

Compass of Academic Library Modernization (CALM) Report on Librarians

Chen Jianlong*, Shao Yan, Liu Wanguo, Zhang Lu, Li Feng

Abstract: Jointly formulated by the Steering Committee for Academic Libraries of China (SCAL) and Peking University Library, the Compass of Academic Library Modernization (CALM) Report on Librarians conducts extensive research on the librarian team building in academic libraries nationwide through surveys, focuses on library leadership and librarian teams, and conducts in-depth analysis on the current situation of librarian team building in academic libraries from several aspects such as the number of personnel, age, education background, and academic title. The report also summarizes the development trends of librarian team building in terms of spirit, value, experience, theory, and skill inheritance to provide directional guidance for the innovative development of librarians in academic libraries.

Keywords: Academic Libraries; Librarian; Library Director; Team Building; Inheritance; Innovation; Modernization; High-Quality Development

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1. Introduction

At the end of 2021, the Steering Committee for Academic Libraries of China (hereinafter the “SCAL”) and Peking University Library (hereinafter the “PKU Library”), jointly released the Compass of Academic Library Modernization Report (2021 Simplified Edition)^[1], which established a forward-looking macroscopic system for academic library modernization, analyzed and evaluated the key trends for future development, and provided directional and referential guidance for academic libraries with regard to talent cultivation, relationship development with users, transformation of information resources, service innovation and optimization, research on development theory, guarantees of governance capacities, and clarification of career ecology. The modernization of librarians is the soul of academic library modernization. Librarians are the key to ensuring the sustainable development of academic libraries, while librarian team building is a primary factor for the high-quality development of academic libraries.

From October 2022, under the guidance of the Department of Higher Education of the Ministry of Education (MOE) and with assistance of the SCAL offices of various regions, the SCAL and PKU Library jointly formulated the Compass of Academic Library Modernization Report on Librarians (hereinafter the “CALM Report on Librarians”). This report aims to provide decision-making references and guidelines for the high-quality development of academic librarians across the nation.

1.1 Background

* Corresponding Author: Chen Jianlong, ORCID: 0000-002-2076-9939, Email: jlchen@lib.pku.edu.cn

2022 represents a critical year for the implementation of the 14th Five-Year Plan and a new chapter in the comprehensive construction of a modern socialist country in all respects. The report of the 20th National Congress of the Communist Party of China outlines that education, science and technology, and human resources are the foundational and strategic pillars for building a modern socialist country in all respects^[2]. The modernization of academic libraries is being actively promoted to provide strong support for the talent cultivation in higher education, building a modern socialist country, and the development of an informatized ecosystem.

The SCAL has actively carried out theoretical exploration and practical innovation in the professionalization of library leadership teams and librarian teams, and the optimization of librarian position systems. It is also exploring reasonable solutions to lead and guide academic libraries across the country to build high-quality librarian teams with firm beliefs, reasonable structures, professional skills and good qualification to realize the fundamental task of academic library modernization.

1.2 Purpose and Significance

1.2.1 Purpose

Based on the first-hand data of leadership teams and librarians of various types of academic libraries across the country, the SCAL and PKU Library have jointly developed the CALM Report on Librarians to gain a comprehensive understanding of the current situation of national academic librarian development across the country, analyze and determine future developments and challenges, and provide directional and referential guidance for the high-quality development of academic librarians, along with solid support for the modern development of academic libraries.

1.2.2 Significance

With a focus on analyzing the current situation and trends of team building in academic libraries, the CALM Report on Librarians reflects the overall situation and characteristics of library leadership teams and librarians in multiple aspects, and fully grasps the direction of high-quality academic librarian team development based on the actual situation of different types of higher education institutions, to provide a reference for the establishment of new standards, help inject new vitality, and further the creation of the next generation of librarians.

The CALM Report on Librarians will raise in-depth discussions on the high-quality development of academic librarians across the country. In addition to providing data to support the formulation of human resources standards and policies and the evaluation of librarians, this report also provides a basis for seeking academic library funding and development support, optimizing the structure of librarian teams, and improving the quality of librarians.

1.3 Methodology

1.3.1 Scope

This study focuses on librarians in the academic libraries of undergraduate education institutions, provides an overall profile of the personnel numbers and composition of library leadership teams and librarians, and outlines the overall trends of academic librarian team

development based on the past five years of data. The study also performs a comparative analysis of different types of academic libraries, outlines industry benchmarks for librarian team development, and provides reference for the construction of high-quality librarian teams in Chinese academic libraries.

1.3.2 Methods

This study is mainly carried out through surveys and expert consultations. The results of the surveys are analyzed through methods such as statistical analysis and manual indexing.

Survey: This study distributed the online “Questionnaire on Librarian Team Development” to academic libraries across the country through SCAL offices at the national and local level. After nearly one month, data collected reached the expected goal, and the survey was concluded.

Expert Consultation: After completing the first draft of the questionnaire, this study consulted several experts engaged in personnel management and library construction, then supplemented and optimized the questionnaire according to their opinions.

Manual Indexing: As the questionnaire was largely open-ended, the answers to some questions were very scattered across libraries. To facilitate structured data analysis, the research team conducted manual indexing and data standardization on the questionnaire answers, and further verified certain numerical data.

Statistical Analysis: The research team used a variety of statistical analysis methods to cleanse, verify, summarize, and analyze the obtained data. The team also verified the reliability and validity of the survey results to eliminate clearly invalid and erroneous data.

1.3.3 Process

The study lasted for two and a half months and consisted of the following stages:

From October 7–31, 2022, the research team was established to discuss the direction, content, and other aspects of the study. After several rounds of discussions and consultations with various experts, the team formulated the “Questionnaire on Librarian Team Development”.

From November 1–6, 2022, the questionnaire was entered into the online questionnaire system, and a small-scale pilot survey was conducted to collect feedback for further improvements.

From November 7–30, 2022, questionnaires were distributed and collected. The study received a total of 1,560 responses, for a total of 1,522 valid questionnaires after the removal of 38 duplicate or invalid questionnaires.

From December 1–7, 2022, data screening and extraction was performed on the questionnaires, for a total of 1,021 valid questionnaires from the academic libraries of undergraduate education institutions. The research team then carried out data cleansing, standardization, and statistical analysis, contacted relevant academic libraries to verify and update data, and invalidated questionnaires that could not be verified.

From December 7–14, 2022, the first draft of the questionnaire analysis report was completed, and an online meeting was held to discuss relevant revisions.

From December 15–20, 2022, the research team finalized the study report after several rounds of discussions and revisions.

2. Analysis of Survey Results

The survey focused on analyzing the librarians in undergraduate education institutions, and collected a total of 1,021 questionnaires from the academic libraries of undergraduate education institutions (hereinafter the “academic libraries”). All survey data was up-to-date as of October 31, 2022.

2.1 Survey Distribution

2.1.1 Institutional Distribution

This study classifies academic libraries according to the undergraduate education institution categories published on the website of Ministry of Education, namely public universities, private universities, Sino-foreign cooperative universities, and Hong Kong, Macao, and Taiwan cooperative universities. Public universities are further divided into first-class universities and other public universities.

According to this classification method, of the total 1,021 questionnaires, 141 came from academic libraries of first-class universities and 685 came from those of other public universities, accounting for 97.3% of the total public universities nationwide (849). Moreover, 193 questionnaires came from academic libraries of private universities, and there were 2 from libraries of Sino-foreign cooperative universities.

2.1.2 Regional Distribution

The regional distribution of questionnaire data is shown in Table 1, covering a total of 31 provinces.

2.2 Overall Description

Based on the questionnaire data, this study primarily focuses on analyzing the overall situation of the personnel numbers, structure, and annual changes of the leadership teams and librarians of academic libraries throughout the country.

Table 1. Regional Distribution of Questionnaire Data

Province	Responses	Province	Responses	Province	Responses
Anhui	37	Heilongjiang	33	Shandong	69
Beijing	56	Hubei	58	Shanxi	33
Fujian	24	Hunan	37	Shaanxi	51
Gansu	20	Jilin	36	Shanghai	36
Guangdong	34	Jiangsu	54	Sichuan	44
Guangxi	25	Jiangxi	38	Tianjin	29
Guizhou	26	Liaoning	49	Tibet	4
Hainan	7	Inner Mongolia	17	Xinjiang	18
Hebei	38	Ningxia	8	Yunnan	26
Henan	42	Qinghai	4	Zhejiang	43
				Chongqing	25

2.2.1 Library Leadership Teams

2.2.1.1 Personnel Numbers

There were a total of 2,714 library management personnel (mid-level cadres appointed by the universities, deduplicated during calculation), including 997 library directors, and 1,717 secretary of the Party Committee, deputy secretary of the Party Committee, and deputy directors in 1,021 academic libraries (branches counted separately). Refer to Table 2 for more details. Among them, 24 academic libraries (2.4%) had no director, while the director and secretary of the Party Committee of 281 academic libraries (27.5%) were the same person.

Table 2. Number of Management Personnel by Library Category

Library Category	Library Directors	Other Management Personnel
First-class universities	139	395
Other public universities	670	1,204
Private universities	186	116
Sino-foreign cooperative universities	2	2
Total	997	1,717

On average, each library had 2.7 management personnel, though this figure was above 3 in Henan (3.36), Hunan (3.11), Guangdong (3.03), and Shanghai (3.03).

2.2.1.2 Personnel Age

The average age of library management was 50.8 years old, the average age of library directors was 52.6 years old, and the average age of other management personnel was 50 years old.

2.2.1.3 Positions

The average length of employment was 3.66 years for library directors and 3.85 years for other management personnel.

The research team provided the “previous position” question in the questionnaire with four options, namely in-library promotion (promoted to management from within the library), in-library reassignment (moved to a position of the same grade, such as swapping the positions of secretary of the Party Committee and director), external transfer (from outside the university), and intramural transfer (from other departments of the university). Of the currently serving library management, most obtained their positions through intramural transfer (60.8%), followed by in-library promotion (34.2%). By comparing the position changes of management in different library categories, the study finds that the position changes of director, secretary of the Party Committee, and deputy secretary of the Party Committee were in line with the overall situation, whereas the proportion (49.8%) of deputy directors who obtained their positions through in-library promotion was significantly higher than other types of management.

Comparing the position changes of library directors in different provinces, Tibet, Ningxia, and Jilin had the highest proportion of in-library promotion, all exceeding 40%.

2.2.1.4 Academic Background

In terms of the distribution of the highest academic background and degrees, there were a total of 1,470 library management personnel with a postgraduate certificate or above (accounted for 49%), and a total of 2,012 library management personnel with a master's degree or above (accounted for 67%).

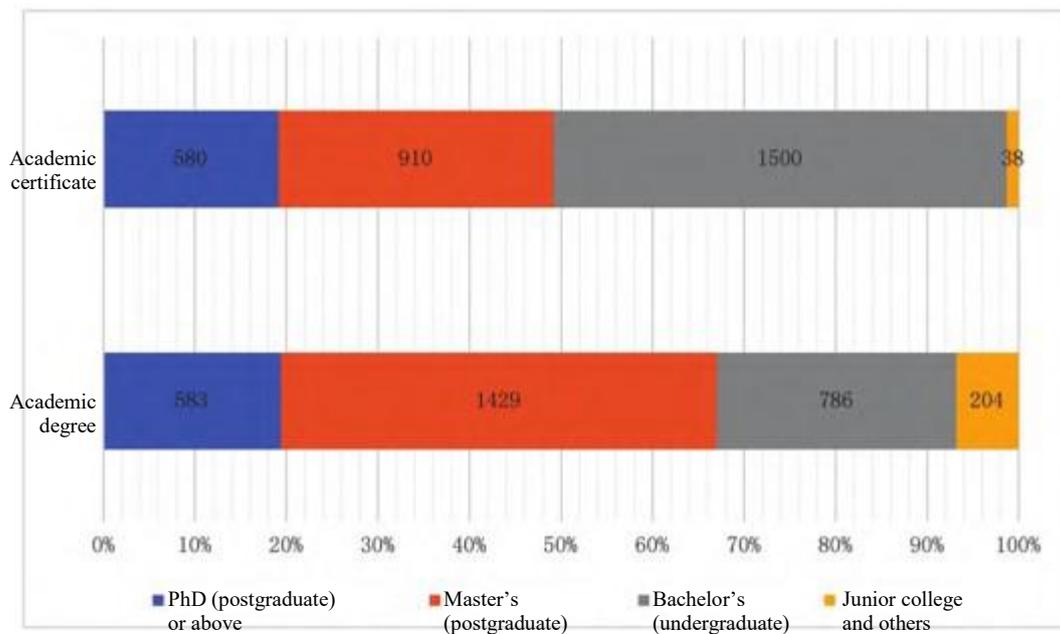


Figure 1. Highest Academic Qualification of Library Management

Comparing the academic background of library directors in different regions, Shanghai, Beijing, Jiangsu, and Guangdong had the highest proportion of PhD (postgraduate) degrees, all exceeding 50%.

2.2.1.5 Academic Factors

(1) Job Title

The job titles of library management are divided into four categories, namely senior, deputy senior, intermediate, and junior. The proportion of library management with a deputy senior job title or above was 76%. For library directors, senior job titles accounted for the highest proportion at 57%, while the proportion of deputy senior, intermediate, and junior job titles were 29%, 10%, and 0.5% respectively. For other members of library management teams, deputy senior job titles accounted for the highest proportion at 48%, while the proportion of senior, intermediate, and junior job titles were 23%, 25%, and 1.5% respectively. The job titles of some personnel were not provided.

The 10 provinces with the highest proportion of deputy senior or above job titles for library management were Anhui (85.6%), Fujian (85.5%), Guangdong (84.7%), Hebei (84.6%), Jiangsu (84.3%), Hainan (84.2%), Hunan (81.4%), Chongqing (81.4%), Sichuan (80.5%), and Liaoning (79.1%).

(2) Disciplinary Background and Research Direction

The research team divided the disciplinary background and research direction of library management into four categories, namely humanities, information resource management, computer science, and others. Those with disciplinary backgrounds in two or more of these categories were marked as “two or more” during analysis.

Among the disciplinary backgrounds of library management, humanities and information resource management accounted for a considerable proportion (13%), computer science accounted for 4%, and multidisciplinary backgrounds accounted for around 20%. Among the current research direction of library management, information resource management accounted for the highest proportion at 46%, while humanities and computer science stood at 9% and 5%, respectively.

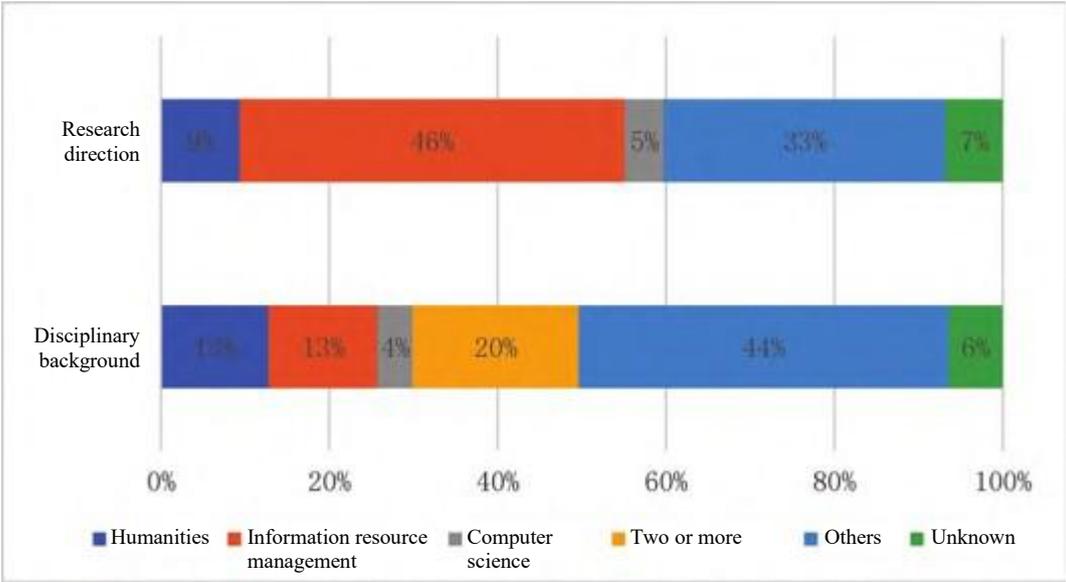


Figure 2. Disciplinary Background and Research Direction of Academic Library Management

2.2.2 Librarians

2.2.2.1 Personnel Numbers

(1) Total Librarians

From a total of 1,021 questionnaire responses, 10 non-standard responses were removed for this section. The remaining 1,011 academic libraries were used as the basis for the following analysis. The total number of librarians was 48,885, of which 33,507 were permanent employees, 10,477 were contract employees, and 4,901 were dispatched employees.

On average, each academic library had 48.35 librarians, of which 33.13 were permanent employees, 10.36 were contract employees, and 4.85 were dispatched employees.

Table 3. Descriptive Statistics of Librarians

Category	Average	Median	Mode	Min	Max
Permanent employees	33.14	28	0	0	283
Contract employees	10.36	7	0	0	110
Dispatched	4.85	0	0	0	61

employees					
Total	48.35	41	21	1	318

There were a total of 72 (7.12%) academic libraries with over 100 librarians, and 55 (5.44%) academic libraries with less than 10 librarians.

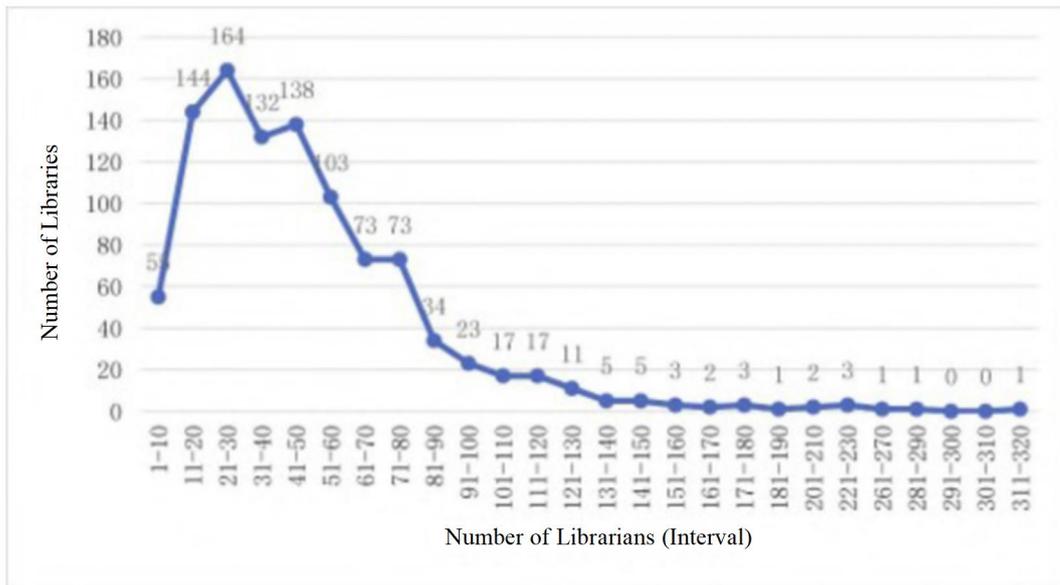


Figure 3. Librarian Distribution

(2) Changes in Librarian Personnel in the Past Five Years

In the past five years (2018 - 2022), the changes in permanent, contract, and dispatched librarian personnel are as follows: Each year, the number of newly recruited permanent employees accounted for 2.34% of all personnel, while the number of newly recruited contract employees accounted for 6.81% of all personnel. Calculated on a per-library basis, over the past five years, the average number of permanent employees decreased by 5.67, the average number of contract employees increased by 1.05, and the average number of dispatched employees increased by 0.53. Over the past five years, the total number of librarians decreased by 4,135, reflecting an average reduction of 4.09 librarians per library.

Table 4. Changes in Librarians from 2018 – 2022

Number of Librarians	Permanent employees			Contract employees			Dispatched employees
	Incoming	Retired	Resigned/Transferred	Incoming	Retired	Resigned/Transferred	
Total	3,927	7,496	2,160	3,567	736	1,768	
Average Per Library	3.88	7.41	2.14	3.53	0.73	1.75	
Total	-5,729			1,063			531
Average Per Library	-5.67			1.05			0.53
National Total	-4,135						
National Average Per Library	-4.09						

The provinces with the largest number of librarians per library were Guangdong, Jiangsu, and Shanghai. The provinces with the largest number of permanent librarians per library were Hunan, Shanghai, and Inner Mongolia. The provinces with the largest number of contract librarians per library were Guangdong, Hainan, and Gansu. The provinces with the largest number of dispatched librarians were Chongqing, Jiangsu, and Beijing.

2.2.2.2 Personnel Age

Librarians aged 40 - 49 and 50+ accounted for 35% of librarian personnel respectively, librarians aged 30 - 39 accounted for 23.7%, and librarians aged 29 and below accounted for around 5.7%.

The age structure of contract and dispatched librarians is similar, though the proportion of dispatched librarians aged 29 and below is higher. The age structure of permanent librarians is significantly different from that of the other two types, mainly reflected in the proportion of personnel aged 50+ and 30 - 39 (Table 4).

Table 5. Ten Provinces with the Most Librarians Per Library on Average

Province	Number of librarians	Province	Permanent employees	Province	Contract employees	Province	Dispatched employees
Guangdong	65.30	Hunan	43.97	Guangdong	21.39	Chongqing	9.96
Jiangsu	61.50	Shanghai	42.64	Hainan	21.14	Jiangsu	9.70
Shanghai	61.22	Inner Mongolia	42.06	Gansu	20.11	Beijing	9.57
Henan	61.05	Guangdong	40.97	Henan	16.98	Zhejiang	7.88
Inner Mongolia	53.56	Jiangsu	40.39	Sichuan	16.27	Hebei	7.58
Gansu	53.21	Fujian	38.71	Shanghai	13.50	Shaanxi	6.06
Beijing	52.86	Henan	38.52	Shaanxi	12.90	Henan	5.55
Hubei	52.14	Hebei	37.47	Hubei	12.86	Tibet	5.50
Hunan	51.70	Zhejiang	36.00	Shanxi	12.15	Anhui	5.19
Hebei	51.05	Heilongjiang	35.61	Anhui	11.97	Shanghai	5.08

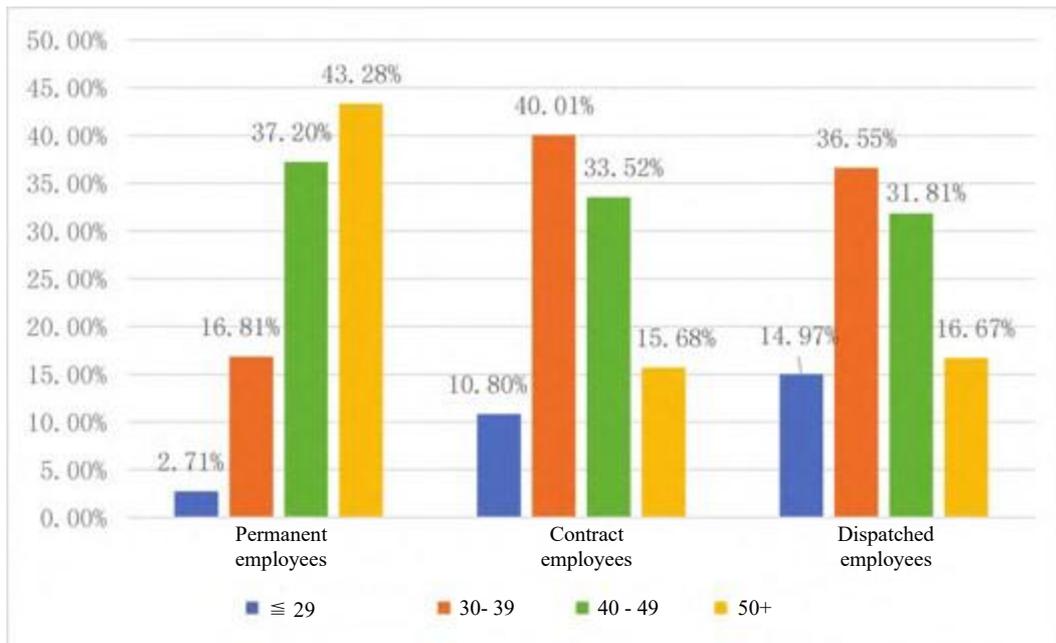


Figure 4. Age Distribution by Librarian Type

2.2.2.3 Academic Qualification Distribution

Librarians with a bachelor's degree accounted for 47.15%, librarians with a master's degree accounted for 30.97%, librarians with a junior college degree or below accounted for 18.25%, and librarians with a PhD or above accounted for 3.62%. The proportion of permanent librarians with a master's degree or PhD is higher than that of contract librarians, while the proportion of librarians with a bachelor's degree stays the same.

The provinces with the highest proportion of librarians with a master's degree or above were Shanghai (50.70%), Tianjin (50.52%), Beijing (44.89%), Jiangsu (40.59%), Jilin (39.28%), Zhejiang (38.69%), Guangdong (38.64%), Heilongjiang (37.90%), Liaoning (36.43%), and Inner Mongolia (35.45%). Among them, Shanghai and Beijing had the highest proportion of librarians with a PhD, at 9.26% and 9.18% respectively.

2.2.2.4 Job Title Distribution

The job titles of librarians are divided into four categories, namely senior, deputy senior, intermediate, and junior. Based on the valid data from 1,008 libraries (3 libraries excluded due to invalid data), 77.2% of permanent librarians held intermediate and deputy senior job titles. Contract librarians mostly held intermediate and junior job titles (60.06%), while some were not included in the job title system. Most dispatched librarians (75.11%) were not included in the job title system.

Over the past five years, academic libraries have appointed a total of 460 new senior librarians and 1,558 new deputy senior librarians, for an average of 92.00 new senior librarians and 311.60 new deputy senior librarians a year. This represents an addition of 0.46 senior librarians and 1.55 deputy senior librarians per library over the past five years (including retirees). Of all valid respondents, 741 (73.51%) of academic libraries have not promoted any personnel to senior librarian within the past five years, while only 92 (9.13%) have promoted two or more. Nearly half of the academic libraries (475, accounted for

47.12%) have not promoted any personnel to deputy senior librarians, while 99 (9.82%) have promoted five or more.

2.3 Comparative Analysis

In order to comprehensively examine the characteristics of librarians across the country and explore industry benchmarks for librarian team development, the research team conducted a horizontal comparison of different library categories. In addition to the previously defined first-class universities, other public universities, and private universities (the sample size of Sino-foreign cooperative universities is too small to include in the comparison), the research team also selected a group of sample libraries according to team size and proportion of incoming librarians for data and characteristic analysis to provide further references.

The research team selected a total of 19 sample libraries. Among them, 15 libraries had 100 or more permanent employees with over 10% of permanent staff recruited over the past five years; and 4 libraries had 100 or more librarians with less than 100 permanent employees, but over 10% permanent and contract librarians were recruited over the past five years. Of these sample libraries, 16 are first-class universities and 3 are other public universities. These sample universities are (arranged in pinyin alphabetical order): Peking University Library, Northeast Normal University Library, Southeast University Library, Fudan University Library, Henan Polytechnic University Library, Huazhong University of Science and Technology Library, Jinan University Library, Qufu Normal University Library, Shandong University Library, Shanghai University Library, Shenzhen University Library, Tianjin University Library, Wuhan University of Technology Library, Xi'an Jiaotong University Library, Northwest A&F University Library, Yanbian University Library, Zhejiang University Library, Zhengzhou University Library, Renmin University of China Library.

2.3.1 Library Management Teams

2.3.1.1 Personnel Numbers

The comparative analysis finds that there was little difference among the average number of library directors of sample libraries (1.00), first-class academic libraries (0.99), other public academic libraries (0.98), and private academic libraries (0.96). However, the average number of other library management varied greatly, standing at 3.7 for sample libraries, 2.8 for first-class academic libraries, 1.8 for other public academic libraries, and 0.6 for private academic libraries.

2.3.1.2 Personnel Age

Comparing the average age of library directors, sample libraries had the highest (55.5 years old), followed by first-class academic libraries (53.5 years old), other public academic libraries (52.9 years old), then private academic libraries (50.6 years old).

2.3.1.3 Positions

Comparing the positions of library directors, private academic libraries had the highest proportion of in-library promotion (46.9%), while first-class academic libraries had the highest proportion of intramural transfers (79.9%). Refer to Table 6 for details.

Table 6. Library Director Appointments

Category	Sample libraries	First-class academic libraries	Other public academic libraries	Private academic libraries
In-library promotion	21.1%	14.2%	22.1%	48.0%
In-library reassignment	10.5%	4.5%	4.8%	1.1%
Intramural transfer	63.2%	79.9%	72.4%	46.9%
External transfer	0.0%	1.5%	0.8%	4.0%

2.3.1.4 Academic Background

Comparing the different categories of libraries, the average academic qualifications of sample library directors ranked the highest, at 79% PhD (postgraduate) or above, followed by first-class academic libraries, at 75% PhD (postgraduate) or above, other public academic libraries stood at 52% master's degree (postgraduate) or above, while the directors of private academic libraries mostly had bachelor's degrees, accounting for 57%.

2.3.1.5 Job Title and Academic Factors

Comparing the job titles of library directors, sample libraries had the most with senior job titles (84.21%), with 94.7% holding a deputy senior or above job title. For first-class and other public academic libraries, the proportion of library directors holding a deputy senior or above job title was almost the same, standing at 92.1% and 91.7% respectively. The proportion of library directors holding a deputy senior or above job title in private academic libraries was relatively low, standing at 64.5%.

The proportion of library directors with humanities or multidisciplinary backgrounds in sample libraries (58%) was higher than that of the other library categories. For private academic libraries, the proportion of directors with information resource management and computer science backgrounds was higher than that of the other library categories (Table 7).

Table 7. Disciplinary Background of Library Directors by Category

Library Category	Information resource management	Humanities	Computer science	Two or more	Others	Unknown
Sample libraries	10.53%	31.58%	0.00%	26.32%	26.32%	5.26%
First-class academic libraries	5.76%	13.67%	2.88%	17.99%	58.27%	1.44%
Other public academic libraries	11.04%	15.22%	3.58%	18.51%	48.96%	2.69%
Private	13.98%	9.68%	6.45%	22.58%	39.78%	7.53%

academic libraries						
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2.3.2 Librarians

2.3.2.1 Personnel Numbers

The average number of librarians per library ranked the highest in sample libraries, standing at 1.7 times than that of first-class academic libraries, 3.37 times than that of other public academic libraries, and 8.53 times than that of private academic libraries. First-class and other public academic libraries possessed a relatively large proportion of permanent librarians (>70%). Private academic libraries primarily hired contract librarians (accounting for 79.56% of all personnel). See Table 8 for details.

Table 8. Librarian Distribution by Category

Library Category	Number of Librarians Per Library	Permanent (%)	Contract (%)	Dispatched (%)
Sample libraries	159.79	76.42%	10.90%	12.68%
First-class academic libraries	93.70	73.96%	12.79%	13.25%
Other public academic libraries	47.37	72.23%	18.33%	9.44%
Private academic libraries	18.73	16.88%	79.56%	3.56%

The changes in permanent and contract librarians by library category are shown in Table 9 and Table 10. Comparing the net changes per library, the number of permanent librarians in sample libraries shows the most decrease (15.63), while that of contract librarians shows the highest increase (2.68). The increase of contract librarians in private academic libraries (1.38) was higher than that of other public academic libraries.

Table 9. Changes in Permanent Librarians by Category (Last Five Years)

Library category	Permanent librarians				
	Incoming	Retired	Resigned/Transferred	Net change	Net change (per library)
Sample libraries	386	581	102	-297	-15.63
First-class academic libraries	1,068	2,457	512	-1,901	-13.48
Other public academic libraries	2,797	4,932	1,578	-3,713	-5.49
Private academic libraries	48	55	58	-65	-0.34

Table 10. Changes in Contract Librarians by Category (Last Five Years)

Library category	Contract librarians				
	Incoming	Retired	Resigned/Transferred	Net change	Net change (per library)
Sample libraries	164	33	80	51	2.68
First-class academic libraries	640	79	290	271	1.92
Other public academic libraries	1,806	529	770	507	0.75
Private academic libraries	1,074	128	682	264	1.38

Comparing the changes in dispatched librarians, sample libraries have shown the highest increase (8.74), followed by first-class academic libraries (2.34).

2.3.2.2 Personnel Age Distribution

The age distribution of librarians varies by library category. Private academic libraries had the highest proportion of librarians aged 29 and below and 30 – 39 (51.6%). Sample libraries had a relatively even distribution between librarians aged 30 – 39, 40 – 49, and 50+, at around 30% each. Other public academic libraries had the highest proportion of librarians aged 40 – 49 and 50+ (74.23%). Refer to Table 11 for details.

Table 11. Librarian Age Distribution by Category

Library category	≤29	30–39	40–49	≥50
Sample libraries	8.03%	29.04%	30.19%	32.73%
First-class academic libraries	6.66%	25.32%	33.91%	34.11%
Other public academic libraries	4.47%	21.30%	37.03%	37.20%
Private academic libraries	12.35%	39.25%	32.87%	15.54%

2.3.2.3 Academic Qualification Distribution

Comparing the academic qualification distribution of librarians by library category, sample libraries and first-class academic libraries were relatively similar. The proportion of librarians with a bachelor's or master's degree accounted for nearly 40%. The academic qualifications of librarians in other public and private academic libraries were primarily undergraduate (Figure 5).

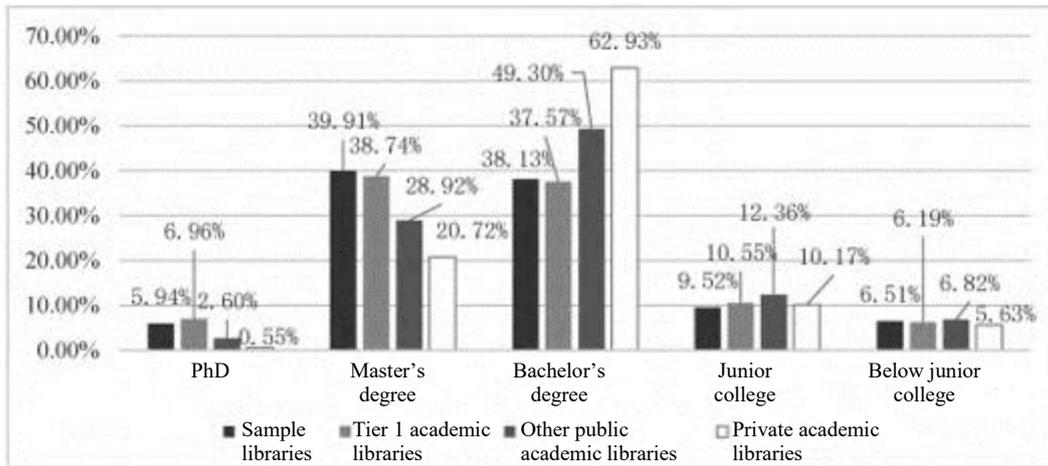


Figure 5. Academic Background Distribution by Library Category

3. Conclusion

In accordance with the survey results, analyses, and discussions, and in view of the opinions and suggestions provided by 661 libraries, the research team closely focuses on the central task of “Chinese-style modernization” and the primary task of “high-quality development”. Based on the basic viewpoints and relevant judgments of the CALM Report (2021 Simplified Edition), this study identifies strategic issues including top-level design and performance evaluation guidance for librarians, the deepening of librarian personnel system reform, improvement of leadership and strategic determination, enhancement of professional ability and innovation drivers, and in-depth participation of intramural and extramural users. In other words, there is a clear gap between the current status of these issues and the requirements of the strategic objectives, and the research team believes that the practical analysis, selection of measures, and narrowing of gaps for these strategic issues will lead the corresponding development trends. This study also summarizes the limitations of the research and the direction of future efforts.

3.1 Development Trends

The development trends of librarians are primarily reflected as follows.

(1) Librarian team development requires inheritance of the library spirit and comprehensive innovation, along with top-level design and performance evaluation to further strengthen guidance.

Chinese universities have made six historical achievements during the past 40 years of reform and opening up, one of which is having “created a distinctive library spirit to lead the modernization of academic libraries”^[3]. The library spirit of “care, integration, dedication, adaptability, and excellence” is a valuable asset created by librarians in their work, and should be carried forward in new practices and lead the overall innovation of academic libraries, including librarian team development.

Whether considering academic library industry, regional academic library clusters, specialized academic library alliances, or single academic library, the dialectical relationship between the whole and the part must be properly handled. In driving overall innovation, the common key strategy is to organize experts to strength top-level design and

performance evaluation. In addition to enabling top-level planning and implementation, this strategy also empowers original innovation, integration innovation, and iterative innovation according to the conditions, and improves and drives mutual learning and common development through performance evaluations and summaries.

Compared with resource development and service innovation, expert guidance for academic librarians appears relatively weak. In the coming period, the MOE and local SCAL offices will issue special guidance on librarians, libraries with large librarian teams will formulate special plans for team development, and experts in the library and talent sectors will carry out joint evaluation and guidance, all of which are expected to deliver progress.

(2) The development of academic librarians requires the passing on of values and collaborative innovation. Meanwhile, the librarian personnel system requires deeper reforms.

The value of academic libraries is not reflected only through day-to-day practical tasks such as the accurate collection, complete display, and orderly organization of books and periodicals, but also in their unique role in facilitating talent training, research, and social services. No doubt librarians are the main creators of library value, while they can also further engage in and lead the innovation of education, teaching, and research, and make contributions through collaborative innovation.

The emphasis of collaborative innovation is the common goals recognized by a variety of stakeholders, and the complementary comparative advantages of all contributors. With regard to the comparative advantages of academic libraries, we are used to judging inter-library comparative advantages based on the quantity of documents collected and the quality of characteristic literature; and the comparative advantages of libraries relative to other teaching and research institutions based on the quantity and quality of available documents. But in fact, the most comparable and vital comparative advantage of academic libraries is professional librarians. In this sense, it is worth assessing the capabilities of academic libraries and acting accordingly, while establishing greater goals and achieving greater development through collaborative innovation is also a key option.

The reform of the librarian personnel system cannot be simply an optimization such as the establishment, reform, or abolition of in-library policies, it is also necessary to obtain the recognition and guidance of relevant stakeholders on the basis of fully reflecting the unique role of academic libraries and their possible contributions. On the basis of comprehensive communication, academic libraries should also strive to gain understanding and support from the university, and its human resource, finance, and other departments. In the coming period, positive developments for academic libraries may occur, such as the continued optimization of internal systems and position structures, further emphasis on practical performance in the evaluation criteria for professional and technical positions, introduction of talent through various hiring systems, and collaborative innovation in government-university-industry research.

(3) The librarian team development requires the passing on of experience and independent innovation, while leadership and strategic determination require comprehensive improvement.

Just as the rich collections of academic libraries were accumulated over the years, so is their cultural heritage. If not, the accumulation of historical experience is insufficient and

difficult to sustain. The “Regulations on the Academic Libraries for Normal Higher Education Institutions” issued by the MOE clearly outlines that academic libraries “shall implement a director responsibility system within the scope of the institution’s authorization^[4].” In accordance with relevant regulations, academic libraries with party committees have also established a “collective leadership, party-administration division of labor, and coordinated operation” working mechanism. This institutional mechanism emphasizes the importance of the management team and the library director’s role as a leader. It requires the current management team and library director to take on their roles, carry the past forward, and pave a path for the future, not just by carrying on previous experience, but also by being innovative in achieving their strategic goals.

No matter their disciplinary backgrounds or former roles, library directors and library management must grasp the current situation and tasks, and understand the library spirit, innovative requirements, and directions of efforts from therein. They must summarize and clarify the historical experience of their own library, study and learn from the advanced experience of other libraries, communicate and formulate development plans, and engage in decision-making to lead all librarians to innovation and development.

While the librarian team development depends on the cadres, personnel, and other systems and policies of their associated educational institution, the librarians’ attitude towards their own improvement is also particularly important. Under the guidance of new development concepts and through the joint efforts of university’s relevant departments and the library, general leadership skills such as learning, summarizing, researching, communication, and decision-making can be continuously improved, along with the strategic determination regarding the scientific formulation, continuous implementation, and independent innovation of development footprint for both the library and the university.

(4) Librarians should inherit theoretical knowledge and engage in innovative practices, while improving their professional ability and innovation drivers comprehensively.

The spirit, value, and experience of academic libraries are created from the labor of their librarians. In addition, the theoretical research of librarians in library and information science has far more consensus than other aspects. The nature of librarians’ labor, professional characteristics, occupation characteristics, social status and role, and quality and development requirements have always been hot topics of theoretical debate. This is in great contrast to the degree of attention librarians receive in actual work. This contrast is related to the fact that the barrier to entry and innovation requirements of librarians are not high, and job comparability and professional competitiveness are weak.

The professional ability of a librarian is different from their disciplinary ability. It relates directly to their ability to deal with documents and users, and their ability to contribute to the services required by users. In practice, if librarians can increase their sense of innovation, ability to innovate, and innovative productivity, and improve their innovation effectiveness (achieving “mass innovation” as a result), then the librarians will surely become more indispensable and irreplaceable. It is clear that the personal study, practice, organized systematic training, and specialized training of librarians should be prioritized once they enter their positions.

The cultivation and introduction of professional librarians will be the primary focus of the high-quality development of academic libraries. In the construction of a new development

pattern, the librarians' professional abilities and factors for innovation will improve comprehensively through the joint efforts of the individuals and organizations. The professional skills of librarians include the ability to accurately collect, display, and organize documents, effectively mine knowledge, associate and disseminate, deeply interact with users, communicate and integrate, meet user demands, identify problems, and provide services. The innovative driving forces include librarian incentive mechanisms, growth mechanisms, competition and cooperation mechanisms, and etc.

(5) Librarian team development requires the passing on of skills, open innovation, and the deeper participation of intramural and extramural participants.

With the rapid evolution of information technology, the rapid development of the software and information service, and the popularization of library knowledge and skills, the boundaries of libraries have become muddled, which themselves have become the application scenarios of many technologies and industries. Lack of openness and insistence on siloed operations will reduce the space for value creation, not just for the libraries, but also the librarians themselves. Embracing society and adapting to its needs will be required of libraries and librarians to grow and achieve their objectives.

The reform of personnel system in high education institutions has also been deepening. In addition to the conventional permanent faculty and staff system, there are also the labor contract system, labor dispatch system, and part-time workers outlined by the Labor Law. The comprehensive consideration of multiple employment systems may be a more desirable choice. From the perspective of library opening up and innovation, attracting intramural users such as faculty and students, along with extramural users such as alumni, to participate in management and services will strengthen the capabilities of librarians to a considerable extent. Organizing librarians and social forces to jointly develop certain services and technical items rather than engaging in procurement or outsourcing will improve sustainability.

The in-depth participation of users in librarian team development is a clear development trend. Students are providing services as volunteers, engaging in work-study programs, or organizing special student associations to help. These approaches will continue to consolidate and expand. As students, faculty, retirees, and extramural personnel are recruited for part-time work to assume corresponding responsibilities, the team of "assistant librarians" will continue to grow.

3.2 Limitations and Future Efforts

Due to the limitations of knowledge, time, and space, this study is subject to a variety of limitations. The questionnaire is not standardized enough, which inconvenienced certain answering libraries; the study only targets the libraries of undergraduate institutions, and does not analyze the data of the libraries of certain higher vocational institutions; and the study lacks an in-depth analysis and trend judgment on higher policy.

In the next step, the research team will improve the following aspects: In terms of study design, the research team will further strengthen the identification of strategic issues facing librarians, stick to a solution- and goal-oriented approach. In terms of research methods, the research team will continue to improve questionnaire design and analysis in accordance with actual research results, and provide dynamic trend forecasts. In terms of research content, the research team will, on the basis of macro research, provide specific and special

research and experience exchanges, and discover and promote excellent case studies and advanced models that have emerged in librarian team development. In terms of practical application, the research team will enhance in-depth cooperation with local SCAL offices across the country, regularly analyze and evaluate the librarian development of all levels and types, strengthen communication with personnel and talent management departments, and strive for understanding and support.

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Authors: Chen Jianlong, Shao Yan, Zhang Lu, Li Feng, Peking University Library, Beijing, 100871

Liu Wanguo, Northeast Normal University Library, Changchun, Jilin, 100018

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