2005 MLA Annual Meeting

Symposium “The Role of Information Services in Emergency Preparedness Planning”
Information Needs Panel – What Are the Information Needs of First Responders?

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Abstract

• Report a Survey of Practices in Six Selected Libraries that Represent Significant Contributors of Information Services to Fire Professionals, Including Fire Service Personnel as First Responders and Researchers in the United States
• Entitled “A Survey to Support ‘Evidence-Based Practice’ in Special Libraries Serving Fire Service Personnel and Researchers in Public Safety and Homeland Security Areas”
• Funded by the 2003 SLA Steven I. Goldspiel Memorial Research Grant and Campus Research Board Award, University of Illinois at Urbana-Champaign
• Focused on Evidence-Based Research
• Expanded Our Knowledge About the Value and Impact of Information Services Provided by Special Libraries and the Special Librarians Who Manage Them for Firefighters and Researchers in the Fire Service
• Used the Chicago, Rochester and SLA Study Instruments as the Basis for Designing Questionnaires to Measure the Impact of Library-Supplied Information on Practical Decision-making and Applied Research
• Built the Knowledge Base of Special Librarianship, Particularly Demonstrating the Library’s Critical Roles in Public Safety and Homeland Security
Statement of the Problem

• Efficient Management of Information: An Important Component of Public Safety and Homeland Security
• How Do Special Libraries Serving Fire Professionals Fit into This Component?
• Are They Used?
• Valued?
• Are They Efficiently Organized to Give Maximum Access to Their Resource Collections?
• What Impact Have Special Libraries Made on Information Use by Fire Professionals in Their Decision-Making?
## Participating Fire Libraries

<table>
<thead>
<tr>
<th>Fire Library-Training</th>
<th>Fire Library-Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) New York State Department of State’s Office of Fire Prevention and Control, Academy of Fire Science</td>
<td>1) National Fire Protection Association (NFPA)</td>
</tr>
<tr>
<td>2) Illinois Fire Service Institute, University of Illinois at Urbana-Champaign</td>
<td>2) Fire Protection Publications/Oklahoma State University</td>
</tr>
<tr>
<td>3) Fire/EMS/ Safety Center-Minnesota State Colleges and Universities</td>
<td>3) Oklahoma City National Memorial Institute for the Prevention of Terrorism</td>
</tr>
</tbody>
</table>
Participating Fire Libraries

• Differed somewhat by Site, But Remarkably Consistent in Many Areas
• The Remaining Three Libraries: Unique Collections on Research
ILLINOIS FIRE SERVICE REALITIES

1,293 Fire Departments

42,675 Firefighters (Paramedics)
  • 8,600 Officers
  • 13,300 Paid

70% of all Departments are VOLUNTEER / PAID ON CALL

20% Turnover Rate
50th Fire College – Parade
## Characteristics of Participating Libraries

<table>
<thead>
<tr>
<th>Organization</th>
<th>Monographs</th>
<th>Serials</th>
<th>Non-print ¹</th>
<th>E-resources</th>
<th>Archives</th>
<th>Librarians</th>
<th>Support staff</th>
<th>Square feet</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5,100</td>
<td>95</td>
<td>3,070</td>
<td>No Answer</td>
<td>No Answer</td>
<td>1</td>
<td>0</td>
<td>3,000</td>
<td>10,517</td>
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<tr>
<td>B</td>
<td>4,165</td>
<td>385</td>
<td>3,115</td>
<td>307</td>
<td>218</td>
<td>2</td>
<td>4</td>
<td>1,193</td>
<td>55,763</td>
</tr>
<tr>
<td>C</td>
<td>4,065</td>
<td>153</td>
<td>648</td>
<td>8,077 ²</td>
<td>202</td>
<td>1</td>
<td>1</td>
<td>1,500</td>
<td>20,000</td>
</tr>
<tr>
<td>D</td>
<td>10,923</td>
<td>230</td>
<td>334</td>
<td>No Answer</td>
<td>Historical archives</td>
<td>1</td>
<td>2</td>
<td>2,412</td>
<td>141,500</td>
</tr>
<tr>
<td>E</td>
<td>9,000</td>
<td>150</td>
<td>3,000</td>
<td>No Answer</td>
<td>Manuscripts &amp; photographs</td>
<td>1</td>
<td>1</td>
<td>5,000</td>
<td>36,000</td>
</tr>
<tr>
<td>F</td>
<td>2,724</td>
<td>22</td>
<td>93</td>
<td>494</td>
<td>No Answer</td>
<td>1</td>
<td>4</td>
<td>285</td>
<td>No Answer</td>
</tr>
</tbody>
</table>

Note: 1. Non-print materials include videotapes, CD-ROMs, DVDs, slides, and transparencies. 2. Netlibrary ebooks.
Methodology

Questionnaire Development

• Designed the Questionnaire to Measure the Impact of Information Provided by the Special Library on Fire Emergency Responses Related to Homeland Security and Public Safety
• Focus Specifically on the Impact of Information on Decision-making Behavior rather than Specific Time or Monetary Savings
• Collected a Combination of Quantitative and Qualitative Data
## Study Sample and Usable Returns

<table>
<thead>
<tr>
<th>Organization</th>
<th>User Population</th>
<th>Total Response</th>
<th>Format</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2000</td>
<td>59</td>
<td>39</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>2300</td>
<td>143</td>
<td>63</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>250</td>
<td>47</td>
<td>36</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>1440</td>
<td>53</td>
<td>43</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>152</td>
<td>28</td>
<td>26</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>F*</td>
<td>10</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Unspecified</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Through Web</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responses)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Summary Total</strong></td>
<td><strong>343</strong></td>
<td><strong>212</strong></td>
<td><strong>131</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** *The Library F only has a few walk-in patrons. There are about 40,000 hits on the library website each month. Even though the survey questionnaire was linked to the website, no response was received from this channel.*
Characteristics of Survey Respondents
Organization Type

Q3-Organization Type (N=338)

- Fire Service: 67%
- Other Organization: 31%
- No Answer: 2%
Characteristics of Survey Respondents
Degrees Obtained

Q7-Highest Degree Previously Earned (N=337)

- Highschool: 25%
- Undergraduate: 48%
- Master’s: 13%
- Doctorate: 4%
- Other: 8%
- No Answer: 2%
Characteristics of Survey Respondents

Usage of the Library

Q26-How often have you used the library in the past 12 months? (N=340)

- At least once a month but not weekly: 57%
- Not at all last year: 10%
- Once a week or more often: 9%
- At least once last year but not monthly: 24%
- At least once a month but not weekly: 57%
Identified Information Need: **Selected Questions Survey**

Respondents Asked in the Current and Previous 12 Months

<table>
<thead>
<tr>
<th>Question</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Research information for classes I was teaching.</td>
<td></td>
</tr>
<tr>
<td>2) Training information to present to a college class on the chemistry and physical of fire.</td>
<td></td>
</tr>
<tr>
<td>3) I had a list of books needed for a [n] upcoming Lt. Test.</td>
<td></td>
</tr>
<tr>
<td>4) A literature review for a project designed to mitigate behaviors associated with fatal smoking fires.</td>
<td></td>
</tr>
<tr>
<td>5) Information on the heat stress study.</td>
<td></td>
</tr>
<tr>
<td>6) Requested use of emergency response to terrorism instructor materials</td>
<td></td>
</tr>
</tbody>
</table>
Identified Information Need:

Sample Questions on Subject Areas

<table>
<thead>
<tr>
<th>Subject Areas</th>
<th>Sample Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Growth</td>
<td>1. Books to be used with the promotional process.</td>
</tr>
<tr>
<td></td>
<td>2. Books/video tapes for a promotional exam.</td>
</tr>
<tr>
<td>Info (General)</td>
<td>1. Information on copyright laws and standard forms used.</td>
</tr>
<tr>
<td></td>
<td>2. Assistance with overhead transparencies.</td>
</tr>
<tr>
<td>Training, Teaching</td>
<td>1. Reference books to students to use for classes.</td>
</tr>
<tr>
<td></td>
<td>2. Videos for a class. Research information for classes I was teaching.</td>
</tr>
<tr>
<td>Research</td>
<td>1. I need to research the history of the NFPA Standards Council.</td>
</tr>
<tr>
<td></td>
<td>2. What are various service levels for pedestrian movement as presented in J. Fruins research?</td>
</tr>
<tr>
<td></td>
<td>2. Information on how EMS [Emergency Medical Services] providers should respond to terrorism.</td>
</tr>
<tr>
<td>Fire Service</td>
<td>1. Information on arson.</td>
</tr>
<tr>
<td></td>
<td>2. Videotapes showing live fires.</td>
</tr>
</tbody>
</table>
Identified Information Need: **Subject Areas Asked by the Respondents**

Q1—Please briefly state the question you asked (N=323)

- Miscellaneous: 7
- Personal growth: 4
- Info (general): 49
- Training, Teaching: 6
- Research: 63
- Homeland Security: 27
- Fire Service: 167
## Importance of Different Information Sources

(A scale of 1 to 5 where 1=not very important at all; 2=of some importance; 3=of considerable importance; 4=of great; 5=of greatest importance)

<table>
<thead>
<tr>
<th>Sources</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your own files</td>
<td>30</td>
<td>47</td>
<td>84</td>
<td>81</td>
<td>88</td>
<td>330</td>
<td>3.45</td>
<td>1.27</td>
<td>4</td>
</tr>
<tr>
<td>Your own experience</td>
<td>29</td>
<td>28</td>
<td>88</td>
<td>88</td>
<td>97</td>
<td>330</td>
<td>3.59</td>
<td>1.24</td>
<td>4</td>
</tr>
<tr>
<td>Internet</td>
<td>15</td>
<td>28</td>
<td>88</td>
<td>131</td>
<td>64</td>
<td>326</td>
<td>3.62</td>
<td>1.04</td>
<td>4</td>
</tr>
<tr>
<td>Colleagues Inside the organization</td>
<td>14</td>
<td>25</td>
<td>79</td>
<td>121</td>
<td>89</td>
<td>328</td>
<td>3.75</td>
<td>1.07</td>
<td>4</td>
</tr>
<tr>
<td>Colleagues Outside the organization</td>
<td>25</td>
<td>48</td>
<td>70</td>
<td>110</td>
<td>71</td>
<td>324</td>
<td>3.48</td>
<td>1.20</td>
<td>4</td>
</tr>
<tr>
<td>Library</td>
<td>10</td>
<td>15</td>
<td>55</td>
<td>101</td>
<td>154</td>
<td>335</td>
<td>4.12</td>
<td>1.03</td>
<td>4</td>
</tr>
</tbody>
</table>
Importance of Different Information Sources

Your own files
Your own experience
Internet
Colleagues inside the organization
Colleagues outside the organization
Library
How Did Libraries Respond to That Need? Library’s Quick Response

Q29-Did the library respond to your request quickly enough? (N=343)

- Yes--97%
- No--1%
- No Answer--2%
How Did Libraries Respond to That Need? Library Staff’s Knowledge and Ability

Q30-Did library staff demonstrate the knowledge and ability to meet your information needs? (N=341)

- Yes -- 98%
- No -- 1%
- No Answer -- 1%
How Did Libraries Respond to That Need? Different Groups and Library Staff’s Knowledge and Ability

Q30-Did library staff demonstrate the knowledge and ability to meet your information needs?

Chief: Yes 100%
Training Officer: Yes 100%
Firefighter: Yes 100%
Researcher: Yes 100%
How Did Libraries Respond to That Need? Cooperative Library Staff

Q31-Was library staff cooperative in working with you? (N=339)

- Yes -- 99%
- No -- 0%
- No Answer -- 1%
How Did Libraries Respond to That Need? Library’s Overall Performance

Q32-Was the overall performance of the library in providing information-on-demand for you satisfactory? (N=340)

- Yes--98%
- No--1%
- No Answer--1%
Effective in Supplying Information: Relevant Information

Q8-Was the information received relevant to your work? (N=340)

- Yes--97%
- No--2%
- No Answer--1%
### Effective in Supplying Information: Practical Value

Q21 - Was the information of practical value? (N=343)

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>97%</td>
</tr>
<tr>
<td>No</td>
<td>2%</td>
</tr>
<tr>
<td>No Answer</td>
<td>1%</td>
</tr>
</tbody>
</table>
Effective in Supplying Information: Better-Informed Decisions

Q10-Did the information received lead to better-informed decisions? (N=343)

- Yes -- 94%
- No -- 5%
- No Answer -- 1%
Effective in Supplying Information: A Course of Action Taken

Q11-Did the information enable you to take a course of action? (N=343)

- Yes--89%
- No--9%
- No Answer--2%
Effective in Supplying Information:
Specific Types of Decision-Making Situations

Q20-Did the information contribute to your ability to do any of the following: (check all that apply)? (N=318)

- Decide upon a course of action in research--24%
- Proceed to the next step in a project or task--39%
- Decide upon a course of action in emergency response--13%
- Decide upon a course of action in training--24%
What Take-away Message For the Group
Unaware of Library Services

Q28-Did the information about your library sent to you as part of this survey project make you aware of library service you did not previously know about? (N=338)

- No Answer---1%
- Yes---36%
- No---63%
Lessons Learned

• The Challenge of Reaching Sufficient Respondents in Solo Libraries due to Limited Staff and Confidentiality Concerns

• The Challenge of Remote and Invisible Users
Future Research

• Non-Users (including those eligible to access services but who do not know how, and others who would not have access at all because there is no library providing such specialized services, for example in the states of California and Florida)
• Virtual Users (accessing services via a library’s web site, and others involved in public safety, such as emergency medical responders)
• Other Studies: examine and identify skills, attributes and subject knowledge for librarians and information professionals working in fire emergency services and homeland security
The Role of Information Services in Emergency Preparedness

• Enhance Efficiency in Fire Fighting and Emergency Response

• Increase Safety, Both for Fire Emergency Service Professional and the Victims They are Assisting

• Enhance Planning and Training to Protect Both Fire Emergency Service Professional and the Communities They Serve
The Full Report

- http://www.sla.org/content/learn/scholarship/goldspiel/goldspiel2003.cfm