Examining Data Contribution Trends for the ALISE 2015 Statistical Report

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Presented here is an analysis of the data contribution activities from Library and Information Science (LIS) education programs in North America during their participation in the 2014–15 ALISE Statistical Survey. A new web-based and database-driven survey logged time-stamped submission data (i.e. metadata) across all sections and sub-sections of the Survey. These were quantitatively analyzed to present trends among activity and contributions over the course of the three-month data collection period. Results demonstrated that the final weeks and days of the data collection period garnered a considerably higher number of submissions from a majority of programs across all parts of the Survey. These trends as observed can be insightful for anyone involved in education data intensive projects, whether for coordination and administration purposes or end-user research. They can also be used to suggest practical implications for future data collection and reporting processes. Further, results will help lead to improved satisfaction of users, data collection approaches, and data verification, and ultimately serve the LIS education community through the ALISE Statistical Report.

Keywords: ALISE Statistical Survey and Report; data contribution activities; data collection processes; survey design; LIS education reporting; meta-data analysis

Introduction and Background

Data reporting is a key activity in higher education. These activities are key responsibilities (and requirements) of many types of academic units, services, and programs. For example, with regards to information services, specifically, academic libraries routinely collect and report data for both internal and external evaluation. The significance of such data intensive activities is made evident by entire conferences being devoted to performance measurement and assessment in library and information services (University of York, 2015). Library and Information Science (LIS) education programs, likewise, routinely assess academic progress in line with departmental mission, goals, and objectives. This process also involves the collection and reporting of programmatic data to accrediting bodies, such as the Committee on Accreditation (COA) of the American Library Association (ALA). Accrediting bodies, such as the COA of the ALA, use data reported by accredited programs to produce routine summaries of the profession and individual programs in order to monitor trends in line with the established standards for accreditation (American Library Association, 2015a, 2015b, 2015c). Considering that such compiled data, as reported from participating programs, are used for a range of different purposes, it is significant to learn more about the activities occurring throughout data reporting periods.

The ALISE Statistical Report and Survey

The Association for Library and Information Science Education (ALISE) Statistical Report, referred to from here
on as the Report, has been published for more than three decades (Association of American Library Schools, 1980; Wallace, 2012; Albertson et al., 2015; Association for Library and Information Science Education, 2015). The Report was first published by the Association of American Library Schools (AALS), the predecessor organization to ALISE, and was made up of programs with ALA accreditation status. As a result, the Report currently and historically provides descriptive statistics about LIS education programs (i.e. ALISE institutional members) of North American universities.

The Report is truly a unique and rich data source in higher education. Data of the Report, as contributed by the LIS education programs, are tabulated and presented across five primary sections, Faculty, Students, Curriculum, Income and Expenditures, and Continuing Education. Data are collected annually from ALISE institutional members using the ALISE Statistical Survey. The Survey is distributed and administered between the months of September and December. After all data from LIS education programs are recorded, data are then processed, and the Report for the academic year is tabulated, organized, prepared, published, and distributed to ALISE members. The Report itself provides data-supported evidence to use for purposes of strategic planning and/or decision-making by LIS education programs and program administrators (Aversa, 1999). Further, individual researchers with interests in LIS education have used the Report as a data source to examine emerging trends and changes within the profession, such as the impact of new (e.g. online) educational technologies, associations with perceptions of a program’s prestige (or ranking), and diversity (Julien, et al., 2001; Mulvaney, 1992; Glazer-Raymo, 2001; González & Antônio, 2001). This existing literature about the LIS education profession itself, which references the Report as a descriptive data source, demonstrates the impact of the Statistical Project and the wide audiences thereof in project activities.

Both the ALISE Statistical Report and Survey have needed to evolve with changing technologies in the 35 years since inception. Procedures for administering and collecting annual surveys from ALISE institutional members have ranged from mailing paper-based surveys, distributing electronic pre-formatted questionnaires (as part of Microsoft Excel workbooks) and now embedding survey content into proprietary online survey software. The Report, including its distribution and presentation, has also evolved from printed annual volumes to downloadable versions, which, even up until 2012, remained mostly reflective of the preceding bound versions. The Report has traditionally required the role of one or more Editors, along with numerous contributors of the Report content (i.e. authors). Chapters in early Reports provided both summaries (i.e. tables) and a narrative style presentation of the data, including discussion of notable observations across each of its five major sections. In the most recent Report (2015), statistical data were provided in a manipulable digital format (Albertson, 2015). Further enhancement to the both Report and corresponding Survey are consistently being implemented as part of the next era of the project.

Despite ongoing enhancements to the survey—including improvements to delivery approaches and tools—various limitations remained, particularly in terms of the abilities to process contributions from the programs into the tabulated data of the final published Report. Compiling the Report involved extensive manual processing, as opposed to deriving directly from the individual responses within the data themselves. This resulted in heightened potential for errors and inability to reuse (or “re-execute”) data processing, tabulation, and retrieval operations from year-to-year. In addition, prior approaches to data collection, storage, and reporting resulted in a silo-effect among annual da-
sets, collected over different years, with data not being fully integrated and thus analyzable as one centralized and comprehensive resource. Final versions of the Report, whether printed and bound or in electronic PDF format, comprised a permanent published resource. But it was not easily changeable in the event of feedback or needed revisions. Other limits of having only printed and bound formats of data reports have been described in prior essays, including those of the default presentation and ordering of data (e.g. alphabetical and un-sortable) (White, 1998).

These observations of historical Report formats are not to be interpreted as any criticism or suggestion whatsoever of any insufficiencies. These insufficiencies are just noted as challenges that presented themselves over time, during a transition from print to digital, and prior to more-advanced technologies becoming available for use. In fact, the Report, and the work that has gone into it, has been highly innovative with many demonstrable successes—even technological—over a period of time when technology was rapidly changing, ranging from data storage on film (Association of American Library Schools, 1980) up through early efforts of testing relational database software for housing the statistics (Daniel & Saye, 1999, 2004). Further, the earlier Reports with extensive chapter-by-chapter discussion of the data constitutes a rich, almost curated, dataset within the Report itself, something that has not been captured or assembled in more modern times. However, having solely a final print version of the Report, while rich and informative, impacted on the ability to fully utilize LIS education data (i.e. “the Statistics”) interactively and/or longitudinally. Steps were taken to change this limitation.

The ALISE Statistical Database and Database-driven Survey

The potential and perceived value of having a customized central database to store and disseminate (i.e. retrieve) the ALISE statistics sparked a new set of developments and initiatives for the project. With support of ALISE and its Board of Directors (2013–14), a team of researchers (i.e. project personnel) designed, developed, implemented, and evaluated a new web-based and database-driven survey application to collect data from LIS education programs. The new web-based survey is supported on the backend by a customized MySQL database, specially designed and built around the Report as a whole, not necessarily the individual questions of the Survey or tables within the Report. A customized database design enables both centrally and logically stored data. This will ultimately help sustain the project as it evolves and new needs for the Report and Survey emerge from users and the profession. The initial work for this next generation of the Report also provided the necessary groundwork for eventually supporting further interactivity of end users (e.g. researchers) seeking to retrieve and use ALISE statistical data for different purposes and scholarly interests. While new interactive reporting (e.g. search and browse) features are presently being envisioned for future Reports (which will be presented in a future article) a new database-driven ALISE Statistical Survey has been implemented, tested, and deployed as a sustainable and centralized instrument for annual data collection. Evaluation of the use and/or activities with the new Survey is reported in present study.

The database design process resulted in the implementation of a large customized MySQL database of 82 tables with logical partitions inherently occurring for each of the Faculty, Student, Curriculum, Income and Expenditures, and Continuing Education data. All data is integrated and interrelated. The number of tables of the MySQL database can be compared to the 225 plus tables (depending on the year) comprising the final published Report. This demonstrates a streamlining of the data storage structures in addition to the enhanced po-
potential to query and report statistics on an ad hoc basis. A database table corresponding to descriptive information about the LIS programs themselves is stored in the database, with this “school” table centrally tied to all other data. This work resulted in a database that can support the Report holistically, not solely around the individual static tables within the published Report. Over time this provides capabilities for scalability, sustainability, and future enhancements.

With regards to the Survey itself, while recent prior versions also enabled electronic submission, a web-based application provided additional features expressed as the needs of the ALISE community. Technical needs of users of the Survey, identified as significant for a web-based version, pertained mostly to support for data entry, particularly from year-to-year. Modules of the web development software enabled creation and management of user accounts for ALISE institutional members, allowing for storage and reuse of a program’s information over time. Information for each individual LIS program is tied to a member’s login and can be associated to submissions, reducing the amount of redundant data entry for basic and unchanging information, such as descriptive information about the university and/or program. This module for user account management also helped meet another need—it enabled users to revisit responses for editing and/or deleting submitted data even after initial saves and submission. Additionally, other enhancements as a result of a web-based survey include increased security and a survey that is available at a centralized, maintained, and permanent address.

The 2015 Survey was structured within the online web application, as it always has been, according to the primary sections of the Report. Each section had its own web form (or series of forms when needed). The lengths of the Faculty, Income and Expenditures, and Continuing Education sections were suitable enough to fit within one web form of their own. The Student and Curriculum sections are much longer questionnaires; each had to be broken up over several parts or sub-sections in separate web forms. Dividing up of the Student and Curriculum sections was—admittedly—at more convenient points, where it was deemed that a web form was long enough and at a suitable place to break into a new sub-section. Each primary section (or sub-section) needed to be submitted just once, e.g. a program would submit one Faculty form and only one of all the separate sub-sections of the Student and Curriculum sections. The Faculty Grid form, on the other hand, requires one submission for each respective faculty member of all participating programs; Faculty Grid records comprise comprehensive descriptive information about each individual faculty at all ALISE member institutions. Faculty Grid data are employed to compile numerous different tables of the Faculty section of the Report.

Motivation for a Study of Data Contribution Activities

This article presents an analysis of the primary patterns and trends of the data contribution activities of LIS education programs, i.e. ALISE institutional members, throughout the 2014 data collection period (for the 2015 Report year). The motivation for the study was to obtain a firsthand look at the users’ (i.e. programs’) activities while using the ALISE Statistical Survey (as described above) over the course of the three-month data collection period (September—December, 2014). This study does not present results based on any of the actual ALISE data contributed from LIS education programs to the Survey, e.g. data about faculty, students, etc. It was considered important to analyze and describe results about Survey use and LIS education programs’ approaches to participation. Such an approach can provide positive insights for data collection processes, including the future of the ALISE Statistical Report and other data re-
porting activities. Therefore, insights garnered from this analysis will be of interest to those managing data intensive projects, program administrators, other staff, practitioners, and individuals seeking to understand the activities and responsibilities of programs and services.

Objectives of this Analysis and Report

The need and significance of the present study derive from a lack of targeted analyses of other interrelated aspects of the ALISE Statistical Project, beyond the published data of the Report. The ALISE Statistical Project is such a large effort with many interrelated influences and factors that the project and its activities need to be analyzed and communicated. Additionally, post-evaluation and/or reflection on data reporting and collection activities are sparse. The ALISE Statistical Report and corresponding Survey have demonstrated potential to provide useful and complementary insights for future planning, design, deployment, and administrating of a constantly evolving data intensive project. The present study provides a first look at users and data contribution activities of the project.

The specific objectives of the present analysis included:

1. Log and examine data submission numbers.
2. Examine trends among the overall data contributions (i.e. submissions) to the ALISE Statistical Survey.
3. Examine trends among data contributions across the different primary sections of the ALISE Survey—Faculty, Student, Curriculum, Income and Expenditures, and Continuing Education.
4. Examine both overall and section-by-section data contribution trends longitudinally, or over the course of the three-month the open data collection period.

Additional understanding obtained through the exploration of these objectives will ensure progress toward better and more timely survey participation among programs. It will improve understanding of approaches to data collection, survey tools, data verification (accuracy) and others, and will ultimately help serve the LIS education community through the ALISE Statistical Report. A new web-based survey provided researchers with the ability to analyze activity within the ALISE Statistical Survey—through systematic means—in order to make progress in pursuing each of these objectives. This provides a first glimpse at potential possibilities for improving Survey delivery and administration. Further, the scope and implications from this analysis extend beyond the direct ALISE community and their respective program administrators. Considering the structure of the ALISE Survey, it can be adapted or scaled to other degree or academic areas so that insights can be applicable across other disciplines engaged in data collection processes.

Data Logging

Modules of the development software used to create the online Survey provided the ability to log basic metadata about the data contribution activities of participating LIS education programs. These logs store metadata of the individual submissions along with general navigations within the survey site. Pertinent to this analysis is that researchers were able to acquire—from the logs—time-stamped records of initial survey submissions across all different sections, respective sub-sections (where present), and all entries to the Faculty Grid. Logged metadata were quantitatively analyzed in order to depict trends among the basic usage of the web-based survey using recorded submissions as the basis of measurement. Further, frequencies were processed and analyzed to compare submission occurrences over the course of the three-month data collection period, both
overall and across the different sections and sub-sections of the Survey.

Findings

Primary findings are presented in Figures 1 through 13, which depict a variety of frequencies in the number of section submissions from LIS education programs. Furthermore, results (i.e. frequencies) of submissions are presented both overall (Figures 1–2) and across all individual sections (Figures 3–13) of the ALISE Statistical Survey—i.e. Faculty, Student, Curriculum, Income and Expenditures, and Continuing Education sections, in order. Numbers for each of these Figures are shown longitudinally, over the course of the three-month data collection period. Results in Figures 1–13 represent the number of initial contributions; depending on the particular section, frequencies are reported either by actual initial submission and/or by the number of programs with initial submissions. Overall, a total of 55 ALISE institutional members (i.e. LIS education programs) participated and completed the ALISE Statistical Survey for the 2015 Report year.

Number of Submissions Overall or to Any/All Sections of the Survey

Frequencies of initial submissions overall are reported in Figure 1 and Figure 2. Moreover, these Figures represent the
number of initial submissions to any section, minus Faculty Grid record submissions, across all participating LIS education programs. These results are presented in two ways, (1) by total number of initial submissions overall, regardless of section (Figure 1), and (2) by the number of programs contributing initial submissions, also regardless of section (Figure 2). Both Figures present frequencies in two-week intervals, over the course of the three-month data collection period.

**Faculty Section**

Next, Figures 3–5 present findings about the data contributions to the Faculty section of the Survey. This analysis, first, shows the number of programs with initial submissions to the primary Faculty questionnaire, minus the Faculty Grid (Figure 3), over the course of the data collection period. Considering the Faculty section of the Survey comprised exactly one part (or sub-section), it was sufficient to report number of programs with initial submissions (Figure 3) alone, as the total number of initial submissions would be identical to the number of programs with submissions, considering all individual programs completed the one-part Faculty section exactly one time.

On the other hand, it was possible to log all entries to the Faculty Grid, where
programs were asked to submit a record of
descriptive information for each and ev-
ery individual faculty member. Therefore,
the number of submissions to the Faculty
Grid data could be logged and thus report-
ed a couple of different ways, including
the number of programs contributing new
Faculty Grid records (Figure 4) and the
total number of contributed Faculty Grid
records overall, in conjunction with first
and last submitted records of participating
programs (Figure 5). Again, these results
(Figures 4–5) are also shown spanning the
three-month period.

**Student Section**

With regards to the Student section
(and similar to the presentation of results
for the Faculty section), frequencies were
first reported according to the number of
programs with initial submissions (Figure
6). Certain questionnaires of the Survey
comprised multiple sub-sections, includ-
ing the Student section, making it possible
to report frequencies other ways, includ-
ing: (1) the number of programs with ini-
tial submissions to both their first (started)
and last (started) sub-sections (Figure 7),
and (2) initial submissions across all 12
sub-sections of Student (Figure 8). The
point of Figure 8 is not to draw exact com-
parisons or distinctions between the initial
submission patterns across all sub-sections
of the Student section, but to demonstrate,
generally speaking, the similarity among

![Faculty Grid Records](image)

**Figure 5.** Number of new Faculty Grid submissions to the ALISE Statistical Survey, every two weeks, during the data collection period.

![Student Section (Any Part or Sub-Section)](image)

**Figure 6.** Number of programs with new initial Student section submissions to the ALISE Statistical Survey, every two weeks, during the data collection period.
the trends across each over the three-month data collection period.

**Curriculum**

Similar to the results of the preceding *Student* section, the *Curriculum* section of the Survey, due to its length, was divided into multiple sub-sections, making it possible to report initial submissions by: (1) the number of programs with initial submissions to any sub-section of *Curriculum* (Figure 9), (2) initial submissions of the programs’ first and last sub-sections of *Curriculum*, respectively (Figure 10), and (3) general variations across its six sub-sections (Figure 11). All of these results, again, show variations in the number of initial submissions across the three-month data collection period.

**Income and Expenditures**

For *Income and Expenditures*, participating programs needed to only submit one form (i.e. sub-section) in order to complete the full section. Therefore, similar to the results of the *Faculty* section above, it was sufficient to analyze and report the number of programs with initial submissions across the data collection period (Figure 12), considering results of the overall initial submissions would be the same as number of programs, as shown.
Examining Data Contribution Trends for the ALISE 2015 Statistical Report

Figure 9. Number of programs with new initial Curriculum section submissions to the ALISE Statistical Survey, every two weeks, during the data collection period.

Figure 10. Number of programs with initial submissions of their first and last sub-section of the Curriculum section of the ALISE Statistical Survey, every two weeks, during the data collection period.

Figure 11. Number of new initial Curriculum section submissions, every two weeks, during the data collection period, presented by sub-sections 1–6.
Continuing Education

Finally, results of the Continuing Education are shown in Figure 13, presented, again, by number of programs with initial submissions of the one sub-section making up this section as a whole. Continuing Education is considered the last section of the ALISE Statistical Survey, order-wise, even though users have the ability to work on individual questionnaires in any order or simultaneously in the new web-based version, as introduced in here in this article.

Results for each of these analyses (Figures 1–13) demonstrated clear trends, in which a further discussion on such will be provided in the following section.

Discussion and Practical Implications

The trends emerging from the survey’s web logs, presented in Figures 1 through 13, are fairly clear and straightforward. To summarize, the latter stages of the data collection (or contribution) period, particularly the last two weeks and even beyond the initial deadline of December 1, received the highest number of initial contributions from a majority of participating programs. Further, use of the online survey was heavily concentrated in this short window of time. This was observed both overall and across all individual sections of the Survey, regardless of the ordering of

Figure 12. Number of programs with new initial Income and Expenditures section submissions to the ALISE Statistical Survey, every two weeks, during the data collection period.

Figure 13. Number of programs with new initial Continuing Education section submissions to the ALISE Statistical Survey, every two weeks, during the data collection period.
the different sections of the Survey. While the first (order-wise) sections of the Survey (e.g. Faculty and Students) did receive some minimal activity earlier in the data collection period, the overall trends even among these were essentially the same and reflective of that of all others. The *Income and Expenditures* section received considerably more activity and submissions later in the data collection period, perhaps due to other interrelated factors, such as fiscal year cutoffs or dates. However, for the most part, contributions to this section were also similar to that of the Faculty section. *Continuing Education* was also more heavily concentrated in the final days of the data collection period, as it was the last section, order-wise, of the Survey.

These trends in survey submission activities of participating LIS education programs were not surprising. Others managing data collection processes and/or data-intensive projects, whether for assessment, research, or other purposes, have likely had similar experiences. Further, despite extending the open data collection period from previous years, a sizable majority of programs began their initial submissions, on most of individual sections of the Survey, sometime during the last two weeks, or even beyond the deadline. This observation suggests the open period was of sufficient length, and the need, as suggested, may have been more accommodated in shifting the window of time for data reporting, as opposed to lengthening it. However, the significance of these findings is not to point out “last minute” reporting tendencies of participating programs, as in fact there are various limits to the present analysis in terms of what the system could and could not log (as further described below). Yet, the intent here is to begin to suggest how such results can inform the design and administration of future projects that require data collection from users (LIS education programs in this case). This can also be informative to other contexts and be beneficial for other purposes in higher education with similar data intensive activities.

Further, various practical implications for data collection and reporting projects can already be garnered from these findings. These practical implications are based directly on first-hand observations on the project, in conjunction with the evidence as logged by the web-based survey application. First, if employing technology for data collection, particularly newly built and customized tools or applications (especially on a limited budget), a high concentration of use in a short amount of time compounds effects of what might have otherwise been smaller problems (e.g. “bugs”) with minimal potential impact or interruption to the project. Furthermore, in a situation of heavily concentrated use, many users—as opposed to a few—will experience problems or issues deriving from even the most basic of needed correction. The downside of this issue, particularly when there are limited staff and resources, can include a buildup or backlog of needed corrections (e.g. service “tickets”) as reported from users, and, as a result, lengthier times for fixing problems. Delays or extended system downtime, a result from “pileup,” can reduce user confidence, which could have otherwise been avoided if moderate use of the tool was distributed over longer periods of time. Dispersed use of new tools can allow for potential problems to become discovered and corrected methodically and thus earlier in the open period. User confidence and buy-in are crucial for projects that require participation in order to accomplish goals and have successful outcomes.

Certain recommendations to minimalize potential problems can be suggested to improve the design and administration of data collection projects that employ newly built tools or applications. In no particular order, first, for lengthier surveys, such as the ALISE Statistical Survey, administering or conducting data collection over multiple stages, i.e. a multi-staged survey, would potentially benefit the project pro-
cesses and outcomes. Spreading out data collection over separate stages by section would break-up use of the Survey and allow for more systematic processes for correcting problems, improving current designs, and assisting users throughout the process. Further, such an approach would allow system administrators to resolve issues section-by-section, instead of problems scattered across all sections of a lengthy survey. This would free up time to be devoted to not only to fixing bugs, but also to data checking and verification section-by-section on a rolling basis as they are being contributed by participants. When an abundance of bugs or problems are being researched and resolved at one time, the resources available to check incoming data are reduced. This shifts the responsibility for these tasks to after the collection period, when users have disengaged from the process. Having the means and time to verify data “on the spot”—as they are being submitted—would lead to faster accomplishment of project objectives, e.g. producing the ALISE Statistical Report in this case. Of course, a multi-staged survey process would require program administrators to be engaged in a process over a longer period of time with multiple opening and closing dates (i.e. deadlines) for data contribution. This may not be ideal based on the needs or wishes of the community.

Another practical recommendation, based on the results of the present study, is that developers (or researchers) should implement and design tools that are capable of handling maximized use. When in the development phases of new systems, developers should approach the process expecting extreme scenarios, regardless of the fact that they may seem unlikely, such as all potential users logging in to the system and contributing at one time in a three-month open period. System malfunctions, instability, or inconsistencies due to exceeded bandwidth will cause users to experience a number of potential errors such as inaccessible pages and slow downloading, resulting in frustration and in turn lowered confidence. The new Survey was built with this in mind and did not experience problems and/or errors related to bandwidth.

The next observation, or implication deriving directly from experiences throughout the 2014–15 data collection period, which should not be overlooked or taken for granted, is the need to openly communicate and reach out to participants. Communication is key to providing reminders and updates to the community about the current status of the project, which, coincidentally, can be utilized to encourage earlier and ongoing submissions in hopes to circumvent potential problems from high simultaneous activity. A lack of communication from project staff and administrators can worry participants. This need for open communication was provided to the current team from the ALISE Board of Directors as being necessary entering this next era of the Statistical Report.

Improving approaches and developing effective, useful, and stable tools based on the evidence from this analysis will ultimately enhance data collection, leading to appropriately structured processes and potentially more accurate, verified, and timely submissions, and thus faster published reports. Findings motivate subsequent analyses of the ALISE Statistical Survey and Report itself, as ongoing understanding, improvements, and implications based on newly formed insights and analyses will continue to serve and benefit the field.

Limitations

Certain limitations of this analysis were apparent with regard to the submission metadata logged by the web-based survey application. The web development software used for the Survey, by default, only logged metadata (e.g. time-stamps) of initial submits (or saves) to the web forms containing the sections and sub-sections of the ALISE Statistical Survey. Therefore,
logged metadata of changes, edits, and/or resubmissions were not recorded, and records of initial submits were not overwritten, limiting the ability to observe and/or analyze changes over time for better understanding the sections that required additional attention or adjustments by reporting programs. Furthermore, since Faculty, Income and Expenditures, and Continuing Education only contained one form or sub-section each, as previously explained, there was no way to further analyze specific interactions, use, or attention to those sections beyond the initial record of submission. The Student, and Curriculum sections were each—admittedly—arbitrarily divided into multiple sub-sections due to the length of their questionnaires, so some additional insight into the submission patterns of those respective sections could be garnered. Additionally, the Faculty Grid requires a record for all individual faculty members at each participating LIS education program, so further specificity into submission patterns of records being contributed could also be more closely analyzed over the course of the data collection period. Beyond direct interaction with the online survey, logged data do not show coordinating activities occurring at participating LIS programs that take place prior to actual data reporting or use of the survey application, such as preparation and/or other data gathering processes.

Considering the present study provides a first look at how users (LIS education programs) participated in the ALISE Survey, results at this depth are still applicable for designing and improving data collection projects, as described above. Further, limitations in data logging, as reported, do not fully detract from the benefit of the findings and/or their application for future use considering that initial submissions still provide the overall start times of programs per section (and even sub-section). Since a majority of Survey use and data contributions were concentrated in a relatively small window of time, the amount of revision per section may have been minimal in the grand scheme of the data collection period.

This analysis of survey activity was confined to one-year of data contributions (i.e. submissions) from LIS education program using a first year system at that. Future years of data contributions using this same tool (i.e. web-based survey application) or combining system log data across more years may help solidify or clarify the trends with regards to the data reporting activities of participating programs. This may provide further support to the lessons learned in the present analysis. While no official analysis of the 2015–16 data collection period has been conducted at this time, close attention to the current data contributions from LIS education programs are suggesting similar trends, providing some assurance that the findings as reported here are not isolated.

Conclusions

The ALISE Statistical Report is decades old, and ALISE institutional members must participate in the Survey every year in order for an annual Report to be published. Buy-in from LIS education programs (i.e. ALISE institutional members) is key for project continuation and sustainability; without it, there would be no Report. A rich unique resource that is the ALISE Statistical Report is valued by the LIS education community. Future support is therefore critical for its success.

The present study examined survey use and data reporting activities of LIS education programs throughout the actual 2014–15 data collection period, with similar observations occurring throughout the current data collection period as well. Analysis (or reflection) on data collection processes and contributions from participating programs are necessary. Despite the sustainability and longevity of the Report and participation in the Survey, this level of reflection or analysis has never
been conducted. Only recently, the ALISE Statistical Survey was delivered via a customized web-based survey application. This facilitated the necessary data collection for garnering the presented findings. Furthermore, this type of study was not feasible until now. Future modifications and enhancements to data intensive projects need to be based on evidence and direct observations of the trends occurring throughout data contribution periods. Additional understanding as provided by the present analysis can have wide-reaching benefits for future endeavors.

Already, in this new virtual and database-enhanced era of the ALISE Statistical Report, progress has been made. Findings here suggest direct enhancements for the current project, such as the importance of support, outreach, and added structure throughout data collection. Heightened understanding of data contribution patterns and activities from LIS education programs can help ensure more rigorously examined and validated data. This will facilitate more accurate and timely reports and, subsequently, confidence and continued buy-in from the user community. These are critical factors that will support a wide range of audiences spanning program administrators to end-user researchers of the ALISE Statistics.

The potential impact of having a centralized and interactive system for the ALISE Statistical Report, generally speaking, cannot be overstated. Moving forward, LIS and other interrelated disciplines will reap the benefits of having the ability to retrieve data from a continually growing dataset stored in logical and centralized system with the ability to scale and evolve with the needs of its community. The potential to analyze trends from the Report data over time, as new years of data are added to the database, will spark a wave of research about LIS education and cognate disciplines. End users’ ad hoc queries will be facilitated with tailored reports based on information needs and questions of individual researchers; this cannot be accommodated without an interactive database-driven statistical reporting system. This work toward a future interactive Report is now in its beginning stages and will proceed as expected, certainly with other foreseeable challenges remaining.

The present study establishes a first step for analyzing one aspect of the larger ALISE Statistical Report and Survey project, i.e. data contribution activities, again, as made possible through a customized and managed online survey tool. Findings can present implications for data reporting in other contexts as well, including interrelated tasks involving accreditation and program assessment.

**Future Work**

The changing landscape of LIS education motivates additional assessments and/or reevaluations of the Survey and overarching project. While the Survey has been updated and edited over the years, it has likely not been holistically assessed in line with contemporary purposes and needs of the larger LIS education community and its cognate disciplines. One relevant discussion of these issues was provided in a recent communication about data gathering for COA ALA purposes (O’Connor & Mulvaney, 2013). The diverse, yet more-common mission, goals, and objectives among individual LIS education programs, which require assessment and measurement, include aspects such as: (1) building/maintaining research leadership of its faculty, (2) attracting the best and brightest students, and (3) placing graduates in meaningful and important career paths. The Survey does not currently collect many of these key indicators from LIS education programs and these would be significant for programmatic and strategic planning purposes. Additionally, while the Statistics do indeed comprise a resource that could be valuable for administrative purposes and decision-making, based on comparisons with other ALISE institutional members, contributions from
international programs are not currently included. Expanding the reach to include other programs, including international LIS programs and perhaps both national iSchools (these are not currently ALISE members) and international LIS schools would provide an international and interdisciplinary dataset enabling examinations of contemporary trends emerging worldwide. This opportunity motivates an analysis into the needs of individual programs in relation to the larger information education community.

Re-tooling the survey will obviously develop in tandem with reequipping the Report; building off the prior discussion, there are other elements that can enhance the value of the Report for programs seeking to apply and utilize it for matters of decision-making. These developments will be further addressed in future reports on the evaluation of the use and criteria of the current Report. Further, there is the need to examine directly the contents of the Report in terms of prioritization across its different primary sections. Further extensions of the present study can be employed to examine trends in use of the Report and its specific contents, down to the specific tables in the published Report to those being reported out from users’ ad hoc queries. Coupled with the results of the present study, researchers on the ALISE statistical project will have well-rounded data to grow and evolve the project into the future. Future analyses can also include qualitative analyses as well to provide fuller understanding of the perceptions throughout all processes, including the appropriateness, usefulness, and reasoning behind such observations.

If these potential areas are examined, particularly those involving longitudinal, interdisciplinary, and internationally informed research, it will provide direct insight into the needs for curating the statistical dataset for use by different researchers and research groups. Stay tuned for more things on the horizon of the ALISE Statistical Report.

References


