

random sample of personal names in the LC file indicates that less than 17 percent of personal names require cross-references. Thus the personal name headings that occur only once but would require authority records because of cross-references could be less than 17 percent. The frequency data combined with reference structure data could have a significant impact on design.

Out of a total of 695,074 personal names in the authority files associated with the MARC bibliographic files examined here, 456,328, or 66 percent, occur only once. Of these, fewer than 77,575 would be expected to have cross-references, thus the name-authority file for personal names could be reduced in size from 695,074 records to 316,321, a 55 percent decrease. If separate authority records are a system requirement, the occurrence figures might then be useful for defining configurations that employ machine-generated provisional records for single-occurrence headings that do not have reference structures or that simplify in other ways the treatment of these headings. These figures may also be useful in making decisions on the addition of retrospective authority records to the automated files.

#### REFERENCE

1. William Gray Potter, "When Names Collide: Conflict in the Catalog and AACR2," *Library Resources & Technical Services* 24:7 (Winter 1980).

### RLIN and OCLC as Reference Tools

Douglas JONES: University of Arizona, Tucson.

The Central Reference Department (social science, humanities, and fine arts) and the Science-Engineering Reference Department at the University of Arizona Library are currently evaluating the OCLC and RLIN systems as reference tools, to see if their use can significantly improve the effectiveness and efficiency of providing reference service. A significant number of the questions received by our librarians, and presumably by librarians elsewhere, in-

volve incomplete or inaccurately cited references to monographs, conference proceedings, government documents, technical reports, and monographic serials. If by using a bibliographic utility a librarian can identify or verify an item not found in printed sources, then effectiveness has been improved. Once a complete and accurate description of the item is found, it is a relatively simple task to determine whether or not the library has the item, and if not, to request it through interlibrary loan.

Additionally, if the efficiency of the librarian can be improved by reducing the amount of time required to verify or identify a requested item, then the patron, the library, and, in our case, the taxpayer, have been better served. The promise of near-immediate response from a computer via an online interactive terminal system is clearly beguiling when compared to the relatively time-consuming searching required with printed sources, which frequently provide only a limited number of access points and often become available weeks, months, or even years after the items they list.

We realize, of course, that the promise of instantaneous electronic information retrieval is limited by a variety of factors, and presently we view access to RLIN and OCLC as potentially powerful adjuncts to—not replacements for—printed reference sources. Given that RLIN and OCLC have databases and software geared to known-item searches for catalog card production, our evaluation attempts to document their usefulness in reference service.

A preliminary study conducted during the spring semester of 1980-81 indicated that approximately 50 percent of the questionable citations requiring further bibliographic verification could be identified on OCLC or RLIN. The time required was typically five minutes or less. Successful verification using printed indexes to identify the same items ranged from 20 percent in the Central Reference Department to 50 percent in Science-Engineering. Time required per item averaged approximately fifteen minutes.

Based on our findings, we plan a revised and more thorough test during the fall semester of 1981-82, which will include an assessment of the enhancements to the

RLIN system scheduled to be operational this summer. The proposed test will involve eight members of the reference staff—four from each department—who will be trained to search on OCLC and RLIN. Those selected will include both librarians and library assistants who regularly provide reference assistance. The results obtained from such a representative group will better enable us to assess the impact on the whole reference staff should we later decide to fully implement the service. They will be the only ones involved in sampling questions and conducting comparative searches.

The test will have two components, the first of which will be a twenty-week period to collect at least 400 sample questions. During their regularly scheduled reference hours, the eight specially trained librarians will collect samples of reference requests for materials that, based on the information initially given by the patron, cannot be identified in the card catalog. After checking the catalog, the librarian will then complete the top portion of a two-page self-carbon form with all of the information that is known about the requested item. Then, at regular intervals during the semester, the pages of each form will be separated and distributed to other members of the test staff for batch-mode searching. The manual OCLC and RLIN searching for each query will be done by different staff members to eliminate crossover effects. Each request will be searched on both OCLC and RLIN with the following information being recorded:

1. Date of the material requested (if known).
2. Type of material (e.g., conference proceeding).
3. Amount of time required to do the search.
4. Success or failure of the search.

This information will then be cumulated in a statistical table, and the results of each search will be keypunched for computerized analysis using the BMDP (BioMedical Computer Programs) statistical package to determine whether or not effectiveness and efficiency have been improved significantly.

In addition, on twenty-four randomly se-

lected days during the semester the trained searchers will count the total number of questions received by them on that day that would have been appropriate to search on RLIN or OCLC. By using these data it will be possible to extrapolate the potential usefulness of the systems for the entire semester.

The second component of the test will be a two-week real-life test during which all questions requiring further verification would be searched immediately on RLIN, OCLC, and in the appropriate printed sources to compare time required, success rate, and type of material requested. This sort of test would permit the searcher to continue to negotiate with the patron as the search progressed, which is the usual situation. Also, this would provide the only opportunity to have the patron judge the value of subject searches done on RLIN.

If funding is received, preliminary results should be available in early 1982. Anyone conducting similar or otherwise relevant studies is asked to contact the author.

### **Replicating the Washington Library Network Computer System Software**

Thomas P. BROWN: Manager of Computer Services, and Raymond DeBUSE: Manager of Development and Library Services, Washington Library Network, Olympia.

The Washington Library Network (WLN) Computer System supports shared cataloging and catalog maintenance, retrospective conversion, reference, COM catalog production, acquisitions, and accounting functions for libraries operating within a network. The system offers both full MARC and brief catalog records as well as linked authority control for all traced headings. It contains more than 250,000 lines of PL/1 and IBM BAL code in more than 1,100 program modules and runs on IBM or IBM-compatible hardware with IBM operating systems (MVS, OS/VS1). All database management functions are provided by ADABAS, a product of Software A.G. of North America. The online system runs un-