
Survey of North Carolina Public Library Use Statistics, 1983-84

James J. Govern

This survey of library facilities attempts to update and expand a similar survey completed by David Paynter of the New Hanover County Public Library whose findings were published in the Fall 1984 issue of *North Carolina Libraries*. In his survey covering fiscal year 1982-83, Mr. Paynter surveyed branch library service in six large county public library systems in North Carolina. The current survey, covering fiscal year 1983-84, was expanded to include all county and regional public library facilities in North Carolina in an effort to provide information and draw comparisons on library service at these different library facilities.

Three differing groups made up of like library systems are profiled: large county systems, medium to small county systems and the regional library systems. The responding library systems included among the large counties, Charlotte-Mecklenburg, Cumberland, Durham, Forsyth, Guilford, New Hanover and Wake; small counties, Bladen, Brunswick, Burke, Cabarrus, Franklin, Granville, Harnett, Haywood, Henderson, Johnston, Madison, McDowell, Pender, Pitt, Robeson, Rockingham, Rowan, Scotland, Wayne and Wilson; regionals, Albemarle, Central North Carolina, East Albemarle, Hyconeechee, Nantahala and Pettigrew. Since this is a statistical look at library service, the study cannot measure or in any way analyze the quality of service in these public libraries, but simply documents the quantity of that service.

Tables 1 and 2 include results for branch libraries within large and small county systems. The regional facilities are included, but it should be noted that in fact only some of these facilities are branch libraries. It should be pointed out also that some main libraries function more like a branch than a main library—Wake County's Olivia Raney Public, for example. The per capita calculations for the individual facilities used those population statistics supplied in the survey. System per capita figures are based on total county population statistics.

The Survey Questionnaire

A form asking for various information was sent to all county public libraries and all regional systems in North Carolina. Thirty-two of sixty-six systems responded, for a return rate of 49%. A copy of the form is appended.

Only out-of-library circulation figures were used in calculating the circulation statistics. Reference figures do not include directional transactions. Programming figures reflect library-sponsored, in-library program attendance. Bookmobile, adult outreach, children's outreach or other outreach services and activities are not covered in this survey. Personnel budget figures include salary only.

The categories calculated from the data provided for comparisons were circulation per staff, circulation per staff dollar, circulation per capita, circulation per book budget dollar, circulation per programming attendance, reference per staff, reference per staff dollar, reference per capita, reference per book budget dollar, reference per programming attendance, collection turnover rate and per dollar expenditure effectiveness rating.

The effectiveness rating category is simply a measure of the amount of output (as measured by the sum of circulation, reference and programming statistics) provided for each dollar of input (as measured by the sum of book budget and personnel budget categories).

Because of the difficulty in standardizing the concepts of total service units and total dollars of input, the aforementioned definition of input and output was selected. The bulk of what libraries do is circulate books, provide information and offer programming events—*output*. Seventy-five per cent of the average public library budget in North Carolina consists of personnel and book budget monies—*input*. Hence, this effectiveness rating simply means that for each dollar invested in a library (personnel + book budget), there is some corresponding figure of output (circulation + reference + programming attendance) by which you can measure the effectiveness of a library facility or system. This pinpoints those qualities or com-

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TABLE I.

Table I contains averages for various categories for library facilities within the three differing groups of libraries surveyed. This table excludes information for main libraries within the large and small systems but includes all facilities within the regionals.

	Large	Small	Regionals
Adult Circulation	63,738	9,704	23,379
Juvenile Circulation	27,119	5,198	12,864
Total	90,857	14,903	36,243
Paperbacks as % of Circulation	27	23	11
Personnel Budget	56,164	10,284	32,982
Book Budget	22,475	6,555	17,117
# of Professional Staff	.56	.10	.53
# of Nonprofessional Staff	2.83	.94	2.21
# of Temporary Staff	.52	.05	.30
Building Square Footage	3,657	1,552	6,455
Hours Per Week	55	25	43
Reference Transactions	11,753	1,183	4,589
Directional Transactions	10,495	1,707	5,951
Adult Programming	12	8	24
Attendance	210	270	631
Juvenile Programming	135	23	85
Attendance	3,056	740	2,242
Population	19,475	4,572	13,736
Registered Borrowers	6,158	1,398	5,248
Collection Size	21,046	7,901	27,150
# of Periodicals	72	17	62

binations of characteristics which make for a highly cost effective library service.

It is assumed that the most service provided for the least amount of money is what is meant by effectiveness. However, the findings reported do not attempt to say that those library facilities and systems at the top of the lists are "better" libraries than those appearing at the bottom. As previously mentioned, this statistical survey deals with numbers and quantity of service, not quality.

Observations Based on the Tables

Those buildings with higher circulation per staff also circulate more books per hour. This tendency is present among all three types of libraries surveyed: large, small and regional facilities.

Among branches, there is a much wider range of circulation per staff in the large systems than in the small to medium-sized systems. This is due in part to the fact that the branches within the larger systems simply circulate more books. With the circulation of more books comes the probability of this causing a wider variance among those branches in their circulation per staff statistics.

Paperbacks on average account for twenty-seven per cent of the circulation within branches in the large county systems, twenty-two per cent within branches in the small and medium county systems and eleven per cent in the regional facilities. Although the survey did not request such fig-

ures, my guess is that not five per cent of book budget money is spent directly on paperbacks in most of these systems, since so many of us rely on gift books to supply the bulk of these collections in branches. I would also guess that the difference in the circulation percentages (27%, 22% and 11%) can be explained by the number of paperbacks available for circulation. On average there are more paperbacks available in the branches within the larger systems, and this accounts for those facilities circulating more paperbacks as a percentage of their overall circulation than facilities within the other two types of systems.

Those facilities with high circulation per staff, reference per staff and per dollar effectiveness ratings have higher collection turnover rates. The busier the staff, the busier the collection. This holds for large, small and regional facilities.

The small to medium-sized systems circulate substantially fewer books per staff member and field fewer reference questions per staff, yet they provide their services as effectively in terms of dollars as do the larger systems. This may be so because of the increased cost of running a larger library as opposed to a small to medium-sized library system. More and usually higher salaries, increased administrative expenses and higher book budget expenditures per capita account for this difference. Also, because of this difference, main libraries in the small to medium-sized systems tend to operate more effectively than their counterparts in the larger systems. Branch facilities in the two differing types of systems operate

on a par in terms of dollars per output.

There does not appear to be any correlation between circulation per capita and reference per capita in the regionals and small to medium-sized systems. There is a slight tendency in the larger systems for facilities with higher circulation per capita figures to also have higher reference per capita statistics. Does this mean that two of the major functions of public libraries—circulating books and answering reference questions—are not related statistically? That is, do population areas seek library service for either one or the other but seldom both? Do some facilities push one service over the other? There is also no correlation between circulation per staff and reference per staff in all three groups of libraries. That is, those facilities with higher circulation per staff figures do not as a rule have higher reference per staff statistics. There also appears to be no correlation between circulation per staff dollars and reference per staff dollars. Those buildings with higher circulation per staff dollar numbers do not always have higher reference per staff dollar statistics. Once again, do some facilities push, develop or fund one service to the detriment of the other? Can service areas be said to be characteristically information seekers or book readers?

Facilities within the large county systems that have high circulation per staff statistics tend to have higher circulation per capita statistics. This is not true for the regional systems or the medium to small county systems.

Those systems that allocate more book budget dollars per capita tend to have higher circulation per capita statistics. Book budget dollars spent per capita, income per capita and the level of educational attainment are the most important factors in determining circulation per capita in the larger systems. The more affluent and

higher educated the service population, the busier the library.

There is no correlation between the income per capita and the amount of book budget dollars spent per capita in the large county systems and regionals. There is a slight correlation in those smaller systems between income per capita and

Programming in branch libraries must stand on its own merit as a service deemed appropriate and necessary to library service, and not as a device to spur circulation.

book budget expenditures per capita. With income per capita being one of the ways to measure the demand for library service, those systems with higher income per capita statistics should attempt to meet the demand with higher book budget dollars per capita.

The higher the circulation per staff, the higher the effectiveness rating—except in one case where a very high book budget does not translate into circulation, reference and programming statistics. It remains to be seen if such a large book budget will over time increase circulation proportionately in order to cause an increase in the overall effectiveness rating score. By and large, the higher rated facilities and systems tend to have a personnel budget to book budget ratio of around four to one. The findings seem to show that if you go much higher—for instance, the case of one large library with one book budget dollar for every ten personnel dollars

TABLE II.

Table II contains additional calculated results for the three groups of public library systems. This table excludes statistics for main library facilities and includes information for branches only within the large and small systems but includes all facilities within the regional systems. It should be noted that only some of the facilities within the regional systems are branch libraries.

	Large	Small	Regionals
Circulation per Staff	20,227	14,246	12,740
Circulation per Staff Dollar	1.58	1.50	1.10
Circulation per Capita	4.31	4.45	3.04
Circulation per Book Budget Dollar	5	5.71	3.83
Circulation per Programming Attendance	47	58	34
Reference per Staff	2,793	842	1,430
Reference per Staff Dollar	.22	.09	.14
Reference per Capita	.63	.28	.37
Reference per Book Budget Dollar	.68	.38	.49
Reference per Programming Attendance	7	3.10	3
Book Stock Turnover Rate	3.73	2.38	1.66
Per Dollar Effectiveness Rating	1.23	1.33	.84
Registration as % of Population	.31	.30	.38

—or much lower—one book budget dollar for every two personnel budget dollars in another large library's case—your chances are less that you will score well in a per dollar effectiveness rating. Does this study indicate that a personnel budget to book budget ratio of four to one is the most desirable? What I think it says is that if you don't have at least a four to one ratio or lower, your library tends to become less effective. A higher ratio simply means that you're not getting the books and a lower ratio means that you might be getting more than you really need, or more than your staff can effectively handle.

One of the things shown by looking at Table 3 is the wide variance among the four largest counties in the relationship between the amount of book money spent per capita and its outcome, or

circulation per capita. These four systems serve strikingly similar population areas in terms of per capita income and median years of school completed—two very important socio-economic variables when considering circulation or the potential for circulation. Yet, thirty-six cents per capita in one library nets about three circulations per capita (or twelve cents per circulation) while over two dollars allocated per capita in another library accounts for just over five circulations per capita (or forty cents per circulation). This shows how far a small amount of book budget money per capita may go as well as how expensive it can be in terms of book budget dollars per capita to generate circulations per capita.

There must be a point at which more book budget money becomes less effective. One could

TABLE III.

Table III lists selected information for all libraries included in the survey. Main library statistics are included.

Small Systems	Circulation Per Capita	Median Years of School Completed	Income Per Capita	Book Budget \$ Per Capita	Book Budget	Total Circulation
Henderson	5.94	12.40	10,521	1.13	70,000	367,449
Haywood	5.94	12.10	9,028	1.52	71,397	279,818
McDowell	4.44	11.60	8,459	1.38	50,000	160,709
Pender	2.77	11.80	7,443	1.49	34,000	63,104
Wilson	2.75	11.80	10,079	.80	51,000	174,453
Cabarrus	2.73	11.90	10,368	.97	86,842	243,355
Brunswick	2.56	12.00	7,570	.90	35,000	99,721
Madison	2.44	10.80	6,972	.64	11,098	42,280
Bladen	2.42	11.30	6,930	1.30	39,900	74,605
Pitt	2.40	12.30	8,864	1.45	135,794	224,278
Rowan	2.36	11.90	9,906	.61	62,000	238,792
Scotland	2.35	11.70	8,158	1.41	47,000	78,063
Burke	2.33	11.50	9,077	.51	37,615	172,142
Wayne	2.28	12.20	8,469	.74	72,000	222,597
Franklin	2.16	11.30	7,736	.72	22,256	66,286
Johnston	2.09	11.60	8,175	.25	17,830	151,366
Granville	1.84	11.40	7,806	1.01	35,500	64,741
Harnett	1.63	11.70	7,355	.38	23,100	100,129
Robeson	1.26	11.20	6,715	.87	90,474	130,528
Large Systems						
Wake	5.08	12.90	12,759	2.21	694,002	1,600,031
Charlotte	4.66	12.70	12,863	.90	377,970	1,949,610
New Hanover	4.83	12.50	9,951	1.11	119,250	411,194
Durham	3.72	12.60	11,523	2.07	322,914	580,489
Greensboro	3.25	12.50	11,930	1.03	329,200	1,037,971
Forsyth	2.99	12.40	12,682	.36	90,800	743,937
Cumberland	2.06	12.50	8,772	.81	204,219	517,760
Regional Systems						
Pettigrew	4.03	11.25	8,631	.82	33,500	164,734
Nantahala	3.53	11.06	6,652	1.70	56,865	118,215
East Albemarle	2.87	12.00	8,111	1.06	64,636	174,514
Central NC	1.95	12.10	9,957	.81	109,000	262,346
Albemarle	1.29	10.90	7,934	.64	49,332	99,469
Hyconeechee	1.23	12.10	8,659	.63	81,768	159,270

look at it in the same way as personnel dollars. There certainly is a point below which output is hindered—too few staff to handle the load—causing a facility to become less effective. There is also a point at which a facility becomes less cost effective when a personnel budget becomes too high—too many people with too little to do. The same must hold for book budgets. That is, there is a point below which a book budget hinders effectiveness by not allowing the library to supply enough books to meet demand or the potential demand. There must also be some corresponding upper limit beyond which a service area can't absorb an increasing number of books, causing a lowering of a library's cost effectiveness; or, too many book budget dollars with too little to do. The problem could also be having too little staff to provide backup for the increased book budget.

All of the larger county systems operate branch facilities which have high per dollar effectiveness ratings with high circulation per staff and reference per staff statistics. They also have facilities with very low per dollar effectiveness ratings and very low circulation per staff and reference per staff statistics (except one, which is small in terms of square miles and has only two branches). It is my assumption that these systems all have branch facilities which should probably be closed, consolidated, have staff shifted to busier branches, or have services or hours cut back. The reasons for not doing so are many and varied.

There does not appear to be any relationship between program attendance and book circulation or reference statistics. That is, those facilities with high circulation or reference statistics do not always have high program statistics and conversely those facilities that circulate few books and answer few reference questions don't always have low programming statistics. Programming in branch libraries must stand on its own merit as a service deemed appropriate and necessary to library service, and not as a device to spur circulation. This non-relationship between programming and circulation also holds for main library facilities.

There is a correlation between level of educational attainment, income per capita and available book budget per capita money with output, or circulation, reference and programming services per capita. The large county systems serve populations in a range from 107,222 to 418,071 people. The level of educational attainment as reported by census information is within half grade—between 12.4 and 12.9. With proportionately equal book budgets (book budget per capita) similarly proportionate output could be

expected in those systems with similar income per capita and education level statistics. This should hold for the medium to small systems and regionals. That is, like population areas should respond similarly given proportionately equal input.

I would like to thank all who labored to supply the data to be analyzed for this study. Some of the statistics asked for are not readily available in most systems and I appreciate the time and effort spent by those who took the time to compile that information. This study was very much a collaboration. I wish to thank my collaborators—David Paynter and Patsy Hansel.

Instructions for the Preparation of Manuscripts

for North Carolina Libraries

1. *North Carolina Libraries* seeks to publish articles, book reviews, and news of professional interest to librarians in North Carolina. Articles need not be of a scholarly nature, but they should address professional concerns of the library community in the state.
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3. Manuscripts should be submitted in triplicate on plain white paper measuring 8½"x11".
4. Manuscripts must be double-spaced (text, references, and footnotes). Manuscripts should be typed on sixty-space lines, twenty-five lines to a page. The beginnings of paragraphs should be indented eight spaces. Lengthy quotes should be avoided. When used, they should be indented on both margins.
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K Keyes Metcalf, *Planning Academic and Research Library Buildings* New York: McGraw, 1965), 416.
Susan K. Martin, "The Care and Feeding of the MARC α Format," *American Libraries* 10 (September 1979): 498.
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Issue deadlines are February 10, May 10, August 10, and November 10.