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Statistics Collection Development Policy

David C. Tyler
University of Nebraska - Lincoln, dtyler2@unl.edu

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University Libraries, University of Nebraska-Lincoln
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I. GENERAL ACADEMIC PROGRAM INFORMATION

The statistics collection supports the teaching, research, and service activities of the entire university community. Its primary audience is the faculty, staff, and students of the Department of Statistics in the College of Arts and Sciences and the Institute of Agriculture and Natural Resources. Its primary focus is support for the undergraduate and graduate curricula for statistics; its secondary focus is support for research and teaching in biometrics and bioinformatics. Specific and transient research needs of statistics faculty and graduate students should be supplemented through Interlibrary Loan. Materials are not purchased for the general public, though they may benefit from the collection. While the collection focuses on works classified in Mathematics (QA), curriculum and research support is also provided by works classified as belonging to, for example, Statistics (HA), Industries, Land Use, and Labor (HD – notably, agricultural statistics), Natural history – Biology (QH – notably, bioinformatics and biometrics), Medicine (R – notably, medical informatics), Recreation and Leisure (GV – notably, sports statistics), Social History (HN – notably, survey statistics), and so forth. Works classified as belonging to Agriculture, Environmental Science, Geography, Geology, Information Science, Political Science, Sociology, Technology and Engineering, and so forth, will also be pertinent.

Statistics Department

The department, which was the product of a 2003 merger of the statistics division of the former Department of Mathematics and Statistics and of the Department of Biometry (formerly a part of the Institute of Agriculture and Natural Resources), is somewhat unusual in that it reports jointly to Arts and Sciences and to the Institute. The department has strong ties, through research collaboration and consulting, to agriculture and to the Gallup Research Center for survey statistics, and it is continuing to work to developing ties to science/mathematics education faculty and to faculty and students in departments throughout UNL that rely heavily on statistical methods in their research and teaching.

As of the Fall of 2009, the department was comprised of fourteen full-time faculty and one technical staff-person. Of the fourteen full-time faculty, one is cross-listed as a member of the Gallup Research Center Survey Research and Methodology Graduate Program. A quick review of the departmental faculty Web pages discovered the following areas of interest:

- Bioinformatics (4), including listings for: computational biology, microarray data analysis and pharmacokinetic (PK) and pharmacodynamic (PD) modeling;
- Design of Experiments (3);
- Statistical Computing (3);
- Statistical Ecology (2);
- Statistical Genetics (2);
- Statistical Education (2);

- Analysis of Single/Combined Drugs Studies, Bayes and Empirical Bayes Method, Biological Modeling, Biostatistics, Categorical Data Analysis, Chaos & Non-Linear Modeling, Dose-Finding Strategies, Epigenetics, Generalized Linear Models, Group Testing, Linear Models, Machine Learning, Mixed Linear Models, Mixed Models, Multivariate Analysis, Nonlinear Fixed- and Mixed-effects Models, Nonparametric Deconvolution, Nonparametric Functional Function, Nonparametric Methods, Optimization, Plant and Animal Breeding and Genetics, Spatial Variability, Sports Statistics, Statistical Methods in Influenza Virus Genotyping, Statistics in Behavioral Medicine, Statistics in Developing Countries, Survey Science, and Time Series (1 listing each).

Unusually, the department does not offer an undergraduate degree. Instead it offers a number of undergraduate courses to students from other departments and colleges and a minor to students from allied fields. At the graduate level, the department offers an M.S. and a Ph.D.

In the Fall of 2008, the department reported 21 graduate students studying for the M.S. and 25 studying for the Ph.D. The department saw a sizeable increase in enrollment in the fall of 2009 reported 29 students studying for the M.S. and 30 studying for the Ph.D. The department reported 2,429 credit hours in the Fall of 2008, of which 1,689 were offered at the 200-level, 282 were offered at the 300- and 400-levels, and 458 were offered at the 800- and 900-levels. In addition to providing the usual classroom offerings, the department's faculty and students are also affiliated with several associations, research centers, and programs – including the Nebraska Chapter of the American Statistical Association and the Survey, Statistics and Psychometrics (SSP) Core Facility, for example – and offer statistical consulting services across campuses. At various times, the faculty may be involved in the University Honors Program, and the faculty are also involved in the following funded UNL Programs of Excellence: "Behavioral Health," "Math and Science Teachers for the 21st Century," and "Survey Methodology and Statistics."

The department offers the following Achievement-Centered Education (ACE) certified statistics courses for general education:

STAT 218 Introduction to Statistics
STAT 380 Statistics and Applications (MATH 380)

For additional information on the department, its activities and programs, and its history, please see the following: http://statistics.unl.edu/Index.shtml

II. GEOGRAPHICAL COVERAGE
With respect to statistics, the UNL Libraries should have no geographical limitations.

III. CHRONOLOGICAL COVERAGE
There should be no chronological limitations.

IV. IMPRINT DATE
Primary emphasis should be on current imprints. Retrospective purchasing should be concentrated in those areas collected at the Research Level and should emphasize the completion of major sets, the acquisition of highly pertinent but not widely disseminated research reports or working papers, and/or the works of highly influential statisticians. Retrospective purchasing for materials designated as being collected below the Study Level should be highly selective.

V. FORMAT
Print Materials
Most materials are acquired in the form of periodicals, series, and monographs. Statistical research is also reliant on technical/methodological reports, occasional papers, and research reports released by universities, research centers, and state and federal agencies. Some of these items are published in paperback, and some are spiral bound. The collection should also include the proceedings and symposia of the major associations. Reference works dealing with the technology/methodology and with the history of the field should be collected. Given the field's wide-ranging interests, abstracting and indexing services for numerous related fields are desirable. Textbooks are collected if they are of graduate level, of "classic" stature, and/or have been requested by faculty; lower-level textbooks may be very selectively collected. Non-UNL dissertations and theses may be very selectively collected, but such works are not a priority for the collection.

Non-Print Materials
With respect to periodicals/series and to reference works, preference should be given to materials available online or in dual print/online format, especially if such materials are free of continuing "maintenance" fees and if such materials allow for simultaneous access. Micro-format collections, especially microfiche, are rarely collected; if funding allows, preference should be given to affordable online versions of such collections, especially if they offer value-added features such as full-text searching.

VI. LANGUAGES
English is the preferred language at all levels of collection intensity. Works in other languages may be collected selectively. No work should automatically excluded on the basis of language alone. English translations are preferred, but translations into any of the major European languages may also be acceptable.

VII. LIBRARY COLLECTIONS
To support the statistics program, the library collection offers a wide range of materials on theory/ methodology, technology and practices, educational techniques, and the history and development of the field. Generally speaking, Research Level/Study Level collections should be maintained for Mathematical Statistics (QA), Statistics (General) and Theory and Method of Social Science Statistics (HA1-32), Industries, Land Use, and Labor (HD – notably, agricultural statistics), Natural history – Biology (QH – notably, bioinformatics and biometrics), and Social History (HN – notably, survey statistics). Study Level/Basic Level collections should be maintained for Medicine (R – notably, medical informatics) and Recreation and Leisure (GV –

notably, sports statistics). Given the field's widespread applicability, some effort should be made to maintain a Study Level/Basic Level collection of pertinent works classified as belonging to, for example, Agriculture, Biology, Criminology, Economics, Education (including mathematics education as it pertains to statistics), Environmental Science, Family Studies, Geography, Geology, Information Science, Physics, Political Science, Sociology, Technology and Engineering, and so forth; however, the bulk of collecting in these and other areas should be governed by the appropriate approval plans (e.g., purchasing for statistical physics should largely be governed by the plan for Physics and Astronomy). The pursuit of cooperative collection development with other liaison librarians would, obviously, be very much worthwhile. To a lesser extent, the collection also provides information on careers.

VIII. CLASSIFICATION AND INTENSITY LEVEL

Materials Selected with Funds Designated for Statistics

CLASSIFICATION	INTENSITY LEVEL
BF39 Psychometrics. Psychology -- Statistical methods	MINIMAL
GA109.8 Statistical mapping	OUT-OF-SCOPE
GB21.5 Geography -- Statistical Methods	OUT-OF-SCOPE
GV14.5 Recreation -- Research -- Statistical methods	MINIMAL
GV558-561 Sports -- Social Aspects (includes Sports statistics; Sports sciences -- Statistical methods)	BASIC
GV741 Sports -- Statistical methods	BASIC
GV877 Baseball -- Statistical methods	BASIC
HA1-4737 Statistics	RESEARCH
HA29-32 Theory and method of social science statistics	RESEARCH
HA36-37 Statistical services. Statistical bureaus	BASIC
HA38-39 Registration of vital events. Vital records	BASIC
HA154-155 Universal statistics	BASIC
HA154-4737 Statistical data	BASIC
HA175-473 By region or country	BASIC
HB135-147 Mathematical economics. Quantitative methods, Including econometrics, input-output analysis, game theory	BASIC
HB848-3697 Demography. Population. Vital events	BASIC
HD1401-1425 Agriculture -- Economic aspects -- Statistics	STUDY
HD9000.4 Food industry and trade -- Statistical methods , Food supply -- Mathematical models	BASIC
HE191-192 Transportation -- Statistical methods, Transportation -- Econometric models	BASIC

HN29 Social surveys -- Methodology	RESEARCH
LB2846 Educational statistics, Educational planning -- Statistical methods	MINIMAL
LB3051 Educational tests and measurements -- Statistics	MINIMAL
QA273-280 Probabilities. Mathematical statistics	RESEARCH
QA299.6-433 Analysis	RESEARCH
QC174-175 Statistical physics, Statistical mechanics	BASIC
QE33.2. Earth sciences -- Statistical methods, Earth sciences -- Mathematics	MINIMAL
QH1-278.5 Natural history (General), Including nature conservation, geographical distribution)	MINIMAL
QH301-705.5 Biology (General), Including geographical distribution)	MINIMAL
QH323.5 Biology -- Mathematical models, Biometry	RESEARCH
QH324.2 Bioinformatics	RESEARCH
QL494 Insects -- Morphology -- Statistical methods	OUT-OF-SCOPE
QP301 Exercise -- Measurement. Exercise -- Research -- Statistical methods.	MINIMAL
QP303 Human mechanics. Biometry -- methods.	BASIC
R853.S7 Survival analysis (Biometry)	BASIC
R858-859.7 Computer applications to medicine. Medical informatics	STUDY
RK24 Dental Informatics	OUT-OF-SCOPE
S540 .S7 Agriculture -- Research -- Statistical methods, Agriculture -- Experimentation -- Statistical methods	RESEARCH
T57.6-57.97 (Technology) Operations research. Systems analysis	BASIC
T57-57.97 (Technology) Applied mathematics. Quantitative methods	BASIC
UF503 United States -- Armed Forces -- Weapons systems -- Testing -- Statistical methods	MINIMAL
Z669.8 Bibliometrics	MINIMAL