

Final Project Report

LIS 884

Elena Stuart

Data Collection

The data for this assignment was collected starting April 11, 2014 from the ALA website <http://joblist.ala.org/>. On that date there were posted 407 jobs. From this list there was taken the first of every three postings. The data has been constantly updated and some postings have disappeared from the ALA website as well as from the websites of appropriate organizations. In those cases where the necessary data was no longer available new data has been collected. Totally, the analysis embraces 132 entries.

Data Preparation - Excel

Raw data was input into an Excel file and was organized in fifteen columns. Then cell values were checked and an appropriate cleansing has been done. For example, after examining all the data in the **OrganizationType** column, seven values were identified to use: *Academic, Association, Cooperative, Government, Public, School, and Vendor*. The same thing was done for the **ALA MLIS** column where there were detected three values: Y (Yes - Required), N (No - Not Required or nothing was said about it which means that the degree is not required), and finally BSCS (Bachelor of Science in Computer Science).

For convenience of data manipulation, new columns have been created such as the **TitleKeyword**, **LowRange**, or **HighRange**. The information from the **Title** and **Categories** columns has been used for creation Area in Demand data that was placed into a new **TitleKeyword** column. As a result ten areas in Library and Information Science were identified and used for analysis (Excel Tab – **AreaInDemand**; Google Fusion Table – **Summary AreaInDemand** and **Chart AreaInDemand**).

Significant work has been done in comparing data in three **Skills** columns where there was placed information about three main skills that employers would like to see in candidates for a certain position. For analysis seventeen skills were identified. Twelve skills were created for the main group. Those skills that had nine or less results have been put into the group *Other*.

In order to receive quality results analyzing skills in demand by type of organization it was necessary to include in the process of analysis only two types of organizations: Academic and Public. The other organization types were too small to provide a good basis for analysis. That is why they were excluded (Excel Tab – **SkillsByTypeOfOrganization**).

All charts created in different tabs in the Excel file finally were put together in the **SummaryInforgraphic** tab to increase the visibility impact.

Data Presentation – Google Fusion

Google Fusion Tables were used for creating the summary and the chart that correlates Salary Range by Type of Organization (**Summary2** and **Chart2**), Salary Range by Title Keyword as well as for creating the pie-chart that shows the ALA MLIS degree job requirement (**Chart4**).

See <https://www.google.com/fusiontables/DataSource?docid=140uOKzSFJ2uTHQyDT-08wjU794C97RGnpHBWj9Qs>.

A second Google Fusion Table was used for creating the map of ALA Job Position Openings Locations. See

https://www.google.com/fusiontables/DataSource?docid=1_FCoMubXviQmk7D6MZxWE_bEJqKtDfNQtRz5oWCK.

Data Analysis

The purpose of this project involves classifying skills required by employers to help the decision-makers adjust GSLIS curriculum to the current trends.

The primary question: *What kind of courses should be offered by GSLIS?*

I have formulated three secondary questions to support answering the primary question.

1. *What are the areas in demand according to the ALA job postings?*

As shown in both the bar chart and in the pie chart **Summary1: ArealnDemand**, and **Chart1: ArealnDemand**, nearly 42% of the job posting are for *Administration/Management*. The next highest is *Digital Curation and Archiving* at about 12%.

2. *What are the differences in skills demanded between different types of organizations?*

The Excel **Summary Infographic** tab shows the Skills in Demand table and bar charts separately for Academic and Public Libraries as well as the total. There are some significant differences that are evident. Public libraries have a strong need for librarians with management skills. The presence of several managerial skills of different kinds in the charts and the results they show speak for themselves. The combination of Communication Skills, Manage finances, Manage operations, Manage strategy and Program management represent more than half of the Skills in Demand. In Academic libraries the same categories combined together result in less than half of the Skills in Demand. The second and the third biggest skills in Academic libraries are Technology and Customer Service. Academic libraries have more sophisticated patrons and greater

demand for reference assistance in difficult areas. It makes sense that technology and customer services are demanded.

3. How often is the ALA MLIS degree a job requirement?

As shown on **Chart4: ALA_MLIS**, 73% of all postings specify a degree from an ALA accredited program.

Additional Questions

Some salary information was not available. Available salary range information was organized into two columns of low and high salary for each position. Then an average for that position was computed which is shown in **Summary2: SalaryRange**. This information was then shown on two charts (**Chart2: SalaryRange** and **Chart3: Salary Range**). Chart2 shows that Public libraries provide higher average salaries than Academic libraries. Chart 3 shows that *Administration/Management* positions have the highest salaries. This information is not very accurate because of some missing data.

Chart4: ALA_MLIS shows that two positions did not require a MLIS degree.

The location of all positions is shown on the **JobLocationMap**. The different Areas in Demand are shown using a different color and size symbol. The size of a symbol depends on the frequency of the Title Keyword appearing in the table. The map shows that many jobs are available in the area around Chicago and in the northeast part of the country.

Conclusion

It is important to understand the ALA data that is available. The job postings are limited to mostly those for experienced librarians. The presence of so many postings in the *Administration/Management* area confirms this conclusion. Very few entry level positions are present in the data. Also, no positions are listed for the Federal government. Thus, any conclusions made will only be regarding job postings for experienced librarians.

My conclusion is that there is a great demand for management librarians. As a result, I think that GSLIS programs should offer a Certificate in Library Management. This Certificate could be offered jointly with a graduate business program. Based on the skills required by employers, this Certificate should include training on strategy, operations, marketing, budgeting, finance, as well as program management.

The Final Project consists of three parts:

1. Final Project Report (Word doc).
2. Google Fusion Tables
 - a) Analysis
<https://www.google.com/fusiontables/DataSource?docid=140uOKzSFJ2uTHQyDT-08wjU794C97RGnpHBWj9Qs>.
 - b) Map
https://www.google.com/fusiontables/DataSource?docid=1_FCoMubXviQmk7D6MZxWE_bEJqKtDfNQrRz5oWCK.
3. GSLISJobRawDataCollectedUpdatedApril_11_2014_from_wwwalaorg (Excel file).

You did an excellent job for this assignment! Using of Excel & Google fusion will significantly expand your future areas of employment. The charts and maps are great ways of presenting your data. You draw accurate maps of the jobs' geographic locations. Using different colors for the icons are very good, however, using specific names rather than numbers will make it more informative. Well done!

34 points out of 35 (Grade A)