

The Economic Value of Vermont's Public Libraries 2006-2007

Vermont's 175 public libraries provide a wide variety of services to their communities, including information in a variety of formats, tools for lifelong learning, recreational reading, community meeting spaces, programs for all ages, and internet access. Some tangible benefits of local public libraries might be measured by the number of people who obtain new jobs or learn new skills, or by the number of families that read together regularly due to library programs.

Vermont towns appropriated \$13,868,897 or \$22.23 per capita (based on the estimated 2006 state population of 623,908) in 2006-07. Is there any way to estimate the monetary value that public libraries bring Vermont communities?

In January, 2005, the University of South Carolina's School of Library and Information Science released the results of a study of *The Economic Impact of Public Libraries in South Carolina* (Daniel D. Barron, et al). According to the final report* "the study was undertaken...because the topic is of national interest, offers faculty members the opportunity to engage in meaningful scholarship that is of personal interest, and provides a public service to the State" of South Carolina.

The South Carolina study offers a comprehensive review of current research literature on the economic impact of public libraries, particularly similar studies conducted in New York and Florida. The study analyzed the value of the state of South Carolina's public libraries "based on such things as user time, effort, replacement value, new funding in the community because of the existence of the library, economic impacts of construction, and purchase of services by the library." As the South Carolina study noted,

Taxpayers rightfully want to understand what benefits they receive from the tax dollars they entrust to ... governments. Public libraries are one of the institutions supported by these tax dollars...

A variety of approaches have been used in the United States and internationally to study the benefits that public libraries bring to those who fund or support them. These efforts also have a variety of names: economic impacts, economic benefits, return on investment (ROI), taxpayer benefit, and so forth.

In June, 2006, the Vermont Department of Libraries first applied formulas similar to those used in South Carolina to the 2004-05 statistics of Vermont public libraries (Vermont Department of Libraries, February, 2006) in an attempt to estimate various types of economic

* <http://www.libsci.sc.edu/SCEIS/final%20report%2026%20january.pdf>



impacts of public libraries to Vermont taxpayers. These figures were updated in March, 2008, based on updated data supplied by the libraries.

Summary of Findings from the Analysis of Vermont Public Library Statistics

What do Vermont's public library statistics tell us about the economic value or benefit of those libraries on the state? Data submitted by public libraries to the Vermont Department of Libraries for FY2006-07 were analyzed using the methods used by the South Carolina Public Library Economic Impact Study conducted by the School of Library and Information Science of the University of South Carolina (Daniel D. Barron, director) and published in January, 2005. The following significant data was discovered:

- The direct economic impact of all Vermont public library expenditures is just under **\$17 million** – this is the amount **public libraries spent in their communities** and in the state in 2006-07.
- Vermont public libraries bring to the state from federal and private sources approximately **\$5 million** each year.
- The **value of loans** and use of books, videos, cassettes, CDs, newspapers, magazines, etc. to Vermont public library users each year is nearly **\$48 million**.
- The **value of public library reference services** to Vermont public library users is approximately **\$3.5 million**.
- The total direct economic impact of Vermont public libraries is estimated at more than \$75 million, while the actual cost of these services to state and local governments is only \$14 million.

This means that **for every \$1 spent by state and local governments on Vermont public libraries, the return on investment is \$5.36.**

- The indirect economic impact of Vermont public library expenditures – wages, supplies, books and other materials, construction, etc. – on the state's economy is approximately \$26.6 million. This means that **for every \$1 expended by Vermont public libraries, the state receives \$1.90 in indirect economic impact.**

Thus, total direct and indirect return on investment for every \$1 expended on the state's public libraries by Vermont state and local governments is \$7.26.

ANALYSIS & METHODOLOGY

Part One: Direct economic state-wide impacts of all Vermont public libraries

Measure 1: Total impact of all public libraries expenditures on the state's economy

Purpose: To determine the total monetary impact on the economy of the state of Vermont of all expenditures (capital and operating) for one year for all public libraries in the state.

Method: Sum of all expenditures by all public libraries. However, because some portion of operating expenditures consist of collection development costs, most of which are spent out of state, 75% of collection expenditure costs have been deducted.

Calculating formula: sum of (total operating expenditures + total capital expenditures) minus 0.75 of total collection expenditures = $(\$18,307,954 + 353,885) - 1,699,040$

• **Sum total for the state: \$16,962,799**

Measure 2: Total non-tax funds received by all Vermont public libraries

Purpose: To determine the total non-Vermont state and local tax funds that are received by all public libraries in Vermont because of the existence of these libraries.

Method: Sum of funds (operating and capital) received by all public libraries from non-state and local taxing sources (federal government, gifts, endowments, etc.).

Calculating formula: sum of total federal funds for operating + total other operating funds + federal capital revenue + other non-tax capital revenue = $\$29,074 + \$4,733,448 + 81,892 + 288,210$.

• **Sum total for the state: \$5,132,624**

Measure 3: Value of the loans of books, videos, and other materials to library users

Purpose: to estimate, using the best methods developed by researchers, the value of the library materials used by users of Vermont public libraries.

Method: Researchers cited in the SC Economic Impact study have shown that users of public libraries are willing to pay approximately $\frac{1}{2}$ to $\frac{1}{4}$ of the price of a book or similar items (videos, magazines, etc.).

Calculating Formulas: The South Carolina Economic Impact study developed three formulas using the average price of books, audiovisual materials, and magazines/periodicals and multiplying 50% of the average book prices (\$10.00 in 2001), 25% of the average audio-visual prices (\$35.00 in 2001), and all of the average magazine prices (\$200 in 2001) times total circulation those various formats. Vermont public libraries only report total circulation of adult and juvenile materials, regardless of format.

According to the School Library Journal website: (<http://www.schoollibraryjournal.com/article/CA6419681.html>), the 2006 average price of a children's book was \$21.60 and the 2006 average price of an adult fiction book was \$26.83 and an adult non-fiction book was \$42.32. A conservative formula might use 50% of \$22 for all formats times the total circulation of all formats (4,342,787).

• **Sum Total for all public libraries: \$47,770,657**

Measure 4: Value of reference questions answered

Purpose: To estimate the economic value of information provided through the reference services (in-person, telephone, and e-mail) provided by all public libraries in the state.

Method: While the research literature in this area is limited, a few studies have been conducted, and the South Carolina Economic Impact study used a formula based on an estimated average time a user spent in a reference transaction (about 30 minutes) and multiplied it times an average community hourly salary.

Calculating formula: Using this approach, with the Vermont's 2006 median hourly wage of \$17.48 (as reported by the Vermont Dept. of Labor: <http://www.vtlmi.com/oessummary.htm>), a value of \$8.74 per reference transaction was used for calculation = total reference transactions * \$8.74 = 401,364 * \$8.74

• **Sum Total for all public libraries: \$3,507,921**

Measure 5: Value of in-library use

Purpose: To estimate the economic value of information provided to users who visit and use materials inside Vermont's public libraries.

Method: The South Carolina Economic Impact study based its estimate for this value on the average time spent in libraries by users (about 30 minutes) and multiplied it times a community average salary cost. Then it multiplied that salary cost times the total in-library use reported by SC public libraries. Vermont's public libraries do not report in-library use, but they do report total number of visits for browsing, reading, studying, attending programs, computing, and other purposes. Using this approach, conservatively, with an estimated average time spent at 20 minutes times the Vermont 2006 median hourly wage of \$17.48, would result in a time and value estimate figure of \$5.83 times the number of total visits for any purpose = \$5.83 * 3,706,864 = \$21,611,017.

Because this calculation uses different measures than the South Carolina one, it is excluded from the final calculation of direct economic impact. It is interesting to note that the South Carolina final report also does not emphasize this measure even though the total includes it.

Measure 6: Economic value of the use of facilities and equipment in all public libraries in Vermont

Purpose: The estimate the economic value of the use of facilities (for meetings, study, personal use, etc.) and equipment (computers, Internet access, copying equipment, etc.) by all users of Vermont public libraries.

Method: The South Carolina study estimated that the value of these uses was 10% of operating expenditures.

Calculating formula: sum of total operating expenditures * 0.10 = \$18,307,954* 0.10

• **Sum Total for all public libraries: \$1,830,795**

Total Direct Economic Impact of Vermont Public Libraries

Measure 1	total \$16,962,799
Measure 2	total \$5,132,624
Measure 3	total \$47,770,657
Measure 4	total \$3,507,921
Measure 5	<i>not included (see above)</i>
Measure 6	total \$1,830,795

I. Total for all direct impacts: \$75,204,796

II. Total public library income from state and local tax sources: \$14,033,602*

Every \$1.00 expended by Vermont state and local government gives a direct return of \$5.36.

*Total state and local government income (operating and capital) was calculated by summing local tax income (operating) + state income (operating) + local (capital) government income + state government income (capital) = \$13,868,897 + 8,000 + 156,705 + 0

Part Two: Indirect Economic Impacts of all Vermont Public Libraries

Purpose: To estimate the indirect economic impacts of expenditures made by all Vermont public libraries through payment of salaries, building costs, equipment costs, etc.

Method: The South Carolina Economic Impact study notes that there is controversy surrounding what kinds of multipliers should be used to calculate indirect economic impacts. The SC study took a conservative approach and cited an estimate frequently cited by economists that about \$0.36 is retained in the local/regional economy for every \$1.00 spent for wages, capital expenditures, etc. as a secondary impact. When third, fourth, etc. level impacts are considered, the SC study notes, the figures goes to about \$0.637 for every \$1.00 spent.

Calculating formula: The SC study used the figures cited in Measure 1 (above) which excludes 75% of the collection development costs of materials which are mostly expended out of state = total expenditures in Measure 1 divided by 0.637 = \$16,962,799/0.637

• Total Indirect Economic Impact of all Vermont public libraries: \$26,629,197

Calculating formula: Total Indirect Economic Impact of all Vermont public libraries / Total public library income from state and local tax sources (see Part One, II)
 $\$26,629,197 / \$14,033,602 = \$1.90$

Every \$1 of Vermont state and local government expenditure returns \$1.90 of indirect economic impact.

**Total direct and indirect return on investment by Vermont local and state governments is
 $\$5.36 + \$1.90 = \$7.26.$**