

Information workforce for transformative leadership

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ABSTRACT

Libraries of the future will need information professionals with visionary leadership: professionals who can adapt to technological advances and who are committed to long-term sustainability. In Portugal, on the initiative of the Portuguese Association of Librarians, Archivists, Information and Documentation Professionals (BAD), a study of information professionals was carried out in 2023. This study examines the reality for individuals working and developing their expertise in the field of Information and Documentation according to the following variables: sex, age, professionals with disabilities, nationality, professional category, educational qualification, training in the field of Information Sciences, continuing education, participation in associations and professional networks. Its objective is to broaden our understanding of information professionals and, specifically, to ensure that the results obtained are analysed and discussed in a way that highlights the challenges faced in the profession. The survey was carried out by means of a questionnaire sent to the heads of information institutions in Portugal, and to information service providers in different sectors of society. The total number of information professionals checked was 9606; broken down by sector, municipal libraries and archives (4153), higher education institutions (903), central government (1236), museums (159), other sectors (84) and school library networks (3071). The study was of great importance, as it was the first to be carried out on this professional group in Portugal. Covering activity in different sectors made it possible to obtain a detailed demographic and social portrait of information professionals. Furthermore, the study demonstrates a dynamic and proactive professional association working to achieve a good understanding of the present situation in order to plan for the future and defend the profession. The conclusions present inferences from the intersection of the various variables analysed and general recommendations such as the need for regulated access to the profession, and reflection on training are made.

Keywords: Visionary Leadership; Information Professional Skills; Professional Associations; Information Workforce; Portugal.

1 INTRODUCTION

1.1 Research background

Until now, it is not known who and how many professionals work in public, private, and corporate institutions in Portugal in the field of information and documentation. There are no sociological or other types of studies regarding the total number of workers or other parameters such as sex, age group, professional category, educational qualifications, specific training, among others.

This article presents part of the results from the Study on Information Professionals in Portugal: 2021 to 2023 (Alvim & Vargues, 2024), carried out by the initiative of the Portuguese Association of Librarians, Archivists, Information and Documentation Professionals, developed by the Technical Committee for the Profession, created within the scope of the Profession Board Member of the National Council of the Association, in the years 2021 to 2023. The study as a whole aims to characterize the human resources working in the field of information and documentation in Portugal, as well as to characterize the heads of information organizations, according to the following variables: sex, age group, professionals with disabilities, nationality, professional category, educational qualifications, training in the field of Information Science and BAD (Librarianship, Archival Science, and Documentation), continuing education, participation in professional associations and networks.

This work will focus only on some of the aforementioned variables for the characterization of information professionals. The general objectives of the work are to get to know information professionals, namely, sex, age group, professional category, educational qualifications, training in the field of Information Science/BAD; and to make considerations related to the analysis and discussion of the results obtained and the challenges they bring to the profession. The partnership with the Faculty of Arts of the University of Lisbon (FAUL) for the collection and sharing of data from the Local Administration sector is also highlighted.

1.2 Literature review

Regarding demographic and social studies on professionals working in libraries and archives across various sectors of Portuguese society, several works are referenced concerning Local Administration, Central Administration, Museums, and the School Library Network.

In local administration, available works include those by the Municipal Archives Working Group of the Portuguese Association of Librarians, Archivists, and Information and Documentation Professionals WG-MA (BAD) for archives; and for libraries, the reports by the Directorate-General for Books, Archives, and Libraries (DGBAL). Since 2008, results from WG-MA (BAD) questionnaires have been presented at National Meetings of Municipal Archives and published in articles, the most recent being by Freitas & Marinho (2019), which investigates the number of senior technicians and technical assistants, with and without training in the field of archives, and the number of participations in training activities in the two years prior to the survey. As for updated information on human resources in public libraries within the National Public Library Network, the data come from statistical reports published by DGBAL (2023), which provide information on the total number of workers, the number of workers with and without training in Information Science (number of senior technicians and technical assistants with and without training in the field), and the total number of workers who received training.

Recently, academic work has been developed at FAUL, focusing on the characterization of information science (IS) professionals. In June 2023, FAUL presented a study that identifies and characterizes information professionals in municipal archives in Portugal (Macedo *et al.*, 2023). The professional community thus obtained the first in-depth, nationwide study centered on professionals working in municipal archives, presenting the quantity, distribution, and characterization of these human resources in 308 Portuguese municipalities, and listing the archives in each municipality at the NUTS III level. Also at FAUL, master's students in Documentation and Information Sciences have produced dissertations that stand out on this research topic regarding human resources: Filipe (2020) on

information managers in municipal archives between the Mondego River and the Lisbon Metropolitan Area; Centenico (2021) on information professionals in municipal archives in southern Portugal; Santos (2022) on information professionals in public libraries in Northern Portugal; Almeida (2022) on information professionals in municipal archives between the Mondego and Douro rivers; Miranda (2023) on information professionals in public libraries in Portugal between the Vouga and Tejo rivers. Regarding studies on professionals working in libraries and archives within the museum context, reference is made to the work developed by the Information Systems in Museums Working Group (GT-ISM), created within the Portuguese Association of Librarians, Archivists, and Information and Documentation Professionals in 2012. The group has promoted reflection on museum information systems and their role in information management and knowledge creation. GT-ISM conducted a field study aiming to reveal the main characteristics of Portuguese museums, particularly regarding information and documentation management of various types of heritage assets. In 2016, they conducted a survey targeting those responsible for museum units, covering a total of 710 museums, with a 31% response rate (Santos, Serôdio, & Ferreira, 2017). They collected data on human, financial, IT, and communication resources, collections, storage, conservation and restoration, public access, among others.

Although there are various studies on higher education, these focus more on libraries than archives, and there are few references to existing human resources. Moura (1987), in a presentation at the IFLA Annual Conference, provides a portrait of university libraries in Portugal. In a more recent investigation, Vargues (2016) surveyed human resources only in university libraries, using a questionnaire to identify the number of senior technicians and technical assistants, with or without training in Information Science (IS).

The Central Administration sector has been little studied, particularly regarding human resources in information services, and no publications, master's dissertations, or doctoral theses have been found. However, mention should be made of the report produced by a group formed by the Directorate-General for the Qualification of Public Administration Workers, which analyzed the situation of Central State Administration Libraries, known as the Informal Group of Central State Administration Libraries - Thinking the Future (GIBACE, 2015). The result of the group's work, in collaboration with professionals from Central Administration entities, was the development of strategic guidelines for the sector. References to human resources are made from the perspective of the skills and training required.

The School Library Network (SLN), created in 1996, is an agency of the Ministry of Education and has been the subject of many academic works, which address various topics, including those most relevant to this work, such as the profile of the school librarian, their training, etc. Every year, the Coordinating Office of the Network surveys school libraries, through the teacher-librarian, with a questionnaire on human resources. The results are published and made available online (RBE, 2023).

2 MATERIALS AND METHODS

For this work, the following methodological procedures were used: the research approach was both qualitative and quantitative, the type of research employed statistical methods and quantified data, and the data collection technique was a survey by questionnaire. The research universe consisted of the heads of institutions from various sectors of society who responded to the survey about professionals working in libraries and archives within their institutions.

The questionnaire for collecting empirical data was developed by the Technical Committee for the Profession-BAD, in partnership with FAUL. The questionnaire was structured into six main parts. Items one and two relate to the characterization of the service and its head, which are not addressed in this article. Items three and four focus on professionals who work directly in the information/documentation sector. Item three covers the variables: sex, age group, and nationality. Item four concerns the professional characterization of staff, focusing on the variables: professional category, academic qualifications, specialized training in information/documentation, and continuing education. Item five addresses participation in professional associations, which will also not be discussed in this work. The last item refers to the identification of the respondent. The distribution of

the questionnaire was carried out by email, containing a link to the questionnaire to be completed on the LimeSurvey platform. It was sent to information services in various sectors of society: Local Administration – Municipal Libraries and Municipal Archives; Higher Education – University Education; Polytechnic Education, in various types of establishments – Public, Private, Military and Police Public; Central Administration – Sovereign Bodies (Presidency of the Republic, Assembly of the Republic, Government (Ministries), and Courts); Directorates-General; General Secretariats; Regional Government Bodies of the Azores and Madeira; Armed Forces, Security Forces, Hospitals; District Archives; National Library; Museums – Municipal, Central Administration, and Private; Other institutions – Religious Entities; Associations; Foundations; Professional Orders; Companies, etc. In the data analysis phase, the data collected from the questionnaire were downloaded into Excel files, processed by sector of activity using pivot tables for the creation of various tables and charts to support the study.

3 RESULTS AND DISCUSSION

3.1 Sex

The results obtained for the variable Sex, across all sectors, account for 7.898 information professionals (IP). The number of female professionals is 6.187 and male professionals 1.711 (Figure 1). In the School Library Network (SLN) sector, there is no information regarding the sex of 1.704 IPs with the category of Technical Assistant.

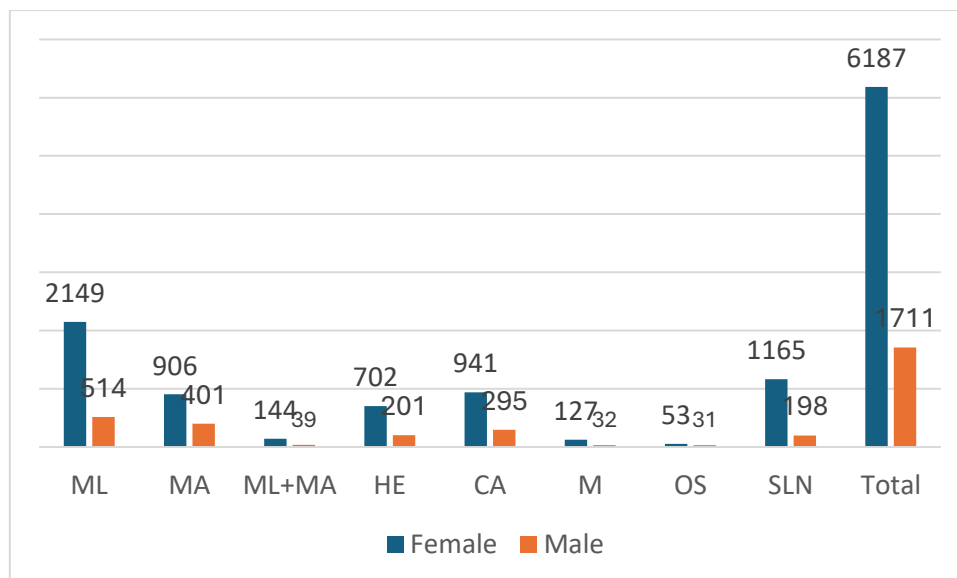


Figure 1: Number of information professionals by sex and sector (n=7.898)

In the Local Administration sector, in Municipal Libraries (ML) there are 2.129 female and 514 male professionals; in Municipal Archives (MA) there are 906 female and 401 male; in combined Municipal Libraries and Archives (ML+MA) there are 144 female and 39 male. In Higher Education (HE) there are 702 female and 201 male; in Central Administration (CA) there are 941 female and 295 male; in Museums (M) there are 127 female and 32 male; in Other Sectors (OS) there are 53 female and 31 male; and in the SLN there are 1.165 female and 198 male professionals.

3.2 Age group

The total assessed for the variable Age Group is 7.706 professionals (Table 1). The SLN report (2023) does not provide information on age groups or the age of Technical Assistants, only stating that the 1.363 Teacher Librarians (TL) have an average age of 55 years.

Table 1: Number of information professionals by age group and sector (n=7.706)

	ML	MA	ML+MA	HE	CA	M	OS	SLN	Total
21 to 30 years	73	37	11	40	48	8	0	0	217
31 to 40 years	322	106	24	94	122	21	8	0	697
41 to 50 years	986	356	99	227	261	106	35	0	2070
51 to 60 years	868	309	61	336	337	107	16	1363	3397
61 years or older	302	125	16	156	502	178	46	0	1325
Total	2551	933	211	853	1270	420	105	1363	7706

The most represented age groups across all sectors are 51 to 60 years (3.397) and 41 to 50 years (2.070), followed by 61 years or older (1.325), 31 to 40 years (697), and 21 to 30 years (217). In percentage terms, 2.8% of IPs are in the 21 to 30 age group, and 44% are in the 51 to 60 age group. In the Central Administration sector, the 61 or older age group has the highest number of older professionals (502), followed by Local Administration, with ML (302) and MA (125). However, it is also in the ML where the youngest professionals are found, in the 21 to 30 age group (73), and in CA (48).

3.3 Professional category

For the variable Professional Category, across all sectors, the total is 9.606 referenced information professionals. This variable records the highest number of information professionals in the entire study (Table 2).

Table 2: Number of information professionals by Professional category

	ML+MA	HE	CA	M	OS	SLN	Total/ Profe. Cate.
Senior Technician	1329	397	531	89	40	0	2386
Technical Coordinator	82	29	16	2	4	0	133
Technical Assistant	1811	326	380	38	13	1708	4276
Operacional Assistant	39	4	50	0	0	0	93
Operational Manager	567	86	78	19	2	0	752
Technical Staff	84	2	53	0	1	0	140
Administrative Staff	58	11	32	0	6	0	107
Temporary worker	89	6	28	0	0	0	123
Librarian	4	4	7	0	0	0	15
Teacher Librarian	11	3	0	0	0	1363	1377
Scholarship Holder	3	15	0	2	0	0	20
Volunteer	37	4	17	6	17	0	81
Other	39	16	44	3	1	0	103

Total/Sector	4153	903	1236	159	84	3071	9606
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In the Senior Technician (ST) category, there are 2.386 referenced professionals: in ML and MA (1.329), in HE (397), in CA (531), in M (89), and in OS (40). In the Technical Coordinator (TC) category, there are 133: in ML and MA (82), in HE (29), in CA (16), in M (two), and in OS (four). In the Technical Assistant (TA) category, there are 4.276: in ML and MA (1.811), in HE (326), in CA (380), in M (38), in OS (13), and in SLN (1.708). In the Operational Manager (OM) category, there are 752: in ML and MA (567), in HE (86), in CA (78), in Museums (19) and Other Sectors (two); in the category of Teacher Librarian (TL) there are 1.377, in Municipal Libraries and Archives (11) and in the School Library Network (SLN) (1.377). The other categories have only residual numbers.

The professional categories with the highest number of professionals are Technical Assistant (TA) (4.276) and Senior Technician (ST) (2.386). The TL category ranked third among the categories with the largest number of professionals in Portugal (1.377). This category exists within the Ministry of Education for teachers with training in the field of Information Sciences (IS), working in public school libraries within the SLN.

3.4 Educational qualifications

The number of information professionals, across all sectors, in terms of the variable Educational Qualifications, is 7.407. The SLN sector does not provide information regarding the qualifications of the TA (Table 3).

Table 3: Number of information professionals by Educational qualification and sector (n=7.407)

	ML	MA	ML+ MA	HE	CA	M	OS	SLN	Total/ Qualif.
PhD	30	7	1	33	13	6	7	0	97
PhD IS	7	12	0	15	6	1	1	4	46
Master's	69	54	8	63	55	22	8	0	279
Master's IS	47	50	5	77	60	5	8	120	372
Postgraduate	91	56	6	68	50	8	6	0	285
Postgrad. IS	231	131	15	128	157	20	14	563	1259
Graduation	518	217	75	108	181	60	24	527	1710
Graduation IS	87	54	1	36	55	4	2	25	264
Bachelor	7	12	0	3	3	0	9	0	34
12 th Professional IS	10	0	0	3	1	0	1	124	139
12 th +IS Tec. Prof.	559	106	10	161	38	6	3	0	883
Introductory courses	43	12	0	11	31	3	2	0	102
Post-secondary	48	20	0	1	8	0	1	0	78
12 th Grade	462	411	39	124	235	27	7	0	1305
9 th Grade	139	106	6	49	84	8	1	0	393
6 th Grade	37	11	4	10	12	1	1	0	76
4 th Grade	23	14	0	7	5	3	0	0	52
Other	12	6	0	8	6	1	0	0	33
Total/Sector	2420	1279	170	905	1000	175	95	1363	7407

The Graduation's degree is the most common educational qualification among information professionals (1.710), especially in the SLN (527), ML (518), and MA (217) sectors. Next is the 12th

Grade (1.305), in the ML (462), MA (411), and CA (235) sectors. Notably, in third place is the Postgraduate IS qualification (1.259), in the SLN (563), ML (231), and CA (157) sectors, and the 12th+IS Tec. Prof. qualification (883), in the ML (559), HE (161), and MA (106) sectors. In the HE sector, it is understandable that the person responsible for the library is sometimes from the teaching career and, as such, holds a PhD (33). The PhD IS is most mentioned in the HE (15) and MA (12) sectors. In ML, the most referenced qualifications are 12th+IS Tec. Prof (559) and Graduation's degree (518); in MA, 12th Grade (411) and Graduation's degree (217); in HE, Postgraduate IS (128) and 12th Grade (124); in CA, 12th Grade (235), Graduation's degree (181), and Postgraduate IS (157); in M, Graduation's degree (60) and 12th Grade (27); in OS, Graduation's degree (24) and Postgraduate IS (14). In general, the workforce is highly qualified in the information and documentation sector, but the training is not always in a field related to the profession. Also, in ML, 372 information professionals have higher education in IS, representing 15% of all information professionals in ML. In this sector, there are many professionals with education at the 12th Grade and professional IS course level. In MA, 247 professionals have higher education in IS, representing 19% of all professionals in this sector. In HE, 256 professionals have higher education in IS, representing 59% of all professionals in the sector. In CA, 278 professionals have higher education in IS, representing 27.8% of all professionals in the sector.

3.5 Professional training in the field of Information Science/BAD

The chart represents the number of information professionals (IP) with and without IS training, with a total of 7.404 professionals. IPs with IS training are 3.065 (41%), while those without is training are 4.342 (59%) (Figure 2).

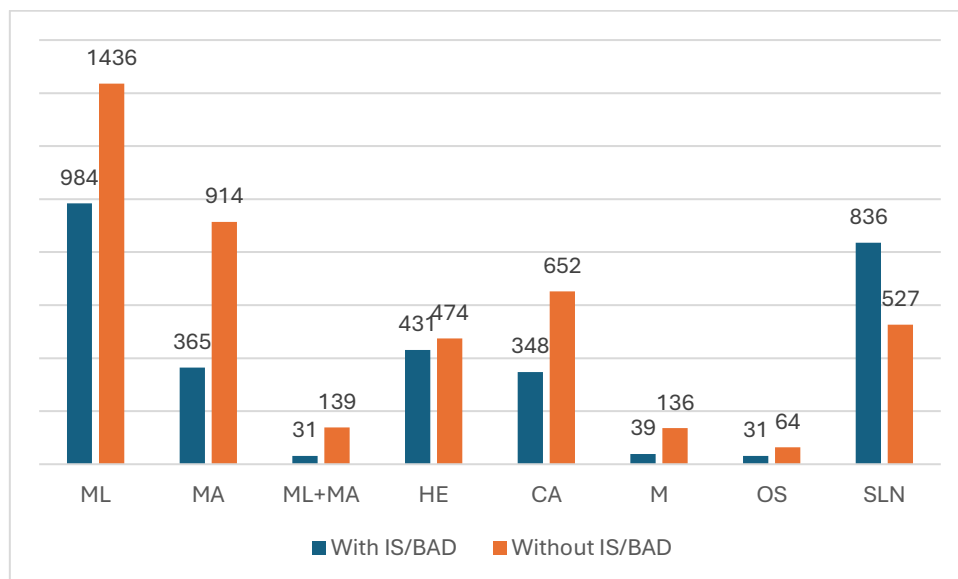


Figure 2: Number of information professionals with and without IS/BAD training by sector (n=7.407)

In all sectors, the number of IPs without training is higher than those with training in the IS area, except in the SLN sector. In the ML sector, there are 1.436 (59%) without training and 984 with training; in MA, 914 (71%) without training and 365 with training; in ML+MA, 139 (82%) without training and 31 with training; in HE, 474 (52%) without training and 431 with training; in CA, 652 (65%) without training and 348 with training; in M, 136 (78%) without training and 39 with training; in OS, 64 (67%) without training and 31 with training; in SLN, 527 (39%) without training and 836 with training. The percentage of professionals who need training in the IS area is high across various sectors. In Local Administration,

the situation is more serious: in ML, there are 1.436 professionals without training; in MA, 914; and in ML+MA, 139 professionals. It is urgent to provide training opportunities for all these professionals, at various levels of education. In HE, the number of professionals with and without training in the IS area is more balanced.

4 CONCLUSIONS

This study is of great importance, as it is the first to be conducted on this professional group in Portugal, encompassing various sectors of activity. This allows for a demographic and social portrait of information professionals in the country. Moreover, the study is the result of the dynamic efforts and interest of a professional association that seeks to thoroughly understand the reality in order to act effectively and develop strategies and plans to defend the profession.

Regarding information professionals, in the variable Sex, 78% are female versus 22% male. According to the international profile of the profession and public administration statistics, this field follows the trend of feminization seen in the profession globally.

As for the Age Group of information professionals, the results reveal an overall aging of the group. The workforce is concentrated in the 51 to 60 age bracket. There is a notable underrepresentation in the younger age groups, especially the 21 to 30 age group, which accounts for only 2.8% of professionals. In terms of Professional Category, a total of 9.606 information professionals were identified, representing the highest recorded reference for information professionals in Portugal compared to other variables. The professional categories with the most professionals are Technical Assistant (4.276), Senior Technician (2.386), and Teacher Librarian (1.377).

Regarding academic qualifications, with a total of 7.407 professionals mentioned, the most cited qualification is a graduation's degree (1.710), predominant in the School Library Network and Local Administration sectors; secondary education (12th grade) is held by 1.305 professionals, mainly in the Local and Central Administration sectors; a postgraduate degree in Information Sciences (IS) is held by 1.259 professionals, mainly in Municipal Libraries, Central Administration, and the School Library Network. The combination of secondary education and the Professional Technical Course in Information Science (IS) accounts for a significant portion of professionals (883), especially in Local Administration and Higher Education. In general, the workforce is highly qualified, but the qualifications are not always in the field related to the profession.

Of the total 7.404 professionals, only 41% (3.065) have academic qualifications in the field of Information Sciences (IS), highlighting the seriousness of the situation in libraries and archives in Portugal. The number of professionals without IS academic qualifications is 4.342 (59%). The percentage of professionals lacking initial training in the field is particularly high in Local Administration, with 1.436 professionals without training in Municipal Libraries and 914 in Municipal Archives.

It is urgent for the professional community to discuss the requirement for specific initial training for entry into the profession, in order to maintain the quality of services and excellence in technical and other tasks. There should be discussion about the appropriate levels of training—intermediate and/or higher education—adapted to the national reality, their accessibility in various regions of the country, and the need for after-hours schedules, so that professionals without training who are already working can continue their professional development in an accredited manner.

The Portuguese Association of Librarians, Archivists, Information and Documentation Professionals will have an active voice and strong guidance, based on this and other studies, to guide discussions between the various representatives of professionals in the field and political decision-makers, to design a dignified future for the profession. The Association, along with other interested entities, can work on this axis of advocacy and professional valorisation.

5 FUNDING

This work is funded by national funds through the Foundation for Science and Technology, under the project UIDB/00057/2025

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