About this Study

This study estimates the benefits of Ottawa Public Library (OPL) programs, activities, and services on the community it serves. The aim is to better understand the scope and scale of benefit, and how the investment in the OPL ripples throughout the community.

To complete this study, OPL reviewed numerous impact and benefit reports undertaken on libraries, as well those in the broader arts and culture sector. OPL selected a methodology created by the Martin Prosperity Institute (MPI) at the University of Toronto that was used in 2013 to measure the impact of the Toronto Public Library (TPL) system. Details about the methodology can be found on page 5. This methodology is intentionally conservative in nature and has since been used by Halton Hills, London, Milton, and Pickering public library systems.

The methodology looks at two key areas of benefit creation - direct and indirect benefits. The definitions and full methodology can be found on page 7 of this report.

OPL customized the methodology to reflect its own library system as well as best practices from other library impact reports. A review of the methodology is located on Page 4 and a bibliography of studies reviewed can be found in Appendix A. To view the data and calculations located within this summary, visit biblioottawalibrary.ca/impact to download the workbook. OPL used 2015 as its base year for this study.

OPL would like to thank TPL for the use of the MPI methodology and to the Halton Hills Public Library system for developing the framework for a working model that was the starting point for the workbook. OPL would also like to thank the Martin Prosperity Institute for the development of the initial methodology.
Executive Summary

$256 million in total benefit to Ottawa from OPL activities

The total economic benefit derived from OPL's activities in 2015 was $256 million.

The methodology analyzes two key areas of benefit creation:

- **Direct Benefits** – value created through the usage of free services provided by OPL in lieu of paid alternatives;

- **Indirect Benefits** – value created through spending by OPL – i.e. employee spending of wages at local shops and services, creating jobs and additional economic value. This benefit includes the initial spend and multipliers based on traditional economic impact methodologies.

The combined benefit of $256 million is comprised of direct benefits (value created by public interaction with library products and activities) of $179.1 million, and indirect benefits (value created by OPL spending) of $76.9 million. This study breaks down these benefits by activity and spending category.

**$5.17 in benefits for every $1.00 spent**

With the total benefit of OPL activities measured in this study calculated at $256 million and the total expenditures for OPL in 2015 at $49.5 million, a $5.17 benefit is returned for every $1.00 invested.
Additionally, OPL calculated the value created per resident in Ottawa ($266), per household ($635), and per active library card ($1,038).

This return on investment is in a consistent range with other library systems in Ontario that have conducted economic benefit studies. It demonstrates that the shared investment in library programs, activities, and services create significant collective benefit for the dollars spent.

$2,208 in benefits per open hour

The value of an open hour was calculated by separating the benefits tied to branches from services available 24 hours a day online (such as e-books, videos and e-database access). In 2015, $2,208 in benefit was created for each hour a library branch was open for a total benefit of $176.9 million.

This demonstrates that OPL’s physical branches, collections, and shared community spaces create significant value that complements OPL’s continually expanding digital portfolio.
Methodology

OPL reviewed numerous studies from both within and outside of the library sector as part of its literature and methodological review (see Appendix A).

OPL determined that the 2013 Economic Impact Study of the Toronto Public Library (TPL), conducted by the Martin Prosperity Institute (MPI), provided a suitable methodology for using local market prices of substitute products and services to calculate value. The methodology has since been used by the London Public Library, Milton Public Library, Halton Hills Public Library, and Pickering Public Library. This creates the opportunity to make comparisons between library systems.

The methodology analyzes two key areas of value creation:

- **Direct Benefits** – value created by usage of free services provided by OPL in lieu of paid alternatives;

- **Indirect Benefits** – value created through spending by OPL – i.e. employee spending of wages at local shops and services, creating jobs and additional economic value. This benefit includes the initial spend and multipliers based on traditional economic impact methodologies.

To calculate direct benefits, market values for comparators to OPL offerings were researched. In order to account for value differentials between owning and borrowing materials, discounts of 40% and 80% were applied to the valuation to calculate low-point and mid-point values. The 40% discount is used as a conservative mid-point for this study.

To calculate indirect benefits, OPL used multipliers on spending consistent with Statistics Canada’s national and provincial multipliers applicable to library spending, and a 2012 report to the Canadian Library Association’s Executive Council titled *National Statistical and Values Profile of Canadian Libraries*. The full review of multipliers can be found on page 44 of the TPL report.
For details on the full methodology, refer to the TPL report (pages 7 to 10 and 44 to 46), or review the study’s workbook. OPL made several methodological exclusions to best represent OPL’s specific programs, activities, and services, as outlined below.

**OPL Exclusions to MPI Methodology**

- **Meeting Room Space** – meeting room space at OPL is largely available to the public as a fee-for-service. As the methodology uses comparable market value for free services and OPL’s meeting rooms are fee-for-service, this category was removed.

  OPL’s rental fees (particularly those charged to non-profit organizations) are significantly lower than market rates and may create benefits for non-profits who use this discounted service, however those benefits were not included in this study.

- **Study Space** – A space analysis similar to TPL’s was not conducted in Ottawa. Given this unknown, the study space value was not included;

- **Page Experience** – The TPL study cites a 2007 study by the IZA Institute for the Study of Labour (Polachek, 2007) that provides a value for work experience in the broader Canadian economy that they applied to page positions. Though OPL employs staff members as Pages, it does not operate a page experience program similar to TPL and thus removed this category from its study.

- **Leakages** – OPL adjusted multipliers used in the MPI methodology to reflect the impact of leakages (money that leaves the local economy) on indirect benefits. As such, when spending was international, OPL did not multiply the impact at all (assuming limited dollars returned to the local economy.) A multiplier of 1.4 was used for all spending in Ontario and Gatineau.
Direct Benefits - $179 million

Direct benefits accrue to the library through customer interactions with programs, activities, and services. These benefits can be reasonably estimated through a number of methods. For this study, market comparators were used to determine the benefits provided to Ottawa residents using these resources for free.

The benefits in this study include:

- Collection use;
- Programs;
- Reference and database services; and,
- Technology access.

Figure 4 - direct benefits created by type, 2015
**Collection Use - $172.9 million**

Collection Use includes circulating items, in-house use of materials, the OPL holds service, as well as museum and gallery passes. Benefits are created by the person using the material for free in lieu of purchasing the item at face value. Each of these items is broken out into its own section and explained in the following pages.

The total mid-point benefit provided by Collection Use in 2015 was nearly $173 million. A common discount of 40% was applied to all circulating item values to account for the difference between borrowing and owning a material. This discounted value was used in the study, with both high and low values available in the workbook.

**Circulation - $148.7 million**

Circulation is comprised of all items borrowed through the OPL including books, audio books, periodicals, CDs and DVDs, video games, electronic-titles, English-as-a-Second Language (ESL) materials, French-as-a-Second-Language (FSL) materials, pedometers, and energy meters (Note: e-titles, ESL materials, FSL materials, pedometers and energy meters will be referred to as “Other Materials” for the purposes of this study). By borrowing these items, customers are able to reap the benefit of the item without paying a direct cost.
In order to calculate the value from these materials, OPL researched average market prices for each of the labelled categories in Figure 6 (and, where applicable, prices for children, teen, and adult items). When applied proportionally to the more than 13 million materials circulated, the overall value of material circulated is more than $247 million, with a discounted value of $148.7 million.

**In-House Material Use - $15.9 million**

In addition to materials being borrowed, customers also read and use materials within the library. OPL used the same market prices for children, teen, and adult materials as used in the Circulation Use calculation to obtain an overall value of more than $26 million for the 1.48 million in-library material uses. The discounted value used in this study was $15.9 million.

**Holds Delivered - $8.1 million**

OPL offers a holds service that transfers an item from any branch to the branch of a customer’s choosing, saving the customer time and travel costs. With this service, the majority of OPL’s collection is available to customers no matter where they live – especially valuable given Ottawa’s vast geography.

Benefit is created for customers by reducing the cost and time of travelling to get the materials they wish to borrow. This service was cited by customers in the 2013 IMAGINE campaign (which solicited 2,800 ideas and more than 27,000 comments on their vision of the library of the future) as one of the most appreciated that OPL provides.

OPL transported more than 4.7 million materials to customers in 2015. To calculate a value for this service, OPL used the lowest one-way public transit fare (PRESTO rate) that provided a $13 million value for this service. The discounted value used in this study was $8.1 million.
Museum and Art Gallery Passes - $248,800

OPL provides passes that can be used by the public to enter museums and art galleries in the city. This pass enables enjoyment of some of Ottawa’s wonderful cultural institutions.

To calculate the value of these passes, the average daily family pass rate for participating museums and galleries was used. Passes were borrowed 21,050 times in 2015 resulting in a full value of $414,700. The discounted value used in this study was $248,000.
Programs - $1.8 million

OPL provides a wide range of free programs aimed at both personal and professional development. Programs are grouped into four key age ranges – preschool, children, teen, and adult/senior programs. For most programs offered, customers would have to pay a fee to experience the same content or instruction elsewhere.

In order to provide a comparator, OPL surveyed similar programs offered in other public, non-profit, community, and private organizations as pay-for-service, and adjusted to compare per-hour rates. A discount of 40% was applied to the value created by these programs, using the same logic as the Collection Use calculation.

The total mid-point benefit provided by the 235,998 registrations for OPL’s programs in 2015 was $1.8 million, with preschool and children’s programs leading the way in terms of value creation.

Reference and Database Services - $2.8 million

Access to electronic databases provides research services and information to students, prospective and current entrepreneurs, citizen activities, and others throughout the community.

Trained professionals provide guidance and research support saving OPL customers search time by getting them to the most relevant and verified resources efficiently. Reference and database services also create benefit for customers by reducing the cost of academic or market research.
To find comparators, OPL analyzed the cost for individual or organizational access to paid databases, as well as basic costs for hiring research consultants in the local market. Like the other direct benefits, OPL applied a 40% discount from the total to account for product differentiation. As a result, the more than 186,000 database queries and research support requests created $4.7 million in value – the discounted value used in this study added $2.8 million to the total value created by library services.

**Technology Access - $1.6 million**

OPL helps bridge the digital divide – providing fixed and mobile tools (i.e. PCs, Chromebooks, and tablets), as well as free Wi-Fi access, to Ottawa residents. With more than 1.3 million online sessions in 2015, it is clear that this access is important, especially to those Ottawa residents who may have limited access elsewhere.

Access to technology creates economic benefits by providing necessary connectivity throughout the city to those who may wish to stay connected socially, apply for jobs, fill out government program registrations, or the many other online functions that create great benefit to persons with internet access.

To provide a comparable tangible value, OPL used the cost of a medium cup of coffee at a local coffee shop – an alternative place to access public Wi-Fi. Similar to circulation and programs, the 40% discount was applied to the total value of $2.6 million, resulting in a $1.6 million mid-point value for technology access.
Indirect Benefits - $76.9 million

Libraries also contribute to the economy through spending on operations and procurement, capital projects, and employment. These benefits ripple through the economy, providing revenue for local suppliers. In addition, employee personal spending on housing, transportation, food, arts and culture, and other areas, has an economic benefit on our community.

To calculate these benefits, the OPL considered both the location of suppliers and the use of common multipliers cited by other studies for spending within Ontario and in Gatineau. Where spending occurred elsewhere in the country or internationally, multipliers were not applied to the spending included in this study, as limited local impact would be felt by those dollars. For employee wages, common standards for calculating the economic impact of wages were applied.
Operations Spending - $16.4 million

OPL spent $12.1 million on operations in 2015. This included costs to run and maintain facilities and fleet, computers and software, and to conduct training and other corporate services. Procurement of supplies and services supports jobs and wages in other organizations creating a ripple effect captured by economic impact models.

Of this spending, 90% was with a supplier located in Ontario or Gatineau, 3.5% was with a supplier located elsewhere in Canada, and international suppliers represented 6.4% of spending. Using the appropriate multipliers outlined in the methodology on page 6, the economic impact of this spending for 2015 was $16.4 million.

Employment Spending - $48.8 million

The largest area of OPL spending is on employee wages and benefits. Through employee spending, these wages create an impact on businesses and organizations in the local community greater than the initial wages.

In 2015, OPL spent $34.8 million on employee wages and benefits, which created an overall economic impact of $48.8 million.
Capital Spending - $5.6 million

With 33 branches city-wide, a fleet of vehicles for mobile services, and technology to support both public and staff activities, OPL makes expenditures on capital projects, including facilities, technology hardware and software, and other business systems and supplies. Procurement supports jobs and wages in other organizations creating a ripple effect captured by economic impact models. Spending on capital projects in 2015 was $4 million.

Of this spending, 97.3% was with a supplier located in Ontario or Gatineau and 2.7% was with international suppliers. Using the appropriate multipliers, the economic impact of this spending for 2015 was $5.6 million.

Materials Spending - $6.1 million

In addition to operations, employment, and capital spending, OPL spends money each year on both physical and digital materials. Similar to operations and capital spending, this procurement creates ripple effects throughout the economy. OPL spending on materials in 2015 was $4.9 million.

Of this spending, 62.7% was with a supplier located in Ontario or Gatineau; 16% was with a supplier located elsewhere in Canada; and 21.3% was with an international supplier. Using the appropriate multipliers, the economic impact of this spending for 2015 was $6.1 million.
OPL - Check Out the Benefit

In calculating the benefits of OPL programs, activities, and services on the community, OPL has demonstrated a significant return on investment. Library services create considerable benefit per person, per household, per cardholder, and per dollar invested.

These benefits, in-line with other libraries in Ontario who have used the same methodologies, illustrate that the value of the Ottawa Public Library is more than the initial investment.

Table 1 - Ottawa Public Library – Check Out the Benefits.

<table>
<thead>
<tr>
<th>Total Benefit</th>
<th>Total Budget</th>
<th>Return on Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on Investment</td>
<td>$256 Million</td>
<td>$49.5 Million</td>
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<table>
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<tr>
<th>Total Benefit</th>
<th>Total Hours</th>
<th>Return on Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefit of an Open Hour</td>
<td>$177 Million&lt;sup&gt;1&lt;/sup&gt;</td>
<td>80,113&lt;sup&gt;2&lt;/sup&gt;</td>
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<table>
<thead>
<tr>
<th>Total Benefit</th>
<th>Total Persons</th>
<th>Return on Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefit per Citizen</td>
<td>$256 Million</td>
<td>960,754</td>
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<tr>
<td>Benefit per Household</td>
<td>$256 Million</td>
<td>403,197</td>
</tr>
<tr>
<td>Benefit per Cardholder</td>
<td>$256 Million</td>
<td>246,557&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
</tbody>
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1 Value of an open hour takes into consideration only the benefits that are available if a branch is open. It excludes electronic materials, database services, and indirect benefits included in the broader study.

2 This is the total of the open hours of all 33 branches in 2015.

3 Cardholders for this study are active cardholders only – defined as having used their card at least one time in 2015.
Next Steps - Capturing Social Impacts

OPL provides a significant tangible return on investment in quantifiable benefit terms; however, the impact of libraries on customer lives is not fully captured in dollars and cents. Every day, the investments in OPL provide qualitative benefits to customers and the community. For example, by providing children and teens with safe spaces to read and study, libraries contribute to both improved literacy rates and future employment prospects that impact customers’ social, civic, and personal lives.

Understanding these broader benefits requires a different methodology than calculating economic benefit.

In phase two of this study (to be released in 2018), OPL will report on these social impacts. Working with methodologies from both within and outside the library sector, the research will capture the broader social impact OPL has on Ottawa and its residents using both quantitative and qualitative measures.

Figure 17 - customer displays a drone built using OPL’s Imagine Space at Nepean Centrepont branch.
Appendix A – Bibliography


Pickering Public Library (2014). The Economic Impact of the Pickering Public Library on the City of Pickering. Canada. picnet.org/sites/default/files/EconomicImpact%202014.PDF


