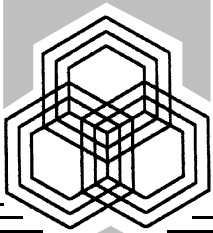# BUILDING
THE LIBRARY
OF THE FUTURE

an assessment of
service goals and space needs
prepared for the
Wauwatosa Public Library
Wauwatosa, WI

Library Planning Associates, Inc.

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METHODOLOGY & ACKNOWLEDGMENTS

Library Planning Associates, Inc. was engaged to study future service goals and space needs for the Wauwatosa Public Library in Wauwatosa, WI. Founding principal Anders C. Dahlgren was assigned to the project.

Following a review of existing data and documentation, the consultant made multiple site visits to the library. During the initial visit, on February 17, 2016, the consultant toured the library and met with management staff and the board of trustees. On March 16, 2016 the consultant met with management staff and trustees to review an outline of prospective long-term resource and service inventory goals. From this examination recommendations started to emerge, and these were reviewed with staff and trustees on April 20, 2016. Based on comments received then, this final draft report was prepared and conveyed to the library.

Many individuals contributed to the outcomes described in this study. The consultant acknowledges the participation and support of the Wauwatosa Public Library Board of Trustees:

Ann Marie Perhach	President
Bill Andrae	Trustee
Jane Carroll	Trustee
Peter Holtz	Trustee
Maureen Klein	Trustee
David Marheine	Trustee
Thomas Miller	Trustee
Mary S. Newton	Trustee
Sarrah Oliver	Trustee

And the following staff:

Mary Murphy	Director
Robert Trunley	Assistant Director
Jess Brown	Reference / Adult Services
Ann Kreigisch	Children's Services
Anne Kissinger	Children's Services
Tristan Marshall	Circulation Services

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1 EXECUTIVE SUMMARY

1.1 Scope of the study

The Wauwatosa Public Library sought the assistance of a consulting librarian to develop a facilities space needs assessment to guide library decision-making in the future. The municipality is considering a project to redevelop the site presently occupied by the library and city hall. If this project goes forward, a new facility for the library will be designed and built. Library Planning Associates, Inc. was engaged to provide a critical analysis to inform the library's ongoing discussions with the municipality regarding this proposed project. Specifically, this study sought to address the following:

- • What collections and services should the Wauwatosa Public Library provide for its community to meet residents' needs in the future?
- • How does that resource and service inventory condition the library's future space needs?
- • What does the library's future space need reveal about facilities and expansion options facing the library?

1.2 Key findings

The Wauwatosa Public Library is distinguished by high use levels. According to the latest national public library use data set available from the Institute for Museum and Library Services, Wauwatosa's total annual circulation (850,000+) is more than two times the national norm, one-third greater than the norm defined by a cohort of Midwestern peers. Total annual visits (400,000+) exceed the national norm by 75%, and the regional / Midwestern norm by 25%. Total annual program attendance (29,800+) exceeds the national norm five-fold, and the regional / Midwestern norm by 35%.

By these measures, the Wauwatosa Public Library is clearly an important local hub for community engagement.

Wauwatosa's high use levels reflect an important transition affecting public libraries across the country. While the public library retains an important role as a repository for collections and resources, it is increasingly important that the library operate in a setting that fosters and facilitates connections – between users and the information they seek as well as between and among groups of users. It is shifting from a collection-centric 20th century library to a user-centric, connection-centric place in the 21st.

Collection growth in most libraries has slowed and in some libraries inventories have

started to decrease, but at the same time libraries today prefer to house those collections in a user-friendly, reachable, less dense setting. Libraries seek to offer access to e-content with public computer stations *and* ample opportunities where the user can plug into the network with their own devices. Spaces such as Wauwatosa's proposed student commons offer a place for engagement and exchange.

In this context of change, this study finds that the Wauwatosa Public Library should anticipate housing the following inventory of collections and services in its facility to meet community needs to the year 2040:
- a collection of 165,7500 volumes, 29,250 nonprint items, and 200 magazines
- 44 technology stations / computers for public use
- 176 reader seats
- 39 staff work stations
- programming and activity space including a large multi-purpose room to seat 300, a small multi-purpose room to seat 120, a board room to seat 16, a conference room to seat 16, a classroom to seat 30, and a storytime room to seat up to 100

Based on this inventory of recommended resources and services, Library Planning Associates, Inc. estimates the library will need a building of roughly 71,600 square feet. According to local codes, the building needs to be accompanied by 215 parking places.

1.3 Moving forward

These findings lead to consideration of further strategic planning issues. Library trustees and staff and other local library supporters should:
- Carefully consider and reaffirm (or adjust) the underlying service goals that lead to a space need of 71,600 square feet.
- Use this estimate (or the adjusted estimate) to inform ongoing discussions with the municipality regarding the space the library would need within the proposed project that would replace the existing library with new space within a public / private development.
- Consider retaining an architect as a valuable resource to assist in a more detailed examination of development options.
- Anticipate the prospect of a multi-level configuration in the context of this public / private development project and start to consider what functions would be appropriate on an entry level and what functions might be provided above.
- When ready to proceed to the design of an expanded facility, authorize the development of a building program statement detailing the library's spatial and environmental requirements in the context of a new building.
- At the same time, initiate architect selection if an architect has not already been engaged.

2 ESSENTIAL PLANNING CONCEPTS

The following sections discuss a variety of broad concepts that form a foundation for the subsequent examination of service goals and space needs for the Wauwatosa Public Library. Included among these concepts are:

- 2.1 Service goals determine a library's space need
- 2.2 The planning horizon defines a long-range timetable
- 2.3 Design population defines a context for future library services
- 2.4 The library's mission statement conditions its services
- 2.5 Local trends in services and inventory establish a foundation for future growth
- 2.6 National trends in services and inventory provides context for assessing local library service
- 2.7 Comparative benchmarks with peer libraries provide a perspective for assessing library service

2.1 Service goals determine a library's space need

A direct connection exists between the resource and service inventories a library seeks to house and the amount of space it needs. To greatly oversimplify the equation, all other things being equal a library will require more floor space if it establishes a service parameter to develop a collection of 250,000 volumes than would be the case if its collection development goal was 100,000 volumes; all other things being equal, a library will require more floor space if it seeks to provide 200 reader seats rather than 120.

The particulars of Library Planning Associates's recommended space needs assessment methodology are detailed in Appendix A. That methodology is organized around seven kinds of floor space to be found in most libraries:

- *Collection space:* for the library's traditional print and nonprint collections.
- *Technology space:* for the library's inventory of computers for public use to access e-content.
- *Reader seating space:* to provide a variety of comfortable seating for library patrons to use the library's resources in-house.
- *Staff space:* to provide staff work stations as needed to support the library's various routines and operations (circulation, public services, technical services, administration, etc.).
- *Programming / meeting space:* to

accommodate library programming for the general public, meetings of the library board and/or staff, as well as meetings of other community groups.

- *Special use space:* to house those pieces of unique library furniture or special library functions that have not been accounted for in previous types of space (e.g., photocopiers, microform readers, small group study rooms, a public lounge or coffee bar, staff lounge, and the like).
- *Nonassignable space:* to house those spaces which must be provided to support a functioning building but which cannot be assigned directly to library purposes (e.g., vestibules, restrooms, stairwells, furnace rooms, etc.).

In some cases, this methodology can be adapted to make a specific, "dedicated" allowance to accommodate a feature or service that the library wants to identify at this early stage in planning.

Regarding each of these seven types of space, the library's program of service can be defined using comparative benchmarks from peer libraries or standards issued by a state library agency or association, and a unit space allowance can be applied to translate the service goals into the corresponding spatial requirements, using the factors summarized in Figure 2.1.1 and detailed in Appendix A.

Several of the unit space allocations are described in a range from low to moderate to optimum, reflecting the fact that locally-determined preferences and priorities will impact how much space a library needs. For example, collection space needs are conditioned not solely by the quantities in the inventory, but by factors including aisle widths, and the height of the shelving units.

When these allowances are applied to a library's recommended service parameters, an estimate of the library's space needs can be made ranging from an optimum level to a minimum level. Within this range, a recommended estimate is defined based on expectations of density of housing the library's resources and economies of scale in the eventual building layout.

FIGURE 2.1.1
UNIT SPACE ALLOCATIONS

	SPACE ALLOCATION		
	Opt	Mod	Low
Collection space			
Books -- ___ volumes per square foot	10.0	11.5	13.0
Magazine display -- ___ titles per square foot	1.0	1.0	1.0
Magazine backfiles -- ___ square feet per title per year held	0.5	0.5	0.5
Nonprint -- ___ items per square foot	10.0	12.5	15.0
Technology space			
Public network stations -- ___ square feet per terminal	50.0	40.0	35.0
Reader seating space			
___ square feet per reader seat	35.0	32.5	30.0
Staff work space			
___ square feet per work station	150.0	137.5	125.0
Meeting room space			
Auditorium -- ___ square feet per seat + allowance for stage	12.5	12.5	12.5
Program room -- ___ square feet per seat + allowance for stage	10.0	10.0	10.0
Storytime room -- ___ square feet per seat + allowance for stage	15.0	15.0	15.0
Conference room -- ___ square feet per seat + gallery	30.0	30.0	30.0
Computer training room -- ___ square feet per seat + instructor	50.0	50.0	50.0
Special use space			
Calculated as a percentage of gross building area	17.5%	15.0%	12.5%
Nonassignable space			
Calculated as a percentage of gross building area	32.5%	30.0%	27.5%
Dedicatred / special allowances			
Factored in as needed			

2.2 The planning horizon defines a long-range timetable

A space planning study often leads to a capital project of significant scope and expense. In order to achieve the highest possible return on the community's capital investment, local authorities should strive to meet not only the present service needs of the community, but its future needs as well. A library should grow into its facility, with sufficient space provided for collections and other resources to insure the setting does not become too soon overcrowded.

The conventional planning timetable for library facilities planning is twenty years. Over the years, library planners have come to agree that a building designed to meet a twenty-year need will provide a suitable return on the community's investment, building to meet tomorrow's needs at today's pre-inflationary construction costs.

To meet this 20-year recommended planning period, the planning horizon for the Wauwatosa Public Library study should be set to the year 2040.

The recommendations presented here are intended to define an environment from which the library may respond to the needs of the service community during the years to come, at the same time acknowledging that change is occurring so quickly – socially, technologically, in every way – that the best strategy for dealing with the library's future needs is to provide a plan that is flexible and can be adapted for different uses in the future.

2.3 Design population defines a context for future library services

A library's space needs are conditioned by the resources and services it expects to house to meet the service demands of its community. The resource and service inventory is conditioned by an understanding of how the community is likely to change in the years to come. In this regard, the central characteristic that shapes the library's future service goals is the total population served: is the population growing? static? in decline?

Census population: The 2010 census for Wauwatosa showed a population of 46,396. The 2013 estimate from the Wisconsin Department of Administration is 46,705. DOA makes projections in five-year increments to the year 2040, anticipating minimal growth for Wauwatosa over that period – 49,270 or +6.2% over the 2010 census.

Wauwatosa has been largely built out for quite some time. The growth projected by DOA surely comes from smaller in-fill projects and denser redevelopment projects. DOA's estimate is taken as the basis for a service population projection for Wauwatosa.

Extended service population: In considering the library's future service population, the library's "extended" service population should be taken into account. The fact of the matter is, nearly every library in Wisconsin – or the U.S., for that matter – serves a broader clientele than its immediate service jurisdictions. In Wisconsin, the state library agency makes an estimate of each library's "extended" population by apportioning to the libraries in each county the population of those who reside OUTSIDE of the existing library

service jurisdictions. It's not a uniformly successful conceit statewide, but it is at least consistent and acknowledges the reality of a broader service population.

In Milwaukee County, because the out-of-jurisdiction population is relatively small, and because the largest share of that population is apportioned to Milwaukee PL, the "extended" population for Milwaukee County libraries as calculated by the state library agency is pretty close to the census population. Based on the 2010 census, the state library agency's adjusted "extended" population for Wauwatosa was 46,453 – an increase of just 0.1% over the census.

If that ratio is applied to DOA's year 2040 projected population for the municipality (49,270), it fashions an estimate of 49,500 for Wauwatosa's projected service population.

2.4 The library's mission statement conditions its services

As part of its current long-range plan of service, the library board adopted a mission statement and a vision to guide the development of resources and services at the Wauwatosa Public Library:

> "*The Wauwatosa Public Library, established and supported by the citizens of Wauwatosa, provides access to facilities, resources and services necessary to meet informational, educational and leisure needs of the community.*"

2.5 Local trends in services and inventory establish a foundation for future growth

A review of the library's annual reports to the Wisconsin state library agency provides an overview of the current status of library services at the Wauwatosa Public Library and an understanding of recent trends in the development of the library's resources and use.

The data summarized here comes from two sources: annual report data through 2013 are drawn from the public library database maintained by the Institute for Museum and Library Services (IMLS); more recent data (for 2014 and 2015) are drawn from the library's annual reports.

2.5.1 Collections

While the library's combined inventory has had periods of expansion and decline over the last two decades, generally the library's inventory has grown slowly and steadily. The dashed trendline in Figure 2.5.1 (next page) confirms an upward trend over the longer period. From year to year, the combined inventory has been variable, noting in particular one period of substantial reduction – between 2003 and 2007, the inventory was reduced in three of the four years. Presumably this was a period when the library undertook a coordinated weeding / collection maintenance project.

Most recently, the library's acquisitions pattern has moderated. Since 2009, the combined inventory has held steady or declined slightly.

At the end of the most recent reporting year

FIGURE 2.5.1
WAUWATOSA PUBLIC LIBRARY
COLLECTION INVENTORY
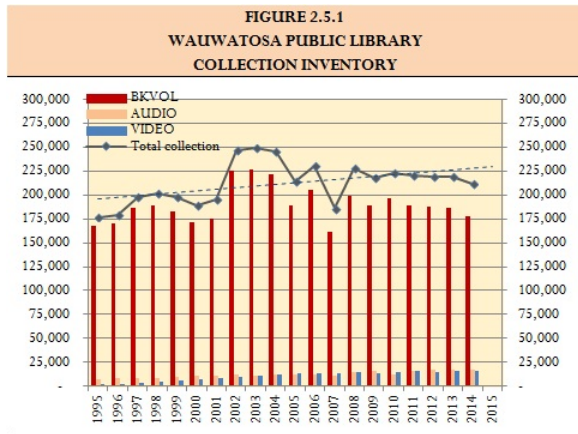
(2014), the collection stood at 177,700+ volumes, 17,500+ audio recordings, and 16,300+ video recordings. The library subscribes to 202 magazines.

The composition of the collection has changed notably (see Figure 2.5.2). Nonprint holdings have grown at a much faster rate than print holdings, shifting the balance of the overall collection in favor of these holdings. This is a common pattern among libraries nationwide. In 1995, nonprint holdings (audio + video) represented about 5% of the library's combined inventory. By 2014, the share had grown to just under 16%. Some of this increase in share is attributed to a reduction in the book inventory in

FIGURE 2.5.2
WAUWATOSA PUBLIC LIBRARY
COLLECTION DISTRIBUTION
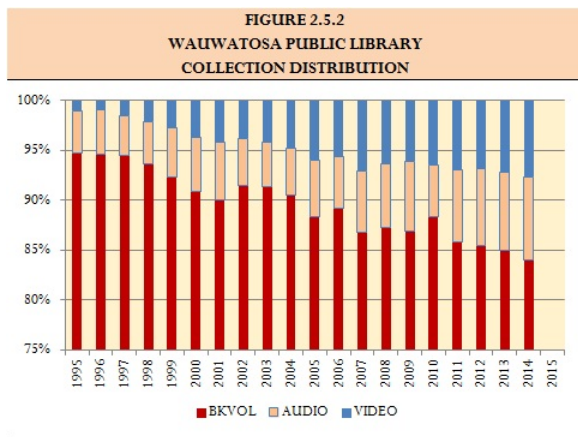
recent years – print holdings have fallen from 198,900+ volumes in 2008 to 177,700+ volumes in 2014, but over the period, audio holdings have grown from 7,500+ items in 1995 to 17,500 in 2014, and video holdings have grown from 1,700+ items to 16,100+ items. The combined media inventory grew from 9,300+ items to 33,700+ items – nearly a four-fold increase.

Within the nonprint collection, there has been one more notable shift in the composition of the inventory: at the beginning of the period, videos represented about 20% of the nonprint inventory; for the last five years, videos have represented about half of the inventory (see Figure 2.5.3).

FIGURE 2.5.3
WAUWATOSA PUBLIC LIBRARY
COLLECTION DISTRIBUTION
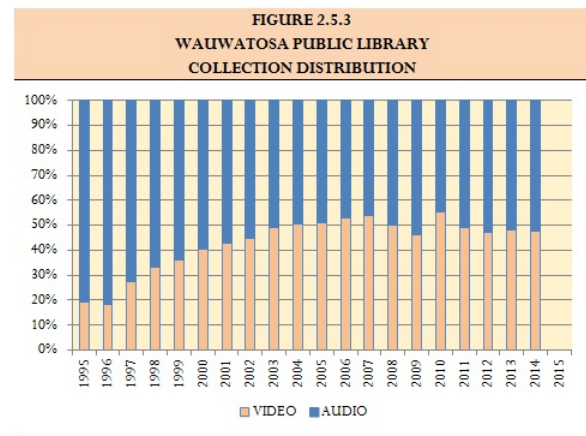
2.5.2   E-resources

Like most public libraries, the library in Wauwatosa has actively sought to increase its inventory of computers for public use as a means of providing more and more access to information and content in e-formats. As shown in Figure 5.2.4, the library was able to increase this inventory consistently through 2014. The dashed trendline clearly shows the library's

FIGURE 2.5.4
WAUWATOSA PUBLIC LIBRARY
COMPUTERS for PUBLIC USE

NOTE: IMLS did not report this data element prior to 1998
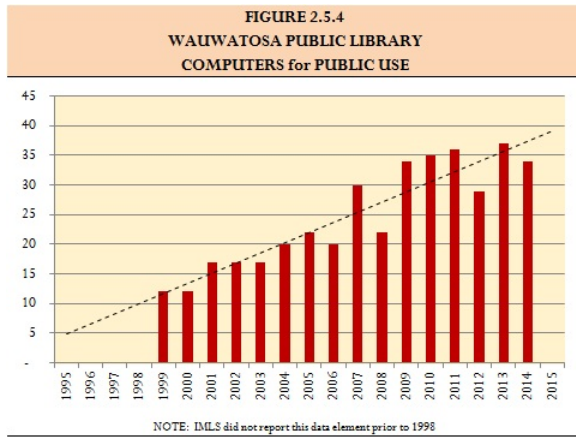
advance. (The federal office that gathers this data nationally introduced this data element in the 1999 annual report.) As of 2014, the library provides 34 computer stations for public use.

As the library has increased the number of computer network stations for public use, key measures of access have improved. Figure 5.2.5 tallies the user population per PC – as that number declines, it is an indication of more access to e-content. The number of library visits per PC is also charted, tying foot traffic into the building to e-content access. There is an intuitive (albeit undocumented) connection between the number of individuals entering the library and the demand for access to e-content.

FIGURE 2.5.5
WAUWATOSA PUBLIC LIBRARY
ACCESS to PUBLIC COMPUTERS

NOTE: IMLS did not report this data element prior to 1998
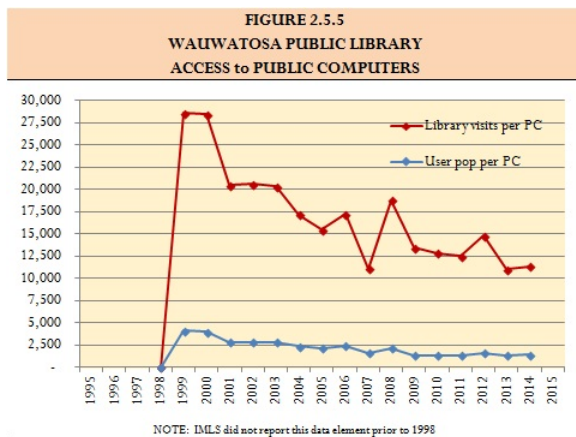
More traffic should create higher demand for more access points (and more demand for other collections and services as well). That the library has been able to reduce the number of visits per PC provided is a key indicator that the library is keeping up with the demands of greater foot traffic *and* improving access to these resources.

At the same time, one must acknowledge how the landscape surrounding this metric is shifting. Until recently, library users tended to access e-content by way of equipment provided by the library in a specific physical setting – a CPU and monitor and keyboard at a table or carrel. The library's tally of public use computers was a reasonable measure of how much access to such resources the library provides. Over the last few years, more and more users are connecting to the library's e-content using their own internet-connected devices. As this trend continues, in the future, the technology stations provided by the library will likely change in concept. Some stations will be "traditional" in the sense that they will support equipment for access, but others may forgo the equipment and offer a physical setting specifically geared and designed for technology use – technology that the user supplies.

2.5.3   Circulation

Circulation is the most common measure of library activity and service. In Wauwatosa, circulation has generally trended up over the reporting period, albeit not consistently so (see dashed trendline in Figure 5.2.6 next page). There have been two periods of decline, during the mid-2000s and over the last five years after reaching a peak of just under 896,000+ in 2010. In the most recent reporting year, the library tallied 799,300 circulation transactions.

FIGURE 2.5.6
WAUWATOSA PUBLIC LIBRARY
CIRCULATION

FIGURE 2.5.8
WAUWATOSA PUBLIC LIBRARY
CHILDREN'S CIRC as a PERCENT of TOTAL
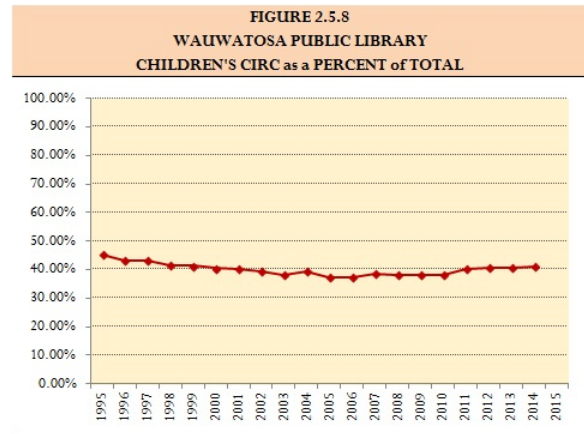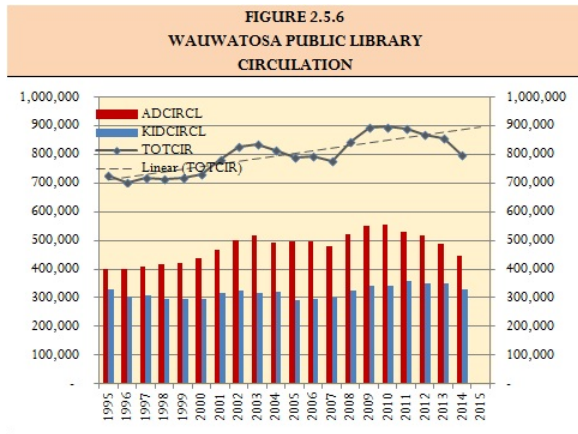
Tracking circulation per hour open produces a chart that's similar – almost identical – to the chart for total circulation (see Figure 2.5.7). This is because the library has maintained a largely constant schedule of operations over the period. In recent years, the library has managed about 250 transactions per open hour.

FIGURE 2.5.7
WAUWATOSA PUBLIC LIBRARY
CIRCULATION ACTIVITY

Over the period, circulation of children's materials has generally declined as a share of total circulation (Figure 2.5.8). In the early years of the period, circulation of children's materials accounted for almost 50% of total circulation. In the later years of the period, the ratio has hovered just below or at 40%. Still, as will

become evident in the peer comparative analyses, this is a representative distribution.

2.5.4   Other use measures

Circulation is not the only measure of how a library is used. Total annual visits tallies another important measure of library activity (Figure 2.5.9).

Over much of the period, from 1995 through 2007, the number of visits reported annually held steady at about 350,000. There was a surge in 2008 and 2009, increasing to just over 450,000, and since then the number of visits per year has tapered off. The reason for this pattern cannot

FIGURE 2.5.9
WAUWATOSA PUBLIC LIBRARY
ANNUAL VISITS

be determined from the data at hand, although there is a common anecdotal observation that public library use goes up when the economy cools down, and this boost certainly coincides with the Great Recession of 2008.

Tracking visits per hour open charts almost identically to the graph for total annual visits – as was the case with circulation per hour open. For most of the period, the library supported about 100 visits per hour. That boosted to almost 140 by 2009, and has since been tailing off.

2.5.5   *Finances*

Over the period, revenues and expenditures have both generally increased.

On the revenue side, the library received $1.4+ million in 1995, $1.8+ million in 2005, and $2.7+ million in the last reporting year. On average, local sources have accounted for 83.3% of total receipts, state sources 5.8%, federal sources a whisker over 0%, and "other" sources (fines, fees, gifts and the like) 10.5% (Figure 5.2.10). Over the period, local sources have accounted for an increasing share of the library's total revenue stream. During the first half of the period, local sources accounted for 75% to 80%
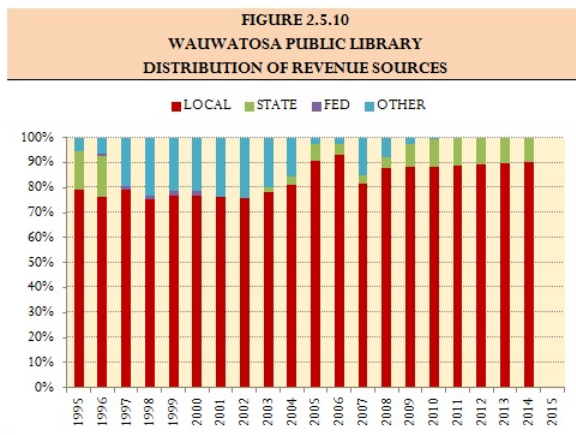
of total; in later years the share has been in the upper 80% range.

On the expenditure side, the library's budget in 1995 was $1.4+ million, $2.1+ million in 2005, and $2.1+ million in 2014. The distribution of expenditures among major budget categories – staffing, materials, and other – for the most part has been consistent and within the routine experience of other public libraries. On average, 74.4% of operating expenses have been allocated to staffing, 11.8% to materials, and 11.9% to all other operating expenses (Figure 5.2.11).
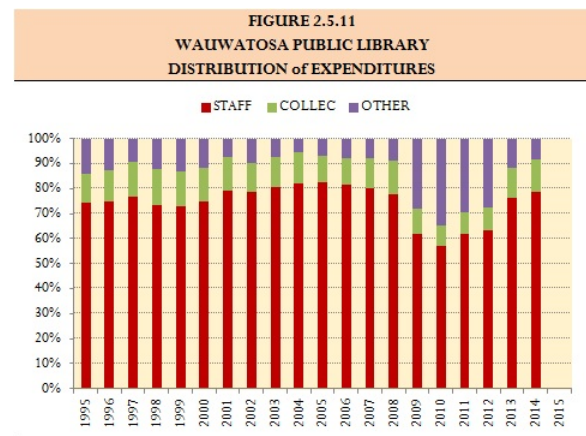
FIGURE 2.5.11
WAUWATOSA PUBLIC LIBRARY
DISTRIBUTION of EXPENDITURES

2.6 National trends in services and inventory provides context for assessing local library service

Using a database of public library statistics maintained by the Institute for Museum and Library Services (IMLS), national library service trends can be described. Each year, when the IMLS releases its report, Library Planning Associates, Inc. downloads the database and combines selected data elements to create new data points (for example, circulation and

FIGURE 2.5.10
WAUWATOSA PUBLIC LIBRARY
DISTRIBUTION OF REVENUE SOURCES

population served are used to calculate each library's rate of circulation *per capita*). That data is examined to identify service trends over time.

2.6.1   Resource inventory – books

Between 1995 and 2005, the aggregate print holdings of U.S. libraries increased each year. The combined inventory grew some 17%, from 695 million volumes to 815 million volumes (see Figure 2.6.1). Then, a new pattern emerged: the aggregate print inventory leveled off. Between 2005 and 2009, the aggregate print inventory hovered between 815 and 816 million volumes. Since 2009, the national print inventory has decreased each year. The national print print inventory held in U.S. public libraries now stands at 777 million volumes as of the last year for which data is available, 2013.

FIGURE 2.6.1
VOLUMES HELD
ALL U.S. PUBLIC LIBRARIES
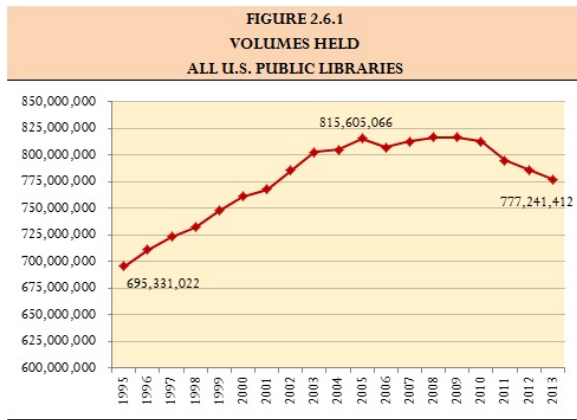
The shift in this fundamental acquisition pattern is notable, but the reasons for the change cannot be determined from the data at hand. Some might say it's shock of the recession, but the change pre-dates 2008. Some might say that with the growing availability of digital information resources libraries are less driven to expand these traditional resources. Perhaps, but it isn't possible to discern from the data on hand.

The shift is illustrated even more starkly by looking at volumes held per capita. While the aggregate inventory of U.S. public libraries started to flatline in2005, the combined population served by those libraries continued to increase. As a result, the calculation for volumes held per capita decreased. Actually, this metric has been in decline for a longer period – since 2003 when volumes held per capita peaked at 2.83 (see Figure 2.6.2). There was a drop in volumes held per capita between 2000 and 2001 when results from the 2000 census were released and many communities revealed a surge in population from prior reports. Between 2003 and 2004, although the number of volumes held in U.S. public libraries did increase, the inventory did not increase at the same rate that the combined service population grew, and volumes held per capita started a pattern of decline.

By 2013, this measure had dropped to 2.45 volumes held per capita, and the decline from the preceding year was the most precipitous year-to-year decrease since this new trend emerged, a possible indication that the rate of decline is accelerating.

FIGURE 2.6.2
VOLUMES HELD PER CAPITA
ALL U.S. PUBLIC LIBRARIES
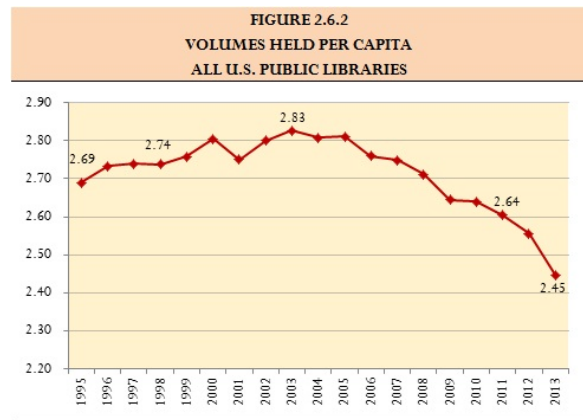
2.6.2   Resource inventory – nonprint

A different pattern emerges with nonprint collections (see Figure 2.6.3). The combined inventory of audio and video recordings has grown dramatically over most of the period since 1995. In 1995 the combined inventory numbered 35.7 million items; in 2009, the combined inventory was 103.8 million, almost a three-fold increase. Since 2009, the combined inventory has been far more stable, decreasing in 2010 from the previous year's total, then increasing again over the next three years, albeit at a much slower rate. Between 1995 and 2009, combined nonprint holdings in U.S. libraries (audio + video) increased by just under 8% per year on average. In the years since the inventory correction in 2010, the combined holdings have increased by a rate of 1.5% on average, a clear suggestion that rates of growth are shifting. Perhaps the growth of nonprint collections is starting to slow.

FIGURE 2.6.3
NONPRINT HOLDINGS
ALL U.S. PUBLIC LIBRARIES
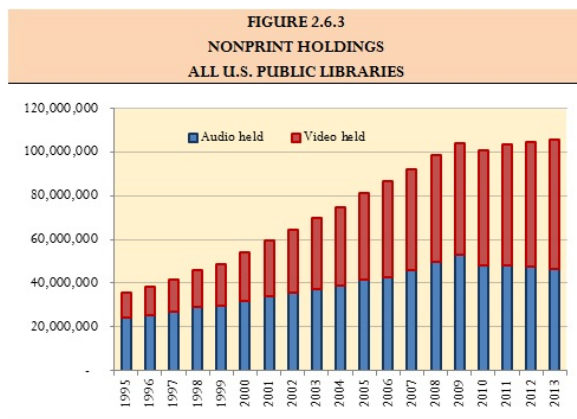
The decrease in combined nonprint holdings between 2009 and 2010 appears to have been driven by a sharp decrease in the audio inventory. Between 2009 and 2010, video inventories increased, but that increase was more than offset by the decrease in audio holdings. In the years

following, both formats show increases from year to year, albeit at a slower rate than was customary before.

Although the aggregate nonprint inventory results might suggest the reported decline in 2010 could be a mere hiccup, the measures of nonprint holdings per population suggest this might be the beginning of a longer-term reduction in the rate of growth in these holdings. Audio recordings per 1,000 population increased every year since 1995 (94.7 recordings per 1,000 population served) until this measure peaked in 2009 (at 171.5). In 2010, the result fell to 156.0, where it hovered for the next two years. The latest reporting year – 2013 – shows a rate of 148.9 audio recordings per 1,000 population (see Figure 2.6.4).

FIGURE 2.6.4
NONPRINT HOLDINGS PER 1,000 POPULATION
ALL U.S. PUBLIC LIBRARIES
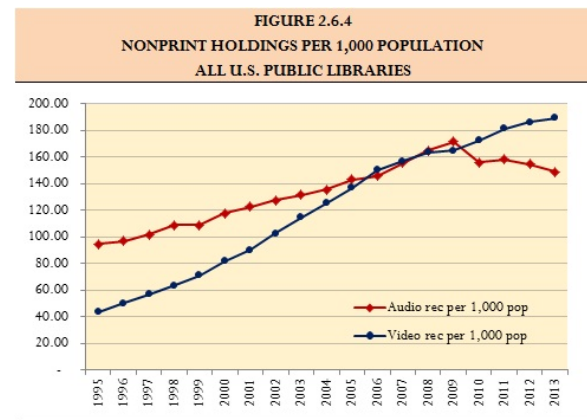
The difference is clearer when expressed in terms of the growth rate from year to year measured in terms of items held per 1,000 population. Between 1995 and 2009, the number of audio recordings held per 1,000 population increased each year, by an average of 4.36% per year. Since 2009, the number of audio recordings held per 1,000 population has *decreased* by a rate of 33.4% on average. By contrast, the number of video recordings held

per 1,000 population increased between 1005 and 2009 by a rate of 10.1% per year, on average. Since 2009, the number of video recordings held per 1,000 population has continued to increase, at a reduced rate of 3.5% per year, on average. Acquisition patterns for audio and video recordings both shifted in 2009, more notably so for audio recordings than video recordings.

Measured as a share of total collection holdings, nonprint inventories continue to increase (see Figure 2.6.5). In 1995, nonprint holdings represented 4.9% of the combined inventory in U.S. public libraries. Every year since, save one, that ratio has increased – 6.6% of total holdings in 2000, 9.05% of total holdings in 2005, 11.1% of total holdings in 2010. This ratio has continued to grow in 2011, 2012, and 2013, but in those most recent years, the increase in nonprint inventory share as a percent of total inventory has been created by virtue of the fact that print inventories have decreased. By holding steady, nonprint inventories increase *in share of total holdings* since print inventories area in decline.

FIGURE 2.6.5
NONPRINT AS A PERCENT OF TOTAL INVENTORY
ALL U.S. PUBLIC LIBRARIES
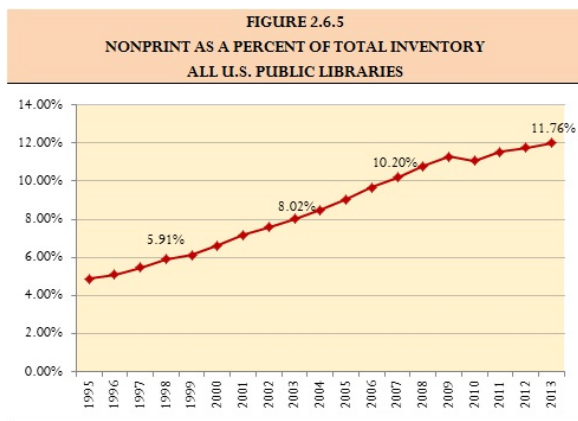
2.6.3   Resource inventory – computers for public use

One way libraries provide access to electronic information resources is by offering computers for public use. This is complemented by access to the library's internal wireless network allowing users to log on with their own wireless and handheld devices. But provision of an inventory of computers for public use has become an essential part of the typical library's menu of services.

The IMLS began gathering this data in 1998, when U.S. libraries reported a total of just over 24,000 computers for public use (see Figure 2.6.6). In 2012, the latest reporting year, that inventory had grown more than ten-fold, to 271,600+.

FIGURE 2.6.6
COMPUTERS FOR PUBLIC USE
ALL U.S. PUBLIC LIBRARIES
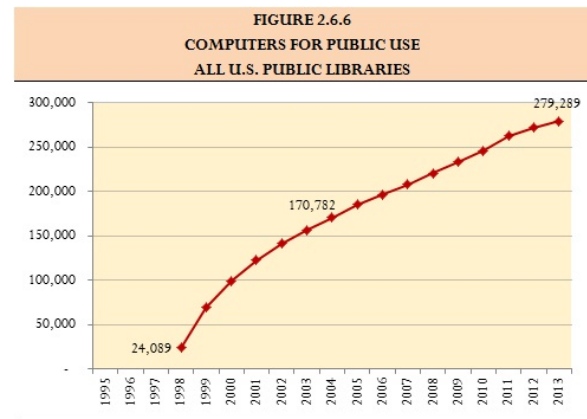
Two important measures of access to these resources compare the number of computers with population served and with the number of annual visitors received at the library. In 1998, the inventory of 24,000+ computers in U.S. libraries represented one computer for every 11,095 people in the country (see Figure 2.6.7). In 2012, the inventory represented one

FIGURE 2.6.7
POPULATION / VISITS PER PUBLIC PC
ALL U.S. PUBLIC LIBRARIES
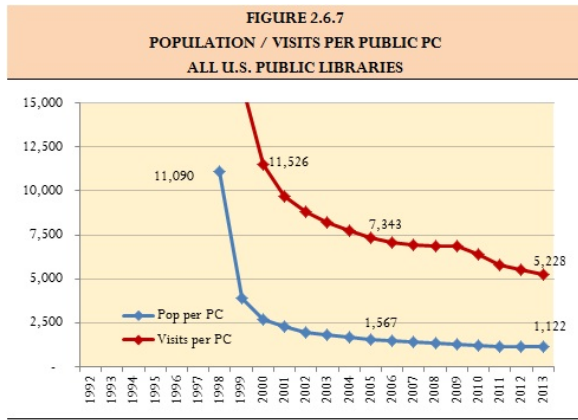
computer for every 1,132 people. In a similar way, it stands to reason that foot traffic into the library impacts the necessary inventory of public-use PCs. In 1998, U.S. public libraries provided one computer for every 40,797 visits. In 2012, U.S. public libraries provided one computer for every 5,517 visits.

2.6.4   Use levels – circulation

Since 1995, combined circulation at U.S. public libraries has increased by 47.5% (see Figure 2.6.8). Total circulation peaked in 2010, at 2.46 billion. In every year since, a modest decrease has been reported (-0.89% in 2011, -0.88% in 2012, and -1.99% in 2013). In 2013, the combined circulation in U.S. public libraries

FIGURE 2.6.8
TOTAL CIRCULATION
ALL U.S. PUBLIC LIBRARIES
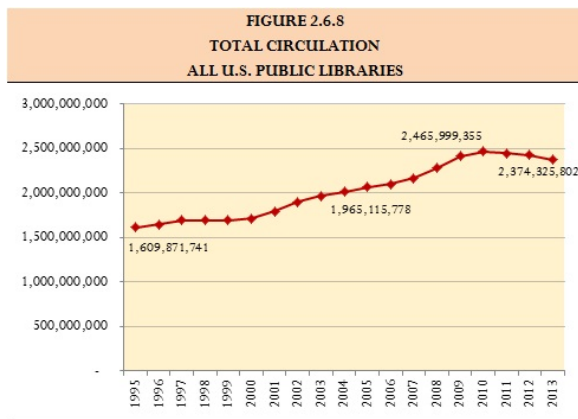
was 2.37 billion transactions.

Circulation per capita provides a different insight into user activity (Figure 2.6.9). In 1995, circulation per capita across all U.S. public libraries was 6.23. By 2010, circulation per capita was reported at 8.01. That circulation *per capita* increased during this period indicates that total circulation grew at a faster rate than overall population growth. Increases in total circulation represented more frequent use by individuals, rather than growth that accrued to population increases. But circulation per capita stayed flat in 2011 and has declined slightly in 2012 and 2013.

FIGURE 2.6.9
CIRCULATION PER CAPITA
ALL U.S. PUBLIC LIBRARIES
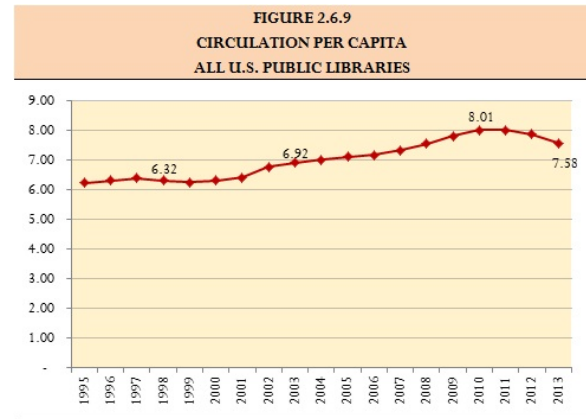
2.6.5   Use levels – annual visits

The last measure examined here is total annual visits in U.S. libraries (see Figure 2.6.10, next page). As with circulation, total annual visits has generally tracked upward from 1995 to 2010, increasing by more than 50%. In 1995, U.S. public libraries received 981 million visits from library users. In 2010, U.S. public libraries reported 1.57+ billion visits. Since, 2010, the total number of visits to U.S. public libraries has tailed off each year, to 1.46 billion in 2013.

FIGURE 2.6.10
TOTAL ANNUAL VISITS
ALL U.S. PUBLIC LIBRARIES
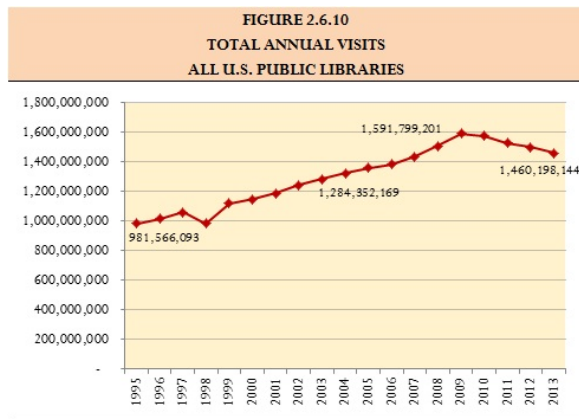
As was the case with circulation, one would expect to see a broad increase in total annual visits to U.S. public libraries, given the fact that total population served has increased. However, as with circulation, visits *per capita* increased from year to year during much of the period since 1995. Visits per capita peaked in 2010, at 5.16, and has declined every year since.
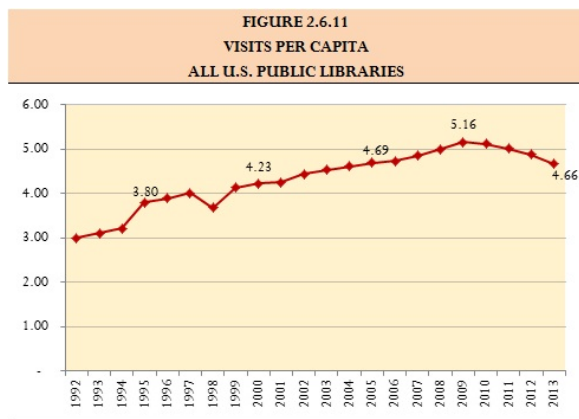
FIGURE 2.6.11
VISITS PER CAPITA
ALL U.S. PUBLIC LIBRARIES

2.7 Comparative benchmarks with peer libraries provide a perspective for assessing library service

A trendline, or peer comparative, analysis is used to define prospective resource and service

inventories for a subject library. As discussed elsewhere in this report, a library's essential resource and service inventories determine its space need. A trendline analysis provides a framework for establishing suitable resource and service inventories on which to base an estimate of the library's space needs.

This examination is based on data submitted to the Institute for Museum and Library Services. The IMLS works in cooperation with the state library agencies across the country to standardize public library annual report forms and reporting procedures. Data from these reports are cumulated at the state level, then assembled into a national database by the IMLS and posted on the web. LPA combines selected elements in the database to create a variety of new data elements (total annual circulation, for example, is combined with population served to calculate circulation per capita for each library in the database). From the full database, LPA draws sample cohorts for closer study. Each cohort is comprised of libraries deemed comparable to the subject library, and the data reported by the libraries in each cohort are examined in an effort to identify service "norms" based on the experience of each cohort.

This analysis is detailed in Appendix C.

For this analysis, three groups of libraries were identified that are more or less homogenous with Wauwatosa. By selecting three cohorts, there is a chance to triangulate the recommendations for Wauwatosa from a blend of perspectives.

One of these cohorts took a state-level perspective, and one took a national perspective. The third split the difference, seeking to define a

regional cohort that extended beyond the boundaries of the state, but not from coast to coast. "Region" was defined as libraries within roughly a 250-mile radius of Wauwatosa. A circle was drawn around Wauwatosa to establish latitude and longitude markers to the north, south, east, and west. These markers were then used to filter the IMLS database, which registers the latitude and longitude of each library in the database.

All three of the cohorts were filtered by population served, creating a group that served at least 40,000 but not more than 70,000. This range bracketed both the current and projected service population for Wauwatosa. The underlying assumption in filtering by population served is that the experience of larger and smaller libraries would have little bearing on the resource and service inventories Wauwatosa should offer.

At the end of the process, the state-based cohort included 18 libraries, the regional cohort 91 libraries, and the national cohort 623 libraries. (It must also be noted that the state level cohort is more limited than the other two, with just 18 individuals included. This falls barely below the minimum number ordinarily recommended in a cohort for this kind of analysis.)

Overall findings:

- **Volumes held:** On balance, the libraries in the regional cohort report the most assertive efforts regarding print inventories; the trendline registers at the highest level with this cohort. The trendline registers at the lowest level with the national cohort. This makes

sense, in that the national cohort includes libraries from parts of the country that don't necessarily enjoy a strong heritage of positive support for library services. The trendline for the state-level cohort falls somewhere in between the regional and national cohorts.

Specifically, the experience of the state level cohort suggests a library serving 49,500 population should offer a collection of 151,000 volumes. The experience of the regional cohort suggests a collection of 172,500 volumes. And the experience of the national cohort suggests a collection of 127,500 volumes.

- **Volumes held per capita:** Another way of looking at print collection inventories is to consider volumes held per capita.

"Gross" measures of service – total volumes held, total audios, total videos – tend to grow as population served increases. Libraries serving larger communities tend to have larger collections (and more circulation, more staffing, and so on). This tendency toward larger collections for larger communities is evident in the previously-discussed metrics. The trendline in each slopes up from left to right, indicating that larger communities tend to be served with larger collection resources. That confirms the obvious.

Per capita measures, by contrast, tend to leaven the impact of larger service populations. As seen in the three examples to the right, there's a less certain relationship between population served and the recommended result. The trendline is flat, or in some cases, represents an inverse relationship. In

fact, as population served increases, total inventories may increase, but inventory maintained *per capita* tends to decrease, because the gross or total holdings grow at a slower rate than population growth. This has to do with the economies of scale involved with serving larger communities.

Against all three cohorts, Wauwatosa's measure of 3.98 volumes held per capita is greater than the "expected" or recommended level of service. Per the state cohort, the library's "expected" result should be 3.00 volumes per capita (which translates to a collection of 148,500 volumes based on a future service population of 49,500). Per the regional cohort, the expected result should be 3.45 volumes per capita (170,775 volumes). Per the national cohort, 2.55 volumes per capita (126,225 volumes).

• **Audio recordings held:** The intercept point for audio recordings based on the state cohort is 13,500 items. Based on the regional cohort, the intercept recommends 14,500 items. Based on the national cohort, the intercept recommends just 8,400 items.

The regional cohort affords the most assertive service perspective, the national the least assertive perspective, with the state falling in the middle.

In 2013, Wauwatosa's collection includes 17,106 audio recordings, which is above the recommended indicators of all three cohorts. By the following year, the most recent reporting period for which data is available, the library maintained a collection of 17,598 audio recordings as of 2014.

In all three cohorts, the delta between the current and the historic trendline is notable. Libraries in all three cohorts have made a substantial effort over the last ten years to expand these inventories in response to local demand.

• **Video recordings held:** The intercept point for video recordings is 14,750 based on the state cohort, 15,500 based on the regional cohort and 10,000 based on the national cohort.

Wauwatosa reports an inventory of 15,930 videos in 2013. By the following year that inventory had grown to 16,135 items. Again, this exceeds the normative recommendations that emerge from the experience of these three cohorts, although the differential on this measure is smaller than the differential for audio recordings.

In comparing the current and historical trendline on this measure, it is plain that libraries in all three cohorts have been very aggressive in developing and expanding video inventories over the last ten years.

• **Nonprint as a percent of total holdings:** This measure provides an alternate way of looking at a library's nonprint collection inventory. Instead of defining how large this collection or that should be, this measure looks at the general balance within and composition of the collection.

A library that reports a lower proportion on this measure would have a traditional, conventional print-centric collection. A library reporting a higher proportion has a more diversified collection.

Wauwatosa reports a ratio of just over 15% – that is, of it's combined inventory, 15% is nonprint, 85% is print.

In the context of the state cohort, Wauwatosa's proportion is slightly below the "expected" ratio based on the experience of the library's in-state peers (the intercept point is 15.9%). In the context of the library's regional peers, Wauwatosa's ratio is slightly higher than is expected (the intercept point is 14.0%). In the context of the library's peers nationwide, the library's result is well above the trendline (the intercept point recommends a ratio of 12.0%).

Perhaps this speaks to the general character of these three cohorts. That the state-level cohort registers the highest trendline indicates that on balance libraries in Wisconsin, for reasons that cannot be determined from this data, emphasize nonprint inventories more so than is the case in other parts of the country.

• **Magazine subscriptions:** Wauwatosa's current magazine inventory of 201 titles is below the trendline recommendation for all three peer cohorts – 285 titles recommended by the state cohort, 416 by the regional cohort, and 249 by the national cohort.

Note that the regional and national cohorts include one or two significant outlier respondents. While the largest magazine collection reported among in-state libraries is 433 titles, the regional cohort reports the largest magazine collection at 11,919 titles, and the national cohort reports the largest magazine collection at 13,531 titles.

Apparently, a handful of libraries captured in those cohorts – maybe only one or two – report significantly larger magazine inventories than is the norm. Possibly those outlier libraries are including e-subscriptions in this tally. As a result the trendline is artificially raised and the intercept point inflated. It might be useful to re-run the regional and national analyses, excepting the outlier responses.

• **Digital resources:** As more and more resources are available electronically, the library's inventory of computer stations for public use becomes an important metric that describes the library's ability to provide access to these critical information resources.

In 2013, the library provided 37 such stations. This places the library below the "expected" level of service based on the experience of the three peer cohorts.

Based on the library's *projected* service population, the experience of the state cohort suggests the Wauwatosa Library should expect to provide 47 computer stations for public use. The experience of the regional cohort suggests an inventory of 53 stations. The experience of the national cohort suggests an inventory of 41 stations.

There is a differential between the historic and current trendlines, an indication that the libraries comprising each of these peer cohorts have been actively increasing this inventory over the past ten years.

• **Visits per PC (technology station):** Another way to look at how an individual library delivers access to e-

content is to consider the number of annual visits per PC or technology station. Presumably, as foot traffic entering the library increases, there will be some corresponding impact on demand for computer stations. The increase may or may not be proportionate to the increase in visits (a 25% increase in visits may not produce *exactly* a 25% increase in demand for e-content access), but there is a reasonable intuitive correlation between these two data elements.

On this measure, a lower result translates into greater access, improved access, to e-content. If there are fewer visits per PC, it means there is less competition for those stations.

The Wauwatosa Library's result from the latest available data set (one station for every 10,900+ visits) is above the trendline against all three cohorts. The state cohort recommends one station for every 6,900 visits. The regional cohort recommends one station for every 6,750 visits. The national cohort recommends one station for every 6,700 visits.

This metric may be used to establish a service inventory recommendation for computer / technology stations by setting a goal regarding the optimum degree of access, projecting the number of visits the library anticipates accommodating, and combining those two factors.

- **Total circulation:** The most common measure of library activity – although not the only measure, or even necessarily the best measure – is circulation: the number of items borrowed for use

outside the library.

Library use as measured by circulation may not factor as directly into a projection of resource and service inventories in the way volumes held or videos held do, this measure does infill an understanding of an individual library's service setting, which in turn can inform a recommendation regarding other service inventories. A library that is very heavily used, for example, may choose a resource inventory regarding collection size that is more assertive than it might otherwise be on the assumption that high use levels will impact the library's ability to meet user needs. High use levels mean that a higher proportion of the collection is not on-shelf which could understandably drive a need for a larger inventory to meet the users' immediate demand.

The Wauwatosa Public Library is used at unusually high levels. In the reporting year, the library tallied 850,000+ transactions. According to the experience of the state cohort, the library should reasonably expect to tally 595,000 transactions. According to the regional cohort, 650,000 transactions. According to the national cohort, just 380,000 transactions.

The high use levels experienced by the Wauwatosa Public Library may contribute to the results observed in some of the initial analyses, above. It may be a factor driving the library's larger-than-expected collection inventories for print, audio, and video.

- **Circulation per item held:** This is an alternate way of looking at a library's use level. More commonly known as the

"turnover rate," it represents how many times, on average each item in the collection is used per year – how many times the collection turns over. A higher result indicates that each item is used more and may suggest that the library is getting more bang for its collection buck. A higher result is not inherently a better result, however. The value of the result depends on the mission and goal of the library. A library that registers a lower result is evidently maintaining a larger inventory, but may be doing so the better to insure material the user needs will be on-shelf and available when the user wants it.

The Wauwatosa Library's result places it above the trendline against all three cohorts, indicating that the library's collection may be characterized as more of a "better bang for the collection buck" inventory. This is impressive, given that the library's overall inventory is larger than would be expected, given the experience of these three peer groups. The result on circulation per item held also reflects on just how extraordinary the library's use levels are.

In the reporting year, each item in the library's collection circulated 3.90 times, while the targeted rate based on the state cohort was 3.25 times, or 3.20 times based on the regional cohort, or 2.52 times based on the national cohort.

• **Total annual visits:** Total annual visits is another useful measure of activity levels at a library. As noted previously, an individual library's trends over time regarding this measure can be used in conjunction with other metrics to fashion a recommendation for how many technology stations the library should plan on offering.

(A similar correlation exists between the number of visits per year a library experiences and other inventory-related measures. Just as it is intuitive that an increase in foot traffic should drive an increase in the inventory of technology stations, an increase in foot traffic also drives an increase in the inventory for collection holdings – print, audio, and video holdings. Any impact regarding technology stations is more significant because the existing inventory of public PC stations is usually tallied in dozens or scores while collection inventories are tallied in thousands and tens of thousands.)

As was seen in the case of total circulation, total annual visits indicate the Wauwatosa Library is an exceptionally busy place. In the reporting year, the library recorded 406,000+ visits, while the experience of the state cohort suggests a "normal" level of activity would be 295,000 visits, the regional cohort suggests 320,000 visits, and the national cohort suggests 235,000 visits.

The library's comparatively high level of total annual visits may be a factor driving it's higher-than-expected collection inventory. It will likely drive a need to expand its inventory of computer / technology stations for public use, looking forward. Certainly, this high level of use inflates the library's result, discussed previously, regarding the metric visits per computer station.

• **Programming metrics:** It is

acknowledged that the number of programs a library offers per year is conditioned by the number of meeting and programming rooms the library has in the present building, the combined audience capacity of the room(s), and the quality of the space in those rooms. Still, the number of programs a library sponsors per year is an indicator of how much emphasis the library places on these activities. Note that measures of programming activity levels reported to the IMLS include library-sponsored programs only, and does *not* include other community-sponsored meetings and events that may be held in the library's meeting room(s).

In the latest reporting year, the library sponsored 697 programs, which is slightly above or almost exactly at the intercept point based in comparison with the three peer cohorts.

The total attendance reported for those programs and the resulting metric for program attendance per program sets the library apart.

The library reported combined program attendance at 29,800+, while the state cohorts experience suggests an expected total attendance of 16,500, the regional cohort suggests 21,800, and the national cohort suggests just 6,000.

This translates into the calculation of program attendance per program. Wauwatosa reported an audience of 42.76, on average, per program. The state cohort reports 31.50, the regional cohort reports 30.00, and the national cohort reports 27.00.

This may factor in to the resource and service inventory goal established for meeting and programming space – both the number of meeting spaces to provide and how large each should be in terms of audience capacity.

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3 RECOMMENDED SERVICE GOALS FOR THE WAUWATOSA PUBLIC LIBRARY

This section of the report discusses the recommended service parameters on which an estimate of space need for the Wauwatosa Public Library will be based, discussing recommended service goals regarding each of the eight "types" of library floor space used in LPA's assessment methodology (see Appendix A):
- 3.1 Collections
- 3.2 Computers for public use
- 3.3 Reader seating
- 3.4 Staff work stations
- 3.5 Meeting / program accommodations
- 3.6 Special use functions
- 3.7 Nonassignable functions
- 3.8 Dedicated allowances

3.1 Collections

The library's collection remains the single most significant element to accommodate in the library's building. Collection space can be allocated upon the determination by the board and staff of projected collection development parameters for the library's book collection, nonprint collection, and periodicals collection. Future resource inventory goals for the library's traditional, physical inventories must be conditioned by access to electronic information resources. Such access complements and expands upon access to traditional collection resources.

3.1.1 Books

The key question is simply stated: what kind of inventory does the library need to support? According to the latest annual report to the state library agency the Wauwatosa Library has a collection of 177,700+ volumes – 3.98 volumes per capita.

Peer comparisons

In support of this study, three cohorts of "peer" libraries was examined, with the expectation of identifying service "norms" based on the experience of the groups:
- public libraries in Wisconsin serving 40,000

to 70,000 population
- public libraries in the region serving 40,000 to 70,000 population (defining "region" as within roughly a 250-mile radius of Wauwatosa)
- public libraries nationwide serving 40,000 to 70,000 population

The experience of the state level cohort suggests a library serving 49,500 population (the library's *projected* service population) should offer a collection of 151,000 volumes. The experience of the regional cohort suggests a collection of 172,500 volumes. And the experience of the national cohort suggests a collection of 127,500 volumes.

On its 2013 annual report (which corresponds to the data set used to create these three cohorts), Wauwatosa reports a collection of 186,726 volumes. The library's most recent annual report, from 2014, shows a slightly more modest print inventory of 177,701.

National trends

The trendline analysis represents a snapshot in time. To make a forecast of what the Wauwatosa Library's print collection *should* be to meet future needs, it's important to understand the dynamic of how service patterns are changing in American public libraries.

The trendline analysis provided a clear indication that libraries in the peer cohort have not expanded traditional print collections over the last ten years. The historic trendline in that analysis is almost a direct overlay on the current trendline.

The preceding discussion in Part 2.6 revealed

that over the last few years the aggregate print inventory in U.S. public libraries has been decreasing, and the ratio of volumes held per capita has been in decline since 2003.

The reasons for this decline cannot be discerned from the data at hand. It's easy, however, to speculate that it has to do partly with the impact of digital access to resources. It may also have to do with the introduction of software suites and collection management tools that allow libraries to manage their collections more effectively. A collection of 80,000 today can be managed as if it were a collection of 100,000 from a generation ago.

The question at hand is: how should this broad national trend factor into a decision regarding a projected collection inventory? As noted previously, it's a moving target.

Figure 3.1.1 projects to the year 2040 the recent national decline in volumes held per capita. Using a rolling ten-year average to project the continuing decline in the number of volumes held per capita, this scenario suggests that the aggregate number of volumes per capita held in U.S. public libraries could decline to 1.51. This represents a decrease of 38.2% from

FIGURE 3.1.1
U.S PUBLIC LIBRARIES
VOLUMES HELD PER CAPITA (PROJECTED)
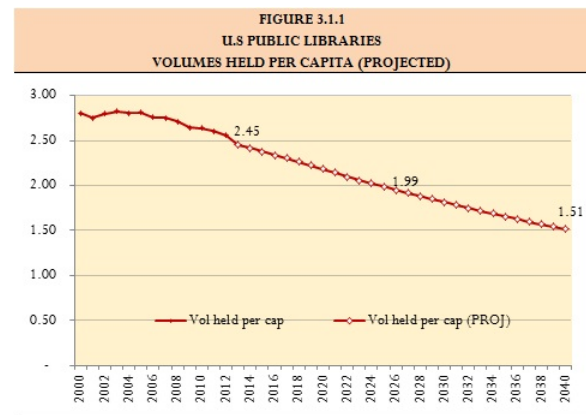
the current (year 2013) ratio of 2.45.

Of course, this figure is a national average. Smaller libraries will tend to have more volumes per capita, while larger libraries will tend to hold fewer volumes per capita (economies of scale in providing service to a larger community). Still, the projection suggests that a library's rate of holdings per capita may decline by as much as 40% over time.

Discussion

While Wauwatosa's present print inventory is larger than would be expected in comparison with any of three peer cohorts studied, evidence also suggests that higher-circulating libraries tend to have to have larger collections. As a starting point, then, we might operate from an understanding that high demand at the Wauwatosa Public Library does indeed drive a need for a larger collection.

The library's current inventory is 13% larger than the inventory recommended by the regional peer cohort for a library serving 46,800 population. If a similar ratio is applied to the recommended print inventory (172,500) based on the library's *projected* population (49,500), it produces an initial recommendation for a print inventory of 195,000 volumes – 3.94 volumes per capita (see Figure 3.1.2).

As noted previously, trendline analyses for print inventories reveal that scross all cohorts, the historical trendline is above the current trendine, indicating that libraries in each peer cohort have decreased print inventories over the last ten year. Moreover, the discussion in Part 2.6 shows that, nationally, the number of volumes held per capita in U.S. public libraries

TRENDLINE ANALYSIS
METRIC: Volumes held
COHORT: Regional libraries / 40,000 to 70,000 pop
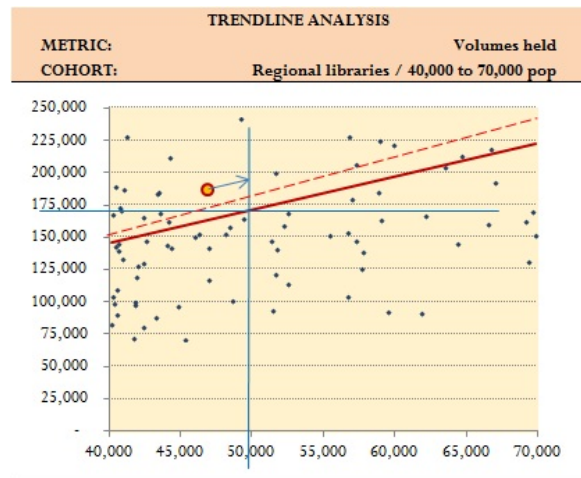
peaked in 2003 and has been in decline ever since.

Assuming these trends continue, it is reasonable to expect that the benchmark arising from a future trendline analysis (corresponding with the library's *future* service need) would show a more moderate result. Per the discussion in Part 2.6, the rate of decline could reduce the national tally of volumes held per capita by up to 40%. The question is to what degree should the estimate be tempered:

- If the library's rate of holdings per capita decreases by a full 40%, the resulting recommendation would be 2.36 volumes per capita (3.94 x 60%), or 117,000 volumes
- If the rate of holdings per capita decreases by 30%, the result is 2.76 volumes per capita, or 136,500 volumes
- If the rate decreases by 20%, the result is 3.15 volumes per capita – 156,000 volumes
- If the rate decreases by 10%, the result is 3.55 volumes per capita – 175,500 volumes

Following considerable discussion with managers, and recognizing that any forecasts regarding these future trends must acknowledge a measure of uncertainty, the library's management team determined that a reduction of 15% in the recommended rate of volumes held per capita was the best way to balance the apparent decrease in collection inventory against the uncertainties of the future.

A 15% reduction from 3.94 volumes per capita results in a rate of 3.35 volumes per capita – 165,750 volumes.

3.1.2   Nonprint collections

A similar discussion can be undertaken with regard to nonprint holdings. Wauwatosa supports 17,500+ audio recordings and 16,100+ video recordings – 33,600+ nonprint items in all.

Peer comparisons

Wauwatosa's nonprint inventory is slightly higher than the "expected" inventory recommended by the experience of the state and regional cohorts (28,250 and 30,000, respectively), but substantially higher than the recommendation emerging from the national cohort (18,400 audio + video holdings). In comparison with print collections, the distance between Wauwatosa's result and the trendline in the state and regional cohort is not as great as it presents with regard to print holdings. The library's nonprint inventory is larger than expected, but not by as much.

As a percent of total holdings, nonprint inventories represent 15.95% of total holdings at Wauwatosa. The experience of the state cohort

suggests a ratio of 15.9%, the regional cohort suggests 14.0%, and the national cohort suggests 12.0%. By this measure, the relative balance within WPL's inventory appears to be mostly on the mark, perhaps leaning slightly in favor of nonprint holdings.

All three of the cohorts show an increase in inventory for both audio and video recordings over the last ten years. Nonprint as a percent of total holdings has also increased across all cohorts over the last ten years. This consistent differential between the historic and current trend lines suggests that a future resource and service inventory goal for Wauwatosa could be established at a *higher* level than is expressed in the "expected" service level emerging from these analyses.

National trends

On the other hand, the national trends summary in Part 2.6 offers some inklings that nonprint holdings may be on the cusp of turning toward the kind of decline that has been evident in the nationwide print inventory for 10+ years. But any turn in nonprint inventories is more hinted at than evident. It will be 2-3 years yet before a trend becomes apparent. Still, many libraries are starting to witness the same trends seen in the community at large, a shift toward a new means of delivery and consumption of audio and video programming – downloadable and streaming sources. Although the exact impact of these delivery methods remains uncertain, it does suggest that libraries might take a less assertive stance toward nonprint inventories than would have been the case five or so years ago.

Discussion

As was the case with print holdings, a more moderate approach to collection forecasts is appropriate for nonprint holdings.

In this case, that more moderate approach toward nonprint inventories can be expressed by *not* making any adjustment to the service recommendation that emerges from these trendline analyses. We can note that within the regional cohort, nonprint as a percent of total holdings has increased from about 10% ten years ago to about 15% today. Ten years ago, such a progression would have likely been motivated to establish a resource inventory by establishing the ratio of nonprint inventory at some higher level, anticipating that the nonprint collection will continue to grow at a faster rate than the print collection.

Today, a pending shift in nonprint acquisition patters can be acknowledged by establishing a nonprint resource inventory goal that does *not* reflect the pattern observed over the last ten years toward larger nonprint holdings. Instead, a nonprint inventory goal equal to 15% of the library's combined collection inventory is recommended. This ratio is slightly below the library's current balance between print and nonprint holdings.

Given the preceding discussion establishing a print inventory goal of 165,750, the corresponding nonprint inventory goal is 29,250 items. (If the print collection of 165,750 represents 85% of the total collection – 100% minus 15% – then the total inventory is 195,000 items, and the nonprint inventory is 29,250 items – 195,000 minus 165,750.)

3.1.3 Magazines and newspapers

The last collection component to consider is magazines. These days magazines represent a smaller and smaller sliver of the typical library's collection inventory and space needs. Nonetheless, in terms of space use, think of magazines in two conditions – current issues and back issues.

Over the last 20 to 30 years, the subscription list at the typical public library has undergone tremendous change. Of all the parts of the library's collection, print magazines have experienced the most dramatic change owing to the digitization of this literature. Overall inventories have been in steady decline, and libraries are maintaining shorter and shorter runs of back issues.

If a user is looking for a specific article in a specific issue, or using magazine literature to research a specific topic, that exchange today almost certainly occurs in a digital environment. A digital index points the user to a full-text electronic version of the article. As a result, the character of the typical magazine collection in the typical public library has shifted almost exclusively to a casual-use, browsing sort.

According to the latest annual report to the state library, the Wauwatossa Library maintains a subscription list of 200 titles.

Peer comparisons

According to the experience of the library's In-state peers, Wauwatosa should maintain a subscription list of 285 magazine and newspaper titles. According to the experience of its regional peers, the library should maintain 416 subscriptions. And according to the experience of its national peer cohort, the library should

maintain 249 titles.

Note the reduction in the trendline between the historic and current trendlines. This is one of the few metrics that reveals a notable decline over the last ten years

National trends

Total magazine holdings in U.S. libraries peaked in 2001and have been in steady decline ever since. The current combined inventory represents a reduction of almost 25% from the peak.

Discussion

For most public libraries today, magazines usually project as a status quo, no-growth collection. For the Wauwatosa Library, this suggests a projected inventory of 200 titles.

A companion consideration that must be considered with regard to magazines and newspapers is the length of the back run supported. Most libraries today maintain a backrun of, at most, two years, and more and more are keeping only one year. There may be the occasional excpetion – *National Geographic* often proves remarkably durable, but on balance most libraries maintain a very modest back run.

For Wauwatosa, a subscription list target of 200 titles is established, accompanied by a one-year back run.

3.2 Technology space

With the ongoing migration of resources from traditional to electronic forms, a service and space needs assessment must factor in the space required to access resources in electronic forms. Within the library's physical setting, that access is supported by way of computer network stations made available for the public to use. Over the course of a couple decades, the inventory of computer network stations for public use has become a key element in the library's overall service inventory determining its space needs.

The impetus to expand this inventory has been keenly felt in nearly every library nationwide. This is evident in the peer comparative analyses and delta between the current-year trendline and the historic trendline, indicating how rapidly this inventory has grown in just a few years.

At the same time, questions are emerging as to whether the rate of expansion experienced over the last several years will be sustained – or even whether it will *need* to be sustained. More and more library users are bringing their own Internet enabled devices – laptops, tablets, smart phones – to the library and accessing e-content via the library's wireless network.

The library will still need to provide equipment for public use and that equipment will need to be supported with space in a physical setting. These stations will be used by individuals who don't have access to technology in their home or office (whether by choice or by economic need). They will be used by individuals who have the technology but lack a high-speed connection to the Web. They will be used by individuals who have possession of a handheld or portable device but who prefer to use the large-scale screen and keyboard of a traditional computer over the smaller screen and more crowded keyboard found on many portable devices. Some of the stations provided by the library will be outfitted with a scanner or a 3D printer or some other input/output device that a

user needs to access. Some of the stations provided by the library will support specialized software suites that individual residents or families don't have or cannot afford – higher-end video editing software, for example, as well as other content-creation software.

OR more and more of the technology stations provided by the library may not offer technology per se (that is, equipment). Instead, in response to the growing trend of users bringing their own devices to the library, some technology stations may simply provide a work area that's conducive to network connections. A "traditional" technology station has assumed a desktop computer or its equivalent – in the future, that conventional configuration will become less common.

So there will be a continuing need for technology stations, but the character of those stations will evolve.

Peer comparisons

The peer comparative analysis of IMLS data can provide guidance regarding the number of computer network stations the library should provide. According to the latest annual report to the state library agency, Wauwatosa Public Library provides 34 computers for public use. According to the experience of the library's peer cohorts, Wauwatosa should develop an inventory of 47 stations per the state cohort, 53 per its regional cohort, and 41 per its national cohort.

Note here the volatility of this measure over time. The historic trendline is notably lower than the current trendline. Obviously, libraries have been diligently expanding this resource over the last ten years.

National trends

The expansion of this resource is borne out by an examination of aggregate national data. From 1998, when the IMLS first gathered data regarding the number of public use computers in U.S. public libraries, the aggregate inventory has grown more than ten-fold.

Looking at this another way, the number of residents served per PC has dropped from 11,000+ in 1998, to 1,500+ in 2005 and 1,100+ in 2013. This can be taken as a measure of access to e-content. The lower this ratio, the less competition there is for access among prospective users.

Another useful measure to check is the number of visits per PC provided by the library. There is an inherent connection between foot traffic through the library and the number of PCs the library should provide. A library with more foot traffic entering the building is likely to experience greater demand for access to e-content. Of course, a library with more foot traffic is also likely to experience more demand for traditional collections, reader seating, and so on.

According to data reported to the IMLS, U.S. public libraries provide one public computer for roughly every 5,000 visits.

Discussion

It was the sense of the library's management team that the current inventory of computer stations for public use meets the needs of the community. There are few times when all of the internet stations are occupied, especially in light of the fact that more and more individuals are coming to the library with their own devices. A more effective strategy for delivering e-access

would be to ensure that most, if not all, of the reader seats has easy access to power and data.

With that in mind, the recommended inventory for technology stations is 44 – corresponding to 34 computer stations for public use plus 10 OPACs (noting that over time, the distribution between technology stations and OPACs may shift to meet evolving needs).

3.3 Reader seating

In the literature on public library space planning, there are several formulas for assessing the number of reader seats a library should provide. Most take the form of a sliding scale of X seats per 1,000 population. The larger the population, the lower the value of X becomes – economies of scale and all that.

Over the years, LPA has developed a "Grand Unified Theory" of public library seating, an effort to meld the various recommendations found in the literature into a single, unified equation.

In the case of Wauwatosa, that formula recommends a seating inventory of 152 seats to serve the library's present-day population, and 158 seats to serve a population of 49,500 (3.18 seats per 1,000 population). As a point of comparison, there are presently about 167 general purpose reader seats at the Wauwatosa Library – 50 in children's and 117 in adult. This translates to 3.55 per population based on the service population reported in the library's latest annual report.

Possibly this higher-than-anticipated current seating inventory responds to the library's higher-than-expected level of annual visits. The higher level of traffic in and out of the building

may be driving this additional seating inventory.

Be aware that "reader seating," in the context of this discussion, tallies only open, general-purpose reader seats. In real life, there are other places to sit down in the typical library:
- Public computer stations have been discussed previously, and many of these will be provided in a sit-down environment. From LPA's perspective, these seats are considered "special purpose" or "dedicated" seats – when the user sits there, he or she is engaged in a particular task, in this case using a computer.
- Many libraries provide small group study spaces. Again, the seats in such rooms are provided with the intent to support a specific activity and so don't count toward the inventory of general, open reader seating.

Discussion

Wauwatosa presently maintains a seating inventory that is somewhat greater than would customarily be expected – 3.55 seats per 1,000 population versus 3.18 seats per 1,000 population. On the assumption that the variance in seating inventory accrues to Wauwatosa's unusually high level of foot traffic in and out of the building and that the trend toward high traffic will continue in an expanded or improved facility, an initial recommendation for *future* seating can be based on the current ratio. Applying that current ratio to the library's projected service population produces a seating inventory of 176 seats.

As more detailed facilities planning ensues, this benchmark should be re-examined and adjusted as may be needed. Seating should be provided in a variety of settings to meet the

variety of individual user needs. Prefer seating that can be easily configured by users into individual or group settings.

3.4 Staff work stations

Forecasting the number of staff work stations a library needs is often a challenging topic, for multiple reasons:
- By the time a library gets around to exploring future space needs, staff is typically operating out of inadequate conditions. A library tends to reserve its space for the public it serves, doing with less for staff. So the current distribution does not necessarily afford a meaningful baseline for future comparison.
- The unit of measurement for staff work stations does NOT correspond directly to FTEs. There is a rough correspondence – a library with a large staff will likely need more staff work stations than a smaller library will – but one really needs to determine the number of stations or places where staff will be needed to perform a certain task or operation. Some stations will be dedicated to a specific task or a specific individual while others may be shared by several staff during the course of a work week. Many those spaces are likely to take the form of a desk or a Dilbert cube, but not all. One must quantify how many places will be needed in all.
- Work patterns are changing. For example, most libraries have moved or are moving toward a self-service circulation model, so the number and configuration of work places needed in support of the circulation function is changing.

An inventory of staff work spaces typically

starts with the library's expected public service points – places designed for staff to engage with users. The library presently offers the following public service points, which can perhaps serve as a starting point for Wauwatosa's list:
- three charging stations at circ
- a desk to accommodate two in adult
- a desk to accommodate one in children's

Library staff is encouraged to consider a different form for these public service points, a different kind of physical profile. The image above shows the public service desk used throughout the public library in Gothenberg, Sweden. The station is compact and approachable, not monumental. The desk can be raised and lowered to operate in a standing height for interactions with adults, or at a sit-

down height for interactions with children or ADA access. The desk is on casters so it can be moved around to respond to changing service needs. Most importantly, it can be placed on the floor in a way that defines the formality of a "staff" side and "patron" side, but it can also be configured in such a way that we can work with our public on the same side of the desk – something we need to do more and more as staff and users look at the same screen at the same time.

As planning proceeds into more detailed architectural studies, staff is encouraged to consider whether a desk / kiosk like this might offer an appropriate model for the public service point in Wauwatosa.

In the current configuration, the library's three primary public service departments are supported by back-of-house / workroom space. In a circulation department, a task-to-station relationship often comes into play. In the adult and children's department, it is often convenient to quantify workroom spaces according to an algorithm that allots a designated work station for each full-time worker, and one station for every two part-time workers. Full-time staff in those departments have a dedicated work station, part-time staff share a station. (Note that some libraries choose a different approach – instead "hoteling" staff in unassigned work spaces.) Often, department managers, who have supervisory responsibilities, are assigned enclosed offices while other staff work at desks, counters and/or office cubes.

The following workroom stations may be considered for circ, adult, and children's:
  • head of circ
  • 2 general clerical support
  • 2 check-in stations
  • 1 sorting station

  • 1 station for volunteers
  • head of adult
  • 2 stations for current full-time staff
  • 2 stations for current part-time staff (four PT staff = 2 stations @ 2 staff per)
  • add 1-2 for possible future growth
  • 1 station for volunteers
  • head of children's
  • 2 stations for current full-time staff
  • 1 station for current part-time staff
  • add 1-2 for possible future growth (possibly only one, as there's a bit of growth room in the single station for part-time – that station can support an additional, second part-timer)
  • 1 station for volunteers

The following stations are recommended for administration:
  • director's office
  • assistant director's office
  • administrative assistant
  • graphic artist
  • maintenance – the current assumption is that day-to-day maintenance will continue to be done by city staff and that they will likely need at least on station where they can coordinate in-building activities and complete necessary record-keeping; if other strategies develop for maintenance, the number of work stations may need to be reconsidered
  • 2 stations for IT + networking – although the library presently has no dedicated staff for network services, the expectation here is that up to two stations should be provided for diagnostic and repair functions, where projects can be supported as needed

And the following stations are recommended for technical services:
  • 1 station for processing

- 1 station for processing / repair
- 1 station for RFID tagging
- 2 stations for cataloging, general clerical

In all, a total of 39 staff work stations are tallied here. Note that the present inventory of staff work stations is modeled closely on current operations and protocols. As more detailed planning ensues and architectural plans are developed, staff and board are encouraged to continue to evaluate the needs expressed here and adjust this inventory as may be needed. If the library decides to emphasize self-service circulation protocols, it may affect this inventory. If the library shifts from a contractual service for network support to an internal staff protocol, it will impact this inventory. But as a starting point for this ongoing discussion, the current disposition of staff work stations serves as suitable foundation.

3.5 Meeting & programming space

Meeting facilities come in several varieties. Each library will choose for itself which kinds of meeting facility it will provide, how many, and how large an audience each will support.

An **auditorium** is a formal presentation / performance space. It has a sloping, or raked, floor, probably a fixed stage, probably fixed seats. Often an auditorium is used to accommodate larger audiences, the better to support sight lines.

A **multi-purpose room** is the most common variety of public library meeting space. It has a flat floor, move-able chairs. If it's large enough, it will be divisible with a de-mountable partition. The audience capacity of a multi-purpose room will start to max out around 250 – beyond that, it becomes more and more difficult

for people in the back to see what's going on up front.

A **conference room** (which often also serves as a board room) will be organized around a long conference table, or around a group of smaller tables that can be reconfigured as needed. The maximum capacity for this kind of function usually ranges between 24 and 30. At the library's option, additional space may accommodate seating for a gallery.

A **storytime room** is a dedicated space within the children's department for the department's week-in, week-out programs and activities. Most libraries will scale a children's programming room to meet the needs of *most* events, using the library's main meeting room for the seasonal, blow-out, mega-events.

A library that runs a strong schedule of teen activities might evaluate providing a separate, dedicated teen program space for those events.

A **computer training lab** falls into a grey area between a program / meeting space and technology space. It's a grey area in part because many times a library that provides this kind of space will also want to have the equipment available for general use when a training session is not in process. So are the PCs in a room like this tallied toward the overall inventory of public PCs, or are they tallied over and above the general use PCs?

For Wauwatosa, the wild card in any discussion of meeting and programming space is the disposition of the municipal "auditorium" near the entry to the present library / city hall complex. The term "auditorium" is in quotes because as described above, the space is technically not an auditorium, but it is a large room (seating up to 300) and the library has

access to it for its largest-scale programs. For now, it's unclear what the disposition of this room might be in the context of a public-private redevelopment of the library's present site. But if the municipality plans to relocate that feature to a new municipal building at a new location, the library will lose access to a key venue for its own activities.

For purposes of this discussion, the decision is to opt in favor of including an allowance for a large meeting space to seat up to 300 *within* the library. If, as plans continue to develop, a comparable meeting space evolves and the library has access to it, then the separate space within the library may be discounted. As plans continue to evolve, consideration should be given as to whether this large meeting space should be developed as a multi-purpose room space or a formal auditorium space.

Given that the library's present programming schedule needs, both a large meeting space (the municipal auditorium) and a smaller space (the current Firefly Room), a second, smaller multi-purpose room is recommended here, this one to seat 120.

Both of these multi-purpose rooms should be divisible into two or three smaller spaces by way of a de-mountable partition in order to support concurrent activities. Note that any de-mountable partition must deliver the highest possible degree of acoustical separation between the smaller, subdivided spaces.

Both multi-purpose rooms should also have access to a catering kitchen.

A dedicated storytime space should be part of the mix as well. Routine storytimes at Wauwatosa can host an audience of up to 100, including the children and their respective

entourages (caregivers, sibs, etc.), presently crowded into an existing space that cannot reasonably support that capacity. That current experience might serve as a marker for the audience capacity of a storytime room in a new facility for Wauwatosa. A storytime room to seat 100 is recommended.

Two conference rooms to seat 16 each should be provided. One of these can and should be dedicated as a board room, but will also be available for other staff meetings when not being used by the board, and may be used by the general public as well.

Library managers expressed a strong interest in providing a formal training / classroom space, noting the library's role in supporting continuing education in the community. This space might support library-sponsored, classes, or classes sponsored by other local educational institutions. It should be outfitted with laptops that can be brought out for computer / software training sessions. When not in use for a sponsored training session, the stations in this room will be available for use by the public, either with a laptop supplied by the library or using the individual's own device. A capacity of 30 is recommended here.

The following meeting spaces are recommended here for the Wauwatosa Public Library:
- a large multi-purpose room to seat 300
- a second multi-purpose room to seat 120
- a storytime room to seat 100
- a board room to seat 16
- a second conference room to seat 16
- a classroom / training room to seat 30

3.6 Special use space

Special use space includes allocations for activities and services that may include a copying center, a maker space, small group study rooms, a public refreshment area, a staff lounge, and so on. A formulaic allowance will be made to accommodate special use space.

3.7 Nonassignable space

Nonassignable space refers to spaces needed to support the operation of the building but that cannot be applied or assigned directly to library purposes. Examples include mechanical rooms, restrooms, mechanical chases, elevator shafts and stairwells, even wall thicknesses and column footprints. A formulaic allowance will be made to accommodate nonassignable space.

3.8 Dedicated allowances

Dedicated allowances are line-item set-asides that reserve space for functions or features that are unusual or atypical and therefore not sufficiently accommodated among the first four

types of space, OR space for special functions or features that the library wishes to highlight as a means of insuring these features will be lodged in the collective thinking of local planners.

An example of the first instance might be a bookmobile garage. Because fewer than 10% of the libraries in the U.S. operate a bookmobile, this feature is unlikely to be accommodated in the space needs calculations made in this methodology.

An example of the second instance might be an Automated Materials Handling machine (AMH) – at the option of local planners, a dedicated allowance could be made at this early stage of planning simply to record the notion that an AMH should be incorporated into subsequent planning.

In discussion with library managers and trustees at Wauwatosa, four such elements were identified, including allowances for:
- the library's art reproduction lending collection
- an exhibition gallery
- small group study rooms
- the student commons

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4 LONG-TERM SPACE NEEDS FOR THE WAUWATOSA PUBLIC LIBRARY

Having identified suitable essential resource and service inventory goals for the Wauwatosa Public Library in the preceding section of the report, this section will define the library's long-term space need using the methodology detailed in Appendix A. This section will also examine strategic issues that emerge from that definition of space need.

4.1 Long-term space needs

Based on the resource and service inventory goals outlined previously, an estimate of the library's long-term space needs can be made. If, after review by library staff and trustees, the resource and service inventory goals are adjusted, the recommended space needs will likely change as well. The application of LPA's recommended space needs assessment methodology is reproduced at the end of this section.

To house a book collection of 165,750 volumes will require 14,918 square feet of floor space at 10.0 volumes per square foot, 12,972 square feet of floor space at 11.5 volumes per square foot, and 11,475 square feet of floor space at 13.0 volumes per square foot. This calculation factors in an allowance that, on average, 10% of the libraries collection will be in circulation and off-shelf at any given time.

The nonprint collection will require 2,925, 2,340, or 1,950 square feet at 10.0 items per square foot, 12.5 or 15.0, respectively.

Periodical display will require 200 square feet while back files will require 100 square feet.

Public network computer stations require 2,200, 1,760 or 1,540 square feet at 50.0 square feet per terminal, 40.0, or 35.0, respectively.

Reader seating will require 6,160, 5,720 or 5,280 square feet at 35.0 square feet per seat, 32.5, or 30.0, respectively.

Staff work space will require 5,850 square feet in an optimum setting, 5,363 square feet in a moderate setting, and 4,875 square feet in a minimum setting.

Meeting space allocations include 3,300 square feet for the large multi-purpose room (including 300 square feet for a performance / speakers space); 1,320 square feet for the small multi-purpose room (including 120 square feet for a performance / speakers area); 580 square feet for a conference / board room; 480 square feet for the second conference room; 550 square feet for the classroom; and 1,600 square feet for

the children's storytime room.

Space allocations for special use and nonassignable functions will vary depending on how aggressive or generous planners elect to be in the design allowance for an expanded building.

Additional dedicated allowances are made for the library's art lending collection, the gallery, small group study rooms, and the student commons. As the library engages in more detailed planning, the specific allocations for these functions may be adjusted – for now, the inclusion of these dedicated allowances is partially thematic, intended to highlight the importance of these features.

Given these variables, the figure on the following page summarizes space needs that range from an optimum allocation of 84,465 square feet (if, at every opportunity, the optimum unit space allowance were applied) to a moderate allocation of 70,071 square feet (applying a moderate unit space allowance across the board) to a minimum allocation of 59,517 square feet.

Still, while it's wholly accurate to say that based on the resource inventory goals described here, the library's space needs are between ABC square feet and XYZ square feet, the range from high to low is substantial. Greater specificity will foster clearer decision-making.

Based on the consultant's experience and the general scale of the service parameters defined for the Wauwatosa Public Library, the board and staff are encouraged to consider the following specific allocations for planning purposes:
* an optimum allocation for the book

collection reserves the option to provide a patron-friendly environment in the stacks with 42" aisles and possibly wider, at least in some areas, reachable shelving that is no more than 72" tall, and also acknowledges the library's interest in providing marketing display opportunities to promote use of the libraries collections.
* an optimum allocation for the nonprint collection extends similar considerations
* a moderate allocation for public computer network stations acknowledges the ability to achieve some efficiencies of layout, given the number of stations recommended
* a moderate allocation for reader seating reserves the option of deploying a portion of the proposed reader seating inventory with a larger, more generous work surface to support library users who wish to bring their own Internet connected devices for use in the library
* a moderate allocation for staff work stations anticipates the benefit of some economies of scale in the layout of these spaces, given the number of work stations forecast here
* a moderate allocation for special use space reserves an option to include a range of associated special use functions within a new building.
* a low allocation for nonassignable space assumes that the larger scale of the building combined with the prospect of new construction will allow a design to achieve maximum efficiency in layout, which translates into a minimum share of the gross area reserved for nonassignable purposes

FIGURE 4.1.1
WAUWATOSA PUBLIC LIBRARY SPACE NEEDS ESTIMATE

		Units	SPACE ALLOCATION			
			Optimal	Moderate	Low	Recommend
A.	Collection space					
	Books (NOTE: 10% in circulation)					
	Opt: @ 10.0 vol / sq.ft.	165,750	14,918			14,918
	Mod: @ 11.5 vol / sq.ft.	165,750		12,972		
	Low: @ 13.0 vol / sq.ft.	165,750			11,475	
	Nonprint					
	Opt: @ 10.0 items / sq.ft.	29,250	2,925			2,925
	Mod: @ 12.5 items / sq.ft.	29,250		2,340		
	Low: @ 15.0 items / sq.ft.	29,250			1,950	
	Periodical display					
	@ 1.0 titles per sq.ft.	200	200	200	200	200
	Periodical backfiles					
	@ 0.5 sq.ft. / title per 1.0 yrs retained	200	100	100	100	100
B.	Public network stations					
	Opt: @ 50.0 sq.ft. / terminal	44	2,200			
	Mod: @ 40.0 sq.ft. / terminal	44		1,760		1,760
	Low: @ 35.0 sq.ft. / terminal	44			1,540	
C.	Reader seating space					
	Opt: @ 35.0 sq.ft. / seat	176	6,160			
	Mod: @ 32.5 sq.ft. / seat	176		5,720		5,720
	Low: @ 30.0 sq.ft. / seat	176			5,280	
D.	Staff work space					
	Opt: @ 150.0 sq.ft. / station	39	5,850			
	Mod: @ 137.5 sq.ft. / station	39		5,363		5,363
	Low: @ 125.0 sq.ft. / station	39			4,875	
E.	Meeting room space					
	Multi-purpose room 1					
	@ 10.0 sq.ft. per seat + speakers area	300	3,300	3,300	3,300	3,300
	Multi-purpose room 2					
	@ 10.0 sq.ft. per seat + speakers area	120	1,320	1,320	1,320	1,320
	Conference / board room					
	@ 30.0 sq.ft. per seat + 10 gallery	16	580	580	580	580
	Conference room 2					
	@ 30.0 sq.ft. per seat	16	480	480	480	480
	Children's multi-purpose room					
	@ 15.0 sq.ft. per seat + presenter	100	1,600	1,600	1,600	1,600
	Classroom & technical training room					
	@ 25.0 sq.ft. per seat + instructor	30	550	550	550	550
	SUBTOTAL (A+B+C+D+E)		40,183	36,284	33,250	38,815
F.	Special use space (calculated against SUBTOTAL)					
	Opt: @ 17.5% of gross building area		14,694			
	Mod: @ 15.0% of gross building area			10,436		10,126
	Low: @ 12.5% of gross building area				7,377	
G.	Nonassignable space (calculated against SUBTOTAL)					
	Opt: @ 32.5% of gross building area		26,119			
	Mod: @ 30.0% of gross building area			19,791		
	Low: @ 27.5% of gross building area				15,240	18,564
H.	Dedicated allowances					
	Art lending collection		500	500	500	500
	Gallery / exhibition		1,000	1,000	1,000	1,000
	Small group study rooms		1,600	1,600	1,600	1,600
	Student commons		1,000	1,000	1,000	1,000
	GROSS BUILDING AREA		84,465	70,071	59,517	71,604

As shown in preceding figure, these assumptions produce a recommended estimate of the long-term space need for the Wauwatosa Library of 71,604 square feet.

Reflecting the fact that until architectural planning begins in earnest, such figures represent at best a broad estimate, a fairer expression of the library's long-term is space need is rounded to 71,600 square feet. The other, more specific figure – 71,604 square feet – infers a level of accuracy not present in these forecasts.

4.2 Strategic planning considerations

Definition of the library's long-term space needs allows for an informed examination of alternatives to meet those needs.

4.2.1   Review / affirm recommended resource and service inventory goals

The immediate task facing Wauwatosa Public Library's board and management team is to review and affirm (or adjust) the resource and service inventory goals recommended in Part 3.

The menu of goals recommended here represents one take on the blend of services and resources the library should expect to house in order to meet the long-term needs of its community. The discussion intends to outline the factors local planners should take into account in consideration of those goals. The space needs assessment methodology is applied against this set of goals as a means of illustrating the critical connection between a library's service goals and its space needs. At the very least, the recommendations are meant as a starting point in a larger, longer internal dialog.

The specific recommendations offered in Part

3, however, are not the *only* reasonable selection of goals the library could adopt to meet the community's future library service needs. So it becomes the first imperative that board and staff reflect on this discussion, and adopt or adapt the recommended menus of services as appropriate.

To the extent that board and staff may elect to change or edit these recommendations, Library Planning Associates, Inc. is ready to prepare a revised estimate of space needs based on the revised resource and service inventory goals.

4.2.2   Architect selection

The library board may wish to engage an architect to assist with the strategic planning issues discussed in the following pages. These issues involve critical factors that will shape the design of any future library space, and an architect's counsel would provide valuable support to the board's decision-making.

Many guides are available that outline a sound process for architect selection. Most often, a process known as comparative selection is used. In broad terms, comparative selection is similar to the process a library employs to fill staff positions, from the director on down: the commission is advertised (usually through an RFQ – Request for Qualifications), architects submit a statement of qualifications, which the board (or a selection committee) reviews to determine a short list. The short-listed candidates are interviewed, and based on those interactions, a selection is made.

The process is often supplemented by reference checks, and sometimes by tours to completed projects.

Be aware that in most states, the process

operates within an overlay often known as Qualifications-Based Selection (QBS). Under QBS, when an organization seeks to engage an architect, the organization does not ask questions as to a specific fee. The architect may be asked as to the *basis* of the fee, but not the specific fee. At the end of the interview process, the finalists are ranked, and the library enters into negotiations with the top-ranked firm, at which time the particulars of fees are discussed. If the two parties come to terms, all is well. If the two parties cannot agree, negotiations break off, and the library proceeds to negotiate with the second-ranked firm. And so on, until an agreement is reached. QBS recognizes the responsibility of the library board to be responsible stewards of the public trust, while ensuring that decisions regarding the choice of this critical professional service are driven first and foremost by the qualifications of the architect.

If the board opts to select an architect at this time, two important strategic issues should be resolved:
- **Scope of work** – most of the time, clients will engage an architect as the architect of record. The client engages the architect with the expectation that the same firm will support the project from start to finish, through these initial planning phases, and through conceptual / schematic design, design development, and construction. While it is the most common to approach selection in this context of start-to-finish, sometimes a client at this early stage prefers to clearly limit the scope of work to include *only* selected, early planning efforts, reserving the option to re-open the selection process for the actual design.
- **Past experience** – the library board should work out how much importance past experience in library design should

be as a selection criteria. Most of the time, this becomes an important consideration. The library is a specific building type, with specific uses and demands, and prospective clients often prefer to work with an architect who is familiar with that learning curve.

But a lack of prior experience shouldn't *necessarily* disqualify a specific architect. A capable architect can certainly learn the things that make the library a unique building type. If the architect lacks prior experience with libraries, it obligates the owner / library to spend more time and energy helping to school the architect.

In the run-up to selecting an architect, library trustees should determine their comfort levels with each of these concerns.

4.2.3   *A multi-level configuration is likely*

Given the scale of Wauwatosa's future space needs, a multi-level design is likely.

A broad rule of thumb in public library facilities planning maintains that a building of less than 20,000 square feet will prefer a single-level design, while a building of more than 40,000 square feet will prefer a multi-level design. A building of between 20,000 and 40,000 square feet may be one or it may be the other.

The reasons have to do with
- **Staffing** – a smaller building can usually be managed and supervised from a single, centrally located service point; if pressed into a multi-level configuration, that smaller building will typically incur otherwise unnecessary staff costs to monitor and service the secondary level
- **Wayfinding** – as the floorplate exceeds

40,000 square feet, the prospect that an individual user will lose his or her bearings increases, creating an impetus to split larger spaces into smaller, more manageable floors

• **Cost efficiencies** – a multi-level building adds the cost of elevators and stairwells, but around 40,000 square feet, the added cost for those elements tends to be offset by reduced costs for building envelop, less roof surface, less combined wall surface

At 71,600 square feet, local planners should anticipate the prospect of a multi-level design. A two-level design is most likely, but a three-level design might come into play if site conditions limit horizontal spread of the floorplate. While a building of this scale is likely to be broken into more than one level, it is just as important that one *not* create *too many* levels, which would overly fragment the interior space within, creating functional inefficiencies.

At this scale, two levels would be preferred to three, and three should be considered the maximum level of floors.

This is not to say the final design *necessarily* has to be multi-level. Certainly, there are examples of larger libraries designed with a larger floorplate, and that could be the eventual solution in Wauwatosa.

Still, in anticipation of more detailed architectural planning, board and staff may wish begin thinking about what functions are most suited for an entry level and what functions might be located on a secondary level.

4.2.4   On-site parking

The scale of the building also starts to shape thinking as regards on-site parking.

Local zoning codes regulate and define on-site parking needs. In Wauwatosa, the code requires three spaces for every 1,000 square feet of gross building area. The resulting math is plain: the given a space need of 71,600 square feet, the library should expect to provide 215 parking spaces (71.6 * 3 = 215).

The municipality's requirement falls comfortably within what LPA considers the "customary" range. Anecdotally, the consultant observes that the great majority of local zoning codes he has encountered require between three and four spaces per 1,000 square feet of gross building area.

Note that any final determination regarding on-site parking is always subject to review by the local zoning authority. In this case, special circumstances surrounding the joint-use nature of the proposed library development may come into play. The very nature of the shared use building may prompt zoning officials to consider some adjustment. And any shared nonassignable space within the building may be deployed in ways that are different than assumed here, which may impact any final recommendation.

In the meantime, best to plan for some 215 parking spaces associated with the library use.

4.2.5   *Disposition of nonassignable space*

The planning model used to fashion the estimate of space need at Wauwatosa assumes a stand-alone building. The expansion strategy being considered for the Wauwatosa Library is something else: the library is expected to be part of a larger, mixed use, public/private partnership. In addition to the library, other, as-yet-unspecified, private uses will share the building. These other uses may include retail activities, commercial space, and/or residential

space.

The space needs estimate presented here – 71,600 square feet – encompasses *all* of the space the library should need as a stand-alone building, including a full complement of the nonassignable space (mechanicals, restrooms, etc.) needed to support the usable library space within.

In the proposed development plan, some of those nonassignable functions may be shared with the other uses in the building. Such shared nonassignable space, if it is allocated to the development's various uses may be allocated in a way that produces a different result than is presented here.

Given this variability, in the context of the proposed joint-use project, another way to describe the public library's space needs is by way of the assignable space the library has determined it needs (the assignable space being the space library needs to operate a functioning library, excluding space for any mechanical and similar back-of-house functions).

In this alternate scenario, only a much smaller slice of nonassignable space would accrue to the library proper – basically only the footprint for structural columns and mechanical chases. Instead of allowing 27.5% of the gross area of the building for nonassignable purposes, the allowance could be as little as 7.5%. The allowance for nonassignable space is reduced from 18,564 square feet as shown in Figure 4.1.1 to 5,063 square feet, and the amount of usable space the library needs in the context of this joint use development is 58,100 square feet – assuming most of the nonassignable space is designed "outside" the library's space proper.

4.2.6   *Phased construction*

Local planners may determine that the cost to provide a new, 71,600 square foot space for the Wauwatosa Public Library is too great. Although a clear need over the next 20+ years for a building of this scale has been documented here, cost factors among other concerns, may prompt consideration of a smaller initial structure with a planned addition at some later date – phased or staged construction.

The size and scale of that initial phase should be determined in collaboration with a consulting librarian and an architect. The examination of the library's *immediate* space needs could provide guidance regarding the scale of an initial phase of construction.

The size of the initial construction would also affect another strategic factor: the period of growth to be supported by the first phase. If an initial phase is undersized the library will soon outgrow it and be forced to approach the voters to finance the addition before those voters are ready and willing to approve another major capital expense for the library.

If phased construction is considered, the smaller initial structure should be designed to accept a later addition. One possibility might be to build a portion of the 71,000 square feet as completed space, but "shell out" the rest as unfinished space, to be completed at a later date.

Frankly, one advantage of phased construction is that the library has a second opportunity to reconsider and possibly redirect its long-range service goals when it comes time to place the addition on the building.

But a significant disadvantage to phased construction is that the second phase may never

come to pass. Local political conditions may change, and the expansion may not be feasible. The library would then be forced to live with the smaller, more constrained building.

Another disadvantage to phased construction is increased total project costs. If a phased approach to new construction is pursued, the library will realize an initial savings in construction cost because the initial phase would be planned at a smaller scale than the full build-out. The subsequent addition, however, would increase the cost of the completed building in excess of the cost of constructing the full build-out immediately, owing to inflation of construction costs during the interval between the initial construction and a phase-two addition and owing to the likely need to perform some degree of renovation and remodeling on the structure built in the initial stage.

On balance, staging construction typically offers more significant downsides than upsides. Clearly, if staging is pursued, it requires careful consideration and input from all of the members of the library's design team, including the library's architect and the library's construction manager.

4.2.7   Program development

As the library and the municipality readies to advance the proposal to provide new space for the Wauwatosa Library in the context of a shared-use, public/private partnership building, this planning effort shifts into a new phase.

The goal of the current study has been to define suitable long-term resource and service inventory goals in order to fashion an understanding of the space needs implications for the library in Wauwatosa. This study has operated on a broad-brush global plane – entirely appropriate to present an initial overview of space

needs to guide *initial* strategic planning considerations such as site selection, site development and capital budgeting.

This study was not intended to parse space needs at the finer level needed to guide an architectural design process. While this study defines the overall, or gross, space needs of the library, in order for an architect to develop an actual plan, a more granular level of specificity is required. The architect will need to have the findings from this report elaborated into an area-by-area, space-by-space, room-by-room, department-by-department analysis. It is appropriate to undertake that deeper level of analysis after a broad strategy for expansion has been adopted and just before the library is ready to embark on architectural planning. That more detailed analysis should be as fresh as it can be when the library initiates architectural planning.

The elaboration of the library's space needs is presented in a companion to this report known as a building program, or a building program statement. A building program is similar to a computer program in that a computer program is a set of instructions that tells a computer what to do, how to operate; a building program is a set of instructions that tells the architect what the design is supposed to accomplish – the specific, detailed spaces and routines and operations the design is meant to support.

A building program statement builds on the foundation of this initial needs assessment, providing answers to four basic questions:
- How big does the building need to be (verifying or adjusting the findings of this needs assessment)?
- How should the building be subdivided and organized into departments, rooms, areas, and spaces?
- How big does each of those functional areas

need to be?
• How do those functional areas need to interrelate one to the other?

There are many other topics and directives that may be incorporated into a building program – preferences as to floor finishes and wall coverings, the distribution of access to electrical service, acoustical properties of various spaces within – but a focus on these four core questions will provide the architect with the essential information needed to drive the initial design process.

Program development starts with the findings of this needs assessment. From there, program specifications are developed by:
• IDENTIFYING the departments, rooms, spaces, and areas into which the library should be organized to support easy patron use and effective, efficient operations,
• CLASSIFYING the resource and service inventories defined in the needs assessment study into the departments and areas to be found in the library,
• SPECIFYING the environments in which the resources will be housed (aisle widths, shelf heights, and the like), and
• CODIFYING the interrelationships and adjacencies among the individual functional areas within the building to optimize user access and convenience and staff efficiency and effectiveness

Program development offers a natural opportunity to revisit, review, and reconfirm the essential resource and service inventory goals recommended in this initial study. With these essential directions in hand, the architect can begin the conceptual / schematic design process.

4.2.8 Characteristics of the space

The primary goal of this examination is to identify the overall scope of the Wauwatosa Public Library's space needs, based on a menu of recommended service goals. While those *quantitative* aspects of the library's facilities needs is the study's foremost focus, it's useful to devote some attention to the *qualitative* aspects of the library's space that should be accommodated in any building that might emerge as a result of this study.

The key qualitative aspect most libraries aspire to is flexible, adaptable space. This has been the librarian's mantra for generations. Librarians have long sought to create space that can adapt to the changing needs of their users.

A flexible, adaptable structure will
• minimize interior structures and partitions to create open spaces that flow from one to the next
• employ a consistent, recurring structural module in design, using consistent interior dimensions to enhance the future adaptability of the design
• use a raised floor system to further enhance service flexibility and adaptability

The latter is a key factor. Although raised floor systems have been available for decades (think the raised floors commonly found in computer mainframe installations), they have traditionally only been used in specific, limited installations (think computer mainframe rooms), owing to cost considerations. In recent years, however, these systems have become more economical and achievable – an LPA client, the Johnson County Public Library in Indiana, a few years ago opened a new branch in rural Trafalgar, and the entire building was designed on a raised floor, preserving for the library the opportunity

to relocate electrical and data service wherever it may be needed to meet future needs that cannot be anticipated today.

Beyond the prospects for a responsive environment offered by a raised floor system, any design should support technology and any related equipment to the greatest degree possible. Power should be conveniently distributed to as many user seats as the budget will allow, careful consideration given to reserving the possibility of easily adding such access in areas (such as the stacks) where, in the building's initial layout, there may not be much seating or long-term user occupation. Lighting throughout the space should be designed to minimize glare and reflections.

Flexibility and adaptability will be reflected in the furnishings chosen for a new Wauwatosa Library. While traditional library furnishings are heavy and solid and durable, contemporary library furnishings are light and moveable and durable. Durability is a requirement because the public tends to subject library furnishings to demanding use. But increasingly, library furnishings should also be light and easy to move about so that individual users and groups of users can configure furnishings to suit the immediate needs of the individual and the group.

In populating the interior with moveable furnishings, the library will be able to support multiple, alternate uses in the same space. With lower shelves on casters, for example, it will be possible to fashion a "pop-up" presentation space in the teen zone for a poetry slam. The proposed classroom space may be outfitted with laptops when a class is not in session to extend the number of network stations available for public use. With a wide door to the children's storytime room, that space might become available for overflow reading space in the children's department. Dual-use spaces like this will

maximize the utility of the library's space.

Service to children is one of the library's priorities. Management staff call children's services the library's "long suit." The children's department will offer a sense of discovery. It will be designed to foster a sense of engagement – between the child and the library's resources, between the child and his or her caregiver(s), the child and the staff, and other children as well. A "discovery zone" may be created, where the child can explore interactions with his or her surroundings, to learn how things work.

A similar sense will pervade the rest of the library as well. Adults and teens will also benefit from dynamic surroundings. In addition to offering a setting for reading, reflection and study, the library will be a place where individuals can create new content and work or study in collaborative groups in spaces like the student commons, and a maker space.

There will be a strong connection between the library and the continuing education needs of all users. Using the proposed classroom, the library will collaborate with local educational institutions to sponsor formal training and classes for users of all ages and offer programs on its own, to support the efforts of users as they seek to expand their horizons or re-tool for a new futures.

In the essence of the space it occupies, a new Wauwatosa Public Library will embody the transition being experienced by today's public libraries – from a place for collections to a place of connections, from a static place for storage to a dynamic setting for engagement and exchange. This important transition has been described like this: the public library is less about what we *have* for you and more about what we can *do with* you.

APPENDIX A: LIBRARY SERVICE GOALS & SPACE NEEDS – A PLANNING MODEL

This section outlines a methodology for calculating a library's space needs based on its projected service goals. This discussion is organized around eight types of floor space:

- A.1 Housing the collection
- A.2 Supporting technology access
- A.3 Supporting readers using the library
- A.4 Supporting staff work routines
- A.5 Supporting library program activities and meetings
- A.6 Providing for "special use" support functions
- A.7 Providing for "nonassignable" support functions
- A.8 Providing "dedicated allowances"

By establishing essential service goals in each of these areas, an estimate of the library's space needs can be developed. This section of the report will discuss environmental factors and choices that affect a library's need for space – a decision to employ a 36" aisle in the library's bookstacks versus a 42" aisle, for example – and describe how service goals can be translated into space needs.

When a library presents unusual or extraordinary conditions, this methodology can and should be adapted to reflect the practical impact of those special conditions. A library wishing to house its collection on compact, mobile shelving could reasonably expect to achieve a higher collection density and require less square footage for its collection than would be calculated using this methodology. A library that plans to support long-term / day-long research use might plan on providing all of its seating in oversized study carrels to accommodate the needs of researchers, and could reasonably apply a larger space allocation per reader seat than is recommended here. A library that needs to incorporate a garage could add a special allocation to this assessment for that feature, to reflect the fact that including a garage would skew the ordinary calculation of nonassignable space.

A.1 Housing the collection

For purposes of this discussion, the library's collection is organized into three broad parts – printed books, nonprint holdings, and magazines. The space needed to house a library's collection is determined by the size of the collection and a series of environmental parameters that define the shelving environment, including the type of material to be housed, the height of the shelves, and the width of the aisle.

A.1.1 Books

Library books can be housed in a variety of shelving environments. Some are more space efficient than others, ranging from 5 volumes per square foot to 30 volumes per square foot, depending on such factors as the type of material being housed, the height of the shelving unit, and the width of the aisle in the bookstacks. Compact shelving units can accommodate even more material in the same amount of space.

An optimum estimate of library shelving capacity is 10 volumes per square foot. Ten volumes per square foot will certainly translate into a setting that allows an aisle wider than the bare minimum 36" required by the Americans with Disabilities Act – an aisle 42" or even 48" wide. Shelf units may be shorter than might otherwise be found in a library, so that more of the shelving can be more easily reached. Each individual shelf will be planned with a more generous "working capacity" – meaning that more of each shelf will be reserved to accommodate day-to-day shifting and use of the collection, which also makes the stacks easier for patrons to use. In general, this optimum allocation of 10.0 volumes per square foot establishes the best possible balance between a setting that provides a reasonable collection capacity while maximizing patrons' ease of use.

A library may elect to pursue more assertive strategies to house its collections, which will increase the number of volumes per square foot that it will accommodate. A moderate estimate of collection capacity is 11.5 volumes per square foot, while a low estimate is 13.0 volumes per square foot. In some settings, a site constraint or some other external factor might obligate a library to maximize the density of the shelving layout, and an even more assertive allocation of 15 volumes per square foot can be achieved (note that high-density storage of collections results in an environment that is very difficult for individuals to use).

If the library's collection capacity per square foot is increased from the optimum level of 10 volumes per square foot, it means that the library is retreating from an optimum physical shelving environment. As the allocation of volumes per square foot increases, the library is less and less likely to be able to achieve a 42" or a 48" aisle, and is instead more and more likely to house its collection in bookstacks that have only the bare minimum 36" aisle required by the Americans with Disabilities Act. There will be fewer opportunities to market the collection with face-out display. Maximum shelving heights are almost certain to increase beyond 84" to 90" – which becomes more difficult for more of the library's patrons to use.

For any larger collection (often defined as holdings in excess of 100,000 volumes) it's also important to acknowledge that a portion of the collection will be in circulation at any given time, thereby relieving the library of the need to provide shelf space for that material. Sometimes, if a site constraint or some other external factor obligates a library to adopt a more aggressive planning stance, smaller libraries may choose to incorporate a "percent in circulation" as a planning factor as well.

A.1.2 Nonprint

Audiovisual collections today appear in three major formats – DVDs, compact discs, and CD-ROMs. The library should plan to provide all three in the near term. Some libraries continue to maintain analog formats as well – videocassettes and audiocassettes.

Downloadable and streaming media are making the future of physical nonprint collections difficult to forecast. Flexible storage and display strategies are essential if the library is to support these varying media formats.

As with the book collection, the library's nonprint collection can be housed in a variety of environments, some that afford more face-out display and marketing opportunities than others. Some strategies for housing the nonprint collection provide wider aisles and lower shelves that are generally easier for patrons (and staff) to use. As with the book collection, these variables produce differing recommendations for how many nonprint items per square foot a library can expect to house.

An optimum shelving environment houses 10.0 nonprint items per square foot. A moderate setting houses 12.5 items per square foot. A low allocation provides 15.0 items per square foot. In some settings, an absolute minimum allocation provides 20.0 items per square foot (note again that a shelving environment that maximizes collection density also maximizes user difficulties to access the collection).

One key issue regarding the space needs of a nonprint collection is whether the library elects to display the collection in a single-box or double-box fashion. In a single-box display strategy, the item itself is placed on the open public shelf in its display case or plastic jacket.

Patrons can then browse through the collection and make their selections directly. In a double-box display strategy, the library keeps the original videocassette or the CD secure behind a staff service counter while a "dummy" for the item is placed on the open shelf to indicate that the original is available for loan. The patron takes the dummy copy to the service desk, where it is exchanged for the actual item and charged to the patron. A double-box system is employed when the library has a concern for the security of the collection. Obviously, a double-box storage and display system for nonprint materials has an impact on the library's space needs because an allowance must be made to store both the original and the dummy copy. A double-box storage and display system also demands more staff time for the retrieval of material at the patron's request.

As with the print collection, for any larger collection (usually defined as holdings in excess of 25,000 items) it can be important to acknowledge that a portion of the collection will be in circulation at any given time, thereby relieving the library of the need to provide shelf space for that material. In some cases, a smaller library may also choose to incorporate this factor into its planning approach.

A.1.3 Magazines

Similar considerations affect the space needs of the library's periodical collection. The shelving environment determines the capacity of the collection and the square footage needed to support the collection. Housing a periodical collection is slightly complicated by the fact that typically two distinct types of shelving are required: display shelving for current issues and storage shelving for backfiles.

Note that the Americans with Disabilities Act

limits current periodical display to a 54" maximum reach height where an individual in a wheelchair can make a side approach and a 48" maximum reach height where only a front approach can be made. (The height of library shelving in all other parts of the collection is expressly "unrestricted" under the requirements of the ADA.) In either case, display shelving for current periodicals must be lower than full-height shelving, which imposes a space premium on display of current issues.

In display environments, a library should allow 1.0 periodical title per square foot; in storage environments, a library should allow 0.5 square foot per title per year retained.

A.2 Supporting technology access

Access to information sources, audiovisual content, and general reading material increasingly is available in electronic formats. The balance between traditional formats and e-formats continues to shift, but traditional formats so far are proving to be durable. Both traditional and technological access will co-exist and complement one another for some time to come.

As e-content was introduced into the library setting, the means of access came to take a common form. Access was made through a computer network station – a desktop PC with keyboard and monitor – and from a space planning standpoint, the library needed to estimate the number of such stations that would be needed to support user access to e-content.

The space need for e-content access would be determined by applying a unit space allowance to the proposed inventory of computer network stations. Typically, the library will seek to provide these stations in a variety of settings –

some that encourage short stays, high turnover, and greater availability, and others that encourage longer stays, and more intense use.

This variety of settings might encompass an optimum allocation of space for a public computer network station is 50.0 square feet. This allows generous space for the computer and a monitor (possibly a large-screen monitor), perhaps with peripherals such as scanners or dedicated printers, and an ample space adjacent to the computer where a patron may place materials selected from the physical collection. A moderate allocation of 40.0 square feet per station will support a computer and monitor only, together with a reasonable allocation of space for patrons to use. A low allocation of 35.0 square feet per station crowds stations closer together, leaves less adjacent workspace, and provides more of the stations at a less-comfortable standing height. An absolute minimum allocation of 30.0 square feet per computer station may be employed in some circumstances where notable site or budget constraints exist.

Recently, the introduction of newer technologies has altered the concept of what a traditional PC workstation might be. Tablet technology and smartphones have changed the way people access e-content. Increasingly, users bring portable devices to the library (laptops, smartphones, tablets) and connect to e-content over the library's wireless network without necessarily using hardware provided by the library.

This is not to say that personal electronics will supplant conventional computer network stations – at least not in the immediate future – any more than e-formats have supplanted traditional print formats. The library will still need to provide equipment for public use and

that equipment will need to be supported with space in a physical setting. Network stations and hardware provided by the library will be used by individuals for a variety of reasons and ends:

- individuals who don't have access to technology in their home or office (whether by individual choice or by economic circumstance)
- other individuals may use equipment provided by the library because they lack a high-speed connection to the Web
- some users, even though they have a tablet *and* a smartphone, will from time to time prefer to use the larger keyboard and screen of a traditional computer station
- some of the stations provided by the library will be outfitted with a scanner or a 3D printer or some other input/output device that a user needs to access
- some of the stations provided by the library will support specialized software suites that individual residents or families don't have or cannot afford – higher-end video editing software, for example, as well as other content-creation software

Some of the technology "stations" provided by the library may not offer technology (that is, equipment) per se, but in response to the growing trend of users bringing their own devices to the library, may simply provide a work area that is conducive to making connections to e-resources.

Until recently, the "traditional" technology station has assumed a certain configuration of equipment, typically a desktop computer or its equivalent. Moving forward, the settings in which users connect with e-resources will be more variable, they will be less likely to look like a "traditional" computer network station. Some stations will offer a traditional profile, but others will be different. In planning space to provide

access to e-content, the library will still need to determine how many user stations is should be responsible for providing to support sufficient user access for its community, factoring in the growing number of users who supply their own internet-connected devices, and determining a suitable balance between stations with hardware provided by the library and those to support the users own technology.

A.3 Supporting readers using the library

Reader seating should be provided in a variety of settings to meet a variety of user needs:

- lounge seating is appropriate in a browsing area or in an audiovisual listening area
- carrel seating provides private spaces for individual study
- group seating at tables is appropriate to provide an opportunity for small groups of patrons to work quietly together or to allow one or two individuals to spread their research out in front of themselves.

Seating should also be varied to meet patrons' physical needs. Small-scale seating may be appropriate in the children's library; firm seating with arm rests is appropriate in a setting where seniors use the collection.

As with the collection, reader seating can be deployed in a variety of settings, each of which produces a different "seating density." Some research libraries provide seats with extra-large work surfaces (tables or carrels) to encourage researchers who may need to assemble large quantities of resources from the library's collection. Seats provided at individual reading tables generally require less space than seats provided at carrels or in lounge settings.

A library that applies the optimum allocation

of 35.0 square feet per seat will do so to reserve the ability to deploy a larger proportion of its seating in a generous setting (large work surfaces, or a high proportion of lounge seats). A moderate allocation for seating is 32.5 square feet per seat. A low allocation is 30.0 square feet per seat. An absolute minimum allocation is 25.0 square feet per seat.

As one applies a lower and lower allocation for reader seating, any work surface that accompanies the seat will become smaller and smaller. The spacing between seats will narrow, ultimately compromising the readers' sense of secure personal space.

A.4 Supporting staff work routines

The space needed to support individual staff work routines varies depending on the nature of the work being performed at any given station:
- public service desk work stations in this planning model are allowed an average of 150 square feet each, an allocation that provides space for the staff chair or stool, the desk, modest associated file space and, notably, space for patron queues to form
- staff work stations in work rooms and offices generally follow a space allocation model that allows 80 to 100 square feet for a clerical station (sufficient for a desk and chair, a PC and phone, some modest attendant file storage, either in a cabinet or on shelves, and adjacent corridor space to approach the station)
- 100 square feet for a station to support a librarian (the larger area typically required for additional files and storage for those positions)
- 125 square feet for a supervisor / department head's station (the still larger

area typically required to accommodate additional files *and* to better accommodate an enclosed office to provide the privacy a supervisor sometimes needs to deal with personnel and other issues)

The space required for each staff work station will vary, depending in part on how assertively or efficiently the library's space plan will need to be. In an optimum environment, allow 150.0 square feet per staff work station. In a moderate environment, allow 137.5 square feet per staff work station. A low allocation will allow 125.0 square feet per staff work station. An absolute minimum allocation will allow just 100.0 square feet per staff work station (while also compromising the effectiveness of work routines.

A.5 Supporting library programming activities & meetings

Different kinds of meeting space can be provided by a public library, depending on the programming activities the library seeks to offer and the kinds of general public activities the library seeks to support. The space needs for each kind of meeting space is estimated according to the type of use. For example, space for a public programming room is typically allocated at 10.00 square feet per audience seat, arranged theater-style. Additional allocations are made to support a speaker / presenter and projection equipment and the like.

More specifically, meeting spaces often found in a library can be characterized as auditoriums or multipurpose rooms. In addition, some libraries opt to provide dedicated space in the children's department to support storytimes and routine children's programming events.

Other libraries will provide conference rooms. Still other libraries need to provide computer training space. Each of these "types" of meeting / program space has different unit space allowance requirements.

An *auditorium* refers to a formal space for programs and presentations. Often, the audience capacity of a room like this will be large – 250 and up – although the particulars will be determined by the type and scale of programs the audience wishes to support. A sloping or tiered floor for seating will ensure good sight lines for all. The seating will probably be fixed, although moveable seating is a possibility. There will almost certainly be a raised stage. The stage will likely be fixed, like the seating. Depending on the type of programs the library wishes to support in this space, the scale of the allowance for the stage may be substantial (to accommodate orchestral concerts or theatrical productions, the backstage space behind the proscenium arch may equal or exceed the space in the audience seating area. The room will probably be supported with extensive and varied lighting, projection, and sound reinforcement capabilities. There will be high Internet connectivity to accommodate a wide variety of speakers' needs. Space in an auditorium will require 12.50 square feet per audience seat, plus an allowance for backstage requirements (an allowance for backstage space will often range from 35% to 100% or more of the space allowance for the audience seating area).

A *multi-purpose room* offers a different type of meeting space. This is a flat-floor room, with moveable seating. The seating will likely be stackable for ease of storage. The capacity of this room will be determined by the scale of the programming the library wishes to support, except that as the proposed audience capacity approaches 300, sight lines from the back of the

room become increasingly compromised (for larger audience capacities, the sloping floor of an auditorium becomes necessary). There are minimal fixed elements within this kind of meeting space, to allow for maximum flexibility of arrangement to support a wide variety of program events. A larger multi-purpose room may be divisible into two or three smaller spaces using moveable partitions. Space at the front of the room will be reserved for a speaker's podium and presentation area (or even a small, portable stage). The room will feature high-end presentation technology and Internet connectivity, to the extent the library's budget will allow. A larger multi-purpose room will require sound reinforcement capabilities. Space in a multi-purpose room will require 10.00 square feet per audience seat, plus a speaker's area in the front of the room (a reasonable, generic allowance for a speakers area can be made at 1.00 square foot per audience seat).

Sometimes a library will seek to provide a specialized kind of space for certain programs. A *seminar room* might support book discussions or small group training events. The configuration of this room would typically entail slightly more formal seating, probably including a small writing surface for each seat. The writing surface could be attached to the seat or it could take the form of a free-standing, narrow table. In this setting, allow 20.0 square feet per seat.

Most public libraries choose to offer *small group programming for children* – storytimes and class visits. Smaller libraries will accommodate such programs in a multi-purpose room, but if the schedule of such activities co-opts broader access to the multi-purpose room, a separate, dedicated children's programming room may be provided in the children's department. In determining the capacity for a room like this, consider whether the audience is meant to

include children only, or children + caregivers (and possibly children + caregivers + siblings). Space for a storytime room is allocated at 10.00 to 20.00 square feet per seat, depending on whether children's programming activities typically accommodate a craft activity in addition to the more traditional storytime. The smaller allocation is appropriate if children's program activities are limited to traditional storytimes, while the larger allocation is suited to an environment that will support crafts and other activities in conjunction with storytimes. The larger allocation allows staff to set up small work tables for the children and to support supplies storage and a sink and clean-up facilities, as needed. An additional allowance of 75.00 square feet reserves space at the front of the room for the individual making the presentation.

Conference room space is often used by the library board for its regular monthly meeting and any committee or other meetings that might be necessary between the board's regular meetings. A conference room can also be used by staff for planning and coordination meetings. A conference room could be available for use by small community groups when not being used by the library. Space for conference rooms typically is allocated at 30.00 square feet per seat, drawing its allocation from an environmental similarity with general reader seating at tables. Additional allocations can be made to support a gallery or audience (which can be warranted, especially if the room will be used regularly for library board meetings), as well as projection equipment and the like, as needed.

Space for a *computer training room* typically is allocated at 50.00 square feet per seat (in an optimum setting), in order to accommodate the trainee, along with the computer equipment that the trainee will use. An optimum allocation can also accommodate two trainees per terminal,

creating an additional layer of flexibility for organizing training classes. In a moderate, more constrained setting, an allocation of 40.00 square feet is recommended. A low allocation of 30.00 square feet per seat is needed. A low allocation provides minimal clear space between trainee stations and/or requires that the library use laptops for computer training sessions. An additional allowance of 75.00 square feet reserves space at the front of the room for an instructor's station (which will typically require projection capabilities).

Other types of meeting spaces may be specified, depending on the particulars of the library's service program. Also note that the unit space allocations described here can be used to estimate the relative audience capacity of a single meeting room in different types of program configurations. A multipurpose room with an audience capacity of 50, for example, may be scaled at 550 square feet. If that room is to be used for a children's storytime program, it could support an audience of just under 50 (at 10.00 square feet per) or about 24 (at 20.00 square feet per for a storytime that also includes a craft activity). If the room is going to be used for a computer training class using laptops, it would support an audience of about 15 (at 30.00 square feet per seat).

A.6 Providing for "special use" support functions

Typically, special use space in a public library constitutes an area equal to 10-15% of the projected gross area of the building. The amount of special use space a library needs will be determined by the number of photocopiers or microfilm reader-printers the library wishes to provide. It will be determined by the number and size of small group study rooms that the

library wishes to provide. It will also be determined by factors like whether or not the library wishes to provide a public lounge or a coffee shop within the library.

In an optimum setting, a library should reserve 17.5% of its gross area for special use purposes. A library that plans to provide a public lounge or coffee shop likely falls at this end of the spectrum. In a moderate setting, a library should reserve 15.0% of its gross area for special use purposes. With a low allocation, a library should reserve 12.5% of its gross area for special use purposes. A minimum allocation for special use purposes will be 10.0% of the library's gross area.

A.7 Providing for "nonassignable" support functions

Nonassignable space is defined as "those areas or rooms of the library necessary for the general use and operation of the building but not serving specific library functions, such as foyers, vestibules, corridors (but not aisles in bookstacks or other furnishings), stairs, elevators, toilets, janitor rooms or closets, ventilation ducts, and mechanical equipment areas" (from *Measurement and Comparison of Physical Facilities for Libraries*, ALA, 1970).

Nonassignable space needs for mechanical systems are determined largely by engineering requirements. Design specialists will direct how large certain pieces of equipment need to be in order to meet the environmental specifications for the library. Other nonassignable space needs will be determined by local codes. The number of fixtures needed in each restroom will likely be determined by code, and the number of fixtures will determine the space needs of those facilities (as will the accessibility regulations of the

Americans with Disabilities Act).

In an optimum setting, a library should reserve 32.5% of its gross area for nonassignable purposes. In a moderate setting, a library should reserve 30.0% of its gross area for nonassignable purposes. A low allocation will allow 27.5% of its gross area for nonassignable purposes. An absolute minimum allocation for nonassignable purposes will be 25.0% of the library's gross area.

Note that if the library is planning a small facility or if the library plans on an expansion strategy that incorporates an existing structure (an addition to the present library or the conversion of an existing structure from a prior use into a new use as a library), there is an increased likelihood that the proportion of space devoted to nonassignable space will be at the higher end of this range. If the library is planning a large facility or anticipates new construction, the proportion of gross area that will be used for nonassignable purposes will likely be lower.

A.8 Dedicated allowances

In some circumstances, there will be a logic to make an additional accommodation to cover the space needs of a special or unusual feature to be provided as part of the library. A special accommodation of this sort is warranted when the library will include a feature, function, or element that is not conventionally found in a public library. Because the feature in question isn't common, the space to support it will not be captured in conventional formulas for calculating a library's space need. With that in mind, a separate allocation should be made. Examples of this can include:
- *an allocation for a bookmobile garage:* This is perhaps the most common example of

this "uncommon" accommodation. Among public libraries nationwide, fewer than 10% maintain a bookmobile; among libraries serving 50,000 and up, roughly 35% operate a bookmobile. Because relatively few libraries operate a bookmobile, space for a garage would not ordinarily figure into an estimate of space need using conventional formulas, so a special accommodation is warranted,

• *an allocation for a partner organization:* The library may share its facility with another organization – a local history museum, perhaps. The space need for the partner operation would not typically be accommodated by the conventional formulas. Therefore, a placeholder for the space needs of the partner organization could be added to the mix.

In some circumstances, a library might choose to make a special allocation as a means of drawing attention to the feature being highlighted. For example, at this early stage in planning, a library may want to insure that the notion of a coffee bar or refreshment service is incorporated into its plans and so opts to make a special accommodation for this function, outside of the conventional calculations. By reserving a specific line item for this function early on in the library's planning, the function is highlighted and therefore more likely to remain a topic for discussion. Or perhaps a library wishes to be sure to reserve space for display of traveling or seasonal exhibits, or the library intends to make a substantial commitment for public art display and wishes to reserve the space for this function. By creating a line item, it highlights the library's interest in this function.

(At the same time note that the examples provided here – a refreshment service, exhibition space, or space for display of public art – are the kinds of functions often classified as "special use" space. An alternate strategy for accommodating these functions is to make an "optimum" allocation for special use space at the higher end of the range recommended for that purpose. If the library chooses to make a special accommodation instead for such functions, consider reducing the proportionate allocation for special use purposes.)

APPENDIX B: ANNUAL REPORT SUMMARY

The library's annual report data is summarized in this appendix. The data summarized here comes from two sources: for annual report data through 2013, the source is a database assembled by the Institute for Museum and Library Services (IMLS), a federal agency; more recent data is drawn from the library's annual reports.

A few protocols regarding presentation of the data are noted:

• Data presented in regular type is drawn directly from one of the two data sources cited above. Data presented in *italics* is a mash-up of two or more original data elements. An example of the first sort might be "volumes held" or "annual circulation." An example of the second sort might be "circulation per capita" which is produced by combining the data elements for "total circulation" and "population served."

• Data presented in **boldface** font is data that is missing from the year-to-year series and has been interpolated from the data expressed to either side. For example, if the original sources reported 100,000 visits to the library in 1999 and 120,000 visits in 2001, but was blank for 2000, this summary would interpolate the 2000 data to be 110,000 and highlight it in **bold**.

• Some data is missing from the two data resources used. In most instances, these databits were not collected in the early years of this survey. Some may be available from local sources. *At the library's option*, if these databits *are* available from other sources, these gaps may be filled in.

WAUWATOSA PUBLIC LIBRARY
ANNUAL REPORT DATA SUMMARY

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Population	49,507	49,518	49,555	49,282	49,133	47,432	47,221	46,989	46,802	46,605	46,312
REGISTRATION											
TOTAL											
Increase over prev yr											
Reg as pct of pop											
STAFFING											
Professional	7.80	7.80	7.80	7.80	7.80	7.80	9.66	10.66	10.66	9.71	10.76
Other profl	2.15	2.15	3.40	3.40	3.40	3.40	1.00	0.00	0.00	1.00	1.00
Other paid staff	15.75	15.75	14.75	14.75	15.95	15.95	17.91	17.01	17.01	15.36	14.90
TOTAL	25.70	25.70	25.95	25.95	27.15	27.15	28.57	27.67	27.67	26.07	26.66
Increase over prev yr	0.00	0.00	0.25	0.00	1.20	0.00	1.42	-0.90	0.00	-1.60	0.59
FTE per 1,000 capita	0.52	0.52	0.52	0.53	0.55	0.57	0.61	0.59	0.59	0.56	0.58
Profl as pct of total	38.72%	38.72%	43.16%	43.16%	41.25%	41.25%	37.31%	38.53%	38.53%	41.08%	44.11%
CIRCULATION											
Adult	399,407	399,897	409,371	417,357	422,245	436,016	468,262	502,578	516,483	493,069	495,651
Juvenile	327,518	303,238	309,638	295,453	296,332	295,855	314,593	326,182	318,239	320,374	293,070
TOTAL	726,925	703,135	719,009	712,810	718,577	731,871	782,855	828,760	834,722	813,443	788,721
Increase over prev yr	22,294	-23,790	15,874	-6,199	5,767	13,294	50,984	45,905	5,962	-21,279	-24,722
% increase over prev yr	3.16%	-3.27%	2.26%	-0.86%	0.81%	1.85%	6.97%	5.86%	0.72%	-2.55%	-3.04%
Adult circ pct of total	54.94%	56.87%	56.94%	58.55%	58.76%	59.58%	59.81%	60.64%	61.87%	60.62%	62.84%
Circulation per capita	14.68	14.20	14.51	14.46	14.63	15.43	16.58	17.64	17.84	17.45	17.03
Turnover rate	4.34	4.14	3.84	3.77	3.93	4.26	4.45	3.67	3.67	3.66	4.17
Circulation per FTE staff	28,285	27,359	27,707	27,469	26,467	26,957	27,401	29,952	30,167	31,202	29,584
Interlibrary loan to others	5,746	10,479	13,187	16,212	19,701	19,663	25,765	40,259	12,887	58,861	56,855
Interlibrary loan from others	12,914	11,565	13,968	15,769	18,773	20,403	24,074	27,499	12,435	40,248	38,876
Ratio from : to	2.25	1.10	1.06	0.97	0.95	1.04	0.93	0.68	0.96	0.68	0.68
SERVICE MEASURES											
Visits	357,185	355,611	361,220	355,803	343,537	341,071	347,776	350,154	346,078	342,883	340,039
Visits per capita	7.21	7.18	7.29	7.22	6.99	7.19	7.36	7.45	7.39	7.36	7.34
Reference	132,132	109,812	108,085	249,463	249,163	279,084	233,760	204,412	156,819	266,016	165,828
Ref transac per capita	2.67	2.22	2.18	5.06	5.07	5.88	4.95	4.35	3.35	5.71	3.58

2006	2007	2008	2009	2010	2011	2012	2013	2014		For the period		High	Low	Average
47,623	45,996	46,116	45,883	45,891	46,453	46,452	46,893	46,893				49,702	45,883	47,635
33,306	35,614	37,415	39,559	41,434	40,563	44,594	33,026	34,945				44,594	33,026	37,828
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69.94%	77.43%	81.13%	86.22%	90.29%	87.32%	96.00%	70.43%	74.52%				96.00%	69.94%	81.47%
10.76	9.74	12.70	12.70	12.27	12.27	12.20	11.24	11.70				12.70	7.80	9.89
1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				3.40	0.00	1.29
14.90	15.35	14.34	14.00	14.40	14.40	14.31	15.31	14.85						
26.66	26.09	27.04	26.70	26.67	26.67	26.51	26.55	26.55				28.57	23.95	26.48
0.00	-0.57	0.95	-0.34	-0.03	0.00	-0.16	0.04	0.00				1.75	-1.60	0.12
0.56	0.57	0.59	0.58	0.58	0.57	0.57	0.57	0.57				0.61	0.48	0.56
44.11%	41.17%	46.97%	47.57%	46.01%	46.01%	46.02%	42.34%	44.07%				47.57%	37.31%	42.21%
497,483	479,144	522,394	552,498	555,904	531,545			471,310		9,664,837		555,904	327,525	460,230
296,678	299,626	323,309	342,661	340,716	359,386	351,871	348,135	327,990		7,312,673		359,386	286,521	317,942
794,161	778,770	845,703	895,159	896,620	890,931	869,049	857,974	799,300		18,004,527		896,620	614,046	782,806
5,440	-15,391	66,933	49,456	1,461	-5,689	-21,882	-11,075	-58,674				83,309	-58,674	8,421
0.69%	-1.94%	8.59%	5.85%	0.16%	-0.63%	-2.46%	-1.27%	-6.84%				13.57%	-6.84%	1.30%
62.64%	61.53%	61.77%	61.72%	62.00%	59.66%			58.97%		53.68%		62.84%	53.34%	59.16%
16.68	16.93	18.34	19.51	19.54	19.18	18.71	18.30	17.05				19.54	12.36	16.49
3.87	4.82	4.25	4.73	4.56	4.71	4.63	4.59	4.50				4.82	3.66	4.24
29,788	29,849	31,276	33,527	33,619	33,406	32,782	32,315	30,105				33,619	25,639	29,540
44,222	42,988	41,978	46,000	59,858	58,168	54,733	53,394	55,728		753,893		59,858	4,956	32,778
46,478	54,084	57,832	58,176	73,201	87,322	94,888	103,081	107,403		943,305		107,403	6,929	41,013
1.05	1.26	1.38	1.26	1.22	1.50	1.73	1.93	1.93		1.25		2.25	0.68	1.26
344,822	332,358	413,233	458,369	449,617	449,964	430,388	406,315	385,627				458,369	250,000	364,810
7.24	7.23	8.96	9.99	9.80	9.69	9.27	8.66	8.22				9.99	5.03	7.68
144,716	120,191	118,365	122,412	140,707	43,120	134,242	128,351	205,361				279,084	43,120	159,389
3.04	2.61	2.57	2.67	3.07	0.93	2.89	2.74	4.38				5.88	0.93	3.35

WAUWATOSA PUBLIC LIBRARY
ANNUAL REPORT DATA SUMMARY

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
HOLDINGS											
Books											
Held	167,363	169,826	187,025	188,942	182,921	171,890	175,732	225,586	227,356	222,042	189,065
Net additions	*5,171*	*2,463*	*17,199*	*1,917*	*-6,021*	*-11,031*	*3,842*	*49,854*	*1,770*	*-5,314*	*-32,977*
% net increase	*3.09%*	*1.43%*	*9.20%*	*1.01%*	*-3.29%*	*-6.42%*	*2.19%*	*22.10%*	*0.78%*	*-2.39%*	*-17.44%*
Videos											
Held	1,779	1,746	2,967	4,313	5,480	7,043	8,277	9,400	10,502	11,797	12,758
Net additions	*345*	*-33*	*1,221*	*1,346*	*1,167*	*1,563*	*1,234*	*1,123*	*1,102*	*1,295*	*961*
% net increase	*19.39%*	*-1.89%*	*41.15%*	*31.21%*	*21.30%*	*22.19%*	*14.91%*	*11.95%*	*10.49%*	*10.98%*	*7.53%*
Audio recordings											
Held	7,566	7,854	7,874	8,608	9,773	10,303	11,082	11,560	10,982	11,450	12,206
Net additions	*335*	*288*	*20*	*734*	*1,165*	*530*	*779*	*478*	*-578*	*468*	*756*
% net increase	*4.43%*	*3.67%*	*0.25%*	*8.53%*	*11.92%*	*5.14%*	*7.03%*	*4.13%*	*-5.26%*	*4.09%*	*6.19%*
Periodicals											
Titles held	331	353	353	355	377	337	306	315	310	303	303
Volumes held per cap	*3.38*	*3.43*	*3.77*	*3.83*	*3.72*	*3.62*	*3.72*	*4.80*	*4.86*	*4.76*	*4.08*
Nonprint pct of total	*5.29%*	*5.35%*	*5.48%*	*6.40%*	*7.70%*	*9.17%*	*9.92%*	*8.50%*	*8.63%*	*9.48%*	*11.66%*
Video pct of nonprint	*19.04%*	*18.19%*	*27.37%*	*33.38%*	*35.93%*	*40.60%*	*42.76%*	*44.85%*	*48.88%*	*50.75%*	*51.11%*
Periodicals per 1000 pop	*6.69*	*7.13*	*7.12*	*7.20*	*7.67*	*7.10*	*6.48*	*6.70*	*6.62*	*6.50*	*6.54*
COMPUTER ACCESS											
Public PCs					12	12	17	17	17	20	22
User pop per PC					*4,094*	*3,953*	*2,778*	*2,764*	*2,753*	*2,330*	*2,105*
Visits per PC					*28,628*	*28,423*	*20,457*	*20,597*	*20,358*	*17,144*	*15,456*
Items held per PC					*16,515*	*15,770*	*11,476*	*14,303*	*14,638*	*12,264*	*9,729*
User sessions											
Users per public PC											

2006	2007	2008	2009	2010	2011	2012	2013	2014		For the period		High	Low	Average
205,308	161,554	198,984	189,258	196,639	189,020	187,676	186,726	177,701				227,356	147,832	185,506
16,243	-43,754	37,430	-9,726	7,381	-7,619	-1,344	-950	-9,025		-11,319		49,854	-43,754	1,358
7.91%	-27.08%	18.81%	-5.14%	3.75%	-4.03%	-0.72%	-0.51%	-5.08%				22.10%	-27.08%	0.33%
13,082	13,141	14,528	13,202	14,412	15,423	15,059	15,930	16,135				16,135	794	9,141
324	59	1,387	-1,326	1,210	1,011	-364	871	205		0		1,563	-1,326	697
2.48%	0.45%	9.55%	-10.04%	8.40%	6.56%	-2.42%	5.47%	1.27%				41.15%	-10.04%	11.91%
11,671	11,349	14,624	15,347	11,657	15,867	16,884	17,106	17,598				17,598	5,913	11,346
-535	-322	3,275	723	-3,690	4,210	1,017	222	492		5,392		4,210	-3,690	531
-4.58%	-2.84%	22.39%	4.71%	-31.65%	26.53%	6.02%	1.30%	2.80%				26.53%	-31.65%	4.27%
303	279	267	249	246	219	200	201	202				394	200	301
4.31	3.51	4.31	3.20	4.28	4.07	4.04	3.98	3.79				4.86	2.97	3.86
10.76%	13.16%	12.78%	13.11%	11.71%	14.20%	14.54%	15.03%	15.95%				15.95%	4.34%	9.69%
52.85%	53.66%	49.84%	46.24%	55.28%	49.29%	47.14%	48.22%	47.83%				55.28%	11.84%	39.37%
6.36	6.07	5.79	5.43	5.36	4.71	4.31	4.29	4.31				7.93	4.29	6.30
20	30	22	34	35	36	29	37	34				37	12	25
2,381	1,533	2,096	1,350	1,311	1,290	1,602	1,267.38	1,379.21				4,094.42	1,267.38	2,186.70
17,241	11,079	18,783	13,481	12,846	12,499	14,841	####	####				28,628.08	10,981.49	17,134.84
11,503	6,201	10,370	6,406	6,363	6,120	7,573	5,939.51	6,218.65				16,514.50	5,939.51	10,099.25
7,641	17,701	77,384	54,892	52,332	49,152	49,152	42,255	43,608				77,384	7,641	43,791
382.05	590.03	3,517.45	1,614.47	1,495.20	1,365.33	1,694.90	1,142.03	1,282.59				3,517.45	382.05	1,453.78

WATERTOWN PUBLIC LIBRARY
ANNUAL REPORT DATA SUMMARY

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
RECEIPTS (in $000s)											
Local	$1,124	$1,147	$1,199	$1,160	$1,203	$1,310	$1,243	$1,277	$1,370	$1,372	$1,672
State	$217	$245	$0	$0	$0	$0	$0	$0	$31	$60	$121
Federal	$2	$13	$21	$22	$31	$32	$0	$1	$0	$0	$0
Other	$75	$96	$295	$356	$334	$366	$382	$404	$348	$262	$45
TOTAL	$1,418	$1,500	$1,515	$1,538	$1,568	$1,708	$1,626	$1,682	$1,749	$1,694	$1,839
Increase over prev yr	*$140*	*$82*	*$15*	*$23*	*$30*	*$140*	*($82)*	*$56*	*$67*	*($55)*	*$145*
Local pct of total	*79.25%*	*76.45%*	*79.13%*	*75.43%*	*76.73%*	*76.70%*	*76.47%*	*75.95%*	*78.36%*	*80.97%*	*90.96%*
State pct of total	*15.29%*	*16.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.75%*	*3.56%*	*6.58%*
Federal pct of total	*0.16%*	*0.84%*	*1.38%*	*1.43%*	*1.95%*	*1.87%*	*0.03%*	*0.03%*	*0.00%*	*0.00%*	*0.00%*
Other pct of total	*5.30%*	*6.39%*	*19.49%*	*23.14%*	*21.32%*	*21.42%*	*23.50%*	*24.01%*	*19.89%*	*15.47%*	*2.46%*
EXPENDITURES											
Salaries & wages	$737	$756	$792	$825	$851	$880	$952	$990	$1,024	$1,004	$1,076
Benefits	$314	$329	$328	$347	$366	$400	$360	$469	$544	$535	$708
Personnel	$1,050	$1,085	$1,120	$1,172	$1,216	$1,280	$1,312	$1,459	$1,567	$1,539	$1,784
Print materials									$143	$148	$142
Electronic materials									$24	$32	$30
All other materials									$66	$53	$59
Collections	$164	$176	$207	$233	$232	$232	$226	$218	$233	$233	$231
All other	$196	$183	$133	$190	$216	$197	$120	$181	$140	$101	$148
OPERATING TOTAL	$1,410	$1,444	$1,460	$1,594	$1,664	$1,709	$1,658	$1,859	$1,941	$1,873	$2,163
Increase over prev yr	*$156*	*$33*	*$16*	*$134*	*$70*	*$45*	*($51)*	*$201*	*$81*	*($67)*	*$290*
Revenue over (under) exp	*$8*	*$56*	*$55*	*($56)*	*($96)*	*($1)*	*($32)*	*($177)*	*($192)*	*($179)*	*($325)*
Salaries pct of op total	*74.47%*	*75.11%*	*76.70%*	*73.51%*	*73.09%*	*74.89%*	*79.14%*	*78.50%*	*80.78%*	*82.17%*	*82.48%*
Material pct of op total	*11.65%*	*12.22%*	*14.19%*	*14.58%*	*13.93%*	*13.58%*	*13.63%*	*11.74%*	*12.01%*	*12.44%*	*10.67%*
Op expend per capita	*$28.49*	*$29.16*	*$29.47*	*$32.35*	*$33.87*	*$36.03*	*$35.11*	*$39.56*	*$41.46*	*$40.19*	*$46.71*
Matl expend per capita	*$3.32*	*$3.56*	*$4.18*	*$4.72*	*$4.72*	*$4.89*	*$4.79*	*$4.65*	*$4.98*	*$5.00*	*$4.99*

2006	2007	2008	2009	2010	2011			2012		For the period		High	Low	Average
$1,805	$1,939	$2,238	$2,288	$2,303	$2,274	$2,345	$2,351	$2,512		$37,012		$2,512	$937	$1,609
$79	$87	$103	$236	$281	$278	$273	$265	$271		$3,038		$281	$0	$132
$0	$0	$0	$0	$0	$0	$0	$0	$0		$136		$32	$0	$6
$53	$354	$204	$68	$17	$2	$1	$2	$2		$3,853		$404	$1	$168
$1,937	$2,379	$2,544	$2,592	$2,601	$2,555	$2,620	$2,617	$2,785		$44,039		$2,785	$1,110	$1,915
$98	$442	$165	$48	$9	($46)	$65	($3)	$168				$442	($82)	$73
93.19%	81.49%	87.94%	88.27%	88.54%	89.03%	89.53%	89.82%	90.19%		84.04%		93.19%	75.43%	82.90%
4.07%	3.65%	4.05%	9.10%	10.79%	10.89%	10.43%	10.11%	9.73%		6.90%		16.49%	0.00%	6.84%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%		0.31%		1.95%	0.00%	0.38%
2.74%	14.86%	8.01%	2.63%	0.67%	0.08%	0.04%	0.06%	0.08%		8.75%		24.01%	0.04%	9.88%
$1,087	$1,133	$1,117	$1,167	$1,226	$1,217	$1,214	$1,283	$1,301						
$556	$603	$419	$412	$398	$391	$402	$413	$400						
$1,643	$1,736	$1,535	$1,578	$1,624	$1,608	$1,615	$1,696	$1,701		$31,971		$1,784	$807	$1,390
$137	$149	$160	$154	$122	$119	$124	$147	$149		$1,693		$160	$119	$141
$26	$31	$31	$21	$36	$40	$42	$46	$63		$422		$63	$21	$35
$50	$78	$80	$86	$68	$67	$65	$69	$66						
$213	$257	$271	$260	$225	$227	$231	$262	$281						
$153	$166	$174	$708	$988	$757	$702	$260	$176		$6,203		$988	$55	$270
$2,010	$2,160	$1,980	$2,547	$2,838	$2,592	$2,549	$2,218	$2,197		$43,260		$2,838	$1,000	$1,881
($154)	$150	($179)	$567	$291	($246)	($43)	($331)	($22)				$567	($331)	$48
($73)	$220	$564	$45	($237)	($38)	$70	$399	$588				$588	($325)	$34
81.77%	80.40%	77.54%	61.97%	57.24%	62.03%	63.37%	76.47%	77.43%		73.90%		82.48%	57.24%	74.93%
10.60%	11.92%	13.67%	10.22%	7.93%	8.76%	9.08%	11.82%	12.78%		4.89%		14.58%	7.93%	11.99%
$42.20	$46.95	$42.94	$55.51	$61.84	$55.80	$54.88	$47.30	$46.84				$61.84	$20.12	$39.78
$4.47	$5.60	$5.87	$5.67	$4.91	$4.89	$4.98	$5.59	$5.99				$5.99	$2.63	$4.63

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APPENDIX C: TRENDLINE / COMPARATIVE BENCHMARK ANALYSIS

A comparative analysis provides context for decision-making. By placing the library in the context of a peer group or cohort, it creates an enhanced understanding of what the subject library's data and results might mean.

This appendix provides the full IMLS trendline analysis summarized earlier in this report.

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC:	**Volumes held**
COHORT:	**Wisconsin libraries / 40,000 to 70,000 pop**

Data set summary	
Wauwatosa	186,726
n=	18
Min	72,516
50th %	152,638
75th %	184,246
90th %	201,784
Max	291,351
% rank	82.30
% rank pop	47.00
Intercept	
	151,000

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC:	**Volumes held**
COHORT:	**Regional libraries / 40,000 to 70,000 pop**

Data set summary	
Wauwatosa	186,726
n=	91
Min	71,560
50th %	159,199
75th %	202,645
90th %	263,218
Max	439,680
% rank	70.00
% rank pop	43.30
Intercept	
	172,500

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC:	**Volumes held**
COHORT:	**U.S. libraries / 40,000 to 70,000 pop**

Data set summary	
Wauwatosa	186,726
n=	623
Min	-
50th %	123,119
75th %	168,091
90th %	220,662
Max	631,302
% rank	81.10
% rank pop	30.30
Intercept	
	127,500

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Audio recordings held
COHORT: Wisconsin libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	17,106
n=	18
Min	5,524
50th %	13,510
75th %	17,026
90th %	20,403
Max	26,586
% rank	76.40
% rank pop	47.00
Intercept	
	13,500

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Audio recordings held
COHORT: Regional libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	17,106
n=	91
Min	1,564
50th %	12,307
75th %	19,508
90th %	24,019
Max	146,384
% rank	67.70
% rank pop	43.30
Intercept	
	14,500

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Audio recordings held
COHORT: U.S. libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	17,106
n=	623
Min	-
50th %	6,463
75th %	11,797
90th %	19,242
Max	146,384
% rank	87.70
% rank pop	30.30
Intercept	
	8,400

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Video recordings held
COHORT: Wisconsin libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	15,930
n=	18
Min	6,794
50th %	13,933
75th %	19,035
90th %	21,746
Max	35,082
% rank	-
% rank pop	47.00

Intercept	
	14,750

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Video recordings held
COHORT: Regional libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	15,930
n=	91
Min	-
50th %	13,856
75th %	20,677
90th %	28,873
Max	66,419
% rank	58.80
% rank pop	43.30

Intercept	
	15,500

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Video recordings held
COHORT: U.S. libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	15,930
n=	623
Min	-
50th %	8,388
75th %	13,559
90th %	21,932
Max	82,718
% rank	80.50
% rank pop	30.30

Intercept	
	10,000

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Magazines received |
| COHORT: | Wisconsin libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	201
n=	18
Min	83
50th %	296
75th %	348
90th %	419
Max	433
% rank	11.70
% rank pop	47.00
Intercept	
	285

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Magazines received |
| COHORT: | Regional libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	201
n=	91
Min	82
50th %	296
75th %	400
90th %	548
Max	11,929
% rank	20.00
% rank pop	43.30
Intercept	
	416

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Magazines received |
| COHORT: | U.S. libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	201
n=	623
Min	-
50th %	191
75th %	290
90th %	420
Max	13,531
% rank	51.90
% rank pop	30.30
Intercept	
	249

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Items held per capita |
| COHORT: | Wisconsin libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	4.69
n=	18
Min	2.29
50th %	3.67
75th %	4.00
90th %	4.72
Max	5.06
% rank	88.20
% rank pop	47.00

Intercept	
	3.60

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Items held per capita |
| COHORT: | Regional libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	4.69
n=	91
Min	1.62
50th %	3.70
75th %	4.74
90th %	5.92
Max	9.63
% rank	74.40
% rank pop	43.30

Intercept	
	4.05

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Items held per capita |
| COHORT: | U.S. libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	4.69
n=	623
Min	-
50th %	2.63
75th %	3.59
90th %	4.82
Max	9.71
% rank	89.00
% rank pop	30.30

Intercept	
	2.95

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Nonprint as a percent of total |
| COHORT: | Wisconsin libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	15.03%
n=	18
Min	9.99%
50th %	14.20%
75th %	17.30%
90th %	21.56%
Max	28.26%
% rank	58.80
% rank pop	47.00
Intercept	
	15.90%

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Nonprint as a percent of total |
| COHORT: | Regional libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	15.03%
n=	91
Min	3.15%
50th %	13.93%
75th %	17.73%
90th %	19.76%
Max	35.26%
% rank	60.00
% rank pop	43.30
Intercept	
	14.00%

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Nonprint as a percent of total |
| COHORT: | U.S. libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	15.03%
n=	622
Min	0.06%
50th %	11.39%
75th %	15.35%
90th %	19.21%
Max	40.63%
% rank	73.20
% rank pop	30.30
Intercept	
	12.00%

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: PCs for public use
COHORT: Wisconsin libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	37
n=	18
Min	19
50th %	44
75th %	56
90th %	77
Max	112
% rank	35.20
% rank pop	47.00
Intercept	
	47.00

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: PCs for public use
COHORT: Regional libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	37
n=	91
Min	15
50th %	51
75th %	70
90th %	90
Max	144
% rank	27.70
% rank pop	43.30
Intercept	
	53

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: PCs for public use
COHORT: U.S. libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	37
n=	623
Min	-
50th %	38
75th %	59
90th %	80
Max	176
% rank	46.30
% rank pop	30.30
Intercept	
	41

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Visits per PC |
| COHORT: | Wisconsin libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	10,981
n=	18
Min	3,520
50th %	6,448
75th %	8,795
90th %	10,424
Max	13,313
% rank	94.10
% rank pop	47.00

Intercept
6,900

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Visits per PC |
| COHORT: | Regional libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	10,981
n=	91
Min	2,050
50th %	6,063
75th %	8,397
90th %	10,981
Max	20,111
% rank	90.00
% rank pop	43.30

Intercept
6,750

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Visits per PC |
| COHORT: | U.S. libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	10,981
n=	621
Min	681
50th %	5,675
75th %	8,643
90th %	12,426
Max	49,988
% rank	86.60
% rank pop	30.30

Intercept
6,700

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Circulation
COHORT: Wisconsin libraries / 40,000 to 70,000 pop

Intercept	
Wauwatosa	857,974
n=	18
Min	301,645
50th %	550,535
75th %	740,305
90th %	898,167
Max	1,204,089
% rank	88.20
% rank pop	47.00
Intercept	
	595,000

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Circulation
COHORT: Regional libraries / 40,000 to 70,000 pop

Intercept	
Wauwatosa	857,974
n=	91
Min	25,363
50th %	576,493
75th %	891,516
90th %	1,151,812
Max	2,119,866
% rank	72.20
% rank pop	43.30
Intercept	
	650,000

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Circulation
COHORT: U.S. libraries / 40,000 to 70,000 pop

Intercept	
Wauwatosa	857,974
n=	623
Min	-
50th %	311,831
75th %	539,347
90th %	849,512
Max	2,845,319
% rank	90.10
% rank pop	30.30
Intercept	
	380,000

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Circulation per item held
COHORT: Wisconsin libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	3.90
n=	18
Min	2.11
50th %	3.07
75th %	3.87
90th %	4.49
Max	4.85
% rank	76
% rank pop	47.00

Intercept	
	3.25

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Circulation per item held
COHORT: Regional libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	3.90
n=	91
Min	0.26
50th %	3.10
75th %	3.96
90th %	4.78
Max	6.14
% rank	71
% rank pop	43.30

Intercept	
	3.20

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Circulation per item held
COHORT: U.S. libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	3.90
n=	622
Min	0.10
50th %	2.27
75th %	3.38
90th %	4.66
Max	10.64
% rank	83
% rank pop	30.30

Intercept	
	2.52

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Circulation per capita
COHORT: Wisconsin libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	18.30
n=	18
Min	7.07
50th %	10.43
75th %	12.99
90th %	18.60
Max	23.34
% rank	88.20
% rank pop	47.00
Intercept	
	12.30

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Circulation per capita
COHORT: Regional libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	18.30
n=	91
Min	0.43
50th %	11.34
75th %	19.28
90th %	23.34
Max	32.72
% rank	73.30
% rank pop	43.30
Intercept	
	13.00

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Circulation per capita
COHORT: U.S. libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	18.30
n=	623
Min	-
50th %	5.69
75th %	10.16
90th %	15.49
Max	46.22
% rank	92.10
% rank pop	30.30
Intercept	
	7.50

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Circulation per visit
COHORT: Wisconsin libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	2.11
n=	18
Min	1.35
50th %	1.98
75th %	2.23
90th %	2.42
Max	3.29
% rank	58.80
% rank pop	47.00
Intercept	
	2.05

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Circulation per visit
COHORT: Regional libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	2.11
n=	91
Min	0.24
50th %	2.03
75th %	2.47
90th %	2.73
Max	3.63
% rank	57.70
% rank pop	43.30
Intercept	
	2.00

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Circulation per visit
COHORT: U.S. libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	2.11
n=	623
Min	-
50th %	1.49
75th %	2.02
90th %	2.51
Max	5.97
% rank	78.60
% rank pop	30.30
Intercept	
	1.58

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Visits
COHORT: Wisconsin libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	406,315
n=	18
Min	149,989
50th %	290,576
75th %	346,958
90th %	428,284
Max	641,153
% rank	88.20
% rank pop	47.00

Intercept	
	295,000

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Visits
COHORT: Regional libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	406,315
n=	91
Min	104,540
50th %	293,269
75th %	403,082
90th %	533,215
Max	951,355
% rank	75.50
% rank pop	43.30

Intercept	
	320,000

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Visits
COHORT: U.S. libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	406,315
n=	623
Min	1,068
50th %	225,420
75th %	317,534
90th %	454,774
Max	1,539,564
% rank	87.60
% rank pop	30.30

Intercept	
	235,000

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Number of programs
COHORT: Wisconsin libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	697
n=	18
Min	91
50th %	526
75th %	689
90th %	902
Max	1,731
% rank	76.40
% rank pop	47.00
Intercept	
	560

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Number of programs
COHORT: Regional libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	697
n=	91
Min	91
50th %	721
75th %	984
90th %	1,379
Max	3,267
% rank	48.80
% rank pop	43.30
Intercept	
	762

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Number of programs
COHORT: U.S. libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	697
n=	623
Min	-
50th %	561
75th %	871
90th %	1,311
Max	6,439
% rank	62.50
% rank pop	30.30
Intercept	
	630

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Program attendance
COHORT: Wisconsin libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	29,807
n=	18
Min	3,079
50th %	17,390
75th %	21,280
90th %	28,377
Max	30,387
% rank	94.10
% rank pop	47.00
Intercept	
	16,500

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Program attendance
COHORT: Regional libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	29,807
n=	91
Min	1,149
50th %	20,214
75th %	29,910
90th %	41,124
Max	76,418
% rank	74.40
% rank pop	43.30
Intercept	
	21,800

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Program attendance
COHORT: U.S. libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	29,807
n=	623
Min	-
50th %	13,656
75th %	22,731
90th %	34,835
Max	236,465
% rank	86.10
% rank pop	30.30
Intercept	
	6,000

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: FTE staffing
COHORT: Wisconsin libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	26.55
n=	18
Min	10.62
50th %	25.68
75th %	32.06
90th %	40.03
Max	63.15
% rank	52.90
% rank pop	47.00
Intercept	
	26.00

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: FTE staffing
COHORT: Regional libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	26.55
n=	91
Min	8.20
50th %	30.54
75th %	48.46
90th %	66.66
Max	111.57
% rank	35.50
% rank pop	43.30
Intercept	
	37.00

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: FTE staffing
COHORT: U.S. libraries / 40,000 to 70,000 pop

Data set summary	
Wauwatosa	26.55
n=	623
Min	1.00
50th %	20.50
75th %	31.23
90th %	46.29
Max	122.17
% rank	64.90
% rank pop	30.30
Intercept	
	23.50

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Registered borrowers pct of pop |
| COHORT: | Wisconsin libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	70.43%
n=	18
Min	29.45%
50th %	59.32%
75th %	73.35%
90th %	86.54%
Max	130.22%
% rank	64.70
% rank pop	47.00
Intercept	
	65.00%

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Registered borrowers pct of pop |
| COHORT: | Regional libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	70.43%
n=	91
Min	26.28%
50th %	56.55%
75th %	69.42%
90th %	78.65%
Max	130.22%
% rank	76.60
% rank pop	43.30
Intercept	
	56.50%

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

| METRIC: | Registered borrowers pct of pop |
| COHORT: | U.S. libraries / 40,000 to 70,000 pop |

Data set summary	
Wauwatosa	70.43%
n=	623
Min	0.00%
50th %	51.28%
75th %	67.09%
90th %	81.43%
Max	298.62%
% rank	79.70
% rank pop	30.30
Intercept	
	54.50%

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Expenditures ($000s)
COHORT: Wisconsin libraries / 40,000 to 70,000 pop

Data set summary		
Wauwatosa	$	2,218.20
n=		18
Min	$	724.71
50th %	$	1,918.89
75th %	$	2,290.75
90th %	$	2,896.41
Max	$	5,177.89
% rank		64.70
% rank pop		47.00
Intercept		
	$	1,950.00

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Expenditures ($000s)
COHORT: Regional libraries / 40,000 to 70,000 pop

Data set summary		
Wauwatosa	$	2,218.20
n=		91
Min	$	535.48
50th %	$	2,306.88
75th %	$	3,994.33
90th %	$	5,942.48
Max	$	10,184.98
% rank		47.70
% rank pop		43.30
Intercept		
	$	2,995.00

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Expenditures ($000s)
COHORT: U.S. libraries / 40,000 to 70,000 pop

Data set summary		
Wauwatosa	$	2,218.20
n=		623
Min	$	68.46
50th %	$	1,452.23
75th %	$	2,521.77
90th %	$	3,952.02
Max	$	12,745.59
% rank		70.50
% rank pop		30.30
Intercept		
	$	1,800.00

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Expenditures per capita
COHORT: Wisconsin libraries / 40,000 to 70,000 pop

Data set summary		
Wauwatosa	$	47.30
n=		18
Min	$	17.31
50th %	$	36.71
75th %	$	43.90
90th %	$	54.62
Max	$	100.35
% rank		82.30
% rank pop		47.00
Intercept		
	$	39.50

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Expenditures per capita
COHORT: Regional libraries / 40,000 to 70,000 pop

Data set summary		
Wauwatosa	$	47.30
n=		91
Min	$	11.81
50th %	$	46.18
75th %	$	75.77
90th %	$	126.60
Max	$	157.21
% rank		52.20
% rank pop		43.30
Intercept		
	$	59.50

TRENDLINE ANALYSIS
WAUWATOSA PUBLIC LIBRARY

METRIC: Expenditures per capita
COHORT: U.S. libraries / 40,000 to 70,000 pop

Data set summary		
Wauwatosa	$	47.30
n=		623
Min	$	1.49
50th %	$	27.68
75th %	$	45.84
90th %	$	73.02
Max	$	203.73
% rank		75.80
% rank pop		30.30
Intercept		
	$	37.50