

12-2009

SUMMARY BRIEF: UNL Libraries 2003/04 – 2007/08 Acquisitions: Performance of Non-Serial Volumes Available for Checkout

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SUMMARY BRIEF:
UNL Libraries 2003/04 – 2007/08 Acquisitions:
Performance of Non-Serial Volumes Available for Checkout

Fall Semester, 2009
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PREFACE

The short report to follow was prepared from the source document “UNL Libraries 2003/04 – 2007/08 Non-Serial Receipts: Receipts, Spending, and Circulation.” “See” and/or “See Also” references to external page numbers, tables, and graphs are references to that document.

The data for this summary and for its parent report were generated by MaryLou Epp and Anita Kreps and by Joyce Melvin. Epp and Kreps queried the catalog for information on all volumes available for circulation that were received between the beginning of the 2003/04 fiscal year and the end of the 2007/08 fiscal year. Melvin supplied similar data for volumes purchased via the ILL purchasing program. Tyler and Leach corrected and normalized this data as much as was possible. However, with a data set of the size employed, some errors should be expected. All subsequent analysis was conducted by Tyler.

The circulation data for the volumes included was collected until December 31, 2008. Subsequent circulations were not taken into account. A small portion of the volumes included (i.e., 3,964 volumes equaling 5.67% of the total) had been available for less than a full year, so calculations involving their annual rates of circulation may be somewhat distorted. In reading the materials to follow, one should keep in mind that circulation is an imperfect metric of use, one that, for example, fails to capture in-house use. Those wishing a more accurate picture of the use of a section of the collection may want to conduct a use study that employs re-shelving data.

For calculations involving periods of availability, the date upon which the volumes’ item record was created was used as the start of the term, except in those instances where this date appeared to be wildly erroneous; in such instances, the dates of the items’ receipt was used instead. Neither of these dates is necessarily the absolute date upon which the items in question became available for checkout, but it was expected that these dates would be close enough to being accurate for comparison purposes. Given the “softness” of the dates, most calculations were conducted at the monthly, rather than daily, level, unless otherwise noted.

The activity of the included five years’ worth of receipts was analyzed for both degree of idleness and extent of use. Analyses were conducted upon the collection of receipts as a whole and upon the collection disaggregated into broad subject categories and into Library of Congress (LC) subclasses. When reading the report to follow, one should keep in mind that statistics may sometimes mask as much as they reveal, especially when one is dealing with non-discrete category data. For example, several LC subclasses (e.g., *HC = Economic Theory and Demography*) cover multiple topical areas, so analysis at the LC subclass level may hide activity at the narrower sub-topical level. Therefore, analyses for such subclasses should be taken as being broadly accurate, but additional in-depth analysis may be necessary to obtain a truly accurate assessment of the activity in such subclasses.

Lastly, it should be understood that the analyses to follow were not performed upon the whole collection. The data reported on here may well parallel collection-wide usage activity, but this has not been substantiated. The data reported here reflect merely the short-term circulation activity of the past five years’ worth of received volumes that were available for checkout.

PERFORMANCE RATINGS

Over the course of the report, certain terminology will be used to describe the performance of the disciplines and LC subclasses relative to one another. The terms used and their rough definitions are as follows:

- “SUPERLATIVE” = For the metric under discussion, depending upon its degree of variance, the listed discipline’s or subclass’ performance was more than two or three standard deviations above or below the mean average of averages (depending upon which was desirable) for the 257 collected call letter ranges;
- “EXCELLENT” = Depending upon degree of variance, performance was more than one or two standard deviations above or below the mean average of averages;
- “GOOD” = For metrics with low variance, performance was more than one standard deviation above or below average; for metrics with high variance, performance was between one standard deviation above or below average and one mean absolute deviation above or below average;
- “AVERAGE” = For metrics with low variance, performance was within one standard deviation of average; for metrics with high variance, performance was within one mean absolute deviation;
- “POOR” = Performance was the undesirable obverse of “GOOD”;
- “DREADFUL” = Performance was the undesirable obverse of “EXCELLENT”; in instances where the margin for dreadful performance would have been beyond possible values, a “DREADFUL” rating was given to scores equal to zero, 0.00%, or 100.0%, depending upon which marked the lower or upper limit of what was undesirable.

If it is necessary to determine which version of a particular rating (i.e., either one or two standard deviations) was employed for a particular metric, please consult the appropriate tables from the parent report.

COLLECTION-WIDE USE

The general characteristics of the UNL University Libraries acquisitions/circulation activity over the previous five fiscal years are as follows in the table below. As the table illustrates, total acquisitions and spending decreased sharply in the past two fiscal years. Over the interval, the average price of materials increased slightly. The “Circulations Per Item” figure suggests that, after roughly two years of availability, volumes had circulated at least once on average. The “Circulations Per Item Per Fiscal Years of Availability” figure may suggest that the more recently acquired materials were circulating at a slightly higher rate than the older materials. However, this figure is not as accurate as the annual turnover rate calculation (see below), as it was calculated at a yearly rather than monthly level. The circulation effect may also have been distorted by the pool of more recent acquisitions’ being substantially smaller and, with respect to the 2007/08 Fiscal Year, by materials that had been available for less than one year having a temporarily mathematically inflated rate of circulation.

UNL University Libraries: General Characteristics of Recent Acquisitions					
	2003/04	2004/05	2005/06	2006/07	2007/08
Total Volumes	16,978	15,229	16,408	13,905	7,422
Total Spent	\$805,108.55	\$739,407.35	\$864,361.41	\$709,709.05	\$380,675.76
Average Price	\$47.42	\$48.55	\$55.68	\$51.04	\$51.29
Total Circulations	29,295	21,614	18,252	11,943	4,137
Circulations Per Item	1.73	1.42	1.11	0.86	0.56
Circulations Per Item Per Fiscal Years of Availability	0.35	0.36	0.37	0.43	0.56

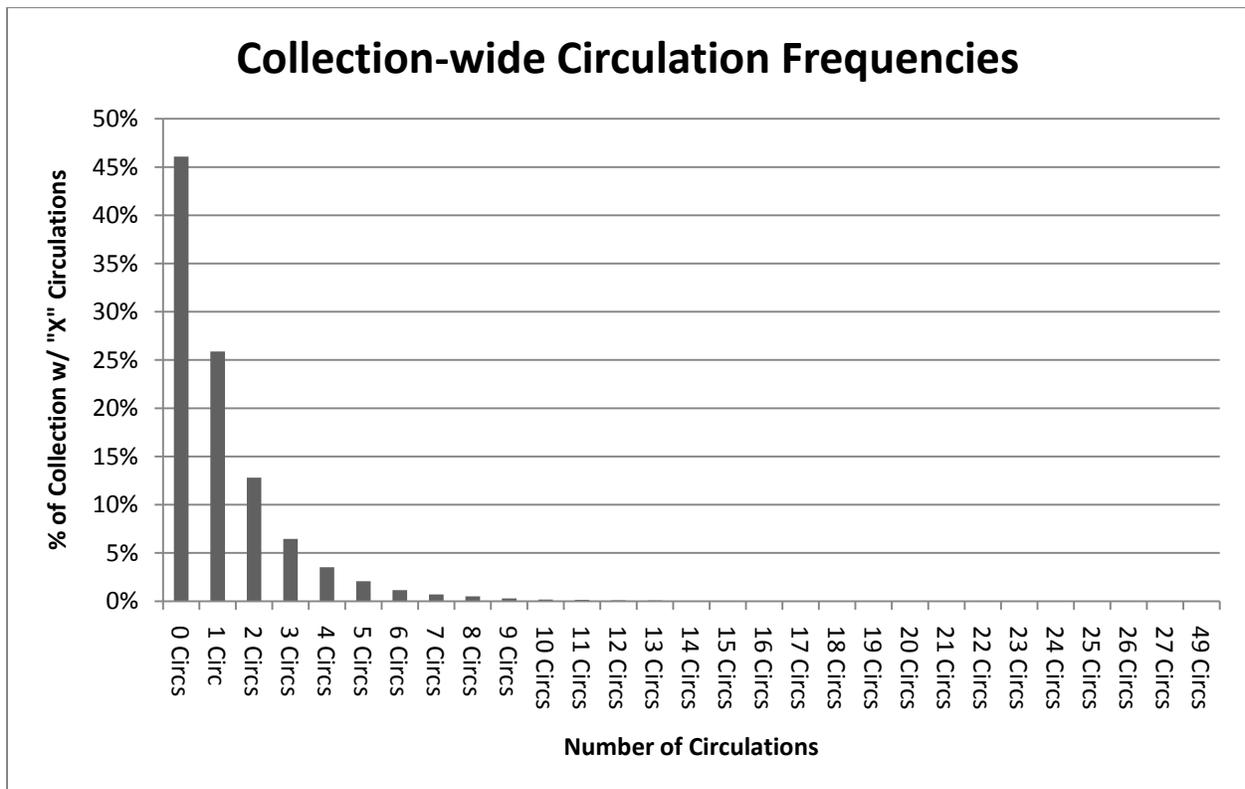
Over the past five fiscal years, according to the data compiled by Epp and Kreps and by Melvin, the UNL University Libraries spent \$3,499,262.12 and added approximately 69,942 circulating volumes to the collection from 257 LC subclasses. As of the end of December, 2008, these volumes had circulated a total of 85,241 times, and their calculated annual turnover was 28,132.36 circulations per year. The average annual turnover rate per volume was just over 0.4, or one circulation every 2.5 years. For the 257 collected LC subclasses, the annual turnover rate average of averages was 0.31, which suggests that several LC subclasses substantially underperformed.

Of the 257 LC subclasses collected, 34 were completely idle where circulation was concerned. These idle LC subclasses added just 62 volumes to the circulating collection and accounted for just \$2,687.36 in spending (see: Table 3A, p.138).

Of the 257 LC subclasses collected, 75 saw circulation activity but experienced just a modicum of acquisition activity and so should not be considered actively collected (see the next paragraph). These subclasses had 619 volumes, produced 632 circulations, and accounted for \$27,726.70 in spending. The average annual turnover rate for these LC subclasses was 0.34, or roughly one circulation every 2.9 years.

The remaining 148 LC subclasses were actively collected (rather liberally defined as accounting for 1/100% of spending per year) and saw circulation activity. The actively collected portion of the collection accounted for 69,261 volumes, 84,609 circulations, and \$3,468,848.06 in spending. The average annual turnover rate for these LC subclasses was 0.37, or roughly one circulation every 2.7 years.

The recently acquired volumes' circulation activity ranged from 0 circulations to a high of 49, with the distribution of circulation activity as follows in the graph below. As the graph illustrates, just over 46% of recently added volumes (32,228 vols.) had not yet circulated, 85% had circulated 0-2 times, and 99% of recently acquired volumes had circulated 0-8 times.



Collection-wide, as mentioned above, 46.1% of the collection's volumes were idle, but average idleness for the LC subclasses was 53.8%, which suggests that several call letter ranges substantially underperformed (see: Table 2 and its sub-tables, pp. 105-135) .

This supposition appears to be supported by later calculations of relative use, in this instance Percentage Expected Use (PEU), for the LC subclasses (Jain, 1969; Bonn, 1974; Mills, 1982). Calculations of PEU assume that the percentage of a collection that is comprised of by an LC subclass and the percentage of a collection's use that that LC subclass accounts for should be equal (i.e., an LC subclass that makes up 10% of a collection should account for 10% of collection use). For the analysis to follow, circulation based PEU values were calculated and volume-use based PEU value were calculated. The average circulation based PEU for the LC subclasses was 78.21%, and the volume-use based PEU was 85.74% (see: Table 4 and its sub-tables, pp.163-185). This suggests that the collection has a number of underperforming LC subclasses where circulation is concerned and a number of LC subclasses whose volumes do see use, but at a slightly sub-par level where circulation rate is concerned.

The LC subclasses' calculated average PEU Density of 86.93% (see: Tables 4D and 4E, pp. 196-208) would seem to bear this last supposition out. A PEU density below 100% should suggest that proportional volume use was higher than proportional circulation (PEU Density = Circulation based PEU/Volume-use based PEU).

A bright spot for the collection-wide assessment may be the Price Per Use (PPU) value for the collection, which suggested a decent usage-based return on investment. The PPU average of averages for the 257 collected call letter ranges was \$72.29,¹ but the per-volume average PPU for the collection as a whole was just \$41.05. Some of this discrepancy may be accounted for by inexpensive volumes circulating (e.g., *PZ - Fiction and juvenile belles lettres* had an average PPU of \$8.38), but it is to be expected that more heavily collected LC subclasses with expensive volumes and higher rates of circulation accounted for the bulk of the discrepancy (e.g., *QA – Mathematics* = \$148,512.06 in spending and *RC - Internal medicine* = \$72,545.71 in spending, but both had PPU values of \$36.62). Thus, a substantial portion of the UNL Libraries' spending over the past five years would appear to have been directed toward highly used LC subclasses.

The sections of the report to follow will provide more in-depth analyses of the broad disciplinary categories that comprise the collection (i.e., "General Literature," "Arts & Humanities," "Social Sciences," and "Science & Technology") and of the more noteworthy LC subclasses within them.

¹ To calculate this average of averages, LC subclasses with zero circulations were treated as though they had had at least one circulation so that they could be included in the calculations. This average is, therefore, not entirely mathematically accurate. The average for the portion of the collection that circulated (\$71.05) is the actual collection-wide PPU average for the LC subclasses that were not idle. The average of averages for the 148 actively collected LC subclasses was \$60.38. This rather large discrepancy in averages suggests that some of the minor LC subclasses produced a rather poor return on investment in the short term.

GENERAL LITERATURE

General Literature – which is comprised of the *A* subclasses, *CT – Biography*, *Z - Books (General)*, *Writing*, *Paleography*, *Book industries and trade*, *Libraries*, *Bibliography*, and *ZA - Information resources (General)* – was a minor area of collection development for the UNL Libraries. The Libraries spent \$19,186.88 on General Literature and purchased 433 volumes. The bulk of purchases went to the *Z* subclass (\$12,361.01, 270 vols.), the *AM* subclass (\$2,053.79, 34 vols.), the *CT* subclass (\$1890.42, 65 vols.), and the *ZA* subclass (\$1,461.19, 30 vols.).

PRICE PER USE

The use-value performance of General Literature was largely unremarkable. The PPU for the group's LC subclasses was just below average (\$68.19). In addition to *AC* (see IDLENESS below), only *AE* (\$139.65 PPU) and *AS* (\$103.65 PPU) showed use-value that was poor or on the poor side of average, respectively.

IDLENESS

The degree of idleness in the group was also largely unremarkable. The only idle subclass in the group was *AC* (\$115.80, 6 vols.), and so, obviously, it exhibited dreadful performance (100% idle). Only subclasses *CT* (66.2% idle), *AE* (60% idle), and *AS* (57.1% idle) showed performance on the poor side of average. The rest of the subclasses' performance was on the good side of average, although not remarkable (the exception, *AG* with 0.0% idleness, had only 2 vols.).

TURNOVER

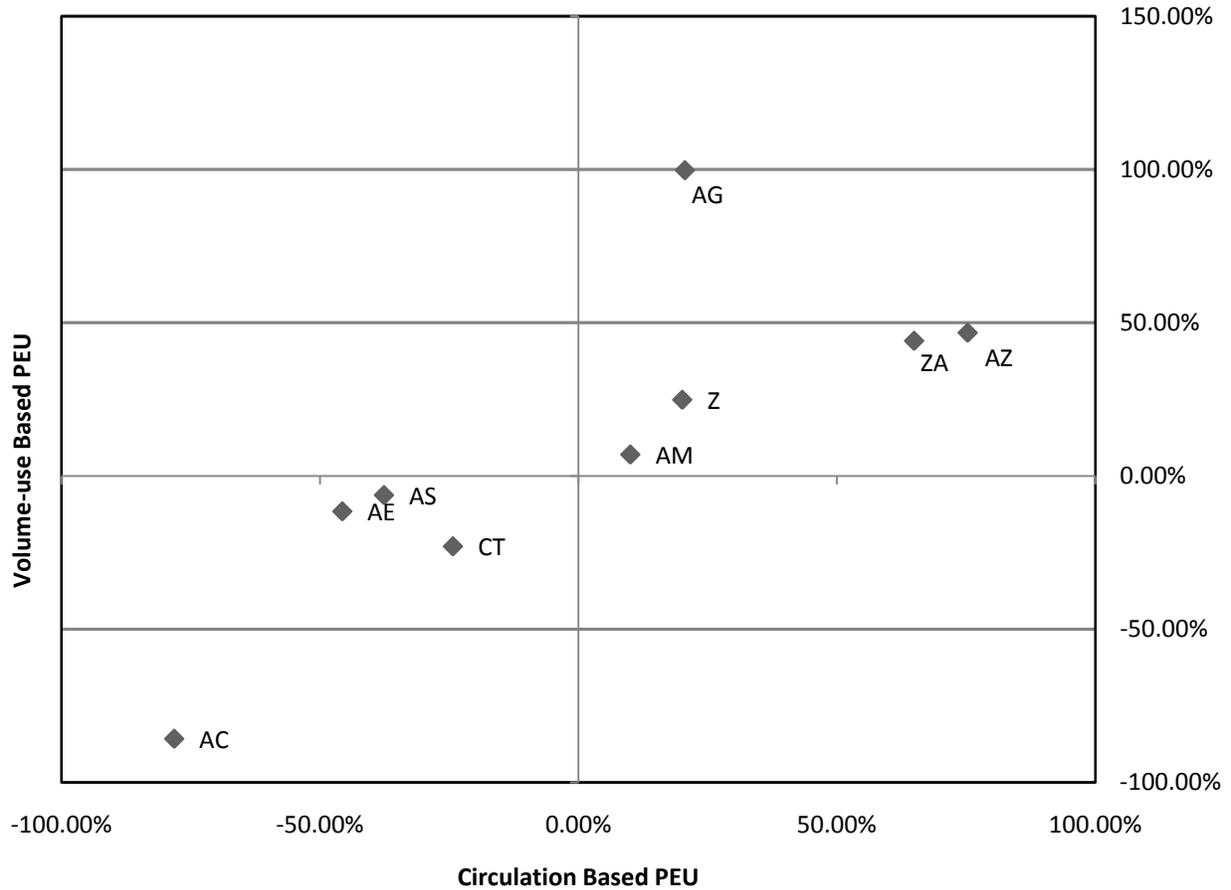
The annual turnover rate for the General Literature subclasses was, likewise, largely unremarkable. *AC*, again, was dreadful. Subclasses *AZ* (0.62 circulations/year) and *ZA* (0.58) exhibited good performance. *AE* (0.13), *AS* (0.16), and *CT* (0.22) exhibited performance on the poor side of average, but their annual turnover rates were generally within one standard deviation of all LC subclasses' mean performance.

PERCENTAGE EXPECTED USE

The performance of General Literature where circulation based PEU is concerned was roughly average (78.78%) and slightly above average where volume-use based PEU is concerned (96.39%). If one were to ignore the idle *AC* subclass, however, General Literature's picture would seem a bit rosier (Circ. PEU = 88.63%; Vol.-use PEU = 108.44%). Thus, the extent of General Literature's proportional volume use is higher than one might expect, but its relative amount of circulation is about average and a bit less than might be desired. The positive noteworthy exceptions would be *AZ* (whose 153.51% Circ. PEU was excellent and 132.47% Vol.-use PEU was good) and *ZA* (whose 143.16% Circ. PEU was excellent and 129.82% Vol.-use PEU was good). The performance of subclass *Z*, which accounted for more than ½ of the group's volumes collected and monies spent, was well above the collection-wide average and hovered around desirable levels (Circ. PEU = 98.30%; Vol-use PEU = 110.59%).

For more information on the PEU performance of the General Literature LC subclasses relative to the collection-wide mean, please consult Figure 1 immediately below:

Figure 1: GENERAL LITERATURE: Relative PEU Performance



Note: The 0.00% axes equal the collection-wide PEU average of averages. Plotting on the positive side of the axes indicates above-average performance; plotting on the negative side indicates below-average performance.

ARTS & HUMANITIES

Arts & Humanities (A&H) – which is comprised of Art and Art History (8 LC subclasses), History (32), Languages and Literature (18), Music (3), Philosophy (5), and Religious Studies (9) – is one of three major subject areas of collection development for the UNL Libraries. Over the five-year term, the Libraries spent \$1,179,288.05 on A&H and purchased 29,283 volumes, and purchasing was spread across 75 LC subclasses. Spending and acquisitions for the six disciplines that comprise A&H were as follows (in descending order by spending):

- Languages and Literature = \$500,751.84 (42.5%); 13,954 vols. (47.7%)
- History = \$296,570.07 (25.1%); 7,696 vols. (26.3%)
- Art and Art History = \$128,093.02 (10.9%); 2,591 vols. (8.8%)
- Religious Studies = \$113,624.77 (9.6%); 2,152 vols. (7.3 %)
- Philosophy = \$83,600.19 (7.1%); 1,585 vols. (5.4%)
- Music = \$56,648.16 (4.8%); 435 vols. (1.5%)

No one LC subclass accounted for more than 10% of spending, but 26 of the 75 LC subclasses received more than 1% of A&H's allocation and when combined accounted for nearly 85% of A&H spending:

- *PR - English literature* = \$107,323.37 (9.1%)
- *PN - Literature (General)* = \$101,097.95 (8.6%)
- *E - History of the Americas* = \$88,797.95 (7.5%)
- *PS - American literature* = \$87,036.99 (7.4%)
- *PQ - French literature - Italian literature - Spanish literature - Portuguese literature* = \$64,092.16 (5.4%)
- *B - Philosophy (General)* = \$56,492.60 (4.8%)
- *DS - Asia* = \$47,662.38 (4.0%)
- *N - Visual arts* = \$42,359.41 (3.6%)
- *ML - Literature on music* = \$41,169.40 (3.5%)
- *F - Local History of the United States and British, Dutch, French, and Latin America* = \$40,457.83 (3.4%)
- *PA - Greek language and literature. Latin language and literature* = \$33,749.71 (2.9%)
- *P - Philology. Linguistics* = \$30,393.27 (2.6%)
- *PT - German literature - Dutch literature - Flemish literature since 1830 - Afrikaans literature - Scandinavian literature - Old Norse literature: Old Icelandic and Old Norwegian - Modern Icelandic literature - Faroese literature - Danish literature - Norwegian literature - Swedish literature* = \$27,172.27 (2.3%)
- *D - History (General)* = \$23,917.21 (2.0%)
- *BX - Christian Denominations* = \$21,956.88 (1.9%)
- *ND - Painting* = \$21,835.58 (1.9%)
- *BR - Christianity* = \$21,684.00 (1.8%)
- *BL - Religions. Mythology. Rationalism* = \$21,356.71 (1.8%)

- *DK - Russia. Soviet Union. Former Soviet Republics - Poland* = \$20,221.55 (1.7%)
- *NK - Decorative arts* = \$18,765.14 (1.6%)
- *DA - Great Britain* = \$16,760.79 (1.4%)
- *PG - Slavic languages and literatures. Baltic languages. Albanian language* = \$14,853.77 (1.3%)
- *BS - The Bible* = \$13,352.45 (1.1%)
- *PE - English language* = \$13,330.50 (1.1%)
- *NE - Print media* = \$12,713.41 (1.1%)
- *TR - Photography* = \$12,441.27 (1.1%)

PRICE PER USE

The average use-value of Arts & Humanities was largely unremarkable. A&H LC subclasses' average PPU (\$72.60) was just 31 cents above the collection-wide LC subclass average of averages. The average PPU for the topical areas that comprise A&H were as follows (in descending order):

- Languages and Literature = \$83.14
- History = \$79.08²
- Religious Studies = \$66.18
- Art and Art History = \$58.77
- Philosophy = \$56.67
- Music = \$22.96

As one can see from the above, the use values of Languages and Literature and History were on the poor side of average, although not poor; the use values of Religious Studies, Art and Art History, and Philosophy were firmly on the good side of average; and the use value of Music was quite good.

As one might expect from the above, the poorer performing topical areas had the bulk of the poorer performing LC subclasses:

Languages and Literature had three LC subclasses whose PPU performance was dreadful (*PM* = \$301.28, *PK* = \$160.91, *PF* = \$152.98), two whose performance was poor (*PB* = \$137.55, *PA* = \$116.38), and one whose performance was on the poor side of average (*PJ* = \$106.98). Eight of its remaining twelve LC subclasses had performance scores on the good side of average (*P*, *PD*, *PG*, *PH*, *PL*, *PQ*, *PR*, *PT*), and its four remaining LC subclasses had PPU averages that were good (*PC* = \$14.70, *PE* = \$20.80, *PS* = \$22.92, *PN* = \$25.41)

History had three LC subclasses—one of which was completely idle (see IDLENESS below)—whose PPU performance was dreadful (*CN* = \$309.01, *DAW* = \$214.06, *DQ* = 171.65); five LC subclasses whose PPU

² The History average PPU includes one idle LC subclass and so is not entirely mathematically accurate. Without the idle subclass, History's PPU is \$76.09.

performance was poor ($DK = \$138.50$, $DE = \$130.18$, $CR = \$128.91$, $CE = \$127.08$, $CD = \$117.75$); and four subclasses whose PPU was on the poor side of average. Of these, only CM ($\$104.99$) stood out. Seventeen of the remaining twenty History LC subclasses had PPU scores on the good side of average (ranging from $\$69.01$ to $\$30.37$), and three had scores that could be classified as good ($E = \$25.50$, $DP = \$17.89$, $DX = \$12.30$).

Religious Studies had three LC subclasses whose PPU scores were on the poor side of average, but none of these was above $\$100.00$. Its remaining six subclasses all had scores on the good side of average (ranging from $\$66.10$ to $\$32.92$), but none that could be classified as good.

Art and Art History had only one LC subclass whose PPU performance was dreadful ($NE = \$184.25$). It also had only one subclass whose performance was good ($NK = \$25.81$). The performance of the other six LC subclasses was all on the good side of average. What is noteworthy here is how far below average all six range (from $\$49.80$ to $\$33.00$ PPU).

Philosophy's performance hovered around the collection-wide average of averages, with two LC subclasses on the poor side of average (but all less than $\$85.00$ PPU) and three on the good side of average (ranging from $\$50.43$ to $\$31.93$).

Music's performance for this metric was pretty remarkable. One LC subclass had a PPU well on the good side of average ($M = \$31.10$), and the other two had good PPU ratings ($ML = \$23.26$, $ML = \$14.53$).

IDLENESS

The average degree of idleness for the LC subclasses that make up A&H was just 1% below the collection-wide average. The averages for the topical areas that comprise A&H were as follows (in descending order):

- Languages and Literature = 62.5%
- History = 52.7%
- Religious Studies = 52.5%
- Philosophy = 50.8%
- Art and Art History = 45.4%
- Music = 19.5%

As one can see from the above, Languages and Literature was again on the poor side of average. The performance of History, Religious Studies, and Philosophy hovered around the average collection-wide performance, Art and Art History' was a bit below average (although not remarkably so), and Music's performance was quite good.

As one might expect from the above, the poorer performing topical areas had the bulk of the poorer performing LC subclasses:

Languages and Literature had two LC subclasses with poor ratings (PM = 84.6%, PK = 82.1%) and 9 LC subclasses with ratings on the poor side of average. What was particularly noteworthy here was that all nine of them were more than 10% above the collection-wide average of averages (range = 65.9% to 74.0%). The subclasses in question were: *PQ* = 65.9% idle, *PH* = 66.7%, *PA* = 67.0%, *PL* = 67.6%, *PJ* = 71.2%, *PT* = 73.5%, *PB* = 73.7%, *PG* = 74.0%, *PF* = 77.4%. The remaining seven LC subclasses had ratings on the good side of average (range = 53.6% to 39.6%), but none that rated good.

History had the only completely idle LC subclass (*DQ* – *Switzerland*), but this was not a class that saw significant acquisitions activity (2 vols.). Only two History LC subclasses rated as poor (*CD* = 84.6%, *CN* = 80.0%). Twelve subclasses were on the poor side of average; of these, eight were 60% or more idle (*CR* = 60%, *DA* = 60.5%, *DU* = 65.5%, *DB* = 66.0%, *DE*, *DAW*, and *CJ* = 66.7%, *DK* = 79.4%). Fifteen of the remaining seventeen subclasses were on the good side of average, with five (*DT* = 39.4%, *DL* = 38.5%, *CC* = 37.7%, *CB* = 31.8%, *DP* = 27.9%) less than 40% idle. Two subclasses (*DX*, *CM*) received ratings of excellent; in fact, both subclasses had no idle volumes. However, both subclasses saw only minor acquisitions (6 vols. and 1 vol., respectively), and subclass *CM* does not appear to be in the listing of LC classes, so it may be difficult to collect.

Religious Studies' performance was very close to mean performance across all nine of its subclasses (range = 63.9% to 39.7%). The worst performer (*BQ*) was only 10% worse than the collection-wide average and was the only subclass with more than 60% idleness; the best performer (*BP*) was just 14.1% better than the average and was the only subclass with less than 40% idleness.

Philosophy's five LC subclasses were clustered even more tightly around the collection-wide average of averages (range = 58.6% to 43.3%) than were Religious Studies'.

Art and Art History had all but one of its eight LC subclasses score on the good side of average, and the one subclass that was on the poor side of average (*NE* = 58.2%) was only 5% above the collection-wide average of averages. The other seven subclasses were all within 20% of the subclasses' average of averages, and three were just below the 40% margin (*TR* = 38.1%, *NC* = 37.0%, *NK* = 34.3%).

Music's three subclasses performed very well where collection idleness was concerned. Two of its subclasses were rated good (*M* = 12.1%, *MT* = 17.2%), and its other subclass was on the good side of the average of averages by almost 25% (*ML* = 29.1%). It would be worth pointing out here that all three of Music's subclasses were not only well under the LC subclasses' average of averages, but they were also well under collection-wide per-volume idleness (46.1%), as well.

TURNOVER

The average of averages for the annual turnover rate for the subclasses of the Arts and Humanities (0.32) was just 1/100th better than the collection-wide average of averages. As one would expect, the performance of most of the topical areas that comprise A&H clustered around the average of averages, although there was one noteworthy exception. Turnover rates for the six disciplines that comprise A&H

were as follows (in ascending order):

- Languages and Literature = 0.26
- Religious Studies = 0.28
- History = 0.30
- Philosophy = 0.32
- Art and Art History = 0.41
- Music = 0.80

Languages and Literature had one LC subclass with a poor turnover rate ($PM = 0.06$, or one circulation every 16 and 2/3rd years). Twelve of its eighteen LC subclasses were on the poor side of average, with five of them averaging less than one circulation every five years ($PK = 0.09$, $PB = 0.11$, $PH = 0.12$, $PG = 0.12$, $PT = 0.13$, $PJ = 0.13$, $PL = 0.17$). However, Languages and Literature did produce two good performers ($PC = 0.64$, $PE = 0.58$) and three performers on the good side of average ($PN = 0.49$, $P = 0.43$, $PS = 0.38$). PR , the largest subclass in Languages and Literature, fell right on the collection-wide average.

Religious Studies' showing was also generally on the poor side of average. Only two of its nine LC subclasses performed above the collection-wide average of averages ($BP = 0.42$, $BL = 0.38$), and only one of these was above the collection-wide per-volume average of 0.41. The other seven subclasses were on the poor side of average, with BQ – *Buddhism* (0.18) and BV - *Practical Theology* (0.19) performing the worst.

The performance of History's LC subclasses was evenly balanced. At the negative extreme, History had one completely idle subclass (the aforementioned and barely collected DQ – *Switzerland*) and just two with a rating of poor ($CN = 0.04$, $CD = 0.05$). Of its fourteen subclasses that were on the poor side of average, half averaged less than one circulation every five years ($CJ = 0.07$, $DAW = 0.09$, $DK = 0.10$, $CR = 0.12$, $DE = 0.15$, $DB = 0.16$, $CE = 0.18$). At the positive extreme, History had one subclass that rated an excellent ($DX = 0.88$) and two that rated good ($CM = 0.75$, $DJ = 0.68$). Of the ten History subclasses that rated on the good side of average, five outperformed the collection-wide per-volume average ($DT = 0.51$, $DP = 0.51$, $E = 0.46$, $CB = 0.43$, $CC = 0.41$).

Of Philosophy's five call letter ranges, two were on the good side of average and just slightly outperformed the collection-wide per-volume average ($BJ = 0.43$, $BD = 0.41$). The other three subclasses averaged roughly one circulation every four years.

Art and Art History's volumes circulated a bit better than average. Of the topic's eight subclasses, only one was on the poor side of average ($NE = 0.26$). One's performance was good ($NK = 0.61$). Of the remaining six subclasses, all were average or slightly above, and three outperformed the collection-wide per-volume average ($NC = 0.54$, $TR = 0.42$, $ND = 0.41$).

Music was once again A&H's best performer and had the three highest turnover rates in A&H among actively collected subclasses. ML 's performance (0.70) was good, and the other two subclasses'

performance was excellent and was more than double the collection-wide per-volume average (MT = 0.83, M = 0.86) at roughly one circulation every 1.2 years.

PERCENTAGE EXPECTED USE

The performance of Arts and Humanities where PEU is concerned was just above the collection-wide average of averages for both circulation based PEU (79.11%) and volume-use based PEU (87.62%), which suggests that most volumes do circulate, although not at a very high rate. That both metrics were well below the desired PEU (100%) suggests that there were a number of underperforming call letter ranges. Average PEU values for the six disciplines that comprise A&H were as follows (in ascending order, with circulation based followed by volume-use based PEUs):

- Languages and Literature = 64.18%, 69.48%
- Religious Studies = 68.40%, 88.15%
- History = 73.47%, 87.93%
- Philosophy = 80.38%, 91.16%
- Art and Art History = 101.93%, 101.24%
- Music = 198.05%, 149.36%

Languages and Literature's performance, as one can see from the above, was generally poor, with both PEU values well below the collection-wide average of averages. Two of its eighteen LC subclasses received ratings of poor/dreadful, and three received poor/poor ratings. In all, thirteen of the eighteen subclasses received ratings poorer than average for at least one PEU measure. On the positive side, *PR*'s performance was nearly average for circulation and was average for volume-use; *PS* had higher than average ratings for both metrics that were nearly at desirable levels (95.27%, 98.93%); *P* (106.22%, 102.87%) and *PN* (121.61%, 97.54%) performed at desirable levels; and the performance of *PE* (144.69%, 112.08%) and *PC* (159.78%, 110.94%) rated as excellent.

Religious Studies' performance was on the poor side of average, although no subclasses' performance was poor or dreadful. Seven of nine subclasses had circulation based PEUs below average, and three of these also had volume-use based PEUs that were below average. Unfortunately, only two LC subclasses performed near desirable levels: *BL* (93.71%, 99.83%) and *BP* (105.30%, 111.91%).

History's performance was nearly balanced, with one subclass (*F*) at average for circulation, thirteen on the positive side, and eighteen on the negative side. Of the eighteen poorly performing LC subclasses, three were dreadful (*DQ* = 0.00%, 0.00%; *CN* = 9.47%, 37.09%; *CD* = 11.24%, 28.53%), and four had performance that was poor (*CJ* = 16.57%, 61.82%; *DAW* = 23.13%, 61.82%; *DK* = 24.45%, 38.26%; *CR* = 30.31%, 74.18%). On the positive side of average, History had one subclass that rated superlative (*DX* = 219.10%, 185.45%), two that rated excellent (*CM* = 186.46%, 185.45%; *DJ* = 168.04%, 92.73%), and two that rated good (*DT* = 127.48%, 112.40%; *DP* = 126.26%, 133.70%). Of the eight subclasses whose performance was above average, four performed at or near desirable levels for both PEU values (*DF* = 96.51%, 103.94%; *CC* = 101.63%, 115.47%; *CB* = 106.02%, 126.45%; *E* = 114.23%, 109.83%).

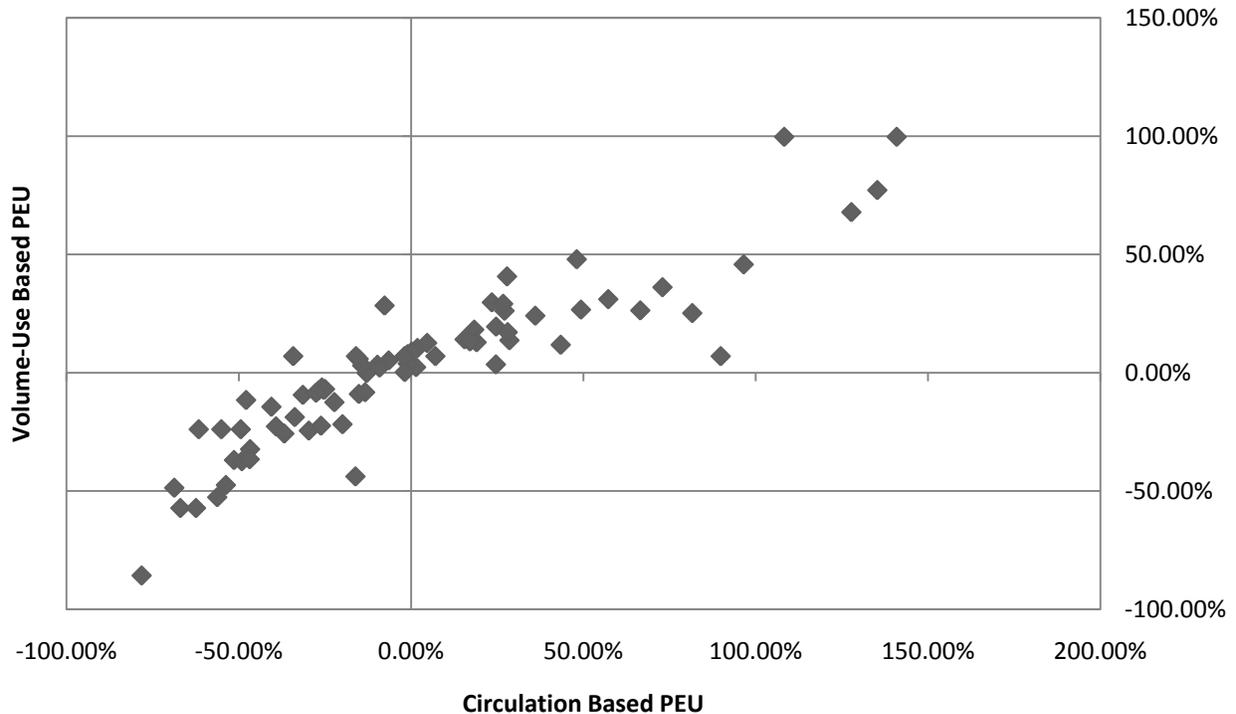
Philosophy's top two performers (*BJ* = 106.72%, 99.45%; *BD* = 102.86%, 105.21%) performed at desirable levels, but the other three subclasses underperformed. Although their volume-use was average, their circulation was around 14% below average.

Art and Art History had only one subclass whose performance was on the poor side of average for both PEU values (*NE* = 64.84%, 77.47%). One other had poorer than average circulation but volume use that was above average (*NX* = 76.29%, 92.73%). *NK*'s performance was excellent (151.13%, 121.87%), and *NC*'s was good (135.41%, 116.82%). The other subclasses' performance was above average, and several performed at or near desirable levels for at least one PEU value.

Music's PEU values ranged from good to superlative (*ML* = 174.71%, 131.53%; *MT* = 205.95%, 153.62%; *M* = 213.48%, 162.93%). *M* and *MT*'s circulation was actually more than twice the desirable value, and *ML*'s was nearly as high.

The distribution of PEU performance for the A&H LC subclasses relative to the collection-wide average of averages was as follows in Figure 2 below:

Figure 2: ARTS & HUMANITIES: Relative PEU Performance



Note: The 0.00% axes equal the collection-wide PEU average of averages. Plotting on the positive side of the axes indicates above-average performance; plotting on the negative side indicates below-average performance.

For purposes of clarity, the scatter graph above was reproduced below as two graphs. Figure 2a shows PEU performances that were outside of the average range; Figure 2b provides a closer view of the rather crowded average range of performance. Please note the different axis scales when reading the graphs.

Figure 2a: ARTS & HUMANITIES: Non-Average Performance

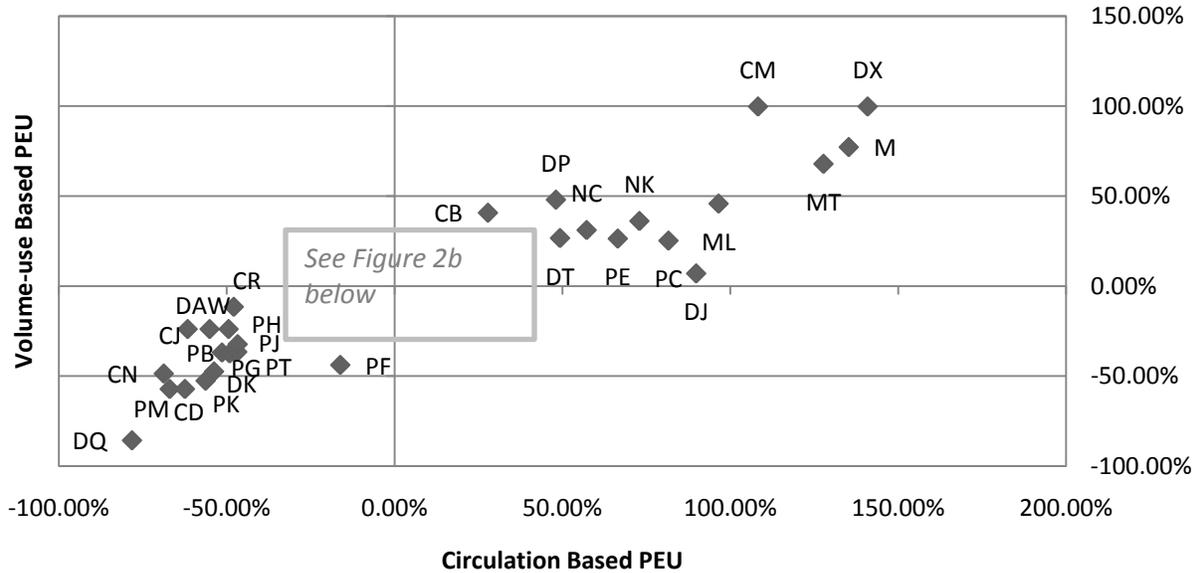
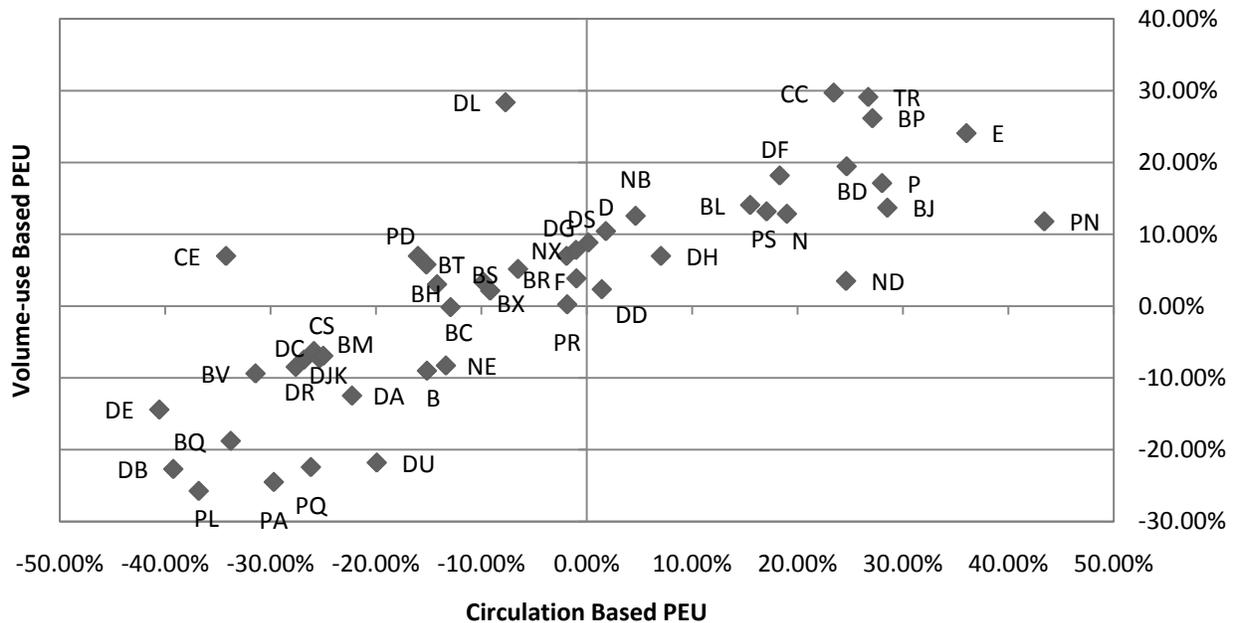


Figure 2b: ARTS & HUMANITIES: Average Performance



Note: The 0.00% axes equal the collection-wide PEU average of averages. Plotting on the positive side of the axes indicates above-average performance; plotting on the negative side indicates below-average performance.

SOCIAL SCIENCES

Social Sciences (SocSci) – which is comprised of Anthropology (3 LC subclasses), Architecture (1), Business & Economics (7), Education (9), General Social Science & Statistics (2), Geography (6), Home Economics (2), Law (58),³ Leisure Studies (1), Military & Naval Sciences (15), Political Science (13), Psychology (1), and Sociology (7) – is one of three major subject areas of collection development for the UNL Libraries. Over the five-year term, the Libraries spent \$994,973.52 on SocSci and purchased 23,011 volumes. Purchasing was spread across 125 LC subclasses. Spending and acquisitions for the thirteen disciplines that comprise SocSci were as follows (in descending order by spending):

- Business & Economics = \$262,563.02 (26.4%); 5,683 vols. (24.7%)
- Sociology = \$203,393.51 (20.4%); 4,979 vols. (21.6%)
- Education = \$129,692.31 (13.0%); 3,613 vols. (15.7%)
- Political Science = \$106,525.87 (10.7%); 2,420 vols. (10.5%)
- Architecture = \$55,327.62 (5.6%); 1,284 vols. (5.6%)
- Geography = \$52,227.47 (5.2%); 811 vols. (3.5%)
- Psychology = \$47,121.41 (4.7%) ; 1,029 vols. (4.5%)
- Law = \$37,762.85 (3.8%), 837 vols. (3.6%);
- Anthropology = \$33,033.22 (3.3%); 756 vols. (3.3%)
- Home Economics = \$23,554.65 (2.4%); 470 vols. (2.0%)
- Leisure Studies = \$18,393.57 (1.8%); 545 vols. (2.4%)
- Military & Naval Sciences = \$13,727.15 (1.4%); 352 vols. (1.5%)
- General Social Science & Statistics = \$11,650.87 (1.2%) ; 232 vols. (1.0%)

Only one LC subclass accounted for than more than 10% of SocSci spending, and twenty-five of the 125 received 1% or more of SocSci's allocation and, when combined, accounted for just over 85% of SocSci spending:

- *HD - Industries. Land use. Labor* = \$112,673.86 (11.3%)
- *LB - Theory and practice of education* = \$81,650.30 (8.2%)
- *HV - Social pathology. Social and public welfare. Criminology* = \$63,229.69 (6.4%)
- *HQ - The family. Marriage. Women* = \$61,278.89 (6.2%)
- *NA - Architecture* = \$55,327.62 (5.6%)
- *BF - Psychology* = \$47,121.41 (4.7%)
- *HF - Commerce* = \$41,584.63 (4.2%)

³ Law's acquisitions activity may have included fifty-eight LC subclasses, but only four saw significant acquisitions, and only these four will be discussed in the report to follow: *K - Law in general. Comparative and uniform law. Jurisprudence, KD - United Kingdom and Ireland, KF - United States, KZ - Law of nations*. The other fifty-four LC subclasses only collected 112 volumes, so their metric values would be largely useless. The PEU values for all fifty-eight will be plotted in the appropriate scatter graphs, but, again, they will not be discussed in the report.

- *LC - Special aspects of education* = \$36,522.39 (3.7%)
- *HM - Sociology (General)* = \$34,966.96 (3.5%)
- *HC - Economic history and conditions* = \$34,879.28 (3.5%)
- *HB - Economic theory. Demography* = \$34,077.84 (3.4%)
- *HG - Finance* = \$29,393.85 (3.0%)
- *JC - Political theory* = \$23,490.04 (2.4%)
- *HT - Communities. Classes. Races* = \$21,766.46 (2.2%)
- *GN - Anthropology* = \$21,477.71 (2.2%)
- *TX - Home economics* = \$19,441.03 (2.0%)
- *JZ - International relations* = \$18,687.58 (1.9%)
- *GV - Recreation. Leisure* = \$18,393.57 (1.8%)
- *HN - Social history and conditions. Social problems. Social reform* = \$17,483.69 (1.8%)
- *KF - United States (Law)* = \$16,453.37 (1.7%)
- *JK - Political institutions and public administration (United States)* = \$15,005.30 (1.5%)
- *G - Geography (General). Atlases. Maps* = \$14,131.15 (1.4%)
- *JN - Political institutions and public administration (Europe)* = \$12,580.92 (1.3%)
- *GB - Physical geography* = \$11,968.50 (1.2%)
- *GE - Environmental Sciences* = \$10,317.76 (1.0%)

PRICE PER USE

The average use-value of SocSci was slightly and favorably below average. SocSci LC subclasses' average PPU (\$66.84) was \$5.45 below the collection-wide LC subclass average of averages, and this was despite SocSci having the bulk of idle subclasses (see IDLENESS below). Without the idle subclasses, SocSci's PPU average of averages was \$64.03, \$8.26 below the collection-wide average of averages. The PPU averages for the topical areas that comprise SocSci were as follows (in descending order):

- Military & Naval Sciences = \$104.95⁴
- Geography = \$84.19
- Law = \$74.26⁵
- Political Science = \$56.81⁶
- Business & Economics = \$52.87
- Education = \$39.76⁷
- Anthropology = \$33.23
- Sociology = \$32.65
- Home Economics = \$32.60

⁴ This includes one idle subclass. Without the idle subclass, Military & Naval Sciences' PPU = \$86.65.

⁵ This includes twenty-nine idle subclasses and twenty-five subclasses for which acquisitions were minor. The PPU average for the four subclasses that had been actively collected was \$62.43.

⁶ This includes one idle subclass. Without the idle subclass, Political Sciences' PPU = \$59.45.

⁷ This includes one idle subclass. Without the idle subclass, Education's PPU = \$42.75.

- Psychology = \$27.13
- Leisure Studies = \$26.05
- General Social Science & Statistics = \$19.66
- Architecture = \$16.46

As one can see from the above, the averaged use values for Military & Naval Sciences and for Geography were on the poor side of average; Law, unadjusted, was average; Business & Economics, Education, Anthropology, Sociology, and Home Economics were on the good side of average; Psychology, Leisure Studies, General Social Science & Statistics, and Architecture scored ratings of good.

As one might expect, the poorer performing topical areas had the bulk of the poorer performing LC subclasses. Military & Naval Sciences had three subclasses that rated dreadful (*VA* = \$361.01, *VK* = \$277.63, *UC* = \$181.68, *VG* = \$150.70) and two that were on the poor side of average (*VE* = \$107.07, *VM* = \$89.02). Unexpectedly, of the remaining LC subclasses, one rated average, six were on the good side of average, and two rated good (*UH* = \$24.21, *UD* = \$23.11). It is likely that Military & Naval Sciences had too little acquisitions activity to conclude anything meaningful about its performance (only two subclasses were actively collected), but it would appear that the military side of the topic outperformed the naval side.

Geography's PPU rating was skewed by the dreadful performance of oceanography (*GC* = \$192.97). Its next worst performer (*GB*) was just \$6.97 on the poor side of average. Geography's other four subclasses were all on the good side of average, although none performed remarkably well (range = \$63.93 to \$52.13)

The performance of Law's actively collected LC subclasses was generally better than average, with the exception of *KD* (\$121.48 PPU), which rated poor. *K* was on the good side of average, and *KZ* was substantially so (\$36.05). *KF* (\$27.65) rated a good. Acquisition activity in Law's fifty-four other subclasses was too slight to support analysis.

Political Science performed well where use-value was concerned. It had one LC subclass that scored poor (*JS* = \$129.31) and two that were on the poor side of average (*JL* = \$89.58, *JN* = \$82.77), but it had one subclass that was average and seven that were on the good side of average, five of which were substantially so (*JA* = \$40.36, *JZ* = \$37.23, *JC* = \$36.70, *JX* = \$32.82, *JK* = \$30.50). Finally, Political Science had one subclass that rated good (*JV* = \$23.78).

Business & Economics had only one LC subclass on the poor side of average (*HJ* = \$99.82), but this was its least actively collected subclass. The other six subclasses were all on the good side of average (range = \$62.99 to \$29.51). Especially noteworthy were *HD* (\$43.35), whose PPU was 40% below the collection-wide average of averages, and *HG* (\$37.25) and *HF* (\$29.51), whose PPU values were not only well below the collection-wide average of averages, but under the collection-wide per-volume average (\$41.05), as well.

Five of Education's nine LC subclasses scored dreadful (1), on the good side of average (1), or good (3), but these subclasses saw only minor acquisitions activity (49 vols., \$1,533.60). The point of substantial interest with Education was that its other four subclasses were either substantially on the good side of average (*LA* = \$32.39, *LC* = \$29.52, *LB* = \$29.41) or rated good (*PZ* = \$8.38). With an average PPU of \$24.93 for its four most actively collected areas and with all four of these subclasses well under the collection-wide per-volume PPU average, Education was one of the best buys in SocSci.

Anthropology's three subclasses all showed very favorable use values, with two well on the good side of average (*GR* = \$46.55, *GN* = \$35.98) and one rating good (*GT* = \$17.15). In fact, *GN*'s PPU was less than half the collection-wide average of averages and was even a few dollars below the collection-wide per-volume PPU average. *GT*'s PPU was less than 1/4th the collection-wide average of averages and less than ½ of the collection-wide per-volume average.

Sociology's worst performing subclass was more than 30% below the collection-wide average of averages (*HX* = \$49.91), and its best performer was almost 74% below (*HS* = \$19.01). Five of its seven subclasses had PPU values that were below the collection-wide per-volume average, and the other two had PPU values that were below \$50.00.

Home Economics' two LC subclasses performed very well. One was on the good side of the average of averages and was just slightly above the collection-wide per-volume average (*TX* = \$41.28). The other rated a good rating and was well below the collection-wide per-volume average (*TT* = \$23.92)

Psychology's PPU value (\$27.13) was more than 60% below the collection-wide average of averages and just a few dollars higher than ½ of the collection-wide per-volume PPU.

Leisure Studies' PPU was roughly a dollar lower than Psychology's.

General Social Science & Statistics had remarkable PPU values (*H* = \$27.86, *HA* = \$11.47). *H*'s value was comparable to Psychology's and Leisure Studies', and statistics' PPU value, remarkably, was only \$3.09 higher than the PPU for juvenile literature.

Lastly, Architecture's PPU was also astoundingly low (*NA* = \$16.46). Architecture was more than 75% below the collection-wide average of averages and was 40% below the collection-wide per-volume average. In fact, architecture's performance was just a little more than twice the aforementioned PPU for juvenile literature.

IDLENESS

The average degree of idleness for the LC subclasses that make up SocSci was 58%, 4.2% above the collection-wide average of averages. However, twenty-nine of SocSci's thirty-two idle subclasses were little-collected subclasses of Law. SocSci also had fifteen subclasses that had 0.0% idleness. Again,

these were mostly little-collected subclasses of Law. The average percentage of idleness for the rest of SocSci was 52%, just below the collection-wide average of averages.

The averages for the topical areas that comprise SocSci were as follows (in descending order):

- Law = 65.8%
- Military & Naval Sciences = 62.4%
- Political Science = 56.0%
- Business & Economics = 54.7%
- Geography = 48.3%
- Education = 47.7%
- Leisure Studies = 44.6%
- Anthropology = 43.8%
- Sociology = 43.0%
- Home Economics = 38.5%
- Psychology = 35.0%
- General Social Science & Statistics = 30.3%
- Architecture = 20.6%

As one can see from the above, Law apparently performed rather poorly, but this is misleading. Most of Law's little-collected LC subclasses saw no use, and a sizeable percentage of the rest of them saw 100% use. The four Law subclasses that were actively collected averaged 50.6% idleness, which was below the collection-wide average of averages. The only subclass that had a worrisome degree of idleness on the poor side of average was *KD* (71.0%). *KF* (43.2%) was well below the collection-wide average of averages and just-below the collection-wide per-volume average of 46.1%. *KZ* (32.3%) was well below both averages.

Military & Naval Sciences also apparently performed rather poorly, but again this may be misleading, as Military & Naval Sciences was rather sparsely collected. Of the two Military & Naval Sciences subclasses that received notable acquisition activity, one performed just on the good side of average (*U* = 48.2%), and one performed just on the poor side of average (*UA* = 58.5%). Most of the subclasses that scored on the good side of average were military science subclasses, and most of the subclasses that were on the poor side of average were naval science subclasses, but given the low acquisition levels for most of these subclasses, it would be unwise to read too much into this apparent split. Of the subclasses with minor acquisitions, *UD - Infantry* (0.0% idles) may warrant favorable consideration, however, as it performed well across all metrics.

Political Science's subclasses almost all performed near average, and very few were outside of the 40% - 60% idle range. Political Science had one completely idle subclass (*JJ*), but this subclass acquired just one volume. The subclasses that were on the poor side of average and that had more than 60% idle

volumes were *JL* (60.6%), *JN* (62.0%), *JX* (66.7%), and *JS* (71.7%). On the good side of average, only *JV* (28.2%) had a percentage idle below 40%, although the more heavily collected *JZ* (41.1%) was close.

For Business & Economics, four of the seven subclasses were on the good side of average, with only one (*HF* = 41.9%) near the 40% margin. Three were on the poor side, with only one (*HJ* = 77.6%) outside the 60% idle line. The performance of six of the seven subclasses was comfortably near average.

With the exception of *GC – Oceanography* (65.6%), all of Geography's subclasses performed on the good side of average, with *GF - Human ecology* (39.8%) just outperforming 40% idle.

Seven of Education's nine subclasses performed on the good side of average or better. Of the two that did not, one (*L* = 100%) acquired only one volume, and the other (*LF* = 75.0%) acquired only eight. The remaining subclasses were all on the good side of average, with five subclasses below 50% idle and two below the 40% margin: *PZ* (45.7%), *LB* (42.8%), *LD* (41.9%), *LC* (39.6%), *LG* (33.3%). *LJ - Student fraternities and societies*, an area of minor acquisition activity, may warrant favorable attention in the future as all six of its volumes have circulated.

Leisure Studies' performance was comfortably on the good side of average, although not remarkably so.

Two of Anthropology's subclasses were comfortably on the good side of average (*GN* = 43.8%, *GT* = 33.2%). The third (*GR* = 54.4%) performed just a tiny bit worse than the collection-wide average of averages.

For Sociology, two of its nine subclasses were near the collection-wide average (*HX* = 57.4%, *HN* = 53.1%). The other seven subclasses were all below not only the collection-wide average of averages but the collection-wide per-volume rate of idleness (46.1%), as well: *HM* = 40.9%, *HV* = 39.2%, *HQ* = 38.1%, *HT* = 36.7%, *HS* = 35.7%.

Both of Home Economics' subclasses performed better than the collection-wide per-volume rate (*TX* = 41.2%, *TT* = 35.8%).

Psychology (*BF* = 35.0%) also comfortably outperformed the collection-wide per-volume rate.

In General Social Science & Statistics, *H - Social sciences (General)* performed on the good side of average and better than the collection-wide per-volume rate (39.7%). *HA – Statistics* actually rated a good rating (20.8%). Apparently, nearly 4 out of every 5 recently acquired statistics volumes has circulated at least once.

Architecture also rated a good rating (20.6%) and is apparently the most book-oriented of the SocSci disciplines. What's most impressive about Architecture's slight edge over statistics in this area is that the UNL Libraries collected twenty-four times as many Architecture books as *HA* statistics books.

TURNOVER

The average of averages for the annual turnover rate for the subclasses of SocSci (0.29) was just 3/100ths worse than the collection-wide average of averages, but this rate is deceptive. As noted above, SocSci had thirty-two idle subclasses that saw only minor acquisition activity. If one were to ignore these idle classes, SocSci's turnover rate was actually 0.38. Turnover rates for the thirteen disciplines that comprise SocSci were a bit more widely varied than were those of A&H and were as follows (in ascending order):

- Law = 0.21
- Military & Naval Sciences = 0.21
- Political Science = 0.25
- Business & Economics = 0.31
- Geography = 0.31
- Education = 0.44
- Leisure Studies = 0.44
- Sociology = 0.44
- Home Economics = 0.45
- Anthropology = 0.47
- Psychology = 0.50
- Architecture = 0.91
- General Social Science & Statistics = 0.98

Law, once again, rated on the poor side of average, but this is somewhat inaccurate. If one were to ignore the fifty-four Law subclasses that saw only minor acquisitions and concentrate on only the four subclasses that were actively collected, Law (0.34) performed a bit better than the collection-wide average of averages (0.31). However, this average obscures the wide variance among the four subclasses ($KZ = 0.49$, $KF = 0.41$, $K = 0.29$, $KD = 0.15$). The first two subclasses performed better than the collection-wide average of averages and the collection-wide per-volume rate. K was just on the poor side of average. KD was also on the poor side of average, rather than poor or dreadful, but only because the collection-wide average of averages was so low. At one circulation every 6 and 2/3rd years, KD 's performance was pretty far from desirable.

Military & Naval Sciences' rate does not mask as much as Law's did. Three subclasses had rates on the good side of average ($UB = 0.34$, $U = 0.35$, $UH = 0.44$), and one had a good rate ($UD = 0.60$). The other eleven subclasses did not perform well at all. One was completely idle (VA), two were rated at poor ($VK = 0.04$, $VE = 0.06$), and five of the remaining eight subclasses had turnover rates worse than one circulation every five years ($VM = 0.19$, $VG = 0.13$, $VB = 0.11$, $V = 0.09$, $UC = 0.09$).

Of Political Science's thirteen subclasses, just one rated a good ($JV = 0.61$), and just three were on the good side of average (JZ , JC , JK), with just one of these three matching the collection-wide per-volume average ($JZ = 0.40$). Political Science had one completely idle subclass (JJ), and eight that performed on

the poor side of average, three remarkably so ($JL = 0.14$, $J = 0.14$, $JS = 0.10$).

Business & Economics' LC subclasses, with one exception ($HJ = 0.09$), all hovered around the collection-wide average of averages or the somewhat higher per-volume rate.

Geography had one LC subclass with a notably low turnover rate ($GC = 0.15$). The rest of the subclasses' turnover rates were tightly clustered around the collection-wide average of averages.

Education had one idle range (L), one that scored a poor ($LF = 0.06$), and one that scored on the poor side of average ($LG = 0.23$). It also had one subclass rate superlative ($LJ = 1.49$), and one on the good side of average that had a rate of slightly better than one circulation every two years ($PZ = 0.55$). The rest of Education was on the good side of average, with three subclasses just outperforming the per-volume average (LC , LB , LD).

Leisure studies comfortably outperformed the collection-wide average of averages and slightly outperformed the per-volume average.

Sociology had two subclasses perform just slightly below average ($HX = 0.26$, $HN = 0.29$). The other five subclasses outperformed the per-volume rate (range = 0.47 to 0.56).

Home Economics' average turnover rate and the turnover rates of both of its subclasses were the same, so it slightly outperformed the per-volume rate.

Anthropology's performance was better than average, but it had a wide variance. Its worst performer was a bit below the collection-wide average ($GR = 0.27$). GN – *Anthropology* slightly outperformed the per-volume rate (0.41). GT – *Manners and customs* had a good rate (0.74).

Psychology's turnover rate was one circulation every two years, slightly better than the per-volume rate.

Architecture saw nearly one circulation per year (0.91), the collection's second highest rate among actively collected subclasses.

General Social Science & Statistics' turnover rate (0.98) was remarkably high, but it masks a wide variance. H – *Social sciences*' turnover rate was good (0.61), but HA – *Statistics*' (1.32) was superlative. Statistics books apparently check out more than once per year, the highest rate in the collection among actively collected subclasses.

PERCENTAGE EXPECTED USE

The performance of SocSci where PEU was concerned was a bit below the collection-wide average of averages for both circulation based PEU (71.20%) and volume-use based PEU (77.85%). However, SocSci's performance was distorted by its lesser-collected subclasses, especially the large number of idle subclasses from Law. The circulation based PEU (99.17%) and volume-use based PEU (98.63%) of SocSci's actively collected subclasses were nearly at desirable levels, which suggests that SocSci's

spending has already been appropriately skewed toward collecting in high use areas. In fact, of the forty-eight actively collected SocSci subclasses, only two rated a poor, and only fourteen were on the poor side of average. Average PEU values for the thirteen disciplines that comprise SocSci were as follows (in ascending order; circulation based followed by volume-use based PEUs):

- Law = 51.89%, 63.45%
- Military & Naval Sciences = 52.99%, 69.76%
- Political Science = 62.78%, 81.55%
- Geography = 77.16%, 95.83%
- Business & Economics = 77.52%, 84.02%
- Leisure Studies = 108.46%, 102.77%
- Education = 109.00%, 96.79%
- Sociology = 109.80%, 105.67%
- Home Economics = 112.36%, 114.07%
- Anthropology = 117.48%, 104.24%
- Psychology = 125.16%, 120.57%
- Architecture = 227.01%, 147.32%
- General Social Science & Statistics = 243.10%, 129.43%

From the above, one may conclude that the disciplines with low PEU values do not circulate as much as they ought. One may also cautiously generalize: 1) that those disciplines whose volume-use PEUs are higher than their circulation based PEUs probably have a large percentage of volumes with just one or two circulations, and 2) that those that have higher circulation based PEUs than volume-use based PEUs likely have a higher percentage of titles with multiple circulations.

With respect to the individual disciplines, Law again performed rather poorly, but this poor performance was once again a result of so many of Law's subclasses being but slightly collected. Of the four subclasses that were actively collected, *KD - United Kingdom and Ireland's* performance was on the poor side of average to a notable degree; *K - Law in general's* was just below average; but *KF - United States* (103.17%, 105.26%) and *KZ - Law of nations* (121.57%, 125.54%) not only outperformed the collection-wide averages, they actually performed at desirable levels.

Military & Naval Sciences' poor rating, on the other hand, does not obscure any hidden gems in the subclass. The performance of its two actively collected subclasses was near average, and once again, Military slightly outperformed Naval Science. However, the acquisition activity for these subclasses was, again, to slight to conclude anything definitely.

Political Science had one subclass whose performance was excellent (*JV* = 152.37%, 133.21%), one whose performance was at a desirable level (*JZ* = 98.56%, 109.14%), and two whose performance was slightly above the collection-wide averages (*JC*, *JK*). It also had one idle subclass (*JJ*), and one whose rating was poor (*JS* = 25.58%, 52.41%). For the other seven subclasses, circulation PEU was on the poor

side of average, volume-use PEU was mixed, but all had higher volume-use PEUs than circulation PEUs, which likely indicates proportionally wider use, but at low levels.

Geography's PEU performance was roughly average across the board. *GB - Physical geography* and *GF - Human ecology* performed at not only above average but at desirable levels. *GC - Oceanography* performed at a poorer than average level that was noteworthy (36.37%, 63.84%). The rest of the Geography subclasses performed near the collection-wide average.

In Business & Economics, *HF - Commerce* (109.09%, 107.73%) and *HG - Finance* (98.60%, 95.92%) performed at desirable levels, and *HJ - Public finance* (23.52%, 41.57%) performed poorly. The other four subclasses performed near the collection-wide averages.

Leisure studies was well on the good side of average for both PEU measures and performed at desirable levels in both.

Education had one subclass rate superlative (*LJ* = 370.73%, 185.45%), had one rate good (*PZ* = 135.76%, 99.26%), and had three perform at desirable levels (*LC*, *LB*, *LD*). Of the remaining subclasses, one was idle (*L*), and one rated poor (*LF* = 15.38%, 46.36%).

Of Sociology's seven subclasses, three (*HS*, *HT*, *HQ*) rated good, and two others performed at desirable levels (*HV*, *HM*). The remaining two subclasses performed at slightly below-average levels, although not so badly as to rate a poor rating.

Both Home Economics subclasses performed at desirable levels and with little variance.

For Anthropology, *GR - Folklore* performed at slightly below-average levels, *GN - Anthropology* performed at desirable levels, and *GT - Manners and customs* rated an excellent rating (183.37%, 123.92%).

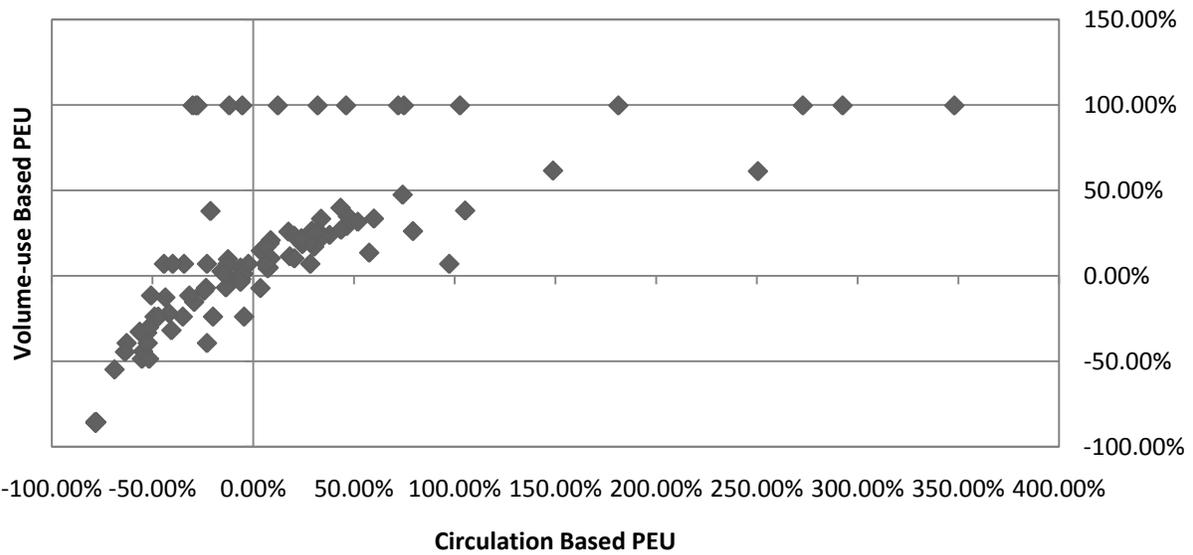
Psychology rated a good and performed at slightly above desirable levels.

Architecture rated a superlative, and the disparity in its PEU values may suggest a slightly higher than average rate of multiple checkouts.

In General Social Science & Statistics, *H - Social sciences* (157.49%, 111.89%) rated excellent, and *HA - Statistics* (328.71%, 146.96%) rated a superlative. Its circulation PEU was one of the highest in the collection.

The distribution of PEU performance for the SocSci subclasses relative to the collection-wide average of averages was as follows in Figure 3 on the following page:

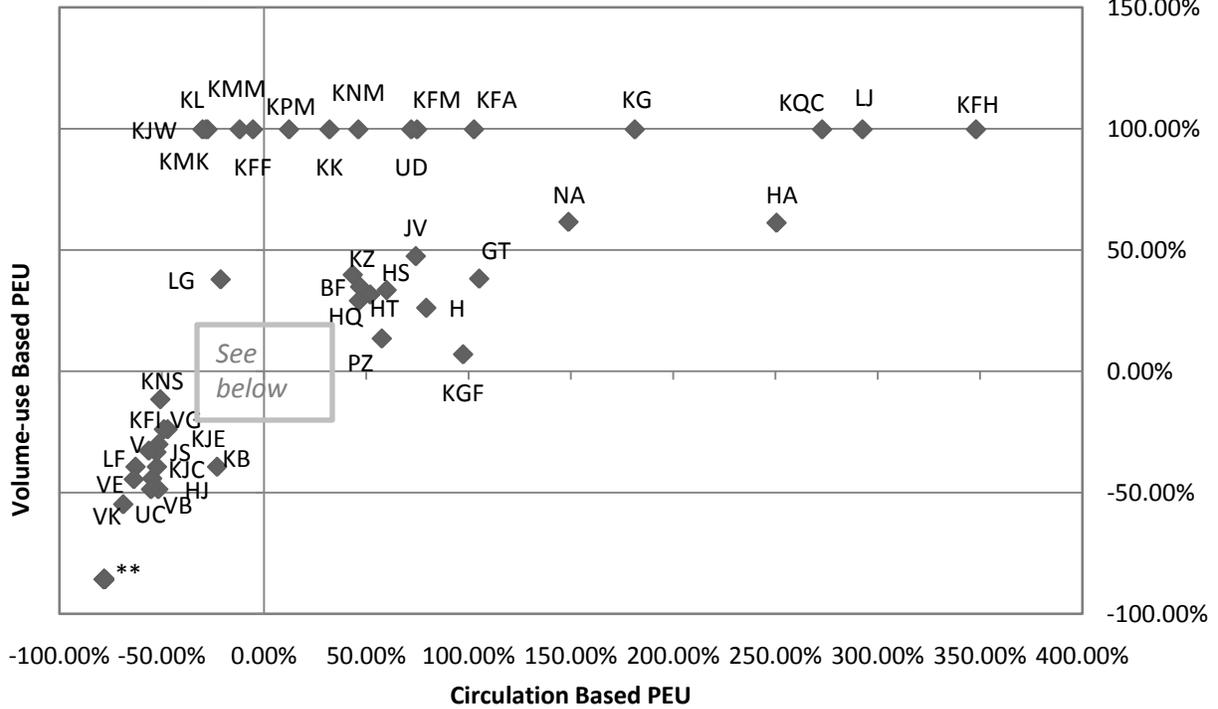
Figure 3: SOCIAL SCIENCES: Relative PEU Performance



Note: The 0.00% axes equal the collection-wide PEU average of averages. Plotting on the positive side of the axes indicates above-average performance; plotting on the negative side indicates below-average performance.

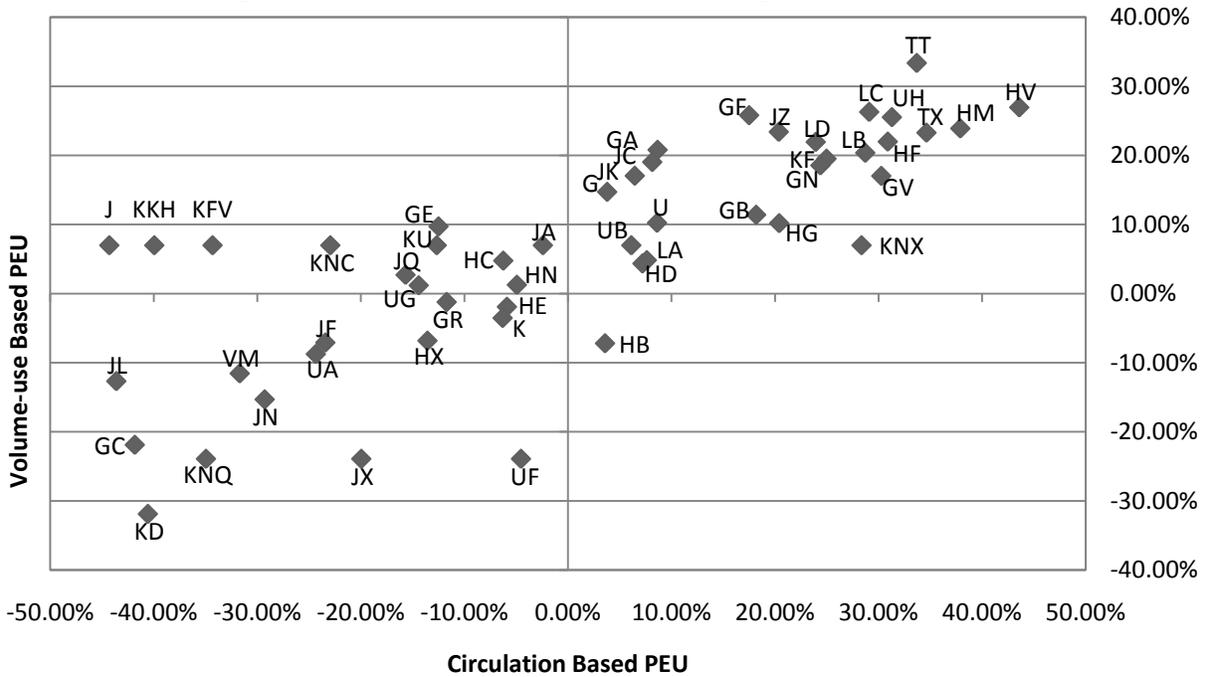
For purposes of clarity, the scatter graph above was reproduced on the following page as two graphs. Figure 3a shows PEU performances that were outside of the average range; Figure 3b provides a closer view of the average range of performance. Please note the different axis scales when reading the graphs.

Figure 3a: SOCIAL SCIENCES: Non-Average Performance



** This point represents SocSci's thirty-two idle classes.

Figure 3b: SOCIAL SCIENCES: Average Performance



Note: The 0.00% axes equal the collection-wide PEU average of averages. Plotting on the positive side of the axes indicates above-average performance; plotting on the negative side indicates below-average performance.

SCIENCE & TECHNOLOGY

Science & Technology (S&T) – which is comprised of Science (12 LC subclasses), Medicine (16), Agriculture (6), and Technology (14) – is one of three major subject areas of collection development for the UNL Libraries. Over the five-year term, the Libraries spent \$1,305,813.67 on S&T and purchased 17,215 volumes. Purchasing was spread across forty-eight subclasses. Spending and acquisitions for the four disciplines that comprise S&T were as follows (in descending order by spending):

- Science = \$626,476.48 (48.0%); 7,882 vols. (45.8%)
- Technology = \$366,174.21 (28.0%); 4,393 vols. (25.5%)
- Medicine = \$190,622.41 (14.6%); 3,168 vols. (18.4%)
- Agriculture = \$122,540.57 (9.4%); 1,772 vols. (10.0%)

Only one LC subclass accounted for more than 10% of S&T spending; twenty-four of the forty-eight received 1% or more of its allocation and, when combined, accounted for just over 90% of spending:

- QA - Mathematics = \$148,512.06 (11.4%)
- TK - Electrical engineering. Electronics. Nuclear engineering = \$109,832.00 (8.4%)
- QC - Physics = \$89,604.57 (6.9%)
- TA - Engineering (General). Civil engineering = \$78,984.23 (6.0%)
- QH - Natural history - Biology = \$76,738.44 (5.9%)
- RC - Internal medicine = \$72,545.71 (5.6%)
- QP - Physiology = \$67,949.48 (5.2%)
- QD - Chemistry = \$62,410.28 (4.8%)
- SB - Plant culture = \$50,073.89 (3.8%)
- TP - Chemical technology = \$45,393.80 (3.5%)
- QL - Zoology = \$44,268.82 (3.4%)
- QK - Botany = \$35,993.71 (2.8%)
- QR - Microbiology = \$33,159.03 (2.5%)
- RA - Public aspects of medicine = \$32,887.57 (2.5%)
- SF - Animal culture = \$31,968.75 (2.4%)
- TD - Environmental technology. Sanitary engineering = \$30,656.56 (2.3%)
- TJ - Mechanical engineering and machinery = \$29,387.18 (2.3%)
- QE - Geology = \$27,198.55 (2.1%)
- S - Agriculture (General) = \$24,859.40 (1.9%)
- Q - Science (General) = \$24,296.95 (1.9%)
- TS - Manufactures = \$20,878.95 (1.6%)
- RJ - Pediatrics = \$17,819.39 (1.4%)
- T - Technology (General) = \$16,845.88 (1.3%)
- RK - Dentistry = \$15,926.53 (1.2%)

Forty-one of the S&T LC subclasses were actively collected, seven were collected at a minor level, and, surprisingly, none were idle (i.e., none had zero circulations)

PRICE PER USE

The average use-value of the S&T was unimpressive when compared to the collection-wide average. S&T's LC subclasses' PPU (\$86.75) was \$14.46 above the collection-wide average of averages. The PPU averages for the disciplines that comprise S&T were as follows (in descending order):

- Medicine = \$104.75
- Agriculture = \$98.44
- Technology = \$75.29
- Science = \$70.26

One might be tempted to attempt to explain away S&T's poorer use value by noting that S&T titles tend to cost more than A&H and SocSci titles, but Technology and Science have use values that are actually below the collection-wide average. The larger culprit appears to be a handful of underutilized subclasses in Medicine and Agriculture.

Despite its high average PPU, Medicine's performance was actually very favorable. Of the sixteen LC subclasses that comprise medicine, twelve performed better than the collection-wide average of averages. *RF – Otorhinolaryngology* (\$70.47) performed a few dollars better, and the rest of the subclasses performed more than \$20.00 below the collection-wide average of averages (range = \$51.53 to \$27.97 for the actively collected classes; two minor classes had PPUs below \$15.00). Medicine's difficulties lay in one subclass that performed on the poor side of average (*RS* = \$95.65) and three that rated a dreadful (*RB* = \$143.25, *RE* = \$166.34, and *RL* = \$790.24). However, Medicine's overall performance was actually quite good. If one were to ignore the minor LC subclasses (*RL*, *RX*, *RZ*), Medicine's PPU average of averages would be \$66.01. If one were to ignore the minor subclasses and the two that rated dreadful, Medicine's PPU average of averages would have been \$49.86. So, Medicine's poorer performers performed very poorly, but the rest performed very well.

The situation was similar with Agriculture. Of the six Agriculture LC subclasses, four performed better than the average of averages. *SF - Animal culture* (\$63.68), performed a bit better than the collection-wide average of averages, two of the other subclasses were more than \$20.00 below the collection-wide average of averages (*S* = \$49.52, *SB* = \$49.43), and one, a minor topic, rated a good (*SK* = \$26.44). Agriculture's two poorer performers, unfortunately, rated dreadful (*SD* = \$183.68, *SH* = \$217.87). The PPU average of averages for Agriculture's three heavily collected subclasses that were on the good side of average was actually quite favorable (\$54.21). Its poorer performers, however, did rather badly.

Technology's performance was fairly evenly mixed, with seven subclasses on the good side of average, five on the poor side of average, and two rating poor. Of those on the poor side of average, *TK - Electrical engineering* (\$94.44) may warrant some consideration simply because it accounts for so much

of Technology's spending (approx. 30%), and *TJ - Mechanical engineering and machinery* (\$100.64) was more than \$25.00 above the average of averages. *TC - Hydraulic engineering* (\$119.49) and *TD - Environmental technology* (\$137.47) were the subclasses that rated poor.

Science's performance was quite good across the subclasses. All but one Science subclass was in the average range (*QK - Botany* = \$89.54 to *QA - Mathematics* = \$38.64). What was particularly impressive about the best performing subclass was that *QA* was also the subclass that accounted for the largest percentage of Science spending and acquisitions (23.7% and 26.1%, respectively). The bulk of Science's spending, therefore, has already been directed toward its best-performing subclass. The Science subclass that rated a poor was *QD - Chemistry* (\$130.02), whose PPU was \$59.76 above Science's average of averages and \$57.73 above the collection-wide average of averages.

IDLENESS

The average degree of idleness for the LC subclasses that make up S&T (45.3%) was remarkably good. Not only was it well below the collection-wide average of averages (53.8%), but it was below the collection's per-volume idleness (46.1%). S&T's volume use, therefore, was rather good. The averages for the topical disciplines that comprise S&T were as follows (in descending order):

- Agriculture = 52.3%
- Technology = 48.4%
- Science = 43.3%
- Medicine = 41.6%

As one can see, all of the values were on the low side of the LC subclasses' average of averages, and the latter two were actually below the collection-wide rate.

Agriculture, again, was hampered by its two dreadfully performing subclasses (*SH* = 73.7%, *SD* = 74.8%). Its other four subclasses all performed between 50% and 35% idle. Two subclasses were just below the 40% margin (*SB* = 36.5%, *S* = 36.3%).

Technology's performance was generally quite good. Of its fourteen subclasses, only one (*TD* = 62.3%) was above the 60% margin, and four were below the 40% margin (*TG* = 38.5%, *TS* = 37.9%, *TP* = 36.6%, *TF* = 35.7%). All of Technology's subclasses were comfortably within the average range of performance.

All twelve of Science's LC subclasses were below the 60% idle margin. In fact, only two (*QB* = 58.6%, *QD* = 54.2%) were on the poor side of average. Of the remainder, three were on the good side of average and below the 40% margin (*QM* = 39.5%, *QP* = 38.9%, *QC* = 37.7%), and one rated an exceptionally impressive good rating (*QA* = 16.3%).

Medicine had one subclass rate a poor (*RL* = 83.3%), and two fall on the poor side of average (*RB* = 71.2%, *RE* = 56.5%), although only one of these was outside of the 60% margin. Eleven of the remaining

Subclasses were on the good side of average, with five falling below the 40% margin (*RJ* = 34.8%, *RK* = 34.9%, *RD* = 35.9%, *R* = 37.0%, *RC* = 39.6%). Two subclasses rated excellent (*RX*, *RZ*), but they had only three volumes' worth of acquisitions activity between them.

TURNOVER

The average of averages for the annual turnover rate for the subclasses of the Science and Technology group (0.38) was just 5/100^{ths} better than the collection-wide average of averages. The performance of all four topical areas that comprise S&T was near, but just slightly above, the collection-wide average of averages. Turnover rates for the four disciplines that comprise S&T were as follows (in ascending order):

- Agriculture = 0.35
- Technology = 0.36
- Medicine = 0.39
- Science = 0.41

Agriculture, despite having the lowest turnover rate, generally performed on the good side of average. It simply had two very bad apples in its bushel (*SD* = 0.09, *SH* = 0.12). Agriculture's other four subclasses outperformed the collection-wide average of averages and the collection-wide per-volume rate of 0.4 (range = 0.41 to 0.51). No Agriculture subclass was an outstanding performer, but all four were solidly on the good side of average.

Technology's turnover rates were fairly evenly balanced, with one average performer (*TJ*), six LC classes on the poor and six on the good sides of average, and one good performer (*TH* = 0.69). Of the subclasses on the poor side of average, only one had a turnover rate that was worse than one circulation every five years (*TD* = 0.18). Of the subclasses on the good side of average, five performed at or better than the collection-wide per-volume rate (*T* = 0.40, *TA* = 0.42, *TF* = 0.46, *TP* = 0.51, *TS* = 0.48).

Medicine had seven classes rate on the poor and seven on the good sides off average. It also had two with ratings of good (*RD* = 0.75, *RJ* = 0.62). *RD*'s turnover rate was the highest in S&T. Of the subclasses on the good side of average (*RT*, *RZ*, *RM*, *RA*, *RC*, *R*, *RK*), all but *RT - Nursing* (0.36) outperformed the collection-wide per-volume rate (range = 0.42 to 0.55). Of the subclasses on the poor side of average, only two saw rates of less than one circulation every five years (*RB* = 0.19, *RL* = 0.09).

Science's average of averages was just above the collection-wide per-volume rate, so as one might expect, its subclasses performed well. Only one performed on the poor side of average (*QB* = 0.22), but its turnover rate was still better than one circulation ever five years. Of the remaining subclasses, two matched the collection-wide average of averages, eight were on the good side of average, and one rated a good (*QA* = 0.58). Of the eight subclasses that were just on the good side of average, five outperformed the per-volume rate for the collection (*QR* = 0.51, *QM* = 0.51, *QP* = 0.45, *QH* = 0.45, *Q* = 0.44).

PERCENTAGE EXPECTED USE

The performance of S&T disciplines where PEU was concerned was not only above the collection-wide average of averages for both circulation and volume-use based PEU values, but was near or at desirable levels (i.e., 94.92%, 101.36%, respectively). With just a few exceptions, S&T's subclasses' PEU values were generally fairly good. Average PEU values for S&T's disciplines were as follows (in ascending order, with circulation based followed by volume-use based PEUs):

- Agriculture = 86.68%, 88.52%
- Technology = 90.69%, 95.69%
- Medicine = 96.62%, 108.36%
- Science = 101.73%, 105.07%

Agriculture's average is misleading and is the product of two uncharacteristically poor performers dragging the discipline's average of averages down (*SD* = 23.46%, 46.69%; *SH* = 28.62%, 48.80%). Agriculture's other four subclasses not only outperformed the collection-wide average of averages, they all performed at desirable levels. *S – Agriculture* even rated a good for circulation.

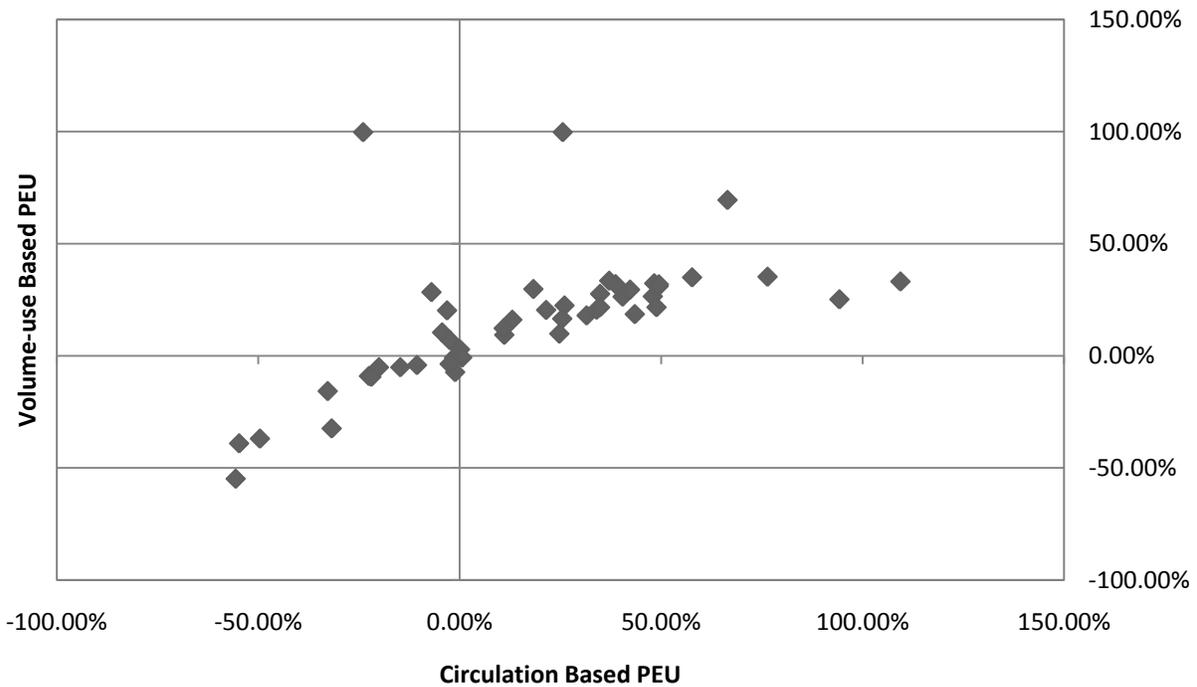
Technology's performance was more evenly varied, with one average performer (*TK*), seven subclasses on the poor side of average, four on the good side of average, one rating a good rating (*TP*), and one rating an excellent (*TH*). Of those on the good side of average, three performed at better than desirable levels (*TA* = 103.67%, 102.28%; *TF* = 115.32%, 119.22%; *TS* = 120.50%, 115.25%). Of those on the poor side of average, four had circulation based PEU values that were definitely cause for concern (*TE* = 67.61%, *TN* = 58.16%, *TC* = 56.28%, *TD* = 45.45%). Their volume use was somewhat nearer average.

Medicine's PEU values were skewed by some exceptionally good performers. *RD - Surgery* and *RJ – Pediatrics* had very high excellent ratings, and *RK - Dentistry* and *R - Medicine (General)* both rated good. Of Medicine's five subclasses that were on the good side of average, four performed at desirable levels (*RC, RA, RM, RZ*). Medicine had only one subclass with a poor/dreadful rating (*RL* = 22.60%, 30.91%). Of its six subclasses that performed on the poor side of average, half had circulation PEUs that were far enough from average to be causes of concern (*RE* = 63.47%, *RX* = 54.24%, *RB* = 46.43%). Their volume use was nearer the average.

Lastly, Science's PEU values do not mask any unexpected variances, as performance in the *Q* subclasses was generally very good. Two Science subclasses were on the poor side of average (*QB* = 55.68%, 76.71%; *QD* = 76.81%, 84.91%); one was roughly average (*QE*); six were on the good side of average; two rated a good rating (*QM, QR*); and *QA* rated an excellent. All six that were on the good side of average performed at or near desirable levels.

The distribution of PEU performance for the S&T subclasses relative to the collection-wide average of averages was as follows in Figure 4 on the following page:

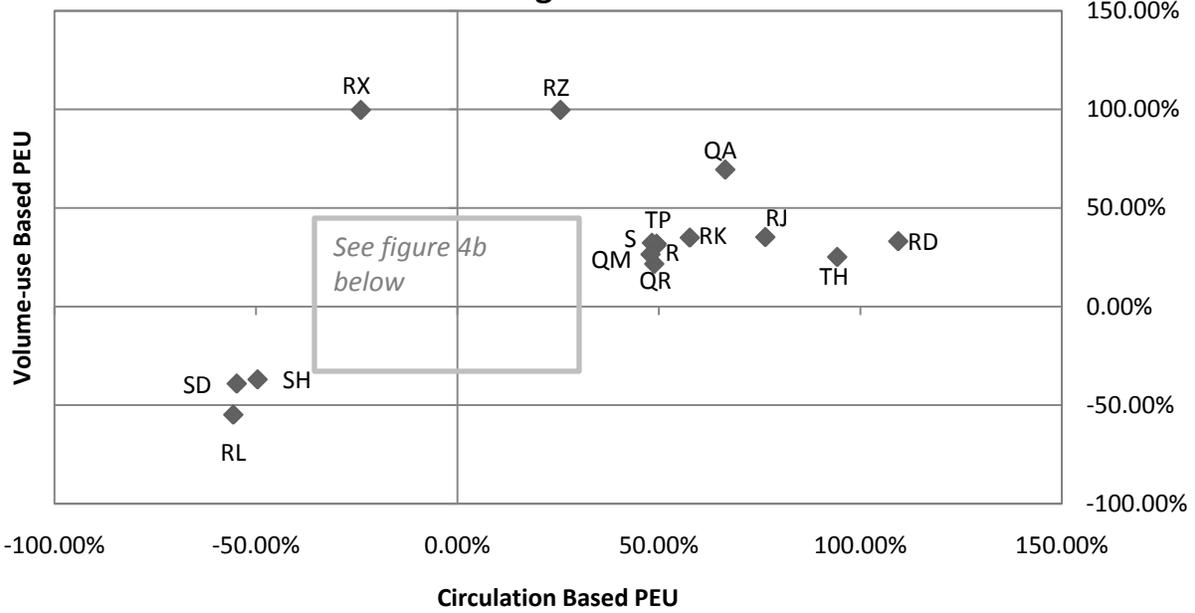
Figure 4: SCIENCE & TECHNOLOGY: Relative PEU Performance



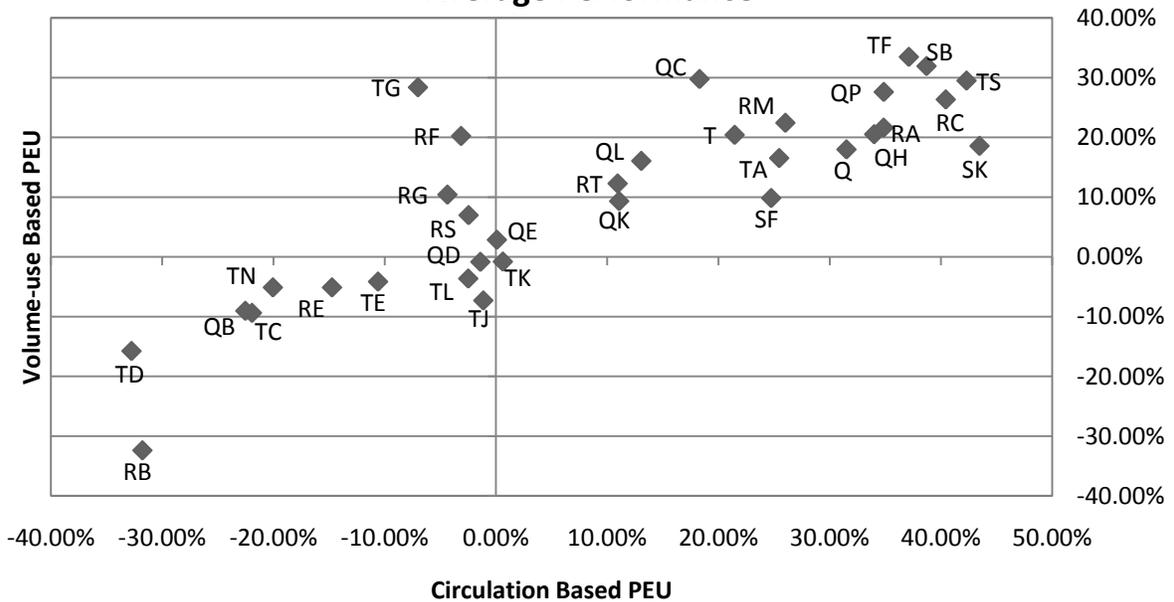
Note: The 0.00% axes equal the collection-wide PEU average of averages. Plotting on the positive side of the axes indicates above-average performance; plotting on the negative side indicates below-average performance.

For purposes of clarity, the scatter graph above was reproduced on the following page as two graphs. Figure 4a shows PEU performances that were outside of the average range; Figure 4b provides a closer view of the average range of performance. Please note the different axis scales when reading the graphs.

**Figure 4a: SCIENCE & TECHNOLOGY:
Non-Average Performance**



**Figure 4b: SCIENCE & TECHNOLOGY:
Average Performance**



Note: The 0.00% axes equal the collection-wide PEU average of averages. Plotting on the positive side of the axes indicates above-average performance; plotting on the negative side indicates below-average performance.

BIBLIOGRAPHY

- Baker, Sharon L., and Karen L. Wallace, eds. 2002. *The responsive public library: How to develop and Market a winning collection*, 2nd ed. Englewood, CA: Libraries Unlimited.
- Bonn, George S. (1974). Evaluation of the collection. *Library Trends* 22(3): 265-304.
- Jain, A. K. (1969). Sampling and data collection methods for a book-use study. *The Library Quarterly* 39(3): 245-252.
- Mills, Terry R. (1981). The University of Illinois Film Center collection use study. CAS Paper, Urbana, IL: University of Illinois.

APPENDIX: Collected LC subclasses

GENERAL LITERATURE:

AC - Collections. Series. Collected works
AE - Encyclopedias
AG - Dictionaries and other general
reference works
AM - Museums. Collectors and collecting
AS - Academies and learned societies

AZ - History of scholarship and learning. The humanities
CT - Biography
Z - Books (General). Writing. Paleography. Book
industries and trade. Libraries. Bibliography
ZA - Information resources (General)
AZ - History of scholarship and learning. The humanities

ARTS & HUMANITIES:

B - Philosophy (General)
BC - Logic
BD - Speculative philosophy
BH - Aesthetics
BJ - Ethics

BL - Religions. Mythology. Rationalism
BM - Judaism
BP - Islam. Bahaim. Theosophy, etc.
BQ - Buddhism
BR - Christianity
BS - The Bible
BT - Doctrinal Theology
BV - Practical Theology
BX - Christian Denominations
CB - History of Civilization

CC - Archaeology
CD - Diplomatics. Archives. Seals
CE - Technical Chronology. Calendar
CJ - Numismatics
CM - (Unknown)
CN - Inscriptions. Epigraphy
CR - Heraldry
CS - Genealogy
D - History (General)
DA - Great Britain
DAW - Central Europe
DB - Austria - Liechtenstein - Hungary -
Czechoslovakia
DC - France - Andorra - Monaco
DD - Germany
DE - Greco-Roman World
DF - Greece

DG - Italy - Malta
DH - Low Countries - Benelux Countries
DJ - Netherlands (Holland)
DJK - Eastern Europe (General)
DK - Russia. Soviet Union. Former Soviet Republics -
Poland
DL - Northern Europe. Scandinavia
DP - Spain - Portugal
DQ - Switzerland
DR - Balkan Peninsula
DS - Asia
DT - Africa
DU - Oceania (South Seas)
DX - Gypsies
E - History of the Americas
F - Local History of the United States and British, Dutch,
French, and Latin America
M - Music
ML - Literature on music
MT - Instruction and study
N - Visual arts
NB - Sculpture
NC - Drawing. Design. Illustration
ND - Painting
NE - Print media
NK - Decorative arts
NX - Arts in general
P - Philology. Linguistics
PA - Greek language and literature. Latin language and
literature
PB - Modern languages. Celtic languages
PC - Romanic languages
PD - Germanic languages. Scandinavian languages
PE - English language

ARTS & HUMANITIES (continued):

PF - West Germanic languages
PG - Slavic languages and literatures.
Baltic languages. Albanian language
PH - Uralic languages. Basque language
PJ - Oriental languages and literatures
PK - Indo-Iranian languages and
literatures

PL - Languages and literatures of Eastern
Asia, Africa, Oceania
PM - Hyperborean, Indian, and artificial
languages

SOCIAL SCIENCES:

BF - Psychology
G - Geography (General). Atlases. Maps
GA - Mathematical geography.
Cartography
GB - Physical geography
GC - Oceanography
GE - Environmental Sciences
GF - Human ecology. Anthropogeography

GN - Anthropology
GR - Folklore
GT - Manners and customs (General)
GV - Recreation. Leisure
H - Social sciences (General)
HA - Statistics

HB - Economic theory. Demography

HC - Economic history and conditions

HD - Industries. Land use. Labor

HE - Transportation and communications

HF - Commerce
HG - Finance

PN - Literature (General)
PQ - French literature - Italian literature - Spanish
literature - Portuguese literature
PR - English literature
PS - American literature
PT - German literature - Dutch literature - Flemish
literature since 1830 -Afrikaans literature -
Scandinavian literature - Old Norse literature: Old
Icelandic and Old Norwegian - Modern Icelandic
literature - Faroese literature - Danish literature -
Norwegian literature - Swedish literature

TR - Photography

PN - Literature (General)

HJ - Public finance
HM - Sociology (General)
HN - Social history and conditions. Social problems.
Social reform
HQ - The family. Marriage. Women
HS - Societies: secret, benevolent, etc.
HT - Communities. Classes. Races
HV - Social pathology. Social and public welfare.
Criminology
HX - Socialism. Communism. Anarchism
J - General legislative and executive papers
JA - Political science (General)
JC - Political theory
JF - Political institutions and public administration
JJ - Political institutions and public administration
(North America)
JK - Political institutions and public administration
(United States)
JL - Political institutions and public administration
(Canada, Latin America, etc.)
JN - Political institutions and public administration
(Europe)
JQ - Political institutions and public administration
(Asia, Africa, Australia, Pacific Area, etc.)
JS - Local government. Municipal government
JV - Colonies and colonization. Emigration and
immigration. International migration

SOCIAL SCIENCES (continued):

- JX - International law, see JZ and KZ (obsolete)
- JZ - International relations
- K - Law in general. Comparative and uniform law. Jurisprudence
- KB - Religious law in general. Comparative religious law. Jurisprudence
- KBM - Jewish law
- KBP - Islamic law
- KBR - History of canon law
- KD - United Kingdom and Ireland
- KF - United States (Law)
- KFA - United States (individual states beginning w/ letter "A")
- KFC - United States (individual states beginning w/ letter "C")
- KFF - United States (individual states beginning w/ letter "F")
- KFH - United States (individual states beginning w/ letter "H")
- KFI - United States (individual states beginning w/ letter "I")
- KFM - United States (individual states beginning w/ letter "M")
- KFN - United States (individual states beginning w/ letter "N")
- KFO - United States (individual states beginning w/ letter "O")
- KFP - United States (individual states beginning w/ letter "P")
- KFV - United States (individual states beginning w/ letter "V")
- KFX - United States (Individual cities, A-Z)
- KG - Latin America - Mexico and Central America - West Indies. Caribbean area
- KGF - Mexico
- KH - South America
- KJ - Europe
- KJA - Roman Law
- KJC - Regional comparative and uniform law
- KJE - Regional organization and integration. Comparative law
- KJP - Czechoslovakia
- KJV - France. National laws
- KJW - France. Individual regions, provinces, departments, etc.
- KK - Germany
- KKH - Italy
- KKJ - Liechtenstein. Lithuania
- KKZ - Yugoslavia
- KL - Asia and Eurasia, Africa, Pacific Area, and Antarctica
- KLA - Russia. Soviet Union
- KLB - Russia (Federation, 1992-)
- KMC - Middle East. Southwest Asia. Regional comparative and uniform law
- KMH - Iran
- KMK - Israel
- KMM - West Bank (Territory under Israeli occupation, 1967-)
- KMQ - Oman. Palestine (to 1948)
- KNC - South Asia. Southeast Asia. East Asia. Regional comparative and uniform law
- KNM - Cambodia
- KNN - China
- KNQ - China (People's Republic, 1949-)
- KNR - Hong Kong
- KNS - India
- KNX - Japan
- KPH - States of East and West Malaysia (1957-) (Part 2). Maldives
- KPL - Pakistan
- KPM - Philippines
- KQ - Africa
- KQC - Africa. Regional comparative and uniform law

SOCIAL SCIENCES (continued):

KSK - Kenya
KTA - Nigeria
KTL - South Africa, Republic of

KTW - Uganda
KU - Australia
KZ - Law of nations
L - Education (General)
LA - History of education
LB - Theory and practice of education
LC - Special aspects of education
LD - Individual institutions - United States
LF - Individual institutions - Europe
LG - Individual institutions - Asia, Africa, Indian Ocean islands, Australia, New Zealand, Pacific islands
LJ - Student fraternities and societies, United States
NA - Architecture
PZ - Fiction and juvenile belles lettres

TT - Handicrafts. Arts and crafts

TX - Home economics
U - Military science (General)
UA - Armies: Organization, distribution, military situation
UB - Military administration
UC - Maintenance and transportation
UD - Infantry
UF - Artillery
UG - Military engineering. Air forces
UH - Other services
V - Naval science (General)
VA - Navies: Organization, distribution, naval situation
VB - Naval administration
VE - Marines

VG - Minor services of navies

VK - Navigation. Merchant marine
VM - Naval architecture. Shipbuilding. Marine engineering

SCIENCE & TECHNOLOGY:

Q - Science (General)
QA - Mathematics
QB - Astronomy
QC - Physics
QD - Chemistry
QE - Geology
QH - Natural history - Biology
QK - Botany
QL - Zoology
QM - Human anatomy
QP - Physiology
QR - Microbiology
R - Medicine (General)
RA - Public aspects of medicine
RB - Pathology
RC - Internal medicine
RD - Surgery
RE - Ophthalmology
RF - Otorhinolaryngology
RG - Gynecology and obstetrics
RJ - Pediatrics

RK - Dentistry
RL - Dermatology
RM - Therapeutics. Pharmacology
RS - Pharmacy and materia medica
RT - Nursing
RX - Homeopathy
RZ - Other systems of medicine
S - Agriculture (General)
SB - Plant culture
SD - Forestry
SF - Animal culture
SH - Aquaculture. Fisheries. Angling
SK - Hunting sports
T - Technology (General)
TA - Engineering (General). Civil engineering
TC - Hydraulic engineering. Ocean engineering
TD - Environmental technology. Sanitary engineering
TE - Highway engineering. Roads and pavements
TF - Railroad engineering and operation
TG - Bridge engineering
TH - Building construction

SCIENCE & TECHNOLOGY (continued):

TJ - Mechanical engineering and machinery

TK - Electrical engineering. Electronics. Nuclear engineering

TL - Motor vehicles. Aeronautics. Astronautics

TN - Mining engineering. Metallurgy

TP - Chemical technology

TS - Manufactures