

SPELL Research Methodology and Findings

Research methods and sample demographics

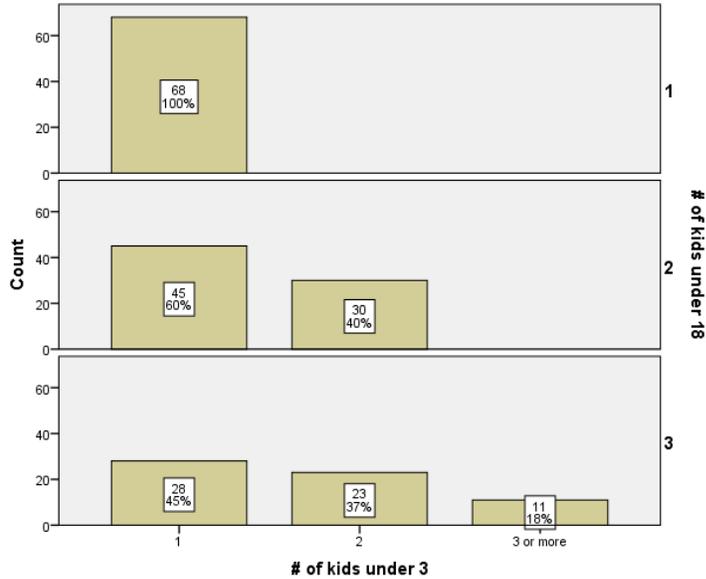
SPELL adopted a two-stage mixed method research design, in which a survey questionnaire was administered to targeted participants, followed by a series of focus group interviews. The survey was a 3-page questionnaire with mostly quantitative questions and a few qualitative ones on library use habits and opinions on early literacy. It was distributed to parents and guardians of children less than three years old. The questionnaire was self – administered by the respondents themselves after they were approached by library staff in person and agreed to participate at the selected four public libraries in Colorado in communities selected for their demographics. Two of the communities, Colorado Springs and Aurora, are large urban areas; the other two, Fort Lupton and Leadville, are rural areas. All four have a large low-income demographic. The survey was available in English and Spanish. In total, 223 valid surveys were collected.

For the focus group interviews, five groups were convened for interview at the same four participating locations. The group size ranged from 4 to 20. Each interview took about 60-90 minutes. We engaged in kid-friendly activities for little ones who came with participating parents while they were interviewed. At the end every family received a gift bag filled with board books and other fun and educational materials, with a family portrait.

The majority of survey respondents were female; of the 219 respondents providing this information, 201 identified as female and 18 identified as male. The sample was also primarily composed of English speakers: of the 217 respondents providing this information, 204 (91.8%) reported English as the main language spoken in their home, with 8 (5.5%) reporting Spanish as a main language and 5 (3.7%) reporting another language. 155 (71%) respondents identified as White or Caucasian, out of 218 providing this information. The next most common ethnic demographic in represented the sample was Hispanic/Latino (30 / 14% respondents) followed by Black/African (17 / 8% respondents).

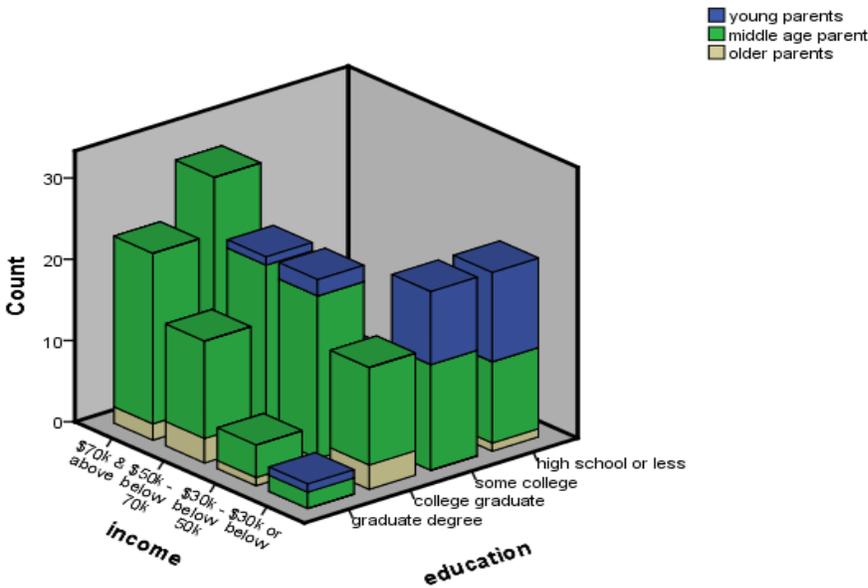
Respondents were asked to report the number of children in their household under the age of 3, as well as the number of children in their household under 18. Figure 1 shows the distribution of the number of children under 18 in the sample. Most respondents (141) had only one child under the age of three, while 65 respondents cared for two or more children under three. 23 of those 65 cared for at least one older child. 30% of families have three or more kids under 18.

Figure 1. Number of children in the household



Income, age, and educational attainment were more evenly distributed. Although a plurality of respondents had household income above \$70,000, about 50% of the respondents reported a family income below \$50,000. In terms of education, 37% of the sample didn't have college degrees. Regarding age 75% of the sample was between 25 to 45. These variables were significantly correlated ($p < .001$) with correlation coefficients ranging from .292 to .518. Among the three correlations, the one between education and income showed the strongest relationship.

Figure 2. Parent age by income and education



1. Quantitative Survey Results - Frequency of Library Use

Although the “frequency of library use” items had a low-to-moderate degree of internal consistency with a Cronbach’s Alpha of .66, we believe that it is more useful to examine associations between individual items on library use and factors such as household income. In general, lower-income respondents made more frequent use of library services, particularly the use of the building itself as a meeting place ($\rho(192) = -.2, p=.002$), a place to read ($\rho(199) = -.3, p<.001$), or a point of Internet access ($\rho(202) = -.2, p=.002$). Most respondents visited the library on a weekly basis.

Attendance at library children’s programs was not statistically related to income; there was no statistically significant relationship between income and attendance at children’s programs, $\rho(208) = .08, p=.26$. This suggests that children’s programs are a public library service that is appealing across income categories. However, while weekly attendance at children’s programs was the most commonly reported frequency across the entire sample, the majority of respondents with less than \$15,000 in annual household income attended children’s programs less than once a month.

Figure 3. Frequency of library visits by income

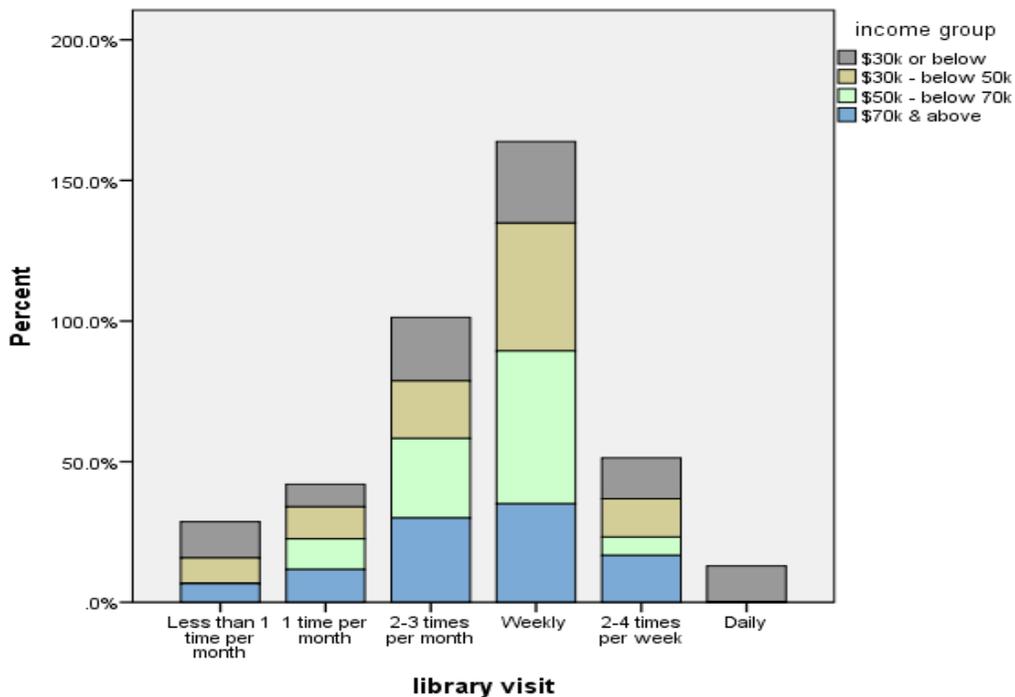
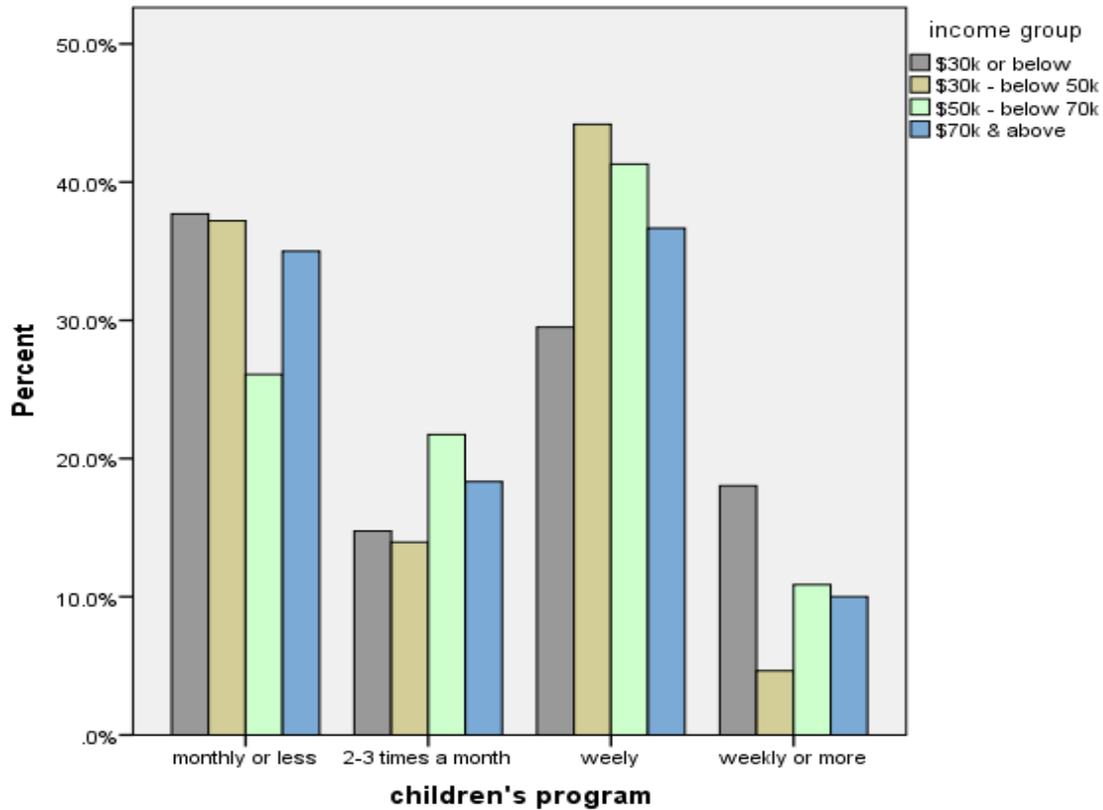


Figure 4. Frequency of children’s program attendance by income



2. Quantitative Survey Results – Reading and Early Literacy

All respondents save one reported that they considered reading to their children “Very important,” while most respondents reported reading to their young children daily. It is not clear whether these responses are a result of social desirability bias or typical of the library-going population. More interesting relationships can be found between the reported frequency that respondents read to their young children and variables such as the total number of children in the household, $\rho(215) = -.14, p=.024$, household income level, $\rho(211) = .15, p=.026$, and respondent educational achievement, $\rho(216)=-.16, p = .017$. The majority of respondents read to their children daily; a visual representation of these relationships are shown in Figures 5, 6, and 7.

Figure 5. Reading frequency by income



Figure 6. Reading frequency by education level

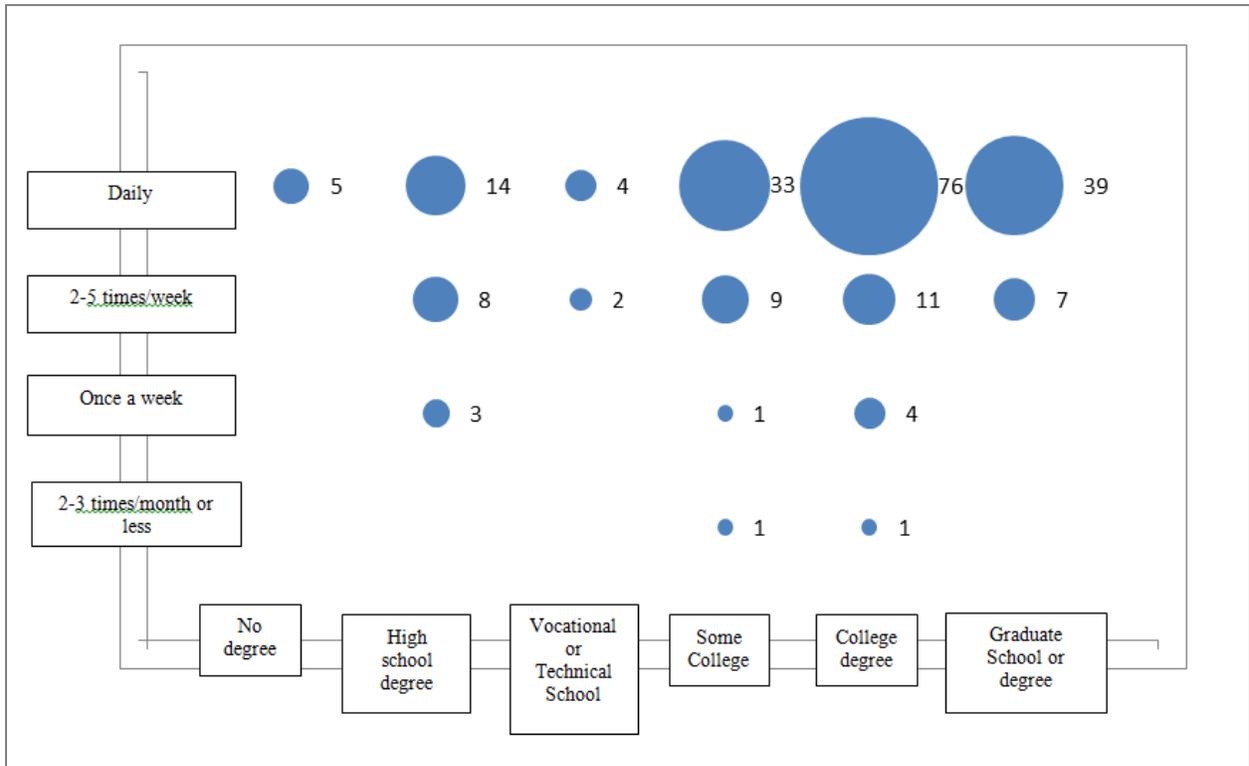
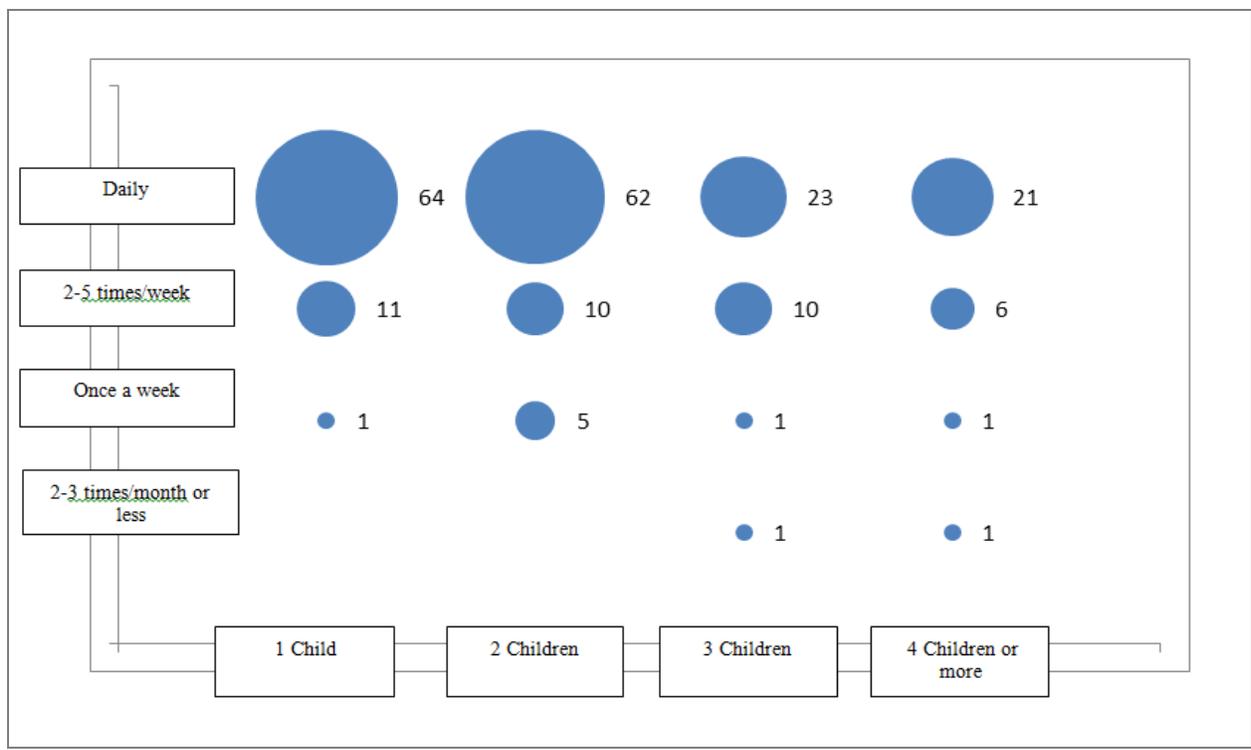


Figure 7. Reading frequency by number of children in the family



3. Quantitative Survey Results – Information Sources

Respondents were asked to select the three sources from which they were most likely to get information on library services and programs, how to raise and educate children, and how to get children aged 0-3 to know and love books. The Internet (counting access via computers and mobile devices together) was the most popular information source in the respondent pool. Library staff was the second-most popular information source for library services and programs, as well as for information on how to encourage children to read and love books. Doctor’s offices were the second-most popular information source for advice on how to raise and educate children. This suggests that our respondent group views early childhood literacy as a distinct topic from child-rearing issues and that library staff are considered an important resource for early literacy issues among library-goers. Figures 11-13 demonstrate that information sources differ with parental education levels.

Figure 8. Information sources for library services and programs

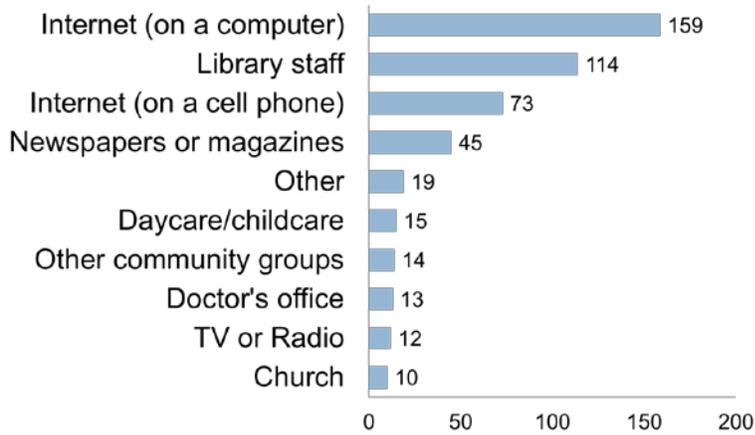


Figure 9. Information sources for raising/education children

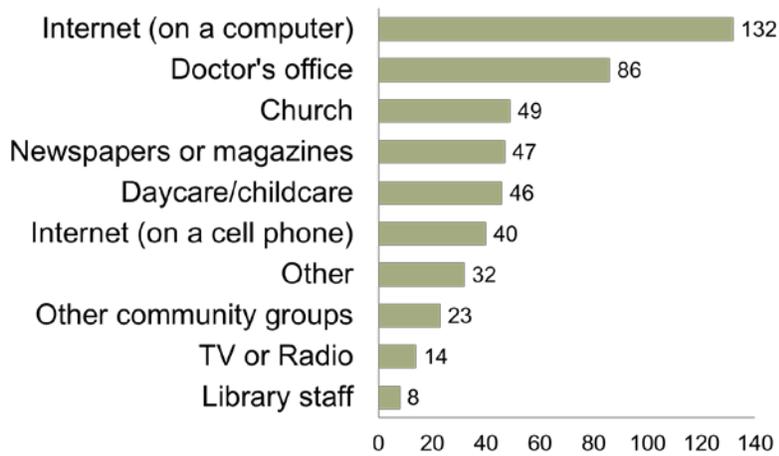


Figure 10. Information sources for helping children know and love books

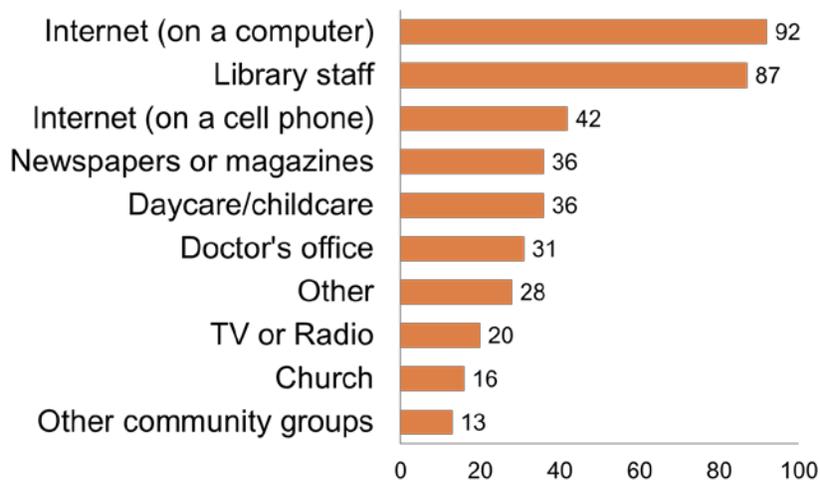


Figure 11. Information sources for library services and programs by education level

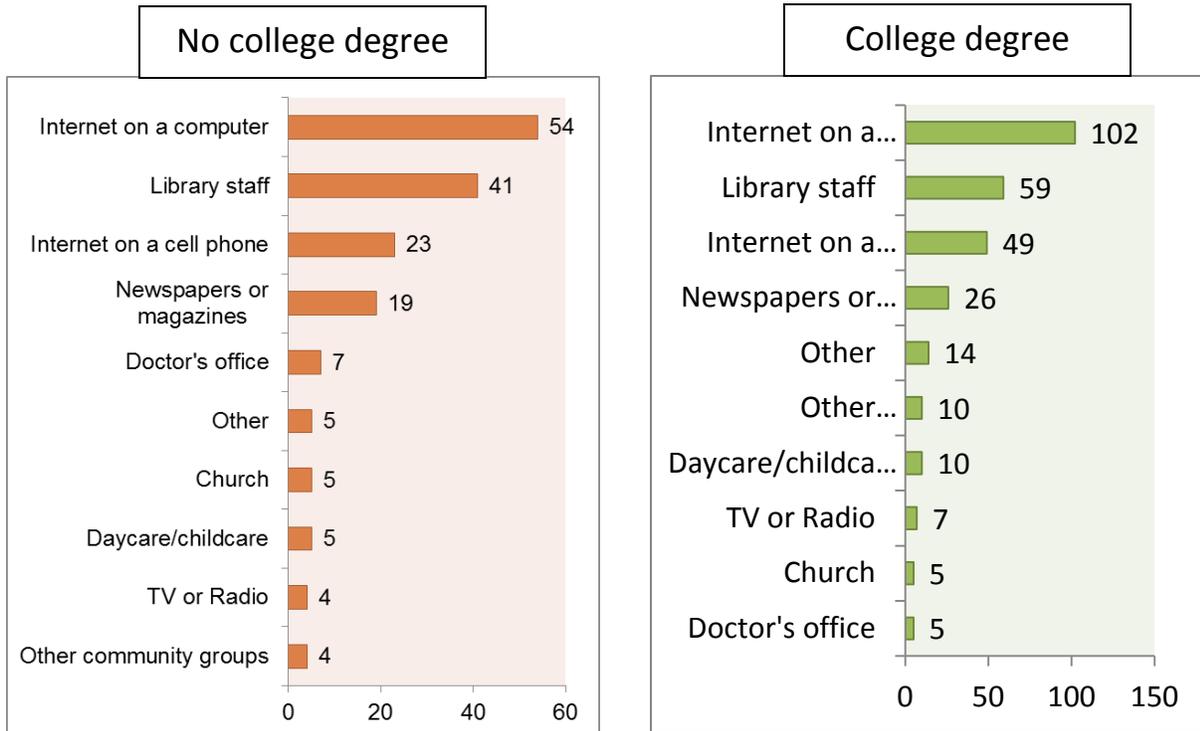


Figure 12. Information sources for raising/education children by education level

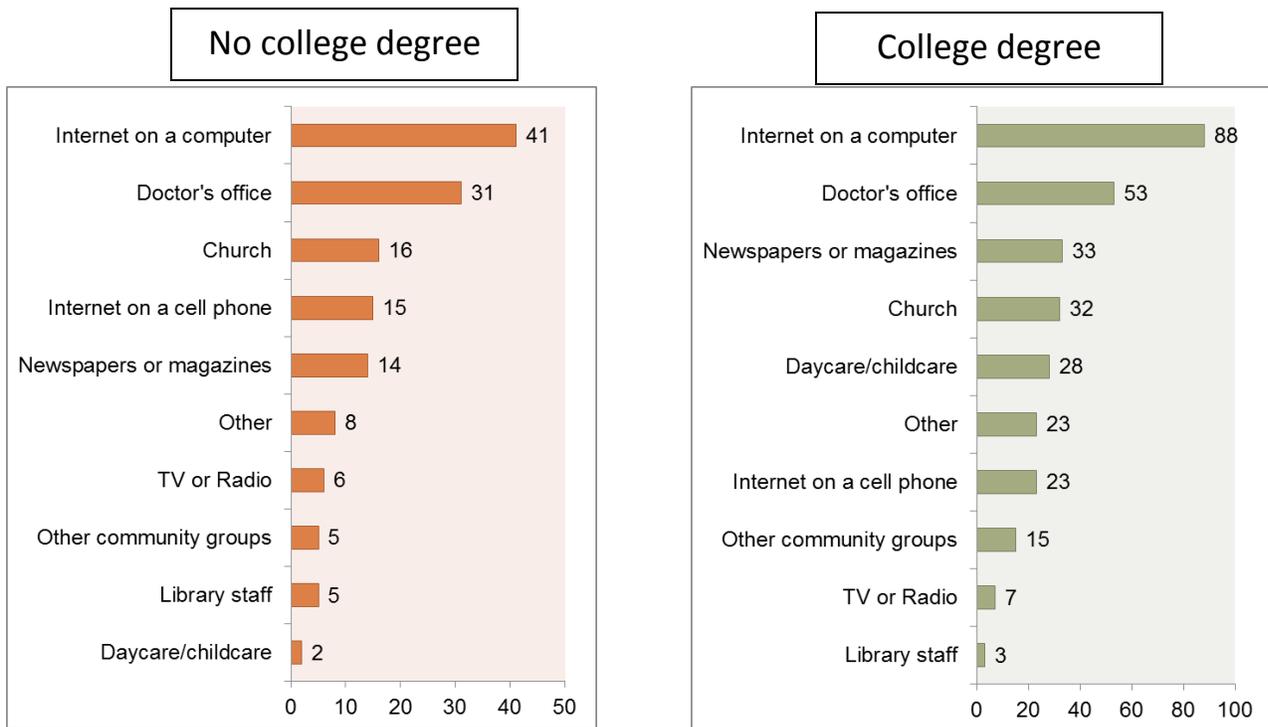
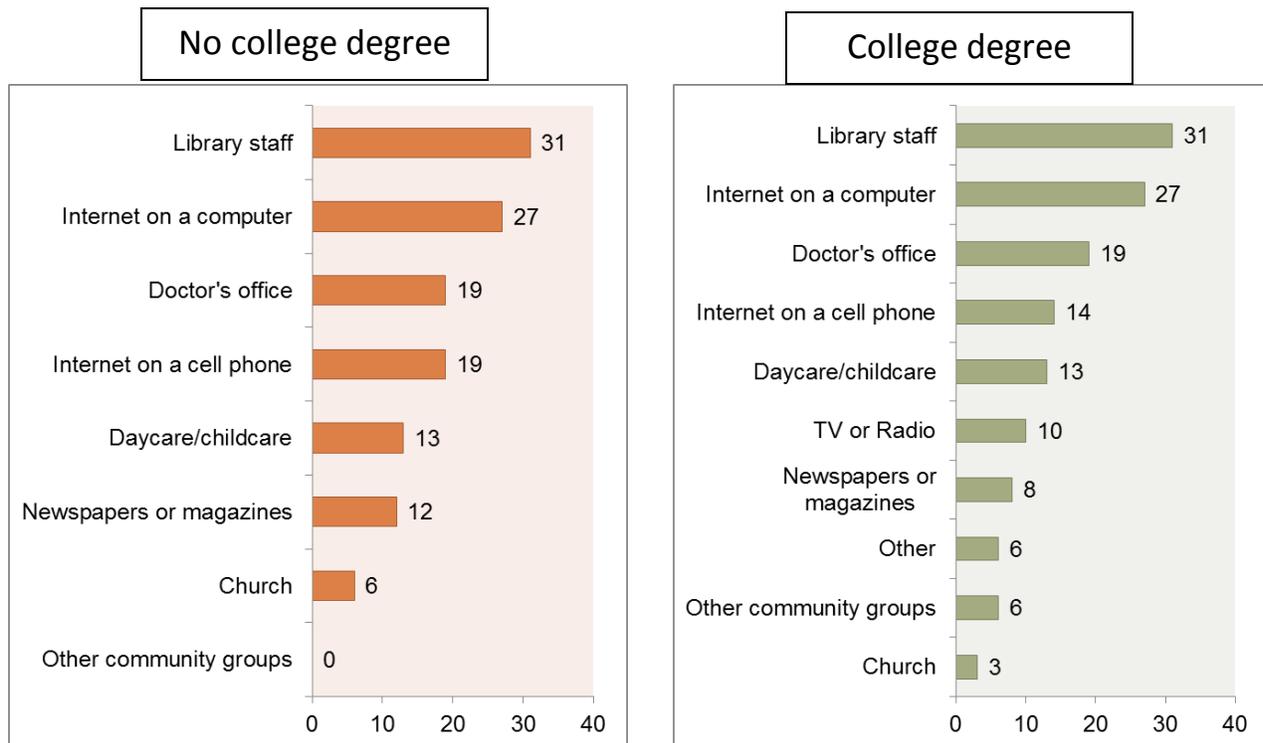


Figure 13. Information sources for helping children know and love books by education level



4. Qualitative Results - Impediments to Library Use

The issue of busyness or scheduling being an impediment to attending library programs was much more prevalently mentioned in survey responses; focus group participants also suggested that scheduling could be a major issue, especially for mothers with more than one child. The commitments related to raising children (e.g., “I have 3 kids under 3,” “Nap time”) and/or working a paying job (e.g., “work and program times collide,” “Working most of the time,” “work schedule”) were cited as impediments to library access by many survey respondents. This exchange from a focus group interview also illustrates the concept of “busy-ness”:

Participant 1: *I’m busy with just one.*

Participant 2: *I’m busy with three.*

Participant 3: *I’m going crazy with three.*

Related to the issue of having other time commitments was the issue of library program scheduling. It primarily emerged from survey responses to the question, “What things get in the way of you using the library more often?” Respondents mentioned issues related to limited library hours (“Would like earlier hours but I understand the funding issue”), program scheduling (“kids programs too early in am,”) and program availability (“being waitlisted for baby story time”). On a positive note, “great hours” was also cited as a favorite aspect of the library.

The issue of geographic proximity or ease of physical access to libraries was also present in the data. Several informants mentioned issues related to library location as being problematic with regard to staying involved with library or literacy programs. Several mentioned that it was easy for them to be involved with the library because they were close by. A focus group participant from Aurora put it this way:

“I mean, this place is close. I will say, it is close because I live off of Iliff. It is good for me.”

Notably, focus groups in higher-population areas (Colorado Springs; Aurora) seemed to give more weight to transportation issues. When the focus group facilitator asked a Leadville resident, “What are some things that the library can do to bring services to you even if you can’t get to the physical building?” the resident responded this way:

“I mean, we can make it here, we just live outside of town... we come through Leadville almost—to go to work, to take him to his Nana’s house.”

While this response came from a resident who had already incorporated the library into their lifestyle and is thus subject to some potential selection bias, this may also indicate a key difference between urban and rural library attendance. In a rural setting, personal vehicles are practically a necessity and traffic is lighter, while in urban or metropolitan settings public transit can alleviate the need for a personal vehicle while traffic can make commuting more of a chore. Parking issues were not mentioned in the focus groups, but were mentioned in the survey as an issue that gets in the way of using the library by two respondents from Colorado Springs.

In addition to the time commitment issues related to raising children, other issues were raised related to the difficulty of bringing children to the library. A number (10) of survey respondents wrote that children were, in fact, a barrier to attending the library. In some cases, this was related to a job (e.g., babysitting or daycare). However, other respondents specified that it was their young children keeping them away from the library. Two respondents specified that it was their children’s nap schedule keeping them away; others provided no specifics. One respondent specified “toddler running wild.” In the focus groups, one Aurora parent also seemed self-conscious about their child’s potential disruptive behavior: “I’m afraid too because she’s a very active child, as I told you, and she does not know how to use an indoor voice. I know she’s a kid but I just imagine walking in there and just listening to her screams and everyone else just leaves.” Disruptive behavior on the part of children was also listed as a complaint by many survey respondents: for example, one respondent wrote “when expectations for behavior are not set so some children are disruptive and the others cannot enjoy the program” as their primary dislike about children’s programs. Another respondent wrote:

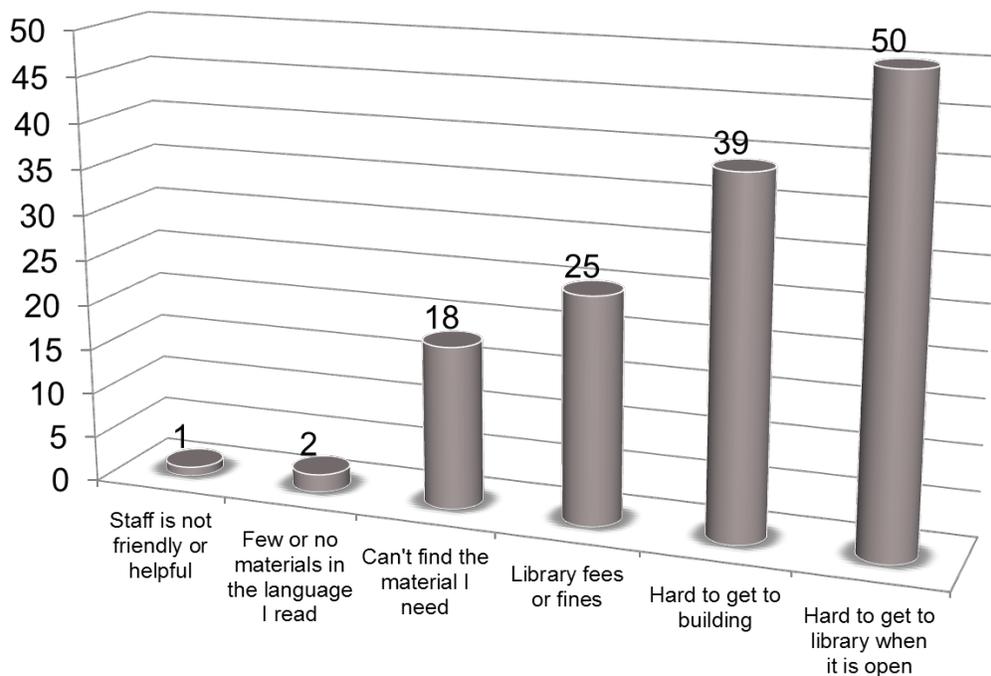
“The adult section is close to children’s. I’ve been asked to keep toddler quiet, which is not easy. Makes me not want to come.”

Some focus group participants also expressed frustration with the organization of books within the library:

Participant 1: *Yeah, you have a room with kid’s books, but you basically have to go through all them—like open them and go like, is this for—is this too many words or is this too much for this age group? They should have, you know, just picture books, chapter books—*

Participant 2: *Yeah, like break it up a little bit easier for us instead of alphabetically.*

Figure 14. Barriers to using the library



5. Qualitative Results - Improvements to Libraries and Library Services

When prompted, focus group participants provided a variety of suggestions for improvements to their library’s facilities and services.

One focus group suggested that having a more clearly separate children’s section in the library. The same group also suggested a “jam room” where kids could safely expend their energy. This seemed to be related both to the problem of managing young children in a public place and the problem of children’s safety. One focus group exchange went like this:

Participant: *Better organization is what I think broke his nose in the library.*

Facilitator: *How did he break his nose?*

Participant: *He was running in the library and they had this bookshelf that was right in the middle of the room and he smacked right into it.*

Safety concerns were mentioned later in the same focus group:

Participant: *In the children's section, it's so dangerous they have it like, downstairs and my nephew wants to go down there right away and it's like, wait, you're going to fall again, break your something else.*

Respondents mentioned that they wanted more variety in storytime offerings; by age, topic interest, and schedule. Another parent suggested, "Digital Story Time," but did not elaborate on this suggestion.

Survey respondents and focus group participants also offered suggestions on library scheduling (see above, under "Impediments to Library Use"), new programs, and collection development. New programs suggested included "puppet shows" and "programs for parents." Collection development suggestions ranged from general ("More copies", "broader spectrum of books on certain subjects,") to more specific suggestions of book types ("Pop-up books, "Potty books") to other suggestions, such as an expressed desire for educational computer programs ("why did they take the cd-roms out of every library? ...those educational games for the computer, my daughter loved.")

Participants seemed receptive to the idea of pre-packaged sets of books.

Facilitator: *So services that maybe you could make it quicker here then, like if the library had packs of books for a specific age that you could just pop in and grab a pack of books and pop back out?*

Participant: *That would be nice.*

6. Qualitative Results - Information Sources

The Internet is, unsurprisingly, a major source of information for parents and library patrons. Some participants mentioned Twitter and Facebook, but it was not clear whether they meant ads or if they would follow a library on these sources. Other participants mentioned "Google," or "the Internet" as sources of information. Further exploration of young families' information-seeking behavior could be useful - one Leadville parent mentioned a "Disney website for new moms." In the survey, one respondent also mentioned the website <http://www.attachmentparenting.org/>.

For information on parenting, some focus group participants mentioned print materials, such as the What to Expect When You're Expecting series, and "parenting magazines." Doctors and the Nurse-Family Partnership program were also mentioned as information sources.

Several respondents to the survey mentioned Christian groups and churches, books (the Bible; Growing Kids God's Way), and church websites (written as christianmothers.com, a for-sale URL -- possibly meant <http://www.gentlechristianmothers.com/>, a Christian attachment parenting website -- this was not the same respondent who mentioned attachmentparenting.org as a source of information) as sources of information on parenting. Focus on the Family was also mentioned as a source of information

For information on library programs and how to best be reached about library programs, focus group respondents mentioned flyers, mailing lists, and text messaging.

Regarding information on library programs, one focus group participant said:

I only know that they provide storytime, so. I don't know what they provide.

This respondent was receptive to an idea put forward by a facilitator that creating separate or tiered mailing lists for parents of different aged kids detailing library programs could be a good idea.

Focus group participants also had several interesting suggestions related to marketing/publicizing library and parenting programs -- specifically, partnering with department stores and gas stations. As one participant put it:

More people go to Walmart than go to the doctor's office.

7. SPELL Key Findings

SPELL found no significant correlation between library visit and income, so parents of young children from all income levels are utilizing public libraries. However, lower-income respondents made more use of library services, particularly the use of the building itself (as a meeting place, a place to read, or point of internet access). Similarly, families from a wide range of income and education levels attend library programs. Yet, a larger proportion of low-income respondents attended children's programs infrequently relative to other income demographics, though they attend adults' programs more frequently than higher income groups.

Respondents considered the topic of raising children to be separate from the topic of encouraging reading and literacy. To them library staff is a valuable resource for information on encouraging children to enjoy reading. Statistically significant relationships existed between the

frequency which respondents read to their young children between birth and three years old and household income, education level, and number of children.

One hundred percent of respondents agreed that it was very important to read to young children (0-3). However, the belief and action don't go hand in hand. How much they actually read to their young children varies based on income and education levels. Parents with higher income were more likely to read to young children on a daily basis. The result was similar for parents with higher education background, except that we observed a small downward change when going from college degree to graduate degree parents. The argument we would make is that with advanced degrees they are too busy with work to read with their children, just like low-income parents, for different mechanisms though.

8. Qualitative Results - What can librarians and library researchers do?

This information suggests several directions for further research. With regard to library programming, it seems that scheduling concerns and a desire for a welcoming, child-friendly environment are important to parents of young children. Some of the focus group suggestions about library organizations and labeling may be worth looking into as well, if a library were to be planning a remodel. The focus groups' favorable impressions of potential programs such as prepared book packages for check out and targeted communication about library programs (e.g., multiple mailing lists) suggest that these programs, if not in place, might be worth pilot testing.

Similarly, some of the focus group insights into marketing strategies could prove to be useful. Could library partnerships with grocery, department, and convenience stores reach more people about library services and programs, as well as early literacy?

Library researchers can take away several points from this research. Certainly, more research is needed with regard to the internet searching and browsing strategies used by parents looking for information on parenting or library/community programs. Knowing these strategies could inform future marketing and outreach while giving researchers a greater understanding of the information environment faced by new parents.

Further planning and research could also involve examining the workflows and transportation patterns of parents with young children, and expanding the sample of participants to include parents who are not currently active library users.

9. Lessons Learned in SPELL

Sampling: If we were to redo the project, it would be beneficial to expand the survey and/or focus group sample populations beyond visitors to the library to include nonusers as well. We

would like to build more strategic partnerships with local governments, businesses, or agencies (eg, WIC) so that a broader population of parents of children aged 0-3 could be represented.

Survey: In future research survey wording could be clarified and improved further, particularly when referring to young children for self-administered surveys. For instance, 0-3 could refer to both an age range and a number range of reading frequency. In the current survey items allowing multiple answers produced considerable amount of difficulty for data analysis. These items could be split into sets of items to improve the usability of the survey (not many people receive information about library programs from their doctor); splitting the items would make the survey take up more space on the page, but would allow more specificity in terms of choices offered since each set of options could be set up independently.

Focus group interviews: More expansive probing with regard to project objectives (for instance, understanding how parents get their information and deal with the additional time stresses of parenting) could yield richer data. Facilitators should be careful about leading questions about potential programs -- if the facilitator does bring up a potential solution/program, try to solicit more specific opinions from participants; make the potential programs their own items on the interview guide and ask follow-up questions. Transcriptions of interviews could be easier to process if different speakers were labeled with pseudonyms. If IRB/ethics allow it, some background data about participants (eg, level of involvement with library; number/ages of children; SES) could also provide more context during the analysis phase.

Supporting Parents in Early Literacy through Libraries (SPELL) Survey

This survey is about how libraries can help prepare young children (0-3) to know and love books. It should take you about 5 minutes to finish. It does **not** ask for your name or contact information. Thank you for your time. Your answers will help us help you!

1. How many children between 0 to 3 are there in your family?
If your family does NOT have children this age, please don't complete the survey and return it to the library staff. Thank you!

- 1
- 2
- 3 or more

2. How often do you do the following **at a library**?

	less than 1 time per month	1 time per month	2-3 times per month	weekly	2-4 times per week	daily
Visit a library IN PERSON						
Visit a library WEBSITE						
Check out books or other materials						
Use computer/internet						
Attend children's programs						
Attend programs for adults						
Get help from a librarian						
Use as a place to read or study						
Use as a meeting place						

3. How often do you read with your 0-3 child(ren)?

- daily
- 2-5 times per week
- once every week
- 2-3 times per month or less
- never

4. How important do you think it is to read with your 0-3 child(ren)?

- not important at all
- not important
- somewhat important
- very important

5. In addition to family and friends, where do you get **most** information about the following?
Pick **3** in each column.

	library services and programs	how to raise and educate children	how to help 0-3 children know and love books
Internet on a computer			
Internet on a cell phone			
Library staff			
Doctor's office			
Daycare or other childcare			
Church			
Other community groups (which ones?)			
Newspapers or magazines			
TV or radio (which stations?)			
Other (please list)			

6. What is your relationship to the child(ren) 0-3 years old in the family?

- parent
- grandparent
- other family relative
- family friend
- other (please specify) _____

6.b. If you aren't the person who usually brings the 0-3 child(ren) to the library, who in the family does?

- parent
- grandparent
- other family relative
- family friend
- other (please specify) _____

7. What things get in the way of you using the library more often?

(Check the **most important THREE** please).

- hard to get to the library building
- hard to get to the library when it is open
- can't find what I need
- library fees or fines
- staff is not helpful or friendly
- staff does not speak my language

- few or no materials in the language I read
- other (please explain) _____

8.a. Please list the top three things you like about the children's and family educational programs (both in the library and outside the library) you have attended.

8.b. Please list the top three things you DON'T like about the children's and family programs (both inside and outside the library) you have attended.

8.c. What other programs, materials or services would you like to see the library offer?

8.d. Where is it easiest for you to go to library programs outside the library? (such as: park, community center, farmers market, doctors office)

9. Are you?

- Male
- Female

10. How old are you?

- under 18
- 18-24
- 25-34
- 35-44
- 45-54
- 55 and above

11. How would you describe yourself?

- White or Caucasian
- Hispanic or Latino
- Black or African American
- Asian or Pacific Islands
- Other (please specify) _____

12. What is the main language in your home?

- English
- Spanish
- Other (please specify) _____

13. What is the highest level of school you have completed?

- Some high school or less
- High school graduate
- Technical or vocational training
- Some college
- College degree
- Graduate school or degree

14. What is your annual total family income?

- under \$15,000
- \$15,000 - \$29,999
- \$30,000 - \$49,999
- \$50,000 - \$69,999
- \$70,000 - above

15. How many children under 18 are in your family?

- 1
- 2
- 3
- 4 or more

16. Do you have internet access at home?

- Yes, on a computer
- Yes, on a cell phone
- No

If you have any other comments or suggestions about the library, please write them on the back. We will do our best to meet your needs.

THANK YOU!

Focus Group Interview Protocol

For Supporting Parents in Early Literacy through Libraries (SPELL)

Thank you for participating in the focus group interview. We know your time is precious but your opinions are essential to the success of our project. We have refreshments for you and your children and activities for your children during the interview. The meeting will take roughly about 90 minutes.

A little about why we are here: Our study aims to identify strategies to reach parents of children ages zero to three in order to build family habits of language, literacy, and library use so crucial to educational and life-long success. Based on what we learn from you and others, we will develop a blueprint for supporting parents in early literacy through libraries.

I will ask you some questions and will keep track of your answers by recording our conversation and taking some notes. Everyone's opinion is crucially important so please do not hesitate to share your thoughts and comments.

- What is your child's favorite book, song, or rhyme and why do you think it is the favorite?
- What is the most challenging thing about inspiring your children to know and love books?
- Books in the home are a key predictor of school success. What do you need in order to have more books in your home?
- What are the most convenient ways to reach you with parenting information? For example, a flyer in weekly ads or some brochures at your pediatrician's office? We want to make sure the message truly reaches you.
- If we partner with some other early childhood organization in the community to offer you early literacy programs, who would be our best bet and why?
- Would you be interested to attend a free parent education program on early literacy? If yes what support do you need to make it from start to finish?
- Based on the experiences, what can libraries offer you to encourage you to read with your children?
- How can your library serve you even if you can't come to library as often as you want?
- What are the best times for you to attend early literacy programs?
- What are the best places for you attend early literacy programs outside the library?

Thank you again for your time and participation! To show our appreciation each of you will get an incentive bag full of goodies, in which you'll find a flyer about our project with website and contact information.