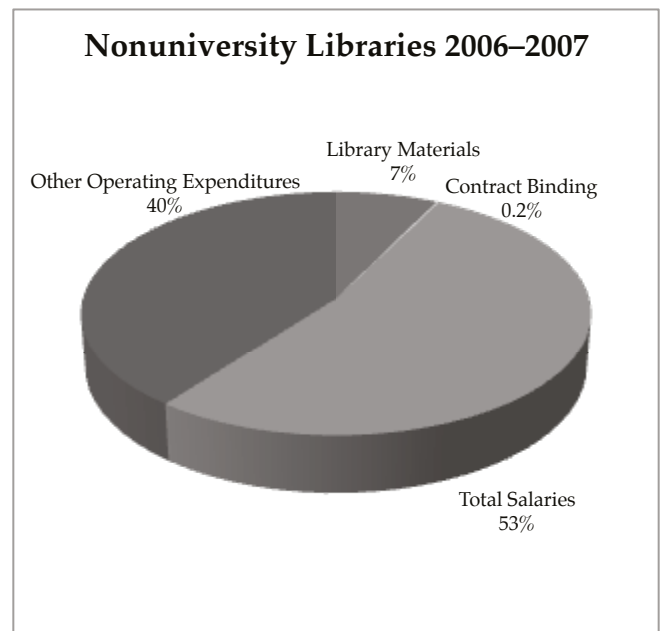
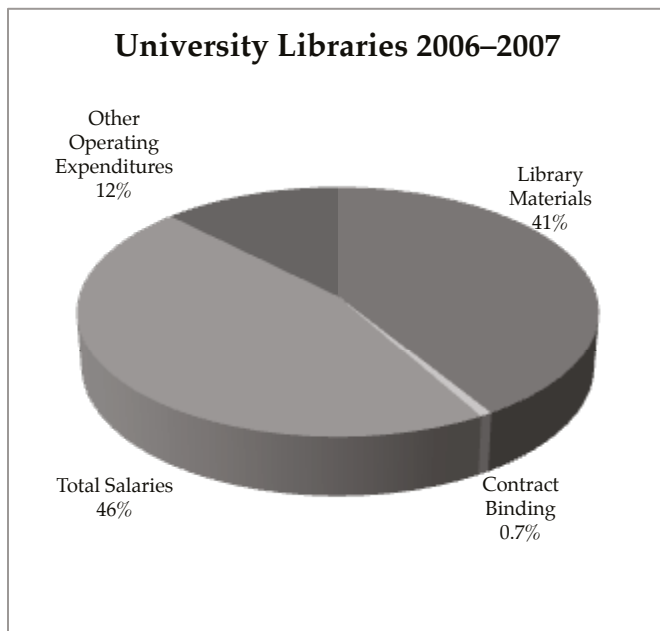


RESEARCH LIBRARY TRENDS

ARL Statistics 2006–2007 is the latest in a series of annual publications that describe collections, staffing, expenditures, and service activities for the 123 members of the Association of Research Libraries (ARL). Of these, 113 are university libraries; the remaining 10 are public, governmental, and nonprofit research libraries. ARL member libraries are the largest research libraries in North America, representing 16 Canadian and 107 US research institutions. The academic libraries, which comprise about 92% of the membership, include 14 Canadian and 99 US libraries.

Statistics have been collected and published annually for the members of the Association of Research Libraries since 1961–1962, and the data are available through an interactive Web interface. Prior to 1961–1962, annual statistics for university libraries were collected by James Gerould, first at the University of Minnesota and later at Princeton University.¹ These data, covering the years 1907–1908 through 1961–1962, are now called the Gerould statistics.² The whole data series from 1908, which is available on the ARL FTP server,³ represents the oldest and most comprehensive continuing library statistical series in North America.

ARL libraries are a relatively small subset of libraries in North America, but they do account for a large portion of academic library resources in terms of assets, budgets, and the number of users they serve. The total library expenditures of all 123 member libraries in 2006–2007 was more than \$3.9 billion; from that, roughly \$2.9 billion was spent by the 113 university libraries and more than \$866 million by the nonuniversity libraries. The pie charts below show how the two types of libraries divide these expenditures differently.



¹ Kendon L. Stubbs and Robert E. Molyneux, *Research Library Statistics 1907-08 through 1987-88* (Washington, DC: ARL, 1990).

² Robert E. Molyneux, *The Gerould Statistics 1907/08 – 1961/62*. (Washington, DC: ARL, 1986) <http://fisher.lib.virginia.edu/gerould/>.

³ <http://www.arl.org/stats/arlstat/mrstat.html>.

CHANGE IN COUNTING SERIALS

This year the definition of counting serials in the ARL Statistics was changed — from serials subscriptions we changed to counting serial titles. As a result the trend line of publishing serial cost per subscription is being discontinued and eventually a new one will emerge as we collect annual data on serial titles. This change though simple at first glance is very important as it makes the concept of serials more meaningful in the electronic environment.

What prompted this change? In earlier years the instructions for reporting serials were that libraries report the “total number of subscriptions, not titles, but electronic serials acquired as part of an aggregated package (such as MUSE or Academic’s IDEAL) were to be counted by title.” Directors and other staff have expressed concern that the serials count was problematic since many libraries engage in multiple consortia arrangements and the serials count was inflated by duplicate titles held in multiple packages. The Statistics and Assessment Committee determined that a new way of counting serials focusing on titles would provide better descriptive data reflecting the true scope of the content provided by research libraries. A pilot at various ARL libraries demonstrated the feasibility of the new method.

In the electronic environment once you own or lease a title, it is often accessible by all users so a more authentic descriptive statistic for the scope of the content is titles rather than subscriptions. A unique title count favors broader coverage. Any duplication of those titles through packages, aggregations, bundles, etc., becomes more a management issue. The new definition asks that titles be reported as electronic if available both in print and electronic formats and they be reported as purchased if available both through purchased and non-purchased arrangements. So, if a title appears in both print and electronic form and a library has acquired it through several different providers, it would be counted as one title. Training events were delivered last fall to ensure that there is a well-grounded, shared understanding of the new definitions.

The outcome has been successful as we have more libraries reporting serials titles than they ever managed to report serial subscriptions indicating that the new definition is moving us into the right direction of having data that are both collectable and useful. However, we had to delete all earlier trend lines that were based on serial subscriptions. A variety of resources have been developed for libraries to consult as they implemented the change and they are available through <http://www.arl.org/stats/annualsurveys/arlstats/07statmail.shtml>.

RESEARCH LIBRARY TRENDS 2006–2007
TABLES AND GRAPHS

TABLE 1

SERVICE TRENDS IN ARL LIBRARIES, 1991–2007
Median Values for Time-Series Trends

Year (Libraries)	ILL: Borrowed (103)	Group Pres. (84)	Participants In Pres. (82)	Reference Trans. (79)	Initial Circ. (36)	Total Circ. (80)	Ratio of Circ. Init./Tot. (34)	Total Staff (105)	Total Students (103)
1991	10,397	508	7,137	125,103	296,964	509,673	1.26	271	18,290
1992	11,362	526	7,154	132,549	342,989	554,579	1.27	265	18,273
1993	12,489	616	7,688	136,115	343,293	568,628	1.32	262	18,450
1994	14,007	568	7,831	147,582	369,996	572,749	1.31	264	18,305
1995	14,472	687	8,461	147,023	347,144	578,989	1.32	267	18,209
1996	15,278	719	8,410	155,336	336,481	560,244	1.39	264	18,320
1997	16,264	687	9,218	149,659	348,157	542,438	1.37	273	18,166
1998	17,656	698	9,462	132,850	354,924	514,574	1.37	273	18,335
1999	18,942	711	9,406	128,696	300,923	514,087	1.38	277	18,609
2000	20,475	722	9,596	115,636	273,231	482,542	1.42	267	18,908
2001	21,902	669	10,121	104,409	265,195	467,277	1.48	269	19,102
2002	21,339	776	11,350	95,910	251,146	462,223	1.51	279	19,925
2003	22,146	806	12,516	89,150	248,689	479,733	1.57	277	21,132
2004	25,737	757	12,864	84,546	261,526	496,369	1.60	273	21,562
2005	25,729	803	13,782	65,168	250,971	473,216	1.58	267	22,047
2006	27,412	833	13,051	67,697	267,213	466,403	1.52	267	22,618
2007	26,813	830	14,417	61,703	222,037	456,597	1.59	266	22,874
Average annual % change	6.1%	3.1%	4.5%	-4.3%	-1.8	-0.7	1.5%	-0.1	1.4%

Table 1 presents data about select public service activities such as circulation (initial and total), reference transactions, library instruction (group presentations and participants in these presentations), and interlibrary borrowing and lending.

As seen in table 1, the median of group presentations dropped slightly during 2006–2007. However, the number of participants increased with a median of 14,417 for the typical research library. Perhaps what is of most interest is that by 2007 there were double the participants compared to 1991 (see Graph 1).

GRAPH 1

SERVICE TRENDS IN ARL LIBRARIES, 1991–2007

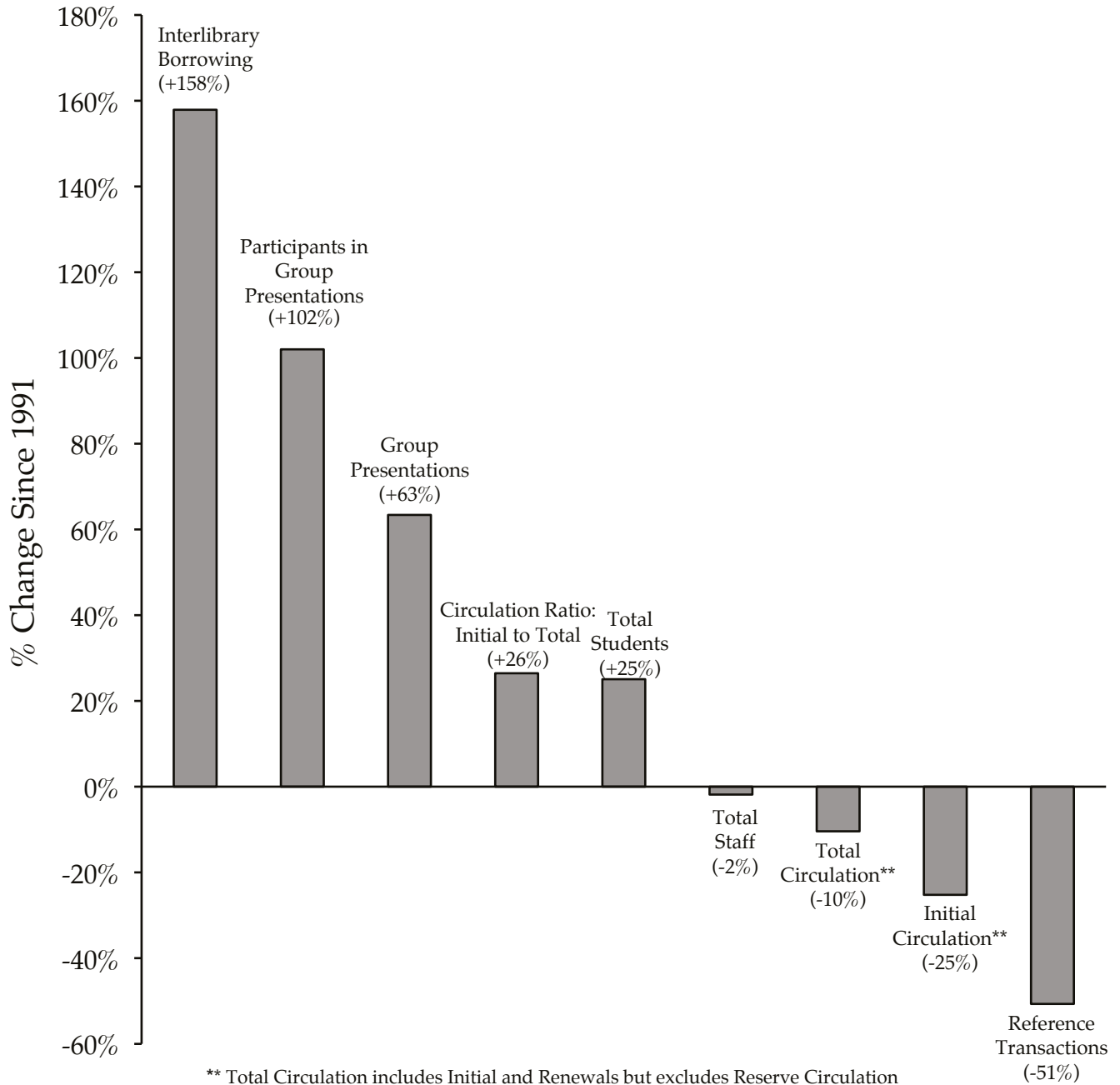


TABLE 2

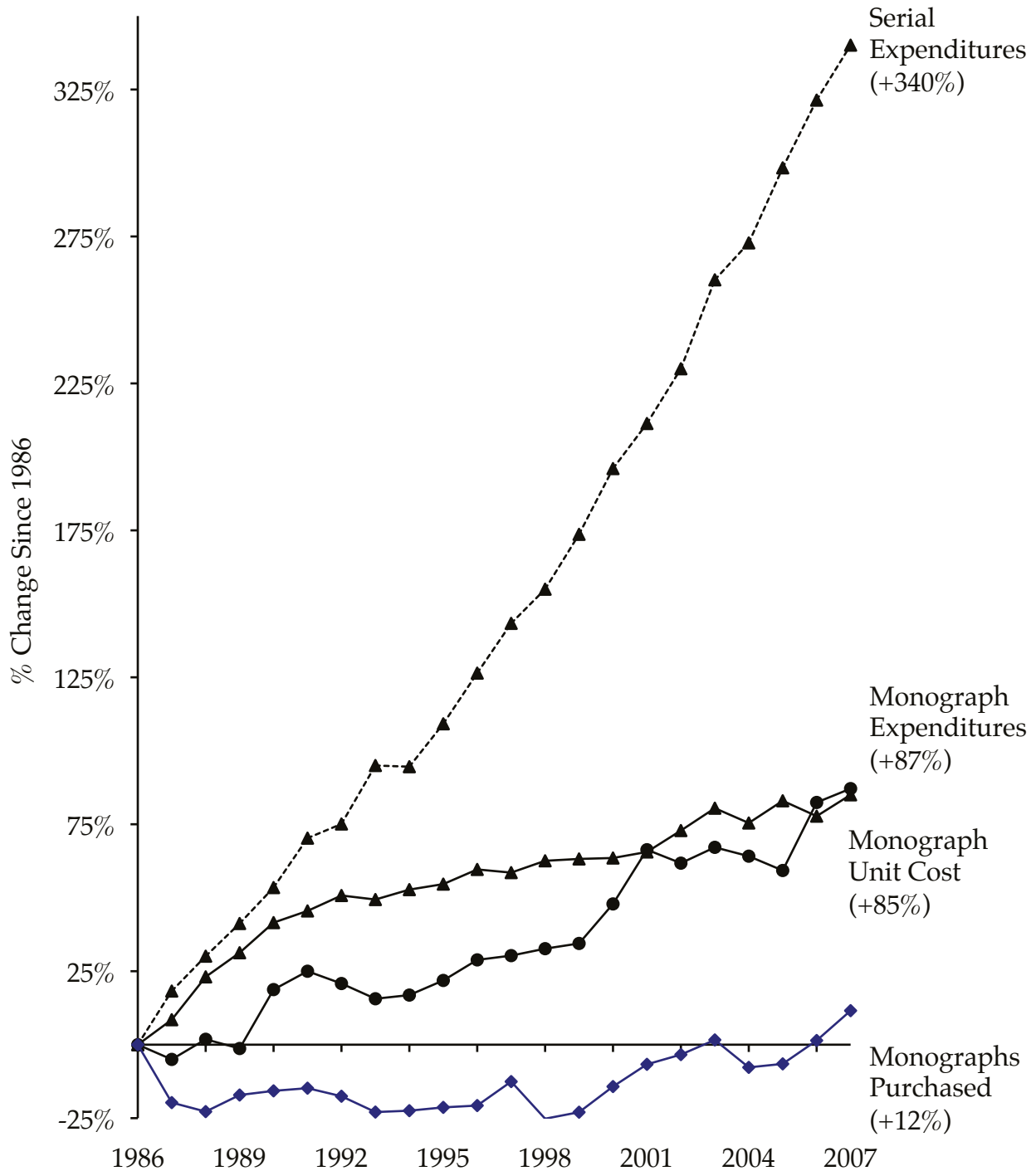
MEDIAN MONOGRAPH AND SERIAL EXPENDITURES IN ARL LIBRARIES, 1986–2007
Median Values for Time-Series Trends

Year (Libraries)	Serial Expenditures (100)	Monograph Unit Cost (57)	Monograph Expenditures (97)	Monographs Purchased (58)
1986	\$ 1,496,775	\$ 29.28	\$ 1,120,645	32,679
1987	\$ 1,769,960	\$ 31.76	\$ 1,064,484	26,240
1988	\$ 1,947,559	\$ 36.03	\$ 1,141,226	25,238
1989	\$ 2,113,976	\$ 38.44	\$ 1,106,073	27,082
1990	\$ 2,296,910	\$ 41.44	\$ 1,330,747	27,546
1991	\$ 2,548,687	\$ 42.60	\$ 1,400,738	27,843
1992	\$ 2,620,832	\$ 44.14	\$ 1,353,865	26,947
1993	\$ 2,918,569	\$ 43.74	\$ 1,295,807	25,188
1994	\$ 2,912,495	\$ 44.72	\$ 1,309,807	25,341
1995	\$ 3,131,033	\$ 45.27	\$ 1,365,575	25,707
1996	\$ 3,389,118	\$ 46.73	\$ 1,444,015	25,911
1997	\$ 3,642,541	\$ 46.42	\$ 1,460,234	28,576
1998	\$ 3,816,497	\$ 47.59	\$ 1,486,764	24,447
1999	\$ 4,095,934	\$ 47.78	\$ 1,506,651	25,173
2000	\$ 4,430,812	\$ 47.87	\$ 1,657,349	28,024
2001	\$ 4,660,349	\$ 48.48	\$ 1,864,023	30,494
2002	\$ 4,939,225	\$ 50.61	\$ 1,812,826	31,578
2003	\$ 5,392,007	\$ 52.83	\$ 1,873,157	33,208
2004	\$ 5,580,157	\$ 51.36	\$ 1,839,412	30,155
2005	\$ 5,962,446	\$ 53.57	\$ 1,784,841	30,546
2006	\$ 6,307,292	\$ 52.04	\$ 2,044,272	33,145
2007	\$6,587,241	\$ 54.17	\$2,097,078	36,462
Average annual % change	7.3%	3.0%	3.0%	0.5%

Note that Table 2 and Graph 2 have been revised since 2005–2006 and no longer include Serial Unit Cost or Serial Subscriptions. Beginning with 2006–2007, ARL libraries are reporting unduplicated counts of serial titles rather than subscriptions.

GRAPH 2

MEDIAN MONOGRAPH AND SERIAL EXPENDITURES IN ARL LIBRARIES, 1986–2007*



Source: ARL Statistics 2006–2007, Association of Research Libraries, Washington, DC
*Includes electronic resources from 1999–2000 onward.

TABLE 3

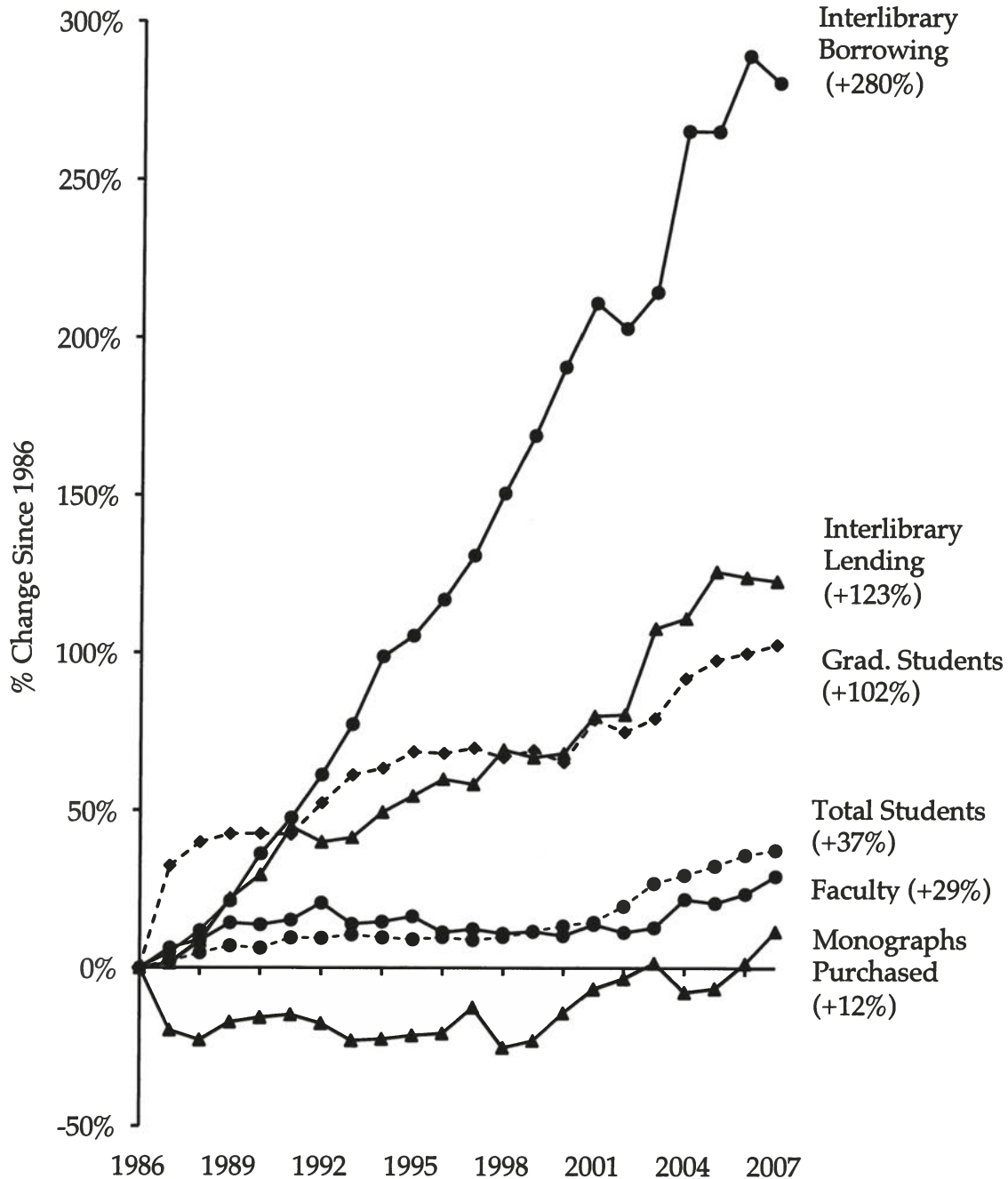
SUPPLY AND DEMAND IN ARL LIBRARIES, 1986–2007
Median Values for Time-Series Trends

Year (Libraries)	ILL: Borrowed (103)	ILL: Lent (103)	Graduate Students (104)	Teaching Faculty (101)	Total Students (103)	Monographs Purchased (58)
1986	7,047	16,092	2,327	1,124	16,684	32,679
1987	7,387	16,318	3,078	1,195	17,029	26,240
1988	7,881	17,476	3,251	1,222	17,485	25,238
1989	8,547	19,638	3,312	1,285	17,866	27,082
1990	9,595	20,837	3,314	1,278	17,745	27,546
1991	10,397	23,285	3,310	1,295	18,290	27,843
1992	11,362	22,514	3,539	1,356	18,273	26,947
1993	12,489	22,740	3,745	1,281	18,450	25,188
1994	14,007	24,039	3,794	1,289	18,305	25,341
1995	14,472	24,864	3,914	1,308	18,209	25,707
1996	15,278	25,720	3,904	1,251	18,320	25,911
1997	16,264	25,463	3,942	1,263	18,166	28,576
1998	17,656	27,223	3,880	1,247	18,335	24,447
1999	18,942	26,837	3,933	1,255	18,609	25,173
2000	20,475	27,044	3,844	1,239	18,908	28,024
2001	21,902	28,950	4,159	1,279	19,102	30,494
2002	21,339	29,021	4,067	1,251	19,925	31,578
2003	22,146	33,421	4,167	1,268	21,132	33,208
2004	25,737	33,934	4,461	1,369	21,562	30,155
2005	25,729	36,325	4,595	1,355	22,047	30,546
2006	27,412	36,035	4,647	1,388	22,618	33,145
2007	26,813	35,838	4,709	1,451	22,874	36,462
Average annual % change	6.6%	3.9%	3.4%	1.2%	1.5%	0.5%

Interlibrary borrowing and lending, which showed a marked growth in the last decade, seem to be declining. Monographs purchased are above 1986 levels for the third time in the last 22 years.

GRAPH 3

SUPPLY AND DEMAND IN ARL LIBRARIES, 1986–2007*



Source: ARL Statistics 2006–2007, Association of Research Libraries, Washington, DC
*Serial and monograph data includes electronic materials from 2000 onward.

TABLE 4

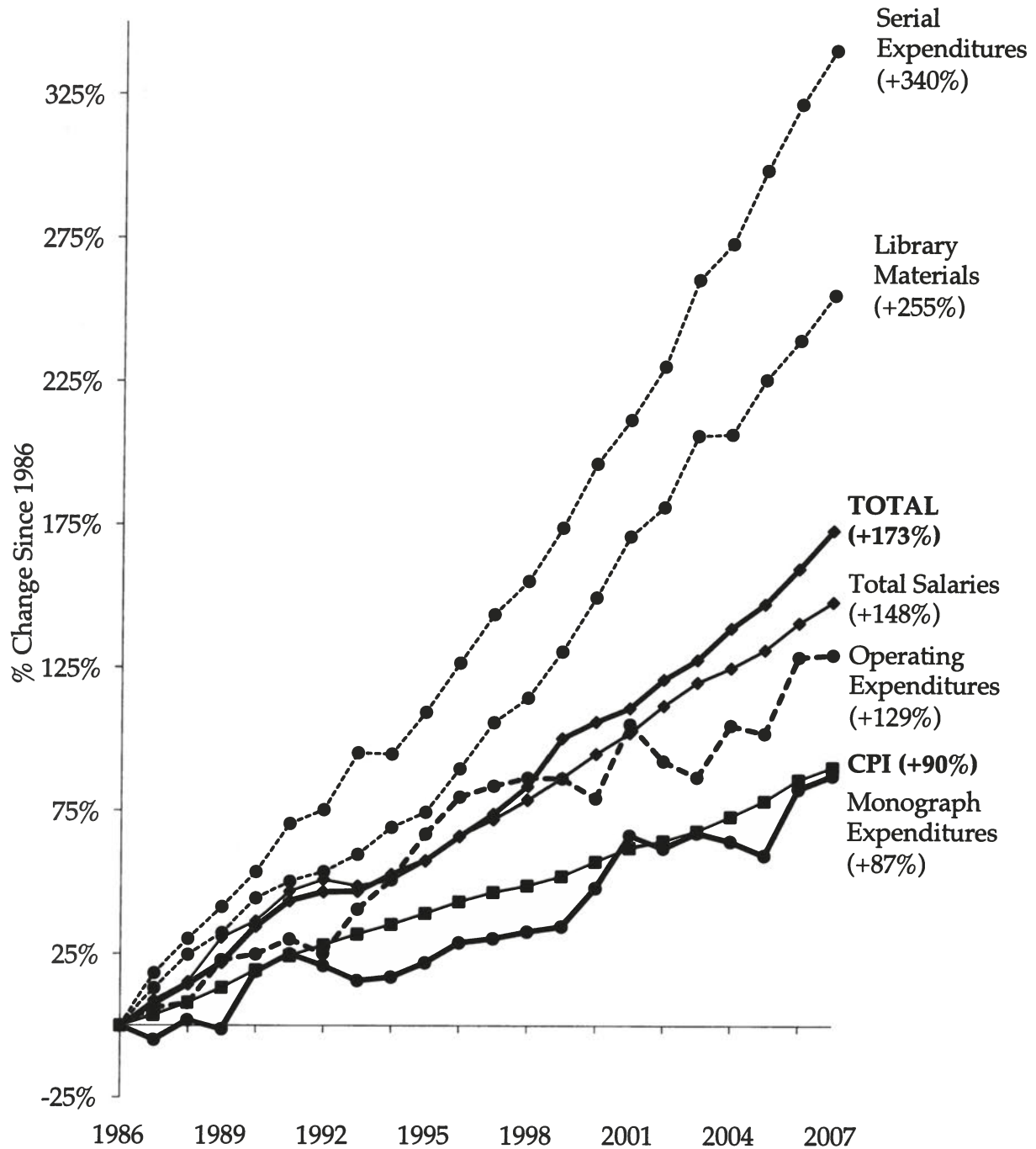
EXPENDITURE TRENDS IN ARL LIBRARIES, 1986–2007
Median Values for Time-Series Trends—Unadjusted dollar figures

Year (Libraries)	Library Materials (105)	Serial Exp. (100)	Monograph Exp. (97)	Total Salary (104)	Operating Exp. (104)	Total (105)	CPI
1986	2,705,297	1,496,775	1,120,645	4,011,436	1,111,914	8,361,092	109.6
1987	3,058,479	1,769,960	1,064,484	4,361,646	1,180,167	8,990,001	113.6
1988	3,369,896	1,947,559	1,141,226	4,618,335	1,198,674	9,557,623	118.3
1989	3,577,405	2,113,976	1,106,073	5,236,292	1,364,558	10,183,315	124.0
1990	3,903,358	2,296,910	1,330,747	5,469,333	1,386,618	11,241,022	130.7
1991	4,064,344	2,548,687	1,400,738	5,885,814	1,445,735	11,990,794	136.2
1992	4,156,510	2,620,832	1,353,865	6,050,222	1,390,245	12,249,150	140.3
1993	4,316,674	2,918,569	1,295,807	5,962,470	1,561,122	12,265,696	144.5
1994	4,572,276	2,912,495	1,309,807	6,047,803	1,676,701	12,767,348	148.2
1995	4,715,203	3,131,033	1,365,575	6,312,770	1,853,586	13,171,893	152.4
1996	5,126,482	3,389,118	1,444,015	6,664,021	1,997,233	13,870,378	156.9
1997	5,562,742	3,642,541	1,460,234	6,893,582	2,039,957	14,526,674	160.5
1998	5,795,223	3,816,497	1,486,764	7,163,979	2,072,903	15,329,371	163.0
1999	6,232,365	4,095,934	1,506,651	7,476,532	2,069,887	16,737,261	166.6
2000	6,744,281	4,430,812	1,657,349	7,811,403	1,991,852	17,221,441	172.2
2001	7,322,507	4,660,349	1,864,023	8,106,666	2,280,493	17,620,048	177.5
2002	7,599,249	4,939,225	1,812,826	8,488,255	2,136,616	18,456,038	180.1
2003	8,273,171	5,392,007	1,873,157	8,813,191	2,073,913	19,030,188	183.9
2004	8,286,431	5,580,157	1,839,412	9,015,741	2,274,878	19,953,776	189.4
2005	8,801,962	5,962,446	1,784,841	9,268,364	2,243,592	20,663,012	195.4
2006	9,174,734	6,307,292	2,044,272	9,647,695	2,540,171	21,694,210	203.5
2007	9,600,793	6,587,241	2,097,078	9,940,406	2,549,139	22,810,227	208.3
Average annual % change	6.5%	7.3%	3.0%	4.4%	4.0%	4.9%	3.1%

Operating expenditures, including many automation expenditures, have doubled since 1986, but during the last five years have remained at relatively stable levels of investment. The total salary expenditures median has increased only slightly over the past four years. Monograph expenditures continue to increase. The annual consumer price index (CPI), included in Graph 4, provides a comparative reference for the increases in library expenditures.

GRAPH 4

EXPENDITURE TRENDS IN ARL LIBRARIES, 1986-2007



Source: ARL Statistics 2006-2007, Association of Research Libraries, Washington, DC

TABLE 5

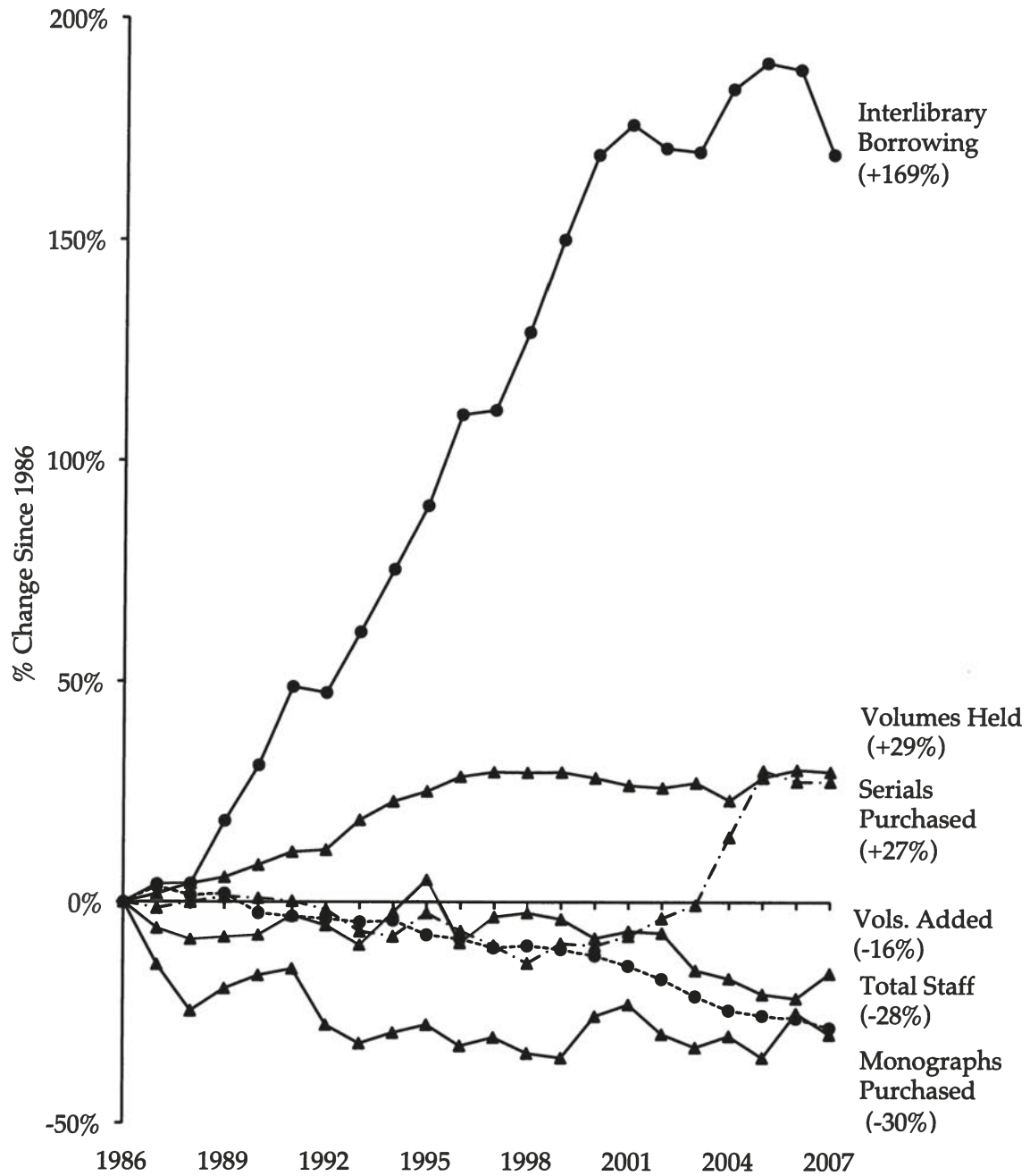
RESOURCES PER STUDENT IN ARL UNIVERSITY LIBRARIES, 1986–2007
Median of Ratio Values for Time-Series Trends

Year (Libraries)	ILL: Borrowed (102)	Volumes Held (103)	Volumes Added (Gross) (103)	Total Staff (103)	Monographs Purchased (57)
1986	0.42	123.18	4.17	0.0159	2.20
1987	0.44	125.31	3.92	0.0164	1.88
1988	0.44	128.27	3.82	0.0161	1.66
1989	0.50	130.04	3.84	0.0162	1.77
1990	0.55	133.51	3.86	0.0155	1.83
1991	0.63	137.11	4.04	0.0154	1.86
1992	0.62	137.68	3.95	0.0153	1.58
1993	0.68	146.02	3.76	0.0152	1.49
1994	0.74	151.20	4.07	0.0152	1.55
1995	0.80	154.00	4.37	0.0147	1.59
1996	0.89	158.10	3.78	0.0145	1.48
1997	0.89	159.40	4.03	0.0142	1.52
1998	0.97	159.24	4.06	0.0143	1.44
1999	1.05	159.37	4.00	0.0142	1.42
2000	1.13	157.74	3.82	0.0139	1.63
2001	1.16	155.71	3.89	0.0136	1.69
2002	1.14	155.04	3.87	0.0131	1.54
2003	1.14	156.41	3.52	0.0125	1.47
2004	1.20	151.49	3.45	0.0120	1.53
2005	1.22	157.93	3.30	0.0118	1.42
2006	1.22	160.05	3.26	0.0117	1.64
2007	1.13	159.49	3.49	0.0114	1.54
Average annual % change	4.8%	1.2%	-0.8%	-1.6%	-1.7%

Over the 22-year period since 1986, ARL libraries are acquiring 30% fewer monographs per student. Libraries reported fewer staff per student in 2006 as compared to 1986: in 2007, there was a median number of 11.4 total staff per 1,000 students, compared to the 1986 figure of 16 per 1,000.

GRAPH 5

RESOURCES PER STUDENT IN ARL UNIVERSITY LIBRARIES, 1986–2007



Source: ARL Statistics 2006–2007, Association of Research Libraries, Washington DC

TABLE 6

ELECTRONIC RESOURCES EXPENDITURES IN ARL UNIVERSITY LIBRARIES, 2006–2007

	Sum	Number Reporting
Expenditures for Computer Files (one-time/monographic purchase)	\$59,808,658	107
Expenditures for Electronic Serials	\$476,225,086	111
Expenditures for Bibliographic Utilities, Networks, etc. (Library)	\$26,771,671	101
Expenditures for Bibliographic Utilities, Networks, etc. (External)	\$18,931,797	84
Expenditures for Hardware and Software	75,169,750	109
Expenditures for Document Delivery/Interlibrary Loan	12,849,607	109

Table 6 contains data on several items which previously had been collected only in the *ARL Supplementary Statistics*. These data are especially useful because they reflect monies spent on all electronic serials, while the *ARL Statistics* categories of “serials purchased” and “serials expenditures” include only those journals that provide full-text electronic versions to their subscribers. The Expenditures for Electronic Serials time series may be viewed as an alternative to the Serials Purchased series, both figures reflecting in their own way the influence the electronic serial is gaining in the modern research library.

Not only have electronic materials expenditures grown sharply in the past decade, they have grown at a rate far exceeding that of library materials expenditures overall. As shown in Graph 6, in every year of the last decade electronic materials expenditures have grown sharply, anywhere between two and ten times faster than materials expenditures have.

The average ARL university library now spends just under 47% of its materials budget on electronic materials (Tables 7A and 7B) and 50 ARL libraries report that they spent more than 50% of their materials budget on electronic materials (see Rank Order Table 20).

GRAPH 6

ELECTRONIC RESOURCES VS. TOTAL MATERIALS EXPENDITURES, 1993–2007
YEARLY INCREASES IN AVERAGE

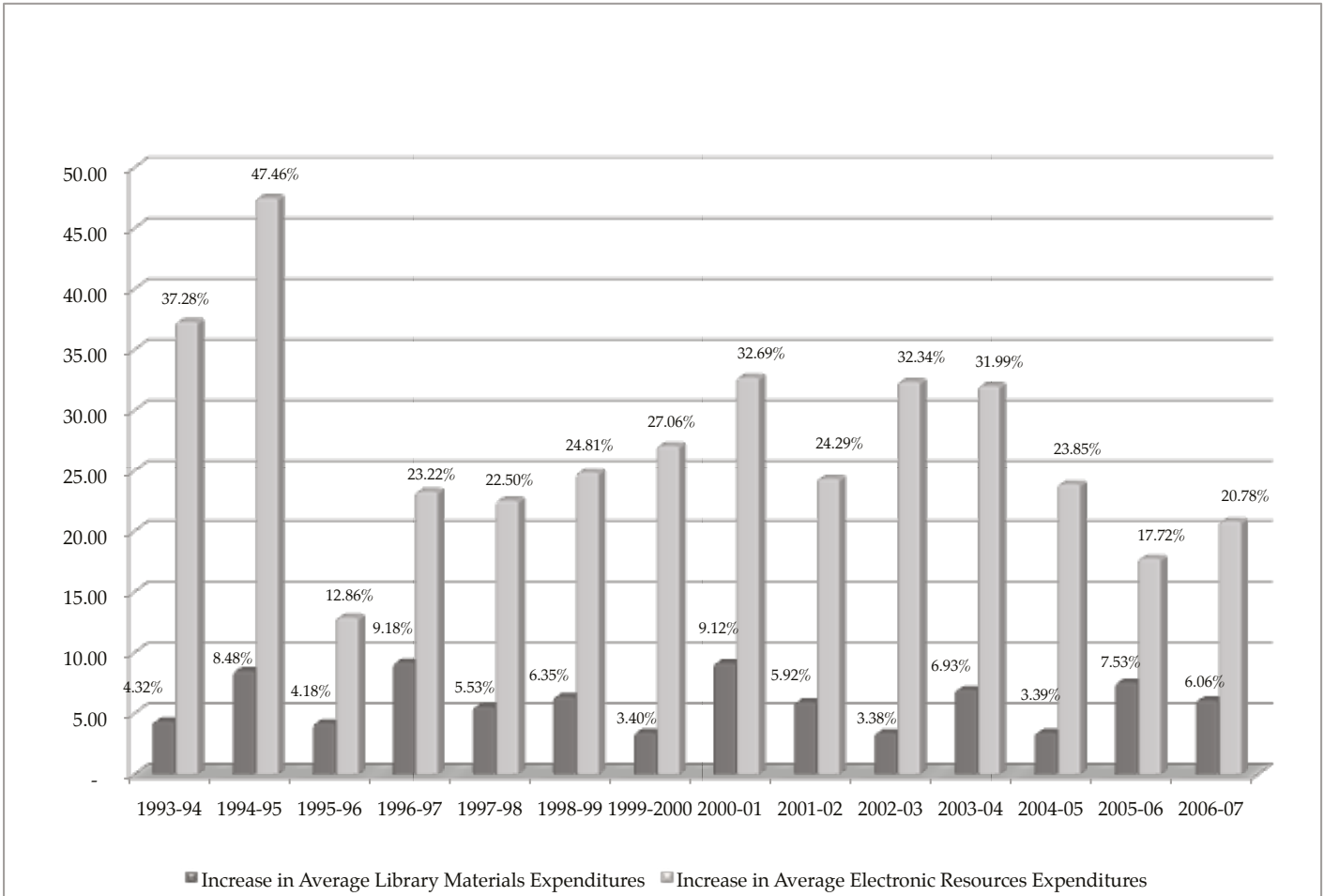


TABLE 7A

ELECTRONIC RESOURCES AND MATERIALS EXPENDITURES IN ARL UNIVERSITY LIBRARIES, 1992–2002

	1992–1993	1993–1994	1994–1995	1995–1996	1996–1997	1997–1998	1998–1999	1999–2000*	2000–2001	2001–2002*
a. Computer File Expenditures (monographic/onetime)										
Total	14,147,625	20,132,553	22,030,727	24,639,822	8,013,055	11,189,103	10,848,219	14,727,984	15,297,096	16,748,194
Average	172,532	236,854	247,536	262,126	87,098	122,957	121,890	161,846	159,345	167,482
Median	148,158	212,936	217,988	219,178	47,932	52,311	54,024	98,657	72,070	82,566
N		85	89	94	92	91	89	91	96	100
b. Electronic Serial Expenditures										
Total	N/A	N/A	11,847,577	15,170,971	40,956,696	49,497,141	67,124,554	84,343,868	117,415,618	154,418,679
Average	N/A	N/A	188,057	194,500	401,536	494,971	639,281	818,873	1,118,244	1,429,803
Median	N/A	N/A	156,754	172,805	355,922	426,722	571,790	736,317	992,067	1,272,965
N			63	78	102	100	105	103	105	108
c. Total Electronic Resources (Total a+b)										
Total	14,147,625	20,132,553	33,878,304	39,810,793	50,512,984	60,686,244	77,972,773	99,071,852	132,712,714	171,166,873
Average	172,532	236,854	349,261	394,166	485,702	594,963	742,598	943,541	1,252,007	1,556,062
Median	148,158	212,936	278,404	332,128	420,741	495,011	645,495	931,210	1,129,298	1,377,874
N	82	85	97	101	104	102	105	105	106	110
Total Library Materials Expenditures**										
Total	393,271,073	425,287,651	526,496,347	571,145,986	642,123,715	664,600,663	727,623,160	773,321,519	828,778,808	910,930,849
Average	4,795,989	5,003,384	5,427,797	5,654,911	6,174,266	6,515,692	6,929,744	7,364,967	7,818,668	8,281,189
Median	4,242,887	4,527,122	4,714,384	4,975,353	5,529,606	5,643,070	5,991,177	6,545,146	7,028,134	7,566,727
N	82	85	97	101	104	102	105	105	106	110
Electronic Resources Expenditures as a Percent of Total Materials Expenditures										
Average	3.60	4.75	6.39	6.83	7.76	8.85	10.56	12.88	16.25	19.60
Median	N/A	4.45	5.33	6.42	7.51	8.29	10.18	12.75	14.80	18.15
N	82	85	97	101	104	102	105	105	106	110
Expenditures for Bibliographic Utilities, Networks, etc. (External)										
Total	N/A	N/A	N/A	N/A	\$3,827,348	4,695,737	7,442,962	9,523,348	14,655,078	20,373,560
Average	N/A	N/A	N/A	N/A	\$136,691	142,295	201,161	250,614	311,810	424,449
Median	N/A	N/A	N/A	N/A	\$120,096	128,795	145,280	204,598	198,289	336,690
N					28	33	37	38	47	48

*In a recent review of past Supplementary Statistics data, some figures previously published in these columns were found to be incorrect and subsequently revised.

**Figures reflect Materials Expenditures only from those institutions that reported nonzero figures for Total Electronic Resources.

TABLE 7B

ELECTRONIC RESOURCES AND MATERIALS EXPENDITURES IN ARL UNIVERSITY LIBRARIES, 2002–2006

	2002–2003	2003–2004	2004–2005	2005–2006	2006–2007
a. Computer File Expenditures (monographic/onetime)					
Total	\$23,275,683	\$32,098,404	\$38,744,076	\$48,793,981	\$59,808,658
Average	\$225,978	\$314,690	\$372,539	\$478,372	\$558,959
Median	\$111,266	\$191,148	\$210,576	\$336,338	\$352,802
N	103	102	104	102	107
b. Electronic Serial Expenditures					
Total	\$205,300,292	\$269,601,241	\$328,166,027	\$383,127,163	\$476,225,086
Average	\$1,849,552	\$2,450,920	\$3,038,574	\$3,547,474	\$4,290,316
Median	\$1,649,361	\$2,348,463	\$2,824,962	\$3,349,709	\$4,240,530
N	111	110	108	108	111
c. Total Electronic Resources (Total a+b)					
Total	\$228,575,974	\$301,699,645	\$366,910,103	\$431,921,144	\$536,033,744
Average	\$2,059,243	\$2,718,015	\$3,366,147	\$3,962,579	\$4,786,016
Median	\$1,775,865	\$2,705,847	\$3,144,841	\$3,792,873	\$4,661,123
N	111	111	109	109	112
Total Library Materials Expenditures**					
Total	\$950,275,167	\$1,016,121,605	\$1,031,619,722	\$1,109,340,878	\$1,219,796,179
Average	\$8,561,038	\$9,154,249	\$9,464,401	\$10,177,439	\$10,794,656
Median	\$7,707,153	\$8,276,175	\$8,662,668	\$9,156,974	\$9,594,560
N	111	111	109	109	113
Electronic Resources Expenditures as a Percent of Total Materials Expenditures					
Average	25.02	31.33	37.46	40.93	46.55
Median	22.01	29.81	37.53	43.14	47.68
N	111	111	109	109	112
Expenditures for Bibliographic Utilities, Networks, etc. (External)+					
Total	\$21,470,716	\$17,420,520	\$16,082,790+	\$15,930,476	\$18,931,797
Average	\$438,178	\$335,010	\$349,626+	\$318,610	\$225,379
Median	\$250,000	\$94,837	\$149,396+	\$143,649	\$33,247
N	49	52	46 +	50	84

** Figures reflect Materials Expenditures only from those institutions that reported nonzero figures for Total Electronic Resources.