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USF Libraries Environmental Scan 2020 USF School of Geosciences Research Impact and Visibility - April 2021

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Environmental Scan 2020
USF School of Geosciences Research Impact and Visibility

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April 2021



UNIVERSITY of
SOUTH FLORIDA
Libraries

Introduction

Faculty and graduate student research accomplishments have helped drive the University of South Florida's rise in prominence over the past decade. As such, increasing this research capacity, impact, and visibility are important components of USF's strategic goals. In 2017, the USF Libraries Research Platform Team (RPT) for the Geosciences was created with the direct charge of helping USF Geoscience faculty and graduate students at the Tampa campus increase their research impact and visibility, indirectly advancing USF's strategic goals and related performance metrics. Relevant strategic goals and performance metrics include:

- USF Goal 2: To conduct high-impact research and innovation to advance frontiers of knowledge, solve global problems and improve lives.
- USF Goal 4: To provide a safe, inclusive and vibrant community for learning, discovery, creative activities and transformative experiences enabled through adaptive design of physical, social and digital environments.
- USF Performance-Based Funding (PBF) Metric 8: Graduate degrees awarded in areas of strategic emphasis.

In this report, we use various impact measurement tools provided through the USF Libraries to present the measurement of Geoscience faculty and graduate student publications, citations, grant productivity and impact for the last 1-5 years. Additionally, we document the RPT's efforts to promote continued faculty and graduate student impact and suggest areas for RPT programmatic service development and refinement.

A new characteristic this year is the consolidation of USF into as a single accredited institution. The School of Geosciences now encompasses faculty, programs, and courses on the Tampa and St. Petersburg campuses. Likewise, USF Libraries support for Geosciences comes from Tampa RPT librarians Matt Torrence and Meghan Cook and St. Petersburg librarian Theresa Bures.

Near the end of the 2021 spring semester, faculty input as well as additional data collected from SciVal and InCites informed a deeper analysis explaining how the RPT librarians could approach the continuous improvement of libraries support for the USF School of Geosciences. This support includes research consultations, graduate and faculty profile and impact workshops, as well as monitoring of the collections and departmental metrics.

In addition, this data provided a framework for the initiation of new projects in a consolidated USF. This includes creating an inventory of physical specimens held within faculty collections and an investigation into the creation of digital objects from these items. Supplementing these new projects, the team has expanded the number of faculty research profiles in the USF Libraries Scholar Commons institutional repository to increase research visibility and impact, administered the continuation of the Calling Earth: Podcast, promoting departmental research visibility, and offered workshops and consultations aimed towards graduate students and important Geoscience stakeholders to raise awareness and usage of library tools and services. Future endeavors include developing efficient procedures for communication and collaboration for Geoscience librarians and faculty.

Ultimately the purpose of this report is to document the impact and visibility of USF Geoscience research activities and describe current and proposed USF Libraries interventions and services that support the continuous improvement of these efforts.

Methodology

The USF Libraries Geosciences RPT monitors faculty metrics and data to ensure we are able to service and market to, their academic needs. With the merger of the USF faculty into one cohesive unit, the RPT has initiated data collection on the new combined numbers of faculty and degrees awarded. These are available on request. The School of Geosciences is currently comprised of 50 faculty, with a relatively even division of University Professors at full rank (16), Associate Professor (15), and Assistant Professors (10). There are also a number of Instructors and affiliated faculty.

Overview of Faculty Impact and Productivity

To establish the productivity and research impact profiles for the faculty in the School of Geosciences, data from both Web of Science/Incites and Scopus/SciVal were applied. This type of granularity helps the School of Geosciences define themselves as leaders in their field. Measuring the aggregate and research and publishing productivity for faculty provides a perspective on how USF researchers compare with researchers at other similar institutions, as well as with USF overall.

In addition to establishing benchmarks for publication targets and citation counts, this baseline of data has helped the Geoscience RPT track faculty advancement and visibility. For this version of the report, the data will focus mostly on the years 2015-2020 (with slight variations on years for some data).

It is important to note that this year's Environmental Scan now includes Geosciences faculty from the USF St. Petersburg campus due to the university's consolidation into "One USF" in July 2020.

Each tool uses its own proprietary method for indexing, assessing, and aggregating its own core list of journals and journal citations. Thus, to provide a comprehensive environmental scan, both databases need to be consulted.

Web of Science/InCites Summary Data

Faculty citation data is annually extracted from the Web of Science collection of resources, including InCites and the Journal Citation Reports (JCR). InCites Benchmarking & Analytics is a web-based tool for analyzing institutional research productivity, thus data from this tool emphasizes departmental and institutional perspectives. The Journal Citation Reports is an annual calculation of indicators, derived by capturing the cited references from a core collection of journals, and linking those references to the cited papers. All citation data is aggregated to create several indicators including journal impact factors. The Web of Science data feeds directly into InCites, which is one of the primary tools used for these annual scans.

Scopus/SciVal Summary of Data

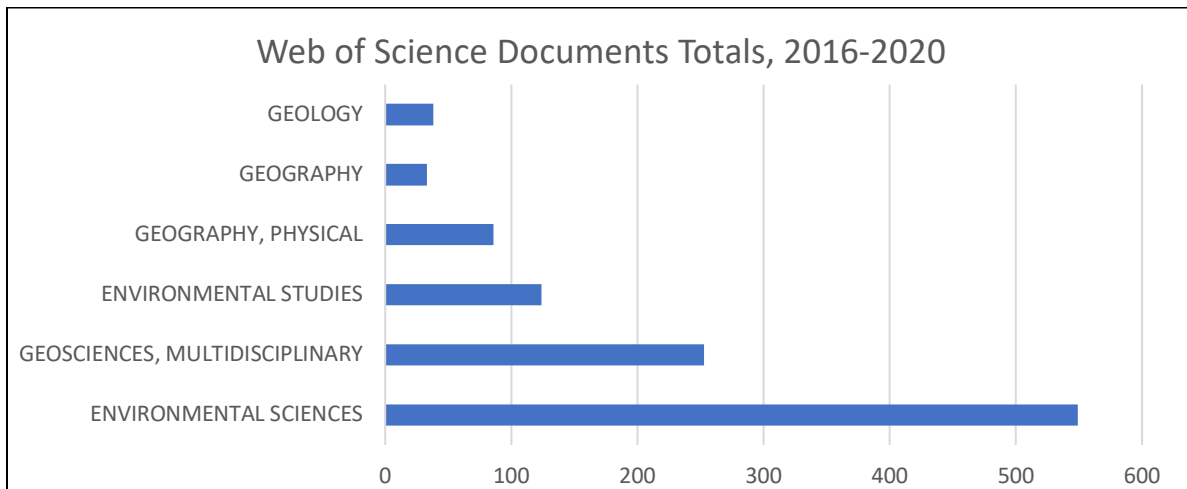
Scopus/SciVal is Elsevier's abstract and citation database covering journals, book series, and trade journals. It is similar in functionality to Web of Science, and includes unique sources, although overlap exists. Similar to the JCR, Scopus employs a combination of measurements to gauge journal quality, including h-index, CiteScore, SCImago Journal Rank (SJR), and Source Normalized Impact per Paper (SNIP). The data in Scopus informs the metrics in SciVal. SciVal is an online tool from Elsevier that provides tools to assess the research performance of 19,600 research institutions and 231 nations worldwide using bibliometrics. It provides ways to visualize research performance, identify benchmarks relative to peers, and analyze research trends. SciVal ranks journals overall and within quartiles as determined by the number of citations. Data is annually reviewed, allowing for the further comparative examination of publication, impact, and other data for cyclical review of productivity and progress related to the above-referenced metrics and goals.

Overview of Faculty Impact and Productivity

Publications by Geoscience Faculty in the Web of Science/InCites database 2016-2020

The chart below illustrates the number of USF Geoscience faculty publications within the “Research Areas”, as defined by Web of Science/InCites. Note that these Web of Science “Research Areas” do not directly accord to Geoscience program areas and there is overlap and uniqueness for the journals and/or articles on these lists. At the end of this section, the list of top journals will provide examples of the specific titles in which USF Geosciences faculty are publishing in these “Research Areas”.

This chart demonstrates the total number of publications by School of Geosciences faculty included in the Web of Science and InCites data for 2016-2020 by subject areas:



The table below describes more benchmarking detail regarding the publications by USF School of Geosciences Faculty over the 2016-2020 period (full descriptions of data points available below this table):

Name	Rank	WoS USF Geoscience Publications	Times Cited	% Docs Cited	Category Normalized Citation Impact
ENVIRONMENTAL SCIENCES	1	549	5675	80.87431694	1.110099636
GEOSCIENCES, MULTIDISCIPLINARY	2	253	2762	80.23715415	1.29786087
ENVIRONMENTAL STUDIES	3	124	915	63.70967742	1.215101613
GEOGRAPHY, PHYSICAL	4	86	656	83.72093023	0.83325
GEOGRAPHY	5	33	245	69.6969697	1.268309091
GEOLOGY	6	38	136	50	0.769568421

Definitions:

- The data above are Web of Science indexed publications by USF Geoscience authors
 - Times Cited: The aggregate number of times articles in the set were cited by published document
 - % Docs Cited: The percentage of documents in the set with at least one citation by another published document
 - Category Normalized Citation Impact (CNCI): Full definition and explanation below the bar chart and table

2020 CNCI:

Overall Category Normalized Citation Impact (CNCI) for the School of Geosciences research areas are 1.10. This relates well to the overall measure for USF, which is currently 1.54. Both the category average and the university average are strong, as they exceed 1.0.

Here is a summary of how to interpret the CNCI from the InCites user guide:

“CNCI is an unbiased indicator of impact irrespective of age, subject focus, or document type. Therefore, it allows comparisons between entities of different sizes and different subject mixes. A CNCI value of one represents performance at par with world average, values above one are considered above average, and values below one are considered below average. A CNCI value of two is considered twice the world average.”

For more detail, feel free to consult the online guide at:

https://clarivate.libguides.com/incites_ba/understanding-indicators

The Geosciences, however, well exceeds USF average of 48.45% for provided by the InCites summary data for USF in the category of “% Docs Cited” in all subject areas listed in the above table.

Top journals in WoS, by rank, for 2019-2020 by “Times Cited” for USF Geosciences authors

For this table, the “rank” is determined by the number of times all articles published in said journal were cited by other WoS publications. *Frontiers in Marine Science* is #1 on this list due to having the most citations in all USF-authored titles over the time period listed above. The “% Docs Cited” is the percent of the USF-authored items in the set that were cited in the summary “Times Cited” total.

Journal Name	Rank	WoS USF Geoscience Publications	Times Cited	% Docs Cited
FRONTIERS IN MARINE SCIENCE	1	26	185	73.0769231
JOURNAL OF CLEANER PRODUCTION	2	10	140	100
NATURE CLIMATE CHANGE	3	3	97	100
REMOTE SENSING OF ENVIRONMENT	4	13	87	92.3076923
SCIENCE OF THE TOTAL ENVIRONMENT	5	10	73	90
JOURNAL OF HYDROLOGY	6	2	71	50
NATURE COMMUNICATIONS	7	6	57	83.3333333
NATURE SUSTAINABILITY	8	3	54	100
GLOBAL CHANGE BIOLOGY	9	3	49	100
ENVIRONMENTAL SCIENCE & TECHNOLOGY	10	3	46	66.6666667
INTERNATIONAL JOURNAL OF SUSTAINABLE TRANSPORTATION	11	2	38	100
RESOURCES CONSERVATION AND RECYCLING	12	1	35	100
MARINE POLLUTION BULLETIN	13	6	33	100
SUSTAINABILITY	14	11	30	36.3636364
JOURNAL OF ENVIRONMENTAL MANAGEMENT	15	7	29	57.1428571
ECOLOGICAL APPLICATIONS	16	3	28	100
WATER RESEARCH	17	5	27	100
INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH	18	11	20	45.4545455
NATURE GEOSCIENCE	18	2	20	100
ESTUARIES AND COASTS	18	5	20	80

Publications by Geoscience Faculty in the Scopus/SciVal database

Subsequent to last year's environmental scan, Scopus/SciVal has modified their summary and benchmarking practices. Journals indexed within the SciVal databases are grouped into three research areas: Earth and Planetary Sciences, Environmental Science, and Geography & Planning. The data below represents publications for the calendar years of 2015 to 2020, except when otherwise noted.

SciMago Journal Ranking (SJR) analyzes journals within the Scopus database and ranks them by quartile: Q1, Q2, Q3, Q4. Q1 represents the top 25% of journals in the core list; Q2, the journals in the 25 to 50% group; Q3, journals in the 50 to 75% group and Q4 includes journals in the 75 to 100% group. The most prestigious journals within a subject area are those occupying the first quartile, Q1. It is important to note that SJR does not measure article quality, but rather the journal in which it is published.

The USF School of Geosciences faculty has also been successful in publishing in the top 10% of journals in their field(s). For Earth & Planetary, 41.6% of publications were in 2020 "Top Journal Percentiles" (top 10% by CiteScore Percentile) and 46.17% over the last 5 years have been in Open Access (OA) sources. For Environmental, 26.6% of publications were in 2020 "Top Journal Percentiles" (top 10% by CiteScore Percentile) and 40.1% over the last 5 years have been in Open Access (OA) sources. For Geography & Planning, 34.1% of publications were in 2020 "Top Journal Percentiles" (top 10% by CiteScore Percentile) and 31.07% over the last 5 years have been in Open Access (OA) sources.

More detail on publications and a year-by-year breakdown is available in the attached appendix, with detailed sections for each of the three areas.

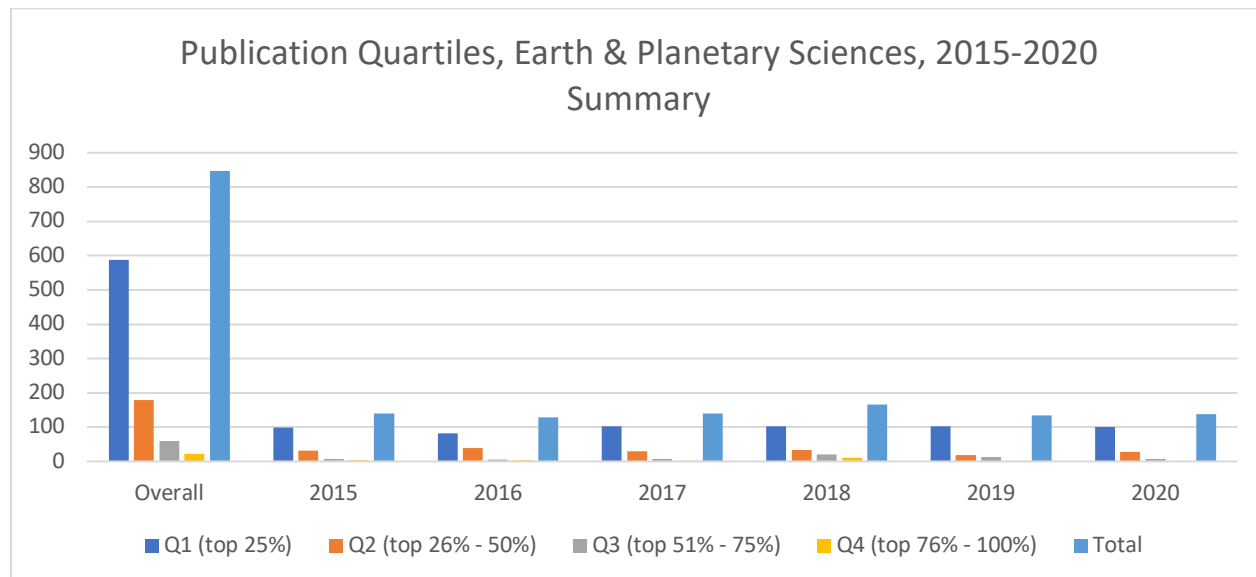
Awards

SciVal also provides data on awards and there were a number of awards dollars awarded in each of the three areas. Earth & Planetary has been awarded a total of **\$8,056,512** in funds over the last 5 years and Environmental Science has received **\$12,182,279**. Geography & Planning data is not available from SciVal.

More detail on awards and a year-by-year breakdown is available in the attached appendix, with detailed sections for each of the three areas.

Earth and Planetary Sciences

The chart below illustrates faculty publication levels within journals ranked from Q1 (top 25%) to Q4 (top 76-100%) over the past five years. For Q1 publications, faculty have remained relatively consistent, with a notable 26% increase in Q1 journal publications between 2015 and 2016. This clearly shows that each year, the number of articles published in Q1 journals far exceeds those other quartiles.

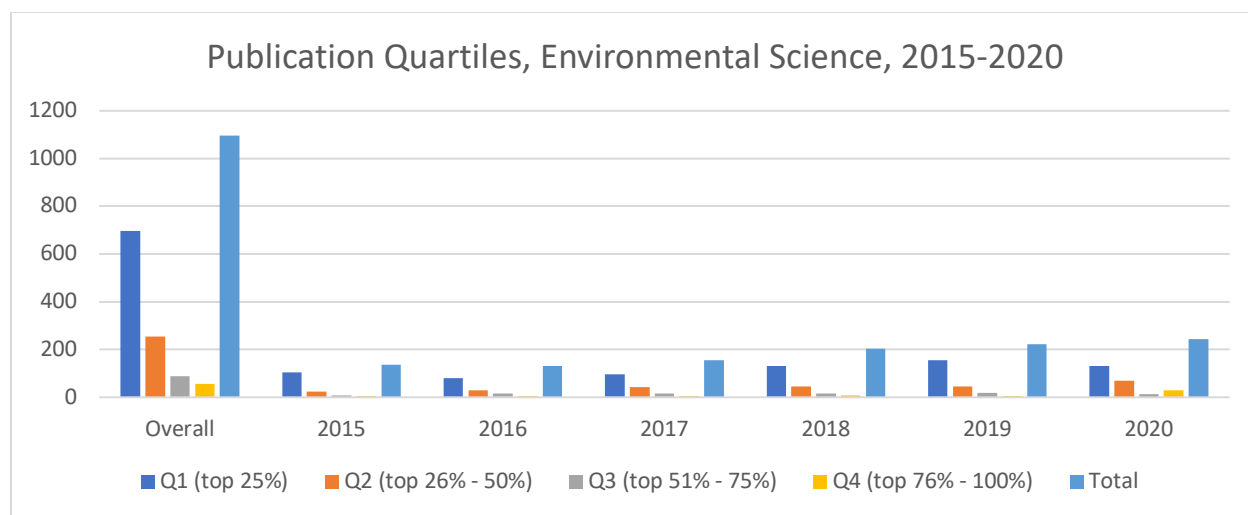


CiteScore quartile	Overall	2015	2016	2017	2018	2019	2020
Q1 (top 25%)	588	99	81	102	103	102	101
Q2 (top 26% - 50%)	178	31	39	29	33	19	27
Q3 (top 51% - 75%)	59	7	5	8	20	12	7
Q4 (top 76% - 100%)	22	3	4	1	10	2	2
Total	847	140	129	140	166	135	137

Full and expanded detail on “Overall Research Performance” for Earth and Planetary Sciences included in [Appendix](#) at end of document.

Environmental Science

The chart below illustrates faculty publication levels within journals ranked from Q1 (top 25%) to Q4 (top 76-100%) over the past five years. For Q1 publications, faculty have remained relatively consistent, with a notable 26% increase in the number of publications in Q1 journals between 2015 and 2016. This table clearly shows that each year, the number of articles published in Q1 journals far exceeds those published in other quartiles.

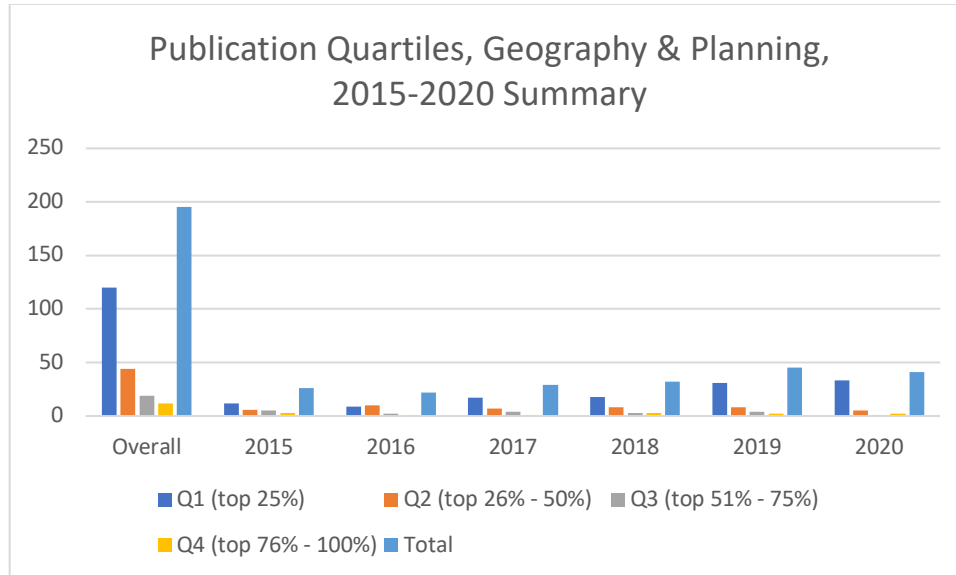


CiteScore quartile	Overall	2015	2016	2017	2018	2019	2020
Q1 (top 25%)	697	103	81	95	132	155	131
Q2 (top 26% - 50%)	254	23	29	42	46	45	69
Q3 (top 51% - 75%)	87	7	16	15	16	19	14
Q4 (top 76% - 100%)	57	4	6	4	9	4	30
Total	1095	137	132	156	203	223	244

Full and expanded detail on “Overall Research Performance” for Environmental Science included in **Appendix** at end of document.

Geography and Planning

The chart below illustrates faculty publication levels within journals ranked from Q1 (top 25%) to Q4 (top 76-100%) over the past five years. For Q1 publications, faculty have remained relatively consistent, with a notable 26% increase in the number of publications in Q1 journals between 2015 and 2016. This table clearly shows that each year, the number of articles published in Q1 journals far exceeds those published in other quartiles.



CiteScore quartile	Overall	2015	2016	2017	2018	2019	2020
Q1 (top 25%)	120	12	9	17	18	31	33
Q2 (top 26% - 50%)	44	6	10	7	8	8	5
Q3 (top 51% - 75%)	19	5	2	4	3	4	1
Q4 (top 76% - 100%)	12	3	1	1	3	2	2
Total	195	26	22	29	32	45	41

Full and expanded detail on “Overall Research Performance” for Geography & Planning included in [Appendix](#) at end of document.

USF Libraries Institutional Repositories

The Institutional Repository at USF Libraries is an online archive that focuses on preserving and disseminating the scholarly works of researchers at the University of South Florida. Institutional repositories allow faculty to disseminate their works to a worldwide audience, maximizing the visibility and impact of their research.

RPT team members have ensured that all USF Geoscience faculty have a Researcher Profile in the USF Tampa library Scholar Commons repository and the Geoscience librarian on the USF St Petersburg campus has done the same for the USF St. Petersburg Digital Archive. USF Libraries is currently in the process of consolidating the content of the USF St. Petersburg digital archive and the Tampa library's Scholar Commons. This migration of Faculty Researcher Profiles and all other repository content will be completed in the summer of 2021.

Faculty content in the institutional repositories may include:

- Faculty publication citation information
- Open access publications
- Links to articles in commercial databases if they are not available open access
- Presentations
- Research Data

Summary data on the 2019-2020 calendar year for Geosciences Faculty in the USF Tampa library Scholar Commons repository:

- Total items:
 - Faculty
 - 652 works added
 - Grad students
 - 88 works added
- Total downloads
 - Faculty
 - 752 items downloaded
 - Grad students
 - 115 items downloaded

Summary data on the 2019-2020 calendar year for Geosciences Faculty in the USF St. Petersburg library Scholar Commons repository:

- Total items
 - Faculty
 - 233 works added
- Total downloads
 - Faculty
 - 421 items downloaded

Faculty Researcher Profiles available through institutional repositories, particularly those that include open access publications, can help to increase the visibility, usage, and impact of faculty scholarly work.

Targeted use of RPT Librarians

Calling Earth: Podcast

In 2019, the Geosciences RPT introduced the Calling: Earth Podcast. Since then, we have interviewed over 50 graduate students and faculty, and boast over 5,000 total downloads. In 2021, the team was fortunate to see their article on the use of podcasts to raise awareness and research impact published in Information Technology and Libraries. This article underscores the value of the collaboration between the libraries and the School of Geosciences

Andrew Smith, Meghan L. Cook and Matt Torrence. "Making Disciplinary Research Audible" Information Technology and Libraries Vol. 39 Iss. 3 (2020). Available at:

<https://ejournals.bc.edu/index.php/ital/article/view/12191>

USF Libraries' Research Support

Over the past year, the members of the RPT have assisted faculty in their research endeavors in a variety of ways. Matt Torrence, RPT Geosciences Librarian, performed 11 faculty consults for the department, including 2 assisting faculty in evaluating publications in preparation for promotion and tenure applications. Theresa Burress, liaison librarian to sciences on the St. Petersburg campus, provided 7 research consultations for faculty and students in Geosciences.

The RPT has also helped to create and refine a number of LibGuides that have been marketed to faculty in 2020 to assist with their research and publication. These include:

- Open Access: <https://guides.lib.usf.edu/openaccess>
- Impact: Library Tools for Promotion & Tenure: <https://guides.lib.usf.edu/promotiontenure>

These guides are for individual consultations and workshops, as well as marketed for self-guided use.

The Geosciences RPT also gave 2 workshops (open to faculty and students) on establishing and improving faculty profiles (via tools including ORCID, Selected Works/Scholar Commons, and Google Scholar). One was held in the Spring semester (10 attendees) and one in the Fall (15 attendees). Follow up surveys demonstrated that the most popular content was related to selecting which profiles to use and in which to invest time and effort. These will be repeated and further assessed in future semesters.

Areas for Programmatic Development

In summary, the USF Libraries Geosciences Annual Environmental Scans show a consistent and positive increase in Geoscience faculty and student research visibility and impact. The USF Libraries Geosciences RPT has met with the chair of the department to present activities and discuss the annual environmental scans. This has further provided the opportunity for informal informational exchange and helped to direct faculty support activities, including podcast interviews and research support.

The above summary demonstrates the USF Geosciences RPT focus on, and support of, STEM, an area of overall emphasis for USF and the related metric of degrees awarded in this area. Additionally, the Geosciences RPT supports overall USF Goals 2 and 4, with regard to high-impact research support and the emphasis on a safe, inclusive and vibrant community for learning, discovery, creative activities and transformative experiences. This is accomplished via high-value research support as service.

Areas for Future RPT Programmatic Consideration include:

- Develop efficient procedures for communication and collaboration for Geoscience librarians and faculty across the multi-campus School of Geosciences and USF Libraries.
- Continue to use and disseminate information from environmental scans and established benchmarks to help Geosciences faculty and graduate students select and target publication titles for their research based on where they might have the greatest visibility and impact.
- Promote and integrate faculty publications and collections data via Scholar Commons for open access and increased visibility and impact.
- Investigate new methods of marketing for research and impact services for faculty and graduate students with USF Libraries colleagues and partners.

Appendix

Detail Data, Earth and Planetary Sciences (SciVal):

	Overall	2015	2016	2017	2018	2019	2020
Awards Volume (count)	31	11	4	2	7	4	3
Awards Volume (value)	8056512	1827302	536302	939373	2373624	1537174	842737

	Overall	2015	2016	2017	2018	2019	2020
International Collaboration (%)	49.9	48	46.8	48	48.1	59.9	49.3
Academic-Corporate Collaboration (%)	6.8	8.7	4.5	7.6	5.9	7.6	6.8

	Overall	2015	2016	2017	2018	2019	2020
Scholarly Output	992	173	156	171	187	157	148
Scholarly Output (growth %)	-9.2						
Scholarly Output (Open Access %)	46.17						
Citations	11476	3445	2298	2361	2017	1065	290
Field-Weighted Citation Impact	1.42	1.58	1.18	1.41	1.49	1.45	1.39
Outputs in Top Citation Percentiles (top 10%, field-weighted)	16.9	17.9	13.5	18.1	18.2	16.6	16.9
Publications in Top Journal Percentiles (top 10% by CiteScore Percentile)	40.5	40.7	37.2	47.1	39.8	36.3	41.6
Citations per Publication	11.6	19.9	14.7	13.8	10.8	6.8	2
Views	25228	4713	4804	4974	5825	3330	1582
Outputs in Top Views Percentiles (top 10%)	15.4	14.5	16.7	16.4	15	17.8	12.2
Views per Publication	25.4	27.2	30.8	29.1	31.1	21.2	10.7
Field-Weighted View Impact	1.38	1.33	1.55	1.43	1.64	1.27	1

	Overall	2015	2016	2017	2018	2019	2020
Citing-Patents Count (patent office: All Patent Offices)	5	3	-	-	2	-	-
Patent-Cited Scholarly Output (patent office: All Patent Offices)	2	1	0	0	1	0	0
Patent-Citations Count (patent office: All Patent Offices)	5	3	0	0	2	0	0
Patent-Citations per Scholarly Output (patent office: All Patent Offices)	5	17.3	0	0	10.7	0	0

	Overall	2015	2016	2017	2018	2019	2020
Mass Media (Print)	757	120	93	97	203	139	105
Media Exposure Internationally recognized (Print)	39	6	5	17	3	5	3
Media Exposure Regionally recognized (Print)	12.5	3.5	1	3.5	2.5	1.5	0.5
Media Exposure Nationally recognized (Print)	68.4	6.3	5.7	4.8	29.4	14.1	8.1
Media Exposure Locally recognized (Print)	93	17.2	13.4	11.4	19.4	16.8	14.8
Media Exposure Local interest (Print)							
Field-Weighted Mass Media (Print)	2.91	2	2.8	2.3	2.7	4.8	3
Authors	518	170	171	163	166	159	176

Detail Data, Environmental Sciences (SciVal):

	Overall	2015	2016	2017	2018	2019	2020
Awards Volume (count)	43	11	9	6	9	5	3
Awards Volume (value)	12182279	2078404	2260167	1690565	3117492	1613310	1422341

	Overall	2015	2016	2017	2018	2019	2020
International Collaboration (%)	44.3	39.2	40.7	37.4	49.8	52.6	41.2
Academic-Corporate Collaboration (%)	3.5	4.4	4	2.2	2.8	4.3	3.5

	Overall	2015	2016	2017	2018	2019	2020
Scholarly Output	1227	158	150	179	249	234	257
Scholarly Output (growth %)	48.1						
Scholarly Output (Open Access %)	40.1						
Citations	14200	3368	3169	2379	2638	2030	616
Field-Weighted Citation Impact	1.45	1.41	1.51	1.31	1.48	1.63	1.34
Outputs in Top Citation Percentiles (top 10%, field-weighted)	16.4	16.5	16.7	17.3	15.3	17.5	15.6
Publications in Top Journal Percentiles (top 10% by CiteScore Percentile)	35.7	41.6	38.6	37.8	35.5	39	26.6
Citations per Publication	11.6	21.3	21.1	13.3	10.6	8.7	2.4
Views	36170	5566	5780	6126	7196	7033	4469
Outputs in Top Views Percentiles (top 10%)	25.1	23.4	29.3	25.7	21.7	29.9	22.2
Views per Publication	29.5	35.2	38.5	34.2	28.9	30.1	17.4
Field-Weighted View Impact	1.24	1.13	1.34	1.18	1.24	1.26	1.26
Citing-Patents Count (patent office: All Patent Offices)	13	9	6	2	-	-	-
Patent-Cited Scholarly Output (patent office: All Patent Offices)	10	5	3	2	0	0	0
Patent-Citations Count (patent office: All Patent Offices)	17	9	6	2	0	0	0
Patent-Citations per Scholarly Output (patent office: All Patent Offices)	13.9	57	40	11.2	0	0	0

	Overall	2015	2016	2017	2018	2019	2020
Mass Media (Print)	1044	125	152	104	180	151	332
Media Exposure Internationally recognized (Print)	41	4	10	5	10	5	7
Media Exposure Regionally recognized (Print)	16.5	5	2.5	2.5	2	1.5	3

Media Exposure Nationally recognized (Print)	72.6	6.9	8.7	6.6	26.7	13.5	10.2
Media Exposure Locally recognized (Print)	145.6	17.6	21.6	14.4	15.4	19.6	57
Media Exposure Local interest (Print)							
Field-Weighted Mass Media (Print)	2.25	0.8	4.2	1.6	0.5	1.6	4.6
Authors	1022	211	186	252	305	326	369

Detail Data, Geography & Planning (SciVal):

	Overall	2015	2016	2017	2018	2019	2020
Awards Volume (count)	N/A						
Awards Volume (value)	N/A						

	Overall	2015	2016	2017	2018	2019	2020
International Collaboration (%)	37.4	22.2	29.2	29	37.1	48.9	45.5
Academic-Corporate Collaboration (%)	3.4	3.7	4.2	3.2	2.9	4.4	2.3

	Overall	2015	2016	2017	2018	2019	2020
Scholarly Output	206	27	24	31	35	45	44
Scholarly Output (growth %)	66.7						
Scholarly Output (Open Access %)	31.07						
Citations	1517	312	275	215	244	352	119
Field-Weighted Citation Impact	1.2	0.99	0.99	0.73	1.08	1.61	1.45
Outputs in Top Citation Percentiles (top 10%, field-weighted)	13.1	14.8	12.5	3.2	11.4	17.8	15.9
Publications in Top Journal Percentiles (top 10% by CiteScore Percentile)	30.8	26.9	27.3	27.6	28.1	35.6	34.1
Citations per Publication	7.4	11.6	11.5	6.9	7	7.8	2.7
Views	5585	686	908	809	974	1290	918
Outputs in Top Views Percentiles (top 10%)	26.2	11.1	41.7	22.6	17.1	28.9	34.1
Views per Publication	27.1	25.4	37.8	26.1	27.8	28.7	20.9
Field-Weighted View Impact	1.07	0.87	1.49	0.89	0.95	1.12	1.15
Citing-Patents Count (patent office: All Patent Offices)							
Patent-Cited Scholarly Output (patent office: All Patent Offices)	0	0	0	0	0	0	0
Patent-Citations Count (patent office: All Patent Offices)	0	0	0	0	0	0	0
Patent-Citations per Scholarly Output (patent office: All Patent Offices)	0	0	0	0	0	0	0

	Overall	2015	2016	2017	2018	2019	2020
Mass Media (Print)	224	21	33	47	53	33	37
Media Exposure Internationally recognized (Print)	14	3	5	3	3	-	-
Media Exposure Regionally recognized (Print)	4.5	1	0.5	1.5	0.5	1	-

Media Exposure Nationally recognized (Print)	19.2	0.6	1.8	2.7	7.5	3.3	3.3
Media Exposure Locally recognized (Print)	27.4	2.8	4.2	6.4	4.8	4	5.2
Media Exposure Local interest (Print)							
Field-Weighted Mass Media (Print)	1.45	0.9	1	2.8	1.7	0.6	1.7
Authors	230	49	43	44	51	54	65