



UNIVERSITY OF
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Introduction to Quantitative Collection Assessment Tools and Methodology

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Images from ArtStor



Assessment projects

Unit Reviews

- Strategic Studies
- Chemistry
- Communication Studies
- Economics
- Fine Arts
- Geography
- Geology & Geophysics
- Law
- Linguistics
- Mathematics & Statistics
- Nursing
- Philosophy
- Physics & Astronomy
- Religion

Accreditations

- Computer Science
- Engineering
- Architecture (EVDS)
- Urban Planning (EVDS)
- Social Work

New Programs

- Bio Medical Engineering (BMES)
- Bachelor of Health Sciences
- Culture and Society
- Reservoir Characterization
- Transportation Studies



Skill Set

Numeracy

- Percentages
- Averages

Excel

- Importing and exporting tab delimited files
- Sorting and formatting
- Pivot tables
- Charts

Word

- Inserting tables and charts





Collection Assessment Parameters

- Goal
 - What type of use is the collection supporting?
- Size
 - How big is the collection?
- Growth
 - How much new material is being added?





Goals – the purpose of the collection

- What level of program is supported?
- What is the nature of the user group?





Why does size matter?

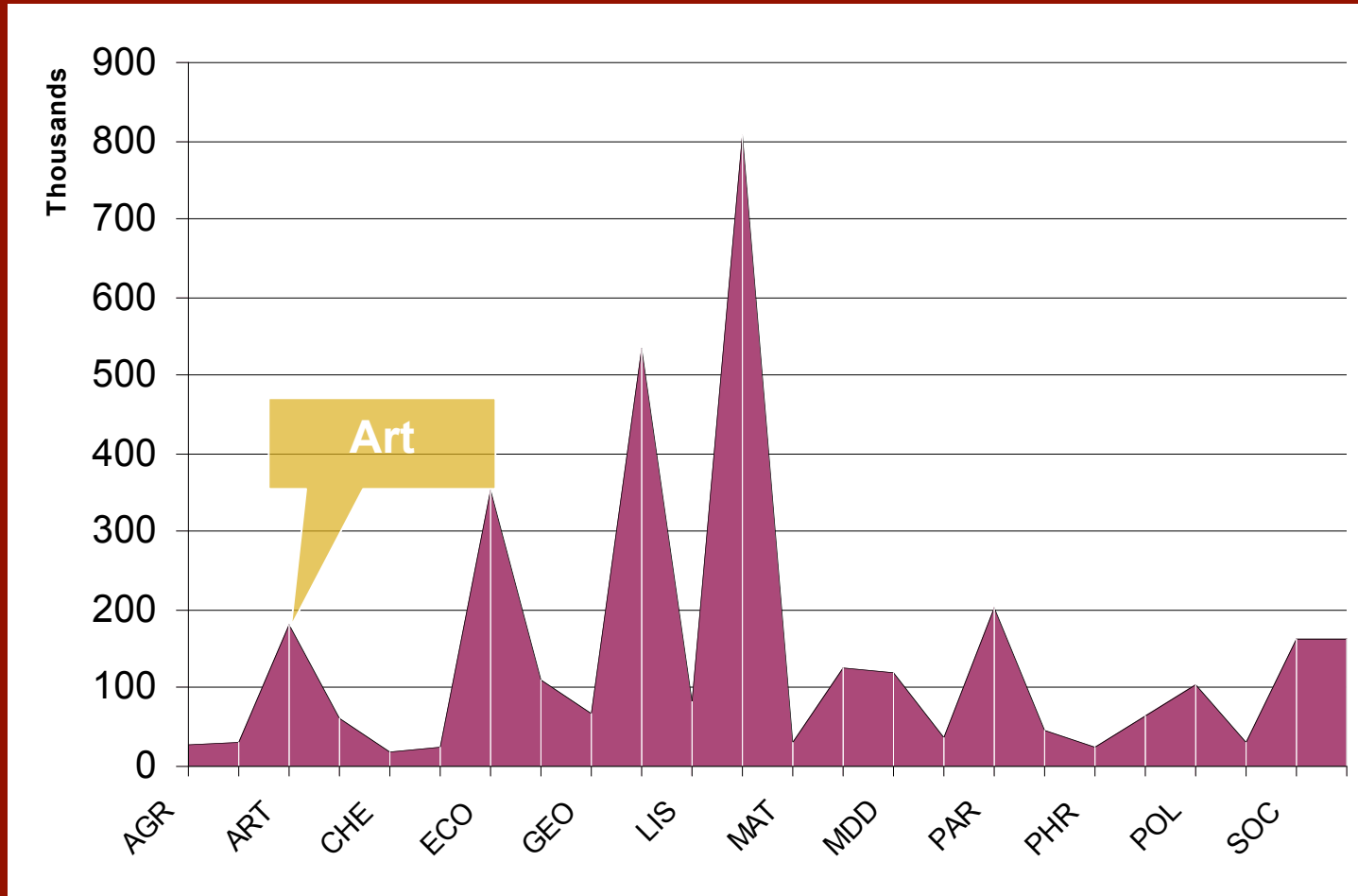
Larger collections hold more material

- of different ages
- on specialized aspects



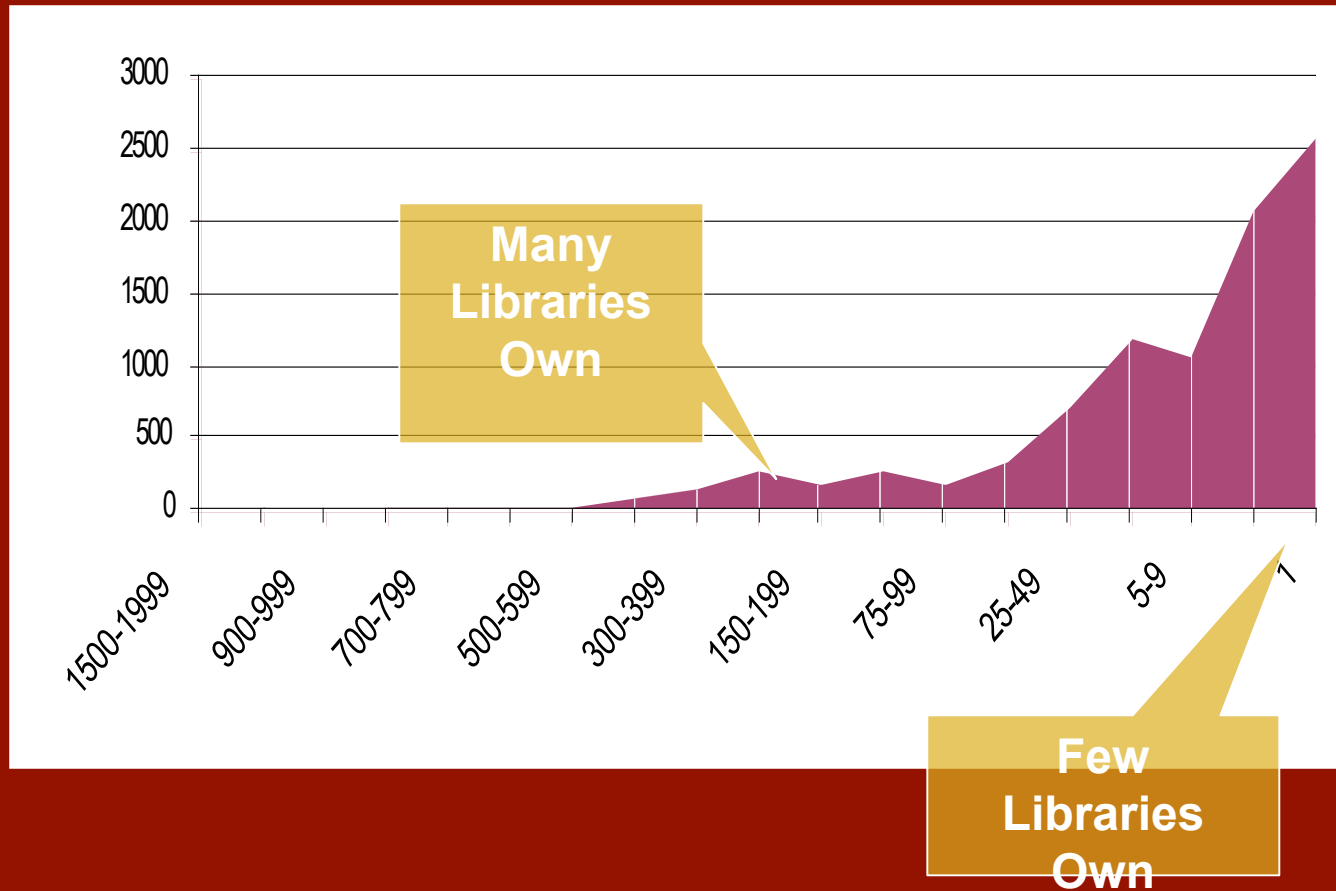


Publishing Patterns





Library Buying Patterns



- **Core** : Few books are bought by most libraries

- **Rare** : Many books are bought by few libraries.

- Strong collections include the Core and increasing number of Rare items.



Growth

“A Library is a Growing Organism”

- Even historic collections must add new critical works and reference tools to remain relevant



Breaking the Collection into Parts

How to define which parts of the collection are being reviewed?

- Classification systems
 - E.g., Conspectus
- Externally produced lists
 - E.g., Ulrichs subject headings for journals
- Ad hoc
 - E.g., keywords or other metadata to define a subset to compare among different collections





Benchmarking

- Peer
 - serve a population with similar goals
- Aspirational
 - the goals the collection aspires to
- Comprehensive
 - the most complete coverage





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Introduction to WorldCat Collection Analysis System (WCAS)

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OCLC

WorldCat Collection Analysis System (WCAS)

- Parts--uses Conspectus to break the collection into parts
- Benchmarks—allows selection from any OCLC library
- Parameters-- size, acquisition rate, and chronological depth



Sample Study—Industrial Design

- topic isn't very well mapped in Conspectus
- University of Alberta as a peer institution. We both offer an graduate program in industrial design.
- Built a “master list” to show total number of titles available.
 - Cornell, University of Illinois, University of Wisconsin
 - Largest ARL libraries that showed good match between title counts in catalogue and WorldCat





WCAS Example—Industrial Design

- Choose the benchmark
 - Check to see how well they are represented in WCAS
 - Compared a search of industrial design in title field

University of Alberta SIRSI	University of Alberta WorldCat
200 Records	221 Records



Mapping the Conspectus Topics

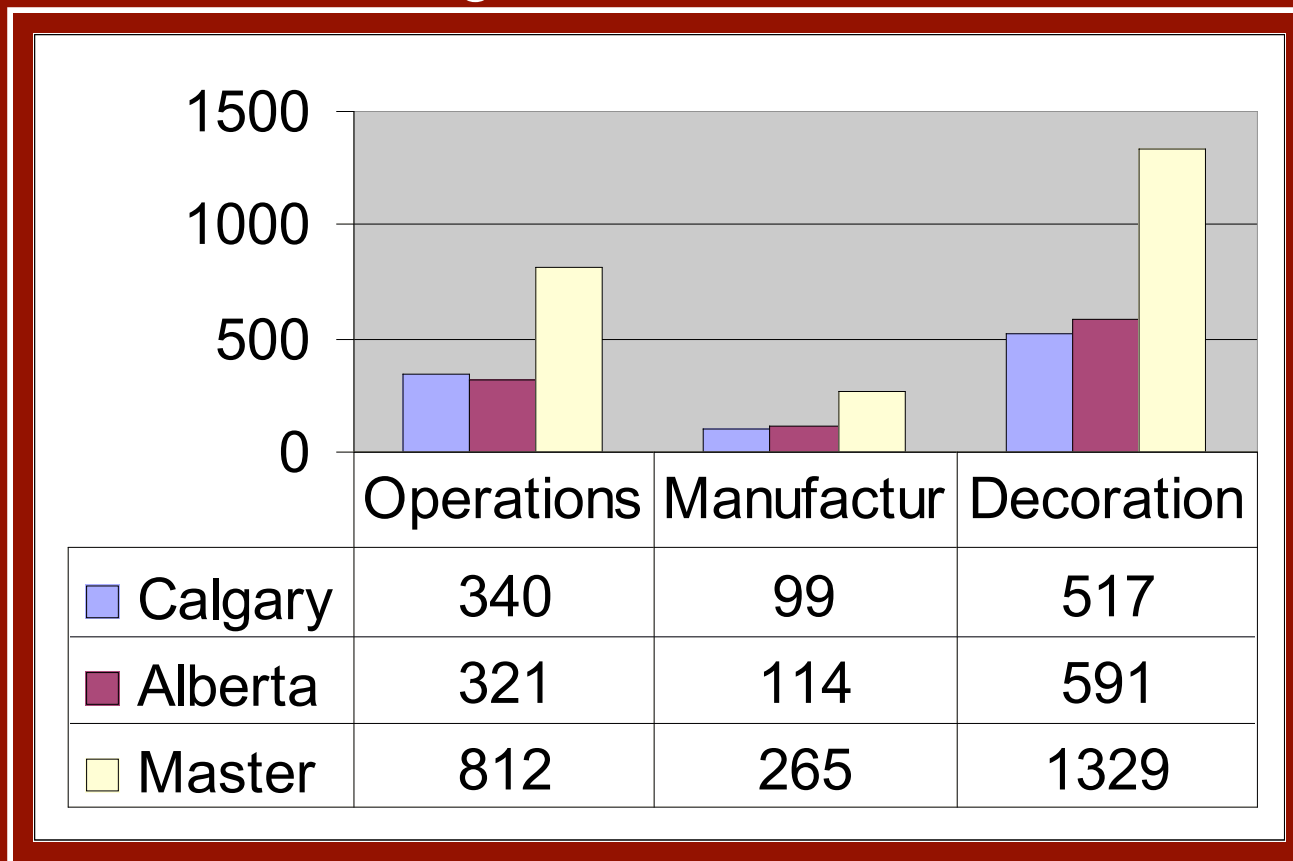
- Define collection parameters
 - Drew a sample of titles from OCLC with the subject industrial design

Call Number	Subject	%
TS 1 - TS 154	Manufactures General	10
NK 1160 – NK 1590	Decoration and Ornament	12
TS 155.8 – TS 194	Operations Management	45
	Other	23



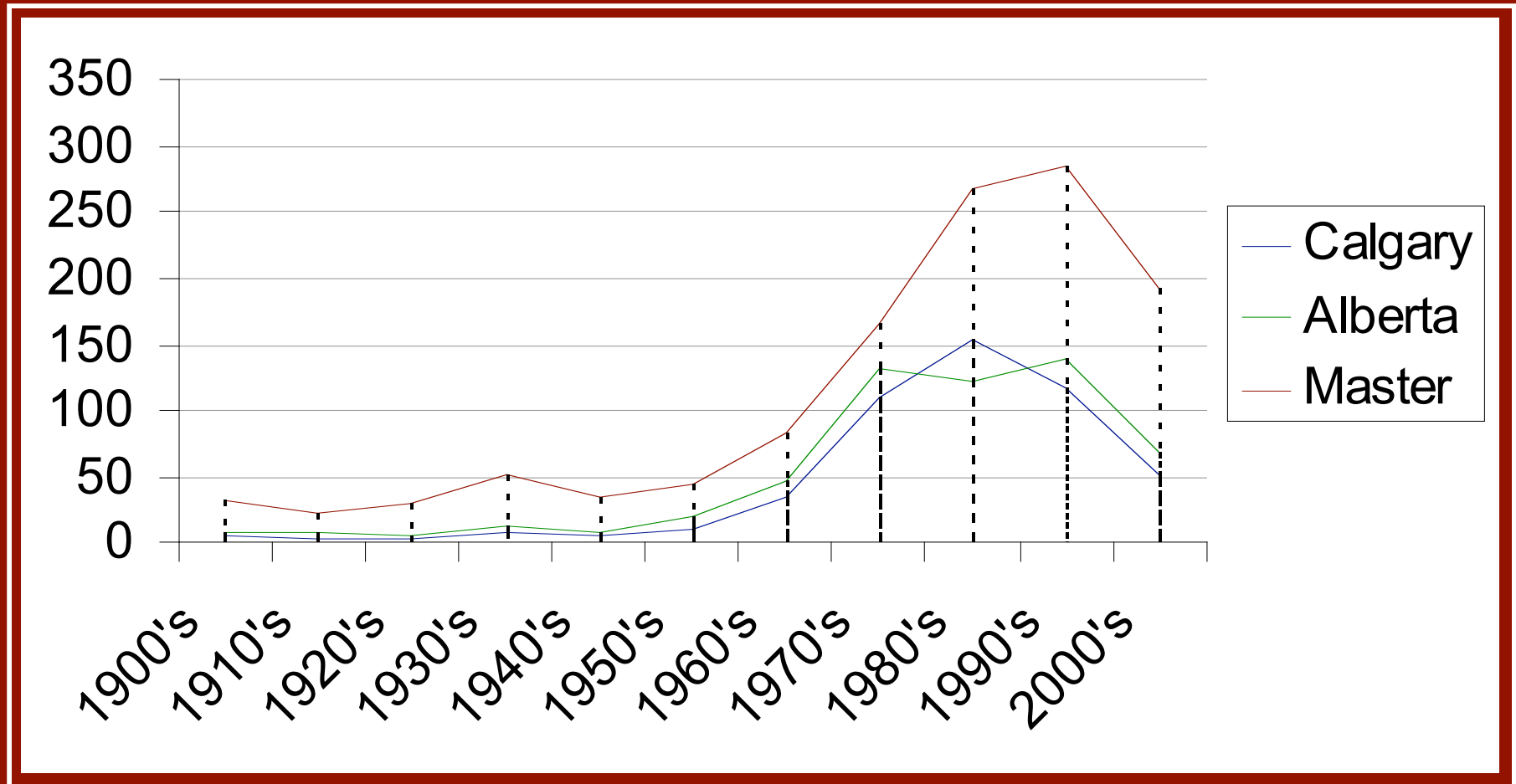
WCAS Example—Industrial Design

Number of Titles in Targets





Chronological View--Decoration





WCAS Example—Industrial Design

- Calculating the results
- $\text{Book cost} * \text{gap/goal} = \text{budget increase required}$
(Where do we get cost information?)
- What gap do you want to measure?
- Where would an increase place the library in terms of peers or aspirational groups?
- How do the acquisition rates measure against the number of books published in the subject area?



Calculating the Gap

Step One: Calculate Gap

- Alberta Total – Calgary Total = Gap
- 1026 – 956 = 70 Titles

Step Two: Extrapolate from Sample to Total Number of Books

- Sample was 67% of Total
- $(70 * 100) / 67 = 104$

Step Three: Multiply Gap by average book price

- $104 * \$77 = \$8,008$



WCAS Example—Industrial Design

- Calculating the results
- Average book cost * shortfall = budget increase required
- Double check
- Where would any increase place the library in terms of peers or aspirational groups?





Assess Recent Acquisition Rate

TOPIC	Source	2000	2001	2002	2003	2004	Avg/yr
Decoration NK1160-1590	Alberta	11	14	14	11	13	12.6
	Calgary	9	10	13	10	9	10.2
	Master	31	29	31	37	44	34.4
	Vendor	39	48	49	51	62	49.8
Manufacture TS1-154	Alberta	3	4		1		1.6
	Calgary	3	2	1	3	2	2.2
	Master	7	3	9	4	4	5.4
	Vendor	6	9	5	4	6	6
Operations TS155.8_194	Alberta	17	14	14	11	13	13.8
	Calgary	13	16	17	20	12	15.6
	Master	32	31	30	27	8	25.6
	Vendor	31	37	45	33	41	37.4





Search Results

The screenshot shows a web browser window displaying search results for a folder named 'ADV_TS_NK Folder: 846 titles'. The page lists four books with their respective details:

Title	Editor	Publisher	LC Class	Content Level	Pub Year	Binding	Volume	ISBN	US List	UK List	Date Added
DESIGN INNOVATIONEN JAHRBUCH 2001 = DESIGN INNOVATIONS YEARBOOK 2001	PETER ZEC	AVEDITION RED DOT	NK1160	ADV-AC	2001	Cloth	2001	392963855X	\$92.00 USD	Not Known	04/27/2006
INTERNATIONAL DESIGN YEARBOOK; 2000	INGO MAURER	LAURENCE KING	NK1160	GEN-AC	2000	Cloth	2000	1856691802	\$65.25 USD	£45.00 GBP	04/27/2006 alternate editions
INTERNATIONAL DESIGN YEARBOOK; 2001	DE LUCCHI, MICHELLE	LAURENCE KING	NK1160	GEN-AC	2001	Cloth	2001	1856692361	\$67.50 USD	£45.00 GBP	04/27/2006 alternate editions
ROBIN & LUCIENNE DAY: PIONEERS OF CONTEMPORARY DESIGN	JACKSON, LESLEY	MITCHELL BEAZLEY	NK1160	GEN-AC	2001	Cloth		1840002395			

Does the published material fall into your collection parameters?
Export and refine your data

Compare data content

Microsoft Excel - YBP ADVTS_NK

1	TITLE	PUBLISHER_NAME	PUB YE	LC CALL #	CONTENT	LC SUBJECT HEADINGS
2	DESIGN INNOVATIONEN JAHRBUCH	AVEDITION RED DOT	2001	TS176.W333	ADV-AC	DESIGN-PERIOD.
3	INTERNATIONAL DESIGN YEARBOOK	LAURENCE KING	2000	TS176.W42 2	GEN-AC	DESIGN-PERIOD.
4	INTERNATIONAL DESIGN YEARBOOK	LAURENCE KING	2001	TS176.W8 20	GEN-AC	1. DESIGN-HIST.--20TH CENT
5	ROBIN & LUCIENNE DAY: PIONEERS	MITCHELL BEAZLEY	2001	TS177.F324 2	GEN-AC	1. DESIGN-HIST.--20TH CENT
6	NEW TALENT DESIGN ANNUAL 2003	GRAPHIS	2002	TS178.4	GEN-AC	1. DESIGN-PERIOD. 2. GRAPH
7	NEW TALENT DESIGN ANNUAL 2004	GRAPHIS	2004	TS178.4.B64	GEN-AC	1. COMMERCIAL ART--PERIOD
8	INTERNATIONAL DESIGN YEARBOOK	ABBEVILLE	2000	TS178.4.I34	GEN-AC	1. DESIGN-HIST.--20TH CENT
9	INTERNATIONAL DESIGN YEARBOOK	ABBEVILLE	2001	TS178.4.I56	GEN-AC	DESIGN-HIST.--20TH CENT.--
10	INTERNATIONAL DESIGN YEARBOOK	ABBEVILLE	2002	TS180.8.B8B3	GEN-AC	DESIGN-HIST.--20TH CENT.--
11	INTERNATIONAL DESIGN YEARBOOK	ABBEVILLE	2003	TS180.8.B8H3	GEN-AC	1. DESIGN-HIST.--20TH CENT
12	INTERNATIONAL DESIGN YEARBOOK	ABBEVILLE	2004	TS180.R435 2	GEN-AC	DESIGN-HIST.--20TH CENT.--
13	INTERNATIONAL DESIGN YEARBOOK	LAURENCE KING	2003	TS183	GEN-AC	DESIGN-HIST.--20TH CENT.--
14	INTERNATIONAL DESIGN YEARBOOK	LAURENCE KING	2004	TS183.3.B45	GEN-AC	1. DESIGN-HIST.--20TH CENT
15	LIFE STYLE	PHAIDON	2000	TS183.3.G43	GEN-AC	DESIGN.
16	ST. MORITZ DESIGN SUMMIT	ARNOLDSCH	2002	TS183.3.N45	GEN-AC	DESIGN.
17	UNIVERSAL PRINCIPLES OF DESIGN	ROCKPORT PUBLISH	2003	TS183.3.W38	GEN-AC	DESIGN.
18	DICTIONARY OF MODERN DESIGN.	OXFORD UNIVERSITY	2003	TS183.A53 2	GEN-AC	DESIGN-DICTIONARIES.
19	WHO'S WHO IN DESIGN; V. 2	RED DOT EDITION	2003	TS183.B42 2C	GEN-AC	DESIGN-DICT.
20	DUTCH DESIGN, 2004/2005.	BIS PUBLISHERS	2004	NK1165.W66	GEN-AC	DESIGN-DIRECT.
21	MEETING SEN IN THE CURRICULUM	DAVID FULTON	2004	NK1167	GEN-AC	DESIGNERS--NETHERLANDS
22	VISUALIZING RESEARCH: A GUIDE TO	CASHGATE	2004	NK1170	PROF	DESIGN & TECHNOLOGY--STU
23	CAREERS IN FOCUS: DESIGN.	FERGUSON	2002	NK1170.G68 2	ADV-AC	DESIGN-RESEARCH-METHC
24	HANDBOOK OF FORMS AND LETTER	JOHN WILEY	2004	NK1172.C37 2	POP	DESIGN-VOCATIONAL GUIDA
			2004	NK1173.H36 2	PROF	1. DESIGN SERVICES--FORMS

Microsoft Excel - Master WCAS 2000_2005

1	Source	Title	LC Call Number	Imprint	Publisher
2	Master	Alvar Aalto, designer /	TS145	2002	Helsinki : A
3	Master	World design : the best in classic and contempor	TS146	2000	San Franci
4	Alberta	World design : the best in classic and contempor	TS149	2000	San Franci
5	Calgary	World design : the best in classic and contempor	TS156	2000	San Franci
6	Master	Six Sigma deployment /	TS156.2	2003	Amsterdam
7	Alberta	Six Sigma deployment /	TS156.2	2003	Amsterdam
8	Calgary	Six Sigma deployment /	TS170	2003	Amsterdam
9	Master	Viktor Schreckengost and 20th-century design /	TS170.HF5415.2	2000	Cleveland, O
10	Calgary	Viktor Schreckengost and 20th-century design /	TS170.5	2000	Cleveland, O
11	Master	Industrial strength design : how Brooks Stevens s	TS171	2003	Milwaukee,
12	Calgary	Industrial strength design : how Brooks Stevens s	TS171.4	2003	Milwaukee,
13	Master	Design management as a strategic instrument /	TS171.4	2002	Vaasa : Un
14	Master	Design! : a lively guide to design basics for artists	TS171.6	2004	New York :
15	Master	Anni Albers : selected writings on design /	TS171.A1	2000	Hanover : U
16	Master	Russel Wright : creating American lifestyle /	TS173	2001	New York :
17	Alberta	Russel Wright : creating American lifestyle /	TS23	2001	New York :
18	Master	Icons of design! : the 20th century /	TS26	2000	Munich ; N
19	Alberta	Icons of design! : the 20th century /	TS171	2000	Munich ; N
20	Master	Design in steel, 1973.	NK141Z.W75	Other	[New York?
21	Master	Korean motifs /	NK1484.6.A1	Other	Seoul, Kore
22	Calgary	High quality at economical cost : concepts, appr	TS156	2003	New Delhi
23	Calgary	Industry genius : inventions and people protectin	TS171.4	2003	Sheffield, U
24	Alberta	Animalhouse : when objects have animals' names	NK1452.A1	2002	Milano : Tri

Growth: set your goal

	Decoration NK1160-1591	Manufacture TS1-155	Operations TS155.8-195
Calgary Titles Purchased	10.2	2.2	15.6
Vendor Titles Published	34.4	6	37.4
% Calgary purchases	29.65%	36.67%	41.71%
Goal = 75% of published titles	25.8	4.5	28.05
Avg Book Cost	\$49.33	\$99.23	\$99.23
\$ to reach Goal	\$1,272.71	\$446.54	\$2,783.40

Total \$ to reach goal = \$ 4205.65

- Calculate the gap (peer, aspirational, % titles published)
- # of titles
- \$ to fill gap

WCAS cautions

- Make sure comparison collections are represented
 - Make sure you and comparison groups follow similar classification practices
 - Not good for e-books, journals, or microforms
 - Don't blindly trust the data, understand your data, review and think critically
-

WCAS cautions

- Make sure comparison collections are represented
 - Make sure you and comparison groups follow similar classification practices
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-



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Introduction to Ulrichsweb Serials Analysis System

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Challenges in Assessing Serial Collections

Accurate Data

- Comprehensive list
- Breaking list into parts

Extracting Data

- Pulling the data into a delimited file

Benchmarks

- Can other institutions provide usable data?



Ulrichs Serials Analysis System

A tool for creating serials reports

- Uses ISSN's as the basis for matching
 - Problem...ISSN's may not be that accurate a tool
- Can upload local lists into the system
- Can also create lists in Ulrichsweb and transfer them to the system
- Supports a variety of reports





Mechanics

- Create a sample list in Ulrichsweb
- Export the list to your local computer
- Modify the list so ISSN is the first column
- Upload list to SAS
- Perform peer group analysis
- Export the lists to your local computer
- Add your local holdings information





Analysis

- What percentage of the sample is held?

51 titles

UofC held 26 or 51%

Peers held 29 or 57%

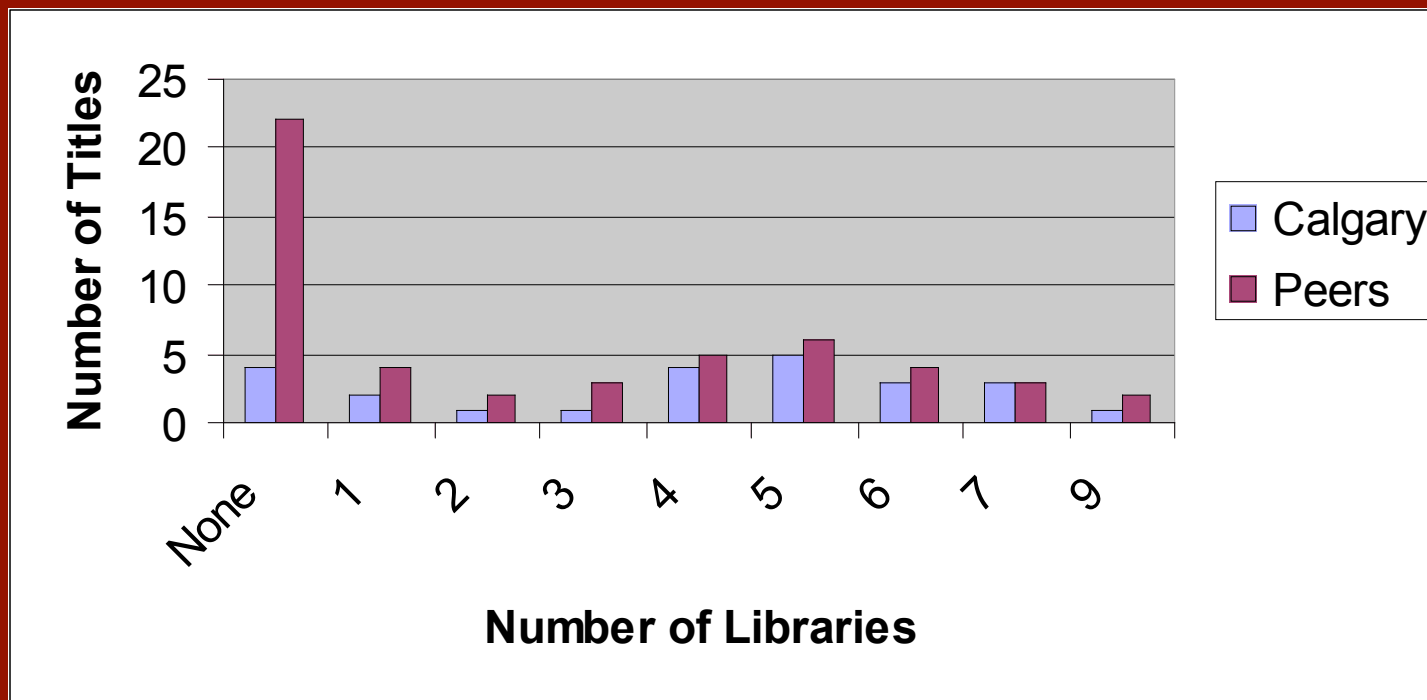
Hint that journal collection may not be as strong as it should be for a graduate program.





Analysis

Distribution by Frequency of Ownership





Analysis

Found in	Title	Price
1	International Journal of Design Computing	
1	Journal of Design & Technology Education	GBP 50
2	Scandinavian Journal of Design History	USD 31
3	Engineering Design Graphics Journal	USD 24
3	Journal of Decorative and Propaganda Arts	USD 25
4	Journal of Interior Design	
5	Studies in History of Gardens & Designed Landscapes	USD 756
6	Materials & Design	USD 1085

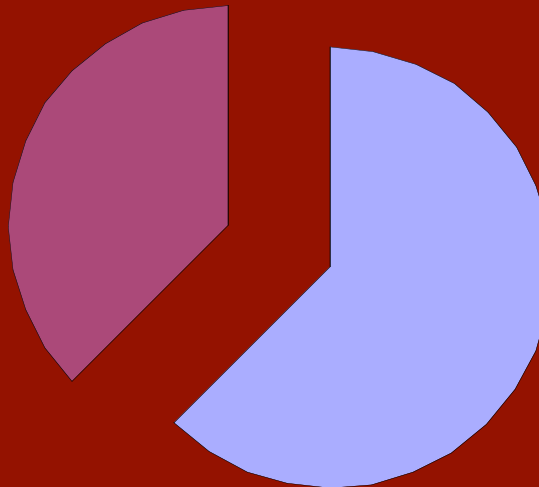




Analysis

- Distribution by format

Print 38%



Online 62 %





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Brief Tests....a variation on Howard White

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Brief Tests of Collection Strength

Item Information

A Look Inside

Catalogue Record

Brief tests of collection strength : a methodology for all types of libraries

White, Howard D.

Personal author: [White, Howard D.](#)

Title: [Brief tests of collection strength : a methodology for all types of libraries / Howard D. White.](#)

Publication info: Westport, Conn. : Greenwood Press, 1995.

Physical description: xii, 191 p. ; 25 cm.

Series: [\(Contributions in librarianship and information science ; no. 88\)](#)

Bibliography note: Includes bibliographical references (p. [185]-191) and index.

Subject: [Collection development \(Libraries\)--United States--Evaluation](#)

ISBN: 0313297533 (alk. paper)





The Long Tail

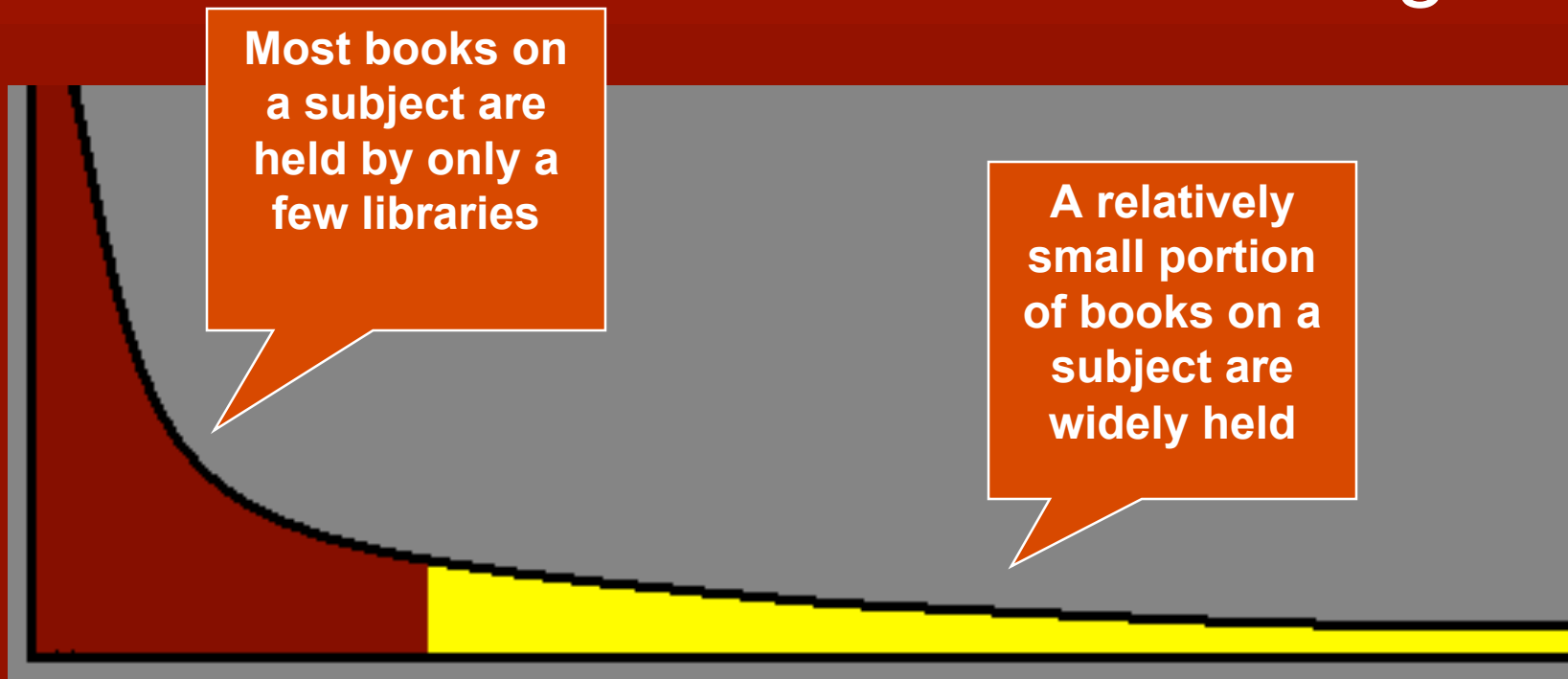


Image from The Long Tail, Wikipedia,
http://en.wikipedia.org/wiki/Long_Tail

Made in Microsoft Paint by [Ral315](#) on January 11, 2006. Released into the public domain for any purposes



Using WorldCat for Brief Tests

Search	Clear
<input type="checkbox"/> 1500-1999	1
<input type="checkbox"/> 1000-1499	1
<input type="checkbox"/> 800-899	1
<input type="checkbox"/> 700-799	4
<input type="checkbox"/> 600-699	9
<input type="checkbox"/> 500-599	11
<input type="checkbox"/> 400-499	13
<input type="checkbox"/> 300-399	23
<input type="checkbox"/> 200-299	62
<input type="checkbox"/> 150-199	45
<input type="checkbox"/> 100-149	40
<input type="checkbox"/> 75-99	28
<input type="checkbox"/> 50-74	23
<input type="checkbox"/> 25-49	63
<input type="checkbox"/> 10-24	125
<input type="checkbox"/> 5-9	90

1-135

136-270

271-405

406-539

1. Divide the results into four equally sized chunks

2. Go back to results and Sort by number of libraries

3. Pick 20 titles from each of the four chunks



Analysis

SUBJECT: Peacekeeping

TOTAL HITS: 539

SEARCH TERM(S): peacekeeping

LIMITATIONS/EXCLUSIONS: G.P.O. and Govt. Print. Off., And general accounting of 2000 . English. 5 or more libraries.

BASIC

Institution	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Score
Calgary	☺	✗	☺	☺	✗	✗	☺	✗	☺	☺	☺	☺	✗	☺	☺	☺	☺	✗	✗	☺	7/20
Wilfred Laurier	☺	☺	✗	☺	✗	☺	☺	✗	✗	✗	☺	☺	☺	☺	☺	✗	☺	✗	✗	☺	8/20
Toronto	✗	✗	✗	✗	✗	✗	✗	✗	✗	☺	☺	✗	✗	✗	✗	✗	☺	✗	✗	✗	17/20

TEACHING

Institution	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Score
Calgary	☺	☺	☺	✗	✗	☺	☺	☺	☺	☺	☺	☺	☺	☺	✗	☺	☺	☺	☺	☺	3/20
Wilfred Laurier	☺	☺	✗	☺	☺	☺	☺	☺	✗	✗	☺	☺	✗	☺	✗	☺	☺	☺	☺	☺	5/20
Toronto	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	☺	✗	☺	✗	✗	☺	☺	☺	☺	14/20

ADVANCED

Institution	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Score
Calgary	☺	☺	☺	☺	✗	✗	✗	☺	✗	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	4/20
Wilfred Laurier	☺	☺	☺	☺	☺	✗	✗	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	✗	☺	☺	3/20
Toronto	✗	☺	☺	☺	✗	✗	✗	☺	✗	☺	☺	✗	✗	☺	☺	✗	☺	✗	☺	☺	9/20

RESEARCH

Institution	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Score
Calgary	☺	☺	☺	✗	☺	☺	☺	☺	✗	✗	☺	✗	☺	☺	☺	☺	☺	☺	☺	☺	4/20
Wilfred Laurier	☺	☺	☺	☺	☺	☺	☺	✗	☺	☺	☺	✗	☺	☺	☺	☺	☺	☺	☺	☺	2/20
Toronto	✗	☺	☺	✗	☺	☺	☺	✗	✗	✗	☺	✗	☺	☺	☺	☺	☺	☺	☺	☺	6/20

COMMENTS:

EVALUATOR: Busy Bee

DATE: Any time

Sample Worksheet
Shows scores for each test institution.