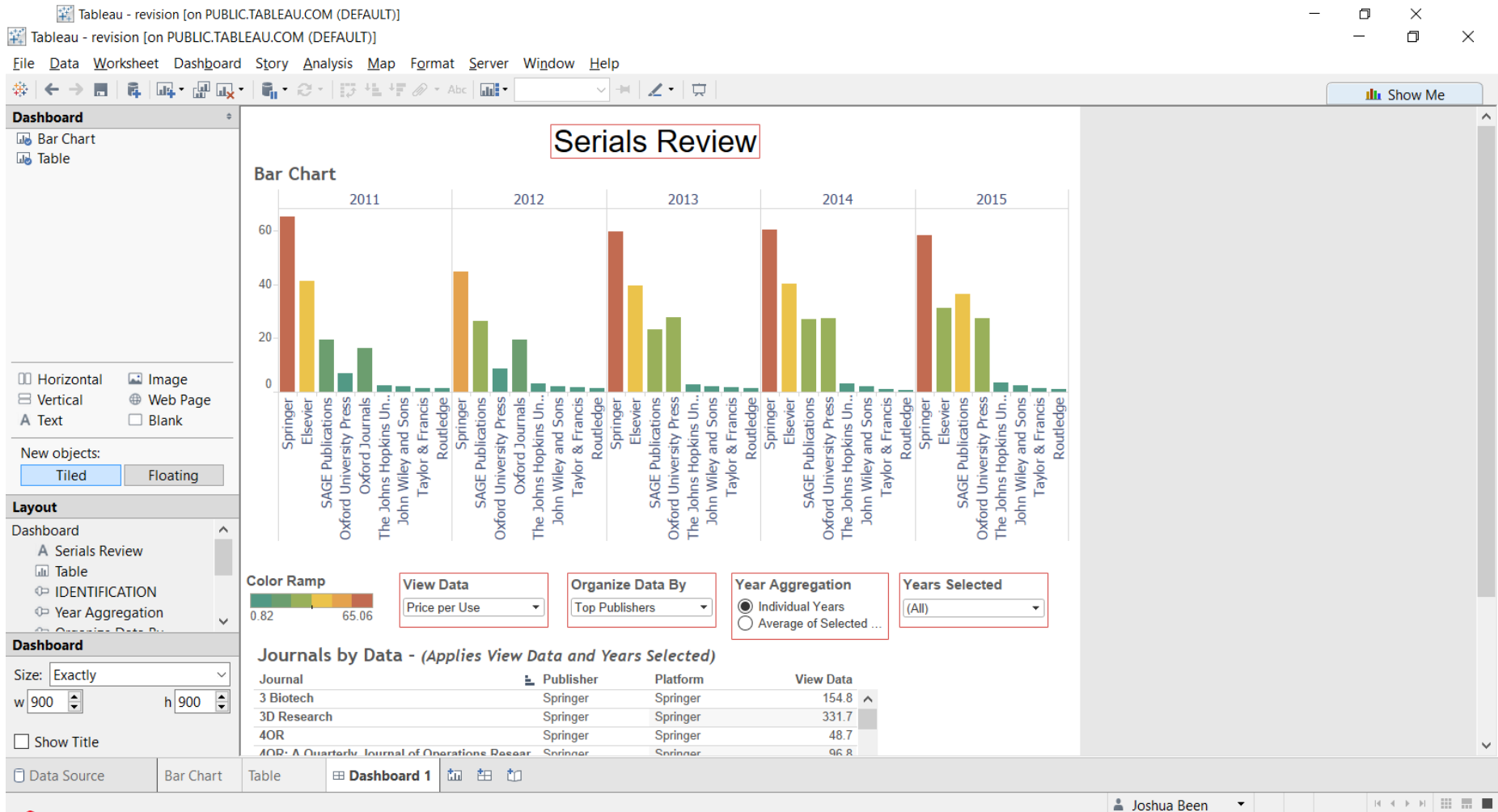
	Title	Type	↓ SJR	H index	Total Docs. (2015)	Total Docs. (3years)	Total Refs.	Total Cites (3years)	Citable Docs. (3years)	Cites / Doc. (2years)	Ref. / Doc.	
1	Nature Reviews Molecular Cell Biology	journal	32.928	324	170	539	8084	7978	202	37.10	47.55	
2	Annual Review of Immunology	journal	32.720	254	26	74	5684	2937	74	35.72	218.62	
18	Arbitration Law Reports and Rev Oxford Journals	Oxford			2044-8651 2044-9887 20449887	0	0	0	0	0	0	0
19	Archives of Clinical Neuropsychology Oxford Journals	Oxford			0887-6177 1873-5843 18735843	36	3	33	1	7	4	4
20	Behavioral Ecology Oxford Journals	Oxford			1045-2249 1465-7279 14657279	416	161	255	33	36	31	29
21	Bioinformatics Oxford Journals	Oxford			1367-4803 1460-2059 14602059	1369	450	919	125	136	107	84
22	Biometrika Oxford Journals	Oxford			0006-3444 1464-3510 14643510	36	0	36	9	6	5	4
23	Bioscience Horizons: The Nation Oxford Journals	Oxford			1754-7431 17547431	8	1	7	0	0	4	0

READY

100%

Serials Review Project:

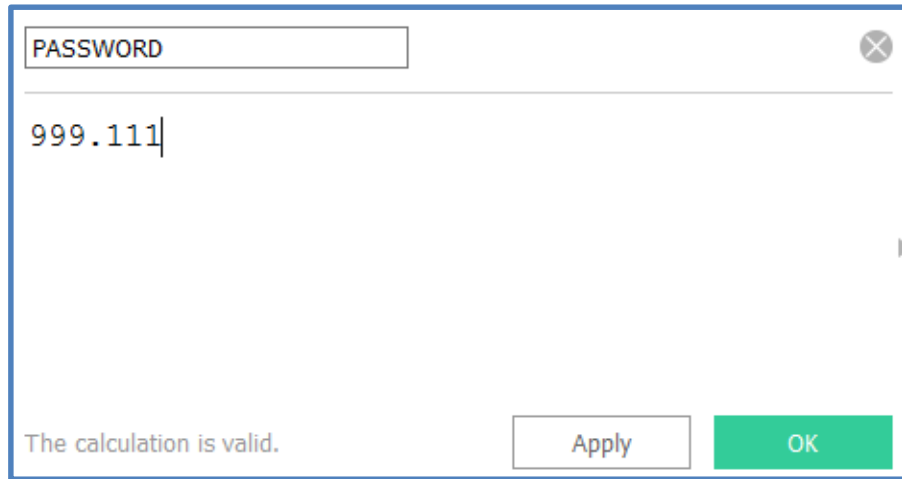
Tableau Desktop



Serials Review Project:

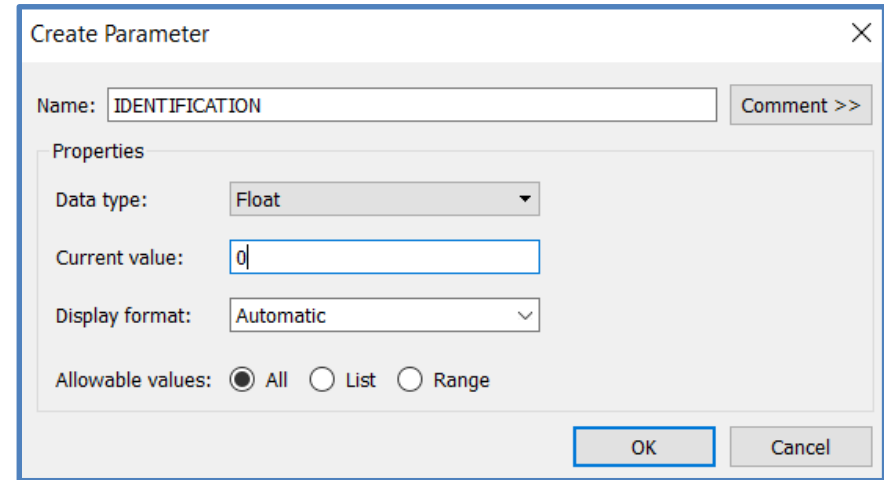
Password Protect

Step #1: Calculated Field



A dialog box titled 'PASSWORD' with a close button (X) in the top right corner. The main text area contains the value '999.111'. At the bottom, there is a status message 'The calculation is valid.' and two buttons: 'Apply' and 'OK'.

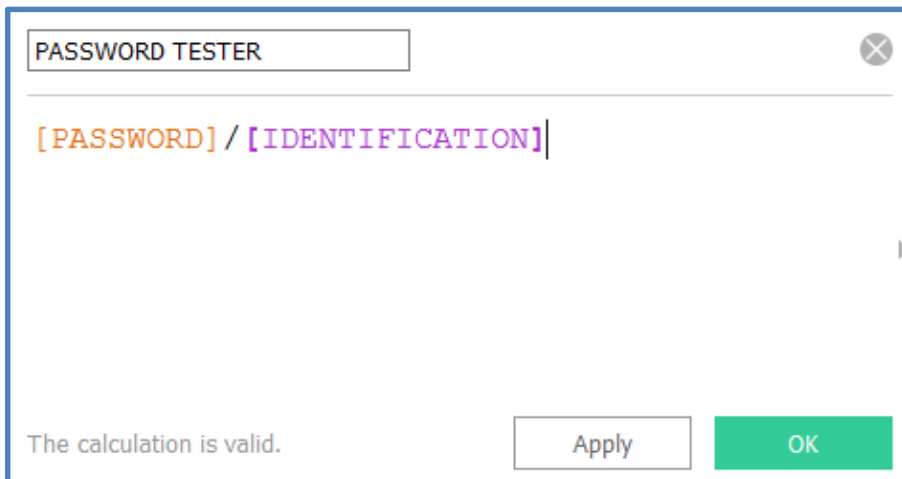
Step #2: Parameter



A dialog box titled 'Create Parameter' with a close button (X) in the top right corner. It contains the following fields and options:

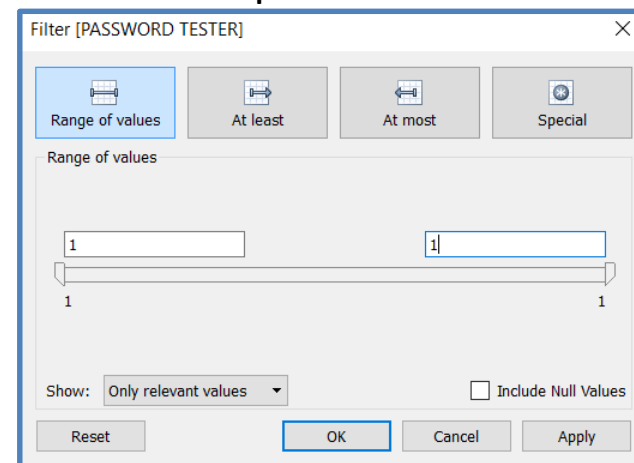
- Name: IDENTIFICATION
- Comment >> (button)
- Properties section:
 - Data type: Float (dropdown menu)
 - Current value: 0 (text input)
 - Display format: Automatic (dropdown menu)
 - Allowable values: ☒ All, ☐ List, ☐ Range
- Buttons: OK, Cancel

Step #3: Calculated Field



A dialog box titled 'PASSWORD TESTER' with a close button (X) in the top right corner. The main text area contains the formula '[PASSWORD] / [IDENTIFICATION]'. At the bottom, there is a status message 'The calculation is valid.' and two buttons: 'Apply' and 'OK'.

Step #4: Filter



A dialog box titled 'Filter [PASSWORD TESTER]' with a close button (X) in the top right corner. It contains the following elements:

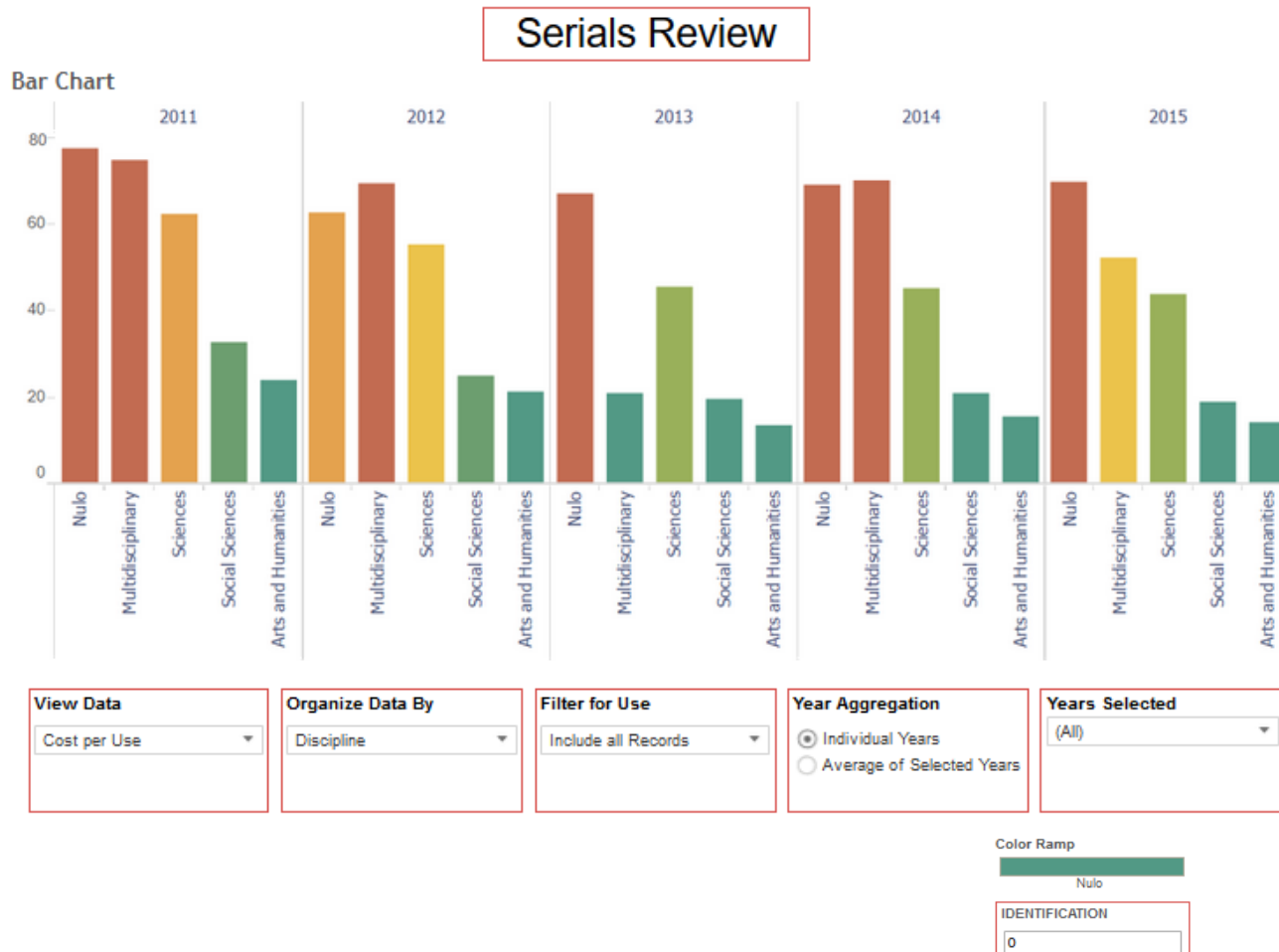
- Four filter type buttons: 'Range of values' (selected), 'At least', 'At most', and 'Special'.
- A 'Range of values' section with two text input fields, both containing '1', and a slider below them.
- A 'Show:' dropdown menu set to 'Only relevant values'.
- An unchecked checkbox labeled 'Include Null Values'.
- Buttons: Reset, OK, Cancel, Apply.

Serials Review Project:

Publish to Tableau Public

A Picture Is Worth a Thousand Words: Data Visualization for Collection Assessment

[\[Serials Review\]](#) [\[Citation Analysis\]](#) [\[Approval\]](#) [\[Serials Template\]](#)



Serials Review Project: Update

The screenshot displays the Tableau Desktop interface. A context menu is open over the '2011-15' dimension, showing options like 'Edit data source...', 'Refresh', 'View data...', 'Rename...', 'Duplicate', 'Close', 'Extract data...', 'Use extract' (checked), 'Extract', 'Edit data source filters...', 'Replace data source...', 'Date properties...', 'Edit aliases...', 'Publish to server...', 'Add to Saved Data Sources...', and 'Properties...'. The 'Dimensions' pane on the left lists fields like 'Issn', 'Journal', 'Journal DOI', 'Online ISSN', 'Platform', 'Print ISSN', 'Proprietary Id', 'Publisher', and 'Year'. The 'Measures' pane lists '2011-15', 'PUB COUNT', 'sjr', 'secret', 'secret tester', 'SUM Use by Year', 'top pubs', 'Value Placeholder', 'Latitude (generated)', 'Longitude (generated)', and 'Number of Records'. The 'Data Source' pane shows a table with columns A through Z, containing various journal titles and their corresponding counts. The 'Columns' shelf contains 'Year Placeholder' and 'Cluster Placeholder', and the 'Rows' shelf contains 'AVG(Value Placeholder)'. The 'View Data' pane on the right shows 'Price per Use' and 'Organize Data By' set to 'Top Publishers'. The 'Year Aggregation' section shows 'Individual Years' selected, and the 'Years Selected' list includes 2011 through 2015. The 'IDENTIFICATION' section shows a '0' value.

Serials Review: **Template**

http://bit.do/ala_viz

Serials Review: **Template**

Step #4: Browse to Updated File

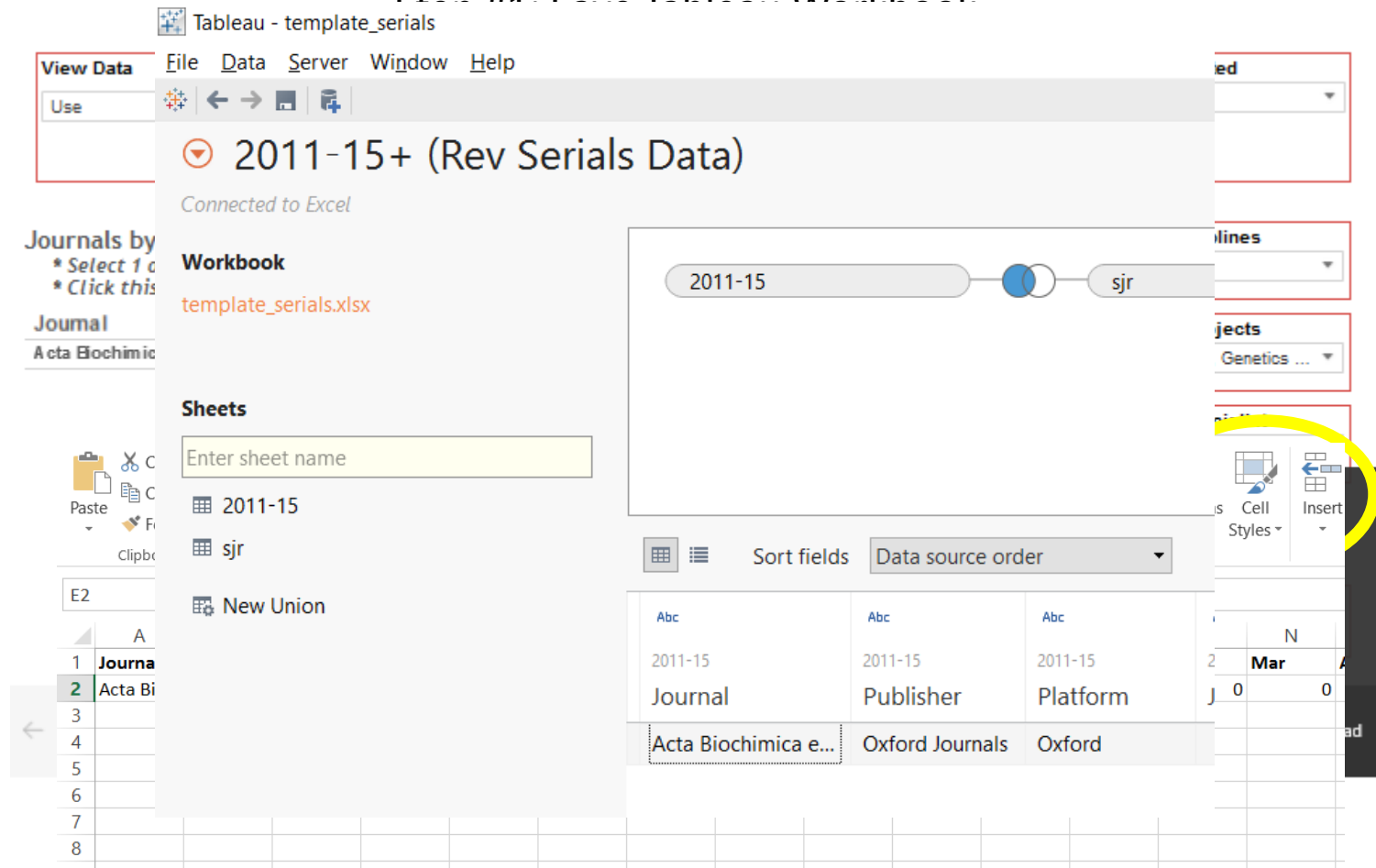
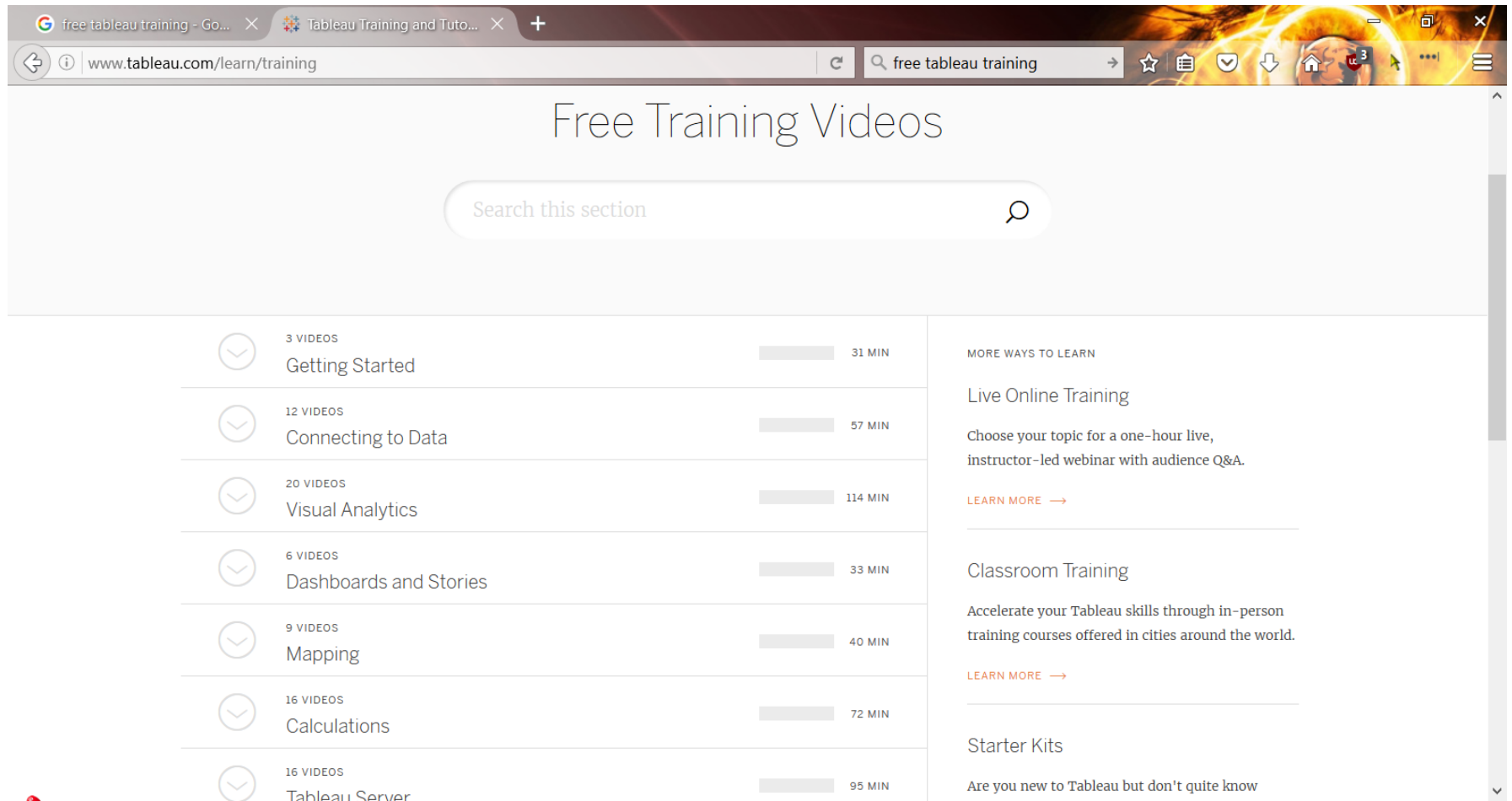


Tableau: Learn More



The screenshot shows the Tableau Learning Center website. The browser address bar displays 'www.tableau.com/learn/training'. The page title is 'Free Training Videos'. Below the title is a search bar labeled 'Search this section'. The main content area is divided into two columns. The left column lists seven video categories, each with a dropdown arrow, the number of videos, the category name, a progress bar, and the duration. The right column is titled 'MORE WAYS TO LEARN' and lists three options: 'Live Online Training', 'Classroom Training', and 'Starter Kits', each with a brief description and a 'LEARN MORE' link.

Category	Number of Videos	Duration
Getting Started	3 VIDEOS	31 MIN
Connecting to Data	12 VIDEOS	57 MIN
Visual Analytics	20 VIDEOS	114 MIN
Dashboards and Stories	6 VIDEOS	33 MIN
Mapping	9 VIDEOS	40 MIN
Calculations	16 VIDEOS	72 MIN
Tableau Server	16 VIDEOS	95 MIN

MORE WAYS TO LEARN

- Live Online Training**
Choose your topic for a one-hour live, instructor-led webinar with audience Q&A.
[LEARN MORE →](#)
- Classroom Training**
Accelerate your Tableau skills through in-person training courses offered in cities around the world.
[LEARN MORE →](#)
- Starter Kits**
Are you new to Tableau but don't quite know

<http://www.tableau.com/learn/training>



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Thank you
for attending this ALCTS program

Your feedback is important to us!

Please take a moment to complete a
short online evaluation form at the URL below:

<http://tinyurl.com/alctsac16>

