

Information resources in Japan: components, amount and regional differences

Takashi Yorifuji

Takashi Yorifuji is senior researcher at the Fuyo Research Institute, Tokyo. He carried out this study in 1977/78, under the directorship of Satoru Shibue (Director of the Institute) with the aid of a grant from the National Institute for Research Advancement (NIRA).

As a result of Japan's rapid economic growth, the country has succeeded in raising the living standards of the entire society. However, the influx of the younger generation into the large cities continues because of the attractions of large cities and the educational opportunities resulting from the concentration of intellectual and cultural activities and institutions of higher learning in the metropolitan areas. In view of the ever-growing trends towards advanced education and ageing of the population, the importance of life-long education and regional cultural activities is being emphasized. Yet, movement towards intellectual self-fulfillment is hampered by serious inequalities due to the differences in opportunities referred to above.

When cultural activities are examined in terms of reproduction and consumption of information, the existence of a population with a high intellectual level can be considered to be very important, especially for regions outside metropolitan areas. It is almost impossible to recreate a region culturally, if it has suffered an enormous outflow of its population capable of intellectual production.

The present study defines "information" as the result of human intellectual production as well as the source of reproduction, and proposes a concept of "information resources" for synthesizing these elements. The purpose of the study is to assess the current state of information in Japan, its flow and stock, as well as the distribution of people with high intellectual standards, who are the agents of intellectual reproduction. Further, it intends to clarify the existence and extent of regional differences, by comparing the regional distribution of these two factors with other indicators, so as to obtain basic data on the pattern of cultural and information aspects of the country for cultural administration and regional planning in the future.

The information media in this study have been limited to printed media, such as books and journals. A survey was conducted on the distribution of publishing and library services throughout the country. Concerning the utilizing of information, an enquiry was undertaken among members of the Gakushi-kai (members include graduates of the University of Tokyo, Japan's most prestigious university, as well as graduates of eight other national universities, and people with special links to these universities). An analysis of existing statistics on

intellectual manpower (human resources capable of intellectual productive activities) was also made. A field survey was carried out, mainly by interviews in the two prefectures of Toyama and Ishikawa, and vivid regional problems, not obvious among the statistics, were brought to light.

Distribution of intellectual manpower

Three indicators were chosen for the inquiry into the regional distribution of intellectual manpower: 1) social function: occupation; 2) potential capacity: educational qualification; and 3) intellectual productive activities: scholarly research. For each of the indicators, the following sources were employed: a) National Census (number of persons engaged in specialized and technical occupations, employed in managerial positions, etc); b) Basic Survey on Occupational Structure (number of people having completed higher education; and c) membership lists of academic associations for psychology, econometrics, architecture, chemistry, and five learned societies related to law. The result of the nationwide comparison on a permillage scale is given in figure 1, from which it appears that the deviation grows stronger from (1) to (3), and that it shows a tendency of concentration towards the large metropolitan conurbations similar to the population concentration.

In order to find the ratio of the intellectual manpower to population, the three indicators were combined into a "level of intellectual manpower" shown in figure 2. The resulting pattern is similar to that of the economic deviation, and the prominent areas are the Tokyo metropolitan area, the Osaka region and some prefectures where regional core-cities are situated.

These regional differences seem to arise from the following factors: Intellectual manpower can be categorized as a sort of public resource, where residence is required at the center, in order to generate efficiency for the good of the whole community. Furthermore, its existence and activities require a substantial economic foundation, because of the indirect nature of intellectual productive activities. Since the Meiji restoration, Japan has always had social and economic structures with a one-point concentration pattern with Tokyo as the center. As long as the tendency continues to reinforce this trend the concentration of intellectual manpower at the center will continue for its efficient utilization and to acquire opportunities for its activities. Moreover, wealth will necessarily gather in this center because of its economic structure, and professionally trained people, who are the potential cultural/information producers, will naturally congregate in the same place.

Social function	Potential capacity (graduates of higher educational institu- tions)	Intellectually creative activities (members of Architec- tural Institute of Japan)	Population
-----------------	--	--	------------

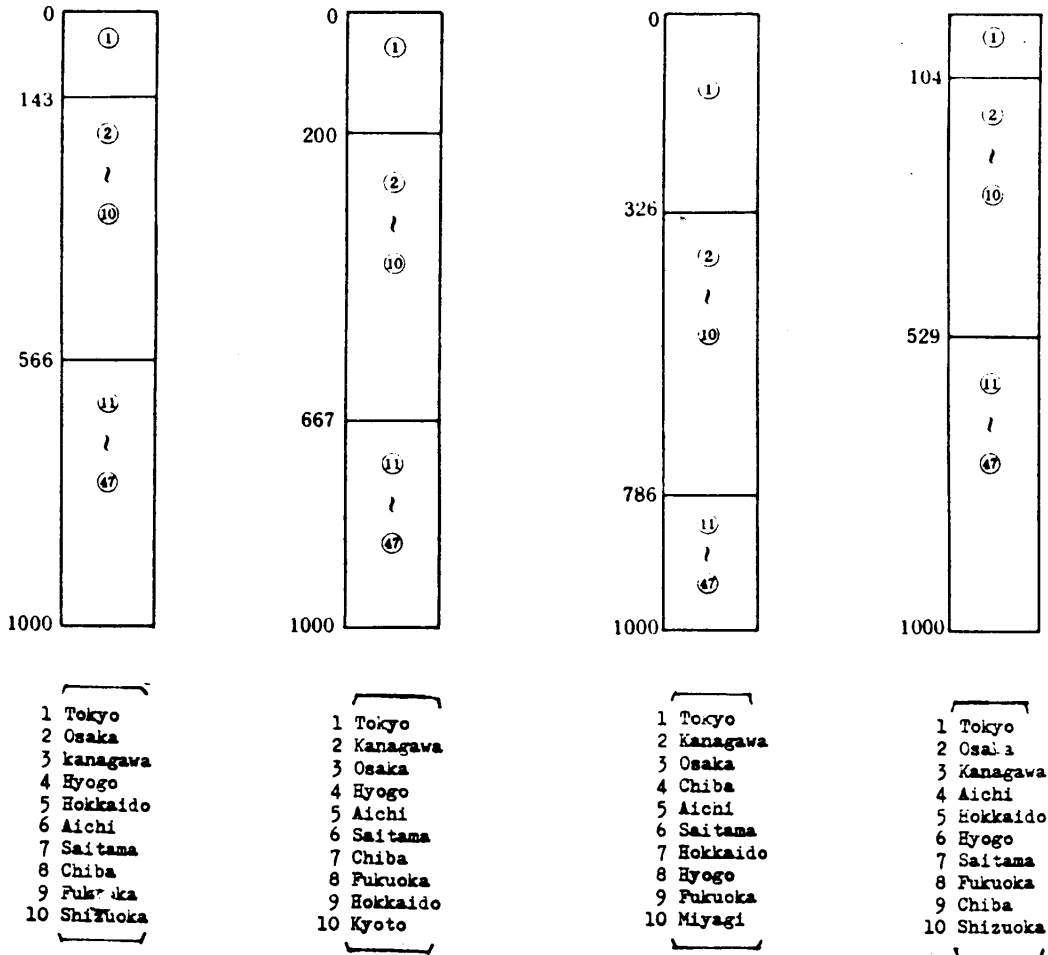


Fig. 1: National distribution of intellectual manpower.

Conditions of utilizing information

A sample survey of the membership of the Gakishi-kai was undertaken, in order to find out the actual situation and what were the conditions of utilizing information by the intellectual manpower. The sample comprised 5,995 persons weighted by prefecture, from whom 968 answers were obtained, a return rate of 16.1 percent. The characteristics of the respondents were as follows: 1) almost all were male; 2) the distribution by age was relatively even and included people of fairly advanced age; 3) the percentages of university teachers and physicians were high; 4) the sample included few people in commerce and industry, individual proprietors, or people in agriculture and forestry.

Some characteristics provided by the analysis are as follows (numerals in parentheses give the average for university teachers): The average number of books

owned by the respondents is 1,590 volumes (2,140); the number of books purchased per year is 77 volumes (79); and their value amounts to Y153,000 (Y222,000). The answer to the place of acquisition is shown in figure 3. It is particularly noteworthy that the bookstores are fairly diffused and that utilization of public libraries is low. The high utilization of university libraries is by the teaching staff and graduate students. The frequent choice of library at the place of work (second place) indicates that the notion of a "special library" has not yet taken hold.

Regional differences in distributing publications

In the distribution system of publications, the following four stages can be distinguished: 1) producer/publisher, 2) wholesaler/dealer, 3) retailer/bookstore, and 4) consumer/reader, and there may be regarded as the nodes

of the distribution system. Taking these nodes in turns, the regional distribution is determined for publishers (1) by the bookstores (3). As shown in figure 4, a general trend of concentration in Tokyo sharply increases from book dealers to publishers, and Tokyo shows 90 percent of the national total of the production of publications. By contrast, booksellers, especially the number of bookstores, closely reflect the pattern of the daytime population.

With respect to retail sales, the distribution level of publications was synthesized by combining the ratios to the population of the value of sales, shop space, number of shops and number of copies of professional and general educational serials sold. The results are shown in figure 5. When the three prefectures at the top and the bottom are left out, there are few differences among the forty other prefectures, since their values range between 120 to 80. The result shows that the distribution system of publications in this country composes a tree structure in which all the nodes of publishing, wholesale and retail, have their centers in Tokyo, and that provided the flow between the nodes works well, there seem to be no particular problems except for the question of whether it is healthy to have such a concentration of publishing activities in Tokyo alone.

However, readers living in the provinces have a strong feeling of inequality and complain particularly of the poor variety of books available in neighboring bookstores and the long waiting time for books ordered. These shortcomings may stem from the following aspects of the distribution system: The system generally fulfills its function in supplying publications such as fiction, general reading material on practical subjects, and serials including weeklies. Thus the majority of the demand for publications is met. But a large regional gap occurs for the two categories at either end of the publishing spectrum, namely best-selling books that enjoy a great popularity and availability, and specialized works that are published on a very limited scale. Both result in their unavailability in many regions. Also inadequate con-

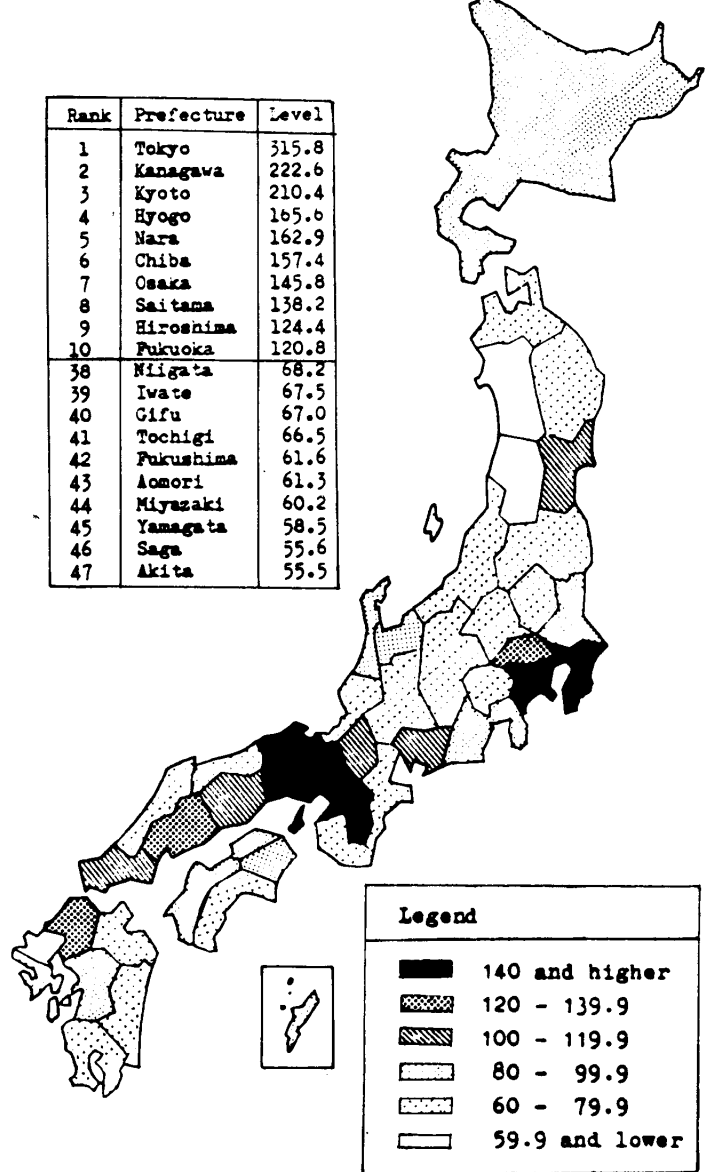


Fig. 2: Density of intellectual manpower by prefecture (= standard of intellectual manpower)

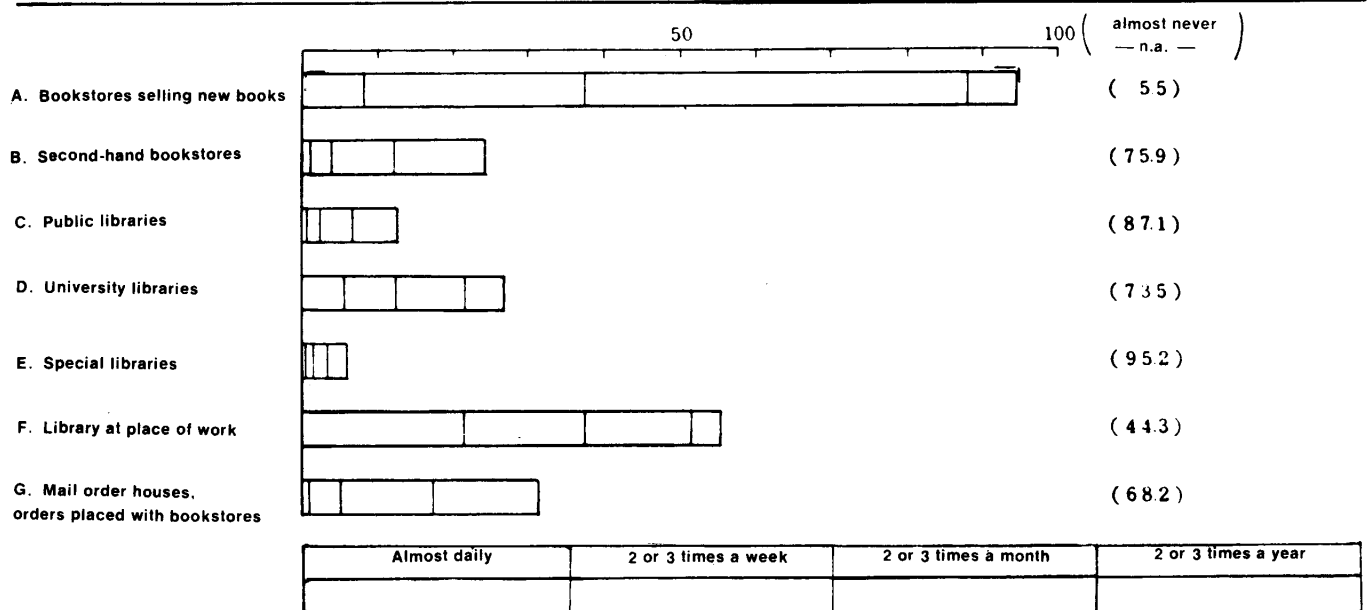


Fig. 3: Book utilization by method of procurement.

Production value of publications	Number of publications	Wholesale value of books and magazines	Number of wholesale establishments handling books and magazines	Value of retail sales of books and magazines	Number of retail bookstores handling books and magazines	Daytime population
----------------------------------	------------------------	--	---	--	--	--------------------

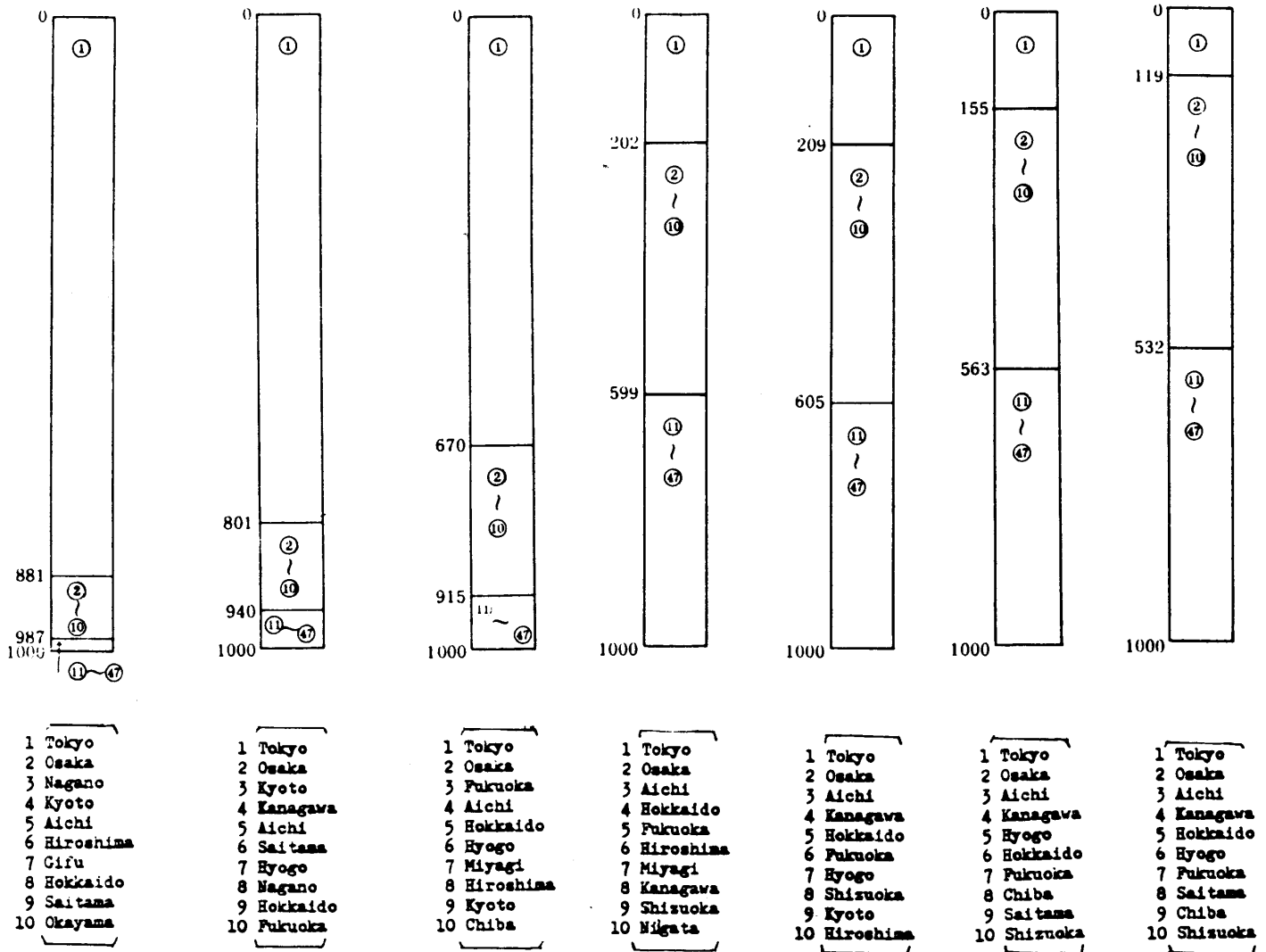


Fig. 4: Distribution of publishers, book wholesalers (dealers) and bookstores.

nections between publishers and wholesalers sometimes produce delays in the flow and hence reduce the availability of publications.

The background of the situation can be summarized as follows: First come the weakness of the publishing industry as a whole and the extreme differences of scale within the industry. The case is paralleled and even amplified by the expansion of the wholesalers although this expansion generates other strains, by introducing a

system of commission sales and price maintenance agreements. Second are the "fashionable" trends of the publishing trade. Publications of special topics of limited scale are often swept out from the bookstores by the mass production and mass sales of the major publishers. Thirdly, the cultural stagnation in the provinces must also be considered as a reason for the concentration of the publishing industry in Tokyo. This stagnation is related to the concentration of intellectual manpower in Tokyo.

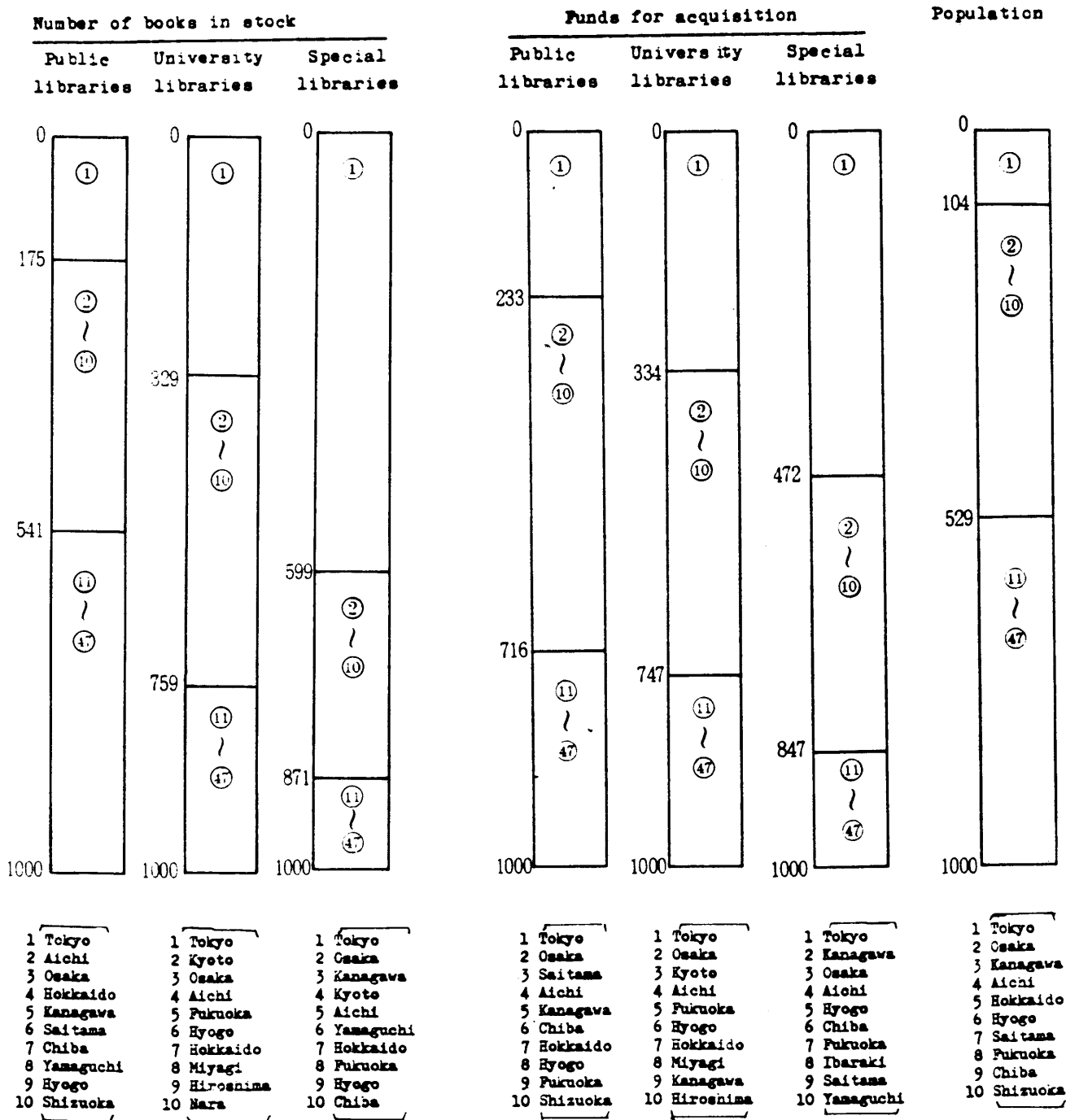


Fig. 6: Pattern of library-related indicators.

Regional distribution of libraries

Libraries, namely public libraries, university libraries and special libraries, were surveyed on the distribution of the following four indicators by prefecture: number of libraries, size of collection, number of books circulated and budget for acquisitions. The distribution of public libraries throughout the country generally accords with the population pattern, while the university and special libraries show a much heavier regional concentration.

The concentration tends to be heavier in the size of collection than in the number of libraries, and is again more pronounced in the number of books circulated and in the budget for acquisitions than in the size of collection, as is seen in figure 6. Among the university libraries, the seven highest prefectures in rank are those prefectures where the former imperial universities were founded. Also it is noteworthy that Tokyo has a large collection of special libraries.

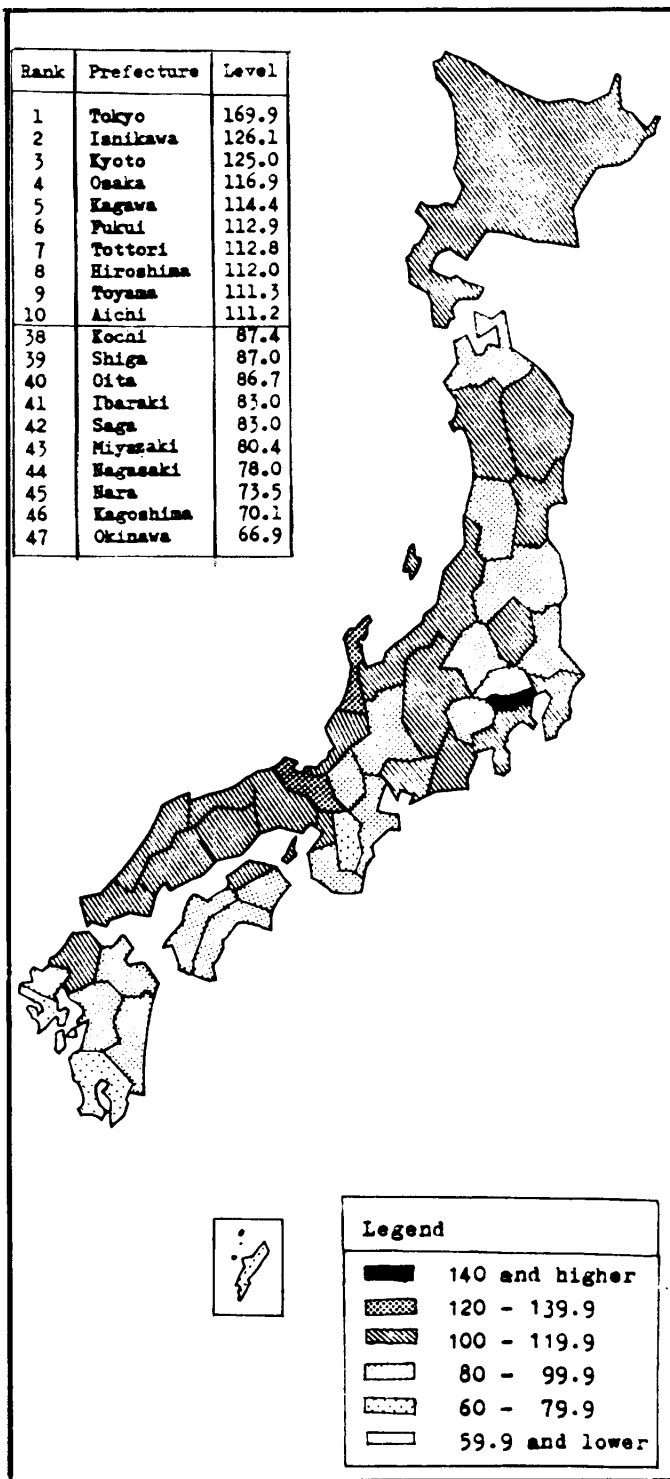


Fig. 5: Distribution level of publications.

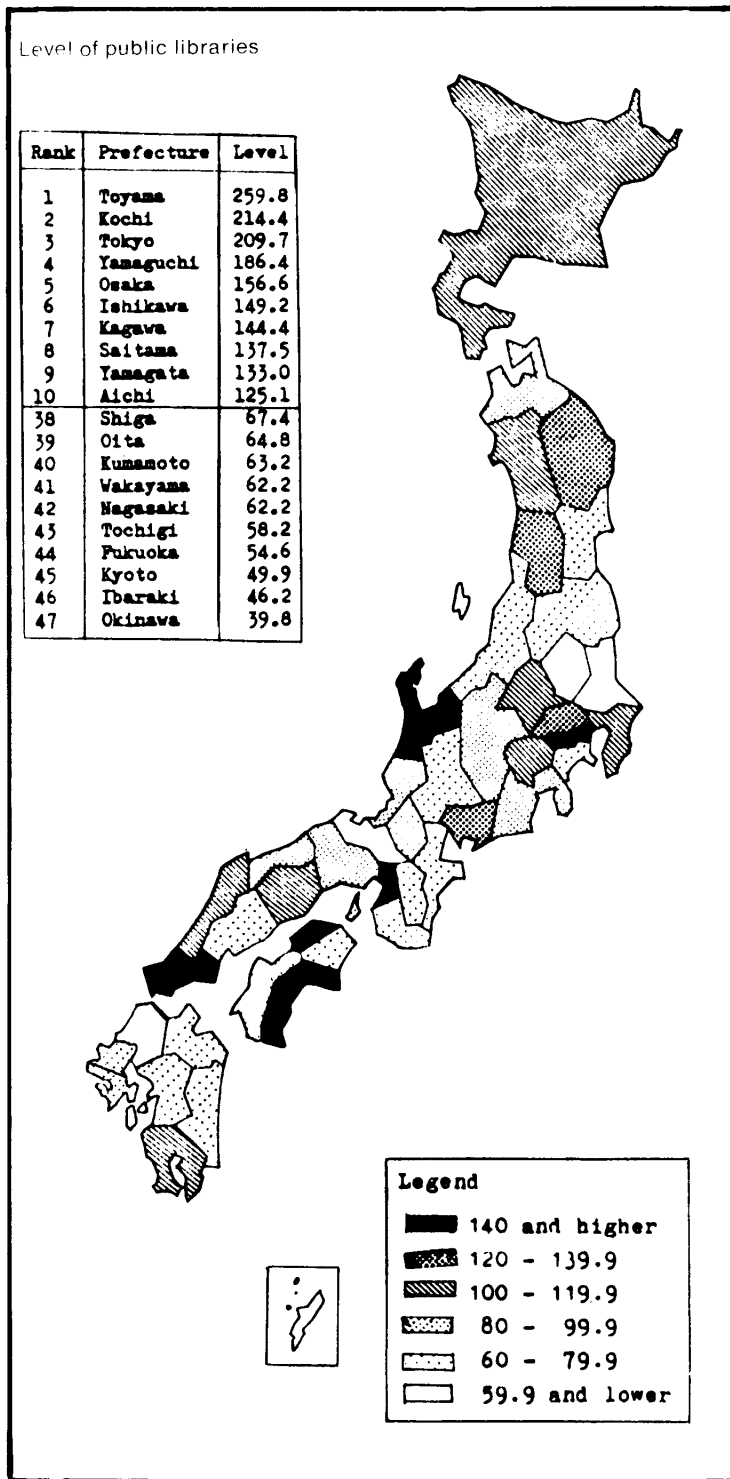


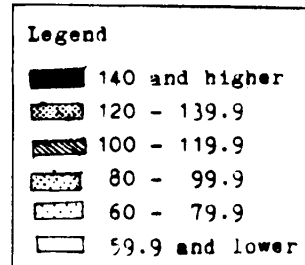
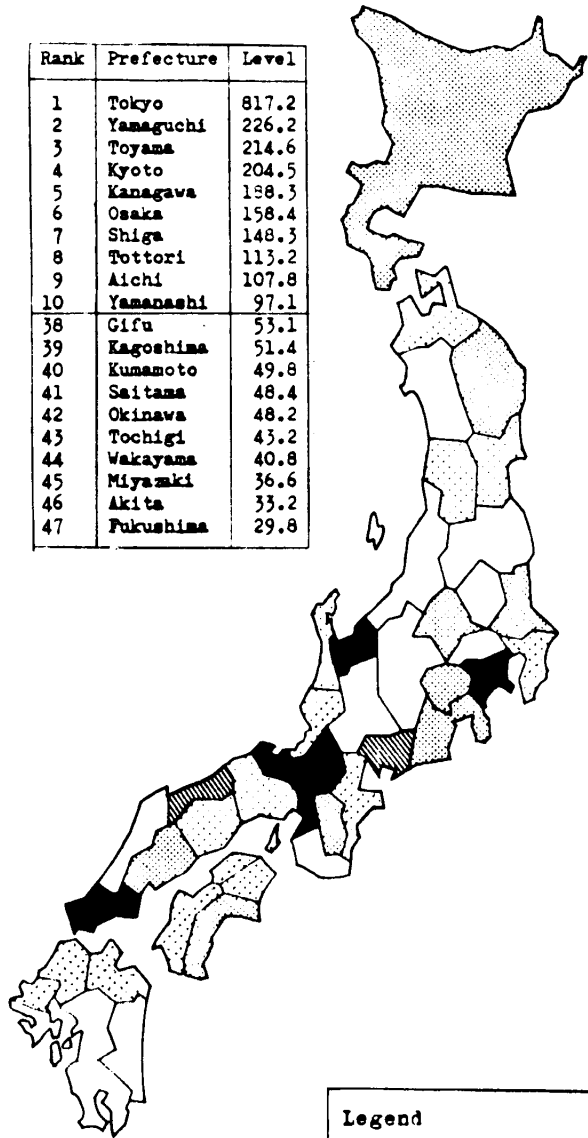
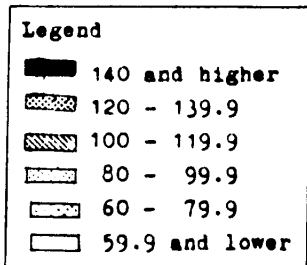
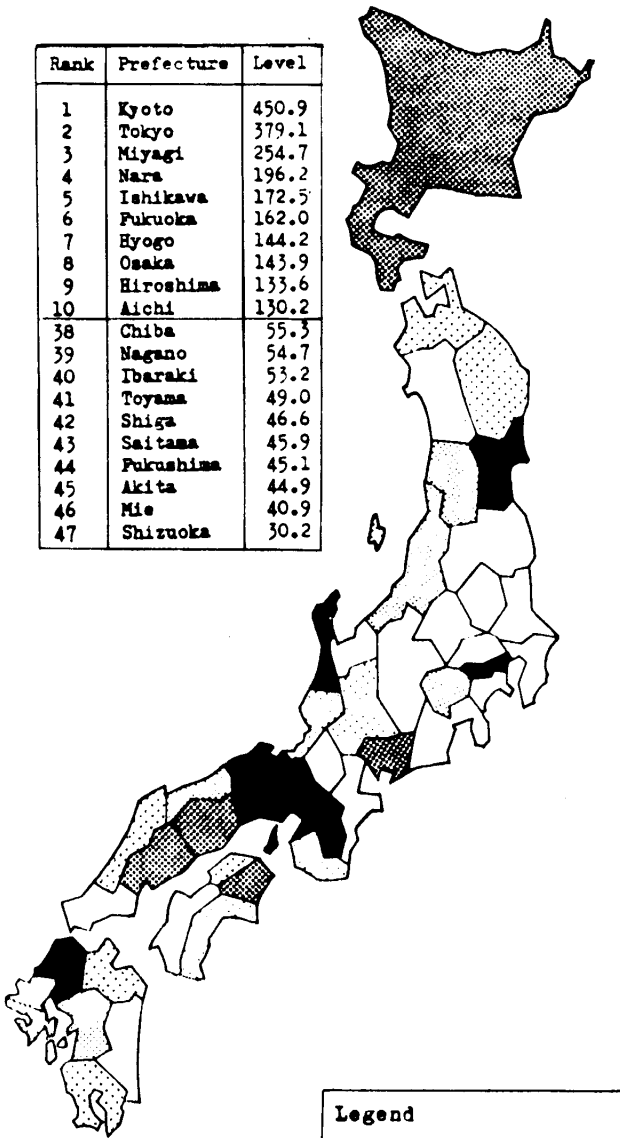
Fig. 7: General level of libraries.

The level per population of the four indicators was then determined by prefecture. A library index combined from the four indicators was produced to give a national picture of library resources. As shown in figure 7, prefectures Ishikawa, Toyama, Yamaguchi and Kochi rank high in public libraries, although these prefectures do not always rank high in other statistics. The above prefectures score high with regard to static factors related to accumulation, such as the number of libraries and

the size of their collections, whereas the prefectures of metropolitan areas rank higher with respect to dynamic factors, such as the number of books circulated and the budget for acquisitions. In university libraries, Kyoto and Tokyo are far ahead, and the levels are also high among prefectures where so-called "famous" schools exist. For special libraries, Tokyo occupies a monopolistic position; hence the differences among the other prefectures are almost unnoticeable.

Rank	Prefecture	Level
1	Kyoto	450.9
2	Tokyo	379.1
3	Miyagi	254.7
4	Nara	196.2
5	Ishikawa	172.5
6	Fukuoka	162.0
7	Hyogo	144.2
8	Osaka	143.9
9	Hiroshima	133.6
10	Aichi	130.2
38	Chiba	55.3
39	Nagano	54.7
40	Ibaraki	53.2
41	Toyama	49.0
42	Shiga	46.6
43	Saitama	45.9
44	Fukushima	45.1
45	Akita	44.9
46	Mie	40.9
47	Shizuoka	30.2

Rank	Prefecture	Level
1	Tokyo	817.2
2	Yamaguchi	226.2
3	Toyama	214.6
4	Kyoto	204.5
5	Kanagawa	198.3
6	Osaka	158.4
7	Shiga	148.3
8	Tottori	113.2
9	Aichi	107.8
10	Yamanashi	97.1
38	Gifu	53.1
39	Kagoshima	51.4
40	Kumamoto	49.8
41	Saitama	48.4
42	Okinawa	48.2
43	Tochigi	43.2
44	Wakayama	40.8
45	Miyazaki	36.6
46	Akita	33.2
47	Fukushima	29.8



The number of public libraries in Japan is one-tenth that of Britain, the size of their collections one-fifteenth, and the number of books circulated one-tenth on a basis of ratio to the total population. In comparison with Western countries, therefore, the level of public libraries in Japan is very low with respect to facilities and activities. At the same time, however, the figures for the university libraries, especially the size of their collections, show no large differences from those of Western countries.

With regard to university and special libraries there are significant differences among the regions for reasons mentioned elsewhere. But the regional distribution of public libraries differs from the general tendency shown in our national library index, although there are no distinctive regional variations. Background issues are summarized below.

Universities were, de facto, established strategically in regional centers by the national government, and foun-

dations of private institutions followed. Thus clusters were formed in the vicinity of the "famous" schools so that the emerging distribution pattern became similar to that of the famous schools or imperial universities. On the contrary, special libraries conform directly with Japan's economic and political structures. In the case of public libraries, it may be regarded as a period of changes in respect to a new generation. This could be particularly true in the prefectures that rank high. These have been playing a leading role in the nation's public library services as they owe their influential force to the heritage of foresighted leadership. Changes are going on among the public libraries in metropolitan areas, where a rapid growth has been achieved in the library services due to economic concentration as well as the growing awareness of the inhabitants. Apart from these external aspects, the aspirations and efforts of the libraries themselves should not be underestimated. A significant promotion drive for public library services could be brought about, especially in the low ranking regions, by the attitude of competent local authorities and the appreciation and interest of the local population.

Conclusion and prospects

Our study has established that today's Japan does not necessarily provide equal opportunities that allow local inhabitants free satisfaction of their intellectual aspirations and cultural recreation. The inequalities come from the accumulation of distortions at every stage of the information flow and stock. Through a deluge of publications called "information flood," a profit-seeking tendency seems to be strong among the publishing community. The bookstores have lost their independence because of the current trade arrangements, or are no longer in a position to have much influence on the trade. The wholesalers, intermediaries of the distribution mechanism, have been losing their freedom of trade because of their pursuit of expansion. The libraries, which

should serve users irrespective of the distortions, are still confining themselves to a vertical categorization of public, university and special libraries, which is one of the major obstacles against library resource sharing and cooperation.

Public library standards, so important to the population, are far below the level of those of Western countries. What is more, the inequalities and differences in the distribution of the intellectual manpower are even greater than those of the information media and the distributing mechanism. This is a direct reflection of the road Japan has taken since the Meiji restoration in modernizing herself and in pursuing today's rapid economic growth. It is quite foreseeable that, under the different economic climate of the next few decades, the entire situation will be changed especially in respect to the public libraries.

Recommendations that our study disclosed are summarized as follows.

1. Local publishing activities should be promoted and cooperation of libraries sought for these activities.
2. Distribution channels of publications should be diversified by introducing expansion of direct sales, book-of-the-month arrangements, etc.
3. Specialization of the wholesalers should be encouraged.
4. The scale of bookstores should be enlarged and their qualities and varieties magnified.
5. Public libraries should be reorganized and expanded to meet the local demands, and they should be modified to act as community centers.
6. The regional cooperation of libraries, irrespective of their types, should be promoted to serve the local inhabitants as a whole.
7. A socioeconomic structure that gives more opportunities to the intellectual manpower should be implemented, so that the local intellectual manpower can be better utilized at the regional level.