The Wisconsin Library User (and Non-User) II: *Outcomes of a Second Statewide Survey (2003 – 2007 comparisons)*

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By

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Executive Summary

The following research studies the perceptions of the population of Wisconsin toward their public libraries and library use. A short scientific survey was developed for telephone administration. 627 individuals around the state agreed to complete the survey, which gives the survey a reliability of +/- 4% (92% reliability). The survey respondents represent a random sample of both library users (50%) and non-users (50%), and this proportion of library users to non-users is reasonably consistent with the statewide survey results from 2003[1].

The following report includes details about many interesting points, including:

- ♦ Using a model to predict library usage in the state of Wisconsin, we can say that the prototypical Wisconsin library user is more likely to be female, use the Internet daily, and be very comfortable using computers when compared to library non-users. Additionally, library users are likely to use a library to find materials for personal enjoyment, and are likely to use a library that is near their home.

- ♦ Perhaps not surprisingly, there are significant differences in the perception of library value between library users and non-users. For example, Wisconsin library users tend to strongly and consistently agree with the statement, "Public libraries enhance my quality of life." However, among library non-users, this response centers around "somewhat agree" but has considerable span of responses.

- ♦ Both library users and non-users appear to have little or no interest in any of the proposed new technology initiatives. However, it is important to note that there is considerable variation in the perceived value of these initiatives among Wisconsin residents. Younger respondents are more likely to view all of these initiatives more favorably[2].

[1] In general, results of the 2007 survey are largely comparable to the 2003 statewide results. However, there seems to be a slight tendency for library users to be slightly "more connected" to their library (more likely to pick 'strongly agree' on questions that affirm the library and library use), and library non-users are slightly "less connected" to the library when compared to 2003 data. This phenomenon could be partially explained by minor modifications of the survey questions.

[2] Younger adults were also more likely to indicate that they would use the use the library more "if the library had more of the CDs, DVDs and videos I want" –and- "if the library had more materials I could access online". However, the effect of age in these questions was relatively small.

♦ A greater proportion of library users said that libraries deserve more support in 2007 than in 2003 (51.8% vs. 45.6%). However, even though there is a slight decrease from 2003 (32.8%) among library non-users to support more funding, nearly 30% of current library non-users think the libraries deserve more funding, and only 2.2% of surveyed library non-users believed that their local public library deserved less financial support.

♦ Finally, just as in 2003, there seems to be a tremendous amount of positive feeling toward libraries, among users and non-users alike. When asked about satisfaction with their public library, library users have "top-box score" (or aggregation of the top 2 scores, 'somewhat' and 'very' satisfied) of 97.1%. Somewhat less positive, though still impressively robust, is the "top box score" among non-users of 79.2%. This confirmation of goodwill, alone, bodes well for future initiatives to preserve library funding and expand library use.

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The Wisconsin Library User (and Non-User):
The need for a Statewide Survey

Public libraries are faced with the ongoing challenges of connecting citizens to information and services, reaching out to new library users, and advocating library use to build both community and state-level support. Additionally, public libraries must increasingly weigh the benefits of new technologies against the cost associated with implementing these new technologies. In order to meet these challenges, libraries rely on information to decide where to allocate various resources. In times of budget shortfalls, this information takes on heightened importance as libraries decide how to allocate fewer resources. However, until the survey of library users in 2003, information that provided a comprehensive picture of state library utilization was virtually nonexistent.

The current survey is the first extension of the 2003 survey with a goal of developing some trending data on public library use in Wisconsin. Additionally, this statewide information will serve as a point of comparison for individual libraries and library systems throughout the state.

Section One: Who is Using Public Libraries?

Part of the motivation behind this project is to create a profile of who is (and is not) using public libraries. Therefore, this section will detail who is (and who isn't) using their public libraries.

Overall use

The first analysis is the determination of library users and non-users.

Table 1-1: "Which of the following terms best describes how regularly you personally use your public library?"

	% of 2003 Survey Responses	*% of 2007 Survey Responses*
Very Regularly	16.9%	14.1%
Somewhat Regularly	31.3%	35.9%
Rarely	31.4%	32.5%
Not at all	20.5%	17.4%
SAMPLE SIZE	611	615

If we split the current sample into "Library Users" (those who answered 'very regularly' and 'somewhat regularly'), and "Library Non-Users" (those who answered 'rarely' or 'not at all'), we find the ratio of users to non-users to be 50% to 50%. The 2003 ratio of library users to non-users was 48.2% to 51.9. The ratio of users to non-users is fairly consistent to 2003. This user and non-user breakdown will be used as a comparison point throughout the survey.

Determining library users and non-users

In order to see what factors influenced whether someone was a library user or non-user, all of the demographics in the survey (gender, ethnicity, age, income, political party affiliation, voting from most recent gubernatorial election, household size, frequency of Internet use, type of home Internet, comfort with computers and geographic quadrant of the state) were entered into a regression model to predict library users.

Regression is a type of statistical modeling that examines the relationship of a dependent variable (in this case, library use) to independent variables (in this

case, various demographic characteristics). Regression uses independent variables as predictors for changes in the dependent variable. In this case, demographics characteristics are used as predictors for library use.

Only three items significantly predicted library use: (1) Gender, (2) Frequency of Internet use, and (3) Comfort using computers. There are no meaningful differences on the other demographics relative to library use. However, there were two marginal predictors: voting behavior and age. Voting behavior was a strong predictor in 2003, but given the higher overall voter turnout in 2007, this effect was diminished. However, the trend of library users tending to vote (or report voting) is still present in the current sample. Additionally, there is a slight indication that, as individuals get older, they are more likely to be library users.

Figure 1-1: Regression Model Predictors[3]

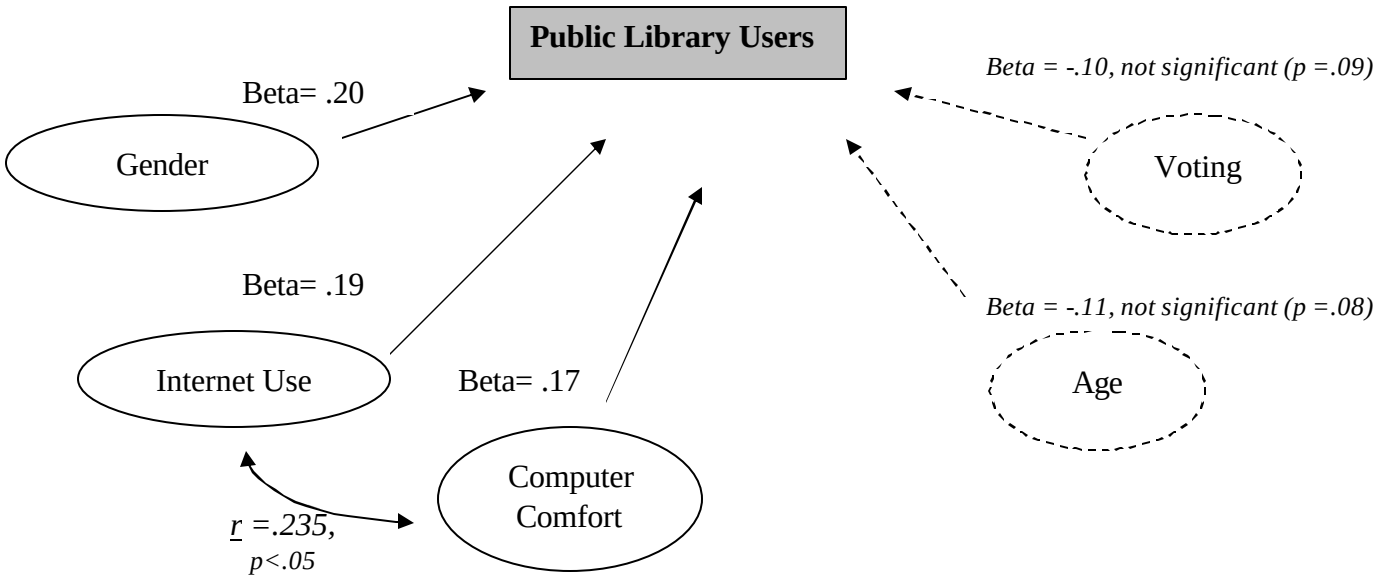


Table 1-2: Significant Factor 1: Gender

[3] Betas assess the strength of a relationship between an independent variable and a dependent variable. Betas range from -1 to +1. This definition and other helpful statistical terms are also including in Appendix 1.

	Library Users	*Library Non-Users*
Males	44.1%	61.4%
Females	55.9%	38.6%

Table 1-3: Significant Factor 2: Average Weekly Internet Use (days)

	Library Users	*Library Non-Users*
Never	13.0%	30.4%
Less than one day a week	5.2%	4.6%
1 – 6 days a week	27.2%	18.2%
Everyday	54.5%	46.9%

Table 1-4: Significant Factor 3: Comfort in using a computer

	Library Users	*Library Non-Users*
Very Uncomfortable	10.6%	23.4%
Slightly Uncomfortable	9.4%	11.6%
Slightly Comfortable	28.1%	25.1%
Very Comfortable	51.9%	39.9%

As illustrated in tables 1-2 through 1-4, library users are more likely to be female, more likely to use the Internet every day, and more likely to be very comfortable using computers. In short, tables 1-2 through 1-4 illustrate how each of these factors are associated with library use.

How are users interacting with the library?

The following table shows how library users used the library in the last 4 months.

Table 1-5: "During the past 4 months, please estimate how many times you have …."

	Never	*1 to 10 times*	*11 to 20 times*	*More than 20 times*
…visited a public library in person to use materials or services.	8.3%	57.7%	18.3%	15.7%
…used a personal computer from your home, school, or office to access public library materials or services.	64.1%	26.9%	3.5%	4.8%
…used a telephone to access the services of public libraries.	69.6%	28.2%	0.6%	1.3%
…used Google or other Internet search engine to answer a research question.	28.5%	23.7%	11.9%	35.9%

Given the predictors presented in Tables 1-2 through 1-4 above, it is interesting that such a large percentage of respondents never use a personal computer to access public library services, especially given the fact that nearly 36% frequently use a search engine. It suggests that there is room for promotion of the library's online presence, even to current library users.

What do users want in their library?

In the 2003 statewide survey, a series of questions was asked to assess how libraries were being used. These questions asked respondents to indicate if they used libraries for each of 13 activities. The same set of questions was asked in this 2007 survey.

Table 1-6: "Please indicate whether you -personally- have used any of following library services IN THE LAST 4 MONTHS." *[Ranked by % 'Yes']*

	Percentage of "Yes" responses
Located materials that were used for my personal enjoyment.	84.7%
Contacted a librarian to help me answer a question.	49.5%
Located materials that were used to read to a child.	44.3%
Located materials that were used for my work or business.	33.8%
Located materials that were used for schoolwork.	31.2%
Used a personal computer in the library to use the Internet.	27.8%
Contacted a librarian to get reading recommendations.	25.8%
Attended an organization or community meeting at the library.	22.2%
Attended story hours for children or other family programs.	20.6%
Used the library website to answer a research question.	20.5%
Attended a library program or event for adults (book groups, training, speaker, etc.).	12.2%
Located materials I used to conduct a job search.	11.1%
Located materials that were used for genealogical research.	9.7%

The previous questions asked users what they did at their library. Just as in the statewide survey in 2003, locating materials for personal enjoyment was by far the most frequent behavior.

Why do users use the library they do?

This question asked users why they use their current public library. The overwhelming response was that they use the library near where they live..

Table 1-7: What is the primary reason for choosing the library (or libraries) you use?

[Prompts were not read, but checked by the interviewers if the items were mentioned]

	Frequency	*Percent*
It is near where I live.	244	39.5%
It is near where I work.	24	3.9%
It has what I want.	19	3.1%
I like to go there.	11	1.8%
It is near where I shop.	2	0.3%
It is near where I go to school.	2	0.3%
The staff is helpful.	0	0.0%

Summary Remarks about Library Users

If we had to create a profile of the Wisconsin library user, using the demographic information that this research collected, we could say that the Wisconsin library user is more likely to be female, use the Internet daily, and be very comfortable using computers. They are also a little more likely to have voted, more likely to be more than 32 – 38 years old, likely to use a library to find materials for personal enjoyment, and likely to use a library that is near their home.

Section Two: Perspectives of Value of the Public Library

The following questions were new additions and were not asked in the 2003 survey.

Perhaps not surprisingly, there are significant differences in the perception of library value between library users and non-users, as illustrated in Table 2-1. Possible responses ranged from 2 (strongly agree) to -2 (strongly disagree).

For example, Wisconsin library users tend to strongly agree with the statement, "Public libraries enhance my quality of life" and, as illustrated by the relatively small standard deviation, there is little variation in this response among library users. However, for library non-users, this response centers on a "somewhat agree," but has a very large standard deviation, which indicates considerable differences in responses among library non-users.

In the question that asks if respondents would support a referendum to increase funding for their public library, library users tend to somewhat and strongly agree (as illustrated by the mean of 1.51). Library non-users, however, only somewhat agree with this statement, and there is far more variation in the responses, as indicated by the standard deviation.

Likewise, in the question that asks if respondents enjoy their local public library, library users are nearly uniform in their response of "strongly agree", while library non-users less than "somewhat agree" with this statement, although the high standard deviation indicates a wide variation in responses from non-users.

Table 2-1: Perception of the value of libraries by Public Library Use

	Library Users *Scale Mean (S.D.)*	***Library Non-Users*** *Scale Mean (S.D.)*
Public libraries are important to me.	1.85 (0.41)	1.17 (1.11)
Public libraries enhance my quality of life.	1.71 (0.53)	0.77 (1.39)
Public libraries are a vital municipal service.	1.82 (0.45)	1.48 (0.92)
I consider public libraries an unnecessary expense.	-1.86 (0.55)	-1.39 (1.16)
Public libraries are an essential service for children.	1.92 (0.31)	1.72 (0.74)
Public libraries are an essential service for adults.	1.80 (0.45)	1.37 (0.96)
I would support a referendum that would increase funding for my public library.	1.51 (0.85)	0.82 (1.44)
I enjoy my public library.	1.86 (0.46)	0.89 (1.39)

Scale was +2 (strongly agree), 1 (somewhat agree), -1 (somewhat disagree), -2 (strongly disagree)

This question could be a valuable tracking point in future iterations of the survey[4]. Of particular interest is how few library non-users would support a referendum to increase library funding, and the perception among users and non-users alike that the public library is essential for children, but less essential for adults (though this effect is even more pronounced for library non-users).

In addition to the value perception of the library, it is also important to look at perceptions of specific aspects of public library service. Again, there was a significant difference between library users and non-users for each of the following statements.

[4] The importance of these community association questions cannot be overstated. As a final analysis, all of the demographics and all of the perception of value measures were put into a regression model. In this analysis, perception measures had a reliability of .98 and were the single large predictor of library use (Beta = .34, P<.001). However, the difficulty with this measure is that it is impossible to know whether or not positive perception of value comes before library use or whether library use influences perception. What we can say is that there is a strong association between library use and positive value perceptions.

Table 2-2: Perceptions of specific aspects of public library service

	Library Users *Scale Mean (S.D.)*	***Non- Library Users*** *Scale Mean (S.D.)*
The staff at my public library are helpful.	1.82 (0.55)	1.69 (0.63)
The staff at my public library are friendly.	1.84 (0.51)	1.74 (0.56)
The staff at my public library are knowledgeable.	1.86 (0.42)	1.73 (0.48)
My public library has the materials I want.	1.53 (0.85)	1.26 (1.00)
My public library is open convenient hours.	1.24 (1.12)	1.02 (1.30)
My public library tries new things.	1.44 (0.91)	1.22 (0.94)

Scale was +2 (strongly agree), 1 (somewhat agree), -1 (somewhat disagree), -2 (strongly disagree)

Both library users and non-users responded positively to the statements related to their perceptions of specific aspects of public library service, though non-users have slightly less favorable responses.

Section Three: Perspectives on Library Funding

Table 3-1 and 3-2: " Which statement most closely represents your opinion regarding the current funding for Wisconsin public libraries?"

2003	***Library Users (SAMPLE SIZE =294)***		***Library Non-Users (SAMPLE SIZE = 317)***	
	Frequency	***Percent***	***Frequency***	***Percent***
Public libraries deserve MORE financial support	134	45.6%	104	32.8%
Public libraries deserve LESS financial support	6	2.0%	7	2.2%
Public libraries have an ADEQUATE amount of financial support	89	30.3%	117	36.9%
Unsure	61	20.7%	84	26.5%

2007	***Library Users (SAMPLE SIZE =309)***		***Library Non-Users (SAMPLE SIZE = 302)***	
	Frequency	***Percent***	***Frequency***	***Percent***
Public libraries deserve MORE financial support	160	51.8%	90	29.8%
Public libraries deserve LESS financial support	0	0.0%	11	3.6%
Public libraries have an ADEQUATE amount of financial support	105	34.0%	129	42.7%
Unsure	44	14.2%	72	23.8%

In 2003, 2% of the surveyed population stated that libraries should get less financial support. In 2007, 1.8% of the total population believed that libraries should get less financial support. A greater proportion of library users said that libraries deserve more support in 2007 than in 2003 (51.8% vs. 45.6%). The truly amazing finding is that nearly 30% of library non-users think the libraries deserve more funding.

Section Four: New Initiatives

In the 2003 survey, the new initiatives targeted very specific technology projects (i.e. netLibrary), and had a very low response rate. The goal of the current new initiatives section is to examine more general ideas or potential initiatives of interest to public libraries. The following table examines these new initiatives in terms of library users and non-users.

Table 4-1: How interested are you in being able to do the following…

	Library Users *Scale Mean (S.D.)*	***Library Non-Users*** *Scale Mean (S.D.)*
Being able to download print books to your computer or electronic device.	-0.39 (1.68)	-0.69 (1.62)
Being able to download audio books to your computer or electronic device.	-0.42 (1.74)	-0.82 (1.62)
Being able to download feature-length video to your computer or electronic device.	-0.54 (1.68)	-0.82 (1.60)
Being able to check out electronic devices (like MP3 players) from your local public library. *(**The largest negative trend.)*	-0.67 (1.66)	-1.16** (1.47)
Being able to contact a librarian to ask a question 24 hours a day/7 days a week.	-0.50 (1.71)	-0.81 (1.63)
Being able to contact your local public library using instant messaging.	-0.70 (1.68)	-0.95 (1.57)
Being able to pay library fines and fees with a credit card online.	-0.35 (1.79)	-0.65 (1.72)
Being able to use wireless Internet at the library. *(**The only positive trend)*	0.05** (1.82)	-0.38 (1.78)

Scale was +2 (very interested), 1 (slightly interested), -1 (slightly disinterested), -2 (very disinterested)

The means for all cases are tending negatively, suggesting little interest from both users and non-users in the proposed initiatives. The only initiative with a positive reaction is wireless Internet access, and even this response is effectively neutral for library users. Library users are more moderate in their degree of disinterest with the proposed initiatives, but are still disinterested in most initiatives.

However, it is important to note that the standard deviations are comparably large for all of the new initiative questions, which suggests that while the majority of respondents tend toward disinterest in these initiatives, there is considerable variation in the population.

Section Five: What Would Increase Library Use?

The previous section of the report suggests that technology may not be a way to increase library use, but is there anything else that could?

The following table looks at various factors that could influence library use. The first 5 items had a significant difference between library users and non-users, but the last three items of this set (indicated with asterisks) showed no significant difference between users and non-users. Positive means are highlighted in bold.

Table 5-1: "Please indicate how much the following aspects would influence your library use."

	Library Users *Scale Mean (SD)*	***Library Non-Users*** *Scale Mean (SD)*
I would use my public library more if it were open more hours.	**0.11 (1.62)**	-0.50 (1.59)
I would use my public library more if the library had more of the books I want.	-0.22 (1.64)	-0.58 (1.60)
I would use my public library more if the library had more of the CDs, DVDs, and videos that I want.	**0.03 (1.70)**	-0.55 (1.67)
I would use my public library more if the library had more materials I could access online.	-0.13 (1.67)	-0.43 (1.73)
I would use my public library more if it were more convenient to get to.	-1.04 (1.47)	-0.77 (1.65)
***I would use my public library more if the library had more computer stations.	-0.83 (1.57)	-1.01 (1.55)
***I would use my public library more if the library building were more inviting.	-1.17 (1.40)	-1.32 (1.29)
***I would use the library's website more if it was easier to use.	-0.75 (1.56)	-0.88 (1.60)

Scale was +2 (strongly agree), 1 (somewhat agree), -1 (somewhat disagree), -2 (strongly disagree)

What is particularly interesting about this table is that non-library users more readily agree that they would use the library more if it were easier to get to than users do. This item is the only one where non-users agreed more than users did, though both groups still somewhat disagree with the statement.

The general trend is that no item appears to be a strong indicator to increase use among users or non-users.

Section Six: The Library Overall

In a report like this, I think it is important to end with a big picture. Therefore, the final analysis will examine the overall perspective of Wisconsin public libraries.

Table 6-1: "Overall how satisfied are you with your public library?"

	Library Users (SAMPLE SIZE=310)		***Library Non-Users (SAMPLE SIZE = 303)***	
	Frequency	***Percent***	***Frequency***	***Percent***
Very Satisfied	238	76.8%	120	39.6%
Somewhat Satisfied	66	21.3%	120	39.6%
Somewhat Dissatisfied	4	1.3%	10	3.3%
Very Dissatisfied	1	0.3%	4	1.3%
Don't Know/Unsure	1	0.3%	49	16.2%

This table illustrates that there is a high level of satisfaction with public libraries among library users and non-users alike. Among library users, there is a "top-box score" (or aggregation of the top 2 scores, somewhat and very satisfied) of 98.2%. Somewhat less positive is the "top box score" among non-users of 80.2%. Nevertheless, this result suggests a strong amount of goodwill toward libraries in Wisconsin from library users and non-users alike.

Epilogue

On one hand, the findings from this report could seem quite dismal: few initiatives would get individuals to use the library more, and few technology initiatives were of interest to anyone. However, this reaction misses the core support that is shown in community value, support for a funding referendum, and overall satisfaction with the library. It is also important to note the relative stability of these positive perceptions from 2003 to 2007.

Put differently, the "brand" of the public library in the state of Wisconsin is strong. We could broadly define that brand as a consistently reliable place that provides resources and information when needed. Things that seem "off-brand" (such as being able to check out MP3 players from a library) may be unappealing. However, if marketing of any new initiative could tie into that core library brand perception (i.e. "This is another way we can help you get access to information – and nothing else is going away"), I imagine that the interest and success would increase dramatically. In short, the strength of the public library brand is the perceived consistency, and that perception of consistency could be more highly valued than a perception of innovation among Wisconsin library users (and potential users).

So, this information presents a juncture: On one hand, if you interpret the results literally you could make a decision to reject technology and focus on building a collection around personal enjoyment for Wisconsin residents. On the other hand, these same results may suggest that initiatives and library services need to be marketed in such a way that resonates with current conceptions of a public library. To this end, I would suggest an exploration of branding Wisconsin library services to more effectively market services. But, regardless of the direction taken from the juncture, a heightened focus on Wisconsin public library customers and customer service is essential in order to expand and maintain your current brand loyalty.

Appendix 1: Statistical Notation Crib Sheet

There are many ways of learning about the world around you. However, the method that I privilege, and the method that is demonstrated throughout this report, is a quantitative or statistical method. Therefore I want to briefly explain some of the notation you will be seeing in this report, in order of importance.

n.s. This indicates not a significant finding

S.D. A measure of variability around a mean. We can think of a standard deviation as "noise" in a mean. A larger standard deviation indicates more variance in responses. A small standard deviation indicates more homogeneity in responses.

t: T-test. A t-test compares the significant difference between two groups

p: A measure of significance. Traditionally, if $p<.05$, we look at that finding as significant. If $p=.05$, there is a 95% probability that this finding did not occur by chance. If $p=.01$, there is a 99%probability that this finding did not occur by chance.

r: This signifies a correlation. Correlations range from –1 to +1, and we can test to see if this relationship between two variables is significant.

ANOVA: An ANOVA is a statistical test that is similar to a t-test, but rather than comparing differences between two groups, this test can compare differences among many groups.

Regression: A form of statistical modeling that attempts to evaluate the relationship between one variable (termed the dependent variable) and one or more other variables (termed the independent variables).

?: Symbol for beta. This is a standardized measure of association used in a regression. Typically, it denotes an association between a dependant variable and an independent variable.

Appendix 2: Procedure for Data Collection and Analyses

Just as in 2003, this survey utilized the call center space at the South Central Library System (SCLS) offices. This survey is a further testament to the utility of this low cost call center that was founded for the purpose of conducting the 2003 statewide survey.

The survey was entered into a web survey site (surveymonkey.com), and a call list of 6000 randomly selected names and phone numbers from across the state of Wisconsin was purchased from InfoUSA. This list was split into 8 groups and placed on 8 separate computers in the SCLS training room/ call center.

The Interviewers

Eight individuals were hired at $12-15[5] / hour as independent contractors and trained to conduct the interviews. One interviewer was fluent in Spanish and conducted 6 interviews in Spanish. Two interviewers were fluent in Hmong, and conducted one Hmong interview. Interviews were conducted from 5:30 p.m. – 8:30 p.m. Monday-Thursday/Sundays and 2:30 p.m. – 6:00 p.m. on Saturday. The entire process of data collection took approximately 10 days.

Callbacks were periodically made to individuals who completed the survey in order to check the interviewers' work. It should be noted that all interviewers received positive comments from these callbacks and several individuals expressed gratitude to the library system for conducting such research.

Sampling Children

In the 2003 survey, a snowball sampling technique was utilized where parents gave permission to interview a child and that child was interviewed. The percentage of individuals less than 18 years of age was small, and often the information was suspect. Therefore, the current survey focuses on individuals 18 years of age or older. Although this raises the average respondent age, it proved to be methodologically easier, and the information should have less error. A sample of adults 18 and older is suggested for future iterations of the study.

[5] There was a slight range given the fact that several callers had interview experience and were paid more for their services.

Contact Rate

In order to reach the goal of 600 completions, a list of 6,000 names was purchased. The total number of attempted contacts was 3,553. With 627 completions, 17.5% of the attempted contacts resulted in completions. Of the successful contacts, 826 people refused to answer the survey, and 627 people completed the survey. This resulted in a completion rate of 43.3% once an individual was reached on the telephone. This completion rate is comparable or higher than completion rates for other survey firms[6].

The completion rate for this survey was 17.5% of all attempted contacts.

The completion rate for this survey was 43.3% of all successful contacts.

Useable Sample (Excluding Library Workers)

In the original 2003 data, the number of people who indicated that they or a spouse worked for a public library was very small (less than 1%), and there appeared to be no differences in this group from the larger sample. However, at times people still questioned leaving this small group in for analysis. Therefore, in the current survey, it was decided to exclude these individuals. In the 2007 sample, 6 individuals (1%) indicated a personal or spousal work association with public libraries. These individuals were excluded from further analysis. This brings our useable sample to 621 respondents.

Table A2-1: "Do you or a spouse currently work for a public library?"

	Frequency	*Percent*
No	621	99.0%
Yes	6	1.0%
Total	627	100.0%

Note: These 6 cases were removed from further analysis

[6] In order to get some general information, researchers at several local and national survey agencies were contacted. Completion rates at these firms ranged from 20 – 40%.

Useable Sample (Excluding non-Wisconsin Library Use)

In addition to excluding public library workers, five people who indicated they regularly use public libraries outside of Wisconsin (four use a Minnesota library, and one uses an Illinois library). Given the goal was to assess Wisconsin public library users, these five individuals were excluded from analysis.

Table A2-2: Exclusions for out-of-state library use (library users only)

	Frequency	Percent
Use a WI Library	308	98.4%
Live in WI, but use IL or MN Library	5	1.6%
Total	313	100.0

Note: These 5 cases were removed from further analysis.

Survey Attrition

At this point the total sample available is 616. However, throughout the survey some participants could not answer a question or were unsure about an answer. These participants were excluded from analysis at a specific question level. Eight individuals did not answer the last three demographic questions, but completed the rest of the survey and were kept in for analysis. This constitutes an attrition rate of 1.3%. Sample sizes (n) for individual questions are provided within relevant tables to illustrate how means and standard deviations are computed.

Appendix 3: Assessing the Sample

In every survey, results are only as good as the sample that is collected. Typically, sample assessments only examine sampling error. This measure provides only one piece of insight into problems that may be inherent in the sample. This section will compute sampling error and will also compare the survey demographics to U.S. Census information in order to examine any systematic nonsampling error that may have occurred.

Sampling Error

Sampling error (sometimes called margin of error) can be thought of as the difference between the total population of interest and the sample that was polled to make inferences about this population. Sampling error is principally influenced by sample size, and sampling error is minimized as sample size becomes larger. In short, the more people in a sample, the more accurately this sample will reflect a population. It is a generally held convention that a sampling error of 5% or less is desirable. The formula for calculating sampling error is as follows:

$$\mathbf{S.E.} = \left(\sqrt{\frac{\mathbf{1}}{\mathbf{N}}} \right) \times \mathbf{100}$$

With our current sample of N=616, the sampling error = 4.0. In other words, the overall survey has a margin of error of plus or minus 4 percentage points and an omnibus reality[7] of 92.0%. This is well within acceptable sample parameters.

The margin of error for this survey is +/- 4.0 percentage points.

Power

Sampling error provides information on how a randomly selected sample reflects a true population. However, sampling error does not tell you what the ability is of the sample to detect an effect. The ability of a sample to detect an effect is measured by power. If power is too low, your sample will not be sensitive enough to see true differences that exist. In this way, a lack of power may lead you to incorrectly deduce that there is no effect when there is an effect. Power ranges from 0-1, and it is generally held that power to detect a desired effect should be no lower than .80 to .85. Again, power is closely tied to sample size and, not surprisingly, the current survey has more than adequate power.

[7] Omnibus reality is the overall reliability of a survey. The range of omnibus reality ranges from 0-100, with a higher number indicating higher reliability.

Nonsampling/ Systematic Error

While sampling error and power are important elements for understanding the limitations of a sample, they do not take into account other systematic forms of error. For example, a telephone survey may disproportionately exclude low-income households, or may over-sample older individuals. Additionally, there is evidence to suggest that many telephone polls may disproportionately sample households with conservative political tendencies over households with liberal political tendencies. All of these errors exemplify what is called non-response bias. In order to examine the extent to which non-response bias affects the representativeness of the sample, demographic characteristics collected for the current state survey sample will be compared to state demographic characteristics collected by the U.S. Census Bureau in 2000.

2. *Gender*

Table A3-1: Gender[8]

	% of WI State Population *(2000 U.S. Census / Over 18 Years)*	***% of Survey Responses 2003***	***% of Survey Responses 2007***
Males	48.7%	43.0%	52.6%
Females	51.2%	57.0%	47.4%
SAMPLE SIZE	3,994,919	611	612

The first demographic characteristic is gender. In 2007, I tried to sample more males to make the overall sample more reflective of the population. This over-sampling technique was successful and brought our sample within 4% of the U.S. Census estimates.

[8] Interviewers did not ask respondents for their gender. Rather, it was inferred from the respondent's name, tone of voice, and answers to previous questions. In 5 instances, gender could not be determined.

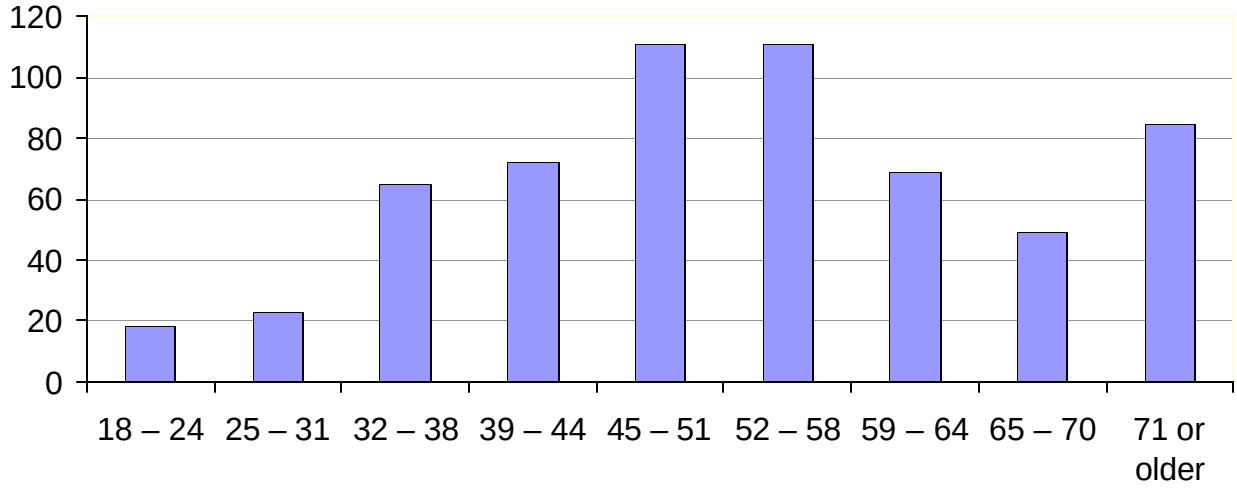
2. *Age*[9]

Table A3-2: Age

	% Wisconsin Population (2000 U.S. Census)	*% of Survey Responses*
18 – 24 years	13.0%	3.0%
25 – 44 years	39.6%	26.5%
45 – 64 years	29.8%	48.1%
65 or more years	17.6%	22.2%
SAMPLE SIZE	3,994,919	621

Age is the second demographic characteristic of interest. In a comparison of our age groupings to aggregated U.S. Census groupings, we can see that our sample is skewed to individuals in the 45-64 category. The positive news is that all age groups are represented in the sample (See Figure A3-1). However, given this skew, age needs to be examined as a potential moderating variable for all subsequent analyses in this study.

Figure A3-1 : Frequency distribution of age (by asked age categories)



[9] There was only a 1.5% refusal rate on respondents' selection of an age category.

3. Geographic Distribution

How responses are distributed around the state is the next demographic characteristic of interest. It is important that geographic areas of the state be represented in approximate proportion to actual state distributions in order to make generalizations about the data to the state level. The Wisconsin county table (see Appendix 5, table 3) provides a county-by-county comparison of percentage representation of the state population according to U.S. census estimates and percentage representation in the current survey sample.

This breakdown shows that counties in the survey sample are generally represented in close approximations to Census proportions. In addition to geographic breakdowns provided by the 2000 U.S. Census, responses were categorized into four quadrants for analysis, somewhat based on the Wisconsin Department of Tourism classifications (see Appendix 4 for map and description of the quadrants). The breakdown of the sample is as follows:

- Northeast quadrant (20.3%)
- Southeast quadrant (45.7%)
- Southwest quadrant (18.5%)
- Northeast quadrant (15.4%)

These percentages closely match the percentages of the Wisconsin Department of Tourism classifications of the population.

Two items in the survey have significant regional variations. In the questions asking respondents to measure their agreement with specific statements about public libraries, the mean of respondents from the Northwest quadrant is slightly, but significantly lower on the items in Table A3-3 below.

Table A3-3: Survey items with differences in response based on geographic area

Survey Questions	***Northwest Mean (S.D.)***	***Other Regions Mean (S.D.)***
"Public Libraries enhance my quality of life."	1.13 (1.28)	1.34 (1.05)
"I enjoy my public library."	1.07 (1.41)	1.46 (1.00)

However, these were the only questions that exhibited any regional differences. Therefore, we can assume that we should be able to generalize the rest of the survey information to the entire state.

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4. Household Income

Household income is a variable that is often scrutinized as a source of error in telephone surveys. A complete distribution of reported annual income from the survey respondents is listed below. Interestingly, only 15.1% refused to self-select into an income category.

Figure A3-2: Frequency distribution of income (by asked income categories)

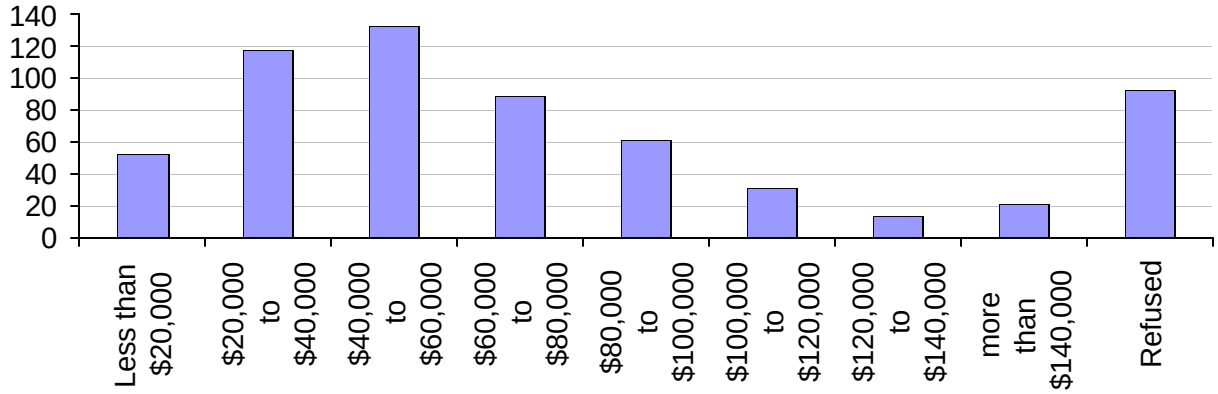

Table A3-4: Income

	Frequency	***Percent***
Less than $20,000	52	8.6%
More than $20,000 to $40,000	117	19.2%
More than $40,000 to $60,000	132	21.7%
More than $60,000 to $80,000	89	14.6%
More than $80,000 to $100,000	61	10.0%
More than $100,000 to $120,000	31	5.1%
More than $120,000 to $140,000	13	2.1%
More than $140,000 to $160,000	4	0.7%
More than $160,000	17	2.8%
Refused	92	15.1%

This distribution of income shows that the sample includes a wide variety of income levels. While there were a significant amount of refusals to provide an income level (15.1%), these refusals were across the state, and there is no reason to believe that households with higher income levels would refuse in greater proportion to households with lower incomes. Thus, this sample can fend off the common criticism that telephone surveys over represent households with higher incomes.

5. Political Party Affiliation

A criticism levied against telephone surveys is that telephone surveys disproportionately attract people with conservative political beliefs. While the logic underpinning this criticism is elusive, political party affiliation is something that all current telephone surveys should examine. The breakdown of political party affiliation is presented below.

Table A3-4: Political Party Affiliation

	Frequency	***Percent***
The Democratic Party	197	32.5%
The Republican Party	179	29.5%
The Libertarian Party	4	0.7%
The Green Party	1	0.2%
I am not affiliated with any political party	184	30.3%
Unsure	11	1.8%
Refused	31	5.1%

Many people did not identify themselves with any political party (30.3%). While the U.S. Census does not currently collect political party affiliation, the important element of this demographic characteristic is that there appears to be a variety of political viewpoints represented in the sample[10]. In addition to political party, a question on voting behavior was also asked. 80.7% of the sample voted in the most recent gubernatorial election. This percentage constitutes a significant increase from the 2003 survey.

[10] Additionally, anecdotal evidence from the last presidential election suggests that this breakdown may be representative of the Wisconsin electorate (Democrats slightly outnumbering Republicans and the vast majority of remaining individuals unaligned with a political party).

6. Ethnicity

For various reasons, a representative sample of ethnic populations is difficult to achieve in a random telephone survey. This issue was discussed in the planning stages of this survey, and it was agreed that targeted examinations of specific ethnicities in local surveys would yield more reliable results. A breakdown of ethnicity is provided below.

Table A3-5: Ethnicity

	% of WI State Population ***(2000 U.S. Census)***	**% of Survey Responses**
Caucasian	87.3%	92.0%
African American	5.5%	1.8%
Hispanic	3.6%	1.1%
Asian	1.7%	0.3%
Native American (American Indian)	0.9%	0.8%
Other[11]	1.6%	1.3%
Refused	N/A	0.3%
SAMPLE SIZE	5,363,675	615

Not surprisingly, minority groups are underrepresented in the current survey, despite having a bilingual interviewer who conducted several Spanish interviews. If a library wants to make claims about a specific minority group, a targeted survey to examine the specific population is suggested. The current survey does not have enough non-white individuals to make any valid attributions to ethnicity.

7. Miscellaneous Sample Demographics (Technology)

Finally, there are several additional demographic characteristics that do not play as central a role in uncovering sample bias, but are important for understanding the sample. Internet access is examined with respect to various initiatives in the main part of this report. However, it is important to know that (**74.3**%) of the sampled population has some type of home Internet access. In 2003, this percentage was 65.3%. Specific Internet access types are given below:

[11] This category includes self-identified multi-racial individuals.

Table A3-6: Type (if any) home Internet access

	Frequency	*Percent*
A dial-up connection	139	22.7%
A broadband connection	292	47.7%
Have Internet (not sure of the type)	18	2.9%
None (No home Internet)	157	25.7%

Respondents who said that they currently have a dial-up connection or have no Internet connection were asked if they have plans to purchase a broadband connection in the next year. Only 14.6% indicated that they would purchase a broadband connection in the next year.

Table A3-7: Interest in purchasing broadband in the next 12 months

	Frequency	*Percent*
Yes	43	14.6%
No	232	78.6%
Unsure	20	6.8%

Finally, respondents were asked how often they use the Internet in a typical week. Over 50% said every day. This percentage is even higher for younger adults.

Table A3-8: In a typical week, how frequently do you use the Internet?

	Frequency	*Percent*
Never	131	21.6%
Less than once a week	30	5.0%
1-4 days a week	93	15.3%
5-7 days a week	46	7.6%
Every day	306	50.5%

Some Concluding Remarks on the Sample Assessment

What this consideration of the sample shows is that there is some minor sampling error to be aware of while reading the results presented in this report. However, while it is important to understand limitations of any sample, we can be confident that the sample has enough variance and is sufficiently representative to draw our some generalizable claims for the state.

Appendix 4: Detail of State Quadrants[12]

***Counties Represented In Each Quadrant*:**

NORTHEAST (20.3%): Brown, Door, Florence, Forest, Kewaunee, Langdale, Lincoln, Marathon, Marinette, Menominee, Oconto, Oneida, Outagamie, Portage, Shawango, Vilas, Waupaca

SOUTHEAST (45.7%): Calumet, Dodge, Fond Du Lac, Green Lake, Jefferson, Kenosha, Manitowoc, Marquette, Milwaukee, Ozaukee, Racine, Rock, Sheboygan, Walworth, Washington, Waukesha, Winnebago

SOUTHWEST (18.5%): Adams, Crawford, Colombia, Dane, Grant, Green, Iowa, Juneau, La Crosse, Lafayette, Monroe, Richland, Sauk, Vernon

NORTHWEST (15.4%): Ashland, Barron, Bayfield, Buffalo, Burnett, Chippewa, Clark, Douglas, Dunn, Eau Claire, Iron, Jackson, Pepin, Pierce, Polk, Price, Rusk, Sawyer, St. Croix, Taylor, Trempealeau, Washburn, Wood

[12] It is important to note that the picture depicted in this appendix gives an approximate orientation of the quadrants. Quadrants followed county borders, and were created in with approximate geographic equivalencies.

Appendix 5: Summary Tables of Survey Results

NOTE: *Due to the magnitude of these descriptive tables (14 pages of tables), Appendix 5 is provided in a separate file included with this report.*

Appendix 6: Open Comments

NOTE: *The open comments largely reinforce the report findings. However, a key value is to be able to sort comments. Therefore, a separate excel file with demographics and open comments will be provided at the completion of this report.*