



# Utah State Library

## Division

A DIVISION OF THE UTAH  
DEPARTMENT OF HERITAGE & ARTS

# Utah Public Libraries Return on Investment, 2019

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August 2019

# **Utah Public Libraries Return on Investment, 2019**

**Commissioned by the Utah State Library Division,  
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Submitted August 8, 2019**

## **Abstract**

Return on investment is an econometric calculation indicating the amount of return that is anticipated for each dollar invested. The current return on investment for Utah public libraries is calculated to be \$7.04, down from \$7.35 ten years ago. Possible factors, including faith in the economy and the prevalence of personal electronic devices, are discussed. Methodologies for arriving at monetary values are discussed. A table of individual factors is included.

## **Overview**

For nearly fifteen years the Utah State Library Division (USL) has monitored the return on investment (ROI) of Utah public libraries. Review of the econometric began in 2005 when Joe G. Baker, Ph.D. (Southern Utah University), Steven D. Decker, MLS (Cedar City Public Library), and Douglas Abrams, MLS, Ph.D. (Utah State Library Division) laid the groundwork for future studies. The team's preliminary work reviewed data from several states (Pennsylvania, Florida, New York, and South Carolina) and cities (Carlsbad, CA, and St. Louis, MO).

In 2009, Decker was contracted to engage in the research generated and outlined by the pilot study. A survey instrument based heavily on the South Carolina model was created and distributed throughout the State of Utah. It was determined that the ROI of Utah public Libraries was \$7.35. That is, Utah residents received \$7.35 in benefit for each dollar spent on public library service. No attempt was made to differentiate between direct and indirect community benefits. This information was published by the Utah State Library Division.

Largely of his own volition, Decker completed an abbreviated follow-up study in 2013 and determined that Utah public library ROI had risen to \$8.72. It is unknown if this information was published by USL.

It may reasonable to posit that ROI is directly impacted by economic conditions. For example, during this century (2000-2018) cost of living adjustments (COLA) for the Social Security Administration (SSA) has averaged 2.2%. However, in 2009 the SSA COLA was nil – literally zero percent. Between 2009 and 2013, the date of the follow up study, the economy had some indicators of recovery, but amount or speed of recovery was still uncertain. Again, two of those years, 2009 and 2010 marked a zero percent increase in SSA COLA. Though 2011's increase was healthy 2012 and 2013 posted a modest 1.7% and 1.5% increase respectively. Perhaps this indicated a lack of economic faith if not outright instability. The 2015 SSA COLA returned to zero. The past three years seem to indicate a return to stability posting SSA COLA's near or exceeding the century average.

Libraries have a history of following economic indicators. When economies are bad, library use increases; when economies are good, library use decreases. Put another way, it would be reasonable to project, based on experience, that when economies are bad the perception of the value of the library increases; when economies run well, the perception of the value of the library decreases. With the perception of a stabilizing economy and the 2019 SSA COLA set at 2.8% (28.5% higher than the 21<sup>st</sup> Century average), it is historically predictable that the current perceived value of library services will decrease until the next economic downturn. This will particularly impact survey responses as to how much people value certain services (programs, internet and/or wireless access, etc.) provided by their public library.

One more caveat must be included: A great deal of consideration was given to attempting to use the Keynesian metric of a multiplier. That is, the attempt to calculate how much money, particularly new money and capital expenditures, diffuse from government expenditures into the economy. This is not something that was considered in earlier studies and it is not attempted here because (1) the total salaries and wages paid to public library personnel are included in total

operating expenditures used to calculate ROI, (2) the multiplier effect metric has to assume a figure for the marginal propensity to consume which is unknown and cannot be reliably calculated with the information at hand,<sup>1</sup> and (3) because it is impossible, with the information at hand, to determine how much of capital expenditures took place in manners that directly benefited the Utah economy and how much of the expended capital funds went out of state.

### **Return on Investment (ROI)**

ROI is calculated as:

$$(\text{Economic Value of Library Services} - \text{Library Budget}) / \text{Library Budget}$$

ROI is defined as “a performance measure used to evaluate the efficiency of an investment . . . relative to the investment’s cost.” Like the formula above, it is calculated thus:

$$(\text{Current Value of Investment} - \text{Cost of Investment}) / \text{Cost of Investment}^2$$

### **Methodology**

Steps to ensure accuracy and consistency have been implemented. However, some information is somewhat subjective. For instance, survey respondents were asked to identify how much they would be willing to pay for certain services. Results of ROI calculations are based on respondents’ answers though the actual amounts respondents say they would be willing to pay is untested.

The most recent figures available have been used. These figures may span some amount of time. For example, the 2017 annual report is the most recent aggregated report available on the Utah

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<sup>1</sup> Since marginal propensity to consume deals with spending vs. savings of disposable income, it may be close to 100% given the economic indicators from that past decade. That is, close to 100% of disposable income may have been spent rather than saved.

<sup>2</sup> <https://www.investopedia.com/terms/r/returnoninvestment.asp>

State Library's (USL) website, but retail cost of materials extracted from vendors will be more current.

Specific ROI calculations were calculated as follows:

- Total operating expenditures of Utah public libraries, annual report, 2017: \$107,304,690.
- Total capital expenditures of Utah public libraries, 2017: \$25,603,158.
- Total current annual cost of Utah's Online Library, 2019, including platform costs for Overdrive, RBDigital, OCLC, and reference/database costs: \$610,217.
  - USL also spends on eMaterials. This expenditure is addressed in the calculation for electronic circulations.
- Circulation transactions, physical materials, 2017: 30,004,156.
- Circulation transactions, electronic materials, 2017: 3,829,444.
- Average calculated retail cost of a print material (17 June 2019): \$21.22
  - Top 15 bestselling hardcover fiction books (New York Times, 17 June 2019): \$27.93
  - Top 15 bestselling trade paperback fiction (New York Times, 17 June 2019): \$17.06
  - Top 15 bestselling hardcover nonfiction books (New York Times, 17 June 2019): \$30.16.
  - Top 15 bestselling paperback nonfiction books (New York Times, 17 June 2019): \$16.76.
  - Top 10 bestselling children's middle grade hardcover (New York Times, 17 June 2019): \$16.19.

- Top 10 bestselling children’s picture books (New York Times, 17 June 2019): \$16.99
- Top 10 bestselling young adult hardcover (New York Times, 17 June 2019): \$19.99
- Average calculated retail cost of eMaterials (Overdrive, 10 July 2019): \$46.64.
  - Adult fiction eBook, \$44.88; adult nonfiction eBook, \$42.35; adult fiction eAudio, \$73.06; adult nonfiction eAudio, \$64.04. Average adult eMaterial: \$56.08.
  - Young adult fiction eBook, \$45.88; young adult nonfiction eBook, \$25.12; young adult fiction eAudio, \$60.96; young adult nonfiction eAudio, \$41.96. Average young adult material: \$43.23.
  - Children’s fiction eBook, \$18.03; children’s nonfiction eBook, \$25.30; children’s fiction eAudio, \$45.33; children’s nonfiction eAudio, \$30.42. Average children’s eMaterial: \$29.77.
- Periodicals: Average calculated costs of physical periodical subscriptions using information provided by Daniel Mickelson (Springville Public Library) and Elizabeth Meyers (Washington County Library): \$55.46.
  - Springville Library: \$3,397.92 annually for 106 subscriptions.
  - Washington County Library: \$14,846.63 annually for 223 subscriptions.
- Internet use was determined from FY 2017 annual report data.
- Wireless use was extrapolated from FY 2017 annual report data. NOTE: Many libraries do not have the capability of determining wireless internet use. However, enough libraries have the capability to allow confidence through extrapolation. Therefore, wireless sessions among reporting libraries were tallied (1,109,865) as was

the number of registered uses among wireless session reporting libraries (1,194,683). Thus, mathematically, each registered patron used a library's wireless capability 1.08 times annually. Generalizing from 1.08 uses per registered user annually (1,741,084 registered users in the State), the wireless use across Utah libraries was calculated to have been 1,880,371 times.

The value of programming and services was derived from a state-wide survey. One hundred fifty participants from across the state responded to the survey. Four measures of central tendency were calculated from each response category: mode (the most often occurring answer), median (the answer in the geographical center of the responses, i.e., the answer in the exact center of the distribution or that with an equal number of answers above and below), mean or mathematical average of the distribution, and the mean of those answers placing a value on a service. This final metric was used in the calculation.

While it is true that by using the mean of those who placed value on queried programs or services tends to raise the average cost, such a use is valid based on the assumption that those who wish the service will value the service. Those who do not use the service have no reason to place value on it. In other words:

There is little doubt that broccoli has value. It is farmed, harvested, and marketed. Let us suppose that several people were asked what broccoli was worth to them. Some said it was worth nothing to them because they did not like broccoli and would not buy it at any price. Others used broccoli to varying degrees and placed a value on the broccoli – some low, some high. It is arguable that broccoli only has value to those who value it and therefore the market value of broccoli becomes a



measurement only of those who are willing to value it. To non-users the value will always be zero.

The scenario, above, has direct application to program attendance, reference transactions, and internet use (wireless and hard-wired sessions). However, one metric to watch in future studies is the assumed decrease in use of hard-wired internet sessions. For example, over the past decade of library internet use, internet use sessions have remained relatively constant at just over 2.4 million annually. However, wireless uses were not even reported 10 years ago but are currently approaching 1.9 million annually. As more wireless devices with data plans reach the hands of more people, it is reasonable to believe that the perceived value of internet capability of library patrons will decrease.

## **Conclusions and Concerns**

Libraries must seek ways of reinventing and reestablishing themselves in their communities. Over the past decade, ROI for Utah public libraries has decreased 31 cents (4.2%), from \$7.35 in 2009 to \$7.04 in 2019. This is not surprising in a time of a confident economy and with the advancement of technology, particularly data plans on hand-held devices.

Not only is the return on investment of libraries decreasing, library use is declining. In 2007, Utah public libraries boasted 1,674,976 registered borrowers from a legal service population of 2,570,830. That is, 65% of the library service population were registered borrowers. The same year posted 15,336,291 library visits. (Total library visits are not equal to, and undoubtedly exceed, visits by registered borrowers).

By 2017, library visits had dropped to 14,689,560 (a decrease of 4.2% - exactly the same percentage as the decrease in calculated ROI), while service population rose to 3,031,470 (up 17.9%) and the percentage of registered borrowers (1,741,084) fell to 57.4% of legal service population.

Libraries must learn to rebrand, market, plan, adapt, and adopt paradigms consistent with growth and development of information and information technology and with their communities. There are over 60 library schools across the United States and Canada. In a 10% sampling of those schools (roughly every 10<sup>th</sup> school from an alphabetical list), fully half do not indicate any marketing class. (One school only listed “required” courses, however). That is not to say that schools do not include marketing as part of the curriculum of some class, but they do not dedicate a class to marketing. On the other hand, even if library schools rededicated themselves to teach marketing, 58% of Utah libraries are managed by non-MLS degreed librarians. How do we get the water to the end of the row?

Utah libraries must develop a marketing plan or at least seek help from marketing experts. Library schools, organizations, training institutions and the like must retain the ideals of librarianship (freedom of information, freedom from censorship, privacy, diversity, etc.) and work-a-day realities (cataloging, circulation, facility maintenance, budget maintenance, etc.). But they exercise and market their viability and vitality.

In the end, the mechanics of libraries do little to influence the perceived value of libraries. Value is to be described as the worth or usefulness of something. ROI is an econometric, but it measures value, including perceived value. The cozy “mom and apple pie” feeling for libraries will succumb to the baser standard of “what does it do for me?”

ROI Calculation Table

Dollar Value per Incident	Measurement	Incidences	Economic Value of Library Services per Measurement
\$ 21.22	Print Materials Circulation Transactions	30,004,154	\$ 636,688,147.88
\$ 46.64	Electronic Circulations	3,829,444	\$ 178,605,268.16
\$ 55.46	Periodicals - Physical	9,389	\$ 520,713.94
\$ 21.22	Interlibrary Loan Transactions	63,769	\$ 1,353,178.18
\$ 7.08	Adult Program Attendance	345,042	\$ 2,442,897.36
\$ 7.10	Young Adult Attendance	87,761	\$ 623,103.10
\$ 6.87	Children's Program Attendance	895,615	\$ 6,152,875.05
\$ 5.68	Reference Transactions	1,819,289	\$ 10,333,561.52
	Utah's Online Library (database and reference)	49	\$ 445,417.00
	Additional databases provided	218	\$ 3,394,866.00
	OCLC Platform Costs		\$ 34,800.00
	Overdrive Platform Costs		\$ 60,000.00
	RB Digital Platform Costs		\$ 70,000.00
\$ 748.00	Computers and 20" screen	2,225	\$ 1,664,300.00
\$ 4.83	What about Internet sessions?	2,435,763	\$ 11,764,735.29
\$ 4.83	Wireless sessions	1,880,371	\$ 9,082,191.93
	Economic Value of Services		\$ 863,236,055.41
	Libray Budget		\$ 107,304,360.00
	ROI		\$ 7.04