

Mapping, measuring & valuing the social & economic benefit of Christchurch City Libraries- post earthquake.

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Abstract

“How much would you be willing to pay for the use of your library?” has been a key question in many recent studies aimed at identifying the value of libraries. In Christchurch, where many people have lost so much in the past 18 months this question is both politically and socially fraught. Market research has also shown that it is better to measure what people do, rather than what they say they will do.

Our objective has been to measure the value that libraries add to the community. We need to identify and communicate value in a way that meaningful to Elected Members and ratepayers alike. A robust formula that quantifies the economic and social value of Christchurch City Libraries (CCL) to all interested parties is the “holy grail” of this project.

Libraries contribute a direct economic benefit when they contribute to early literacy and school readiness, instil a love of learning, improve adult literacy for recent migrants, enable improved workforce participation and provide support to businesses. Whenever people access libraries or their websites, take time to read or otherwise use the information they have obtained from the libraries, they are making a choice. Our challenge is to measure and value that choice.

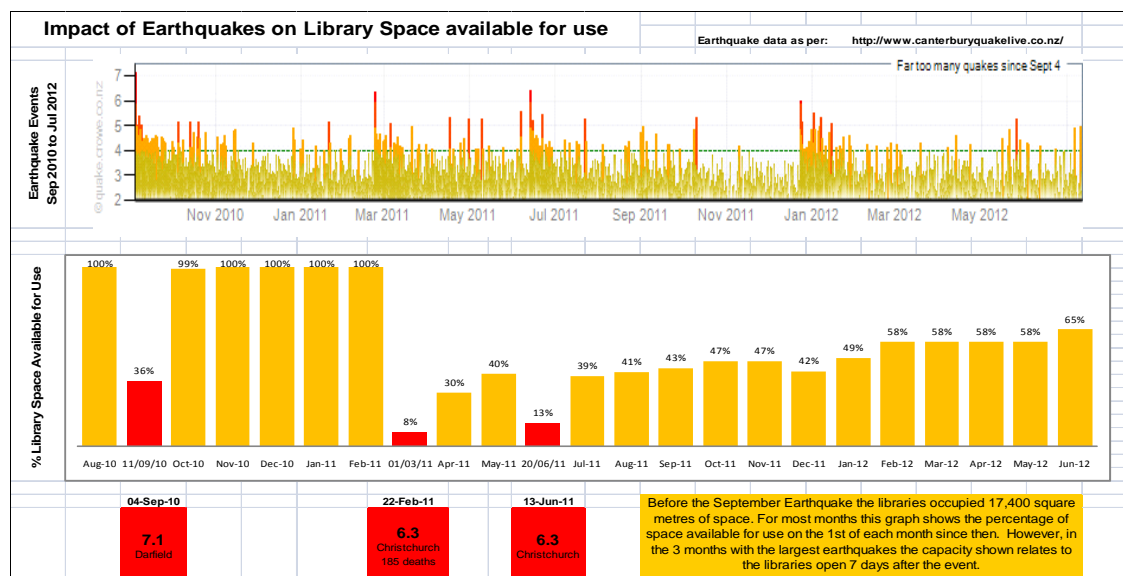
It has been recognised that common forms of economic valuation do not adequately express the social and cultural benefits of libraries. Libraries are also valued for their caretaking of local history and their contribution to the economic and social goals of local government. They provide a community space where young and old, rich and poor, long term resident and new migrant can connect to the local community and nourish their minds and souls. We examined ways that users benefit from their use of libraries and also evaluated the library as a place of connection and belonging.

This presentation will outline

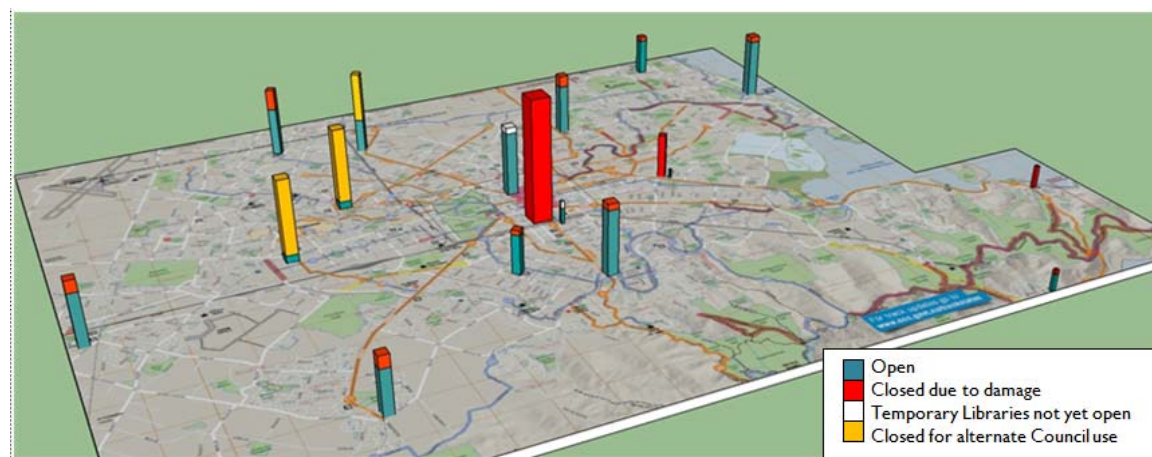
- The processes used to establish values
- The measures used including geospatial mapping of distances travelled to visit each library.
- The smart survey that quantified the ways library users benefit from their use of libraries.
- Any formulas- if developed – that express this value
- Our outcomes and evaluation

The context

Life changed dramatically in Christchurch with the impact of the 6.3 earthquake in February 2011 which claimed 185 lives. The devastation has been immense with 75% of buildings in the CBD and 7,800 homes have been identified as being on land that is no longer fit for residential use and are to be demolished.¹ No library remained unaffected by the earthquakes.



This map is designed to convey the relative size and location of the libraries across the city and the proportion of the year to February 2012 that they were open for public use.



The more heavily damaged buildings were in the central city and on the eastern side of the city. However three of the larger libraries on the west were seconded for Council use. Overall, this resulted in a significant lack of access to libraries in large areas of the city. All library users were affected by library closures to some degree.

¹ Parata, H. Schools must adjust to changing region. The Press, 15 September 2012, p. A13

The impact of the earthquakes has had a profound impact both on the methodology adopted for the evaluation of the social and economic benefits of libraries in this city and the responses received in the customer survey.

The purpose

Our objective was to measure the value that libraries add to the community. We need to identify and communicate value in a way that is meaningful to Elected Members and ratepayers alike. A robust formula that quantifies the economic and social value of Christchurch City Libraries (CCL) to all interested parties is the “holy grail” of this project.

The problem

Many attempts have been made to value libraries. There is even an evolving field of study specifically focused on library valuations. Three studies done in Australia of libraries in Victoria, New South Wales and the Sunshine Coast have also been important sources of information for this project.

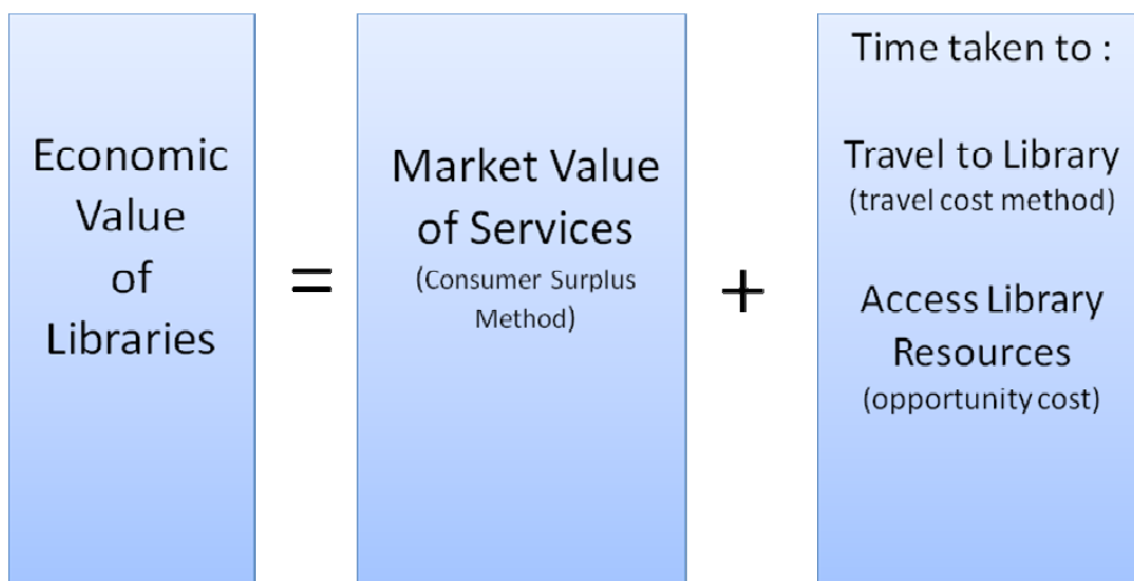
Everyone has been grappling with the same issues. Some effective tools have been developed that quantify the economic value of libraries, but it is much harder to place a value on the social and cultural benefits of libraries. We can easily identify how items were issued by a library or how many downloads but it is hard to identify and value how library use has impacted on the users.

Other problematic issues with library valuation studies are that they are expensive as they require external consultants to complete the valuation to give credibility to the results. They are also difficult to replicate and are often not future proofed. The role of libraries is changing and any formula that is developed needs to place a value on the increasing use of technology and other changes that are occurring.

Our goal has been to develop a formula that is robust, relatively easy to apply, moderately priced, and future proofed for changing use.

The formula

Our proposed formula is



Methods and analysis

Customer survey to identify benefits of libraries

Library staff became acutely aware of the importance that many people place on libraries when thousands flooded to visit the first two libraries to re-open post-quake. Tension levels also grew with the prolonged period on Council secondment of three of the larger libraries. It was decided incorporate a number of open ended questions into the annual customer satisfaction survey² to give people the opportunity to vent their frustrations, as well as describing how they benefitted from library use. This survey was not a random survey and the results should not be extrapolated out to apply to all library users. However, the 1066 survey results that were gathered and analysed have given us a good understanding of regular users.³ As the survey gathered data which informs the decision making, rather than contributing data to the formula, this is not a problem.

The libraries received a 97.2% satisfaction rating. Factors contributing to this high rating include an increased appreciation of the value of libraries post earthquakes, concerns about potential cuts to library funding given the impact of the earthquakes on the city and fewer casual library users due to the ongoing impact of the earthquakes on the city.

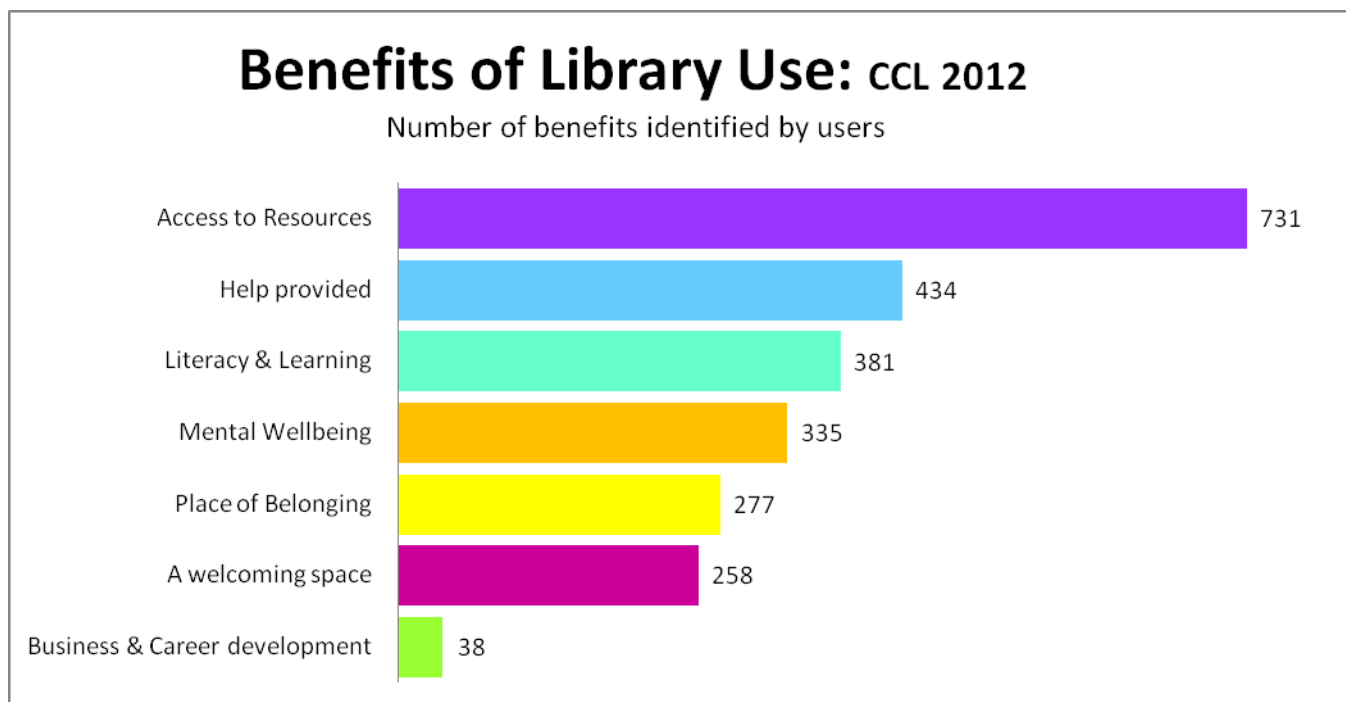
² Full details of the survey can be found in Appendix1

³ The satisfaction rating was also similar to the 97% received in the more formal survey conducted by the Council in December 2011. [2011/2012 Christchurch City Council Point of Contact Residents Survey -Monitoring and Research Team January 2012](#)

The key question asked in the survey was

“Libraries are often seen as important for their role in supporting literacy and learning, and contributing to community wellbeing. In the past 12 months how have you most benefitted from using library services?”

Seven categories of benefits were identified in the responses.



Key findings from this survey relevant to the value of libraries are as follows:

(NB: All quotes from the survey are shown in italics)

Libraries play an important role in providing access to a wide range of resources.

The role of libraries is changing as information becomes increasingly accessible via the internet and on-line resources. There is a perception by some non-users that libraries will no longer need to exist. However, many people, who are active internet users, still find that books play an important role in their lives. Libraries are also becoming increasingly important for people who cannot afford books, computers, internet access, printers and other technology and require access for work or recreation.

As much as I love Google, there are some things you need a book for. The library is still my first port of call when I want to learn how to do something new.

I fall into the lower socio-economic (hmm.. perhaps just economic) grouping and simply can't afford to have some private services such as computing and internet or buy books

As I don't have internet at home the library has been indispensable to me for completing a plethora of activities such as licensing, tax, mental health considerations and networking. As well as a good old fashioned read

I am a student and the library is where I go to get away from home to work and I have all the resources I need around me when at the library including internet access

I am a huge fan of your online (twitter) voice; I think it's a wonderful balance between information & personal enthusiasm. [I have benefitted by] retracing historical Christchurch post earthquake. So much of our built/urban memory is gone, and this service (primarily directed by twitter) has been fantastic

The library has been a good way to use computers to stay in touch, study and after the quakes the mobile bus library was so good for us in Shirley. We were a bit lost without our library! Reading takes your mind into fantasy, postponing reality for a short time.

For my son and I visiting the library is a highlight of our week. We love all the resources we can access there and we use a wide range of things from posters, music, computer, playstation, CD talking books and books.

Finding books for schoolwork and assignments but also just books to read for enjoyment.

Library users value the ability to access staff assistance when required

94% of respondents asked staff for assistance in the past year. Helpfulness of staff was the attribute that they were most satisfied with (96% satisfaction rating). They did not require assistance often but were pleased with the level of assistance given when it was needed. Being able to access a helpful and friendly librarian, when required, is an important aspect of the overall library experience.

Library staff have performed a very valuable service in providing a range of information to the public in the last year in spite of considerable difficulties and challenges. The stock may not all be out there on in the shelves or in accessible stacks, but librarians are resourceful people who can invariably get the information I need! Thank you.

The staff also seem like friends as I see them so regularly & they always enrich my day/world, & I also treasure the way they treat every other person in the library with respect & warmth regardless of age, reason for visit, or any other determining factors.

People at the libraries seem genuinely interested in helping me find what I need.

.....An amazing blend of staff here. [They] always show respect and compassion for others, no matter ethnicity, disability etc. My daughter has gained confidence in other settings because she is treated with respect and valued. She is more open to new books, DVDs etc because of the time staff spend with her. Many thanks you have enriched our lives.

Libraries are valued for their contribution to literacy and learning

Many users recognise the importance of libraries for literacy and learning as can be seen by the following comments:

[I benefit] by getting books out that can teach me new things, broaden my outlook and keep my ageing brain working

My children's literacy is enriched and extended because of the time we spend at the library and the books we get out. We feel grateful for what the library has provided to our family's well-being.

.....greatly helped me teach my son to read. Fostered a great relationship with books for both my children

My wife and I visit almost every day. With my computer, my Ipad2 and my library the world is wide open to me.

Many successful people and writers say they owe their success to public libraries.

"I know I would never have seen a single university library if I had not grown up living a hundred yards from that library in Willesden Green. Local libraries are gateways not only to other libraries, but to other lives."
(Zadie Smith)

It is also useful to evaluate some of the research that has been conducted to identify the educational benefits that public libraries bestow upon their communities.

One major focus of programmes at Christchurch City Libraries is developing preschool literacy skills through babytime and storytime sessions.

Research has demonstrated that book experiences are of significant importance to infant and preschool children in establishing basic literacy skills and good reading habits (Kupetz, 1993). Studies have linked reading to about one third of a child's annual vocabulary growth which, in turn, leads to substantial and permanent learning and greater school achievement. This research also shows that those who start school with low literacy skills fail to catch up and early failure continues throughout childhood and into adulthood (Celano & Neuman, 2001).

Anderson et al. (1985) goes further claiming "*The single most important activity for building the knowledge required for eventual success in reading is reading aloud to children*".

CCL preschool programs also provide support for parents. Participation in the programmes not only helps parents understand the value of reading aloud to children, it also provides them with the necessary support to continue this activity at home. This includes demonstration of read aloud techniques, assistance with the selection of appropriate materials, and according to (Kupetz, 1993) encourages parents to develop their own literacy.

CCL also delivers an outreach programme to pre-schools and kindergartens providing resources and read aloud sessions. This programme focuses mainly in low socio-economic areas bringing literacy programmes to the areas of the city with arguably the highest need. The unmeasured benefits of this may be significant.

Longitudinal studies of preschool literacy programmes aimed at children living in poverty have shown to deliver economic benefits of over \$7 to every \$1 spent in terms of reduction in crime, increased earnings and reduced welfare costs by the time the participants were age 28. (Schweinhart et al. 1993)

In the United States concern has been expressed at the declining literacy levels. American young adults are reading less often and for shorter periods of time and this has resulted in a steep decline in reading scores. According to the NEA report⁴, reading scores have fallen across all education levels, notably the best educated groups. This decline in reading is considered to have significant civic, social and economic implications. Research (Bhatt, 2010) shows that library use increases the amount of time an individual spends reading by an average 27 minutes per day and time spent by parents reading to their children increases by 14 minutes per day. She links time spent reading with increased pay.

This reading therefore has significant economic value in terms of developing more literate, higher income earning adults.

Libraries provide an important space for mental well being

In the year of four major earthquakes and more than 10,000 aftershocks people were very aware of the importance of libraries in providing a time and space for relaxation and recreation. Indeed, research from the University of Sussex suggests that reading works better than a range of other activities at calming frazzled nerves. It is important that libraries do not undervalue this core benefit of library use

I really did not realise how much I treasured my library until the earthquakes. Fendalton opened last week and I went 3 nights in a row. They are the ray of sunshine in a very grey winter.

My reading habits have changed a lot since Sept 10 and Feb 11, more magazines in the short term and escapist fantasy reading further out. I could not easily have had this vital part of my life without the efforts of all your staff. Libraries were/are a lovely escapist outing for the whole family.

.....over the years the Christchurch City Libraries have been great and they remain one of my favourite places to go and relax

Simply could not live without the library. The overall experience is one of anticipation, & feeling one essential part of life is ok!

Libraries also provide a non-stigmatised, non-clinical community space and enable access to self help reading materials and supported online access to health and wellness information.

Provision of self-help books has been shown to be effective in treating mild to moderate levels of mental health – this form of bibliotherapy has been officially recognised in the UK with “Books on prescription” schemes.(Hicks, 2010)

⁴ National Endowment for the Arts To Read or Not To Read: A Question of National Consequence- Nov 2007

Libraries provide an important space for social well being

Libraries provide an important space for social interaction and community wellbeing. “In the early 1960s, Edward T. Hall identified four spaces of human interaction: public, social, personal, and intimate”⁵. Myers believes these categories are useful not only for culture and communication, but as they relate to community and our sense of belonging. Myers states that people need important connections in each of these spaces.

‘In fact, public belonging is a space where we need numerous significant relationships in order to experience a sense of healthy belonging and community. We need to develop more connections in this space than in any of the other three’⁶

Libraries provide an important space for public belonging where people can choose to interact at the level that they feel comfortable. Libraries provide a safe, welcoming public space that enables people to meet others and develop social connections.

I can't begin to describe how important the library was to me post-Feb 2011 and having a place to go + interact with others when the city all around us was in disarray! The South Library felt like a haven, and I studied here frequently with my classmates (we got an A+ in statistics!)

My son is 3 years old and we are originally from India. Library has helped a lot to us settle down our son socially by using various programs, cds, books, and DVDs. Love for being a part of Christchurch Library, when no friend or family was here and I used to feel alone.. I used to take my son to the central city library where we both felt at home. Thanks.

Since losing my job, I have enjoyed having the spare time to come down to the library where it is very easy to meet new people, make choices from great selection of books.

Since our major earthquakes my life has been in tumult with damaged home and the last of my children leaving Christchurch. I find myself, now in retirement, heading to the library more and more often rather than being at home alone. The staff are always friendly and it just feels good to be among others

They have a magic feel. People all sizes, shapes, gender, age, race, social class mingle easily here, companionable.

The library is the heart of the community, especially since the earthquakes, my library, south, was open very soon and it gave me hope, and obviously did the same for many others, the library is for everyone, it's a place to sit and have quiet time or meet people, the staff are friendly and helpful, it was lovely to walk in when it had reopened and be called by name and asked how I was. I love the access to information, the special events, and most of all the books, the library is the only place that always satisfies my expectations.

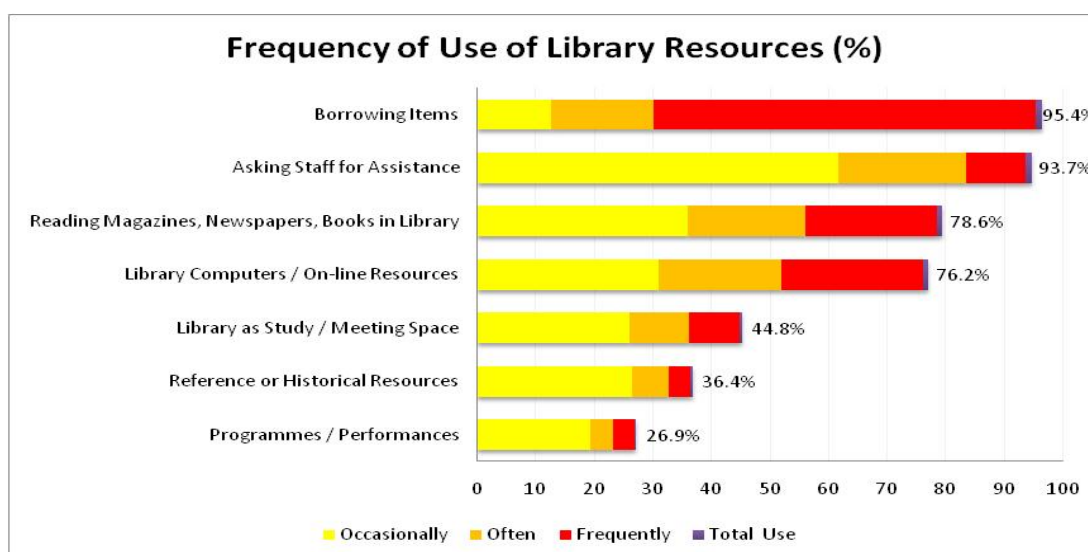
⁵ Myers,J pg 36

⁶ Myers,J pg 41

Libraries provide a welcoming space

One question in the customer survey identified overall areas of library use by the respondents.

Respondents were using the library for borrowing items (95%- with 65% doing so frequently), reading magazines, newspaper and/or books in the library (79%), studying or using as a meeting space (45%). The architecture and layout of the libraries appears to contribute to the overall sense of libraries being welcoming spaces as well as their interactions with the library staff.



These responses show that libraries are an important space for many people

..... Somewhere to go on a rainy day with kids.

I find reading helps to keep your stress levels down. Also, because the libraries somehow have a friendly and welcoming ambiance, you feel as if you're part of the local book-worm crowd.

Christchurch Libraries are brilliant. They are oases of culture and calm and learning in the city. Their closures during the earthquake affected people profoundly and their re-openings have been welcomed as bright moments in the city's recovery.

Most appreciated after Feb 2011 quake when roads/facilities damaged. Great to have somewhere within walking distance to get books/DVDs for entertainment. Keeping library open to 7pm was wonderful- could still visit after work and have somewhere warm to read or study if needed.

I live near New Brighton library, which is a pleasure to visit; the architectural design of this building is fantastic. The staff at the library go out of their way to help you, and the children's section is much appreciated by my five year old son. Thanks so much for all your hard work maintaining what I consider to be a taonga of Christchurch.

Libraries enable business and career development

38 people (4% of respondents) indicated use of the library specifically for business and or career use, including volunteer work. It was interesting to note that 30 (79%) of those 38 users identified three or more ways in which they benefitted from library usage and 13 (34%) of these identified five or more benefit categories.

The low response for CCL business and career development reflects that this is an opportunity for development. However, libraries also need to be aware that people who are already using the library for more recreational, social or educational purposes are also likely to value the libraries for business and career development purposes and access these resources when they require assistance. Increasing public engagement with libraries in all areas is likely to yield positive outcomes in business and career fields as well.

As more businesses choose to advertise career opportunities on-line and also require completion of online application forms, libraries have an increasing role in enabling people who do not have at home access to computers and the internet.

We use the library as an outing - a special event. I use the internet frequently for job applications as I'm not on-line at home. I do my emails and often pick up information about events and performances from my email and from pamphlets in the library eg NZ Music month.

[I benefitted] a lot- got a job and a house using the online services

Wanting to create a start-up IT business I have found resources available to help me.

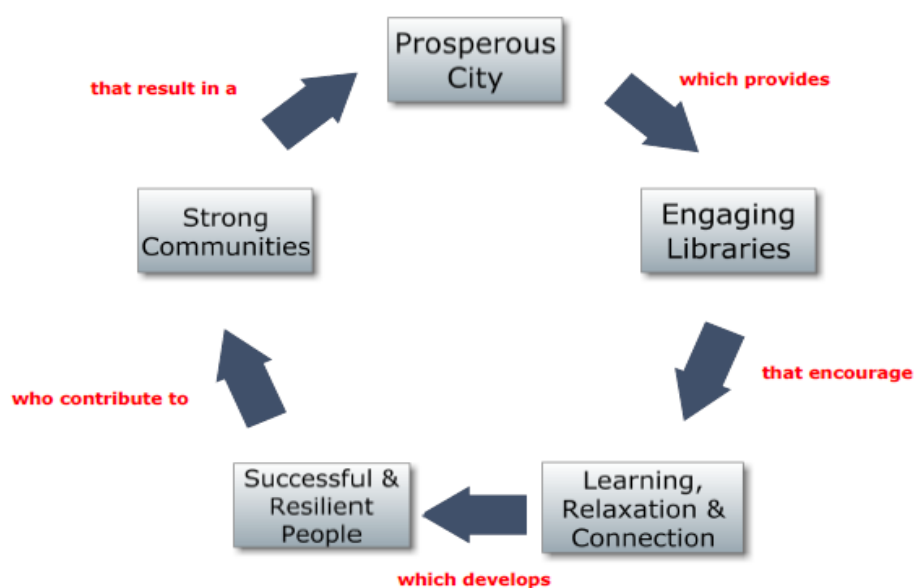
Pursued my personal interests. Developed myself professionally using library resources. Held work meetings at Fendalton library for some very useful off-site discussions. Enjoyed taking my Son's to Babytime at Fendalton and Bishopdale during the week - they love it.

The library keeps me up-to-date with news and technical information as well as providing a lot of inspiration.

I take a craft class for the elderly. I find the magazines and craft books most helpful.

The economic and social value of libraries

This analysis of customer comments shows the important role libraries play in developing successful, resilient people who are then able to contribute to strong communities and prosperous cities. Both directly in enabling learning and literacy and business and career development, and indirectly through the provision of resources for recreation, relaxation and socialising libraries add economic and social value.



The role of libraries in the building strong communities (CCL)

Identify market value of services provided- Consumer Surplus Method

The Consumer Surplus Method identifies the market value of services provided by the library and compares this cost with the total actual costs incurred by the library to generate those costs. This valuation method has been used in many library valuation studies. The Sunshine Coast Libraries study in Queensland has been used as the model for borrowable items and services charged.

All data used for formula relates to the 12 months to June 30, 2012 except for some information relating to the Aotearoa New Zealand Collection which was closed during this time.

Efforts have been made to value services such as programmes, hire of audio books, CDs, DVDs, computer sessions and meeting room use at market rates. Research by library staff time is charged at a rate of \$61.30 per hour. For our calculations we have use the rates for research enquiries (\$20), reference enquiries (\$5) and directional enquiries (\$2) based on the average length of time taken for each enquiry type. This enquiry rate becomes an important base for the new measures developed in this study.

Key areas where the Christchurch City Libraries valuation differs from the Sunshine Coast Libraries are as follows:

- **Valuation of books**

In line with Sunshine Coast Libraries, the acquisition cost has been used to value books purchased rather than the retail price. Once users have finished reading a book they are then able to resell the book so the net cost to the user is the difference between the purchase price and the resale price. CCL has used a discount rate adopted by South-Western Ohio⁷ of 50% rather than the very conservative value of 60% used by the Sunshine Coast.

- **Use of reference material**

In line with the Sunshine Coast Libraries, a value has been estimated for the use of reference material in the library at 5% of the annual visits to the library.

Christchurch City Libraries also has a comprehensive permanent collection of Canterbury material, relating to the local history and cultural memory of the community, which is normally held in the Aotearoa New Zealand Centre. Many items in this collection are unique or uncommon, and CCL may be the only source of access to them. This collection is made up of Ngai Tahu, central and local government resources, histories of Canterbury people and organisations, newsletters published by local groups and schools, historical maps and photographs. These resources have not been accessible due to library closure. In the 2009-10 year 14,736 items in this collection were used by library customers. It is difficult to value these items because they are unique. A conservative value has been given of \$175 per item. This equates to ten times the discounted value used as the value for all fiction and nonfiction books.

The Archives collection has not been included in this valuation study.

- **Electronic resources use**

External databases provided by libraries enable users to access numerous electronic encyclopaedias, collections of scholarly and popular journals, and other reference material. When Sunshine Coast Libraries completed their study in 2008, they estimated external database usage as figures were not available at that time and assigned a value of \$6 per use. CCL has been collecting external database usage for the past two years and use sessions, searches and retrievals as the key measures. These electronic resources have been split into the following categories for valuation purposes.

Records show that around 90% of Press Display usage is for the Christchurch daily newspaper the Press and other New Zealand newspapers. An average price of a local newspaper of \$2.10 average reading time of one hour with ten pages read per hour or a market value of 21 cents per retrieval.

⁷ As quoted in the Sunshine Coast Libraries study

Overseas newspapers cost at 1/10 of the estimated purchase price plus freight of \$20, giving a price per retrieval of \$2.

Music and streamed videos were not valued as users can access this material free from the likes of Spotify.

Retrievals for eBooks and downloadable audio books have been valued at the CCL acquisition cost and New Zealand Standards at the inter-library loan rate of \$35.80.

Other databases were then split into two categories. Databases such as Ebsco which are article based and often used for scholarly research were valued at \$7.20 per retrieval, being the amount charged to customers to interloan an article from another library. Electronic dictionaries and encyclopaedias and similar material were valued at \$5 per retrieval, this being the value of an in-library reference enquiry.

Searches themselves provide value to users and have been valued at \$2 per search –the value of an in-library directional enquiry.

- **Website and social media**

For the past two years CCL has been monitoring website usage using Google Analytics. CCL has two key areas in its website; the first being the library catalogue hosted by Biblicommons, and the second being the content area. This contains many web pages created by CCL staff as well as the digital collection of photographs, maps and digitised items. These copies of unique historical items held by CCL have been valued at \$30.50. This is half the cost that a user would have been charged if they had requested a photograph of the item. Unique page views were used as the measure for all CCL website usage.

CCL prepares material for the website and social media to encourage viewers to use the collection. Therefore retrievals from the website, Facebook and weblogs were valued at \$2 per retrieval – being the value of an in-library directional enquiry.

Google Analytics data on the number of page views per visit was used as the basis for valuing catalogue use at \$7 per visit- 7 minutes being the average time spent per visit.

Consumer Surplus Method	\$ '000s
Items Borrowed	72,509
Use of Reference Material (in Library)	3,322
Enquiries	1,513
Programmes Attended	2,275
The Source- External Databases usage	10,799
Digital Collection	12,628
Website, Catalogue & Social Media	14,976
Other In- Library technology	1,535
Meeting Rooms used	64
	\$115,364

Overall this calculation shows a total market value of \$115 million, or a yield of \$4.27 for every dollar spent on libraries by Council for the 2011-12 year.

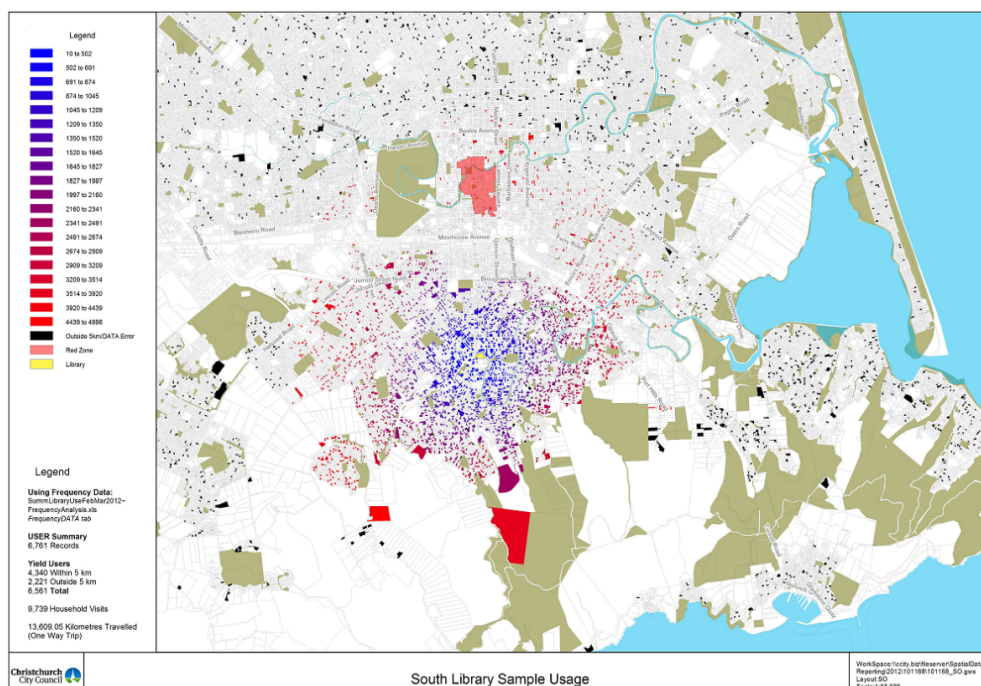
Time spent travelling to libraries- Travel Cost Method

The contingent valuation tool based on “Willingness to Pay” is a popular for library valuation. However in Christchurch, post-quake, this survey based method that asks users to value their use was both politically and socially fraught. Instead CCL opted to use a Travel Cost Method based on actual use rather than use extrapolated from customer surveys. Daily customer use by library was collected for 21 days and geospatially mapped. Travel distances were then calculated and converted to time spent travelling to libraries. This data can also be used for other purposes such as long term strategic planning, capital project planning, and market analysis.

More than 57,000 lines of data across all open libraries in the Christchurch network were used.

This map below shows the results for South Library

In the 21 days period there were 9,739 household visits and residents who lived within 5 kilometres of the library travelled 13,600 km one way to access South Library. An average distance was used for residents who lived further than 5 kilometres from each library.



This method still includes some subjective and hypothetical valuations. It has been assumed that 40% of the purpose of the trips made overall relate to library use. This study follows the method used to value sport and recreation in New Zealand and uses the statutory minimum wage to value travel time⁸. It was estimated that users had spent 908,179 hours travelling between libraries and home in the 12 month period. After adjusting for other use, it was calculated that \$4.9 million of time and fuel costs were spent travelling to libraries during the 2011-12 year.

Time taken to travel to the library has been valued at \$4.9 million or 18 cents for every dollar invested in the libraries by Council.

Time spent at libraries and accessing library resources – Opportunity Cost Method.

Time spent at libraries has been calculated using the total number of 2011-12 library visits. The average time has been estimated as 20 minutes per visitor. The statutory minimum wage was used for this calculation.

Time spent by external users accessing website content and the catalogue have also been identified.⁹

⁸ “This participation must produce personal benefits to justify this time which could be spent in other beneficial activities”

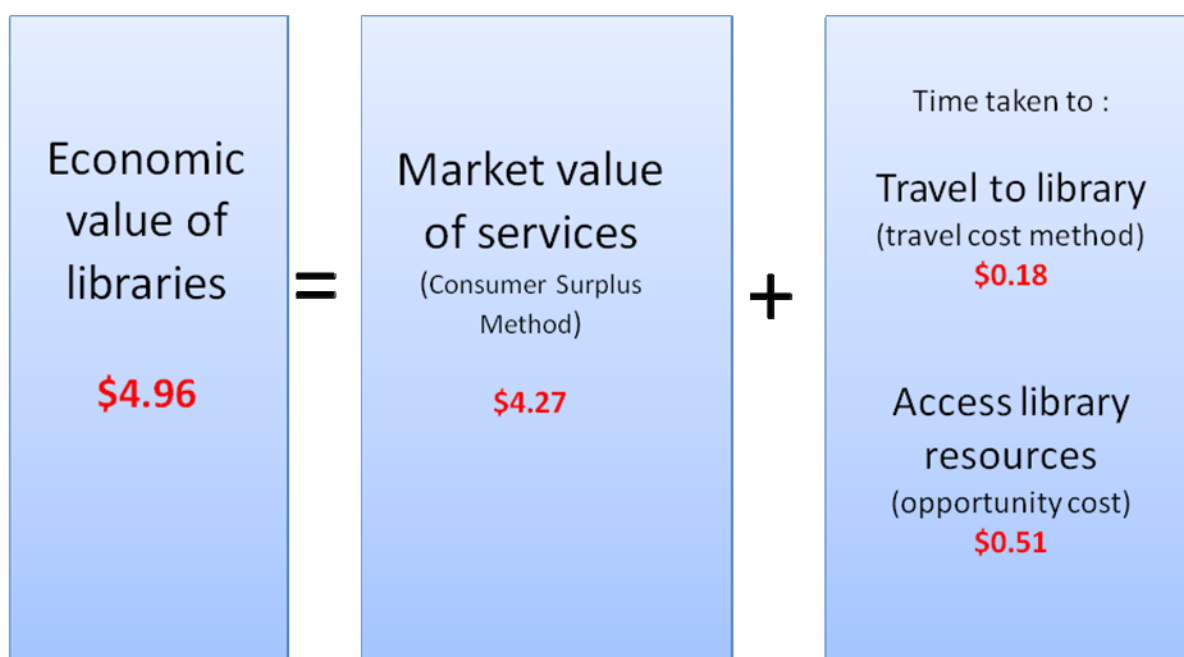
SPARC. (2011) The economic and social value of sport and recreation to New Zealand: An overview. p.11.

Time spent accessing resources has been valued at \$14 million or 51 cents for every dollar invested in libraries by Council.

Outcomes and evaluation

All figures subject to peer review & senior management sign off.

The economic value of Christchurch City Libraries has been valued at \$4.96 for every dollar invested in the libraries.



Library valuation surveys are challenging because they aim to measure that which is difficult to value. Libraries impact on the economy but often in a more indirect way. The Consumer Surplus Method is one of the more tried and true methods for identifying the market value of services offered. Using this method we have identified \$115 million worth of benefits to the community or \$4.27 for each dollar invested by the Council.

The calculation of the travel cost was the most time consuming part of the exercise and requires specialist skills to extract the data from the library systems, upload into geospatial mapping systems and complete travel time calculations. The resulting contribution of 18 cents towards the total value was surprisingly low. The rest of the formula is relatively easy to apply and a sound outcome can be produced without this aspect. Other libraries could choose to exclude this segment. However, the evidence gathered about library use is valuable and provided the robust evidence of usage patterns that enabled us to legitimately use estimates for other parts of the formula. The fact that this data can be used in a number of ways also makes it very valuable.

Libraries are in a state of transition as they move towards offering more electronic resources. By assigning values to external database, website and social media usage we are recognising both the cost and value of these resources. The formula has been future proofed and is also able to track changing use. The biggest challenge has been to assign values to resources such as external databases which are not available direct to public so have no market rates. Equivalents of in-house enquiries have been used as a substitute value. An alternative would be to find some databases that offer public subscriptions but this would still require making assumptions about the average number of retrievals per annum to then derive a cost per retrieval. Placing a value on website content generated by the library was also challenging. \$2 per retrieval seems a conservative value given the amount of information available to customers on many of these pages.

By assigning values to the ANZC collection and the digital collection, we are placing a value on local history. The values of \$175 per physical item in Aotearoa New Zealand Collection are a conservative estimate of the unique historical items held in this collection. The value of \$30.50 seems to be a fair price given both the costs incurred to upload these images and store the original items, and the time that it would take for users to visit the library to view the original images. However, people tend to place a lower value on resources that can be accessed on the internet.

The customer satisfaction survey with its key questions around benefits gained from using the library was valuable. Closed questions can result in more precise data but these open ended questions allowed people to comment on what really mattered to them. This format was particularly beneficial in this post earthquake period. However, the qualitative data has been so useful for both this project and for long term planning that we are likely to continue using this format.

In the discussion on the outcomes of the library survey we identified the significant contribution that libraries contribute towards lifelong learning, positive wellbeing, and a sense of belonging. By encouraging learning, relaxation and connectivity libraries contribute towards the development of successful and resilient people who are able to contribute towards strong communities and a prosperous city.

Economic value formulae often struggle to incorporate a measure of the social value of libraries. By calculating time spent accessing resources we are adding a measure of social value. People can use their time in so many different ways and it can be more difficult for people to incorporate reading into their lifestyle. Yet research shows a concerning decline in reading abilities which are expected to have significant civic, social and economic implications. It is important to therefore value the opportunity cost incurred by people opting to engage with libraries. The statutory minimum wage is a conservative rate. If we had used the more common survey method to develop a value each survey respondent would have used a different value. Many people would have used their hourly rate of pay as their chosen value. Some people may have chosen a higher or lower rate depending on the value they place on their leisure time. This variability is part of what makes these studies difficult to duplicate in future years. By standardising the value we are simplifying the formula. By

assigning a value of \$13.50 per hour irrespective of age and employment status, we are aligning our study with the study done on the economic and social value of sport and recreation. We are also recognising the future investment that will be accrued by children learning to read and the social benefits of having community spaces that enable people to connect and have a sense of belonging.

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Appendix 1

Christchurch City Council Libraries Survey - May 2012

1	How often do you visit a library in the Christchurch City Libraries Network?	Tick one box
1	This is my first visit	
2	Two or more times a week	
3	Once a week	
4	Once a month	
5	Once every two to three months	
6	Once a year	
7	Less than once a year	

Data entry: Enter Line ID # here.

2	How do you rate the Library regarding: place one tick in the column that best describes your rating for each question.	Very satisfied	Dissatisfied	Neutral	Dissatisfied	Very dissatisfied
a	Helpfulness and assistance of staff?					
b	Self-help options?					
c	Quality and range of collections?					
d	Quality and range of electronic resources and online content?					
e	Quality and range of programmes and events?					
f	Quality of library buildings?					

3	Which of these best describes your overall experience of the library?	Tick one box
	Very satisfied	
	Satisfied	
	Neutral	
	Dissatisfied	
	Very dissatisfied	

4	Please tell us why you rated the overall experience as you did.

5	Which age group are you?	Tick one box
	Under 15	
	15 - 19 years	50-59 years
	20 - 29 years	60-69 years
	30 - 39 years	70-79 years
	40 - 49 years	80+

Please turn over to continue

6 In the past 12 months, how often have you: place one tick in the column that best describes your use of the library for each activity.		Not at all	Occasionally	Often	Frequently
a	Read newspapers, magazines and/or books in the library?				
b	Borrowed items from the library?				
c	Used Family History, Local History and/or other reference material?				
d	Used Library Computers and/or On-line resources?				
e	Used the library for study and/or meeting space?				
f	Asked Staff for assistance?				
g	Attended learning programmes and/or performances?				

7 Libraries are often seen as important for their role in supporting literacy and learning, and contributing to community wellbeing.

In the past 12 months how have you most benefitted from using library services?

8 What is your gender?	Tick one box
Female	
Male	

9 Which ethnic group do you identify with?	Tick one box
NZ European	Asian
Maori	Other European
Pacific Islander	Other

10 Thank you for your time. Is there anything else you would like to tell us?
