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PUBLIC LIBRARIES AND LABOR MARKETS

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ABSTRACT

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Differences in labor compensation across 31 large public library systems are examined based on the author's interview survey. Salaries for recruit clerical workers, recruit librarians, and librarians with five years' experience are compared along with hours of work per week and fringe benefits. Cost of living differences in metropolitan areas and collective bargaining are found to be strongly associated with differences in labor compensation. The collective bargaining differential for experienced librarians seems to be about 13.5 percent.

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## PUBLIC LIBRARIES AND LABOR MARKETS

Labor expenses dominate library budgets although they are a smaller fraction of library expenditures than of many local government services. Labor expenditures constitute about 63 percent of total library operating budgets, on an average, a fraction that is substantially smaller than that for police or fire fighting.<sup>1</sup>

The rates of compensation for library employees are very important in determining the character of library service. In an earlier essay, a statistically significant negative association was found between librarian compensation levels and the number of hours of service in branches: libraries with high labor costs seem to economize by reducing hours. Therefore, it is appropriate to investigate the pattern of compensation levels for library employees across library systems in order to understand the forces shaping library services.

The essay first discusses the measurement of compensation and possible sources of variation in compensation. The essay then presents some evidence on the influences of collective bargaining, the cost of living, and city finances on compensation levels.

### MEASURING LABOR COMPENSATION

The central component of labor compensation is salary. Because salaries differ with skill, experience and responsibility, it is necessary to compare salaries for comparable positions. Three benchmark positions are used for comparison purposes here: a recruit clerical worker, a recruit librarian,

and a librarian with five year's experience. These three benchmark positions represent three different points on the range of skills employed in the library. The other elements of compensation are the hours in the work week and the value of fringe benefits on average relative to base salary.

The job descriptions for the three benchmark positions may differ somewhat from library to library but some effort is made to identify uniform characteristics across systems. Usually, a recruit librarian is called a librarian I. Most libraries require a Master of Library Science degree from a school of librarianship accredited by the American Library Association.<sup>2</sup> Because for any opening for a librarian, there are likely to be 30 or 40 applicants, any public library can hire master's degree holders in library science.<sup>3</sup> Of course, those systems that pay more will be able to select from better quality applicants than those paying less, other things equal, because not all recruit librarians are the same. Because of an over production of trained librarians, some masters degree librarians may hold positions in libraries not requiring advanced training, that is, clerical positions. They may be given some preference when positions for librarians become vacant.

The mean salary for a recruit librarian was \$11,636 with no statistically significant difference across the geographic types as indicated in Table 1. This compares with the average of \$10,929 for new librarians employed in public libraries reported in the Library Journal survey for 1977.<sup>4</sup> The large urban public libraries surveyed pay somewhat more than the average public library. Among surveyed libraries, the annual salary for a recruit librarian varied from \$8,820 in San Antonio to \$13,906 in Hennepin County, Minnesota.

The second benchmark position is that of a librarian with five years experience and receiving normal promotions. Usually, this is taken to be the third salary step for a librarian II position, although salary schedules

Table 1  
Means and Standard Deviations of Labor Cost Variables

	City	Metropolitan	Suburban	All	F
Recruit Librarian Salary	\$11,684 (\$ 1,190)	\$11,412 (\$ 1,132)	\$11,821 (\$ 1,586)	\$11,636 (\$ 1,237)	0.225
Librarian Salary after five years	\$14,835 (\$ 2,215)	\$13,315 (\$ 1,887)	\$14,414 (\$ 2,026)	\$14,299 (\$ 2,121)	1.506
Recruit Clerical Salary	\$ 7,085 (\$ 1,186)	\$ 6,589 (\$ 881)	\$ 6,941 (\$ 1,121)	\$ 6,909 (\$ 1,077)	0.584
Fringe Benefits as a percentage of salary	22.42 ( 5.99)	18.04 ( 8.03)	20.94 ( 4.22)	20.76 ( 6.42)	1.305
Hours of Work per week for white collar workers	38.00 ( 2.15)	39.22 ( 1.72)	39.64 ( 0.94)	38.73 ( 1.91)	2.386
Percentage of Librarians in area employed in system <sup>d</sup>	10.91 ( 4.97)	17.34 ( 6.81)	3.92 (1.72)	11.20 ( 6.94)	13.550***
Proportion requiring residency (binary)	0.47	0.44	0.00	0.35	2.683*
Proportion with collective bargaining (binary)	0.53	0.33	0.29	0.42	0.755
Cost of living index <sup>a</sup>	102.20 ( 0.62)	95.67 ( 5.74)	102.29 ( 3.73)	100.32 ( 8.00)	2.342
Weekly compensation in drafting <sup>b</sup>	287.41 ( 33.82)	281.57 ( 41.36)	283.92 ( 37.91)	284.93 ( 35.84)	0.073
Percentage Area Employed Female	41.52 ( 2.71)	39.20 ( 2.42)	37.37 ( 1.84)	39.91 ( 2.94)	7.318***
Intergovernmental revenues per capita net of the library <sup>c</sup>	178.71 (176.64)	186.52 ( 75.71)	167.29 ( 47.85)	178.40 (128.83)	0.041
Own expenditures per capita net of the library expenditures <sup>c</sup>	382.39 (214.06)	339.62 ( 97.04)	295.28 (143.22)	350.31 (171.03)	0.628
Number of Library Systems	15	9	7		

Note: Source is the author's survey except as follows: a. Bureau of Labor Statistics; b. Area Wage Surveys; c. 1972 Census of Governments; d. Denominator is from the 1970 Census of Population.

The F-statistic tests for significant differences across the geographic groups relative to variation within groups. Statistical significance is indicated: \*\*\* .01 level; \*\* .05 level; \* .10 level.

vary in design. The mean salary observed for librarians with five years experience was \$14,209. The annual salaries ranged from a low of \$10,180 in Nashville to a high of \$18,635 in Minneapolis. Experience seems to be important in librarian compensation.

The third benchmark position is that of the recruit clerical worker, usually called a clerk I position. The average salary for the recruit clerical worker was \$6,909 across the 31 library systems interviewed in 1978. The annual salaries range from under \$5,500 in Nashville and Pittsburgh to over \$9,100 in Philadelphia and Contra Costa County, California. There is no statistically significant difference across the geographic groupings of the libraries as indicated in Table 1.

The cost of employing an additional worker in a public library system includes the provision of fringe benefits. The interview asked for the value of fringe benefits relative to base salary. The response is an average, or the figure that applies to a recruit librarian. Fringe benefits may not be in the same ratio to salary for all employees. Fringe benefits average 20.76 percent of base salary across the 30 systems reporting this information. The figure varies from 8.5 percent in Atlanta to 32 percent in Brooklyn. Eighty percent of the systems participate in social security, Atlanta was not among them.

The number of hours of work per week also is important to understanding compensation levels. If compensation levels are to be compared across systems, differences in hours of work must be accounted for. In some systems the work week differs between white and blue collar workers: white collar hours are examined here. The mean hours worked per week was 38.73 for the systems interviewed. There seems to be some weak tendency for the central city systems to have shorter work weeks than the metropolitan and suburban systems.

Twenty of the 31 systems have 40 hour weeks; Boston, Buffalo, Brooklyn, New York and New Orleans have 35 hour weeks; another 6 have 37.5 or 38 hour weeks.

#### LABOR MARKET ISSUES

The comparison of the important features of employee compensation across the large public library systems reveals substantial variation in the elements of compensation. While the range of variation is not as great as that found for fire fighters, it is important enough to induce changes in the operation of libraries.<sup>5</sup> Therefore, we are interested in learning more about the sources of variation in compensation.

Six labor market issue areas seem important in examining patterns of compensation of library employees. Each is mentioned briefly here, and discussed in more detail below. First, the terms of employment may condition compensation, as for example, when residency in a jurisdiction is required. Second, professionalism may play a role, as for example in the responsibilities given to masters level librarians. Third, the sex ratio of employment may be of significance. The Library Journal survey shows female recruit librarians earning somewhat less than males on average.<sup>6</sup> Fourth, the nature of the local labor market may have some influence. If compensation levels are high in jobs of comparable skill in the metropolitan area, the library may have to pay more to attract workers. Fifth, the nature of the local government finances may have a bearing. Cities that spend a lot on other services, may have less to spend on libraries and so may pay less in compensation to library employees. Sixth, employees may participate in collective bargaining, and the determinants of compensation levels may differ with collective bargaining.

### Terms of Employment

Just under half of the city and metropolitan library systems studied require that their employees live in the jurisdiction. None of the suburban systems have such requirements. To the extent that employees would rather live elsewhere than in the jurisdiction and labor markets are competitive, the library system would be expected to have to pay more in order to induce such workers to accept employment. Because there are many applicants for most library positions, the library may use the residency requirement as a partial screening criteria. The residency requirement may therefore have little association with salary.

There may be other terms of employment that influence compensation. If pensions are funded and vested they may be more valuable. Workers may view their jobs differently if they have civil service protection. The value of vacation, sick leave, and holidays may not be reflected in the value of fringe benefits, and so may influence compensation levels. Of these items, only the residency requirement is examined in this study.

### Professionalism

The successful operation of a library takes skill. As with many professions, library workers historically gained their skill through experience in operating libraries. Then, formal education became a prerequisite for employment and substituted to some degree for job experience.<sup>7</sup> In most libraries at the present time, a masters in library science degree is a prerequisite to employment as a librarian. Since formal education in librarianship and experience in libraries are both important to libraries, we would expect compensation levels to be higher for librarians with both more education and experience. Examining salaries for recruit librarians and for

librarians with five years experience should control for the main differences in entrance qualifications and experience.

The skill requirements of library work, however, may play another role. Experience in a library setting may be important in promoting a career in library work. Experience in a more sophisticated library operation may be more valuable career-wise than experience in a routine library position. Therefore, librarians might accept somewhat lower compensation in an entry level position in library systems that offer more professional development and promotion opportunities than another, just as assistant professors are paid less at very prestigious universities. It is possible, for example, for a subject area specialist in the main library in a large system to move into an important position in an academic library, or vice versa. The strong career potential of otherwise similar entry positions in the public libraries would be expected to be associated with lower salaries for recruits.

On the other hand, the skills of masters degree librarians may be substantially underutilized in many library systems. A system with a large proportion of employment of professionals may have professionals performing tasks that are performed just as well by non-professionals in other systems. For example, masters degree librarians mount microfilm reels for patrons in one library system. They may also perform routine clerical chores in some systems. Thus, the specific duties of jobs with similar descriptions and education-experience prerequisites may differ across systems. The recruit professional librarians in systems with a higher proportion of professionals seem likely to have less responsibility, and to perform more tasks for which their education is not required than recruits in a system with a smaller proportion of professionals. If compensation reflects actual job requirements, lower compensation for recruit librarians might be found in systems

with a higher proportion of professional employees.

Some library systems have designated some positions for paraprofessionals, persons with librarianship training short of the masters degree. Presumably, systems with more paraprofessionals employ fewer professionals. The professionals concentrate on tasks that require their more specialized skills. Systems with more paraprofessionals would be expected to pay recruit librarians more than systems with more professionals. The study has not examined paraprofessionals separately.

Professionalism suggests that compensation will be lower at the recruit level, but be higher for librarians with more experience in libraries with more professionals. Entry positions that offer better on the job training experiences and opportunity for career advancement should receive lower pay for that reason. Systems that use persons in professional positions for tasks that do not require professional training might be paid less reflecting lower productivity. At the senior ranks, higher compensation would be expected where supervision of more professionals is found, and more sophisticated library skills are required. The role of professionalism in determining compensation levels may be difficult to distinguish because causality may also run the other way. High rates of compensation might induce a library to substitute non-professional for professional job positions, for example, paraprofessionals. The proportion of employees working in public services who are professionals is taken as a rough indication of the professional orientation of the library.

#### Sex Ratio of Employment

There are many more female librarians than males. Males constitute roughly 22 percent of the graduates of library schools in recent years.

Historically, female dominated occupations have had lower compensation levels than male dominated occupations with similar skill requirements. It is difficult to distinguish the extent to which this pattern is due to discrimination from the extent to which it may be due to other causes. The purpose of this study, however, is not to compare the compensation of librarians with that of other occupations, but rather to examine differences in the rate of compensation of librarians in different public library systems.

While salary levels are somewhat lower in public libraries than academic, school or other libraries on average, the sex ratio of recruits is about the same, roughly 22 percent.<sup>8</sup> The public libraries as a group do not seem to have exhibited any particular tilt with respect to sex in recruitment of new librarians. On the other hand, many fewer than half of the directors of the libraries interviewed were female; thus perhaps promotion prospects differ by sex across the libraries. It is still possible that individual public libraries recruit only female librarians in order to pay less. The causality may run the other way as well, however: libraries paying less may find that they hire a higher proportion of females because female job alternatives also pay less. This particular issue is not addressed because the determination of sex ratio and salary levels are likely to be simultaneous.

There is some evidence that the earnings of males is lower in metropolitan areas where female job opportunities are better. Apparently, households maximize family welfare jointly, and so one spouse may accept lower earnings if job prospects for the other partner are better.<sup>9</sup> Salary levels may, therefore, be higher in a female dominated occupation like librarians, in metropolitan areas where there are more female jobs of all kinds. While other jobs for females are not perfect substitute positions for librarians, many persons with library training do hold non-librarian jobs. Consequently,

the nature of alternative job opportunities for females may influence the salary levels for librarians in public libraries. The proportion of employees in the metropolitan area who are female is used to indicate the extent of female job opportunities in the area.

#### Local Labor Market

While librarians have specialized training and skills, the salary levels may be influenced by local labor market conditions. The cost of living varies across metropolitan areas such that libraries have to pay more in areas where living costs are higher. The Bureau of Labor Statistics prepares an index of the cost of living for each of 39 metropolitan areas across the country.

Compensation levels in occupations with similar skill levels may also influence salary determination. On the one hand, in a competitive labor market, the compensation in comparable occupations may reflect labor market conditions and opportunities for library employees. In a collective bargaining environment, levels of compensation in comparable occupations may serve a pattern setting role. It is difficult to know what occupations might be viewed as comparable, but independent of librarian salaries. Area Wage Survey hourly earnings figures are used. The earnings of secretaries, accountants, draftsmen, and computer operators were considered. Of these, draftsmen proved to be available from the Area Wage Surveys for most cities. The weekly earnings of draftsmen, normalized to a forty-hour week, and the hours worked per week by draftsmen are used to indicate the earnings in the local labor market.

The metropolitan area might be viewed as the relevant labor market for librarians. If the public library system employed a substantial proportion of the librarians working in the metropolitan area, it might have some

monopsony power in hiring. If the library recognized that it would have to raise the earnings of all present workers in order to hire an additional worker, it would have monopsony power. With monopsony power, the library might choose to keep salary levels below what might be required to fill vacancies.

Comparing the employment of professional librarians in the surveyed systems with the number of librarians found in the metropolitan area in the 1970 census of population reveals that the systems on average employ about 11 percent of the librarians living in the metropolitan area. The metropolitan systems average over 17 percent. The highest figure is near 26 percent in Indianapolis. Even 26 percent seems too small a proportion of the librarians to give the public library significant monopsony power, and so, this hypothesis is not explored further. Fairfax County, Virginia employs only about 2 percent of the librarians living in the District of Columbia metropolitan area.

Perhaps the most important opportunity for a library's professional employees are other librarian positions. In the District of Columbia area, the federal salary scale for librarians may have a substantial impact on compensation levels of librarians in that metropolitan area either through competition in the market place or as a pattern setter in collective bargaining. In other areas, the school systems may be the next largest employer of librarians. Many school librarians, however, may not have masters degrees in library science, and so skill levels may not be strictly comparable. Nevertheless, it might be appropriate to try to explore the relationship between the average salary of recruit masters degree librarians elsewhere in the metropolitan area with those of the public library. If public library employee salaries were tied to the salary scale of the public school system, the pattern of library salaries might be different than the present pattern.

I have no information that there is such a link. No ready source of such detailed salary information is available, however, and so this hypothesis is not pursued.

#### Local Fiscal Circumstances

The local government's fiscal circumstances may influence the salary levels of public library employees, but the relationship may be complex. On the one hand, higher levels of expenditures on other services might indicate a greater willingness to support local government by taxpayers. Some cities may be "big spenders" that buy more of all services and pay public employees higher salaries. Perhaps the nature of the local political system encourages expansion of activities.

On the other hand, higher levels of spending on other services may reduce the funds available for the library. If all the services feed from the same public trough, more for police, education, and streets may mean less for the library. The nature of the local political process and the interaction among agencies competing for local tax dollars is too difficult to characterize to make any detailed investigation possible. Per capita expenditures from local sources on services other than libraries are related to library labor compensation to make a small step in understanding the relationship of libraries to the local fiscal scene. Own expenditures averaged \$350 per capita in the 1972 census of governments in the areas surveyed.

In addition to raising funds locally, local governments receive funds from senior levels of government. Such intergovernmental transfers may influence salary levels in public libraries. Higher levels of intergovernmental transfers might allow public library employees to be paid higher salaries along with other public employees. Many intergovernmental transfers

are tied to particular functions, and may impose a variety of restrictions on their use. For example, state aid to education may require the matching of local funds. A high level of such aid may induce a larger share of local funds to go to education than would otherwise be the case. In this environment, a high level of intergovernmental transfers--matching aid to education--may cause library expenditures to be lower than otherwise. Some intergovernmental transfers may be tied to library expenditures. Some states have per capita grants to localities for the operation of public libraries. Such funds might induce library expenditures to be higher, and allow libraries to pay higher salaries. The census of governments does not provide detailed information about the restrictions on intergovernmental aid, and so detailed hypotheses about the role of intergovernmental transfers can not be explored very easily. Nevertheless, per capita intergovernmental transfers are related to salaries. Intergovernmental transfers averaged \$178 per capita.

Other features of local government might also have some impact on salaries. Libraries that are autonomous may have more flexibility in salary determination than libraries that are departments of city government, but not necessarily. Libraries with earmarked taxes may have less interaction with the rest of local government, and so may be immune from losses at the expense of other agencies, but not necessarily. If the earmarked funds do not provide the full cost of the library, the main shape of the library's expenditures may come from the effort to seek incremental dollars from the local general budget. The characterization of the local fiscal scene used here is quite primitive.

### Collective Bargaining

The librarians in 13 of the 31 libraries interviewed are covered by

collective bargaining agreements. Blue collar workers may be covered by separate collective bargaining agreements, and somewhat more systems may bargain with blue collar workers than with white collar workers. Collective bargaining may allow workers to induce employers to pay higher levels of compensation than would otherwise be the case.

The public library is frequently part of a city-wide bargaining unit covering both clerical and professional employees. The library employees may have no direct contact with library management in salary negotiations when a city-wide labor contract is formed. Jobs in the library may be linked to other city positions via job classification systems. The existence of collective bargaining may forge those links. The salary levels in the library may then largely be given to the library by the city. Civil service rules may have something of the same affect even without collective bargaining.

There have been few instances of job actions by library employees. In general, the library employees seem less militant than police, fire fighters, and teachers. The closing of the public libraries due to a strike poses less threat to public health and safety than strikes by sanitation workers or fire fighters. This fact may help explain both the lower profile of library union activity and the formation of city-wide bargaining units. The threat of a city-wide strike by white collar workers is more significant than the threat of a library strike.

#### LABOR MARKET FINDINGS

Some of the relationships among labor market variables are examined by means of simple correlation coefficients as in Table 2. The correlations among the three salaries are significantly positive. Libraries that pay high salaries in one position, tend to be paying higher salaries across all



categories. Hours of work and the fringe benefit rate show only a weak association with salaries. All of the elements of compensation show a significant correlation with the cost of living except the salary of librarians with five years experience. Compensation rates to draftsmen in the metropolitan area, and the presence of collective bargaining show expected strong correlations with library compensation. The residency requirement and the percent of employment in the metropolitan area that is female show little correlation with library compensation levels.

Simple correlations are difficult to interpret because the correlations may result from a variety of factors. For example, since collective bargaining tends to be found in cities with high costs of living, the simple correlation between salaries and cost of living may reflect in part the influence of collective bargaining. It is more revealing to try to control all the separate influences at once in order to isolate the affect of each given the others. Therefore, the five elements of compensation are related to explanatory variable in multiple regressions in Table 3.

Some of the hypotheses discussed above are examined in the regressions. The residency requirement shows no statistically significant relationship with salaries, but does show the expected relationships with hours of work and fringe benefits. Why the affect should be limited to the non-salary items is unclear.

Professionalism was predicted to be associated with lower salaries for recruits and higher salaries for experienced librarians. The proportion of public service employees who were professional librarians was included in the regressions and showed no statistically significant relationship with any of the elements of compensation and did not change either the coefficients of the other variables or the overall explanatory power of the regressions very

TABLE 3

## LABOR COST REGRESSIONS--30 LIBRARY SYSTEMS

	Expected Signs on Salaries and Fringe Benefits	Salaries			Weekly Hours of Work	Fringe Benefits as percentage of Salaries
		Recruit Librarian	Five-year Librarian	Recruit Clerical		
Cost of Living	+	47.742 (1.159)	41.056 (0.761)	53.430* (1.914)	-0.079* (-1.547)	0.506*** (3.533)
Percentage of Area Employment Female	-	45.521 (0.513)	64.929 0.559)	26.294 (0.437)	-3.323 (-0.286)	-0.855*** (-2.771)
Weekly Compensation in drafting (or hours in drafting)	+	3.518 (0.444)	16.969* (1.634)	4.808 (0.894)	1.328** (1.986)	-0.014 (-0.522)
Collective Bargaining (binary)	+	536.968 (0.842)	1928.842** (2.309)	856.918** (1.982)	0.032 (0.045)	0.244 (0.110)
Residency Required (binary)	+	-453.864 (-0.877)	-165.637 (-0.245)	322.017 (0.918)	-1.112** (-1.769)	4.609*** (2.561)
Own expenditures per capita	+/-	-1.036 (-0.666)	-4.211* (-2.064)	-0.486 (0.460)	0.002 (1.179)	0.008 (1.506)
Intergovernmental revenues per capita	+/-	-1.682 (-0.683)	-7.217** (-2.236)	-1.111 (0.664)	0.001 (0.295)	-0.003 (-0.341)
Constant		4590.014	4664.241	-977.121	-5.383	4.293
R-squared		.242	.545	.546	.517	.652
F (7,22)		1.005	3.769***	3.786***	3.360**	5.883***

Note: One or two-tailed tests applied as indicated by expected signs.

Opposite sign expected in hours regression (except for drafting hours).

Statistical significance is indicated: \*\*\* .01 level; \*\* .05 level; \* .10 level.

much. There seems to be no support here for any professionalism impact on compensation. The percent professional variable is excluded from the reported regressions for two reasons. First, the percent professional may be viewed as an endogenous variable. That is, the level of compensation of library employees may influence the proportion of employees who are professional as well as the other way around; thus the direction of affect may be unclear. Second, the sample size for the analysis is relatively small, and the inclusion of a questionable variable reduces the number of degrees of freedom.

The sex ratio of employment in the metropolitan area is generally unrelated to differences in the compensation of librarians, except for fringe benefits. Fringe benefits are generally lower in libraries in areas with more female relative to male workers. Why the affect should be limited to fringe benefits is unclear. A better test of the hypothesis would use the sex ratio of professional or white collar employment because such jobs are more likely to be relevant to the decisions of librarians and their families.

Conditions in the local labor market are indicated by the cost of living index and by the weekly compensation of draftsmen. When other factors are accounted for, the cost of living index is found to be associated with the salaries paid recruit clerical workers, with hours of work and with fringe benefits. The strongest affect is for fringe benefits. The \$53.43 salary increment for each point on the price index is somewhat less than a one percentage point increase in salary for the average recruit clerical worker. The compensation of draftsmen is found to be related to the earnings of librarians with five years experience; and the hours of draftsmen are related to the hours of library white collar workers. Overall the compensation of library employees is not as strongly linked to local labor markets as might be expected. Perhaps a more detailed characterization of librarian compensation

in the area but other than in the public library would be important in explaining differentials in compensation paid by public libraries.

The fiscal circumstances of the local government show no association with compensation levels except for the salary of librarians with five years experience. Higher levels of both own expenditure and of intergovernmental aid per capita are associated with lower salaries for experienced librarians. There is no evidence that "big spender" cities spend more on libraries as well as on other services, and spend more on salaries as well as in buying more service. Rather the cities that spend more per capita on other services seem to pay somewhat lower salaries to experienced librarians. This evidence is consistent with increases in spending on other services crowding the library budget. In another essay, however, per capita library expenditures in 1972 were found to be positively associated with expenditures on other activities.<sup>10</sup> The evidence on inter-function competition is not overwhelming.

Intergovernmental transfers per capita also show a negative association with salaries for experienced librarians just as they did with per capita library expenditures. This result is consistent with restrictions on intergovernmental aid on balance drawing funds away from library budgets and salaries. Obviously more detailed information about intergovernmental transfers and the limits on their use are necessary to test this hypothesis conclusively.

Libraries with collective bargaining pay statistically significantly higher salaries to recruit clerical workers and to experienced librarians. No association is found with recruit librarian salaries and with hours or fringe benefits. The impact of collective bargaining on clerical workers may reflect the importance of city-wide bargaining for clerical workers. The differential importance of collective bargaining for experienced librarians

relative to recruits may reflect the fact that employees with more seniority may carry more influence in bargaining than new workers who have no voice in bargaining.

The \$1928.84 estimated collective bargaining differential for experienced librarians amounts to 13.5 percent of the average salary of librarians with five years experience. The \$856.92 differential for recruit clerical workers is about 12.4 percent of their average salary. If the \$536.97 coefficient for a recruit librarian were accepted as correct, even though it is not statistically significantly different than zero, it might be compared with the mean salary for recruit librarians. It is about 4.6 percent of average recruit salary. Thus collective bargaining seems to have yielded significant gains in salary for certain categories of library employees.

Overall, the explanatory power of the regressions is substantial. Only the regression for the recruit librarian salaries is not statistically significant overall. Factors other than those measured must be important in determining the salaries of recruits. Perhaps the salaries paid recruit librarians elsewhere in the metropolitan area are especially important for this entry level position.

#### SUMMARY

Compensation levels of library employees vary across library systems in ways that conform to expectations. Differences in labor market conditions and cost of living differences across areas are important. The fiscal circumstances of local government, while not observed in much detail, do bear some relationship to compensation levels. Collective bargaining is associated with higher salaries for both clerical workers and experienced librarians. These forces are important in shaping library costs and in inducing changes in library operations.

## FOOTNOTES

<sup>1</sup>The expenditure information from libraries is from the author's survey. The comparison of expenses across library systems may be a little misleading because some library budgets exclude capital, maintenance, or fringe benefit expenses.

<sup>2</sup>Standards for library schools, first set in July, 1925 and revised in 1933 recognized both bachelors and masters degree programs in library science. In 1951 the American Library Association adopted Standards for Accreditation specifying that accredited librarianship programs would be at the masters level. In 1975, there were 58 accredited schools in the United States and 7 in Canada. In addition there were about 316 other recognized training programs with course work short of the masters level oriented primarily toward state certification of school librarians. Encyclopedia of Library and Information Science Vol. I (1968, Marcel Dekker, Inc., New York) p. 277.

<sup>3</sup>Some persons who hold positions as librarians may have received training in bachelors programs before the American Library Association specified that only master's degree programs could be accredited. The Houston Public Library reported a substantial number of bachelors degree librarians.

<sup>4</sup>Carol L. Learmont and Richard L. Darling, "Placements and Salaries 1977: The Picture Brightens" LIBRARY JOURNAL, July 1978 pp. 1339-1345. The mean for all new librarians was \$11,578. Public libraries on average pay somewhat less than academic, school, or special libraries.

<sup>5</sup>Malcolm Getz, THE ECONOMICS OF THE URBAN FIRE DEPARTMENT, Baltimore: The Johns Hopkins University Press, Chapter 5.

<sup>6</sup>Learmont and Darling, Library Journal, op. cit.

<sup>7</sup>Columbia University opened the first library school in 1887.

<sup>8</sup>Learmont and Darling, LIBRARY JOURNAL, op. cit.

<sup>9</sup>Malcolm Getz and Yuh-ching Huang, "Consumer Revealed Preference for Environmental Goods," REVIEW OF ECONOMICS AND STATISTICS, August 1978, pp. 449-458.

<sup>10</sup>Malcolm Getz, "Comparing Public Library Systems," Table 4.

	Recruit Librarian Salary	Hours Worked Per Week	Fringe Benefit as Percent of Salary	Collective Bargain =1	Residency =1		
<u>City</u>							
Boston	11400	35	25	1	1		
Brooklyn	11220	35	32	1	0		
Chicago	12324	37.5	----	0	1		
Cleveland	11606	37.5	17.6	0	0		
Dallas	12288	40	11	0	0		
Denver	11928	40	14.8	0	0		
Houston	11700	40	27	0	0		
Milwaukee	13623	40	28	1	1		
Minneapolis	13182	37.5	18.5	1	0		
New Orleans	9852	35	20	0	1		
New York	11220	35	30	1	0		
Philadelphia	11598	37.5	20	1	1		
San Antonio	8820	40	20	0	1		
San Diego	11892	40	25	1	0		
San Francisco	12610	40	25	1	1		
<u>Metropolitan</u>							
Atlanta	10907	40	8.5	0	0		
Birmingham	12043	40	20	0	1		
Buffalo	12391	35	30	1	1		
Cincinnati	11854	40	30	0	1		
Indianapolis	10554	40	10.9	0	0		
Jacksonville	12312	40	10	1	0		
Nashville	9168	40	15	0	1		
Pittsburgh	10834	38	21	0	0		
Sacramento	12646	40	17	1	0		
<u>Suburban</u>							
Contra Costa Co.	10620	40	25	1	0		
Fairfax Co.	12752	40	20.7	0	0		
Hennepin Co.	13906	40	20	0	0		
Montgomery Co.	12410	40	24.6	0	0		
Prince Geo. Co.	11888	37.5	25	0	0		
St. Louis Co.	9000	40	14.3	0	0		
San Diego Co.	12168	40	17	1	0		