Evidence Based Library and Information Practice

Library Fines Make a Difference in Academic Library Book Return Behaviour

A Review of:
Sung, J. S., & Tolppanen, B. P. (2013). Do library fines work?: Analysis of the effectiveness of fines on patron's return behavior at two mid-sized academic libraries. *Journal of Academic Librarianship, 39*(6), 506-511. http://dx.doi.org/10.1016/j.acalib.2013.08.011

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Abstract

Objectives – To quantify library fines and their impact on patron return behaviour.

Design – Hypothesis testing of data extracted from integrated library systems.

Setting – Two midsize academic libraries, including one from the Pacific, University of Hawaii at Manoa (UHM), and one from the Midwest, Eastern Illinois University (EIU).

Subjects – Undergraduates, graduate students, and faculty.

Methods – The authors collected data from two midsized universities. The universities have identical integrated library systems, which allowed for uniform data extraction.

The authors counted book returns in each population group (undergraduates, graduate students, and faculty) for those books that were returned before and after the due dates with a focus on late fees as the primary variable. The authors tested the following five hypotheses:

- Hypothesis 1: "There is no difference in return rates before due dates among the UHM patron groups because the fine policy is the same for all patron groups" (p. 507).
- Hypothesis 2: "Before 2006, the EIU undergraduate students' return rates before due dates should be the highest among the three EIU groups because this was the only group which had overdue fines. . . . There should be no difference in the return rates before

due dates between EIU faculty and EIU graduate students (both groups had no overdue fines)" (p. 507).

- Hypothesis 3: "EIU graduate students' return rates before due dates was lower for 2002–2006 than 2007–2011" (p. 507). This hypothesis tests the impact of a change in fine policy that the library implemented in the fall of 2006.

- Hypothesis 4: "UHM undergraduate students' return rates before due dates is higher than that of EIU undergraduate students" because there is no grace period for UHM undergraduates (p. 507). EIU undergraduate students have a 10-day grace period.

- Hypothesis 5: "UHM faculty's return rates before due dates is higher than that of EIU faculty" (p. 507). UHM faculty incur overdue fines, but EIU faculty encounter no penalty for overdue materials.

From the integrated library systems, the authors extracted data for the number of books returned before due dates and after overdue notices and for the number of books borrowed by the different populations for the time period starting with Fall 2002 and ending with Spring 2011. The authors analyzed the data using Statistical Package for Social Science (SPSS) and made comparisons using analysis of variance (ANOVA) expressed with an F-ratio and p-value < 0.01 as the level of significance.

Main Results – The findings did not support hypotheses 1 or 2. For hypothesis 1, in which fines were the same for undergraduates, graduate students, and faculty, return rates increased with academic level and faculty groups. The rates were 90.4%, 93.9%, and 95.7%, respectively (F = 112.1, $p < 0.001$). For hypothesis 2, the return rate was 88.8% for undergraduates, 92.6% for graduate students, and 80.1% for faculty. The group difference was small but still statistically significant (F = 171.4, $p < 0.001$). The graduate students, who were not fined, had significantly higher return rates before due dates than undergraduates

who incurred fines. Graduate students had higher return rates than faculty, though both groups had no fines.

The data did not support hypotheses 3 and 4. For hypothesis 3, no significant change occurred in return rates before and after imposing fines (F = 5.75, $p = .031$). For hypothesis 4, the return rates of undergraduates at the university with a grace period showed no statistically significant difference in return rates from those undergraduates with no grace period (F = 4.355, $p = .044$).

The findings supported hypothesis 5. The return rates indicated a statistically significant difference between faculty with fines for overdue books and those with no fines (F = 1701, $p < 0.001$). For those hypotheses for which the differences were not significant, the authors cite other variables, including reminders, grace periods, maturity of the borrower, withholding of privileges, fees, and lost book charges, that may contribute to return rates.

Conclusions – In answer to the main research question, the authors conclude that "fines indeed make a difference" (p. 511) in patron book return conduct. However, they also note that fines can mar the reputation of the library creating a barrier to access and that courtesy notices and overdue notices are also effective ways to ensure timely return of materials.

Commentary

This study provides an excellent example of how librarians strive to make evidence based decisions about fines to ensure timely return of materials, although confounding factors affected the data analysis. With little published on the efficacy of library fines, and even less that is data driven, Sung and Tolppanen make a valuable contribution to professional library literature.

Though the target population of this study is limited to the current users of the library, the circulation data is large enough to generalize to patrons who are not currently borrowing

from the libraries. Additionally, the study used hypothesis testing, which allows for sample data to be generalized to a larger population (Gravetter & Wallnau, 2008) as does the use of ANOVA to compare data between population groups.

The author of this review appraised the study using Glynn's critical appraisal checklist (2006). The score was 80% overall, which is within the scale range for validity. The population, data collection, and study design sections rated 100%, 100%, and 100%, respectively. However, the results section rated 33%, indicating that the conclusions should be called into question. The lower score on the conclusions was due to significant confounding variables discussed in the results section that were not accounted for in the conclusions. Therefore, the conclusions do not completely reflect the analysis.

Though there are strengths to this study, many confounding factors affected interpretation of the data. Some of the findings could also be attributed to the differences in patron groups and the differing lengths of loan periods. The grace period studied was not advertised to students; therefore, it was less likely to make a difference in student behaviour. Lost book charges and fees also have an impact on return rates, as does the policy that some students are prohibited from registering for the following semester or receiving their diplomas if they have unreturned books or outstanding fines. The differences are not in the fines alone.

The fifth hypothesis, from which the researchers drew their conclusion about fines, shows a significant increase in returns for faculty with fines versus those without; however, in addition to fines, faculty with accumulated fines over $10 lose database access. This is certainly a compelling reason to stay current with library material.

The conclusions would be less ambiguous if the only variable was overdue fines, though this level of homogeneity among library return policies is unlikely. Given the policies outlined in this study, librarians could use the detailed information to develop or revise existing policies with these results in mind. Other researchers have cited this study, indicating a clear interest in evaluating the validity of fines to manage returns of library materials. The researchers made excellent use of data already available in an integrated library system. With the use of SPSS to analyze the data, the research design is one well worth replicating.

References

Glynn, L. (2006). A critical appraisal tool for library and information research. *Library Hi Tech*, *24*(3), 387-399. http://dx.doi.org/10.1108/073788306106 92154

Gravetter, F. J., & Wallnau, L. B. (2008). *Essentials of statistics for the behavioral sciences*. Belmont, CA: Wadsworth.