



UNC Chapel Hill Local Faculty
Survey:
Analytical Memo of Findings

Overview

The following memorandum provides an analytical narrative of the results of the 2013 Ithaka S+R Local Faculty Survey, which was administered at UNC Chapel Hill to 3,805 faculty members. The survey instrument covers many scholarly research and teaching-related topics, overlapping with the 2012 Ithaka S+R U.S. Faculty Survey, and in part overlapping with other previous iterations of the Ithaka S+R U.S. Faculty Survey. This analysis covers topics in several key areas, including: how faculty members discover scholarly content for research; faculty members' digital research activities and methodologies; their data preservation and management practices; research dissemination; and the role of the library in supporting faculty members' needs. This document also provides an analytical overview of a new health sciences module, which was co-developed by Ithaka S+R and UNC Chapel Hill. The health sciences module covers the role of various types of clinical decision support tools and resources and pedagogical expectations in clinical teaching environments.

In addition to an analysis of the UNC Chapel Hill findings, comparisons are also drawn against the 2012 U.S. Faculty Survey.¹ For additional context in interpreting the UNC Chapel Hill findings, we also present the aggregate national-level results by UNC Chapel Hill's Carnegie Classification (Research Universities – very high research activity, or “RU/VH” referred to by the standard abbreviation “R1” below in the report). The 2012 Faculty Survey was the fifth iteration of this survey that Ithaka S+R has run triennially since 2000. In 2012, Ithaka S+R sent email invitations to 160,008 randomly selected faculty members in the U.S., and received 5,261 completed responses, including 1,708 completed responses from faculty members across 96 of the 108 institutions classified as R1s under the Carnegie framework.

During fall 2013, all UNC Chapel Hill faculty members received an email invitation to participate in a survey about the impact of electronic technologies on their research and teaching. Two reminders were sent until the close of the survey. In total, 649 respondents completed the survey, for an overall response rate of 17%. However, response rates varied greatly at the sub-group level. A total of 293 health scientists completed the survey (13%), compared with 356 non-clinical faculty members in other disciplines (24%). As a consequence of the disparity with regard to the response rates, especially among health scientists, we also report findings at the disciplinary level for further context.

Due to the survey flow and skip patterns, not all UNC Chapel Hill faculty member respondents (referred to as “UNC Chapel Hill faculty members” below) received every question in the survey instrument.

¹ Ross Housewright, Roger C. Schonfeld, and Kate Wulfson, Ithaka S+R U.S. Faculty Survey 2012, (New York: Ithaka S+R, 2013), available at <http://www.sr.ithaka.org/research-publications/us-faculty-survey-2012>
Ithaka S+R Local Faculty Survey:

Discovery

When exploring the scholarly literature, a substantially greater share of respondents at UNC Chapel Hill start at the library's online catalog (30%) compared with the share of faculty members nationally (21%), and this difference is even greater when compared with the share of faculty members nationally at R1 institutions (18%). UNC Chapel Hill faculty members also diverge from their peers nationally in their use of the other two possible online starting points regarding the discovery of scholarly content. Forty-one percent of UNC Chapel Hill respondents report starting their search for academic literature at a specific electronic research resource or computer database, when compared with 46% of faculty members at R1 institutions nationally. Additionally, 28% of UNC Chapel Hill faculty members report starting at a general purpose search engine, compared with 34% of their peers nationally.

However, sub-group analyses demonstrate the importance of disciplines in shaping or contributing to scholarly discovery practices at UNC Chapel Hill. The practices of health science faculty members at UNC Chapel Hill align more closely with their peers nationally than with their UNC Chapel Hill colleagues. This is highlighted by the 51% of health science respondents who indicate that they start their search for scholarly literature at a specific electronic research resource or computer database compared with the 21% of health science respondents who indicated that they start at the library's online catalog. The discovery practices of natural science and mathematics respondents are also more in line with health scientists than with other faculty members, with 46% of natural scientists reporting that they start their search for scholarly literature at a specific electronic research resource or computer database and only 18% indicating that they start at the library's online catalog. Interestingly, over half (51%) of fine arts and humanities respondents indicate that they start at the library's online catalog compared with 38% of social and behavioral science respondents.

The library's online catalog is also the primary discovery tool for "locating a specific piece of scholarly literature that" faculty members "already know about but do not have in hand," with 41% of respondents indicating that they start at the UNC Chapel Hill library's website. This share is consistent with the national results (42%) and is also consistent with the national results for R1 universities (41%). However, health science faculty members at UNC Chapel Hill again diverge from other faculty members, with 50% indicating that they start their search for specific items that they "already know about but do not have in hand" at a specific scholarly database or search engine. Differences at the sub-group level again reflect quite a large gap between fine arts and humanities faculty members compared with other disciplinary groupings of respondents regarding discovery practices. Sixty-six percent of humanists start their search for specific items that they "already know about but do not have in hand" at the UNC Chapel

Hill library's online catalog, compared with 44% of social scientists, 33% of health scientists, and 33% of natural scientists.

This matches well with the 51% of fine arts and humanities respondents who indicate that they start at the library's online catalog when exploring the scholarly literature to "find new journal articles and monographs," compared with 31% of social and behavioral science respondents and 23% of health science respondents. Health scientists remain consistent with the 26% of faculty members nationally and 21% of faculty members nationally at R1 universities who indicated that they start at their library's website when searching for new articles or books. A surprisingly small minority of natural science and mathematics respondents (10%) indicate that they start their searches for new scholarly articles or books at the library's website. A greater share of health science respondents (61%) and natural science and mathematics respondents (59%) indicate that they begin their search for new articles and books at a specific scholarly search engine compared with the share of social scientists (41%) and the share of humanists (38%).

Digital research methods and activities

In general, UNC Chapel Hill faculty members utilize a variety of quantitative and computational research methods in roughly similar levels as the share of faculty members at R1 universities nationally, with analysis of quantitative data generated oneself the most common method. Only a small minority of UNC Chapel Hill faculty members (20%) indicate that digital research methods are not valuable to the type of research that they conduct. By contrast, 70% of faculty members nationally, and 72% of R1 faculty members nationally, indicate that digital research methods are not valuable or important to the type of research that they perform.

However, UNC Chapel Hill faculty members' use of these types of data varies greatly across disciplines. A much greater share (71%) of health science respondents and natural science and mathematics respondents (81%) generate and analyze their own quantitative data in the course of their research, compared with 46% of social and behavioral science respondents and only 23% of fine arts and humanities respondents. Although this difference may be explained as a function of disciplinary norms, a substantial share of UNC Chapel Hill faculty members also believe that they do not have sufficient technical skills to effectively integrate digital activities and methodologies more deeply into their work (39%).

Data preservation and management

The UNC Chapel Hill library's data preservation and management role appears to be changing in ways that reflect a growing demand among faculty members for data-specific types of research

and storage services. A slightly smaller share of UNC Chapel Hill faculty members (77%) indicate that they “accumulate scientific, qualitative, quantitative, or primary source research data” in the course of their research, compared with 78% of faculty members nationally and 79% of faculty members at R1 universities nationally. However, UNC Chapel Hill faculty members’ accumulation of these types of data varies across disciplines. Eighty-two percent of health scientists report that they accumulate these types of research data, compared with 82% of social scientists, 73% of humanists, and 74% of natural scientists.

A greater share of faculty members (82%) report using data or datasets that they collect themselves as opposed to all other types of datasets, but half (50%) of UNC Chapel Hill respondents report that data that are freely available online are also important to their research. This is consistent with the high share of faculty members who reported analyzing quantitative data that they generate in the course of their research as their most common method. This finding remains consistent at the disciplinary level.

A majority of UNC Chapel Hill faculty members (69%) prioritize the “ability to update existing datasets with new data” as the most important feature regarding the preservation and management of research data, whereas the feature that is least prioritized among faculty members (41%) is open or public domain access to their data or datasets. However, these priorities vary by discipline, with 73% of health science respondents and 74% of natural science and mathematics respondents prioritizing a data management feature that allows for the ability to update existing datasets, compared with 65% of social and behavioral science respondents and 55% of fine arts and humanities respondents. A much smaller share of humanists (25%) are concerned about having the ability to make their data freely available to the public, compared with 40% of health scientists, 43% of social scientists, and 53% of scientists.

A large majority of UNC Chapel Hill faculty members (79%) indicate that they often organize or manage their data on personal computers. About 25% of respondents report they “find it difficult” to manage their data or datasets. A very small minority of faculty members (4%) report that the UNC Chapel Hill library manages their data on their behalf. However, these practices also vary substantially by discipline, with greater shares of humanists (90%) and social scientists (89%) reporting that they use their own computers to manage their data than the shares of health scientists (70%) and natural scientists (81%). Much larger shares of humanists (40%) and social scientists (35%) manage their data on cloud storage devices, compared with the shares of health scientists (19%) and natural scientists (22%). A much smaller share of natural scientists (16%) find it difficult to manage their data, compared with health scientists (24%), social scientists (30%) and humanists (31%).

In the aggregate, UNC Chapel Hill faculty members report that they value a variety of support services for their data preservation and management needs, with the UNC Chapel Hill IT

department and freely available software ranked as the most valuable support providers. However, sub-group analyses offer a more compelling portrait of faculty members' views regarding the value of various data preservation and management service providers. A large majority of humanists (69%) report that the UNC Chapel Hill library offers the most valuable support for their data preservation and management needs, compared with health scientists (41%), social scientists (46%), and natural scientists (25%). A greater share of health scientists (49%) report that they value a disciplinary or departmental repository at UNC Chapel Hill, compared with humanists (40%), natural scientists (35%), and social scientists (30%). More than half of the health science (51%) and half of fine arts and humanities (50%) respondents report that they value freely available software for data management, compared with 49% of natural science and mathematics respondents and 46% of social and behavioral science respondents.

Regarding data preservation methods, a large majority of UNC Chapel Hill faculty members (79%) report preserving the materials themselves "using freely available software or services," which is consistent with faculty members nationally (78%), and with faculty members at R1 institutions nationally (80%).

Research dissemination

UNC Chapel Hill faculty members' research dissemination priorities appear to be slightly more oriented to the general public than their peers nationally and among R1 institutions in particular. A higher share of UNC Chapel Hill faculty members (35%) see the general public as a very important audience for their research, compared with the share of faculty members nationally (31%) and the share of R1 faculty members nationally (28%). In addition, a higher share of UNC Chapel Hill faculty members (58%) see professionals outside of academia as a very important audience, compared with the share of faculty members nationally (52%) and the share of R1 faculty members nationally (48%). However, UNC Chapel Hill faculty members are still similar to their peers nationally in seeking an audience for their research consisting principally of other scholars in their own field or discipline.

Consequently, peer reviewed journals, monographs, and conference proceedings, are the channels used by the most faculty members to share their research findings. Indeed, their audience prioritization even shapes faculty members' priorities for selecting journals in which to publish their research. The three most important characteristics in selecting a journal are: wide circulation and reading by scholars in one's field; a high impact factor and excellent academic reputation; and an average of coverage closely aligned with one's immediate area of research.

UNC Chapel Hill faculty members appear uncertain whether they would wish to have publishing support services of the type that the library might be well positioned to provide. The most

popular such service, with 63% indicating that it could be at least somewhat valuable, was managing one's public web presence, including links to recent scholarship and contact information. A slightly smaller share value other types of scholarly communications services, including advisory and analytics support with respect to publishing.

Health sciences

In support of patient care, UNC Chapel Hill health science respondents report that they utilize a variety of clinical decision support tools, with full-text versions of scholarly journals and journal articles the most important resource, and evidence-based scholarly materials or databases ranking a close second in importance. This matches well with the 78% of respondents who indicate that they can “almost always get satisfactory access” to the research support tools and resources they need when they are interacting with patients. A minority share of clinicians rely on plain language or easy-to-read materials when interacting with patients (33%), and only one-quarter of respondents use complementary and alternative medicine materials or databases.

Health science respondents at UNC Chapel Hill received an additional question regarding their research activities involving interdisciplinary and cross-institutional collaboration. Almost all (95%) health science respondents report that they often or occasionally collaborate with colleagues in their field or discipline at UNC Chapel Hill, but they are more likely to collaborate with colleagues in their field or discipline than with colleagues outside their field or discipline, and this ratio remains constant for a variety of collaboration scenarios despite barriers such as geographical location or institutional affiliation. For example, 53% of health scientists report that they collaborate with colleagues in their field or discipline located in other countries, compared with 33% of health scientists who report that they collaborate with colleagues outside their field or discipline located in other countries.

Health science and clinical faculty members have a complicated understanding of the role of the library in supporting their research, teaching, and patient care needs. A large majority of health science respondents (72%) believe that the primary responsibility of the library should be providing access to “any scholarly materials in print or digital form” that they may need for their research or teaching. By contrast, a much smaller share of respondents (57%) indicate that they are highly dependent on the library regarding the research they conduct. Additionally, a relatively small share of clinicians (15%) report consulting with health science librarians when they are interacting with patients at the point of care.

However, more than three-fourths of respondents (77%) report that the UNC Chapel Hill health science library's services for instructional support are extremely important to their clinical or health science courses. This is highlighted by the 79% of health scientists who report that

“evidence based scholarly materials and databases are valuable instructional resources for teaching clinical or health science courses,” as well as the 77% who expect their students to “locate and use evidence based scholarly materials in their coursework and research projects beyond” what they directly assign; although only 27% of respondents report believing that it is principally the health science library’s responsibility to develop the research skills of their students related to locating and evaluating the latest available evidence. Overall, it appears that interaction with librarians may not be the most significant feature in their actual impact. Rather, occasional opportunities to work in partnership with health science faculty members in supporting student learning are significant.

The role of the library

The highest share of UNC Chapel Hill faculty members (93%) indicate that paying for resources they need, from academic journals to books to electronic databases, is a very important role of the library – what Ithaka S+R refers to as the “buyer” role. Two other roles are also valued highly by over three-fourths of respondents. First, 76% of UNC Chapel Hill faculty members value the library as a starting point or gateway for locating research information, which is consistent with the finding that a greater share of UNC Chapel Hill faculty members starts their search for scholarly literature at the library’s website than the share of faculty members at R1 institutions nationally. The share of UNC Chapel Hill faculty members who view the library as a gateway for the discovery of scholarly content is also substantially higher than the share of faculty members nationally (67%) and the share of faculty members at R1 institutions nationally (61%). A key insight of this finding is that the UNC Chapel Hill library provides uniquely exceptional discovery services, which are greatly valued by faculty members.

Second, and of note, is that a higher share of UNC Chapel Hill faculty members value the library’s role in serving as a repository or archive of resources (75%), compared with the share of faculty members nationally (64%) and the share of R1 faculty members nationally (68%). This provides additional evidence suggesting that the UNC Chapel Hill library may be situated to partner with other campus service providers in providing more integrated and comprehensive research support services.

It is also worth noting that a greater share of humanists (48%) values the library’s role in supporting undergraduate learning, compared with social scientists (36%), health scientists (33%), and natural scientists (27%); although these shares are lower than the share of R1 faculty members nationally (49%) who value the library’s instructional support role. More than half of UNC Chapel Hill faculty members also believe that the library plays a significant role in developing undergraduates’ information literacy skills, although this is not among faculty members’ top priorities.

In general, UNC Chapel Hill's faculty members are strongly supportive of the library and its staff. Only a small share of faculty members believes, and 52% do not believe, that the library is becoming much less important because of easy access to content online. An even higher share of UNC Chapel Hill faculty members strongly disagrees that colleges and universities should redirect the money spent on library buildings and staff to other needs.

However, the level of support does vary substantially across disciplines, with 21% of natural scientists and 18% of health scientists reporting that they believe the library is becoming much less important, compared with 13% of social scientists and 10% of humanists. Interestingly, these shares are all lower than the share of faculty members (23%) at R1 institutions nationally who believe that the library is becoming much less important due to online access.

A key implication of this analysis is that the importance of the library's role in supporting faculty members' research needs is well established at UNC Chapel Hill, particularly among humanists. However, the connections between faculty members' data collection practices and needs, and the availability of an adequately integrated data management support system including the library, is somewhat tenuous when considering disciplinary-level differences, especially among natural and health scientists. We discussed the research support role above at greater length, but here it may be worth noting that this role (at 57% indicating they are very dependent on the library for conducting research) matches well with the support of one's research activities (58%).

Ithaka S+R believes that these topics are among those that are valuable to track for change over time.