TO buy or not to buy?
——Case study on western books interlibrary loan of Peking University Library

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Outline

- **Why we choose western books as research object?**

- A brief introduction of ILL requests for western books in PUL

- Multiple ways to make a decision whether to buy or not buy
  - Exploring ILL data along with circulation data
  - Analysizing ILL data based on collection development model

- Conclusion

Why choose western books as research object?

- Significantly valuable for researcher

- Higher cost and longer acquisition cycle than Chinese books

- A lot of ILL requests for western books

patron's demand

obstacles of access

To buy or not buy?

Why choose western books as research object?

- Research data includes 3 aspects:
  - Interlibrary loan of western books requested data via PUL's ILL department from 2008 to 2012
  - Western books circulation data in PUL from 2008 to 2012
  - Western books collection data in Main Library of Peking University (PUL)

usage of western books through ILL

usage of western books in PUL collection

the situation of collection-building on western books

Why choose western books as research object?

- Why we use the data during the last five years(2008 - 2012)
  - Most recent data can reflect the current situation
  - This period is wide enough (5 years) to reflect the trends

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introduction of ILL requests for western books in PUL

- from 4 aspects:
  - subjects distribution
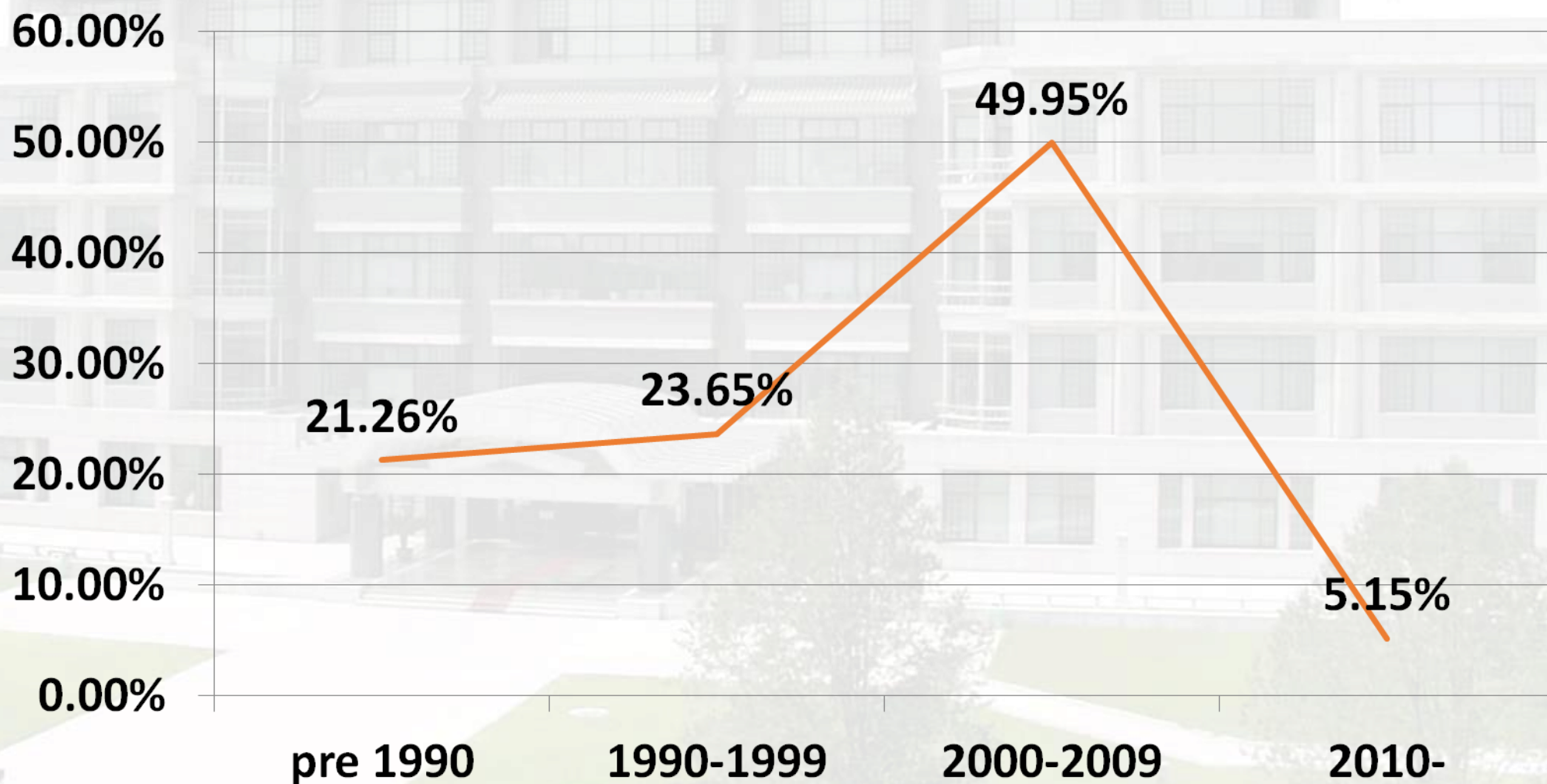 - publication year
  - frequency of usage
  - patron's department

1.Subject Distribution

Percentage of ILL requests by subject
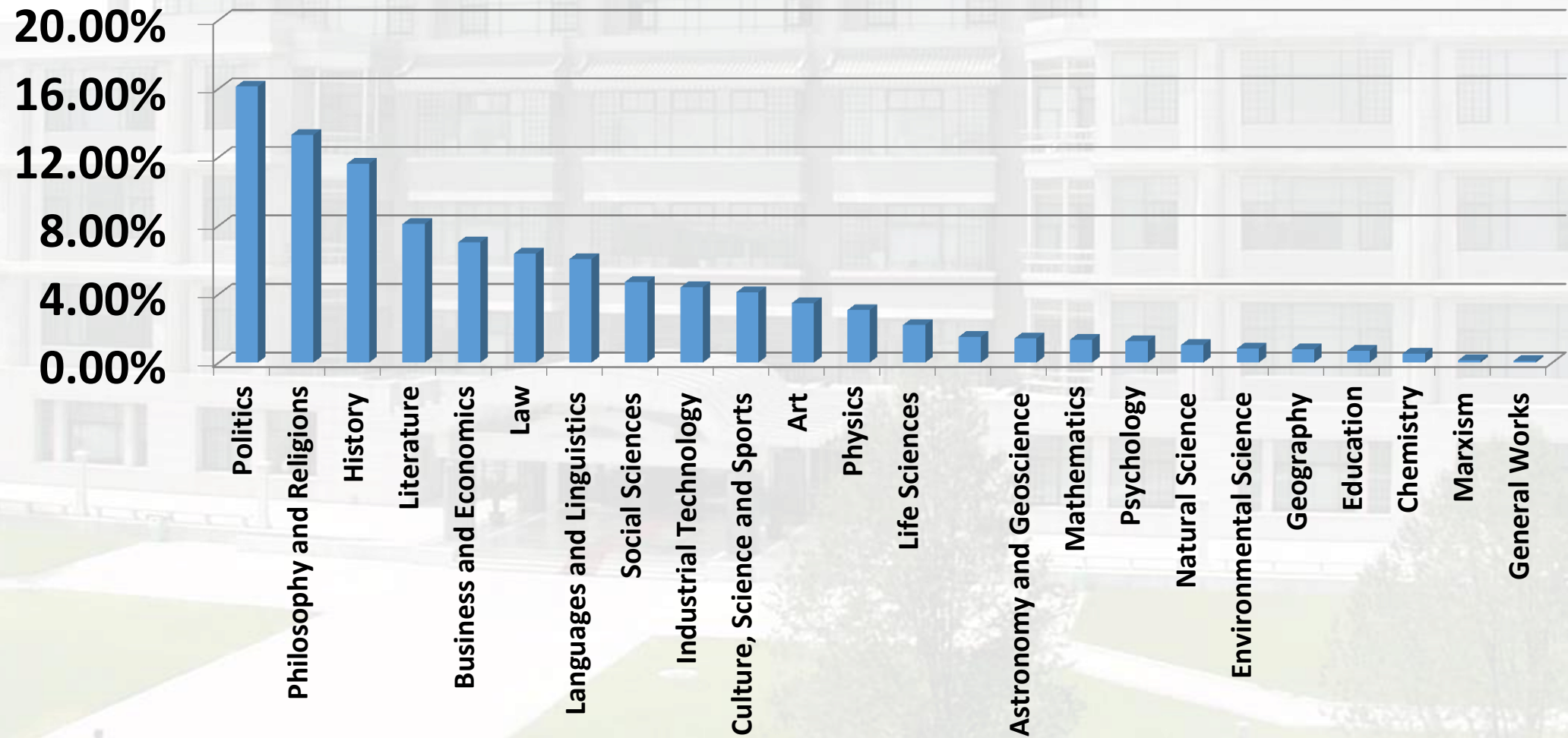
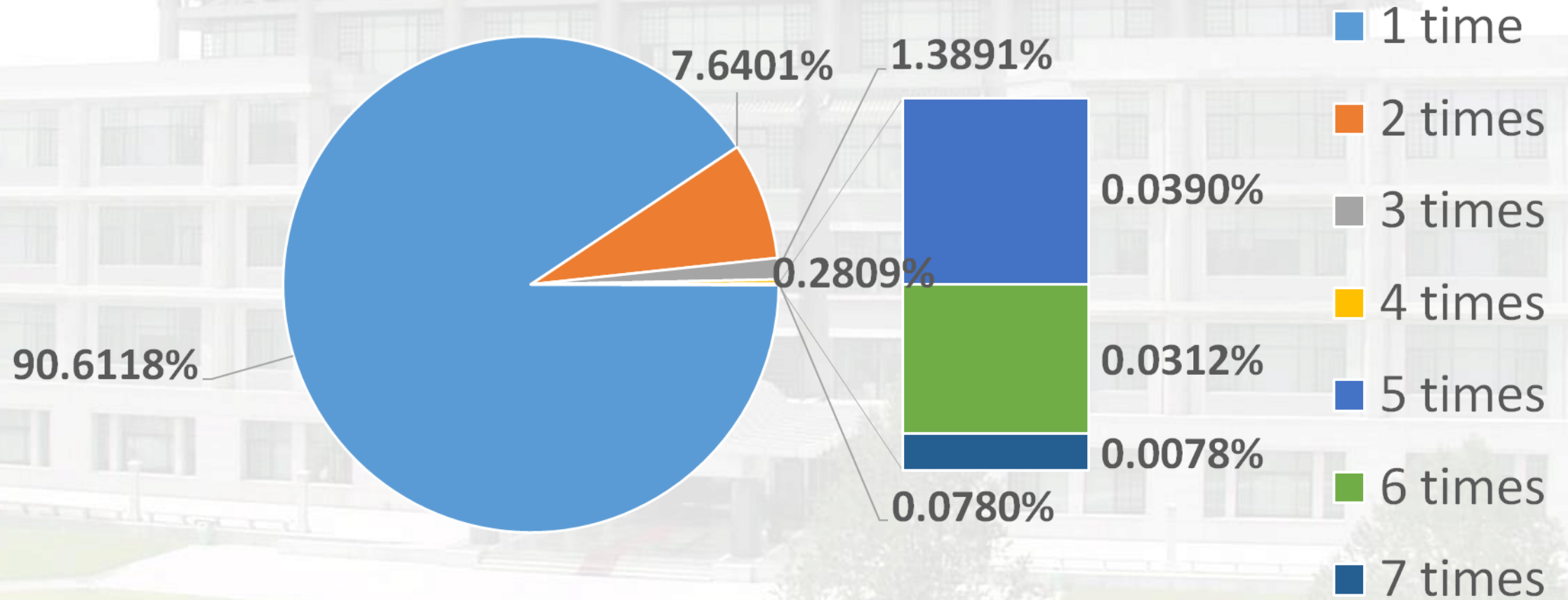# 2.Publication year distribution

Percentage of ILL requests by publication year

3.Usage Frequency

90.6118%

7.6401%

1.3891%

0.2809%

0.0780%

0.0390%

0.0312%

0.0078%

- 1 time
- 2 times
- 3 times
- 4 times
- 5 times
- 6 times
- 7 times

4. User's department distribution

Rank	Department/School/College	ILL Request		
		Number of Requests	%	Cumulative %
1	Department of History	2196	15.32%	15.32%
2	School of Foreign Languages	2082	14.52%	29.84%
3	Department of Philosophy	1538	10.73%	40.57%
4	Law School	1158	8.08%	48.65%
5	School of International Studies	1117	7.79%	56.44%
6	Department of Sociology	817	5.70%	62.14%
7	School of Government	816	5.69%	67.83%
8	Department of Chinese Language and Literature	714	4.98%	72.81%
9	School of Electronics Engineering and Computer Science	371	2.59%	75.40%
10	College of Environmental Science	249	1.74%	77.14%
11	School of Mathematical Sciences	244	1.70%	78.84%
12	School of Physics	218	1.52%	80.36%

What can we learn?

- The top 5 subjects account for about 60% of total ILL requests.
- Only 10% of ILL items being requested more than 1 time.
- The books published in 2000-2009 have the highest ILL requests.
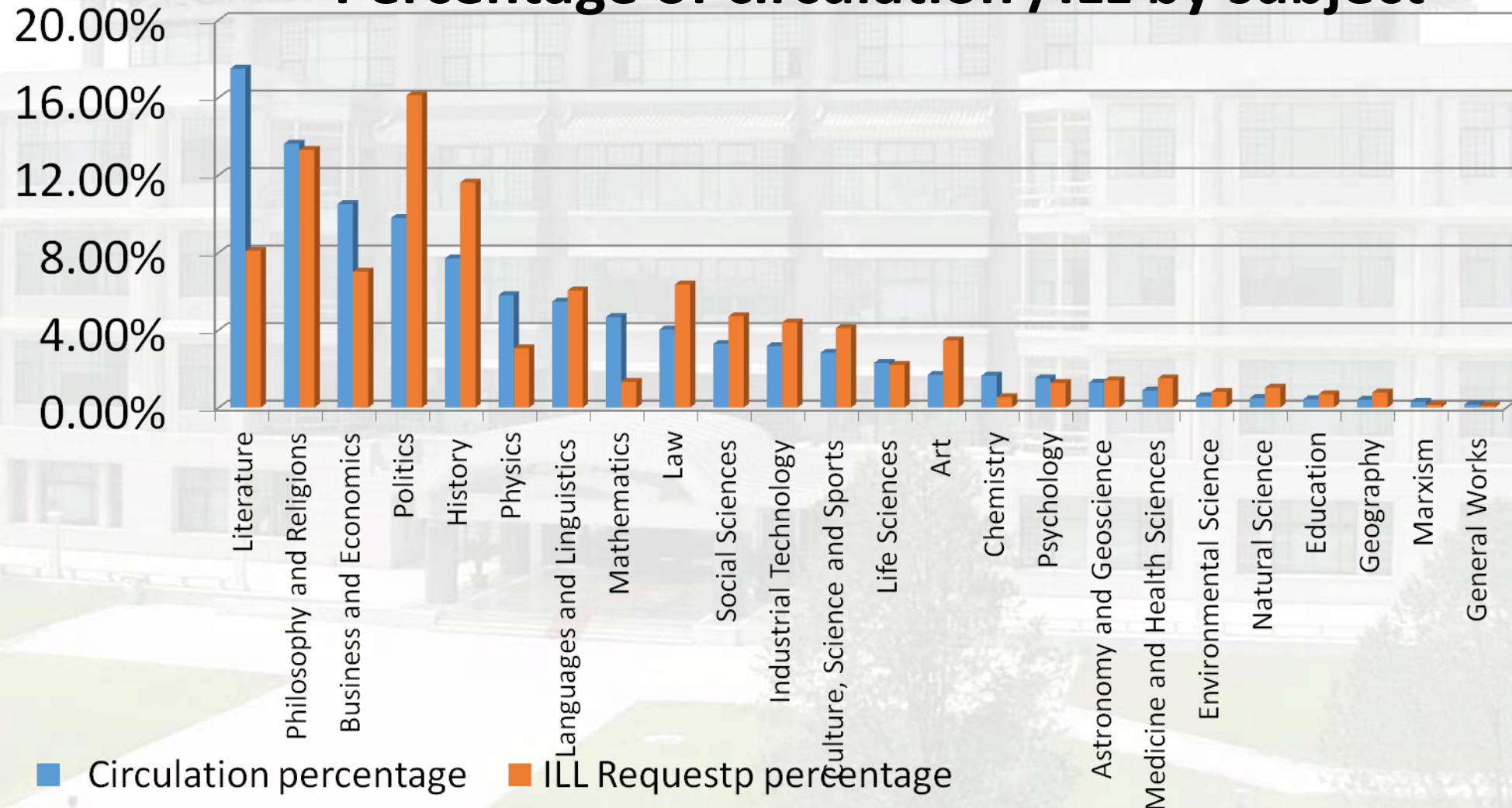- The top 5 departments have the highest ILL requests.

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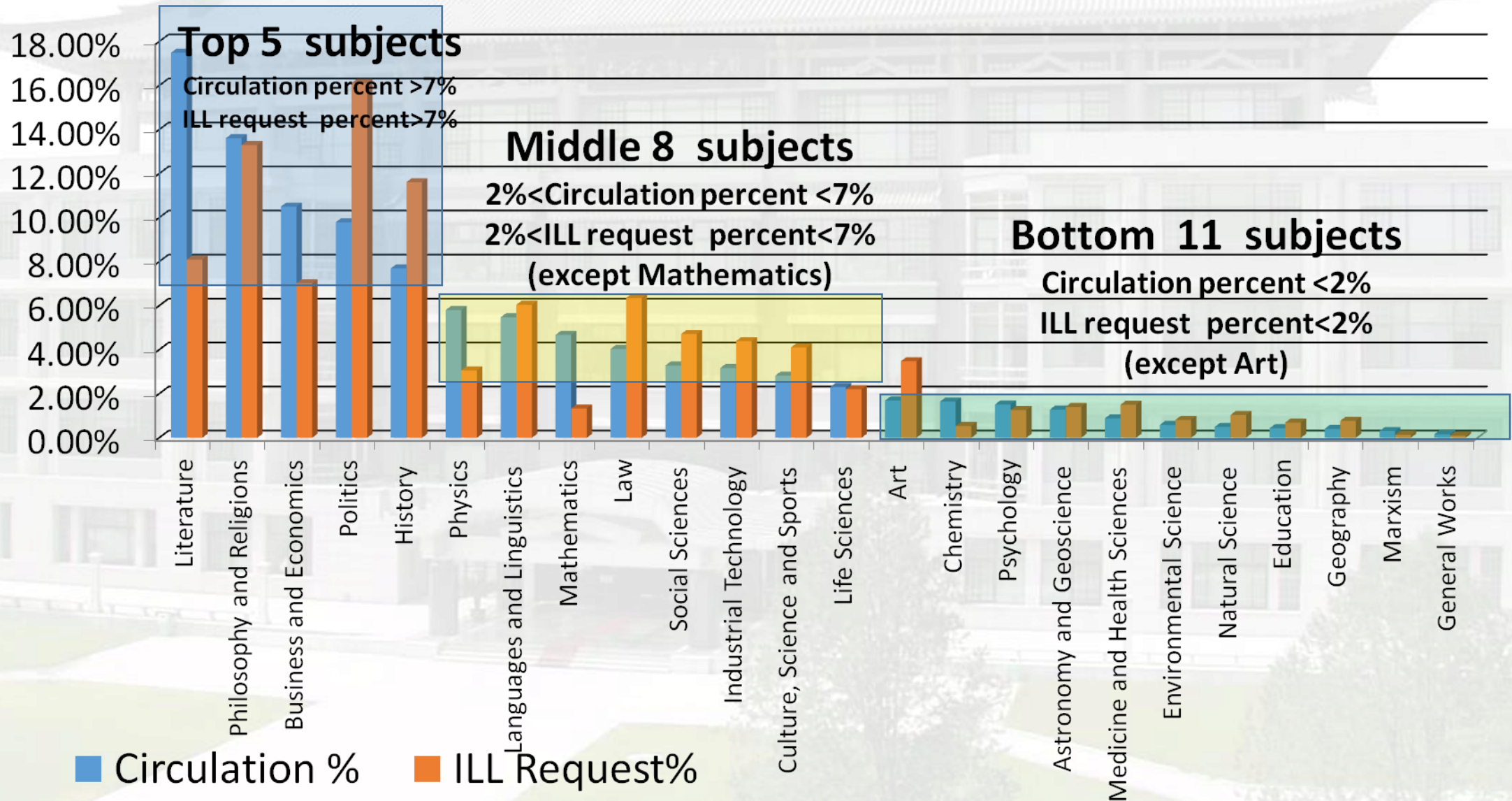# Exploring ILL data along with circulation data

- From four aspects:
  - Subjects distribution
  - Publication year
  - Frequency of usage
  - Patron's department

1. Subject Distribution

Percentage of circulation /ILL by subject

Legend: ■ Circulation percentage ■ ILL Requestp percentage

1. Subject Distribution

Top 5 subjects
Circulation percent >7%
ILL request percent>7%

Middle 8 subjects
2%<Circulation percent <7%
2%<ILL request percent<7%
(except Mathematics)

Bottom 11 subjects
Circulation percent <2%
ILL request percent<2%
(except Art)

Subjects (x-axis): Literature, Philosophy and Religions, Business and Economics, Politics, History, Physics, Languages and Linguistics, Mathematics, Law, Social Sciences, Industrial Technology, Culture, Science and Sports, Life Sciences, Art, Chemistry, Psychology, Astronomy and Geoscience, Medicine and Health Sciences, Environmental Science, Natural Science, Education, Geography, Marxism, General Works

Legend: ■ Circulation % ■ ILL Request%

2.Publication year

Percentage of circulation / ILL by publication year

- circulation
- ILL requests
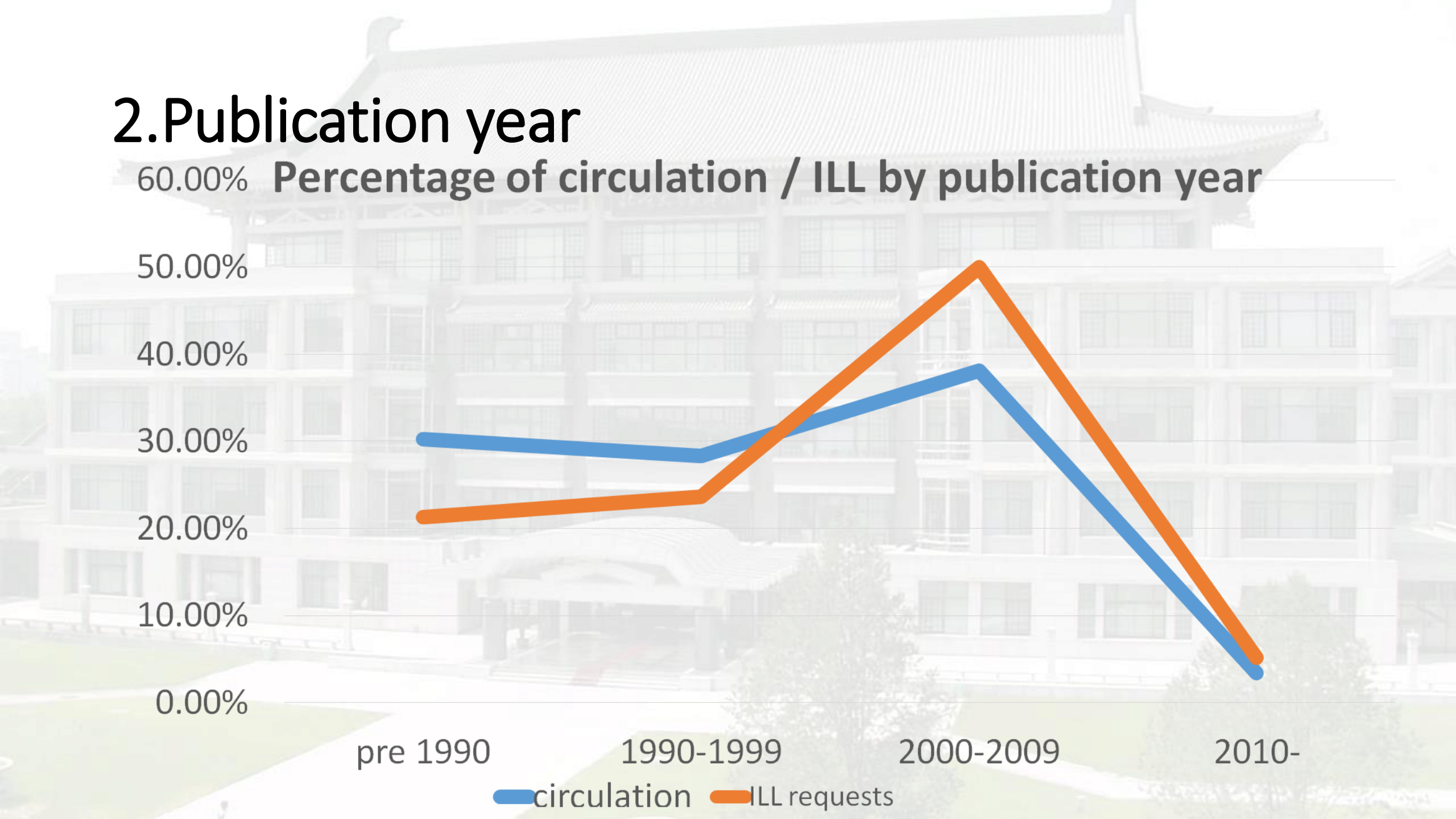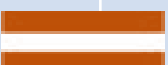
3.Usage Frequency

Usage Frequency	Circulation Number of titles	%	ILL Number of titles	%
101-175	2	0.00%	--	--
71-100	6	0.00%	--	--
61-70	12	0.01%	--	--
51-60	24	0.02%	--	--
41-50	68	0.06%	--	--
31-40			--	--
21-30			--	--
11-20	5258	4.25%	--	--
10	1416	1.15%	--	--
9	1815	1.47%		
8	2462	1.99%		
7	3217	2.60%	1	0.01%
6	4312	3.49%	4	0.03%
5	6203	5.02%	5	0.04%
4	9062	7.33%	36	0.28%
3	13964	11.30%	178	1.39%
2	24021	19.43%	979	7.64%
1	50764	41.06%	11611	90.61%

Average usage frequency is 3.3

Average usage frequency is 1.22

4. User Affiliation department

Department/School/College	Circulation			ILL Request		
	Frequency	%	Cumulative %	No. of Request	%	Cumulative %
School of Foreign Languages	63772	15.48%	15.48%	2082	14.52%	14.52%
Department of Philosophy	37285	9.05%	24.54%	1538	10.73%	25.25%
Department of History	25963	6.30%	30.84%	2196	15.32%	40.57%
School of International Studies	23616	5.73%	36.57%	1117	7.79%	48.36%
Law School	23368	5.67%	42.25%	1158	8.08%	56.43%
School of Mathematical Sciences	21806	5.29%	47.54%	244	1.70%	58.14%
School of Physics	18999	4.61%	52.15%	218	1.52%	59.66%
Department of Chinese Language and Literature	18189	4.42%	56.57%	714	4.98%	64.64%
School of Electronics Engineering and Computer Science	14022	3.40%	59.97%	371	2.59%	67.22%
School of Government	12932	3.14%	63.11%	816	5.69%	72.92%
Department of Sociology	11520	2.80%	65.91%	817	5.70%	78.61%
College of Environmental Science	10646	2.58%	68.50%	249	1.74%	80.35%
Others	129759	31.50%	100.00%	3883	27.08%	100.00%

Data summary #1

	Circulation	ILL requests
Subjects Distribution	top 5 subjects	top 5 subjects
	Middle 8 subjects	Middle 8 subjects
	Bottom 11 subjects	Bottom 11 subjects
Publication year	2000-2009	2000-2009
Patron's department	Top 5 departments	Top 5 departments

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ILL-Related Collection Development Model

- Proposed by William Aguilar etc.

- based on ILL data,circulation data and holding data

- two core concepts:
  - PEU (Percentage of Expected Use)
  - RBH (Ratio of Borrowings to Holdings).
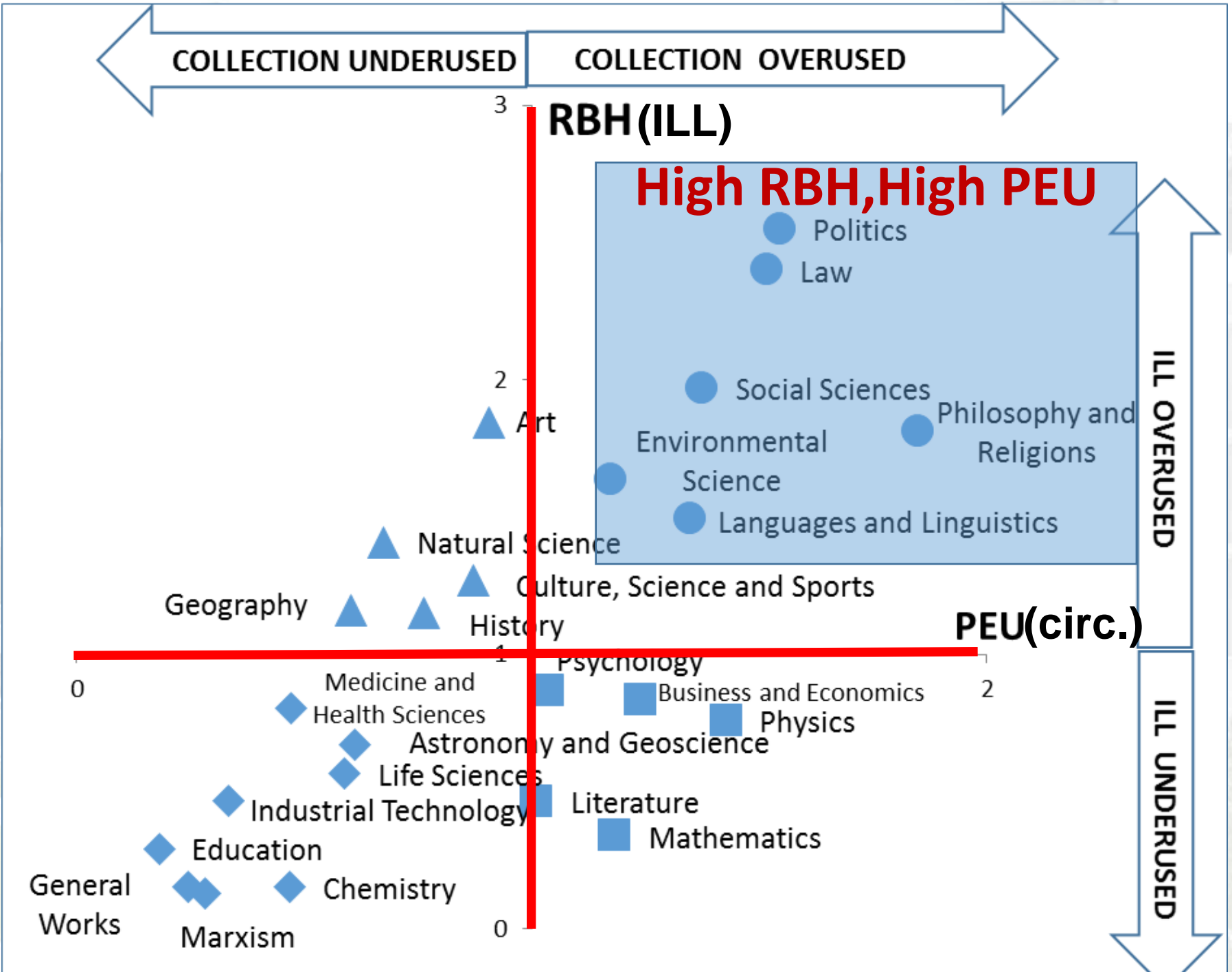
PEU (Percentage of Expected Use)

- Shows the relationship between the **circulation** and **holding** for a specific subject

- Represents the **usage of collection** for a particular subject.

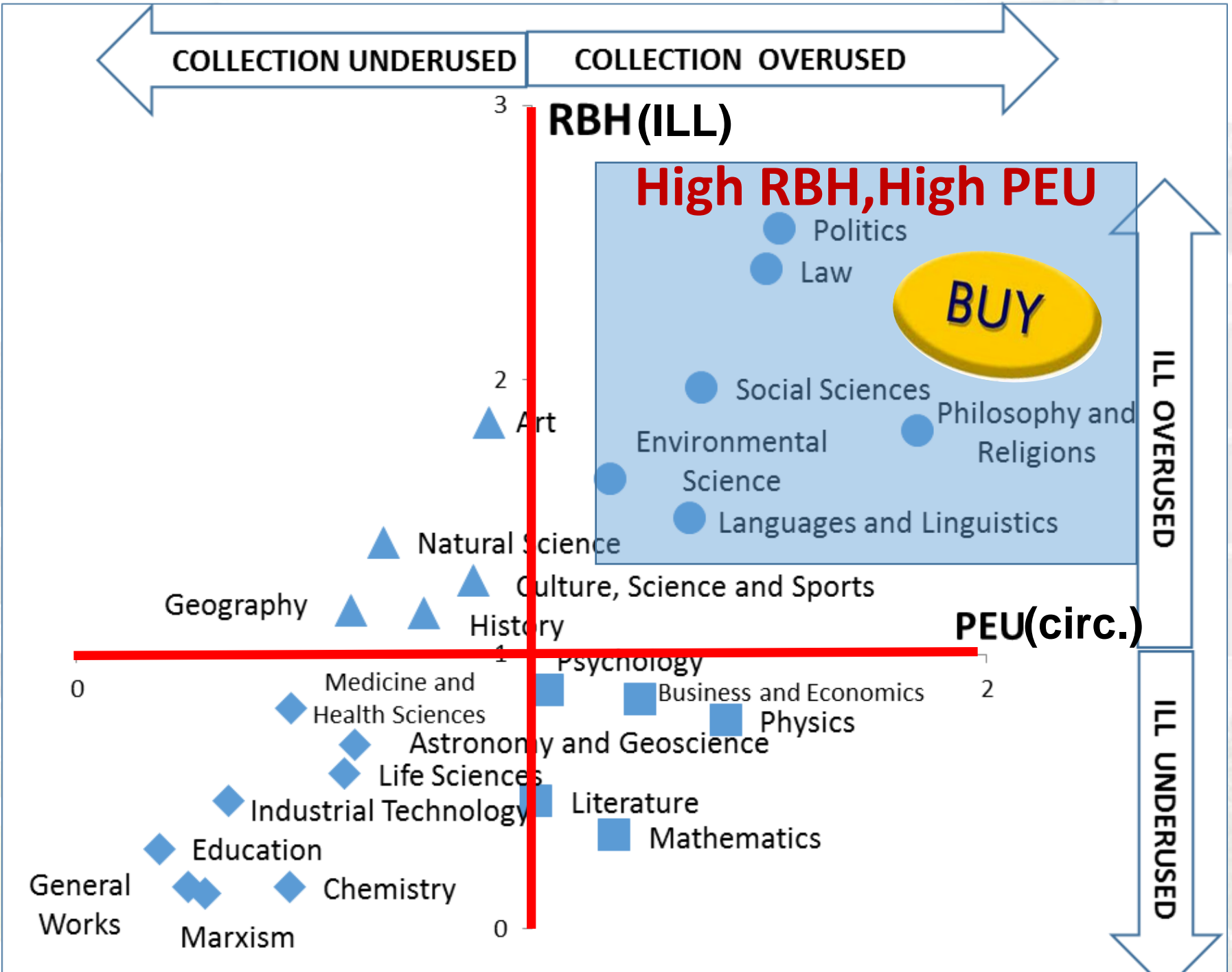- >1 means overused

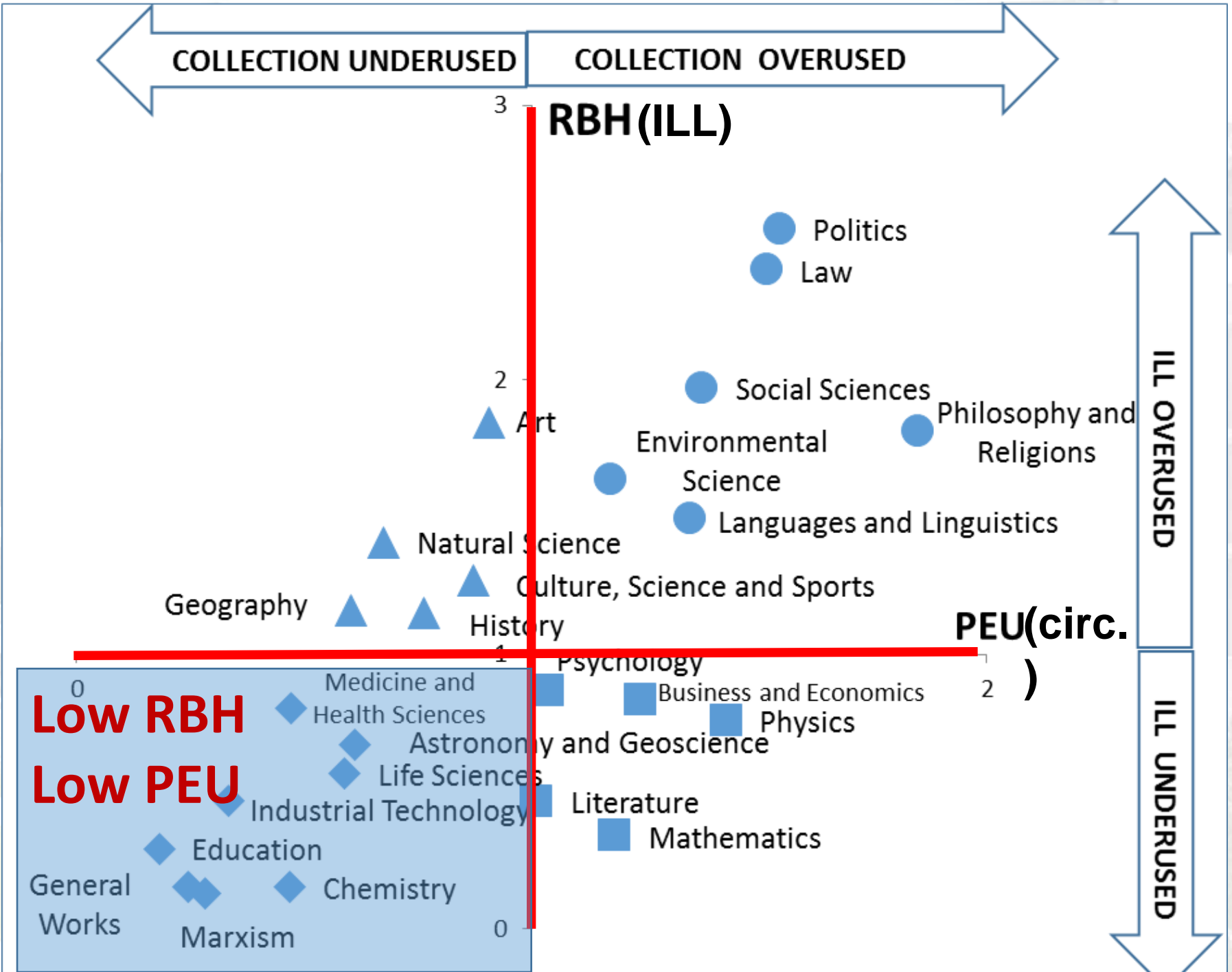- <1 means underused

RBH (Ratio of Borrowings to Holdings)

- Shows the relationships between the **ILL** and the **holding** for a subject

- Represents the **utilization of ILL**

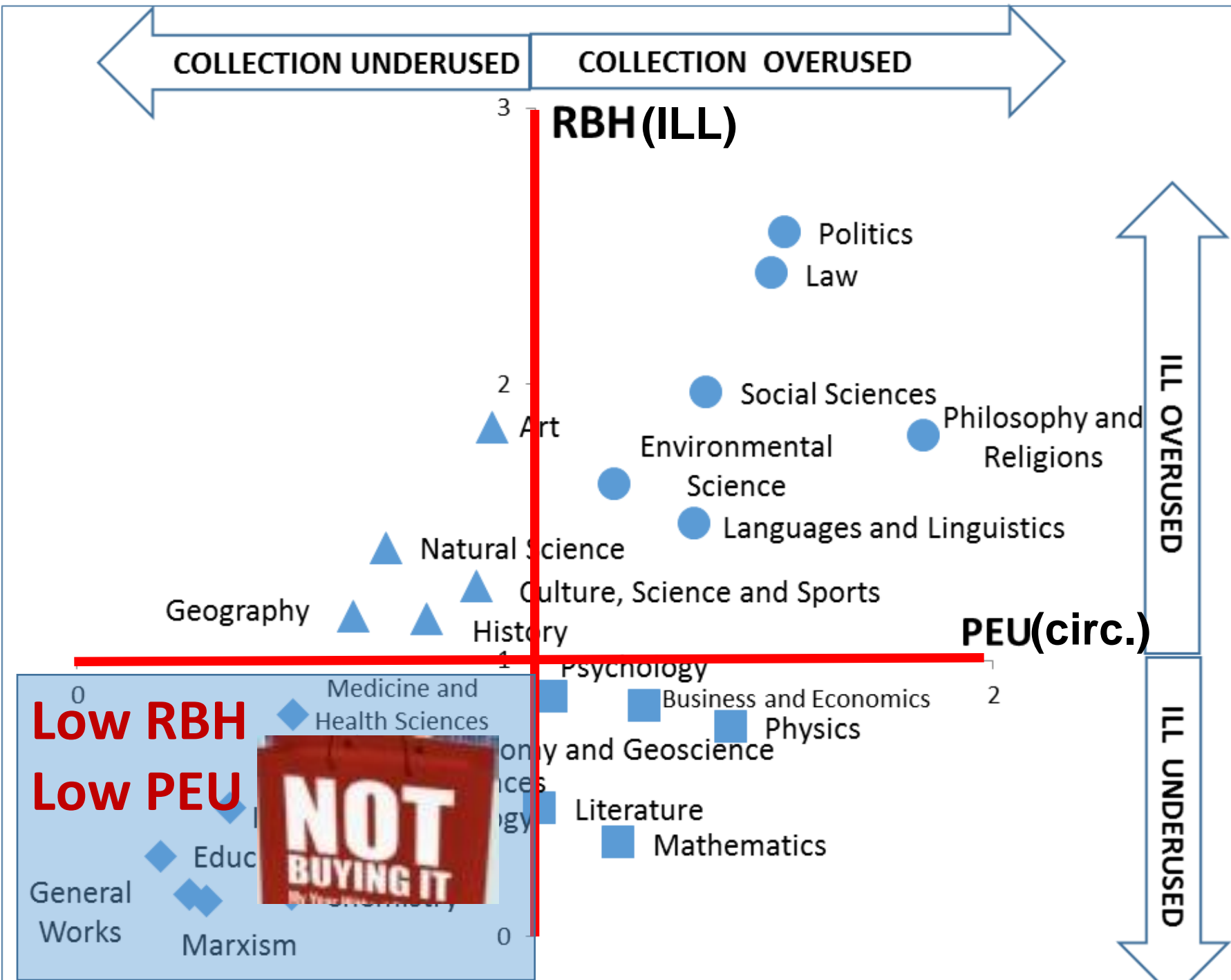- >1 means overused

- <1 means underused

The books utilization could have four combinations of PEU and RBH:

PEU (circu.)	RBH (ILL)	meanings	suggestions
high	**high**	heavy utilization of both internal collection and ILL requests	These ILL literatures may be added to internal collection;
high	**low**	heavy utilization of internal collection with lighter utilization of ILL literature	the internal collection has been well built without need of adding ILL into collection;
low	**high**	Heavy utilization of ILL literatures with light utilization of internal collection	re-evaluation of internal collection;
low	**low**	light utilization of both internal collection and ILL requests	not to add ILL requests to collection

COLLECTION UNDERUSED | COLLECTION OVERUSED

RBH (ILL)

ILL OVERUSED

3

Politics

Law

2

Social Sciences

Philosophy and Religions

Art

Environmental Science

Languages and Linguistics

Natural Science

Culture, Science and Sports

Geography

History

PEU (circ.)

Psychology

1

Medicine and Health Sciences

Business and Economics

Physics

Low RBH
Low PEU

0

Astronomy and Geoscience

Life Sciences

Industrial Technology

Literature

Mathematics

Education

General Works

Chemistry

Marxism

0

2

ILL UNDERUSED

Data Summary #2

- Based on the ILL-related collection development model, we analyzed the circulation and ILL data in PUL and found that the ILL requested items in the following disciplines may be added to enhance the library's collection development: Philosophy and Religions, Politics, Languages and Linguistics, Law, Social Science, Environmental Science .

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Conclusion: To Buy or Not to Buy?

What we have done:
- Simple analysis: ILL data
- Comparative analysis: ILL data VS. circulation data
- Integration analysis: ILL data + circulation data
                                              + holdings data
- There are many others methods……

Conclusion: To Buy or Not to Buy?

- Different ways give different suggestions on what to buy
  - Simple analysis: top 5 subjects
  - Comparative analysis: top 5   subjects
  - Integration analysis :   6   subjects

Conclusion: To Buy or Not to Buy?

- How can we choose?
  - if we have enough money

All ILL requested books

Conclusion: To Buy or Not to Buy?

- How can we choose?
  - if we only have some money

TOP 5 subjects Based on ILL & check out

6 Subjects Base d on Hige PEU & RBH

Conclusion: To Buy or Not to Buy?

- How can we choose?
  - If we only have a little money
  - we can buy the **2 same subjects** as below.

TOP 5 subjects
Based on
ILL & check out

**2
Same
subjects**

6 Subjects
Base d on
Hige PEU & RBH

Conclusion: To Buy or Not to Buy?

- ILL-related POD based on ILL data analysis is important for collection development
- Many different methods we used only provide suggestions, not certain answer.

END

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