

**EVALUATION OF LIBRARY RESOURCES
ESSENTIAL TO THE SUPPORT OF:
MASTER OF SCIENCE BUSINESS ANALYTICS**

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OVERVIEW

The University of Louisville (UofL) Libraries are comprised of five separate libraries: Ekstrom Library serving humanities, social sciences, life sciences, business, engineering, physical sciences, and technology; Kornhauser Health Sciences Library; Anderson Music Library; Bridwell Art Library; and the Law Library. University Archives and Special Collections center is also part of the UofL library system. Materials relevant to business analytics are found primarily in Ekstrom Library.

UofL's library system supports instructional and research needs of over 22,000 full and part-time students and more than 7,000 faculty and staff. UofL belongs to the Association of Research Libraries (ARL), an organization of North American libraries affiliated with 123 large, comprehensive research institutions, as well as the State-Assisted Academic Library Council of Kentucky (SAALCK), and Kentuckiana Metroversity, a consortium of Louisville area libraries.

The vision for the proposed Master of Science in Business Analytics (MSBA) is to "prepare first-rate analytics professionals for the new digital, data-driven economy." The program need analysis prepared by UofL's College of Business (COB) identified twelve current MSBA programs in Kentucky and seven adjoining states (IL, IN, MO, OH, TN, VA, and VW). Although the program proposal states that library resources will not be required, this report compares Ekstrom Library to libraries at three of UofL's benchmark institutions which offer similar programs and are located in the geographic region outlined above. Two, the University of Cincinnati (UC) and the University of Illinois at Chicago (UIC), offer MSBA programs. A Master of Decision Analytics is offered by the school of business at the third, Virginia Commonwealth University (VCU).

COLLECTIONS

I. Book Collection

WorldShare Analytics collection analyses show that Ekstrom Library has 13,857 books on Computer Science, 14,635 on Mathematics, and over 96,000 books on Business & Economics, although less than 3% of the Business & Economics titles are classified under Statistics (2,444). As shown below, UofL has roughly 50-70% fewer Mathematics, Statistics, and Computer Science books than the three benchmarks. Although not shown, the deficit is even greater in recent years with UofL having 63-88% percent fewer books published in these subjects since 2000. The other three universities also offer Safari Books Online, but UofL does not.

TABLE I: English Language Monograph Records

<u>Subject</u>	<u>University of Louisville</u>	<u>University of Cincinnati</u>	<u>University of Illinois--Chicago</u>	<u>Virginia Commonwealth University</u>
Computer Science	13,857	20,015	27,016	63,323
Mathematics	14,635	31,633	25,859	31,943
Other Business & Economics	96,597	125,347	135,827	168,768

Source: OCLC WorldShare Analytics, June 2017

II. Periodical Collection

UofL currently subscribes to databases with full-text access to over 2000 business journals. According to Web of Science, the journals listed below are the most frequently cited on the combined subjects of business and data analysis:

Academy of Management Journal
Computers Environment and Urban Systems
Decision Support System
Econometric Reviews
Econometrics
European Journal of Operational Research
Economics, Management and Financial Markets
Harvard Business Review
IEEE Communications Magazine
IEEE Communications Surveys and Tutorials
Information & Management
Information, Communication & Society
Information Sciences
International Journal of Information Management
International Journal of Production Economics
International Journal of Production Research
Journal of Applied Econometrics
Journal of Applied Psychology
Journal of Business Logistics
Journal of Business Research
Journal of Economics & Management Strategy
Journal of Marketing
Journal of Operations Management
MIS Quarterly
New Media & Society
Omega-International Journal of Management Science
Strategic Management Journal

UofL has full-text access to all of these highly cited journals except *Information, Communication & Society*, which has been added to our desired purchase list. The most recent 18 months of *Econometric Reviews* and the *International Journal of Production Research* are embargoed, but most of the other publications are available from at least 1995 to the present, primarily through Elsevier Science Direct.

III. Bibliographic Resources

Indexes and abstracts constitute the primary bibliographic resources through which faculty and students can find books, reports, and articles relevant to their studies and research. Ekstrom Library, like the three benchmark institutions, offers most of the major indexes and abstracts in the field of business data analysis, including those listed in Table II below. The only major exception is Gartner, which is available at the University of Cincinnati and the University of Illinois at Chicago.

TABLE II: Major Indexes/Abstracts Covering Literature Relevant to Business Data Analysis

	<u>University of Louisville</u>	<u>University of Cincinnati</u>	<u>University of Illinois at Chicago</u>	<u>Virginia Commonwealth University</u>
ABI/Inform	Collection	Collection	Global	Complete
Business Source	Premier	Complete	Premier	Complete
ACM Digital Library	X	X	X	X
Gartner		X	X	
IEEE Explore	X	X		X
INSPEC (Engineering Village)	X	X		X
MathSciNet	X	X	X	X
Social Sciences Citation Index (Web of Science)	X	X	X	X

Source: University libraries' AtoZ lists, June 2017

IV. Data Sets

The University of Cincinnati Libraries website lists at least 16 sources for data sets and/or large downloadable data reports. UofL and the other two benchmark libraries appear to have only five or six each, but it should be noted that this may understate the availability of such resources because not all library websites include products that are available to only select colleges or classes.

TABLE III: Resources for Business Related Data Analysis

	<u>University of Louisville</u>	<u>University of Cincinnati</u>	<u>University of Illinois-- Chicago</u>	<u>Virginia Commonwealth University</u>
Bloomberg Terminal	COB	X		
Data-Planet Statistical Datasets		X		
Execucomp (S&P Compustat)		X		
Global Insight		X		
ICPSR	X	X	X	X
iPoll (Roper Center)		X	X	X
Mergent Intellect	X	X	X	
Policy Map		X		
Proquest Statistical Insight		X		X
ReferenceUSA Business Historical Data		X		
SimplyAnalytics		X	X	X
Social Explorer		X	X	X
Statista	Fall 2017	X		
Thomson Reuters Eikon		X		
Wharton Research Data Services (WRDS)	COB	X	X	X
Zephyr		X		

Source: University libraries' websites, June 2017

V. Software

UofL Libraries does not offer any quantitative or qualitative analysis software.

SERVICES

I. Document Delivery

Books and periodicals not held by the UofL Libraries are identified through online databases and the online union catalog, WorldCat, which includes more than 32 million records describing materials owned by libraries around the world. Materials are obtained through the traditional Interlibrary Loan (ILL) service, and supplemented by the University Libraries participation in KUDZU, a consortium of major university libraries in the southeastern United States.

II. Research Assistance

Each library within the University of Louisville Libraries offers instruction programs designed to meet the needs of its researchers. Ekstrom Library provides research assistance via in-person appointments, email, telephone, and online chat to help faculty and students locate specific data, business information, and bibliographic citations.

STAFFING

According to most recent data available from ARL and the Association of College & Research Libraries (ACRL), staffing of the University of Louisville Libraries is below that of the three benchmark universities on an absolute basis, but better than the University of Cincinnati and comparable to the University of Illinois at Chicago and Virginia Commonwealth University in terms of the ratio of library staff to full-time students,

TABLE IV: Staffing Comparison

	<u>Library Staff</u>	<u>Full-Time Students</u>	<u>Ratio</u> <u>Staff : FT Students</u>
<u>FY 2015-2016</u>			
University of Louisville	111	17,125	1:154
University of Cincinnati	129	31,592	1:245
University of Illinois at Chicago	142	17,319	1:122
<u>FY 2013-2014</u>			
University of Louisville	115	17,198	1:150
Virginia Commonwealth University	156	25,557	1:164

Sources: FY 2015-16, ARL Annual Library Statistics; FY 2013-14, ACRL Metrics Portal

CONCLUSION

The University of Louisville College of Business does not anticipate a need for any new library books, journals, databases, or other services to support the proposed Master of Science in Business Analytics. This review shows that Ekstrom Library currently provides coverage of almost all of the leading journals and most of the databases that index and abstract scholarly articles in data analytics and related business fields, but is not particularly strong in terms of data sets or monograph holdings in this subject area. With the exception of monographs, however, UofL's resources for business analytics appear to be roughly comparable to at least two other benchmark institutions offering similar degree programs, the University of Illinois at Chicago and Virginia Commonwealth University.