



# COLLECTION ANALYSIS

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## 1 ABSTRACT

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The purpose of this collection analysis is to ensure the Linn-Benton Community College (LBCC) Library's collection meets the needs of their patrons by providing reliable and up-to-date materials, representing a variety of opinions. This analysis will provide insight into the Library's physical collection. While academic libraries are typically less interested in the age of the material or their circulation, and more interested in significant, in-depth materials, smaller libraries tend to be more focused on the usefulness of their collection.

## 2 LBCC LIBRARY OVERVIEW

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The LBCC Library provides resources and services for the instructional, research, and general information needs of students, faculty, staff, and local residents. The Library provides open spaces for collaborative work, multiple study rooms, and a beautiful reading room. Located in Willamette Hall on the main Albany campus, the Library offers a large collection of books, reserve textbooks, and multimedia items as well as drop in computer workstations and a computer lab. Online subscription databases provides patrons access to scholarly journal articles, electronic books, magazines, multimedia, videos, etc. Off campus access to these databases are available to LBCC students, faculty, and staff. Library staff members are available to provide help using the library and its resources on a drop-in basis at the circulation and reference desks, or during instructor-scheduled library classes.

### 2.1 MISSION

The Library is committed to providing resources, services and an environment that support the mission, goals and curriculum of the college<sup>1</sup>.

The primary goals of the Library are:

- to support the instructional programs of the college.
- to enable the faculty and administrative staff to keep abreast of developments in their fields of interest.
- to provide access to information which is outside the scope of present instruction.
- to provide access to the public to resources and services.
- to train in information literacy.
- to provide an atmosphere conducive to study and research.

The Information Literacy Instruction program outcomes at LBCC state that students will:

- Find information using appropriate research tools and search strategies.
- Evaluate and select information using appropriate criteria.
- Use information appropriately and ethically.
- Use appropriate/current tools and technologies to create, produce and communicate.

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<sup>1</sup> The Library's mission and goals are currently under review to realign with the larger college.

### 3 PATRON OVERVIEW<sup>2</sup>

In LBCC Library's Evergreen ILS patrons are categorized by student, employee and public. Students are individuals registered for credit courses at LBCC and through the English Language and Culture Institute (ELCI), employees are full and part-time faculty and staff members, and public are those unaffiliated with LBCC living in Linn and Benton Counties, as well as LBCC alumni. These divisions are assigned when an account is created, and give the patron varying permissions (i.e. only employees can check out "Staff Checkout Only" items). However, for the most part these divisions are beneficial for internal awareness and information.

On average each year, 2118 student, 195 employee and 30 public patrons are active in the LBCC Library system<sup>3</sup>. Thus the patron population can be described as 90.4% student, 8.3% employee and 1.3% public (See Figure 1: Patron Population Distribution). Meanwhile, circulations distributed by patron type show students with 80.9% of circulations, employees with 17.6% of circulations, and public with 1.4% of circulations (See Figure 2: Circulations by Patron Type).

Figure 1: Patron Population Distribution

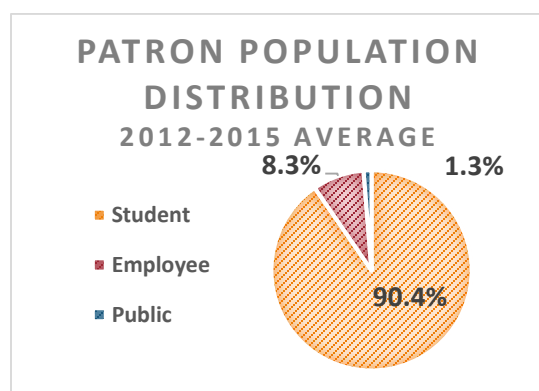
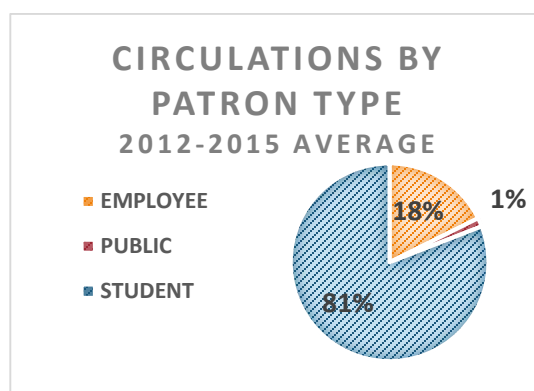


Figure 2: Circulations by patron type



Interestingly, employees have the largest circulations per person out of all patron types, with almost 12 checkouts per person. This is followed by public patrons with about six, and students with about five checkouts per person. Note that circulations per person is the average circulations per person, and that some people checkout more, while others less.

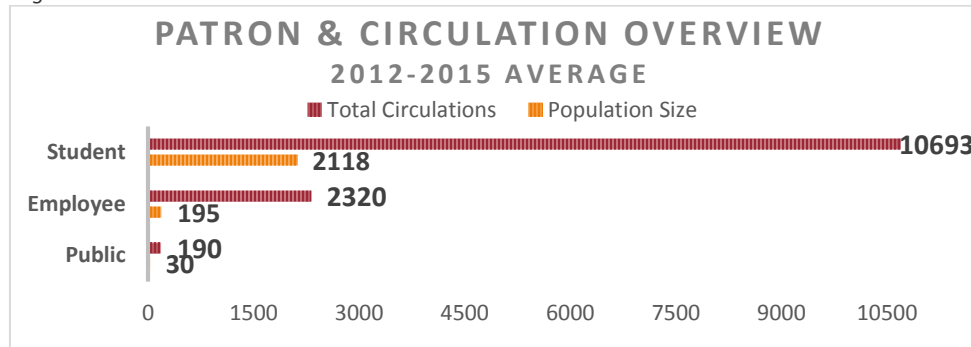
Due to the mission of the Library and LBCC to serve students it makes sense they are the Library's largest patron segment, both in terms of number of patrons and circulations. However, public patrons do have a potential to be larger than either group, especially with the new Linn Libraries Consortium lending, which 3.3 LBCC Public Patrons will expand upon. What is most interesting from the above data is that employees checkout more items per person than any other patron group. A few reasons for this might be the use of items for instruction

<sup>2</sup> The statistics discussed in this section are based on the past three academic school years (2012-2013, 2013-2014, and 2014-2015) starting in September and ending in June. This month range depicts a more stable and consistent illustration of the Library's patrons, as summers are not representative of normal use. Also, most statistics are based on a three year average to present a typical picture of the Library and college population.

<sup>3</sup> These are active Library patrons who checked out an item during the academic year. The total number of patrons in Evergreen is greater.

purposes either for reference in lesson plan creation or research, or even having a set of books available for a specific class session. More research would be needed to identify faculty checkout behavior to identify trends in usage.

Figure 3: Patron & Circulation Overview



The Library has experienced about a 25% decrease in unique actively circulating patrons over the past 3 academic years (See Figure 4: Patron Population Change). Overall, the number of students and employees at LBCC have decreased over the past three years by 10% and 7%, respectively. With this decrease in potential population the library should expect to see a decrease as well. However, some of the decrease in student and employee patrons could be attributed to an increased usage of online Library resources<sup>4</sup>. Understanding the decrease in public patrons is more difficult, strictly based on the fact that the number of potential patrons grows each year with new alumni, and fluctuates based on the surrounding county population. However, this could be attributed to a lack of service awareness.

Figure 4: Patron Population Change

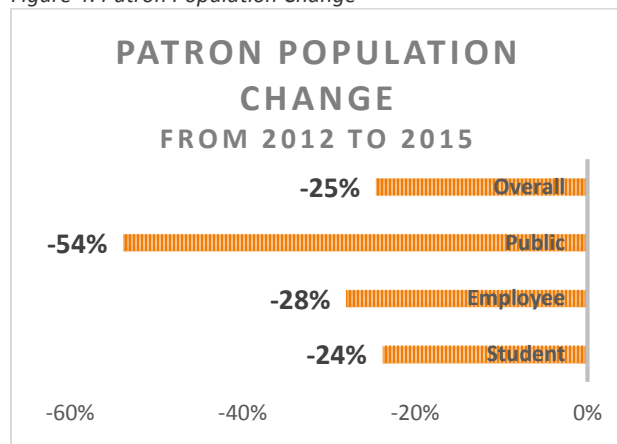
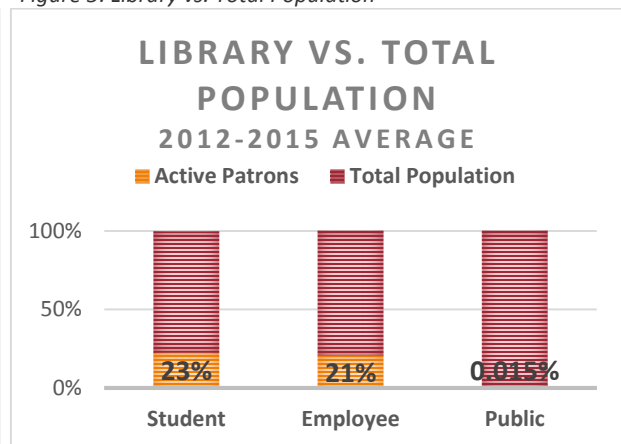


Figure 5: Library vs. Total Population



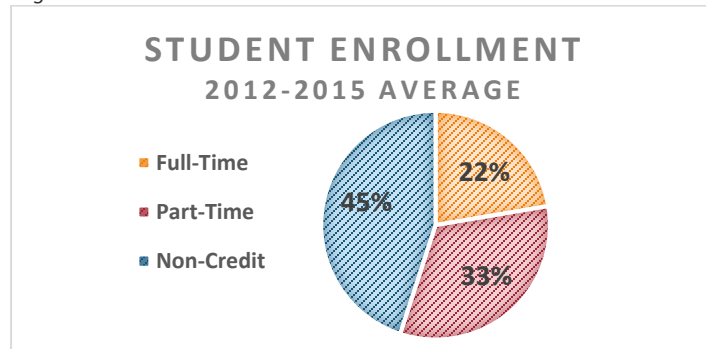
### 3.1 LBCC STUDENTS

LBCC has 20,880 students enrolled each year, on average, which includes both full and part-time students, enrolled at the main campus and centers. The average full-time equivalent student enrollment for the past three academic years was 9,394 students (See Figure 6: Student

<sup>4</sup> An analysis of online use would either confirm or refute this statement.

Enrollment). Some students may never come to the main campus, however they still have access to Library resources and could have materials delivered to their center.

Figure 6: Student Enrollment



LBCC has a very small minority population, making up only 14% of the total student population, or at least of those who responded. More than half of LBCC students are between the ages of 18 and 25 (56%), and the majority live in Linn and Benton Counties (78%). Note, LBCC does serve international populations both through the ELCI and dual degree programs (Linn-Benton Community College, 2015b).

Figure 7: Distribution of Student Minorities

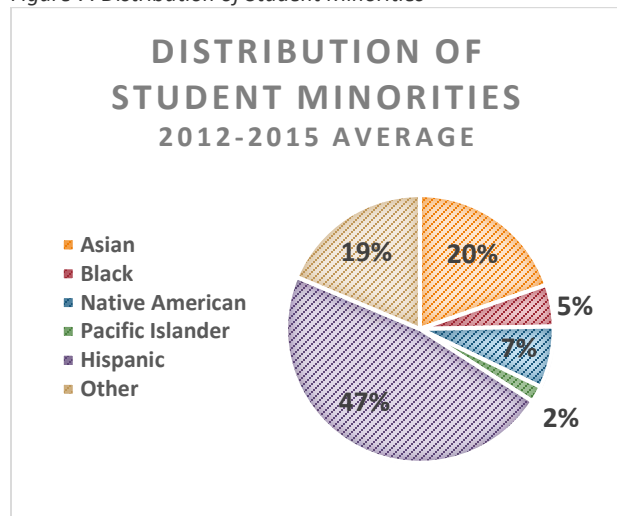
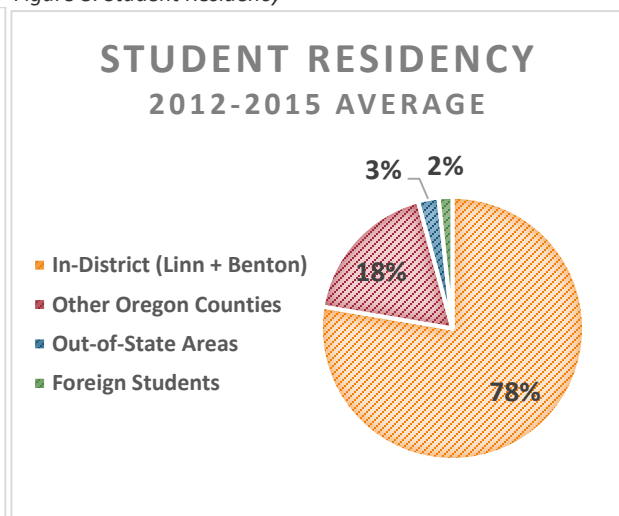


Figure 8: Student Residency



Popular programs at LBCC are Certificates, Associates of Applied Science, Arts, General Studies and Science (Linn-Benton Community College, 2015a). 10,658 students on average, over the past three academic years, have been enrolled with a designated major, while 2,618 were non-degree seeking. The top five programs with the most enrollment were Engineering, Business Administration, General Studies, Biological Science, and Exercise and Sport Science.

Unfortunately, only 10% of students are actively checking items out at the LBCC Library. While the number of circulations per student on average is 5, if you include the entire student population this number drops to 0.5 circulations per student each academic year. The low percentage of students using Library materials could be attributed to their geographic location at a distant center, which should be studied further to determine what might account for this difference. It could even be attributed to a lack of need for items while enrolled part-time,

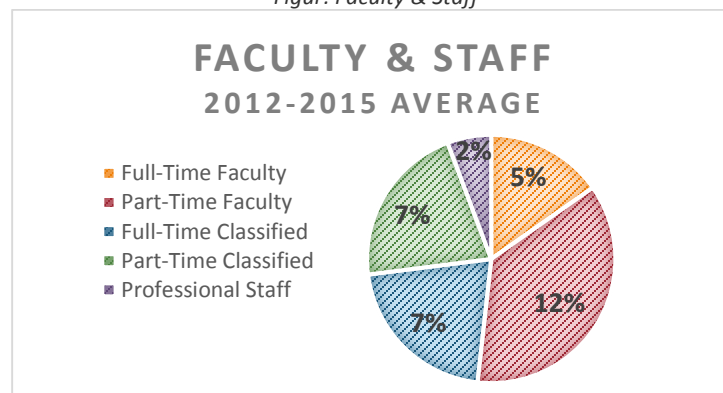
maybe only for physical items. Maybe classes are requiring less physical items during their tenure at LBCC. Although, the Library does include a wide variety of materials, including personal interest items, which can be checked out for non-academic purposes.

### 3.2 LBCC EMPLOYEES

The average yearly breakdown of employees are 481 faculty members (142 full-time, 339 part-time), 395 classified staff (197 full-time and 198 part-time) and 53 professional staff (See Figure 9: Faculty & Staff) (Linn-Benton Community College, 2015b). The average yearly total of people employed are 928 people, which translates to 21% of employees are active LBCC Library users.

For the past three years there has been a 19:1 ratio of students to faculty. During the 2013-2014 academic year 40% of all employees were male and 60% were female, although these percentages have been getting closer to equal over the past five reported years (Linn-Benton Community College, 2015b). Of all LBCC employees, in 2013-2014, only 11% identified as a minority population (Linn-Benton Community College, 2015b). LBCC is an equal opportunity employer, even though these statistics are not completely representative.

*Figur: Faculty & Staff*



### 3.3 LBCC PUBLIC PATRONS

The LBCC Library is open to alumni and Linn and Benton County residents, who can create an account by coming into the Library. Public patrons in the LBCC Library system represent .015% of the potential Linn and Benton service district population, which does not include alumni, which would mean the LBCC public patrons make up an even smaller percentage of the potential population. Starting Winter 2016 a new partnership of lending with the Linn Libraries Consortium will be implemented, which will make our items more easily accessible for the larger public population, right from their home library. Taking note of this statistic now before the implementation will help the Library track the increase in public patron checkouts.

Since the Library does not collect patron specific information, a larger perspective of Linn and Benton Counties is helpful. Linn County has a population of around 116,871 people and Benton County's population is estimated at 85,501 people (Census Reporter, 2013a; Census

Reporter 2013b)<sup>5</sup>. Educationally, 88.9% of Linn County residents and 95.2% of Benton County residents are high school graduates or higher (Census Reporter, 2013a; Census Reporter, 2013b). Economically, 55% of Linn and 51% of Benton residents have a household income under \$50,000 a year; both rates are higher than the Oregon average (Oregon Explorer, 2014a; Oregon Explorer, 2014b). Demographically, both Linn and Benton Counties are equally male and female, with a large white population, and small minority population (Oregon Explorer, 2014a; Oregon Explorer, 2014b)<sup>6</sup>. The median age in Linn County is 39 and 32 in Benton County, and at least 60% of both counties are made up of people ranging from 18 to 60 (Oregon Explorer, 2014a; Oregon Explorer, 2014b).

Evergreen does have the ability to gather statistical information about patrons in the system. However, this feature is not currently activated. If it were activated there are a number of statistics that might be interesting for an analysis of public patrons. Gathering information about how far away from the Library public patrons live, via specific address or zip code, would illustrate how far public patrons are traveling to utilize physical library materials. Increasing the number of metrics gathered with in Evergreen will allow the Library to compare publically available demographic information. Another metric that would allow for an interesting analysis is the public patron's educational attainment. This metric would highlight whether educational levels affect who use the collection, and the level of their use. This would not really affect collection development, however it might affect how the Library publicizes services.

## 4 COLLECTION

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### 4.1 OVERVIEW

The LBCC Library is made up of a wide variety of subjects, and also material types, including:

- Books
- EBooks/Games/Software
- Images/Art
- Kit
- Manuscripts
- Map Books
- Maps
- Music
- Music Books
- Sheet Music
- Talking Books
- Videos

The majority of the LBCC Library collection is made up of books, comprising 94% of the collection. The next largest material type are videos, followed by music. All other material types make up less than 0.76% of the collection. As of the end of Spring Term 2015 the LBCC Library had a total of 32,504 physical items available in the stacks. These items have seen a total of 121,442 circulations since LBCC's use of an electronic ILS.

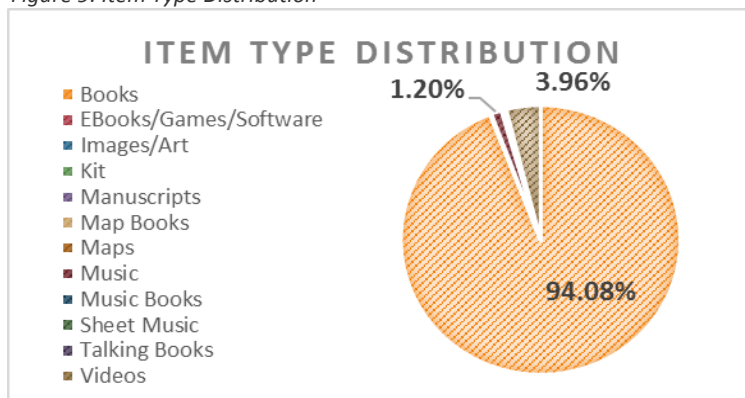
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<sup>5</sup> Albany has an estimated population of 50,239 people, which is where the main campus is located. The three centers located in Corvallis, Lebanon, and Sweet Home, have populations of 54,341, 15,500, and 8,938 people, respectively with populations corresponding to attendance of the center (Census Reporter, 2013a; Census Reporter 2013b).

<sup>6</sup> Over 80% of Linn and Benton County residents are white, and less than 10% are Hispanic and Asian (Oregon Explorer, 2014a; Oregon Explorer, 2014b).



Figure 9: Item Type Distribution



## 4.2 COST

As for the cost of materials, 91% of items in the Library cost less than \$40, while the average item is valued at \$35.49. Granted, the default cost of items cataloged is set at \$30, unless an item costs more, at which point the cost is manually entered. The cost per use of all materials is \$9.34. There are a number of reasons why this number might be so large. First, high priced items are often “Library use only” items, and thus will not have any circulations, skewing the data. Second, the Library reviews and weeds older and damaged items yearly, replacing them with newer editions or updated items. Thus, newer materials will most likely not have as many circulations as older materials, due to pure opportunity. Two item types cost more than the average, eBooks/games/software<sup>7</sup> and videos. Spending more money on videos is reasonable, to an extent, because they have the second largest percentage of circs; however, eBooks/games/software see significantly less circs.

## 4.3 CIRCULATIONS (CIRCS)

Over the past three academic years, the Library has seen almost a 9% increase in circs<sup>8</sup>. The second full month of each term sees the most checkouts, with May having the highest circs (859 average). The Library sees an average of 6,376 circs annually (including summer term), with 89% of these coming from the stacks (not including reserves). Also, the average publication year of items checked out is 1998. Books see the most circs, followed by videos, and music, although there is an 83% difference between the total number of circs of books and videos. These statistics do not include Reserve item circs, since they are not entirely representative of the collection usage.

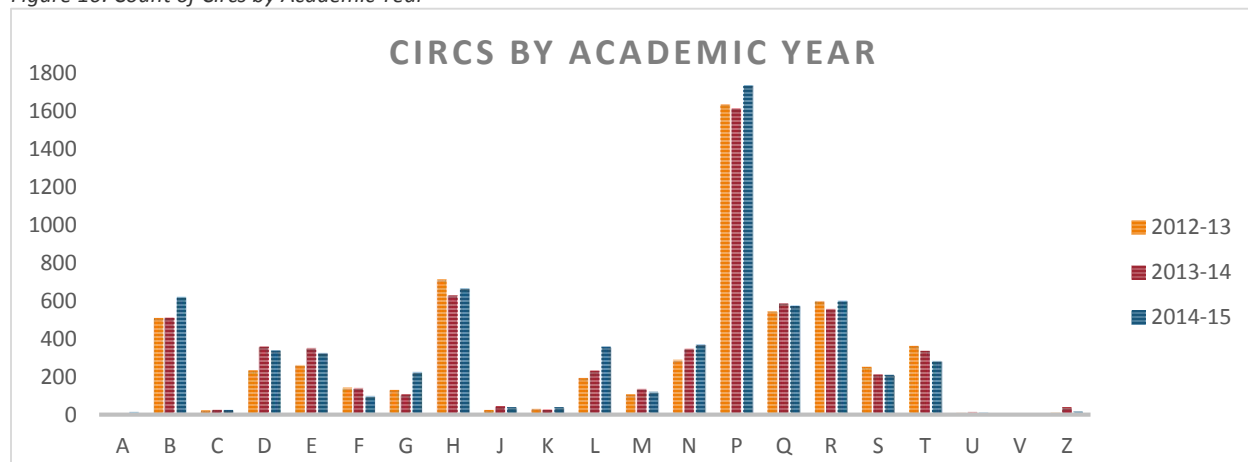
Circulations are somewhat proportional to the number of items in the subject (Refer to Table 1: Collection Overview and Figure 12: Circ Comparison). There is only a small variance among the top five subjects that circulate the most, and the number of items in that subject.

<sup>7</sup> eBooks/games/software are a very small percentage of the collection, only 0.07% in fact. Also, these items only make up 0.03% of circulations each year. Even though this title includes eBooks in reality this includes very few if any eBooks, since they are not included in the Evergreen catalog, which can be confusing and deceiving.

<sup>8</sup> This is a unique statistic when compared with the overall decrease in active patrons.

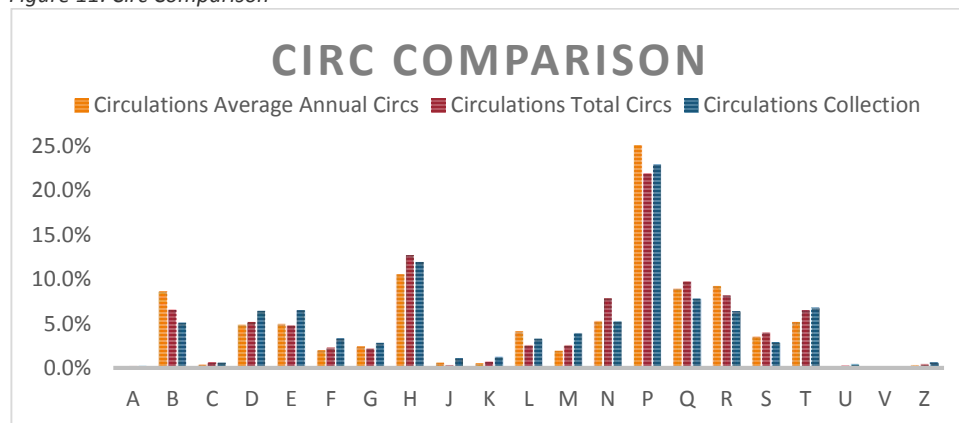
However, there are two subjects that are disproportionate when it comes to the percentage of the total collection and annual circulations; Medicine (R), and Fine Arts (N)<sup>9</sup>. Knowing LBCC has a large nursing student population (and other smaller areas of study that overlap), and a variety of art courses which require students to refer to art books as art inspiration, the change in rank makes sense.

Figure 10: Count of Circs by Academic Year



Another interesting comparison are the percentage of annual circs against the percentage of total circs (since circ records began) by subject. This highlights specific subjects that either have been more or less popular during the last three academic years, compared to their usage over time. Subjects that have been used more in recent years are Philosophy, Psychology and Religion (B), History of the Americas (E), Geography, Anthropology and Recreation (G), Political Science (J), Education (L), Language and Literature (P), and Medicine (R). Of these subjects History of the Americas (E), and Political Science (J) are the only subjects not ranked as a top program (See 5.2 Students by Subject). Also, Philosophy, Psychology and Religion (B) is the only highly acquired subject (See 4.6 Acquisitions). These subjects with higher recent circulation, for the most part, represent subjects covered either through popular program or course level work.

Figure 11: Circ Comparison



<sup>9</sup> Last year the Ns were reviewed as part of the five year review plan, thus there are quite a few number of items. It would be good to run a report in a year's time to see if the circulations vary. Also, some of the Rs will be moving to the new Health Occupations Building and the Library will be increasing this section.

Row Labels	# of Items	% of Total Collection	Total Circs	% of Total Circs	Average Publication Date	Average Annual Circulations	% of Annual Circulations
<b>A</b> - General Works	90	0.28%	307	0.25%	1972	8	0.1%
<b>B</b> - Philosophy, Psychology & Religion	1,654	5.09%	7,980	6.57%	1996	510	8.9%
<b>C</b> - Auxiliary Sciences	192	0.59%	793	0.65%	1984	26	0.4%
<b>D</b> - World History	2,090	6.43%	6,287	5.18%	1987	290	5.1%
<b>E</b> - History of the Americas	2,117	6.51%	5,841	4.81%	1986	288	5.0%
<b>F</b> - History of the Americas	1,090	3.35%	2,798	2.30%	1983	118	2.1%
<b>G</b> - Geography, Anthropology & Recreation	926	2.85%	2,690	2.22%	1997	135	2.4%
<b>H</b> - Social Science	3,876	11.92%	15,404	12.68%	1997	591	10.3%
<b>J</b> - Political Science	361	1.11%	444	0.37%	1999	31	0.5%
<b>K</b> - Law	419	1.29%	917	0.76%	2000	31	0.5%
<b>L</b> - Education	1,071	3.29%	3,155	2.60%	2002	234	4.1%
<b>M</b> - Music	1,281	3.94%	3,143	2.59%	2000	107	1.9%
<b>N</b> - Fine Arts	1,715	5.28%	9,516	7.84%	1985	314	5.5%
<b>P</b> - Language & Literature	7,439	22.89%	26,506	21.83%	1988	1,486	26.0%
<b>Q</b> - Science	2,540	7.81%	11,839	9.75%	1993	503	8.8%
<b>R</b> - Medicine	2,077	6.39%	9,903	8.15%	2001	530	9.3%
<b>S</b> - Agriculture	946	2.91%	4,894	4.03%	1990	199	3.5%
<b>T</b> - Technology	2,210	6.80%	7,909	6.51%	1993	287	5.0%
<b>U</b> - Military Science	153	0.47%	408	0.34%	1997	12	0.2%
<b>V</b> - Naval Science	45	0.14%	155	0.13%	1982	1	0.0%
<b>Z</b> - Bibliography, Library Sci & Info Resources	212	0.65%	553	0.46%	1993	23	0.4%
<b>Grand Total</b>	<b>32,504</b>	<b>100.00%</b>	<b>121,442</b>	<b>100.00%</b>	<b>1992</b>	<b>5,724</b>	<b>100%</b>

#### 4.4 TURNOVER RATE

According to the Library Research Service (LRS), “Turnover Rate relates the number of materials checked out relative to the size of the collection” (2013). Essentially, it is the number of materials circulated divided by the number of materials held. Turnover rate provides insight into the use of the collection, by indicating how much of the collection is used. The LBCC Library’s average turnover rate is 3.74 circulations per item<sup>10</sup>.

$$\text{Turnover Rate} = \frac{\text{Total Circulations}}{\text{Number of Items Held}} = \frac{121,442}{32,504} = 3.74 \text{ circulations per item}$$

#### 4.5 PUBLICATION DATE

The average publication date of an items located in the stacks is 1992, or 23 years old. The oldest section in the library, averaging a publication date of 1972, is General Works (A), which makes sense since this section is mostly made up of encyclopedias, dictionaries and collected works. The subject with the newest publication date average is Education (L) with a 2002 average. Since part of the Library mission is to support LBCC faculty, and keep them abreast of developments in their field, there is no surprise this collection is fairly new. Plus, LBCC faculty are teaching faculty rather than research faculty, which emphasizes their interest in educational topics. However, it is surprising that other sections do not have as early of publication dates. Subjects such as Medicine, Science, Law and Technology might be expected to have newer publication dates based strictly on how often their fields change.

#### 4.6 UNIQUE ITEMS

There are 104 unique items in the LBCC Library, or rather 0.32% of our collection is unique. Unique items are items in OCLC which two or fewer libraries own. This information is important for the Library when reviewing the collection, to ensure patrons still have access to these items, which would otherwise be difficult to interlibrary loan.

Table 1: Unique Items

Subject	Items
B - Philosophy, Psychology & Religion	4
D - World History	1
E - History of the Americas	3
F - History of the Americas	3
H - Social Sciences	5
J - Political Science	1
L – Education	11
M - Music & Books on Music	17
N - Fine Arts	7
P - Language & Literature	12
Q - Science	11
R - Medicine	6
S - Agriculture	6
T - Technology	17
<b>Grand Total</b>	<b>104</b>

<sup>10</sup> This calculation was based on the number of items at the 2014-2015 academic year. Since it is difficult to get a snapshot of total items in the collection each year, due to deleted items, this provided an approximation.

## 4.7 ACQUISITIONS

On average, the Library adds 1,382 items to the collection each academic year (Fall through Summer). Items purchased during an average academic year are checked out 1,231 times each year, which translates to 0.89 circulations per item. The average publication date of items added is 2008. Also, new items account for 19% of all average annual circulations.

For a comparison of items added against the larger collection see Table 3: Acquisition Comparison. The subjects most and least added closely correlate to existing collection coverage. Philosophy, Psychology and Religion (B), from the top subjects added, is the only subject that is not reflected across collection statistic rankings. The top five subjects in this category see about one circulation per item added, while the lowest five subjects see less than 0.3 circulations per item added. Essentially, when items are added in these top categories (Agriculture – S, Language & Literature – P, Philosophy, Psychology & Religion – B, Education – L, Technology – T, and Fine Arts – N) they will circulate at least once. Interestingly, the subjects seeing the most items added are Language and Literature (P), Social Sciences (H), and Philosophy and Religion (B), while students, if categorized by subject<sup>11</sup>, are more often associated with Technology (T), Science (Q), and Medicine (R).

Table 2: Acquisitions Comparison

Rank	Acquisitions	Collection Size	Count of Average Acquisition Circs	Total Circulations	Turnover Rate of Acquisitions
1	P – Language & Literature	P – Language & Literature	P – Language & Literature	P – Language & Literature	S – Agriculture
2	H – Social Sciences	H – Social Sciences	B – Philosophy, Psychology & Religion	H – Social Sciences	L – Education
3	B – Philosophy, Psychology & Religion	Q – Science	H – Social Sciences	R – Medicine	P – Language & Literature
4	Q – Science	T – Technology	L – Education	B – Philosophy, Psychology & Religion	B – Philosophy, Psychology & Religion
5	T – Technology	E – History of the Americas	Q – Science	Q – Science	R – Medicine

The above table compares the top acquired subjects with the largest subjects according to collection size, count of average acquisition circs, total collection size and the turnover rate of acquisitions, based on averages and information from the past three academic years. Subjects acquired more frequently are highlighted across the table to identify trends, and

<sup>11</sup> The Top 100 LBCC Programs were associated with subject areas to highlight subjects of most value to students. See 5.2 Students by Subject for additional information.

identify subjects which are outside the acquisition trends. The last column was calculated with the following equation:

$$\text{Probability Acquisition Will Circulate} = \frac{\text{Average Acquisition Circulations}}{\text{Acquisitions}}$$

## 4.8 INTERLIBRARY LOANS (ILLS)

During the 2014-2015 academic year 489 items were borrowed via interlibrary loan. These statistics are as close to the actual items that were requested as possible, although some did not have a LOC call number related to them, and others did not include complete call numbers. Two sections, Medicine (R), and Language and Literature (P) had the most items requested. Both of these subjects have high probabilities of circulating in the collection. While Language and Literature (P) is reflected by this usage in its size, Medicine (R) is not. Thus it is quite interesting that Language and Literature (P) still receives as many requests as it does, and that the Library has not increased the number of items purchased for Medicine (R). Many items were requested more than once, with quite a few having been requested two or three times. These highlight titles our students are finding valuable, for one reason or another, and areas where the present collection is lacking. This data gets more interesting when highlighting trends in item requests, either by subject, subject segment, or specific titles.

## 5 LBCC STUDENTS

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### 5.1 ITEMS PER STUDENT

During the 2014-2015 academic year, the Library had 5.42 items per full-time equivalent (FTE) student, and 1.63 items<sup>12</sup> per student (full-time, part-time and non-credit). Over the past three years, the Library has averaged 5.1 items per FTE student. This difference is partially due to the fact that FTE student headcounts have declined. Also, we cannot pull a snapshot of total items in the collection for a given year, thus the number of items used to determine items per student was based on the number of items in the collection as of the end of summer 2015.

$$\text{Items per student} = \frac{\text{Number of Items}}{\text{Number of FTE Students}} = \frac{32,504}{5,999.87} = 5.42 \text{ items per student}$$

According to statistics available through the National Center for Education Statistics (NCES) from the "Academic Libraries Survey Fiscal Year: 2012," LBCC had 7.91 materials per FTE student (2012). The items counts differ slightly between the NCES survey and the above calculations due to the boundaries of this analysis. For instance, reserve and equipment items are not included in the item counts above. Looking at similar Oregon community colleges LBCC's collection was fairly comparable, in relation to items per student. However, LBCC was far below the 71 items per student average for the state of Oregon, and the 91 items per student national average, which largely are based on larger four-year universities (NCES, 2012).

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<sup>12</sup> Items in this instance is defined as physical items outlined in 2.1 Overview.

## 5.2 PROGRAMS BY SUBJECT

To draw conclusions between students and subjects within the physical collection, the top 100 programs with the largest average student counts, for the past three academic years, at LBCC were identified. Then, the top 100 programs were associated with and translated into Library of Congress (LOC) subject areas, according to the LOC Classification schema<sup>13</sup>. Some programs covered a range of subjects, while others were associated with fewer subjects. For instance, journalism can be more closely related to a single subject area, while liberal studies covers a broader range of subjects. Also, subjects were associated with the program's field, rather than the broad range of courses that may be taken to complete a program<sup>14</sup>.

### 5.2.1 Top 100 Programs

The top 100 programs, or 100 programs with the largest average enrollment, when translated into subjects, meant every call number range was represented. This was not planned, however was an outcome of this translation and association process. For a full look at the top programs, and translation to subjects, see Support Documents: Programs by Subject.

Table 4: Top Programs highlights the top 100 programs with the most unique number of programs associated with them. This means that programs that were associated with multiple segments of a subject were only counted once. By counting only the unique programs the ranking shifted slightly, however the top three subjects remained the same. The top three subjects, with the greatest number of unique programs associated with them, are Technology (Ts), Social Science (Hs), and Medicine (Rs). These three subjects represent the 2<sup>nd</sup> (Social Science), 3<sup>rd</sup> (Science), and 4<sup>th</sup> (Technology) largest segments in the Library's physical collection. Interestingly, all three top subjects have the highest acquisition rates. As for circulations of items added, Social Sciences is the only top three subject, that is in the top five circulations of items added; Technology and Medicine still make the top 10.

Table 3: Top Programs

	<b>Top 100 Programs</b>	<b>Top 40 Programs</b>
<b>1</b>	T – Technology	T – Technology
<b>2</b>	H – Social Science	Q – Science
<b>3</b>	R – Medicine	R – Medicine
<b>4</b>	Q – Science	H – Social Science
<b>5</b>	N – Fine Arts	G –Geography, Anthropology & Recreation
<b>6</b>	S – Agriculture	N – Fine Arts
<b>7</b>	G –Geography, Anthropology & Recreation	K – Law
<b>8</b>	K – Law	B – Philosophy, Psychology & Religion
<b>9</b>	L – Education	S – Agriculture
<b>10</b>	P – Language & Literature	P – Language & Literature

<sup>13</sup> The University of Michigan has done a similar, however more thorough process which can be found at: <http://www.lib.umich.edu/browse/categories/>.

<sup>14</sup> For example, even though all students are required to take writing, writing was not included in the translation of program/major to subject area. The reasoning behind this is that there would be a lot of cross over, and subject/field specific is potentially more important for completing academic research in their area of focus.

### 5.2.2 Top 40 Programs

Narrowing the above statistics to just the top 40 programs, or programs with an average of 50 students, allows certain trends to be emphasized and new trends to be highlighted. The top three subject changed slightly, as Science and Social Sciences changed ranks. Thus, the top subjects among the top 40 programs are Technology (Ts), Science (Qs), and Medicine (Rs). The most popular three subjects from the top 40 programs appear in the top 10 lists of subject size, circulation, items added and circulations.

## 6 CONCLUSIONS & RECOMMENDATIONS

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Taking into account the information compiled in this report, conclusions can be drawn about LBCC Library's physical collection, which lead to a number of recommendations. First of all, it would be beneficial if the unique items identified in the collection included a note in the item or record to ensure its preservation. With 104 unique items, this project would not be small, however it would alert those reviewing the collection of its status. Limiting the number of eBooks/games/software added to the collection would help balance out their minimal use. Also, a more thorough evaluation of these items prior to purchase and surveying who might use them would help increase their usage and balance their cost.

Reviewing the number of active public patrons again after the Linn Libraries Consortium sharing beings will be beneficial to both the Consortium and Library. Not only will this review highlight the success of the program, but also how public patrons use LBCC resources. While public patrons do not drive acquisitions, they might highlight sections of the Library that is important for LBCC to preserve, which other local libraries might be lacking.

An annual review of ILL titles would highlight potential titles to purchase for the collection. At the moment this is not part of the collection development model, however would be useful in identifying subjects students are not finding in the current collection. While this does not mean every title on the list should be purchased, repeating items or subjects should be noted and reviewed in connection with the larger Library collection. The following are subject specific recommendations.

### 6.1 AGRICULTURE (S)

Agriculture (S) while not a frequently acquired subject, has the highest probability of circulating among new acquisitions (See 3.6 Acquisitions). A book added to the collection in Agriculture (S) will experience around 1.55 circulations. Essentially, when items are added in this subject, they will circulate. This is an interesting comparison to the fact that Agriculture (S) only makes up 3.5% of annual circulations, and is less frequently ILLed than other subjects. One reason newer acquisitions might circulate is that their average publication date is seventeen years newer than those items in the stacks. Since there are a large number of students in programs associated with Agriculture (S), they may be required to reference current publications (See 4.2 Students by Subject). These statistics are emphasized by the fact that Agriculture makes up less than 3% of the physical collection.



Based on these facts, the number of new items purchased for Agriculture (S) should be increased, especially items with a newer publication date. Further analysis of this section could be useful in seeing which areas are the most outdated, and which areas circulate best. Then by comparing this information with statistics from acquisitions, and even ILLs, specific areas can be identified which should be highlighted when purchasing new items.

## 6.2 TECHNOLOGY (T)

Technology (T) is associated with the most LBCC programs, is the 4<sup>th</sup> largest subject and accounts for 5% of circulations. When items are acquired for this subject each item sees about one circulation in its first year, suggesting these are valuable items. Meanwhile, new items in Technology have an average publication date of 2008 while Technology (T) has an average publication date of 1993, a 15 year difference. Technology (T) is also a frequently ILLed subject.

A closer review of the oldest sections within Technology (T) would identify whether or not certain areas are appropriate to be dated. Essentially, some specific subjects within Technology (T) are still effective if they are older, such as photography (TR), arts and crafts (TT), and home economics (TX), even though the majority of Technology (T) is focused on engineering. However, digging even deeper into those subjects might highlight some short comings, for instance do the photography books cover new digital cameras or do they just cover composition and techniques. In turn, comparing this with the subjects frequently ILLed might reinforce conclusions. Since items added to Technology (T) tend to be more valuable, a subject specific analysis would help identify which sections are really needing updating and attention.

## 6.3 SOCIAL SCIENCE (H)

Social Science (H) is a highly acquired subject, is the second largest subject in the collection, and receives high circulations. However, only a little more than half of newly acquired items circulate within their first year. Newly acquired items have an average publication date of 2010, while the overall collection has an average publication date of 1997. Also, Social Science (H) has the 3<sup>rd</sup> most ILL requests.

Social Science is ranked 2<sup>nd</sup> among the top 100 programs, and 4<sup>th</sup> among the top 40 programs (See 4.2 Students by Subject). Social Science (H) as a subject is home to many topics students focus on in first year writing courses, so it is not surprising to see that this subject has high circulation statistics. However, instead of using more of the newly acquired items, patrons are turning to the items in the stacks which are on average 18 years old<sup>15</sup>, or requesting items through ILL. This suggests currency should be emphasized during instruction sessions that highlight the print collection for students. Comparing the usage of Social Science (H) with Opposing Viewpoints might show that students are turning to current online resources more than the physical collection for these topics.

Meanwhile, cultural richness is a core theme at LBCC, and diversity and inclusiveness are often emphasized. Thus, the Library will continue to support and promote these goals on behalf

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<sup>15</sup> This is older than some of our students.

of the college by continuing to purchase items, no matter their usage. Emphasizing and pushing these new items might increase their chance of circulating.

#### 6.4 MEDICINE (R)

Medicine (R) while ranking fourth among the top programs, only makes a top five subjects ranking for circulations and ILLs, which makes sense since they are a large population. However, you would think other statistics would reflect these high rankings if they are such a large population that use the collection. As a whole, even though Medicine (R) is not a large subject, and is middle of the road for acquisitions, they are valuable items because they will circulate. The items that are added are about five years old, while the overall collection is about fourteen. Comparing these statistics against ILLs might highlight usage and interest trends.

A thorough review of physical items and subscription health related databases (i.e. CINAHL) usage will help the Library for the move of items to the new health occupations building. Identifying which specific segments within the subject are the highest circulating might identify which items need to be in both places. Of course, since there is general interest in this topic (self-diagnosis, etc.), and no way to differentiate between the purpose of use, these conclusions must be taken with a grain of salt.

#### 6.5 PHILOSOPHY, PSYCHOLOGY & RELIGION (B)

Philosophy, Psychology & Religion (B) makes up about 5% of the physical collection and is a frequently acquired subject. This subject circulates a lot, in fact, newly acquired items will circulate at least once during their first year added. On average, these items were published in 1996; however, newly acquired items were published in 2007. While this subject doesn't make the top 10 from the list of top 100 programs, it does make the top 10 subjects when looking specifically at the top 40 programs. Thus, there are more students this subject is related to in the largest LBCC programs.

While varying by instructor, students taking Religions of the Western World (R102) and Religions of the Eastern World (R103) often are required to make use of religious texts. Interestingly, some instructors hope students will use other libraries to find related texts, and not just the LBCC Library, which might explain the decent number of ILLs in this subject. Buying texts in this subject, doesn't really follow the instructor's wishes. However, working with faculty to review sources used during assignments and completing a citation study would highlight true usage, as to whether or not they are accessing resources available through LBCC.

Another reason this subject is frequently purchased is due to the course General Psychology (PSY201/202), which requires students to research a specific theory. However, reviewing how the psychology subscription databases are used in comparison to the physical, and working with faculty to complete a citation study would highlight which format students are finding using more frequently. Overall, whatever conclusions are made after this additional analysis, this subject is still highly circulating, thus it should be continued to be purchased. However, additional analysis might highlight specific topics to be purchased.

## 6.6 EDUCATION (L)

Even though Education (L) is not one of the largest subjects, neither is it the most frequently added, nor most circulating, when new items are added in this subject they circulate. In fact, they have the second highest probability of being checked out among newly acquired items, with 1.31 circulations per acquisition. As long as Education (L) is a top program, and the Library supports teaching faculty items should be added. Since we currently purchase titles for various education courses, a syllabus citation study would identify titles used and recommended, which could in turn be used to identify items missing in our collection that should be purchased.

## 6.7 LANGUAGE AND LITERATURE (P)

Not much needs to be said about Language and Literature (P), since it is a large section that is used frequently, be it in relation to new or old items. However, Language and Literature (P) is under review this year, and will be getting a lot of attention. As the second most ILLED subject, it would be beneficial to review which specific titles are being requested to identify titles to add to the collection. Also, reviewing this section's usage statistics will highlight segments that are used most and least frequently. This will help those assigned those sections when reviewing titles.

## 6.8 FINE ARTS (N) AND MUSIC (M)

Both Fine Arts (N) and Music (M) were reviewed during the 2014-2015 academic year, thus both would benefit from another analysis in year or two. During the revision process these sections were heavily weeded and updated. This additional analysis would provide insight to the effectiveness of the revision process.

During the review process, a handful of instructors associated with Fine Arts (N) classes provided insight to the types of items they and their students use most frequently (colorful, provide in-depth, easily accessible information, etc.). Thus a review of Fine Arts (N) acquisitions would identify whether or not the newer items truly address their described needs. Also, Fine Arts (N) as a top program suggests a higher number of students with interest in this subject that might be prone to using newer, more colorful items. Seeing as the Fine Arts (N) was the 5<sup>th</sup> oldest subject in the collection, an influx of newer items might change their rankings, and highlight new buying trends.

Music (M) while not making any top lists, and having a high probability of new acquisitions not circulating, might highlight some interesting trends the review process perpetuates. The previous review process of Music (M) (and Fine Arts) highlighted a number of cataloging errors, which could make them less accessible to patrons. The entry of new items might be the catalyst for change in this subject.

## 6.9 CONCLUSION

As a whole, this collection analysis identified the need for a more thorough, in-depth analysis of subjects. Incorporating online resources into future analysis would highlight additional trends in usage and purchasing need. Comparing LBCC's collection with similar community college collections is another metric which would benefit this type of assessment. A "big data" report running annually or biannually to capture the previous academic year(s), would make this process easier and provide current information from which to make collection development decisions.

## 7 WORKS CITED

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- Census Reporter. (2013a). Census Profile: Benton County, OR. Retrieved from <http://censusreporter.org/>
- Census Reporter (2013b). Census Profile: Linn County, OR. Retrieved from <http://censusreporter.org/>
- Library Research Service. (2013). Definition of Terms. Retrieved from: <http://www.lrs.or>
- Linn-Benton Community College. (2015a). College Staffing by Race and Gender. Retrieved from <http://www.linnbenton.edu/>
- Linn-Benton Community College. (2015b). Fast Facts. Retrieved from <http://www.linnbenton.edu/>
- National Center for Education Standards. (2012). Academic Libraries Survey Fiscal Year: 2012. Retrieved from <http://nces.ed.gov/surveys/libraries/Compare>
- Oregon Explorer. (2014a). Oregon Explorer Atlas: Benton County. Retrieved from <http://oregonexplorer.info/>
- Oregon Explorer. (2014b). Oregon Explorer Atlas: Linn County. Retrieved from <http://oregonexplorer.info/>