
IMPROVING FORENSIC SCIENCE INFORMATION SEEKING

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PROJECT JUSTIFICATION

- Anecdotal responses from former students and other colleagues in the forensic sciences indicated issues related to finding and accessing quality information when no longer affiliated with a university
- A review of the literature revealed very few studies about how forensic scientists seek, find, and access information
- Seeks to fill a gap by systematically collecting information about information seeking experiences from forensic science professionals

PREVIOUS WORK

An Improved Forensic Science Information Search

REFERENCE: Teitelbaum J: An improved forensic science information search; *Forensic Sci Rev* 27:41; 2015.

ABSTRACT: Although thousands of search engines and databases are available online, finding answers to specific forensic science questions can be a challenge even to experienced Internet users. Because there is no central repository for forensic science information, and because of the sheer number of disciplines under the forensic science umbrella, forensic scientists are often unable to locate material that is relevant to their needs. The author contends that using six publicly accessible search engines and databases can produce high-quality search results. The six resources are Google, PubMed, Google Scholar, Google Books, WorldCat, and the National Criminal Justice Reference Service. Carefully selected keywords and keyword combinations, designating a keyword phrase so that the search engine will search on the phrase and not individual keywords, and prompting search engines to retrieve PDF files are among the techniques discussed.

KEYWORDS: Databases, forensic science information, Google, Google Books, Google Scholar, Internet, National Criminal Justice Reference Service, online searching, PubMed, PubMed Central, search engines, Web of Science, WorldCat.

INTRODUCTION

Forensic science information does not lend itself to simple online location and retrieval. In any given week, it might be necessary for a forensic library to access 30 or 40 different databases to find the information required for casework requests, due to the fact that there is no central repository for forensic science information. The multiplicity of disciplines (toxicology, DNA, chemistry, trace analysis, firearms, latent prints), plus innumerable

publication. A basic Google search will not necessarily be fruitful.

If you want to search the *Journal of Forensic Sciences (JFS)*, one of the premier forensic journals in the field and the official journal of the American Academy of Forensic Sciences (AAFS), it would seem it should be a simple matter, but it is not. A logical start would be the journal's commercial website, and a quick search leads to its publisher, the Wiley Online Library. A search on a specific topic would generate very few, if any, results.

AAFS 2016 Workshop #1 Forensic Science Literature

Information Does Exist Beyond the First Page of Your Google® Search! Tools and Strategies for Forensic Science Literature Searching and Use

Half-day workshop at AAFS meeting in Las Vegas, NV
Monday, February 22, 2016 - Rio All-Suite Hotel & Casino

Chair:

John M. Butler (NIST Special Programs Office)

Co-Chair:

Matthew R. Wood (Ocean County NJ Sheriff's Department Forensic Science Laboratory)

Faculty:

John M. Butler (NIST Special Programs Office)

Jeff Teitelbaum (Washington State Patrol Forensic Science Library Services)

Susan Makar (NIST Information Services Office)

Amanda Malanowski (NIST Information Services Office)

Melissa Taylor (NIST Special Programs Office)

Teitelbaum J. An improved forensic science information search. *Forensic Sci Rev.* 2015;21:41-52.

Butler JM, Teitelbaum J, Makar S, Malanowski A, Taylor MK, Wood MR. Information does exist beyond the first page of your Google search!: Tools and strategies for forensic science literature searching and use. Workshop presented at: American Academy of Forensic Science 2016 Annual Scientific Meeting; February 22-27, 2016; Las Vegas, NV.

SURVEY AND INTERVIEWS

- 2017 Survey to AAFS listserv to investigate forensic science professionals' information search strategies
- 333 completed surveys of multiple choice and open response questions
- Interviews conducted at two crime labs on search strategies and information needs
- Data Analysis: Analysis of Variance followed by Kruskal-Wallis, Dunn Post-Hoc Test performed in R 3.5.1 "Feather Spray"

Survey Questions that Came Up Significant:

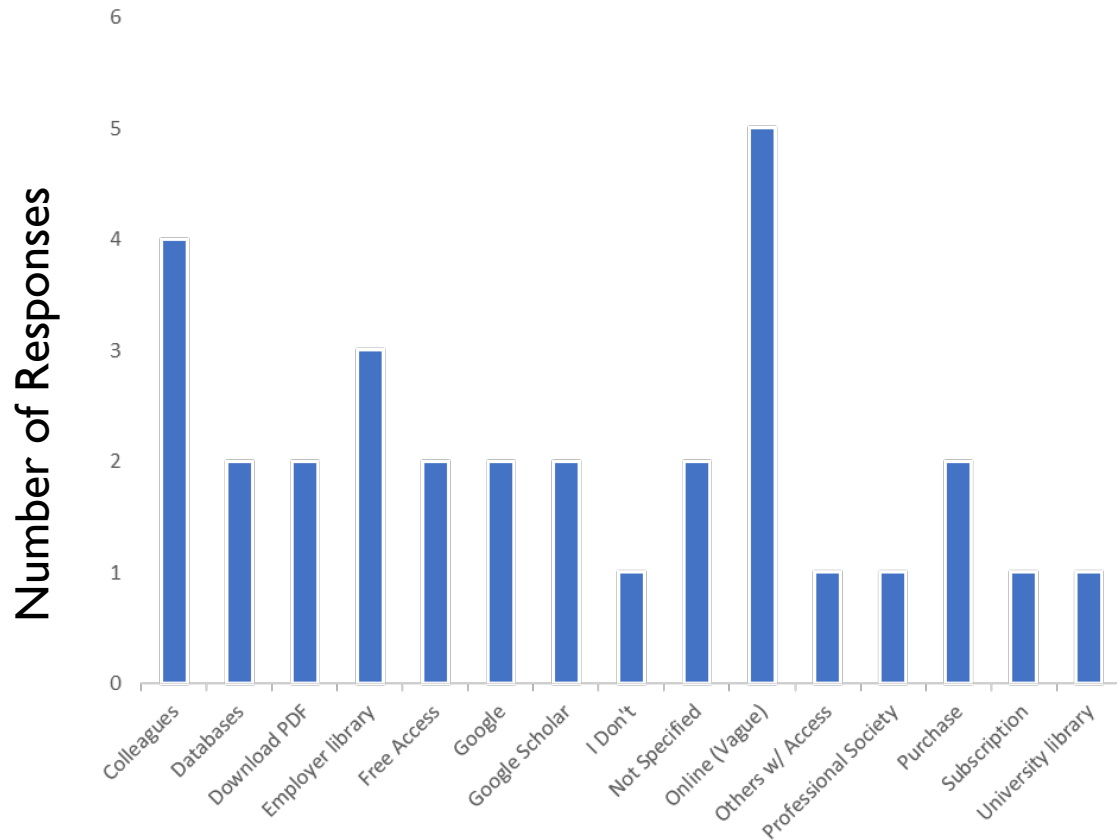
How do you get the literature you need?

How do you access articles you cannot get freely online?

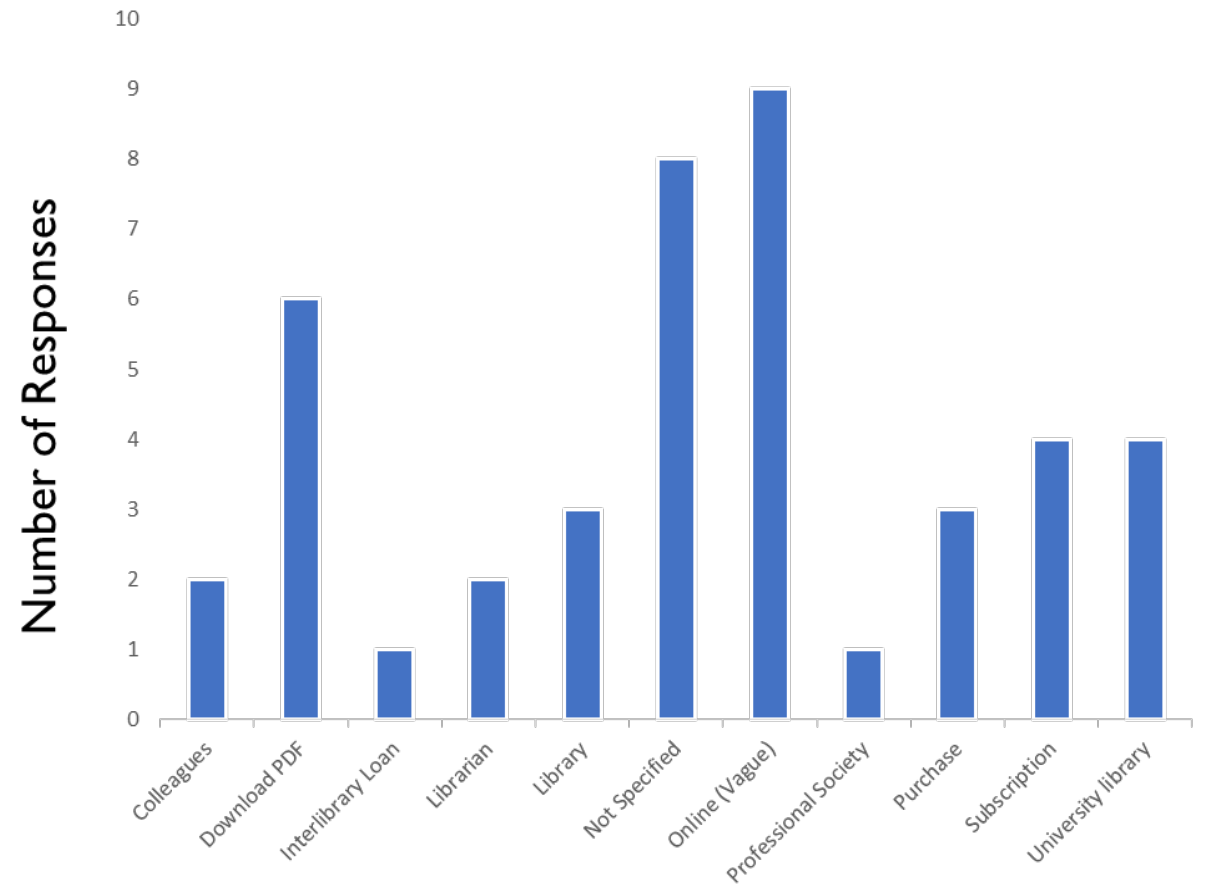
HOW RESPONDENTS ACQUIRE LITERATURE THEY NEED

P=0.04254

1-4 Years in Field

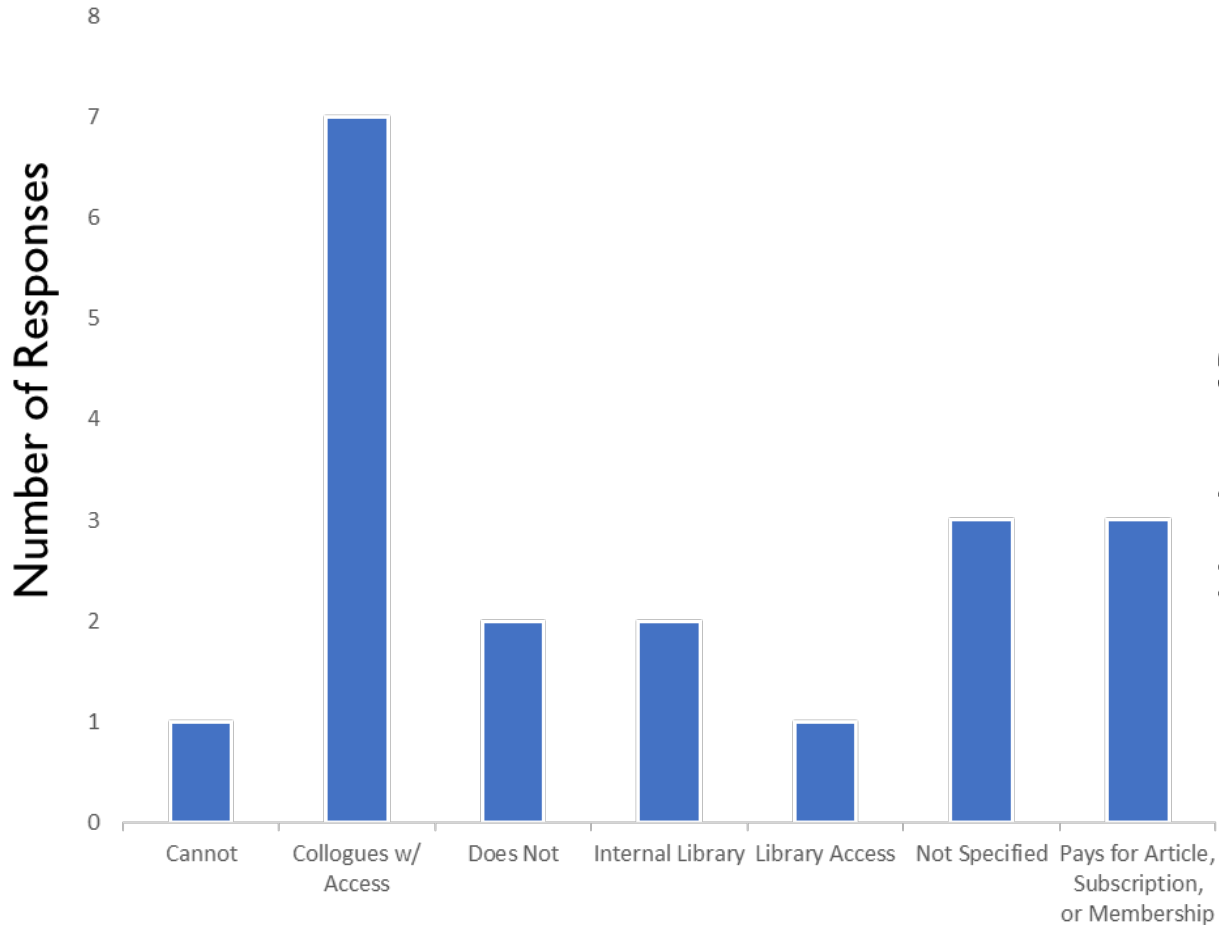


30-39 Years in Field

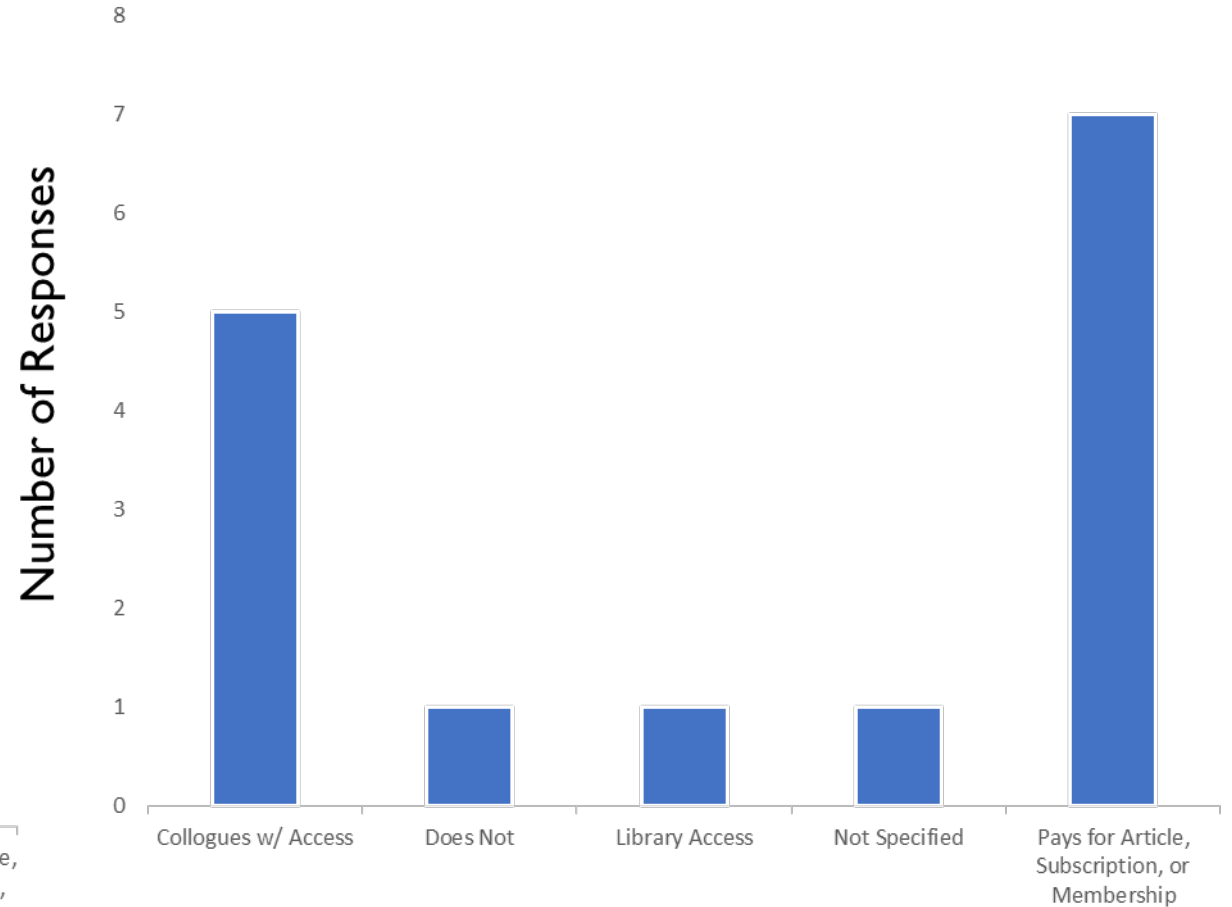


HOW RESPONDENTS ACCESS ARTICLES THAT ARE NOT FREELY AVAILABLE P=0.01352

1-4 Years in Field



30-39 Years in Field



FRUSTRATIONS

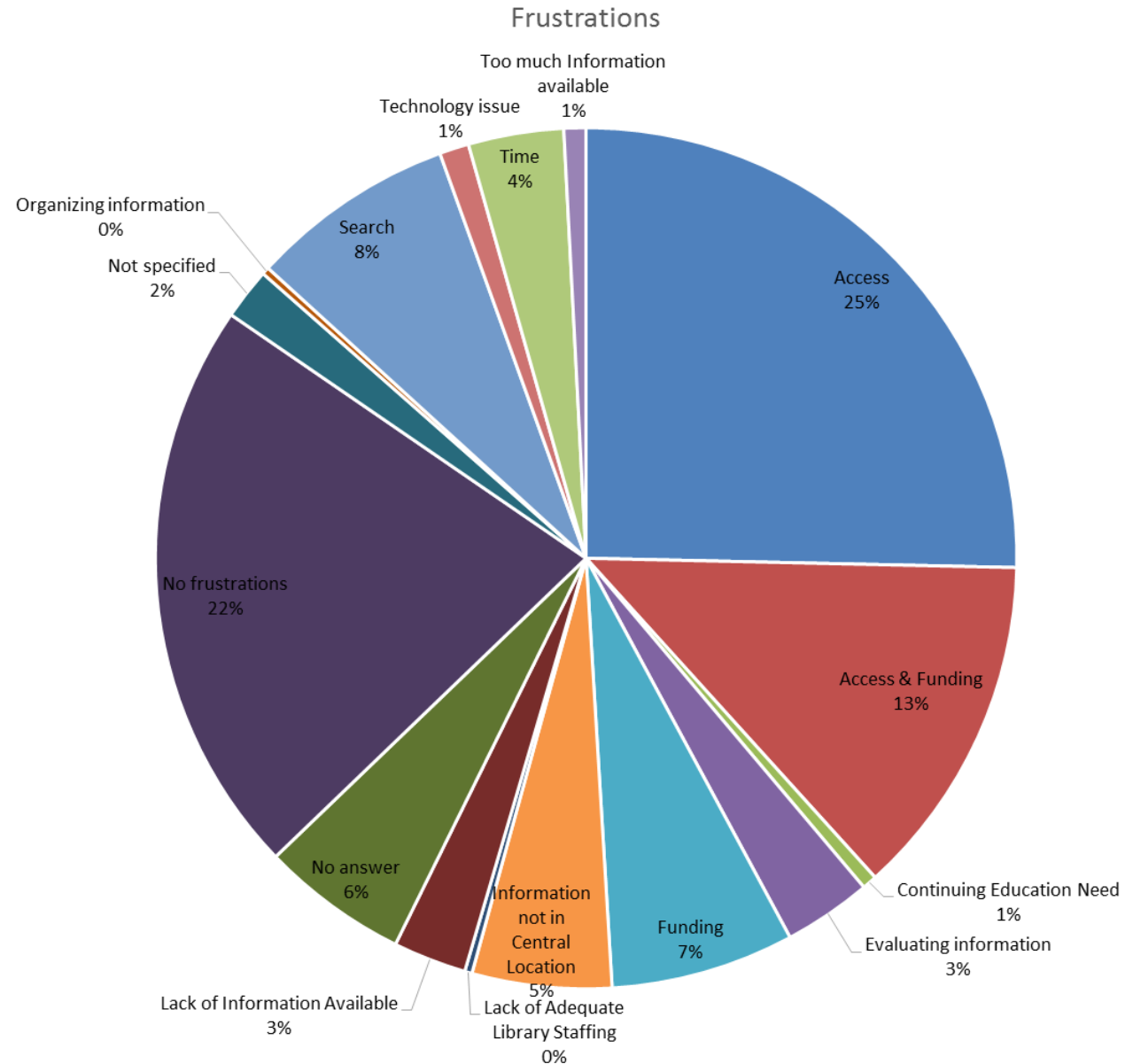
Time

- too much information to go through
- information needed is scattered in multiple places

Access

- cannot find information needed
- cannot afford to purchase information needed

Frustrations in searching are not field or time in field specific.



CONCLUSIONS

- Time in field influenced how information was accessed
- Individuals with more time in their field tend to utilize more library resources compared to those earlier in their careers who tend to rely more on free internet based resources
- The way individuals obtain literature was not dependent on what field an individual worked in
- University Librarians should teach forensic science students effective search strategies and where to search to find open access, freely available materials
- Forensic Science students need to be taught that research is more challenging outside the university setting and because of specializations - so expecting a one-size-fits-all forensic science information portal is unrealistic
- Future studies should do similar analyses based on type of crime lab, e.g., federal, state, or local, as well as size of crime lab

TIPS

- Can search just government domain web sites at <https://www.usa.gov/> (searches federal, state, and local government websites)
- For scholarly journals search Google Scholar rather than just Google - <https://scholar.google.com/>
 - Make use of advanced searching features within Google Scholar to narrow down your search
 - Within Google or Google Scholar, use Google's search operators, such as site: to search specific sites or domains, quotation marks for phrase searching, or a minus sign to exclude words from your search
- Make use of other freely available databases such as PubMed, TOXNET, TOXLINE, PubAg, or the AFTE Journal index
- Before you pay: contact a local public university or public library for access to scholarly articles

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