

# OhioLINK Collection Analysis Project

Annual RLG  
Partnership  
Meeting  
June 2, 2009

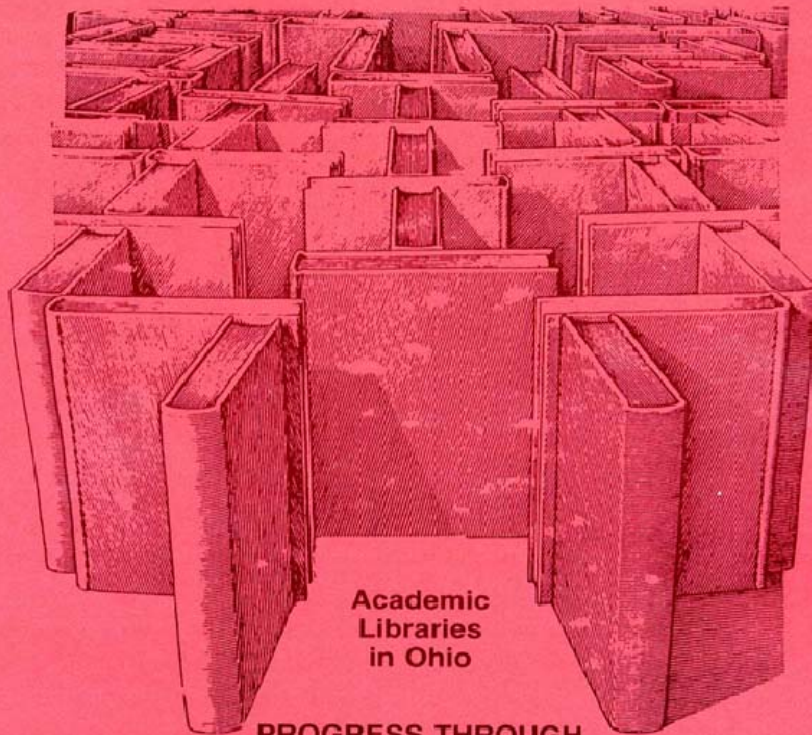
## Preliminary Analysis

Ed O'Neill, OCLC Research

# The Overview



# Origin of OhioLINK



Originated in 1987 with the *Library Study Committee Report's* recommendation to:

- Build shared depositories
- Create a statewide catalog

PROGRESS THROUGH  
COLLABORATION, STORAGE, AND TECHNOLOGY



Report of the Library Study Committee  
September, 1987

# OhioLINK Today



- ❑ Shared catalog with patron initiated borrowing
- ❑ Nearly 50 million books and other library materials
- ❑ Over 600,000 users at over a hundred institutions
- ❑ Includes virtually all academic libraries in Ohio:
  - The State Library of Ohio
  - 5 ARL Institutions
  - 11 Universities
  - 44 Colleges
  - 15 Community Colleges
  - 28 Branch campuses
  - 5 Depositories
  - 3 Museums and other independent cultural institutions
  - 20 Off-campus hospitals and medical centers

# Project Goals

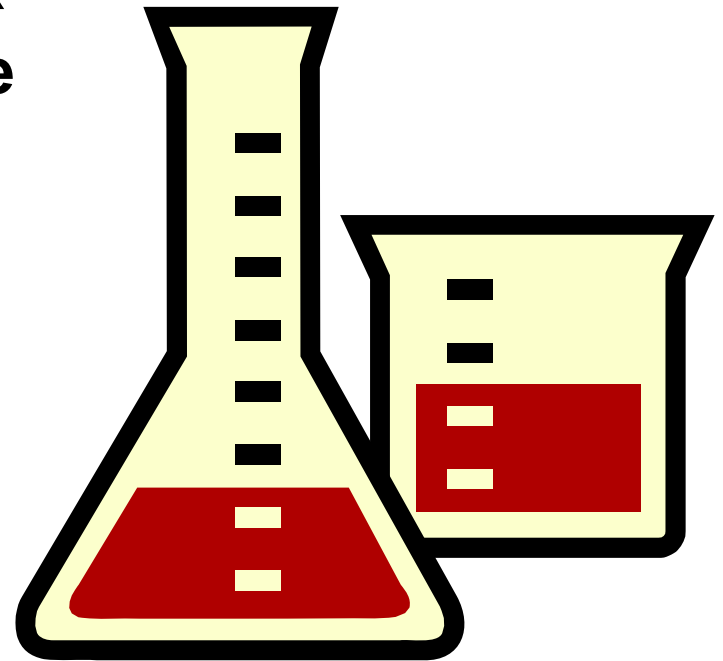


For the **book** collection:

- To **reduce** unnecessary duplication
- To **increase** local collection development activities
- To **expand** the amount spent on cooperative acquisitions
- To **strengthen** the collective collection

# Research Project

- ❑ Joint study by OhioLINK, OhioLINK members, OhioLINK Collection Building Task Force (CBTF) and OCLC Research
- ❑ This project is distinct from OCLC's collection analysis service
- ❑ Much of the planned analysis is new and untested



# Distinctive Aspects



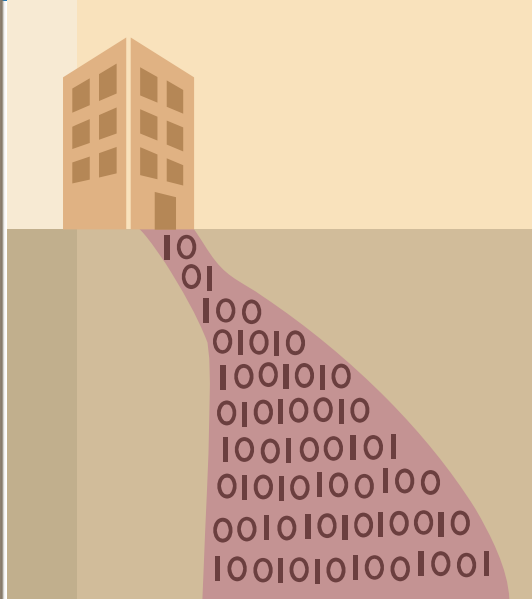
- ❑ Size and scope of collections
- ❑ Use of local holdings and circulation information
- ❑ Number and variety of institutions
- ❑ FRBR (Functional Requirements for Bibliographic Records)
- ❑ New metrics (Audience Level, Comprehensiveness, ...)

# Caution!



- ❑ The project is “in progress” and further data analysis is planned.
- ❑ Results are preliminary.

# The Data



Item No.: i25878591  
OCLC No.: 45207959  
Title: The infinite / A.W. Moore  
LCCN: 00051722  
Location Code: bc  
Status Code: -  
Circulation: 5  
Renewals: 1  
Accession date: 8/3/2001  
Date of Last Use: 8/23/2004  
ISBN: 0415252857 (pbk.)  
Source: Akron

**Circulation data for all institutions was collected twice:**

- First Sample: May 2007**
- Second Sample: May 2008**

# WorldCat Linking



The OCLC Number is used to link the circulation records to the corresponding bibliographic record in WorldCat

- Obsolete OCLC numbers were replaced,**
- Unique LCCNs or ISBNs were used to identify an OCLC number,**
- Records lacking any standard number were excluded from the study,**
- Records from the 2007 & 2008 circulation files were paired to determine annual circulation,**
- Approximately 93% of the records were validated; many of the unvalidated records were for non-book materials.**

# The Circulation Data



Total circulation	49,697,093
No. of items (Volumes)	29,570,205
Number of items circulated	11,850,584
No. circulated in previous year	2,715,573
No. of manifestations (Books)	6,955,505
Number of books circulated	3,402,603
No. circulated in previous year	986,208

# *Types of Analysis*

- Institution focused
- The *Collective* collection
- Subject based



# Institution Focused Analysis



- Detailed holdings
- General Statistics
- Languages
- Age
- Subjects

# Multi Level Structure



Top level units:

University of Akron

Individual campus, depositories, and external organizations (Museums, Centers, Hospitals)

Second level units:

University Libraries

Separate administrative units [university libraries, law, medicine, etc.) or distinct library units.

Third level units:

Bierce Library

Distinct library units.

Location codes :

bccco, bccct, bccir,  
bccm, bcfgd, bcfgdo,  
bcmu, ...

The codes used within OhioLINK to identify the location of the individual items. Over 4,200 different location codes are used.

# Three Level Structure for Akron



Library Unit	Complete Collection	Circulating Collection	Circulation (2007-08)	Circulation Rate
Akron Campus	841,303	705,119	84,332	0.120
Law	89,231	37,503	4,852	0.129
University Libraries	752,072	667,616	79,480	0.119
Bierce	637,975	587,793	63,623	0.108
Science	88,055	78,837	15,848	0.201
Archives	25,600	595	8	0.013
Local Storage	442	391	1	0.003
Wayne Campus	21,327	18,664	4,135	0.222
NE Depository	261,070	257,182	4,539	0.018

# General



Library Unit	Holdings			Unique Holdings			Total Circulation		Annual Circ.		Active Materials	
	Total	Circulating	Non-Circ	Number	Percentage	Audience Level	Frequency	Rate	Frequency	Rate	Number	Percentage
NE Depository	260,382	256,961	3,421	16,719	6%	0.65	310,785	0.102	4,403	0.017	106,624	41%
Wayne Campus	21,474	19,792	1,682	807	4%	0.37	54,051	0.278	4,699	0.237	13,895	65%
Akron Art Museum	41	0	41	7	17%	0.62	0				41	100%
University of Akron	764,925	650,730	114,195	38,590	5%	0.60	2,716,868	0.370	71,186	0.109	430,628	56%
Law	89,207	27,381	61,826	3,674	4%	0.71	47,993	0.166	4,714	0.172	74,827	84%
University Libraries	675,718	623,349	52,369	34,916	5%	0.59	2,668,875	0.378	66,472	0.107	355,801	53%
Bierce	637,975	621,624	16,351	30,192	5%	0.59	2,663,292	0.378	65,267	0.105	318,405	50%
Science	11,701	1,620	10,081	766	7%	0.59	5,579	0.430	1,204	0.743	11,394	97%
Archives	25,600	0	25,600	3,940	15%	0.46	0				25,600	100%
Local Storage	442	105	337	18	4%	0.83	4	0.007	1	0.010	402	91%

# Age



Library Unit	Average Age	All Items	Circ. Items	<u>All Dates</u>		Circ. Rate
				Active Items	Annual Circ.	
NE Depository	50.5	261,070	256,961	4,010	4,403	0.017
Wayne Campus	18.1	21,474	19,792	3,562	4,699	0.237
Akron Art Museum	25.1	11,760	0	0	0	0.000
Akron Campus	28.3	841,303	726,994	67,887	87,309	0.120
Law	34.4	89,231	27,381	1,713	4,714	0.172
University Libraries	27.8	752,072	699,613	66,174	82,595	0.118
Bierce	27.2	637,975	621,624	53,415	65,266	0.105
Science	21.1	88,055	77,884	12,758	17,328	0.222
Archives	64.6	25,600	0	0	0	0.000
Local Storage	49.1	442	105	1	1	0.010
Goodyear Tire Company	20.1	497	0	0	0	0.000

# Languages

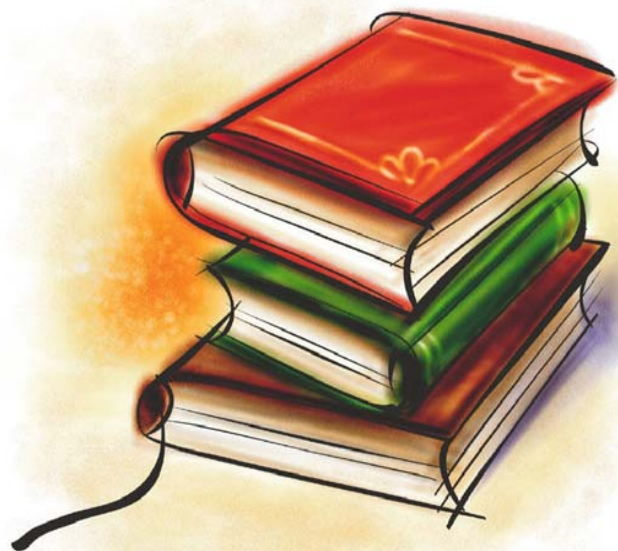


Library Unit	<u>All Languages</u>				<u>French</u>			
	All Items	Circ. Items	Circ.	Circ Rate	All Items	Circ. Items	Circ.	Circ Rate
NE Depository	260,382	256,961	4,403	0.017	6,429	6,429	76	0.012
Wayne Campus	21,474	19,792	4,699	0.237	4	4	0	0.000
Akron Art Museum	41	0	0		0	0	0	
University of Akron	764,925	650,730	71,186	0.109	3,500	2,678	153	0.057
Law	89,207	27,381	4,714	0.172	52	42	0	0.000
University Libraries	675,718	623,349	66,472	0.107	3,448	2,636	153	0.058
Bierce	637,975	621,624	65,267	0.105	2,934	2,633	153	0.058
Science	11,701	1,620	1,204	0.743	29	0	0	
Archives	25,600	0	0		480	0	0	
Local Storage	442	105	1	0.010	5	3	0	0.000

# Subjects

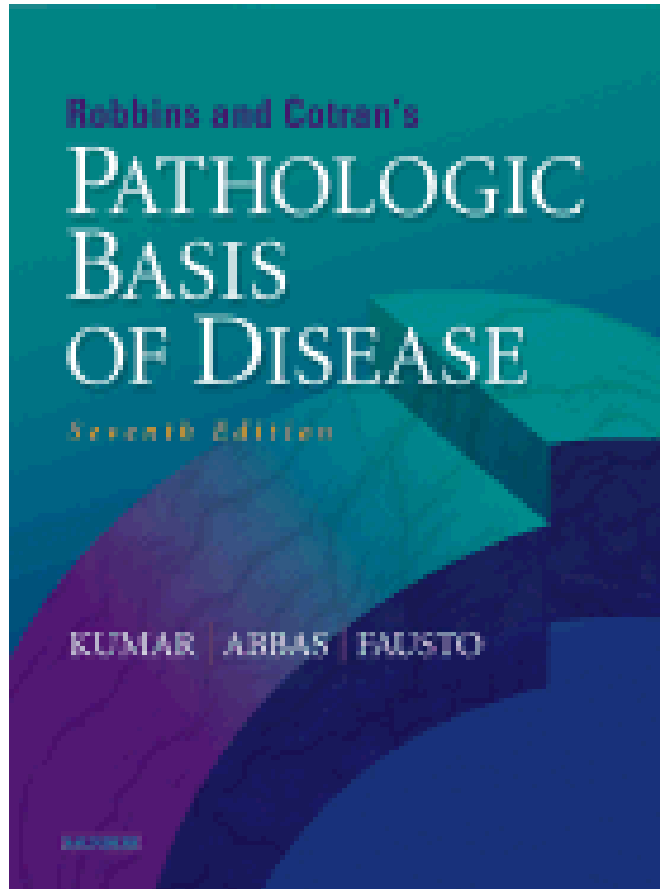


Library Unit	All Materials				Ethics			
	All Items	Circ. Items	Annual Circ.	Circ. Rate	All Items	Circ. Items	Annual Circ.	Circ. Rate
NE Depository	260,382	256,961	4,403	0.017	386	386	6	0.016
Wayne Campus	21,474	19,792	4,699	0.237	84	80	19	0.238
Akron Art Museum	41	0	0		0	0	0	
University of Akron	764,925	650,730	71,186	0.109	1,606	1,456	198	0.136
Law	89,207	27,381	4,714	0.172	38	37	1	0.027
University Libraries	675,718	623,349	66,472	0.107	1,568	1,419	197	0.139
Bierce	637,975	621,624	65,267	0.105	1,431	1,419	197	0.139
Science	11,701	1,620	1,204	0.743	0	0	0	
Archives	25,600	0	0		137	0	0	
Local Storage	442	105	1	0.010	0	0	0	



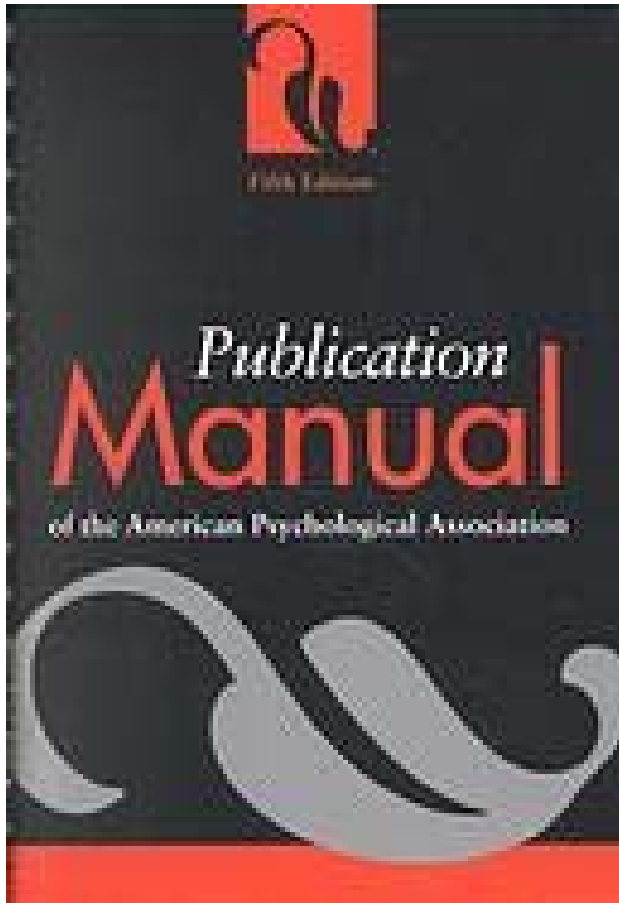
- How many items are held?
- What languages?
- How old?
- How many are unique?
- In what subjects?
- How many copies are needed?

# Most Used



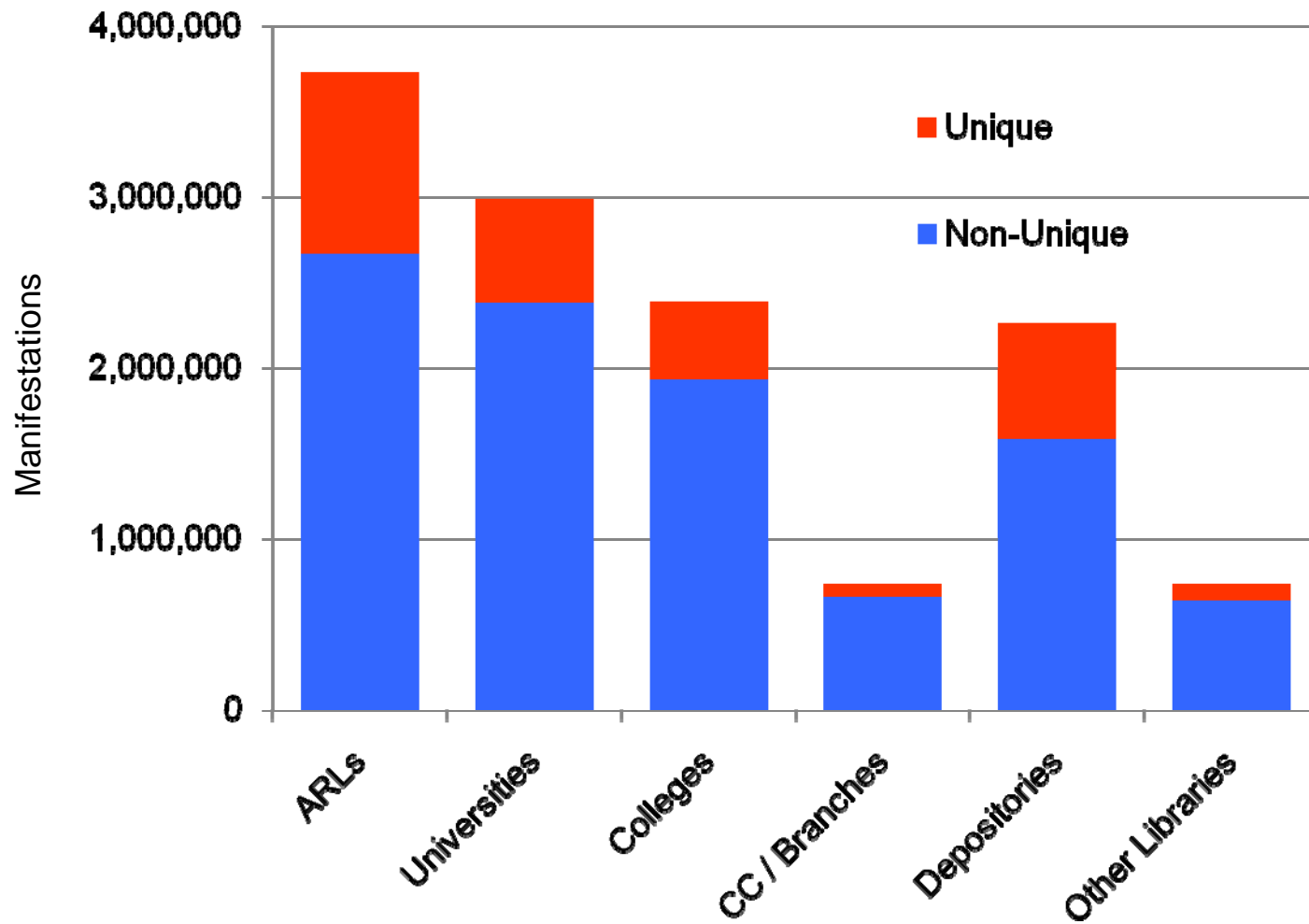
**Total Circulation 2007-2008: 796**

# Most Widely Held

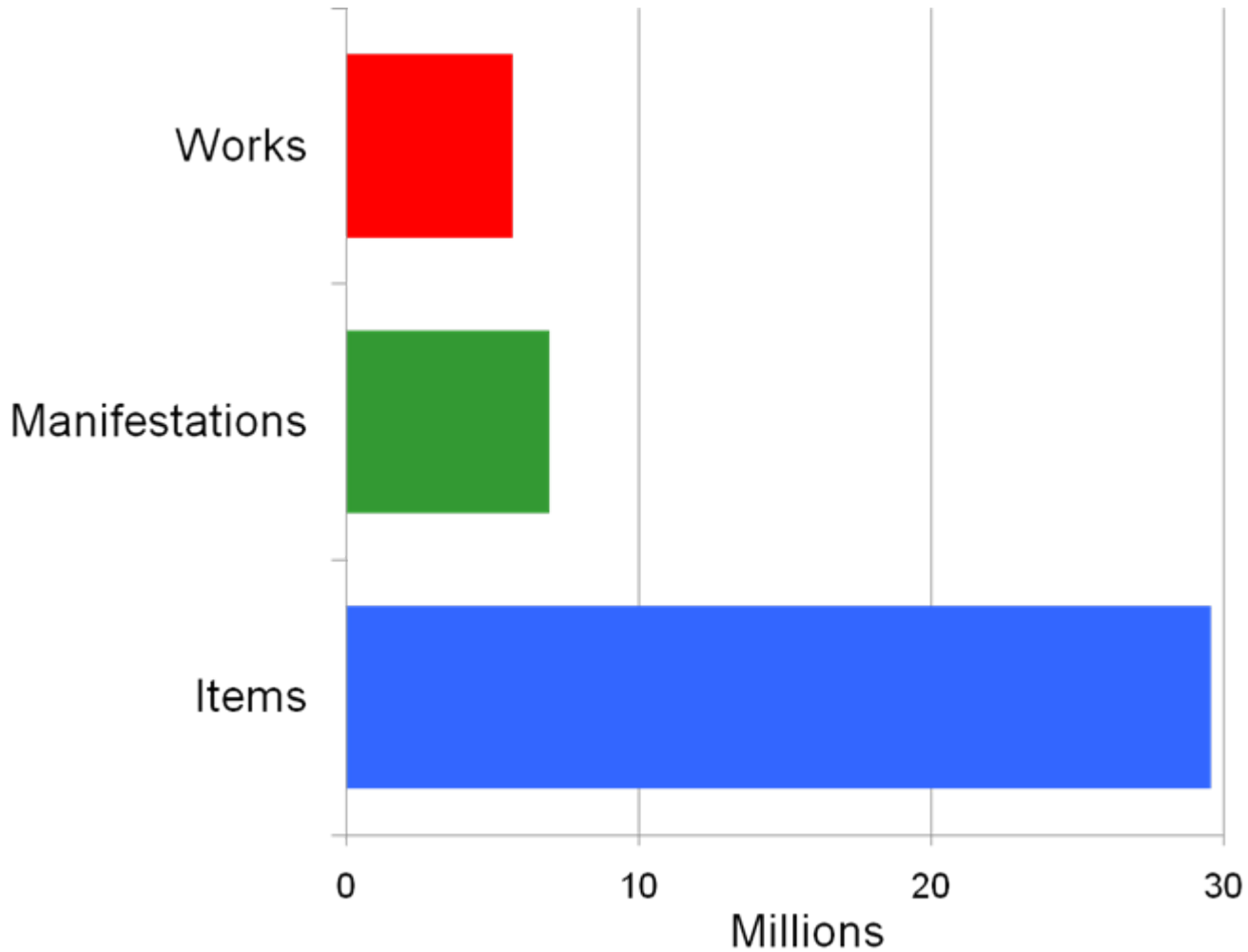


**Held by 69 Institutions (95%)**

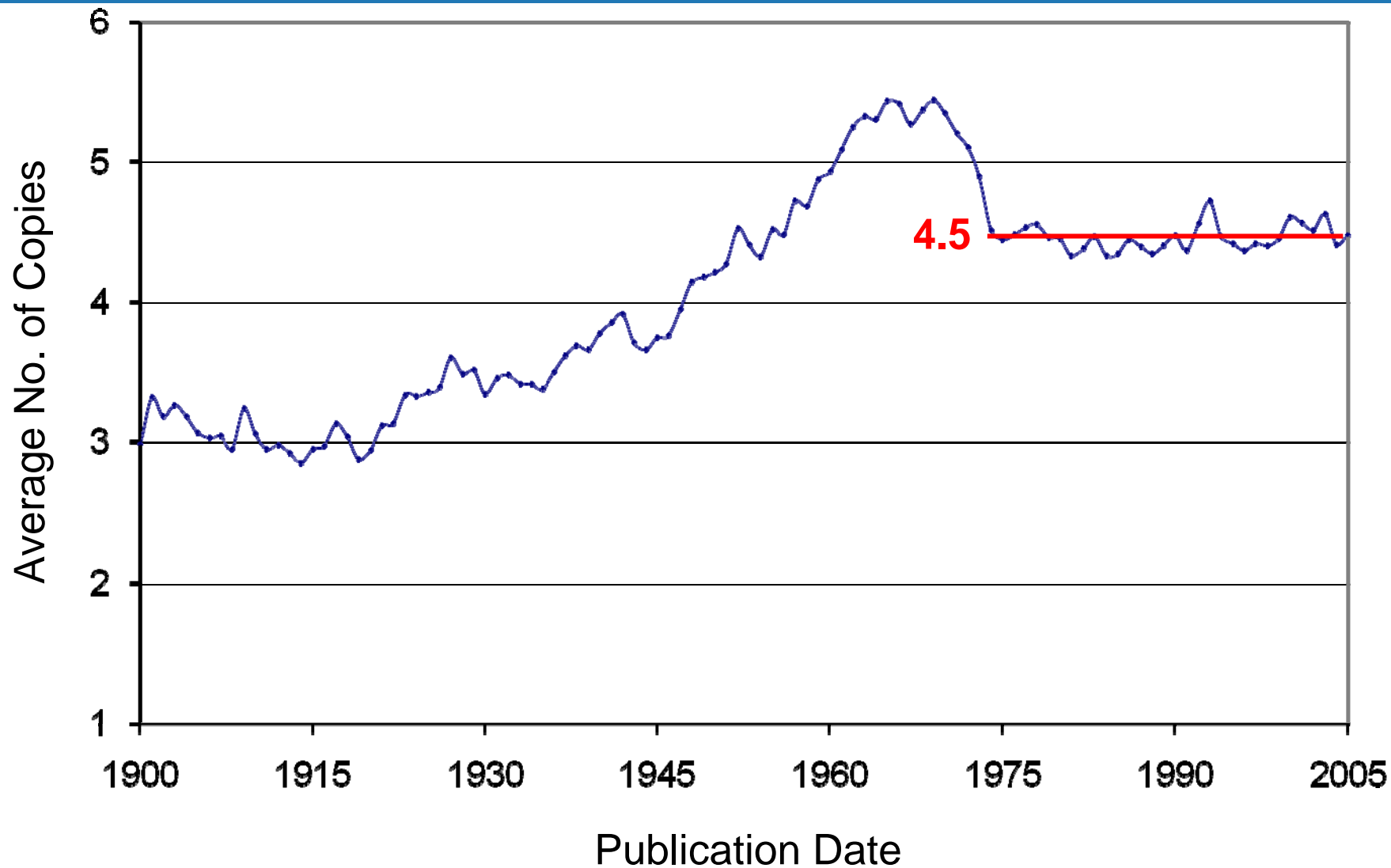
# Distribution of Resources



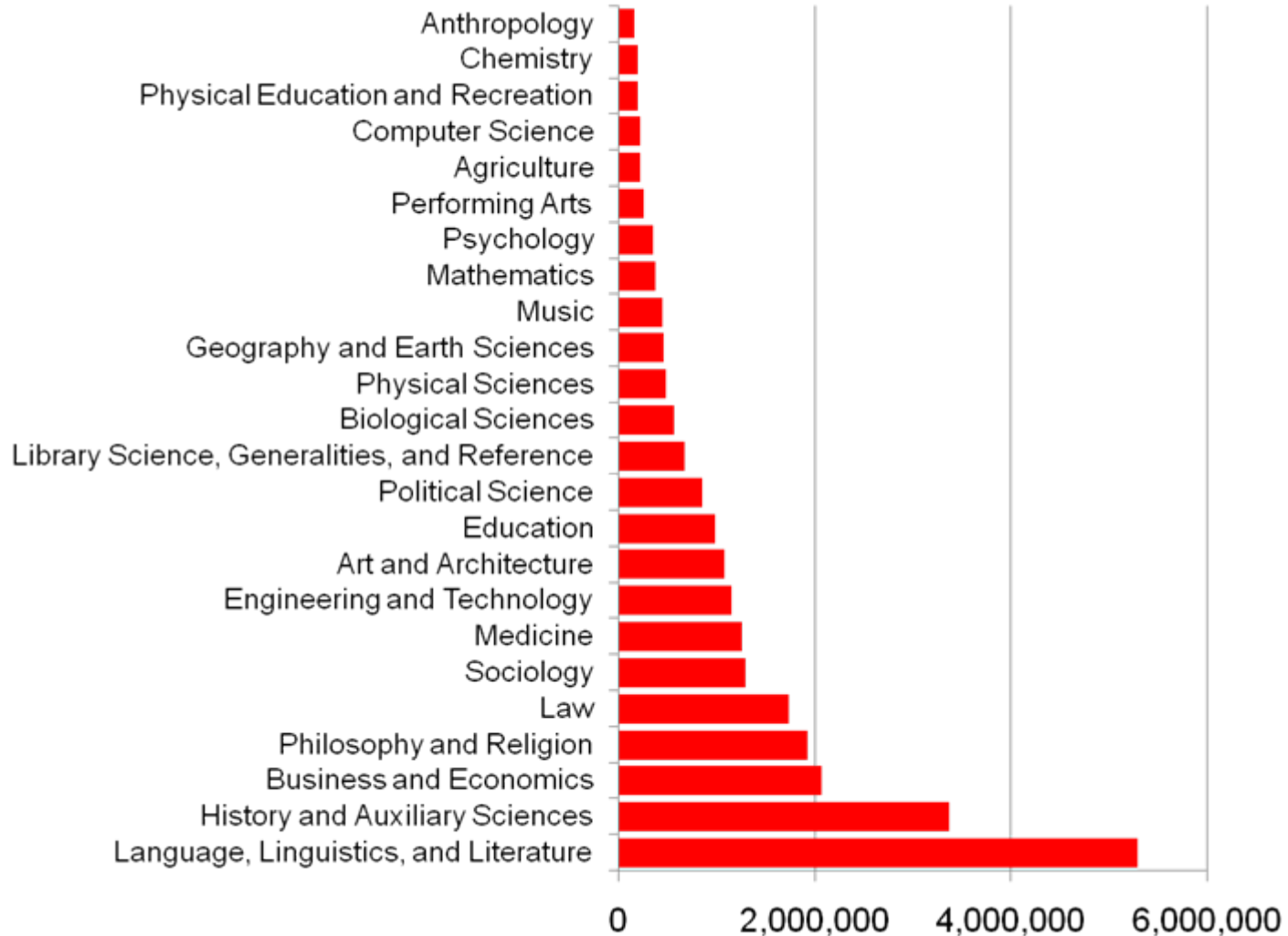
# OhioLINK Resources (FRBR View)



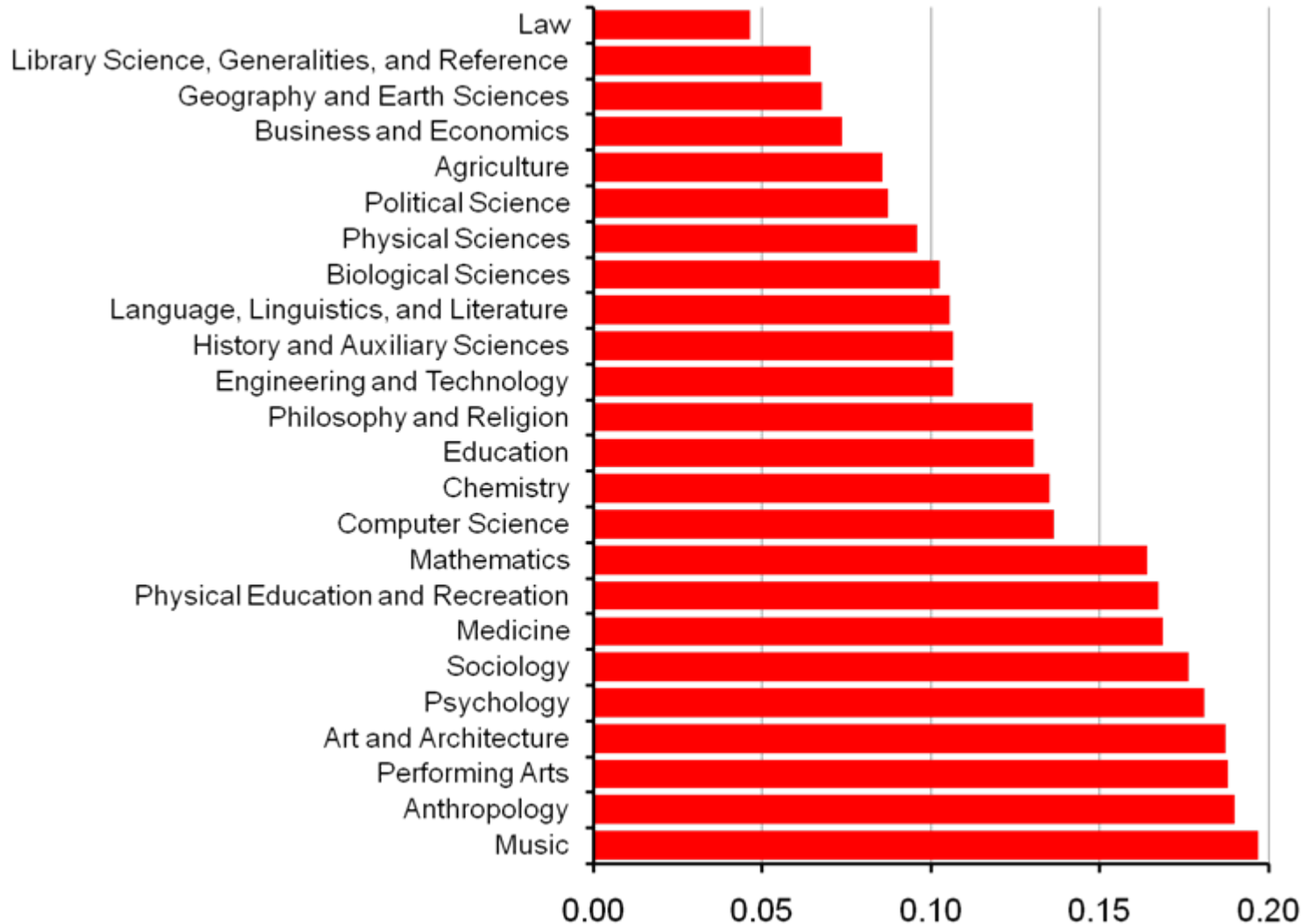
# Duplication Rate



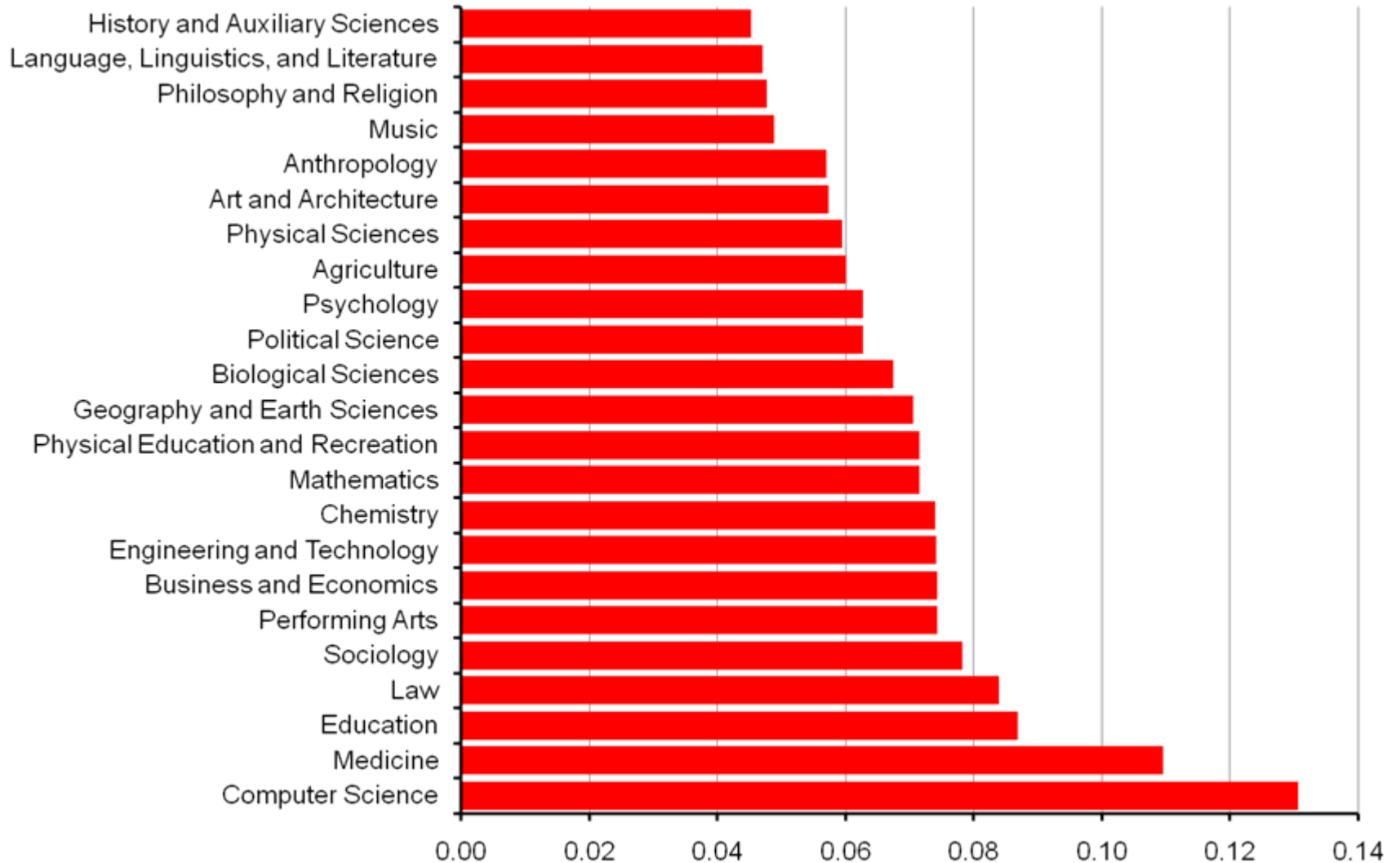
# Subject Distribution



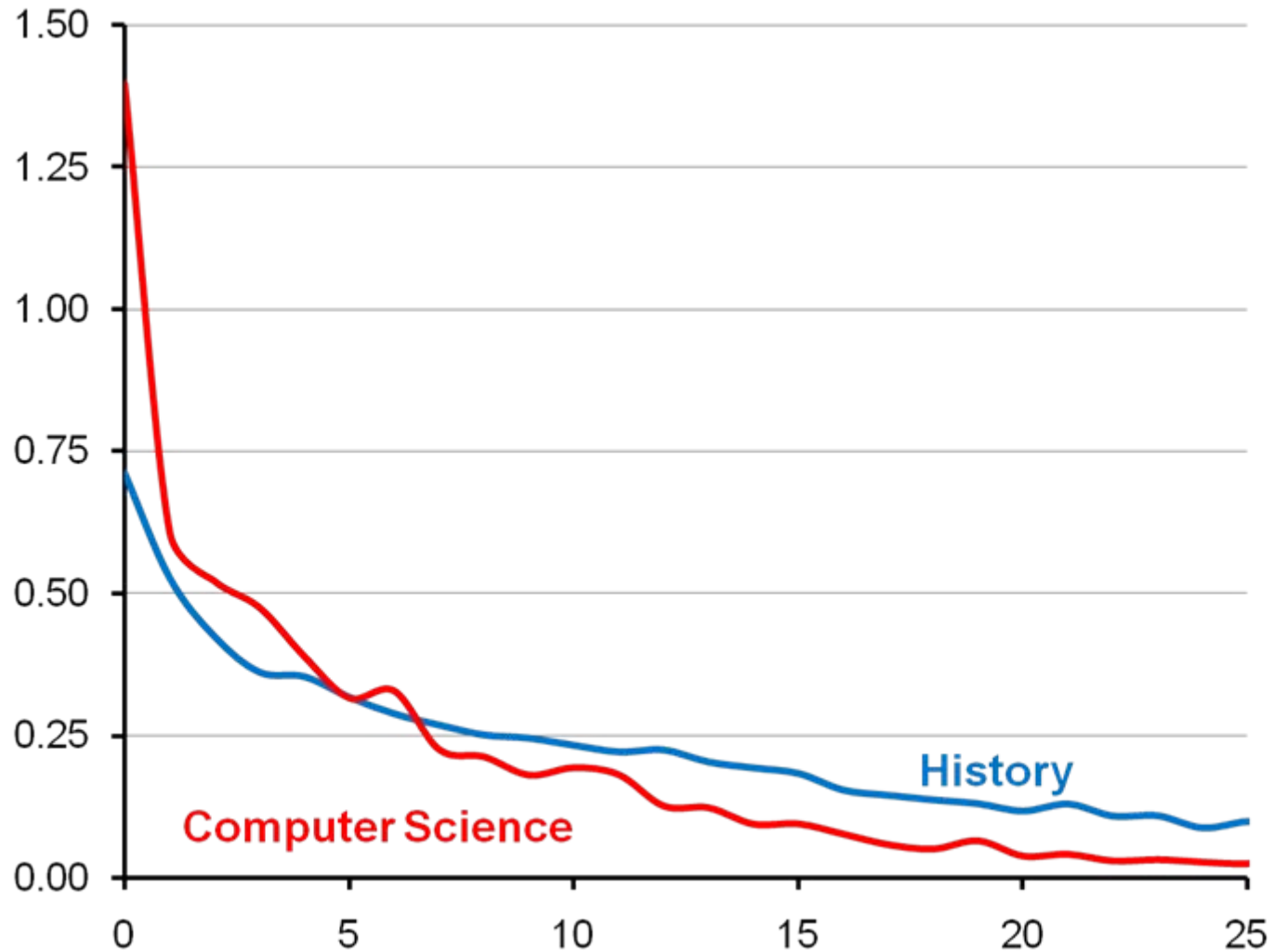
# Annual Circulation Rates by Subject



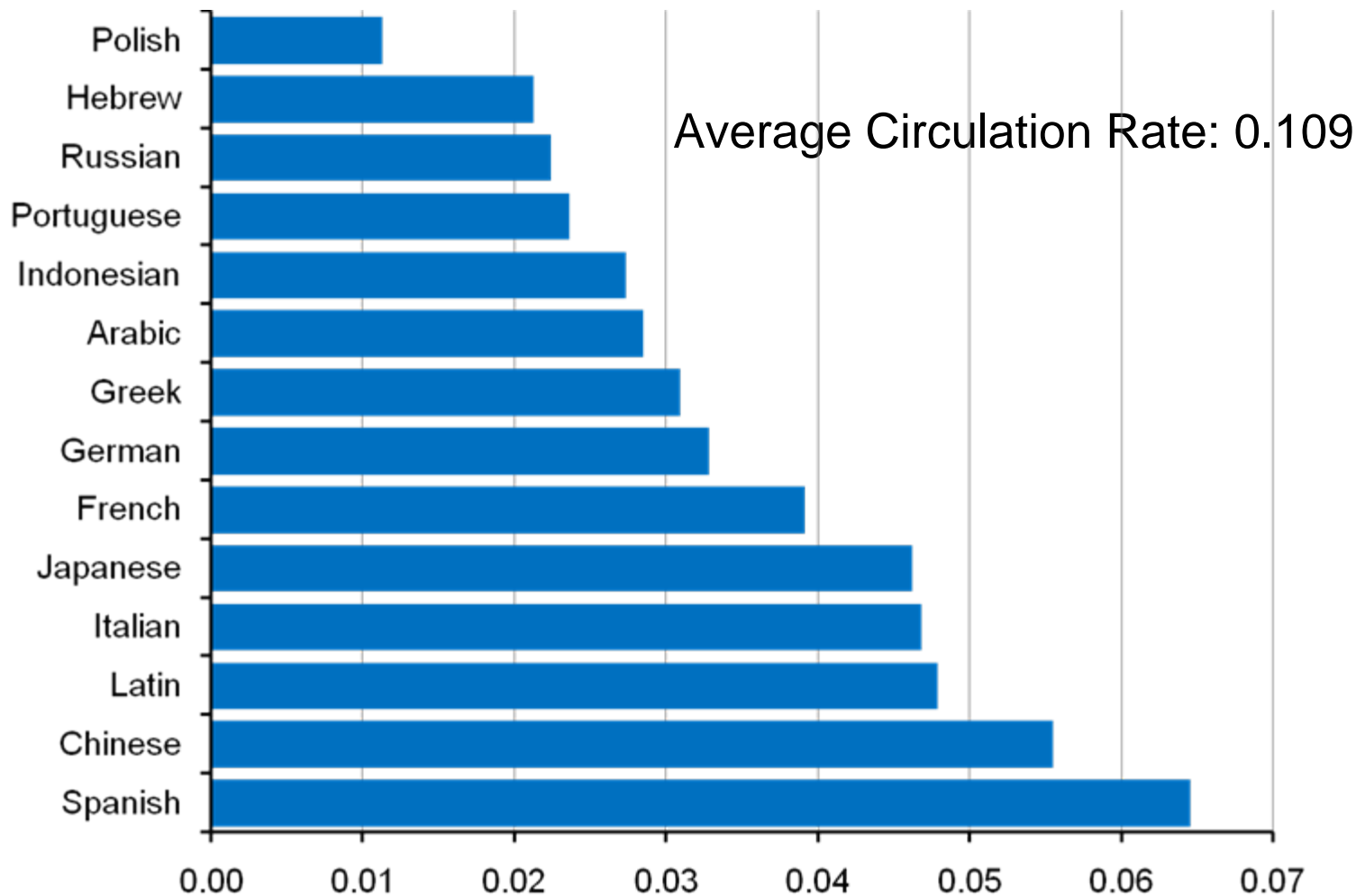
# Obsolescence Rates



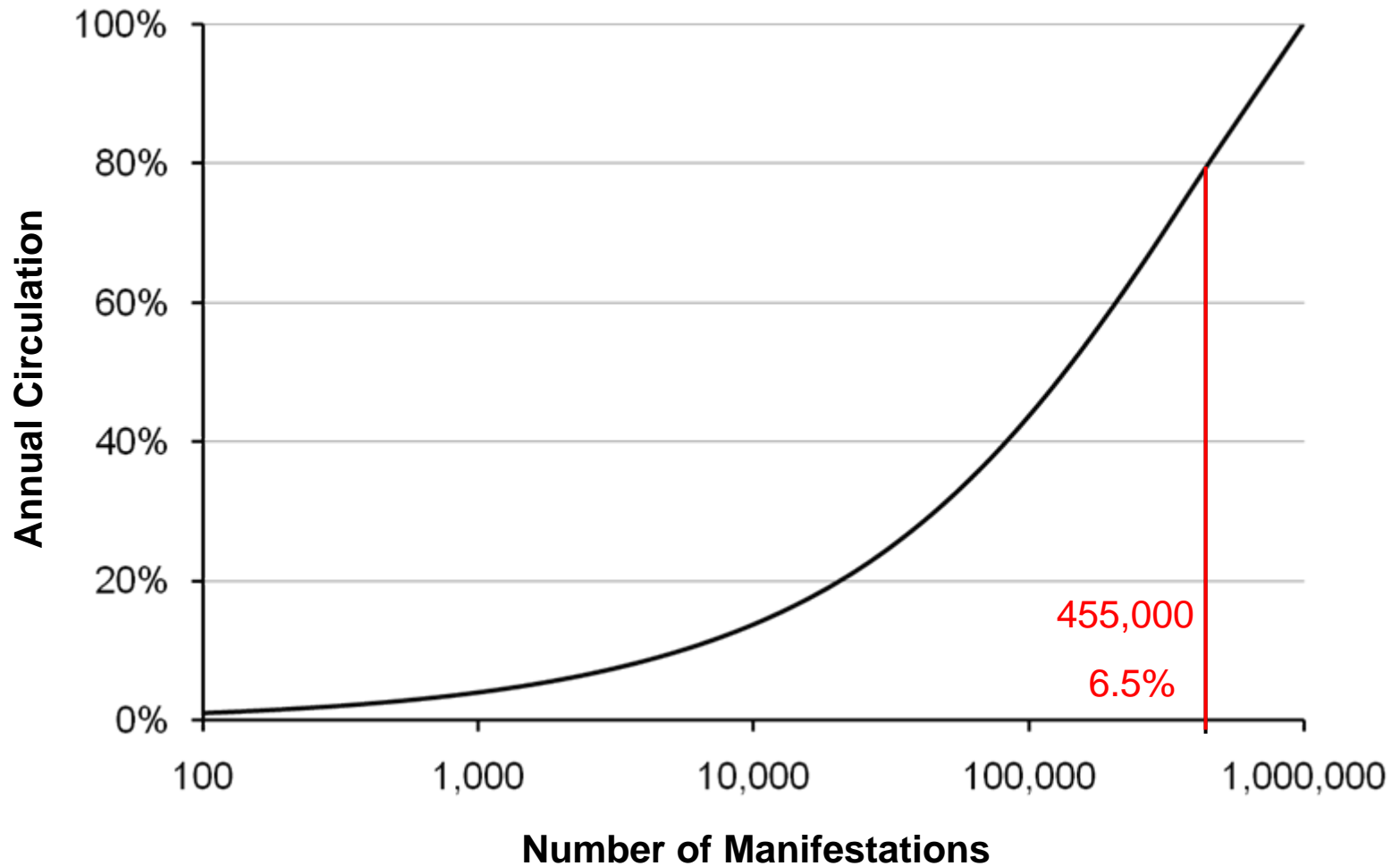
# Circulation Rate vs. Age



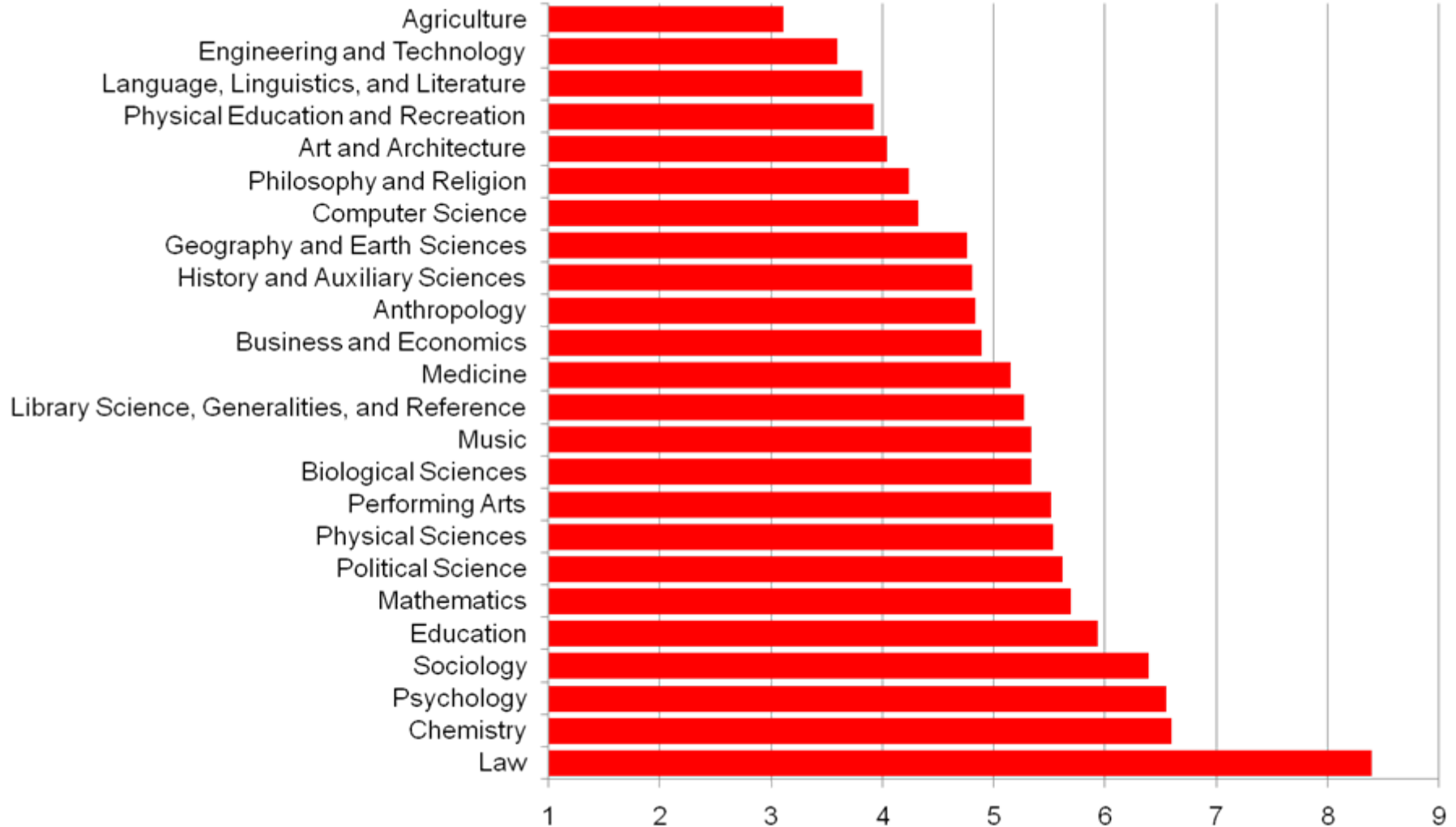
# Annual Non-English Circulation Rates



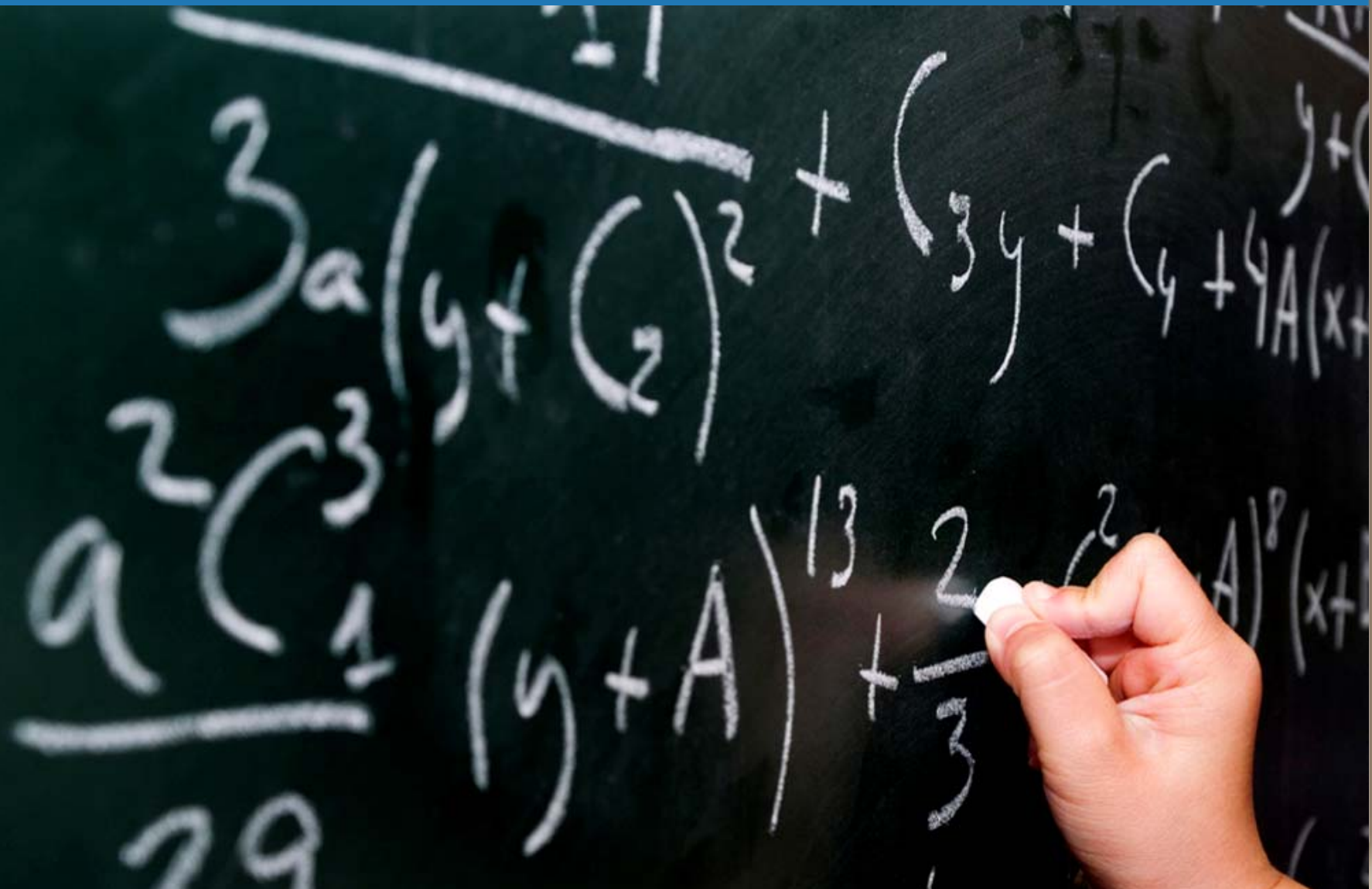
# Usage Distribution



# Duplication by Subject



# Metrics



# Simple Metrics

## Collection size (FRBR View)

- Number of items
- Number of Manifestations
- Number of Works

## Circulation

- Annual circulation (Count \ rate)
- Total circulation (Count \ rate)
- Active Proportion

## Age

- Mean (Average)
- Median

## Percent English

# Coverage



**The percent of all OhioLINK manifestations held in a given collection.**

**Example: The University of Akron's *Ethics* collection**

**❑ Collectively OhioLINK libraries hold 13,308 different manifestations classified as *Ethics*,**

**❑ 1,560 of these manifestations are held by the University of Akron,**

$$\text{Coverage} = 1,560 / 13,308 = 12\%$$

# Comprehensiveness



**The proportion of all OhioLINK circulations that could have been met by the manifestations in a given collection.**

**Example: The University of Akron's *Ethics* collection**

**□ All *Ethics* manifestations in OhioLINK libraries circulated 8,817 times last year,**

**□ Collectively the *Ethics* manifestations held at the University of Akron accounted for 3,060 circulations,**

$$\text{Comprehensiveness} = 3,060 / 8,817 = 0.347$$

# Audience Level

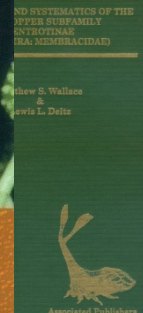
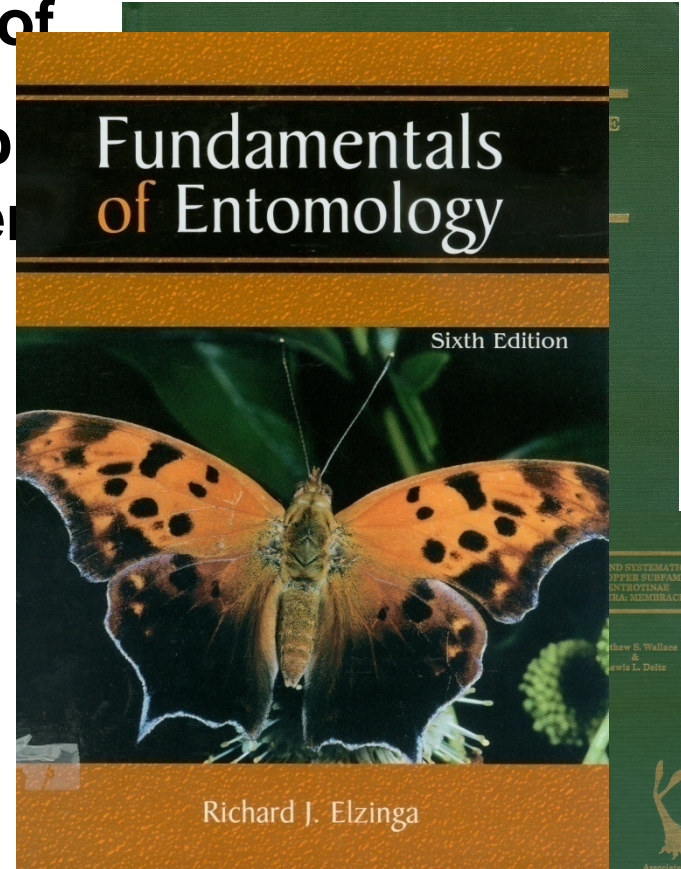
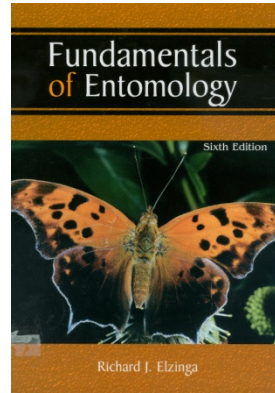
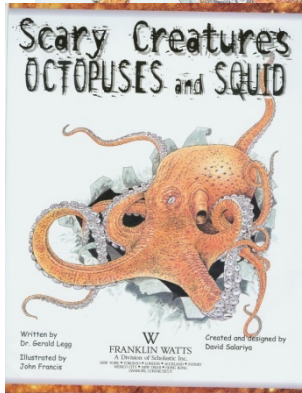
Phylogeny and systematics of  
the treehopper subfamily

Scary Creatures  
OCTOPUSES and SQUID

Audience level: 0.96

Octop  
Audie

Audience level: 0.51



0 (Juvenile)

(Scholarly) 1

# Subjects



physical **technology** french **science** **medical** anatomy mechanics periodical  
**medicine** systems spanish nervous biochemistry art **literature** toxicology  
health economics language english societies culture senses computer america subject centers  
**states** education diseases **engineering** **generalities** jurisprudence  
physiology collections animal law united agricultural hospitals human **history** topics  
expeditions **chemistry** civilization special zoology public forensic

# View within Institutions



University of Akron									
Subject Description	Number of Works	No. of		Annual Circulation	Coverage	Comprehen-siveness	Average Age	Percent English	Audience Level
		Manifes-tations	Number of Items						
<b>Philosophy and Religion</b>	<b>24,934</b>	<b>25,946</b>	<b>27,581</b>	<b>3,181</b>	<b>6%</b>	<b>0.230</b>	<b>33.5</b>	<b>98%</b>	<b>0.60</b>
Philosophy: Periodicals, Societies, Congresses	316	327	377	20	10%	0.359	34.8	97%	0.61
Philosophy: History and Systems, Ancient through Renaissance	1,805	1,917	2,036	321	11%	0.397	31.1	97%	0.65
Philosophy: History and Systems, Post Renaissance	4,848	5,101	5,408	507	15%	0.433	33.3	96%	0.65
Logic	579	607	643	30	17%	0.297	41.3	98%	0.68
Speculative Philosophy	1,517	1,539	1,603	116	16%	0.384	31.2	98%	0.65
Aesthetics	321	328	334	43	13%	0.349	29.5	98%	0.64
<b>Ethics</b>	<b>1,500</b>	<b>1,560</b>	<b>1,606</b>	<b>198</b>	<b>12%</b>	<b>0.347</b>	<b>34.1</b>	<b>99%</b>	<b>0.61</b>
Religions, Mythology, Rationalism	2,685	2,774	2,885	551	9%	0.278	33.8	99%	0.56
Judaism	680	699	717	51	4%	0.222	25.6	99%	0.55
Islam, Baha'ism, Theosophy	644	673	689	221	4%	0.290	21.7	100%	0.54
Buddhism	222	227	231	51	4%	0.118	22.1	99%	0.59
Christianity (General)	2,366	2,456	2,731	325	7%	0.285	32.6	97%	0.59
Bible	1,289	1,448	1,572	141	3%	0.089	37.7	97%	0.51
Doctrinal Theology	1,257	1,298	1,336	151	3%	0.138	36.2	98%	0.55
Practical Theology	1,256	1,275	1,397	147	2%	0.097	35.7	99%	0.54
Eastern Christian Churches	106	107	111	10	2%	0.143	32.3	100%	0.59
Roman Catholic Church	1,673	1,710	1,849	153	3%	0.158	31.0	97%	0.58
Protestantism	1,870	1,900	2,056	145	5%	0.247	40.4	99%	0.58

# View across Institutions



## Ethics (BJ 1-1800)

Institution	Number of Works	Number of Manifestations	Number of Items	Annual Circulation	Coverage	Comprehensiveness	Average Age	Percent English	Audience Level
Cincinnati	2,482	2,638	3,014	<b>462</b>	20%	<b>0.60</b>	26	93%	0.65
Oberlin	<b>2,793</b>	<b>2,960</b>	<b>3,236</b>	344	<b>22%</b>	0.54	46	95%	0.64
Miami	1,955	2,016	2,088	427	15%	0.53	25	99%	0.62
BGSU	1,729	1,858	2,132	571	14%	0.48	27	99%	0.57
Dayton	2,297	2,395	3,180	308	18%	0.46	34	95%	0.57
CWRU	2,245	2,401	2,656	293	18%	0.40	45	92%	0.66
Ohio Univ.	1,613	1,688	1,789	395	13%	0.38	27	91%	0.65
John Carroll	1,640	1,672	1,782	200	13%	0.37	28	96%	0.61
Toledo	1,582	1,634	1,721	197	12%	0.36	26	100%	0.62
Wright State	1,059	1,080	1,130	157	8%	0.35	<b>14</b>	100%	0.62
Akron	1,500	1,560	1,606	198	12%	0.35	34	99%	0.61
Ohio State	1,952	2,052	2,364	399	15%	0.34	34	<b>80%</b>	<b>0.70</b>
Kent State	2,178	2,375	2,818	294	18%	0.34	<b>52</b>	95%	0.63
Denison	1,311	1,343	1,380	213	10%	0.33	28	99%	0.59
Youngstown	1,595	1,650	1,741	184	12%	0.32	35	99%	0.59

# Conclusions

## Preliminary conclusions:

- Duplication rates are steady,
- The 80/20 rule may be closer to 80/6,
- Limited use of non-English materials,
- Unique resources widely distributed,
- Circulation rates vary greatly by subject, institution, ...

## Next Steps

- What information is helpful; what isn't?
- What did we get wrong?
- What did we miss?