

TERTIARY LIBRARIES

Chapter 6 Tertiary Libraries

Data Quality Out of 29 countries data are missing for six: Romania, Greece, Switzerland, Iceland, Luxembourg and Liechtenstein. In population terms this represents a non response of 8.7 per cent.

Sector population Only 8 of the 21 initial responding countries provided estimates of 'Sector Population to be Served' (line 21). This differed substantially from the alternative Population count (UN, all aged 20 - 24). For example, Poland returned a Sector Population to be served in 1997 of 593,000 where the UN Population figure is 2,821,900. For comparing 'per capita' ratios consistency is all important, so it was decided to apply 'Staff + student' populations compiled by UNESCO for all countries. This now appears at Line 21 instead of survey response figures, and it measures performance and resources in relation to the proportion of people in the higher education/community and therefore the size of the libraries' clientele.

One feature of this decade has been the large but variable changes in the proportion of the population studying and teaching at the Tertiary level. If we wish to measure the extent of this on library services in total, then that can be done by comparing absolute resource levels at the start and end of the period or by reference to the UN Population aged 20 - 24 years figures. Generally in this commentary we concentrate on ratios relative to 'Sector Population to be Served', i.e. 'Staff + Students' - the UNESCO data at Line 21.

Between 1991 - 1998 Staff + Student totals in Tertiary education went from 11,993,000 to 15,300,000. The increase was 50.1 % for CEE states, 24.4 % in EU states, and 27.9 % overall. Therefore, other things being equal, one could expect a 27 per cent increase in library use in this sector. Insofar as resources increase by a lower percentage that would indicate economies of scale - at least on those services that do not relate to historic collections.

As a proportion of population the situation changed as follows:

Table 6.1 Tertiary Staff + Students as proportion of Population aged 20 – 24 years

	<i>1991</i>	<i>1998</i>
All States	33.1%	41.9%
CEE	20.2%	28.6%
EU	37.1%	46.4%
EFTA	19.0%	21.1%
Northern Europe	41.9%	53.9%
Central Europe	35.8%	43.8%
Southern Europe	37.1%	48.0%
Baltic States	31.9%	37.7%
Eastern Europe	19.2%	28.0%
Bulgaria	34.7%	44.6%
Czech Republic	18.4%	23.0%
Estonia	26.6%	45.3%
Hungary	17.0%	27.5%
Latvia	27.4%	35.0%
Lithuania	36.9%	36.5%
Poland	23.2%	28.2%
Romania	10.4%	23.8%
Slovak Republic	18.6%	26.2%
Slovenia	25.4%	38.3%
Austria	39.8%	47.9%
Belgium	19.2%	22.1%
Denmark	41.1%	48.6%
Ireland	33.3%	49.5%
Finland	50.1%	63.4%
France	41.7%	52.9%
Greece	42.5%	48.6%
Iceland	32.8%	42.6%
Italy	35.7%	44.3%
Liechtenstein	47.6%	47.6%
Luxembourg	36.5%	39.2%
Netherlands	41.0%	43.1%
Norway	50.6%	63.1%
Portugal	24.8%	41.4%
Spain	40.8%	54.5%
Sweden	33.7%	47.4%
Switzerland	30.3%	33.6%
UK	31.6%	44.7%
Germany	35.8%	39.8%

Administrative Units: There has been an increase of 16.5 % in CEE States, most notably in Bulgaria, the Czech and Slovak Republics, and Estonia. In the EU there is no change overall. Norway reports 21 per cent fewer. While, most typically, increases in Staff + Students mean more institutions, there is in a few places a trend towards amalgamation and reduced total numbers. The large number of units in Italy (1,600 falling to 1,500) stands out as quite untypical.

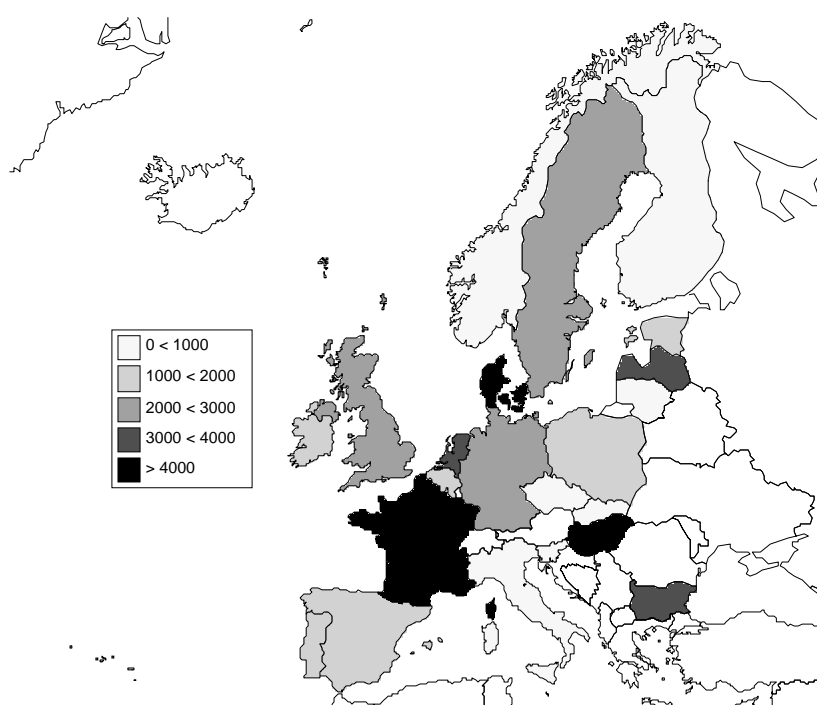
Respondents: Clearly in some countries this question has been misunderstood – with some replies showing more respondents than Administrative Units. The question was designed to elicit information on the extent to which library administrations within each country contributed statistics to their national sector compilation. Where correctly interpreted it is clear that there has been progress in the UK - a substantial increase from 57 % to 90 % - while most countries achieve 100 per cent response.

Service Points Overall there has been no change. Decreases in Czech Republic and Finland appear to be associated with rationalisation since their population per service point is still below average. More service points in Hungary and in France appear to be well justified as their population per service point is exceedingly high.

Table 6.2 Population per Service Point = [Line 21 ÷ Line 3]

Tertiary		1991	1992	1993	1994	1995	1996	1997	1998
1-31	All States	1,199	1,272	1,302	1,459	1,502	1,508	1,532	1,508
1-10	CEE	492	532	529	610	673	712	803	783
11-31 ex EFTA	EU	1,631	1,724	1,784	2,002	2,021	1,999	1,960	1,934
19,21,24,28	EFTA	273	291	292	296	310	298	296	296
13,16,19,24,27	Northern Europe	811	906	973	1,233	1,373	1,304	1,289	1,288
Rest	Central Europe	2,362	2,483	2,513	2,761	2,825	2,734	2,642	2,686
18,20,25,26	Southern Europe	1,003	1,054	1,126	1,228	1,212	1,236	1,224	1,177
3,5,6	Baltic States	2,000	1,705	1,510	1,319	1,178	1,364	1,561	1,296
1,2,4,7-10	Eastern Europe	447	495	496	583	651	683	767	754
1	Bulgaria	3,786	3,116	2,679	2,522	2,656	2,968	3,141	3,141
2	Czech Republic	121	127	120	172	185	214	240	246
3	Estonia	1,037	1,037	1,037	800	771	1,257	1,455	1,297
4	Hungary	4,138	4,310	4,655	5,621	6,517	6,114	6,114	6,114
5	Latvia	5,000	4,800	3,067	2,688	2,471	3,200	3,813	3,813
6	Lithuania	1,923	1,483	1,339	1,262	1,078	1,073	1,169	915
7	Poland	1,174	1,174	1,408	1,659	1,645	1,638	1,558	1,558
8	Romania	...	...	...	...	...	...	...	...
9	Slovak Republic	131	128	128	146	170	194	214	197
10	Slovenia	537	603	618	632	697	773	809	775
11	Austria	...	...	...	...	...	...	...	...
12	Belgium	1,261	1,303	1,347	1,358	1,400	1,441	1,470	1,470
13	Denmark	3,167	3,383	3,183	3,533	3,944	3,789	3,977	4,286
15	Ireland	1,129	1,507	1,568	1,703	1,757	1,851	1,851	1,851
16	Finland	381	431	459	712	843	787	737	749
17	France	7,802	8,146	7,186	7,339	7,087	6,864	6,805	6,841
18	Greece	...	...	...	...	...	...	...	...
19	Iceland	...	...	...	...	...	...	...	...
20	Italy	838	883	930	1,026	984	981	963	926
21	Liechtenstein	...	...	...	...	...	...	...	...
22	Luxembourg	...	...	...	...	...	...	...	...
23	Netherlands	2,227	2,908	3,440	3,724	3,484	3,600	3,857	3,857
24	Norway	724	795	852	864	916	884	889	894
25	Portugal	833	890	1,112	1,271	1,392	1,401	1,444	1,144
26	Spain	1,185	1,262	1,328	1,426	1,463	1,503	1,503	1,503
27	Sweden	1,752	1,888	2,327	2,394	2,486	2,496	2,496	2,317
28	Switzerland	...	...	...	...	...	...	...	...
29	UK	2,444	2,543	2,656	2,634	2,787	2,653	2,513	2,481
31	Germany	1,912	1,859	1,762	2,246	2,321	2,218	2,071	2,172

Map 6.2 Population per Service Point = [Line 21 ÷ Line 3]



This process of rationalisation - or more fully exploiting existing resources, or economies of scale - is to be seen more generally in the table **Population per Service Point**. In most countries the average population served by each service point is appreciably higher in 1997 than in 1991. The average increase was 59 % for the CEE, 19 % for the EU, and 26% overall.

However, the figures show substantial variation in the clientele of the average service point. The typical coverage lies between 2,000 - 3,000 for large countries and 1,000 - 2,000 for small. One would expect small countries to show low returns and large countries high returns, so it is instructive to look at some outliers. In this feature there is unusual diversity within the Eastern Europe group and within the Scandinavian group.

Outliers:- Particularly high figures (pointing to large centralised provision) come from France, Hungary, the Netherlands and Latvia. Very low figures come from the Czech and Slovak Republics and from Finland.

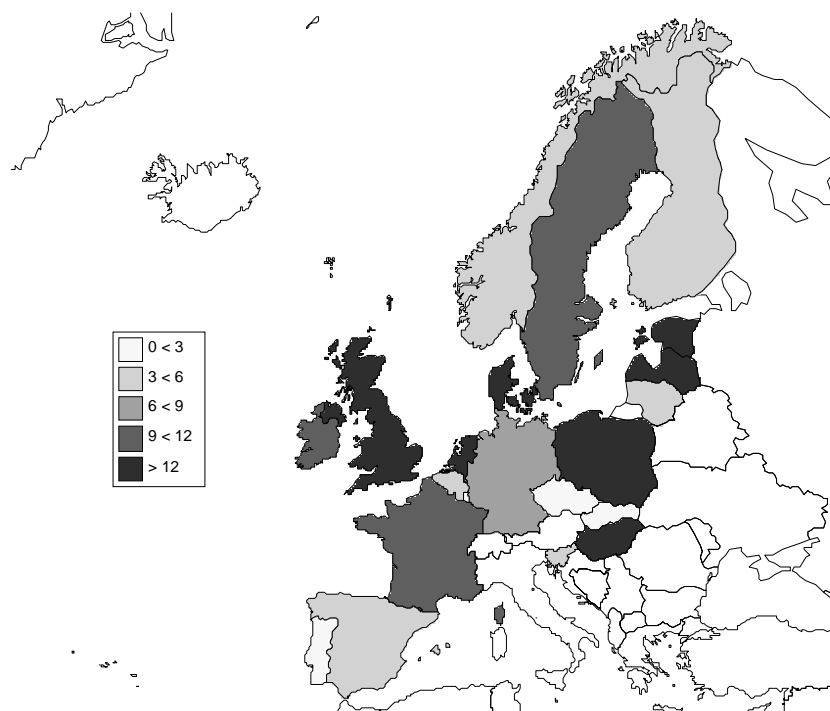
Recommendation:- Some countries are already moving towards fewer small service points. Other countries with results below 2000 should question whether it is economic to have so many service points - which may be dictated more by academic convention than by considerations of library efficiency. There is obvious potential for benchmarking studies (A) among Eastern European and (B) among Scandinavian countries.

As expected this pattern is also seen in **Staff per Service Point** figures where the mid range can be seen to lie between, say, 8 - 17. Libraries with results outside this range could well query their operations.

Table 6.3 Staff per Service Point = [Line 24 ÷ Line 3]

Tertiary		1991	1992	1993	1994	1995	1996	1997	1998
1-31	All States	5	5	5	5	5	5	6	6
1-10	CEE	4	4	3	3	4	4	5	5
11-31	ex EFTA	6	6	6	6	6	7	6	7
19,21,24,28	EFTA	3	3	4	4	4	4	4	4
13,16,19,24,27	Northern Europe	4	5	5	6	7	6	6	6
Rest	Central Europe	10	10	10	10	10	10	10	11
18,20,25,26	Southern Europe	3	3	3	3	3	3	3	3
3,5,6	Baltic States	18	17	15	14	12	11	11	9
1,2,4,7-10	Eastern Europe	3	3	3	3	3	3	5	5
1	Bulgaria	...	...	...	...	...	...	...	...
2	Czech Republic	0	1	1	1	1	1	1	1
3	Estonia	20	20	20	16	15	14	15	13
4	Hungary	32	32	32	32	30	24	27	27
5	Latvia	43	40	26	25	23	24	20	21
6	Lithuania	13	11	10	10	8	8	8	6
7	Poland	8	8	8	8	8	8	13	13
8	Romania	...	...	...	...	...	...	...	...
9	Slovak Republic	1	1	1	1	1	1	1	1
10	Slovenia	4	4	5	5	5	5	5	5
11	Austria	...	...	...	...	...	...	...	...
12	Belgium	6	6	6	6	6	6	6	6
13	Denmark	17	17	15	16	19	19	20	21
15	Ireland	9	11	11	11	11	10	10	10
16	Finland	2	2	2	3	4	4	3	4
17	France	14	14	12	12	11	11	12	12
18	Greece	...	...	...	...	...	...	...	...
19	Iceland	...	...	...	...	...	...	...	...
20	Italy	...	...	...	...	...	...	...	...
21	Liechtenstein	...	...	...	...	...	...	...	...
22	Luxembourg	...	...	...	...	...	...	...	...
23	Netherlands	8	10	12	12	12	12	13	13
24	Norway	3	3	4	4	4	4	4	4
25	Portugal	4	4	4	4	4	5	5	3
26	Spain	4	4	4	4	4	4	4	4
27	Sweden	11	11	12	12	12	12	13	12
28	Switzerland	...	...	...	...	...	...	...	...
29	UK	16	16	15	15	15	15	14	17
31	Germany	8	8	8	8	9	9	8	8

Map 6.3 Staff per Service Point = [Line 24 ÷ Line 3]



In theory this ratio must also be affected by changes in the numbers of staff employed: In practice there is less change over the period in staff numbers, though increased staff numbers are part of the story - particularly in the Czech and Slovak Republics, Slovenia, Austria, Denmark and Norway.

This pattern is reflected also in the ratios **Volumes per Service Point** and **Transactions per Service Point**. Situations should certainly be queried by library managers where results are below 20,000 for Volumes and 10,000 for Transactions. The more average results should be useful in benchmarking optimum service point provision in different situations.

Books

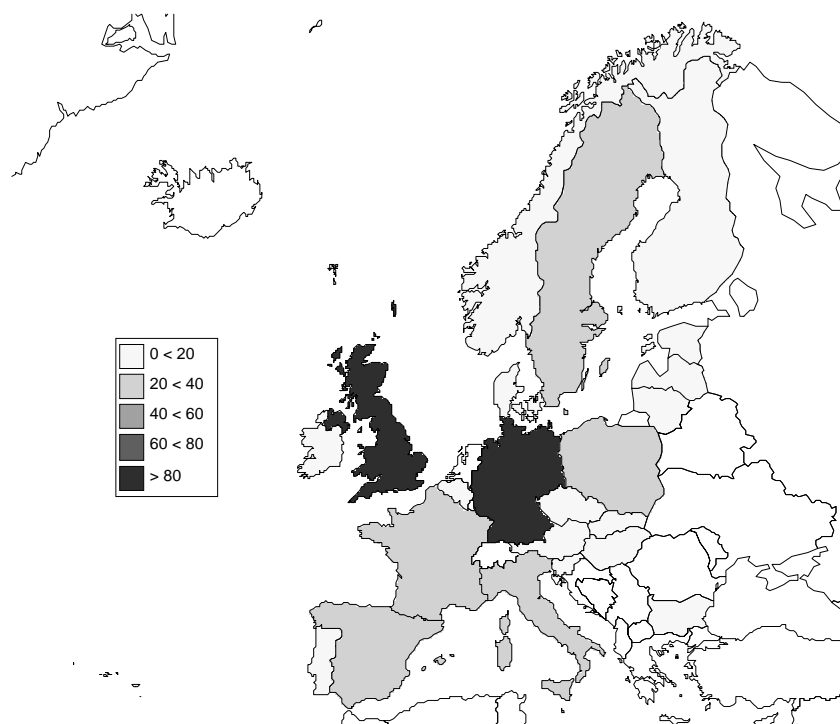
Despite the much publicised pressures from periodical price increases and from reduced budgets there is no country showing a decrease in Book stock and the eight year increase overall is estimated at 18 per cent.

Table 6.4 Books & Bound Periodicals = [Line 4] (Millions)

Tertiary		1991	1992	1993	1994	1995	1996	1997	1998
1-31	All States	504.0	512.8	525.6	537.8	553.5	566.9	584.4	595.7
1-10	CEE	117.1	118.0	117.7	120.0	121.3	119.9	123.1	124.2
11-31	ex EFTA	363.4	371.1	382.8	392.0	405.2	418.9	432.9	442.0
19,21,24,28	EFTA	23.5	23.7	25.1	25.9	27.0	28.1	28.4	29.5
13,16,19,24,27	Northern Europe	48.9	49.9	51.7	51.0	53.1	55.2	56.9	59.8
Rest	Central Europe	273.1	277.7	286.6	293.5	302.1	311.4	321.3	328.6
18,20,25,26	Southern Europe	64.9	67.2	69.6	73.4	77.1	80.3	83.1	83.1
3,5,6	Baltic States	22.3	22.4	22.5	23.2	23.3	23.6	23.3	23.5
1,2,4,7-10	Eastern Europe	94.7	95.6	95.1	96.8	98.0	96.3	99.8	100.7
1	Bulgaria	7.2	7.5	7.5	7.9	8.2	8.3	8.3	8.3
2	Czech Republic	9.6	9.5	8.6	8.9	8.6	9.9	10.4	10.9
3	Estonia	4.7	4.7	4.8	5.5	5.4	5.5	5.3	5.4
4	Hungary	12.5	12.4	12.8	12.9	12.9	9.9	10.0	10.0
5	Latvia	7.0	7.1	7.1	7.0	6.9	6.9	5.9	6.1
6	Lithuania	10.5	10.6	10.6	10.7	11.0	11.3	12.0	12.0
7	Poland	28.5	29.3	29.6	30.2	31.3	31.5	33.5	33.5
8	Romania	...	...	...	...	...	...	...	...
9	Slovak Republic	4.9	4.5	4.7	4.6	4.6	4.5	4.6	4.6
10	Slovenia	2.8	2.9	3.0	3.0	3.1	3.1	3.1	3.3
11	Austria	15.4	16.0	16.5	17.0	16.6	17.1	17.6	17.6
12	Belgium	16.5	16.7	17.1	17.4	17.7	17.9	18.3	18.3
13	Denmark	7.9	8.1	8.7	8.8	9.1	9.3	9.4	9.2
15	Ireland	8.5	8.8	9.0	8.8	8.6	8.3	8.5	8.5
16	Finland	12.7	13.0	13.0	12.2	13.0	13.5	13.8	13.9
17	France	20.6	21.2	22.3	21.7	22.3	23.4	24.3	24.3
18	Greece	...	...	...	...	...	...	...	...
19	Iceland	...	...	...	...	...	...	...	...
20	Italy	28.7	30.2	31.8	35.1	36.1	36.6	39.4	38.9
21	Liechtenstein	...	...	...	...	...	...	...	...
22	Luxembourg	...	...	...	...	...	...	...	...
23	Netherlands	...	...	...	...	...	...	...	...
24	Norway	8.8	8.9	9.4	9.7	10.2	10.6	10.7	11.2
25	Portugal	4.8	5.6	6.3	6.5	7.4	8.3	8.1	8.3
26	Spain	22.1	21.9	21.7	21.8	23.3	24.7	24.6	24.6
27	Sweden	19.0	19.4	20.1	19.7	20.2	21.2	22.4	24.9
28	Switzerland	...	...	...	...	...	...	...	...
29	UK	76.4	76.9	78.6	80.1	84.0	85.3	90.5	94.8
31	Germany	119.7	122.1	126.1	131.1	134.9	140.7	143.1	145.6

Netherlands – No response pending investigation

Map 6.4 Books & Bound Periodicals = [Line 4] (Millions)



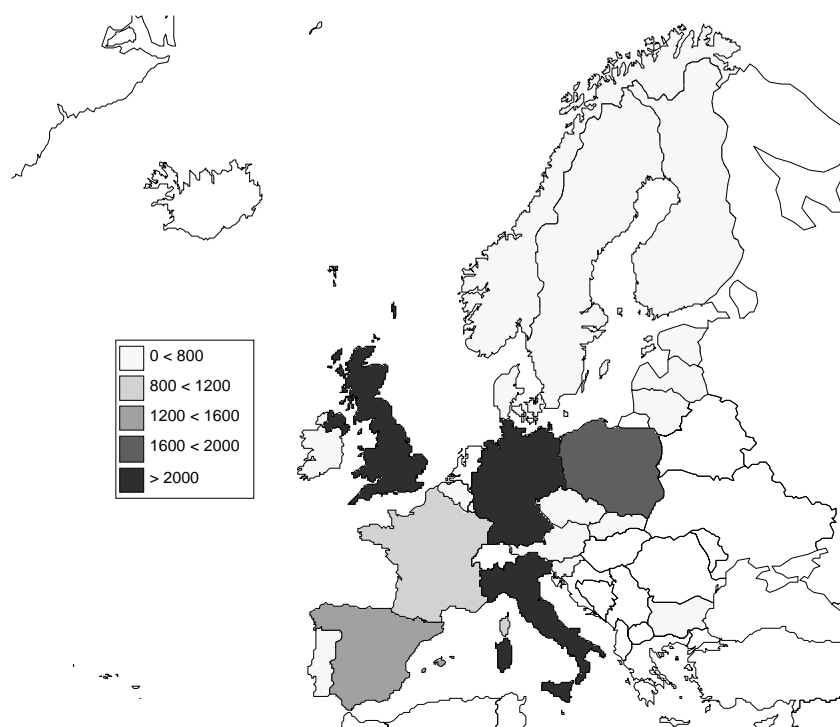
Annual **Book Acquisitions** have increased by 13 per cent. This indicates either (a) that replacement of books by electronic information was not apparent by 1998 or (b) that the requirement from increased numbers of users was an even more powerful influence.

Here the experience of different countries shows more 'random' variation from year to year so that percentage figures can sometimes be misleading in showing the trend. Consistent and large increases are reported from France (93 %) and Sweden (80 %). The UK increased by 20 %. Decreases are reported from Finland (7 %), Bulgaria (39 %), Lithuania (23 % for 1998, 46 % in 1997) and Latvia (13 %). Elsewhere the country trends are unclear - with large isolated increases in particular years: these could be due either to one off policy decisions to boost stocks, to accounting problems over year ends, or to the effect of budget crises.

Table 6.5 Books & Bound Periodicals Additions = [Line 11] (000s)

Tertiary		1991	1992	1993	1994	1995	1996	1997	1998
1-31	All States	18,178	18,473	18,646	20,166	20,119	19,942	20,427	20,519
1-10	CEE	3,713	3,563	3,626	3,585	3,562	3,460	4,030	4,210
11-31 ex EFTA	EU	13,694	14,088	14,123	15,657	15,718	15,565	15,509	15,413
19,21,24,28	EFTA	771	822	897	924	839	917	888	896
13,16,19,24,27	Northern Europe	1,295	1,300	1,294	1,244	1,305	1,460	1,548	1,596
Rest	Central Europe	8,841	9,156	9,164	10,491	10,477	10,295	9,975	10,016
18,20,25,26	Southern Europe	4,329	4,455	4,562	4,846	4,776	4,727	4,874	4,697
3,5,6	Baltic States	480	468	438	407	321	320	325	397
1,2,4,7-10	Eastern Europe	3,233	3,095	3,188	3,178	3,241	3,139	3,705	3,813
1	Bulgaria	170	159	154	146	199	149	103	103
2	Czech Republic	247	214	206	209	216	184	215	246
3	Estonia	105	105	131	97	88	89	94	99
4	Hungary	...	...	...	...	...	...	...	...
5	Latvia	91	92	92	91	90	89	77	79
6	Lithuania	284	271	216	219	143	143	154	220
7	Poland	1,333	1,291	1,385	1,396	1,408	1,438	1,843	1,843
8	Romania	...	...	...	...	...	...	...	...
9	Slovak Republic	113	116	120	124	125	109	91	95
10	Slovenia	82	87	83	90	95	95	98	110
11	Austria	433	452	451	497	489	456	457	457
12	Belgium	259	280	282	296	324	331	393	393
13	Denmark	206	210	212	218	246	242	246	242
15	Ireland	213	222	231	230	239	250	261	261
16	Finland	471	465	431	373	415	444	443	436
17	France	538	663	786	839	884	1,026	1,041	1,041
18	Greece	...	...	...	...	...	...	...	...
19	Iceland	...	...	...	...	...	...	...	...
20	Italy	2,262	2,385	2,511	2,771	2,804	2,778	2,761	2,778
21	Liechtenstein	...	...	...	...	...	...	...	...
22	Luxembourg	...	...	...	...	...	...	...	...
23	Netherlands	...	...	...	...	...	...	...	...
24	Norway	289	308	337	348	316	346	335	339
25	Portugal	202	207	201	211	223	322	488	296
26	Spain	1,514	1,502	1,489	1,463	1,346	1,228	1,228	1,228
27	Sweden	312	298	294	285	309	408	503	560
28	Switzerland	...	...	...	...	...	...	...	...
29	UK	2,421	2,473	2,412	3,170	3,058	2,979	2,836	2,906
31	Germany	3,888	3,928	3,818	4,190	4,262	3,992	3,748	3,718

Map 6.5 Books & Bound Periodicals Additions = [Line 11] (000s)

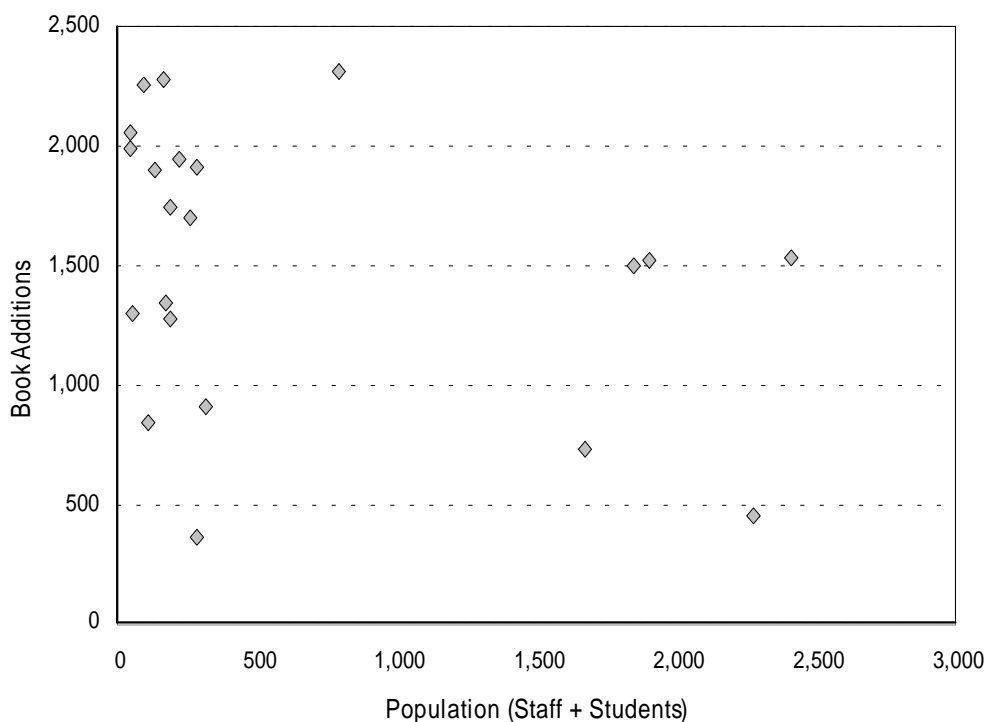


When we look at **Book Acquisitions per capita** we find an overall decrease of 6 per cent - showing that the increase in student numbers (28 per cent) has overwhelmed the 13 per cent increase in book acquisitions. This is not necessarily unhealthy: there are economies to be expected in lending books to a larger body of students.

The typical country ratios fall in the range 1500 - 2000 per 1000 throughout the period, and the results appear to show more homogeneity than do other features. This is illustrated by the Scattergraph *Fig 6.1* These data suggest a realistic target of 2 books per head - above the average but frequently achieved. However there are a number of countries falling significantly below this level and these are not explained by country size. Here the CEE performance is much higher than the EU - as it was in Book stock per capita.

The very low result for France goes along with an encouraging increase since 1991, whereas the below average results from Bulgaria and Spain are accompanied by marked declines.

Figure 6.1 Books Additions per 1,000 Staff + Students = [Line 11 ÷ Line 21] against [Line 21]



Current Periodicals

Interpreting the data is difficult: usually countries provided data for either Titles or Subscriptions. 20 out of 29 states provided data for one line or for both (an 81 % response in population terms, with Spain and Romania the largest non contributors). In Belgium donations have not been counted as subscriptions - and these can be substantial. Future surveys need to make it clear that titles donated should be included. Estonia and the Netherlands provided data for both tables - with Subscriptions higher than Titles - in the case of the Netherlands unrealistically so. Poland, Lithuania and Slovak Republic report little difference between Titles and Subscriptions.

The survey questions need to be clarified and there is then a strong case to consolidate the results into one table, and this is recommended in Chapter 10 below. Because of these technical problems it is more instructive to look at results by country than to rely on the grossed up totals.

Trend. Amalgamating responses for this purpose we find only an 8 per cent increase between 1991 - 1998.

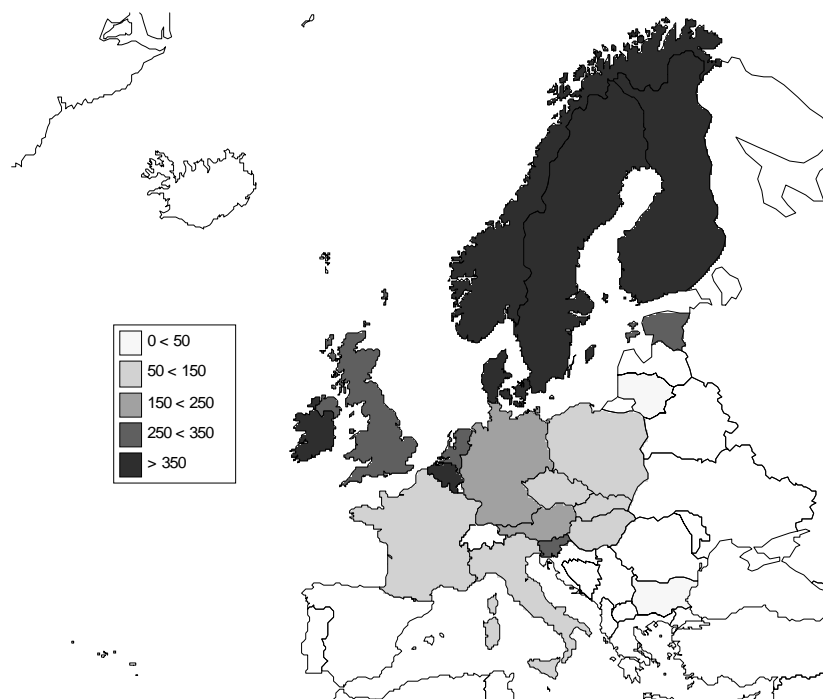
There were substantial increases in France throughout the period and in the UK until 1995. Some states report marked decreases: Bulgaria, Hungary and Finland.

Provision relative to user population The contrasts between generous and straightened provision are greater here than for Books and for Staff. Broadly the smaller and less developed (economically) countries show very low provision. This is illustrated in Table 6.6 which, for 1998 only, consolidates data reported as Titles and/or Subscriptions.

Table 6.6 Current Periodicals per 1,000 Staff + Students = [Line 6 (adjusted by Line 5) ÷ Line 21]

Bulgaria	35
Czech Republic	114
Estonia	324
Hungary	107
Latvia	...
Lithuania	46
Poland	149
Romania	...
Slovak Republic	77
Slovenia	263
Austria	229
Belgium	390
Denmark	476
Ireland	445
Finland	520
France	65
Greece	...
Iceland	...
Italy	130
Liechtenstein	...
Luxembourg	...
Netherlands	293
Norway	413
Portugal	...
Spain	...
Sweden	482
Switzerland	...
UK	309
Germany	191

Map 6.6 Current Periodicals per 1,000 Staff + Students = [Line 6 (adjusted by Line 5) ÷ Line 21]



The figure for France is low and is not increasing. This may partly reflect provision of fewer and larger academic libraries in France.

The results for Eastern Europe are a long way below average. Furthermore, provision has declined markedly in every country except Poland since 1991. In a decade where science and technology are becoming increasingly vital to countries' development this situation must give rise to serious concern. Further study is **recommended with some urgency**. This would include investigation into: (a) how far the position is mitigated by provision through national and special libraries in these countries and (b) how far provision of networked electronic journal information has been, and can be, developed to ensure that small countries are not disadvantaged in the availability of journals essential to scientific and technological activity. On the face of it these results suggest the academic gap between the scientifically advanced countries and the rest may be getting wider.

Audio-visual Materials

These continue to be stocked and bought at a much lower level than print materials. The volume of Audio-visual is but one fortieth of Book stock and Additions about 4 per cent.

In the 12 countries reporting some show dramatic increases in Additions at the end of the decade: UK, Germany, Slovenia, Lithuania. There are significant decreases in Finland and Portugal. The increase in overall totals is concentrated in 1997 and 1998 and is almost entirely due to a huge jump in the UK estimate - which is explained by a change in methodology to include a count of individual slides rather than sets. There is also a jump in 1998 for Denmark.

Table 6.7 Audio Visual Materials Additions per 1,000 Staff + Students = [Line 12 ÷ Line 21]

Tertiary		1991	1992	1993	1994	1995	1996	1997	1998
1-31	All States	51	45	43	41	37	43	51	55
1-10	CEE	33	31	31	29	26	29	28	24
11-31 ex EFTA	EU	53	47	45	42	38	45	55	59
19,21,24,28	EFTA	87	79	77	76	72	83	100	107
13,16,19,24,27	Northern Europe	92	76	67	54	55	60	58	71
Rest	Central Europe	52	46	46	44	40	48	62	67
18,20,25,26	Southern Europe	47	43	39	37	34	37	43	45
3,5,6	Baltic States	7	10	10	15	17	18	19	18
1,2,4,7-10	Eastern Europe	37	34	33	30	27	30	29	25
1	Bulgaria	7	7	8	3	7	2	2	2
2	Czech Republic	31	23	23	16	16	13	10	11
3	Estonia	4	7	13	31	47	36	48	38
4	Hungary	...	...	...	...	...	...	...	...
5	Latvia	...	...	...	...	...	...	...	...
6	Lithuania	0	2	1	1	1	2	1	7
7	Poland	26	25	20	17	18	18	18	18
8	Romania	...	...	...	...	...	...	...	...
9	Slovak Republic	...	...	...	...	...	...	...	...
10	Slovenia	250	260	269	325	257	349	345	249
11	Austria	...	...	...	...	...	...	...	...
12	Belgium	...	...	...	...	...	...	...	...
13	Denmark	153	130	101	106	117	117	106	169
15	Ireland	...	...	...	...	...	...	...	...
16	Finland	130	103	100	46	52	63	47	41
17	France	...	...	...	...	...	...	...	...
18	Greece	...	...	...	...	...	...	...	...
19	Iceland	...	...	...	...	...	...	...	...
20	Italy	...	...	...	...	...	...	...	...
21	Liechtenstein	...	...	...	...	...	...	...	...
22	Luxembourg	...	...	...	...	...	...	...	...
23	Netherlands	...	...	...	...	...	...	...	...
24	Norway	...	...	...	...	...	...	...	...
25	Portugal	80	77	49	42	21	29	31	20
26	Spain	34	32	30	28	28	27	27	27
27	Sweden	...	...	...	...	...	...	...	...
28	Switzerland	...	...	...	...	...	...	...	...
29	UK	89	83	78	77	71	71	126	131
31	Germany	31	23	27	26	18	34	22	29

Other materials

The Database tables show substantial and increasing quantities of Manuscripts and Microforms in stock.

CD-ROMs

Only eight states responded: others may keep these statistics under Audio-visual. As in other sectors the statistics show increases rising at an exponential rate. Some might describe this as the decade of the CD ROM.

Table 6.8 CD-Roms = [Line 10]

Tertiary		1991	1992	1993	1994	1995	1996	1997	1998
<i>1-31</i>	All States	53,467	81,747	113,534	153,809	204,831	284,506	328,193	400,263
<i>1-10</i>	CEE	37,532	37,756	40,046	40,955	45,670	61,663	59,427	61,742
<i>11-31 ex EFTA</i>	EU	13,932	40,053	67,368	103,719	147,396	205,749	248,632	313,998
<i>19,21,24,28</i>	EFTA	2,003	3,938	6,120	9,135	11,765	17,094	20,134	24,523
13,16,19,24,27	Northern Europe	2,886	12,111	15,244	20,416	21,004	29,106	35,969	51,892
Rest	Central Europe	9,143	21,304	38,925	58,026	79,599	106,436	129,670	169,022
18,20,25,26	Southern Europe	3,906	10,576	19,319	34,412	58,558	87,301	103,127	117,607
3,5,6	Baltic States	176	289	402	671	1,219	3,971	3,491	4,160
1,2,4,7-10	Eastern Europe	37,356	37,467	39,644	40,284	44,451	57,692	55,936	57,582
1	Bulgaria	...	...	...	...	...	...	...	...
2	Czech Republic	...	...	...	...	...	...	...	...
3	Estonia	0	100	200	400	900	2,482	1,766	2,282
4	Hungary	...	...	...	...	...	...	...	...
5	Latvia	...	...	...	...	...	...	...	...
6	Lithuania	0	13	14	80	107	1,204	1,456	1,600
7	Poland	6,869	6,901	6,992	7,128	7,656	8,223	9,296	9,296
8	Romania	...	...	...	...	...	...	...	...
9	Slovak Republic	...	...	...	...	...	...	...	...
10	Slovenia	in 9	in 9	in 9	in 9	in 9	in 9	in 9	in 9
11	Austria	...	...	...	...	...	...	...	...
12	Belgium	180	240	310	420	480	730	860	860
13	Denmark	871	7,080	7,000	8,000	4,000	5,000	7,000	15,764
15	Ireland	...	...	...	...	...	...	...	...
16	Finland	...	...	...	...	...	...	...	...
17	France	...	...	...	...	...	...	...	...
18	Greece	...	...	...	...	...	...	...	...
19	Iceland	...	...	...	...	...	...	...	...
20	Italy	0	2,000	3,000	7,000	10,396	16,623	26,545	37,000
21	Liechtenstein	...	...	...	...	...	...	...	...
22	Luxembourg	...	...	...	...	...	...	...	...
23	Netherlands	...	...	...	...	...	...	...	...
24	Norway	...	...	...	...	...	...	...	...
25	Portugal	...	...	...	...	...	...	...	...
26	Spain	3,000	6,000	12,000	20,883	39,000	57,812	61,000	61,000
27	Sweden	...	...	...	...	...	...	...	...
28	Switzerland	...	...	...	...	...	...	...	...
29	UK	4,000	8,000	17,000	25,000	34,000	42,000	52,000	72,000
31	Germany	...	...	...	...	...	...	...	...

Access

There were only six responses on the **Percentage of Stock on Open Access**. Hopefully this statistic will become more common - as and when countries produce careful estimates from one off surveys. The few replies to be found at Line 13 indicate that what is typically taken for granted in Western Europe is not the case in the CEE - where the percentages are very low.

Even more important is the **Percentage of Catalogue Records Automated**. With only five responses clearly this measure is not commonly collected at the national level as part of conventional library statistics. It is not difficult to estimate - but it is more difficult to accumulate into a national total. States should be encouraged to produce informed estimates even if based on one off special surveys. The data for the five countries at Line 14 again points to CEE states being substantially behind norms in Western Europe, although progress recorded in Slovenia and Poland since 1992 is most encouraging.

Workstations for users Again the response was disappointing - six states only. This is most likely due to the novelty of the question relative to existing statistical series, rather than to paucity of provision. The responses received - as well as received opinion in the profession - point to greatly increased use of computer facilities by students in the library. Future surveys, provided national agencies include this item, should show how far the very large numbers estimated for the UK are typical of Europe as a whole or are exceptional. A special benchmarking exercise on this topic could be fruitful; this count avoids the complexities of measuring electronic use in detail.

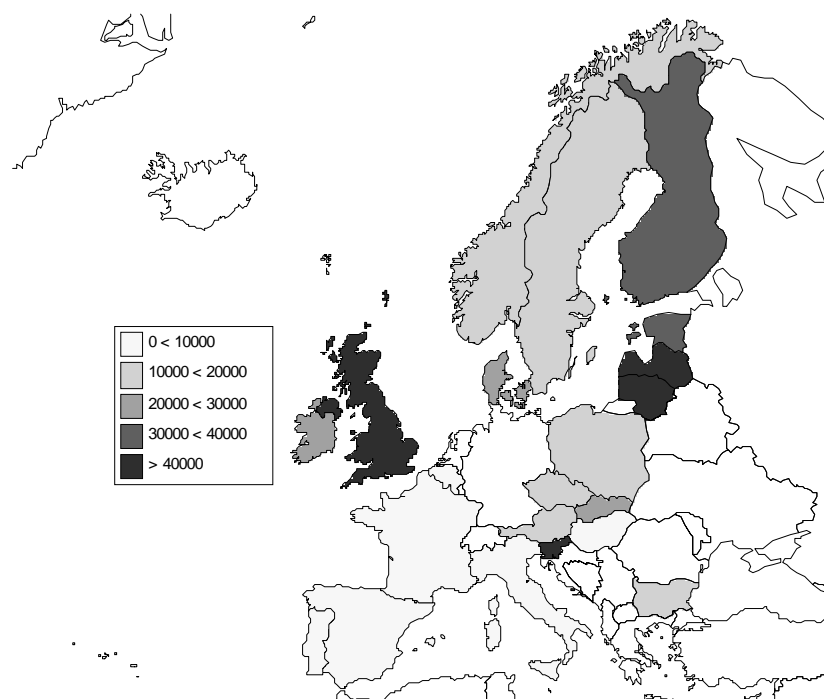
Use and users

Loan transactions The increase since 1991 is 66 per cent - or, on a per capita basis, 30 per cent. On average there are now 17 annual transactions per user. This points to a very strong performance by libraries in the Tertiary sector and to increased demand being satisfied.

Table 6.9 Transactions per Staff + Students = [Line 17 ÷ Line 21]

Tertiary		1991	1992	1993	1994	1995	1996	1997	1998
1-31	All States	12.8	12.5	13.3	13.4	13.9	14.8	16.0	16.6
1-10	CEE	23.7	21.9	22.4	20.7	18.3	20.2	21.2	21.9
11-31 ex EFTA	EU	10.9	10.8	11.6	11.9	12.7	13.5	14.7	15.3
19,21,24,28	EFTA	29.5	30.2	33.7	37.1	43.6	47.1	46.6	47.2
13,16,19,24,27	Northern Europe	13.6	14.8	16.0	17.1	18.7	19.7	22.4	23.3
Rest	Central Europe	14.1	13.9	15.4	15.7	16.8	17.8	19.1	19.9
18,20,25,26	Southern Europe	4.9	4.8	4.7	4.7	5.1	5.5	6.1	6.1
3,5,6	Baltic States	65.3	67.1	66.6	70.4	56.2	53.7	51.5	55.9
1,2,4,7-10	Eastern Europe	18.3	17.0	17.9	16.4	15.3	17.2	18.2	18.6
1	Bulgaria	14.9	15.1	16.0	18.0	16.3	16.6	18.3	18.3
2	Czech Republic	11.8	12.1	12.5	7.7	8.2	10.4	11.0	10.6
3	Estonia	112.9	112.7	115.7	140.1	79.7	50.7	38.1	34.4
4	Hungary	9.0	8.6	8.9	8.6	7.9	7.3	8.4	8.4
5	Latvia	82.3	73.4	74.7	74.3	76.0	67.0	49.2	50.0
6	Lithuania	43.5	48.8	45.6	44.6	38.5	48.0	59.5	70.2
7	Poland	10.7	11.6	11.3	10.1	11.4	13.2	14.6	14.6
8	Romania	...	...	...	...	...	...	...	...
9	Slovak Republic	29.3	28.0	29.8	26.2	25.1	22.5	22.3	22.3
10	Slovenia	44.2	39.5	46.1	52.0	48.2	52.1	56.8	64.8
11	Austria	8.1	7.5	7.9	7.9	7.9	11.8	13.6	13.5
12	Belgium	6.7	6.9	6.7	7.2	7.5	7.5	7.5	7.5
13	Denmark	15.8	17.1	19.3	19.1	20.1	21.5	23.8	26.6
15	Ireland	22.8	22.1	23.2	22.5	22.6	21.9	22.3	22.3
16	Finland	17.1	19.3	20.3	23.0	25.4	26.5	33.0	34.1
17	France	3.8	4.0	4.4	4.5	4.9	5.2	5.4	5.4
18	Greece	...	...	...	...	...	...	...	...
19	Iceland	...	...	...	...	...	...	...	...
20	Italy	1.0	1.2	1.4	1.6	1.7	2.0	3.2	3.0
21	Liechtenstein	...	...	...	...	...	...	...	...
22	Luxembourg	...	...	...	...	...	...	...	...
23	Netherlands	...	...	...	...	...	...	...	...
24	Norway	11.1	11.0	11.6	12.7	14.8	16.0	15.6	15.7
25	Portugal	4.0	4.0	2.9	3.3	3.2	3.1	3.8	4.5
26	Spain	8.6	8.0	7.5	7.2	7.8	8.3	8.2	8.2
27	Sweden	10.6	12.1	13.4	14.1	15.0	15.2	18.0	18.2
28	Switzerland	...	...	...	...	...	...	...	...
29	UK	34.8	31.9	32.9	35.6	35.2	36.7	39.3	41.7
31	Germany	...	...	...	...	...	...	...	...

Map 6.9 Transactions per 1,000 Staff + Students = [Line 17 ÷ Line 21 * 1,000]



Technically there are various factors which have to be recognised that are problems in comparisons between countries. Where there are large 'short loan' or 'student reserve' collections this can artificially boost the count; where there is much 'in house use' of material, this use can be unrecorded so that the count is depressed. These significant limitations have to be kept in mind when analysing the data.

There should nonetheless be concern at levels of activity that are well below average in Portugal, France, Belgium, Spain and Hungary. There is, however, a healthy rate of increase in the French figures and an increase, on a more modest scale, in the Belgian data.

Elsewhere rates of increase are general - except in Czech Republic, Slovak Republic, and Ireland. (Estonia's fall still leaves it in the top layer.)

Visits Many fewer states responded. In general the Visit count is higher than Transactions - but the reverse is found in Bulgaria, Estonia and Slovenia. The most marked differences occur in Belgium and in France where very much higher Visit figures contrast with the low Transactions noticed in the preceding section. This may point to a high use 'on the premises' in France and Belgium and to low 'loans out'.

Staff

If we discount the sudden huge increase in Poland in 1997 (71%) and a reclassification that took place in Finland in 1994, then the returns show a steady growth of about 3 per cent per annum in Trained Librarians and 2 per cent in Total Staff. The increase is fairly well spread, and there are signs of more movement in some of the 1997 and 1998 returns.

As was noted in the analysis of National Libraries that the proportion of Trained Librarians is much higher in the Eastern Europe and Baltic states than in the EU. This may partly reflect different qualification standards - but it is mainly a result of very flat salary structures where it costs very little between a librarian than an untrained member of staff.

Table 6.10 Total Staff per 100,000 Staff + Students = [Line 24 ÷ Line 21 × 100,000]

Tertiary		1991	1992	1993	1994	1995	1996	1997	1998
1-31	All States	420	400	390	363	361	362	386	404
1-10	CEE	726	660	660	572	532	500	654	654
11-31 ex EFTA	EU	364	350	338	318	319	325	325	346
19,21,24,28	EFTA	1,137	1,120	1,213	1,271	1,369	1,348	1,374	1,397
13,16,19,24,27	Northern Europe	546	518	492	476	476	472	487	503
Rest	Central Europe	407	393	391	366	364	373	373	404
18,20,25,26	Southern Europe	277	265	245	235	241	246	242	247
3,5,6	Baltic States	921	993	998	1,037	1,022	821	698	716
1,2,4,7-10	Eastern Europe	701	624	625	532	494	471	650	648
1	Bulgaria	...	...	...	...	...	...	...	...
2	Czech Republic	388	394	429	336	354	289	318	317
3	Estonia	1,929	1,929	1,949	1,945	1,964	1,139	1,004	1,038
4	Hungary	778	741	686	568	466	386	449	449
5	Latvia	852	840	852	947	940	750	536	541
6	Lithuania	674	774	758	773	758	701	648	666
7	Poland	662	641	567	459	480	485	829	829
8	Romania	...	...	...	...	...	...	...	...
9	Slovak Republic	707	680	654	583	527	464	497	440
10	Slovenia	817	727	812	749	698	655	625	676
11	Austria	379	378	387	370	359	354	351	350
12	Belgium	460	439	421	411	405	412	413	413
13	Denmark	530	497	476	464	475	489	500	497
15	Ireland	770	716	691	624	605	534	547	547
16	Finland	588	560	525	485	464	450	475	492
17	France	177	171	164	160	162	167	171	171
18	Greece	...	...	...	...	...	...	...	...
19	Iceland	...	...	...	...	...	...	...	...
20	Italy	...	...	...	...	...	...	...	...
21	Liechtenstein	...	...	...	...	...	...	...	...
22	Luxembourg	...	...	...	...	...	...	...	...
23	Netherlands	365	344	335	313	337	339	342	346
24	Norway	429	411	418	437	465	457	458	464
25	Portugal	485	467	357	325	321	322	316	290
26	Spain	318	299	277	271	280	284	274	274
27	Sweden	605	576	523	502	489	485	503	537
28	Switzerland	...	...	...	...	...	...	...	...
29	UK	670	624	560	572	539	555	555	681
31	Germany	407	409	459	375	370	385	383	384

Map 6.10 Total Staff per 100,000 Staff + Students = [Line 24 ÷ Line 21 × 100,000]

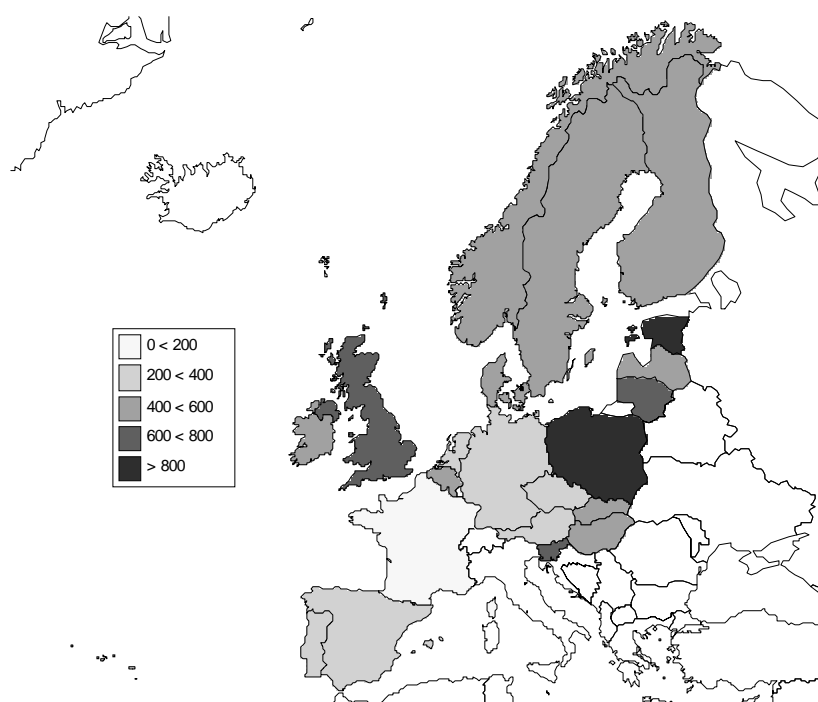


Table 6.10 shows the ratio of Total Staff to Users. With the exception of Norway and Poland, there were more users being served per member of staff (average 2.7 per cent per annum). In broad terms this points to increased staff productivity.

There is, however, great discrepancy between countries in the levels of staff provided. France is significantly below the European norm - as has been noticed for other features of the French service. States with a staff: user ratio below 350 could well query whether their staff provision is adequate.

SUMMARY OF FINANCIAL RESULTS

The Database tables show for each country the statistical data or estimate actually supplied for that country - so that the reader can appreciate where there was a full response and where the response was sparse. The spreadsheet formulae compute a notional value for each country for each variable, and it is these that are totalled to give the grossed up totals for all countries and for the two sets of regions. The '% Responses' column shows the proportion of the total estimate that has been derived from actual data returned.

There are some particular notes of caution to be borne in mind:

- There are some large countries missing altogether while the Scandinavian countries, for instance, have all responded. This means that the average of those countries responding will have some bias. The estimates for Italy, Romania, Switzerland, etc. will show some bias from the fact that their features differ from the other countries who have replied. In particular this affects estimates of absolute value much more than it does estimates of trends over time.
- There are some heads and categories with a particularly low response where the confidence in the total estimates has to be qualified. For example, the Tables on spending on Electronic Materials and on Automation were completed by less than half the responders. This means that the estimated grossed up totals are only valid insofar as the situation in Belgium, Poland and the UK (with Denmark and Sweden for Electronic Materials only) represent the situation in All Countries. As the state of networking development is more advanced in some countries than in others, this has to be recognised as a limitation - unavoidable though it may be at this stage.

There are also factors to do with inflation and currency conversion, and for this reason overall summary tables are presented for All Countries and for the EU countries alone.

Tables 6.11 and 6.12 show:

- 1) Estimated total spend (and income) in 1991 and in 1998.
- 2) Percentage change between these years - to compare with general inflation estimated for Western Europe at 12 per cent and with academic book price inflation at 22 per cent.
- 3) The proportion (%ge) of libraries' spend represented by each feature in 1991 and in 1998.

Table 6.11 Tertiary Libraries Expenditure and Income - All States

Responses No.	%	EXPENDITURE	1991 € millions	1998 € millions	%ge change	1991 %	1998 %
16	86	Employees	799	1,210	51	44.6	43.4
22	93	Materials	559	780	40	31.3	28.1
5	30	Electronic materials	17	81	376	1.0	2.9
4	34	Automation	59	81	37	3.3	2.9
6	36	Premises	170	277	63	9.5	10.0
5	53	New Building & Ref't	2	5	150	0.1	0.2
17	56	Other expenses	183	347	90	10.2	12.5
17	62	TOTAL EXPENDITURE	1,788	2,780	55	100.0	100.0
INCOME							
13	53	Institutional	1,686	2,466	46	94.3	88.7
12	51	Fees & Charges	38	77	103	2.1	2.8
12	51	Other income'	64	237	270	3.6	8.5
7	32	CAPITAL PAYMENTS	83	78	-6		

Figure 6.1 Tertiary Libraries Expenditure & Income in 1998 - All States (see Table 6.11)
(1991 percentage shown in brackets)

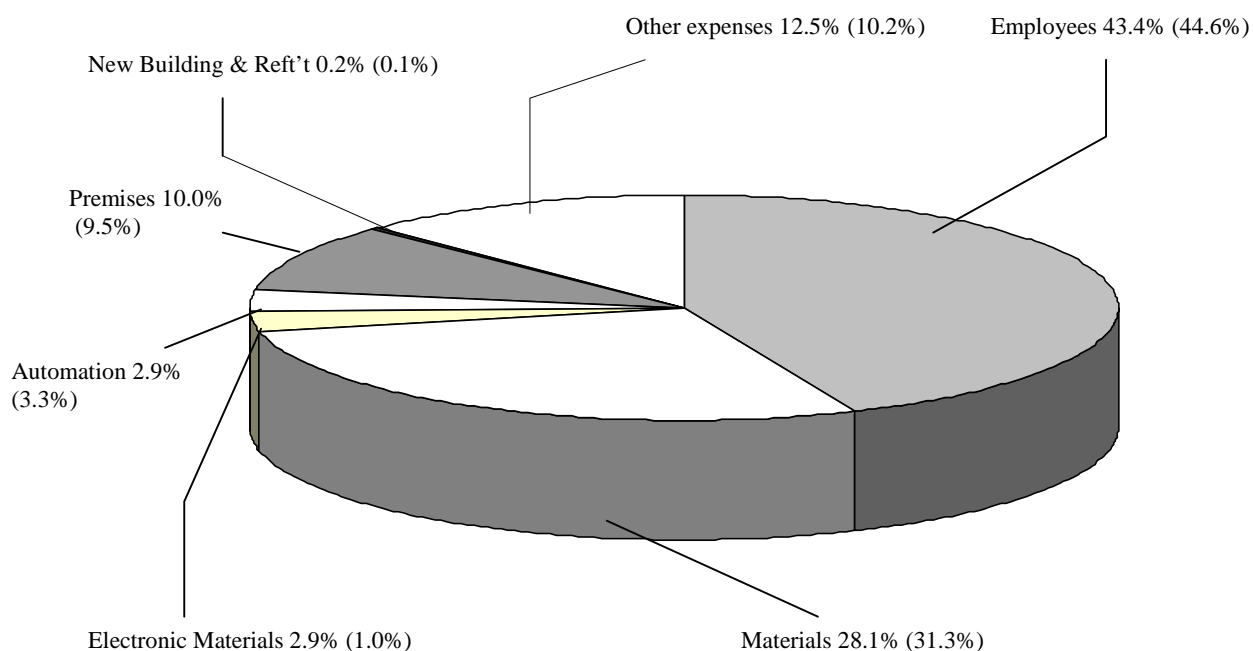


Table 6.12 Tertiary Libraries Expenditure and Income - EU States

Responses No.	%	EXPENDITURE	1991 € millions	1998 € millions	%ge change	1991 %	1998 %
11	90	Employees	763	1,131	48	46.7	45.2
14	100	Materials	517	709	37	31.7	28.4
4	32	Electronic materials	16	75	369	1.0	3.0
3	36	Automation	55	74	35	3.4	3.0
4	38	Premises	161	260	61	9.9	10.4
4	100	New Building & Ref't	0	2	**	0.0	0.1
11	75	Other expenses	120	246	105	7.3	9.9
11	66	TOTAL EXPENDITURE	1,633	2,496	53	100.0	100.0
INCOME							
9	57	Institutional	1,543	2,217	44	94.4	88.8
8	54	Fees & Charges	35	68	94	2.1	2.7
8	54	Other income'	56	211	277	3.4	8.5
5	33	CAPITAL PAYMENTS	72	58	-19		

** indicates where the data are too inconsistent to support any overall trend estimate.

Table 6.13 Tertiary Libraries Expenditure and Income - CEE States

Responses No.	%	EXPENDITURE	1991 € millions	1998 € millions	%ge change	1991 %	1998 %
5	57	Employees	5	29	480	16.2	34.1
8	66	Materials	12	28	133	39.0	32.9
1	30	Electronic materials	0.4	2.6	550	1.3	3.1
1	30	Automation	0.8	2.6	225	2.6	3.1
2	33	Premises	0.6	4.5	650	1.9	5.3
1	30	New Building & Ref't	2	3	50	6.5	3.5
6	54	Other expenses	10	16	60	32.5	18.8
6	55	TOTAL EXPENDITURE	31	85	176	100.0	100.8
INCOME							
4	37	Institutional	26	71	173	86.1	83.7
4	39	Fees & Charges	0.2	2.8	1,300	0.7	3.3
4	37	Other income'	4	11	175	13.2	13.0
2	33	CAPITAL PAYMENTS	7	15	114		

FINANCE IN DETAIL

Expenditure on Staff

It is no surprise to find the above observations on Staffing reinforced in the figures for Expenditure on Staff. As Table 6.14 shows among the EU States spending is well below average in Portugal, Spain, Italy and France - with decreases over the period in Portugal and Spain. A substantial increase is posted for Germany - with increases in Poland and the UK occurring only in the most recent years. The levels of expenditure on staff in CEE states are well below the EU.

More specific analysis is not feasible owing to the poor response and exchange rate problems. The poor response may, in some cases, be because library staff are not accounted for separately from other employees of the institution.

However, among those states that have responded it can be seen from Table 6.15 that almost the whole variance is explained by salary rates. Here we find EU salaries more than ten times as high as in CEE. Rates in the Baltic States have risen substantially in the most recent years. Among EU states Portugal is lowest - but with some increase, although not enough to keep up with inflation. Spain is well below average and actually shows a cash decrease over the seven year period.

Table 6.14 Expenditure on Staff per 1,000 Staff + Students = [Line 25 ÷ Line 21 × 1,000] (€s)

Tertiary		1991	1992	1993	1994	1995	1996	1997	1998
1-31	All States	66,596	65,627	65,949	63,979	64,064	70,965	76,823	79,066
1-10	CEE	3,514	4,394	5,123	8,060	6,828	9,077	11,875	12,394
11-31	ex EFTA	74,052	73,016	72,821	70,294	70,979	78,725	85,573	88,178
19,21,24,28	EFTA	196,423	199,708	223,299	242,042	262,651	283,012	295,564	293,097
13,16,19,24,27	Northern Europe	138,821	132,216	121,489	120,266	125,522	138,317	145,820	150,484
Rest	Central Europe	78,646	78,896	84,721	82,552	83,696	91,732	100,939	104,539
18,20,25,26	Southern Europe	57,126	54,769	46,910	43,792	43,081	49,877	52,439	52,473
3,5,6	Baltic States	3,001	3,098	3,324	7,122	9,356	8,951	10,602	14,029
1,2,4,7-10	Eastern Europe	3,581	4,535	5,307	8,141	6,631	9,088	12,000	12,233
1	Bulgaria	1,328	2,454	4,072	2,589	2,336	2,092	2,202	2,202
2	Czech Republic	...	...	...	...	...	...	...	...
3	Estonia	10,266	10,247	7,753	22,163	30,134	18,251	22,398	26,372
4	Hungary	...	...	...	...	...	...	...	...
5	Latvia	2,880	3,162	4,016	6,095	8,288	6,505	7,749	7,387
6	Lithuania	1,026	735	1,447	2,524	3,138	5,635	6,560	12,098
7	Poland	3,705	5,080	4,890	8,362	7,285	10,929	15,958	15,958
8	Romania	...	...	...	...	...	...	...	...
9	Slovak Republic	...	...	...	...	...	...	...	...
10	Slovenia	...	...	...	...	...	...	...	...
11	Austria	...	...	...	...	...	...	...	...
12	Belgium	127,197	127,223	133,350	137,144	141,785	147,513	143,595	143,595
13	Denmark	148,676	145,106	162,661	159,071	170,174	180,937	188,834	189,235
15	Ireland	162,068	157,932	152,901	152,811	146,405	149,711	162,407	162,407
16	Finland	138,640	120,881	97,519	96,162	103,527	103,242	112,358	117,856
17	France	47,098	46,437	45,910	47,537	48,484	55,263	55,913	55,618
18	Greece	...	...	...	...	...	...	...	...
19	Iceland	...	...	...	...	...	...	...	...
20	Italy	54,786	52,647	45,622	43,863	39,687	50,786	56,674	56,415
21	Liechtenstein	...	...	...	...	...	...	...	...
22	Luxembourg	...	...	...	...	...	...	...	...
23	Netherlands	...	...	...	...	...	...	...	...
24	Norway	...	...	...	...	...	...	...	...
25	Portugal	18,086	21,505	15,497	12,829	14,050	16,203	14,879	14,560
26	Spain	64,146	58,875	50,121	44,780	46,952	50,380	49,205	49,205
27	Sweden	180,187	177,178	145,193	139,739	138,552	168,554	176,306	187,261
28	Switzerland	...	...	...	...	...	...	...	...
29	UK	131,403	118,442	113,119	115,568	107,210	116,623	143,169	156,423
31	Germany	63,282	72,011	93,917	81,607	85,346	93,082	98,500	99,511

Map 6.14 Expenditure on Staff per 1,000 Staff + Students = [Line 25 ÷ Line 21 × 1,000] (€s)

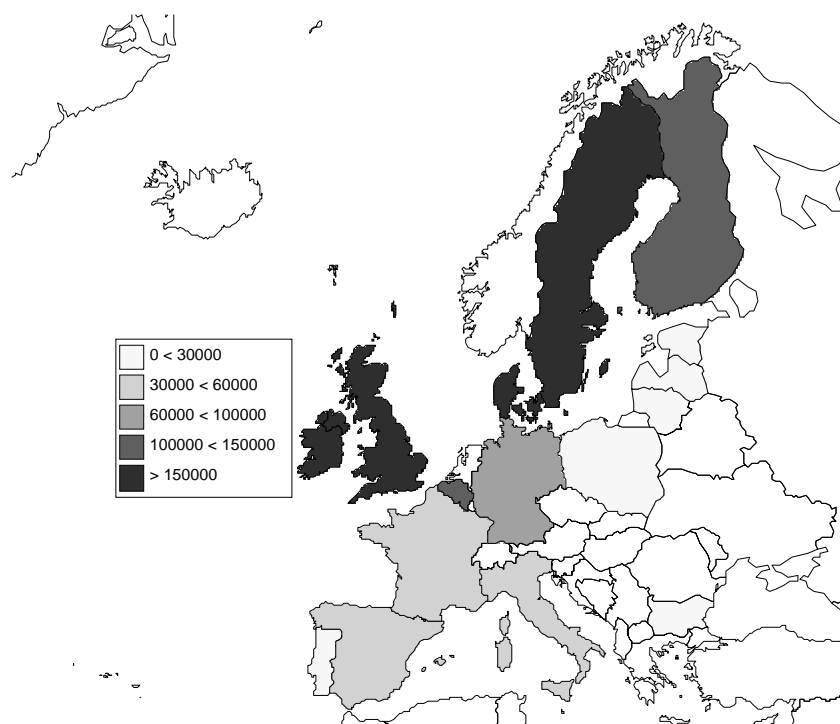
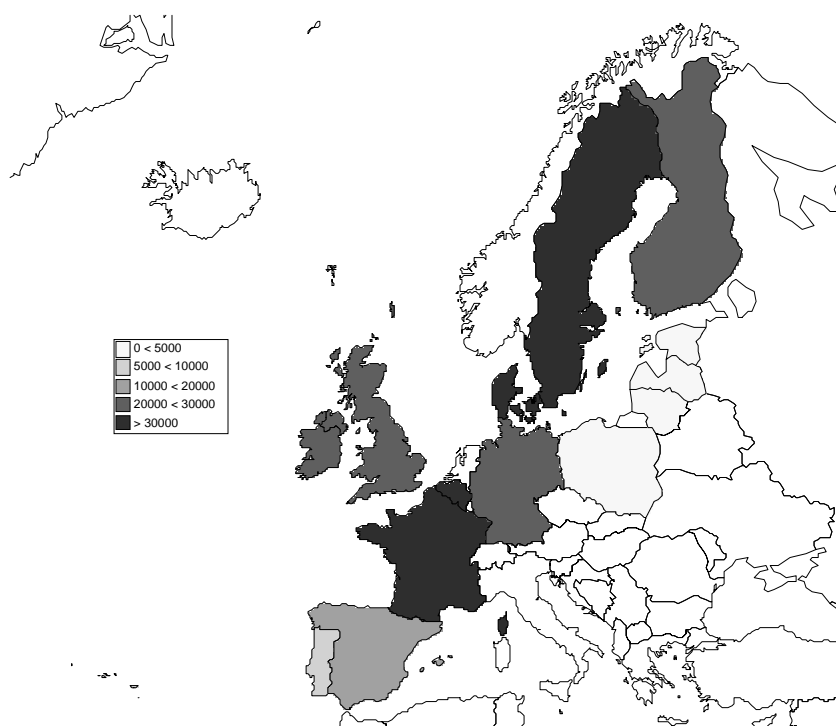


Table 6.15 Employee Expenditure per Member of Staff = [Line 25 ÷ Line 24 × 1000] (€s)

Tertiary		1991	1992	1993	1994	1995	1996	1997	1998
1-31	All States	15,857	16,393	16,895	17,605	17,765	19,591	19,897	19,559
1-10	CEE	484	665	776	1,409	1,283	1,814	1,816	1,895
11-31 ex EFTA	EU	20,357	20,865	21,560	22,083	22,280	24,192	26,349	25,474
19,21,24,28	EFTA	17,282	17,829	18,401	19,043	19,185	20,996	21,516	20,982
13,16,19,24,27	Northern Europe	25,414	25,516	24,708	25,253	26,360	29,285	29,938	29,908
Rest	Central Europe	19,341	20,067	21,683	22,546	22,975	24,581	27,032	25,875
18,20,25,26	Southern Europe	20,606	20,663	19,151	18,673	17,862	20,263	21,706	21,272
3,5,6	Baltic States	326	312	333	687	915	1,090	1,519	1,960
1,2,4,7-10	Eastern Europe	511	727	849	1,530	1,342	1,928	1,847	1,888
1	Bulgaria	...	...	...	...	...	...	...	...
2	Czech Republic	...	...	...	...	...	...	...	...
3	Estonia	532	531	398	1,140	1,534	1,603	2,232	2,541
4	Hungary	...	...	...	...	...	...	...	...
5	Latvia	338	377	471	644	881	867	1,445	1,365
6	Lithuania	152	95	191	326	414	804	1,012	1,817
7	Poland	560	793	862	1,821	1,516	2,256	1,924	1,924
8	Romania	...	...	...	...	...	...	...	...
9	Slovak Republic	...	...	...	...	...	...	...	...
10	Slovenia	...	...	...	...	...	...	...	...
11	Austria	...	...	...	...	...	...	...	...
12	Belgium	27,651	28,999	31,646	33,365	35,029	35,825	34,786	34,786
13	Denmark	28,028	29,216	34,159	34,306	35,837	37,010	37,767	38,101
15	Ireland	21,039	22,047	22,143	24,496	24,214	28,058	29,666	29,666
16	Finland	23,568	21,584	18,581	19,828	22,318	22,926	23,679	23,943
17	France	26,573	27,216	28,050	29,647	29,932	33,164	32,621	32,621
18	Greece	...	...	...	...	...	...	...	...
19	Iceland	...	...	...	...	...	...	...	...
20	Italy	...	...	...	...	...	...	...	...
21	Liechtenstein	...	...	...	...	...	...	...	...
22	Luxembourg	...	...	...	...	...	...	...	...
23	Netherlands	...	...	...	...	...	...	...	...
24	Norway	...	...	...	...	...	...	...	...
25	Portugal	3,729	4,602	4,342	3,952	4,372	5,025	4,704	5,029
26	Spain	20,151	19,702	18,094	16,510	16,788	17,729	17,970	17,970
27	Sweden	29,789	30,742	27,778	27,860	28,358	34,734	35,069	34,895
28	Switzerland	...	...	...	...	...	...	...	...
29	UK	19,623	18,989	20,198	20,189	19,893	21,014	25,797	22,982
31	Germany	15,531	17,603	20,450	21,763	23,085	24,153	25,723	25,936

Map 6.15 Employee Expenditure per Member of Staff = [Line 25 ÷ Line 24 x 1000] (€s)



Expenditure on Materials

When it comes to reporting Expenditure on Material Acquisition there are fewer problems and a more complete response - 20 states out of 29. The overall increase of 36 per cent goes somewhat beyond increases in the price of academic books - but, with the inclusion of periodicals in the reckoning, it is probably only standstill in real terms.

The data can show both trends over the period and comparative spending relative to user population. These are summarised in **Table 6.16** - from which it is valuable to estimate both the increases that have taken place and the comparative spending levels in this aspect of knowledge provision. There have been some dramatic increases both in absolute terms and when calculated per user - particularly in CEE states starting from a very low base. Materials spend overall has not kept up with the increased number of users, but it has nevertheless meant a large increase in provision.

Technically the CEE entries demonstrate the problems posed for comparisons by currency fluctuations. The disparities and low levels of provision in the 1997 CEE entries compare markedly with the majority of entries for the rest of Europe. But, with the exception of the Slovak Republic, there have been substantial increases since 1991.

Looking at the Rest of Europe there is more homogeneity here than in almost any other variable for the sector: three large countries fall into the 25 - 30 range and the rest into the 60 - 90 range. Where there are falls these are mainly from a high base (Finland, Slovenia) - the exception being Spain which shows a low level of provision and a decline over the period. France and Portugal are still spending a long way below the norm but record large increases since 1991.

This exercise shows the value of the database for this type of analysis where entries are almost complete and where there is relative stability in currency movements. It is not appropriate here to go into this level of detailed analysis for other expenditure heads, but interested people can do this for themselves from the information on the web site.

Table 6.16 Materials Expenditure in Tertiary Libraries

	% change 1998 on 1991 spend (€s)	% change 1998 on 1991 spend per user	spend per user (€s) 1998
Bulgaria	53	12	1.4
Czech Republic	401	239	16.9
Estonia	186	67	21.9
Hungary	...	...	...
Latvia	393	304	4.6
Lithuania	1,009	1,044	4.5
Poland	159	89	10.0
Romania	...	...	...
Slovak Republic	49	-7	9.0
Slovenia	33	-13	69.9
Austria	42	16	98.6
Belgium	46	28	83.8
Denmark	53	29	76.8
Ireland	67	17	78.5
Finland	-9	-28	63.7
France	102	61	25.0
Greece	...	...	...
Iceland	...	...	...
Italy	25	2	35.4
Liechtenstein	...	...	...
Luxembourg	...	...	...
Netherlands	8	2	59.6
Norway	52	20	84.9
Portugal	138	46	23.4
Spain	-5	-27	29.7
Sweden	53	8	79.4
Switzerland	...	...	...
UK	66	17	92.1
Germany	19	7	82.2
TOTAL	39.5	18.6	51.0

Other Expenditure

The cost of **Electronic Information** was estimated by only five states, where the responses show large increases during the period. The UK estimates for 1997 and 1998 are 4 - 5 times previous years - rising to a figure in 1998 that is 11 per cent of the total UK spend on materials. (This jump in the UK data has caused a huge increase in the totals estimated for 1997 and 1998 - which may or may not be substantiated when other countries are in a position to report.)

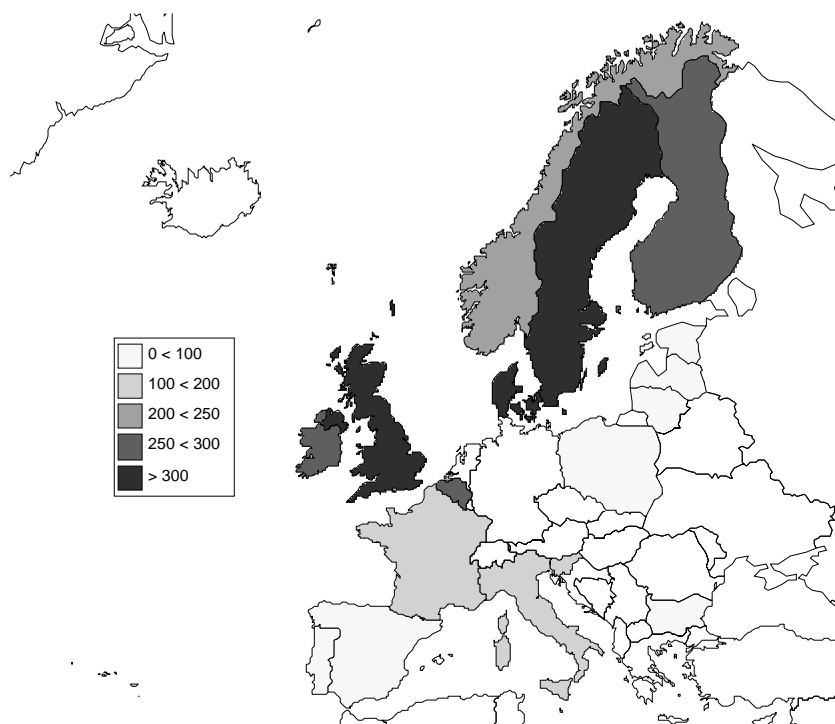
The **Cost of Automation** has been provided by only four states. Poland reports a fourfold increase over the period; the others (EU states) report modest increases. Taken together with the Electronic Information returns, this very sparse information suggests that Automation is already installed in many EU states with expenditure levelling off. How far this also applies in CEE states would be important to establish: further investigation is required.

The Table for **Other Revenue Expenditure** has received a relatively full response: this is not important in itself but leads to confidence in the figure for **Total Revenue Expenditure** (Line 33). This is shown in its 'per capita' form at Table 6.17. (The components of the Total Expenditure have been discussed above in connection with Table 6.12).

Table 6.17 Total Revenue Expenditure per 1,000 Staff + Students = [Line 32 ÷ Line 21 x 1000] (€s)

Tertiary		1991	1992	1993	1994	1995	1996	1997	1998
1-31	All States	149,128	147,983	149,823	145,336	146,670	161,883	175,785	181,700
1-10	CEE	19,943	19,684	23,715	26,223	26,571	33,013	35,246	36,680
11-31 ex EFTA	EU	158,447	157,366	158,099	153,226	155,530	171,627	187,563	194,619
19,21,24,28	EFTA	815,719	842,709	887,070	930,489	988,516	1,082,815	1,185,245	1,164,858
13,16,19,24,27	Northern Europe	305,702	295,043	272,410	273,694	287,674	321,450	339,347	354,488
Rest	Central Europe	175,863	178,049	191,794	186,594	190,613	207,685	228,942	237,539
18,20,25,26	Southern Europe	123,875	119,193	103,096	97,350	94,865	109,019	118,151	119,322
3,5,6	Baltic States	6,887	7,652	7,898	14,330	20,380	19,914	21,516	27,944
1,2,4,7-10	Eastern Europe	21,659	20,994	25,336	27,247	27,052	34,187	36,596	37,539
1	Bulgaria	2,754	6,660	9,146	7,541	5,551	4,861	4,644	4,644
2	Czech Republic	...	...	...	...	...	...	...	...
3	Estonia	24,636	25,276	20,479	39,209	65,705	45,297	46,135	52,902
4	Hungary	...	...	...	...	...	...	...	...
5	Latvia	6,000	6,585	8,361	15,080	15,273	13,986	14,807	15,379
6	Lithuania	1,306	1,780	2,304	4,219	6,348	8,172	10,796	20,657
7	Poland	10,988	11,747	12,265	17,467	17,783	24,458	33,079	33,079
8	Romania	...	...	...	...	...	...	...	...
9	Slovak Republic	...	...	...	...	...	...	...	...
10	Slovenia	218,755	189,364	208,172	182,422	210,445	240,544	184,003	176,302
11	Austria	...	...	...	...	...	...	...	...
12	Belgium	221,773	225,176	236,397	250,355	255,623	262,874	266,649	266,649
13	Denmark	247,092	249,970	291,983	270,788	299,254	326,846	324,796	320,522
15	Ireland	257,899	261,010	250,555	255,116	241,528	253,323	270,678	270,678
16	Finland	257,851	223,027	171,722	173,030	193,272	210,656	235,692	255,365
17	France	76,055	77,242	81,231	85,449	90,058	102,060	103,868	103,321
18	Greece	...	...	...	...	...	...	...	...
19	Iceland	...	...	...	...	...	...	...	...
20	Italy	130,443	125,351	108,623	104,435	93,627	116,869	130,903	131,196
21	Liechtenstein	...	...	...	...	...	...	...	...
22	Luxembourg	...	...	...	...	...	...	...	...
23	Netherlands	...	...	...	...	...	...	...	...
24	Norway	204,464	205,457	199,392	206,458	214,466	234,752	255,098	247,777
25	Portugal	36,172	41,279	32,436	29,733	34,316	39,799	43,468	40,596
26	Spain	110,596	101,509	86,416	77,118	80,601	86,211	84,836	84,836
27	Sweden	308,745	300,198	244,189	254,866	250,559	301,939	306,658	342,278
28	Switzerland	...	...	...	...	...	...	...	...
29	UK	238,915	219,241	213,254	223,503	209,077	227,712	283,250	308,284
31	Germany	...	...	...	...	...	...	...	...

Map 6.17 Total Revenue Expenditure per Staff + Students = [Line 32 ÷ Line 21] (€s)



Buildings and Capital Expenditure

Few countries could provide reliable data under this heading.

Capital Payments and New Building costs are increasing in Estonia, Poland and Finland but not in Denmark, Portugal and Germany. Premises costs charged to libraries are going up in all six reporting countries - particularly strongly in Poland, Finland and the UK. Premises costs are particularly high in Italy. The slim evidence here suggests strongly that this area is requiring better and more comprehensive statistics.

Income

Income from **Fees & Charges** (line 34) was reported by twelve states. In every case it has increased since 1991 - generally doubling, but with exponential increases in Bulgaria, Poland and Portugal.

The UK increase is enormous, and may be explained by the practice of charging user departments for Electronic Materials and Inter Library Loans, where there has been heavy investment in new materials.

CEE countries under centralised planning charged for nothing. Latterly, sometimes in economic crisis [e.g. Bulgaria], charges have been imposed. At the same time new services have been introduced and charged for: internet, prints, improved copying, bibliographic research, etc.

Table 6.18 Fees & Charges = [Line 34] (€ 000s)

Tertiary		1991	1992	1993	1994	1995	1996	1997	1998
1-31	All States	37,880	39,974	45,479	49,405	55,024	59,229	74,222	77,076
1	Bulgaria	4	12	47	57	71	56	470	470
2	Czech Republic	...	...	...	...	...	...	...	...
3	Estonia	...	...	...	...	...	...	...	...
4	Hungary	...	...	...	...	...	...	...	...
5	Latvia	...	...	...	...	...	...	...	...
6	Lithuania	5	1	1	4	4	6	9	28
7	Poland	23	28	877	91	164	328	487	487
8	Romania	...	...	...	...	...	...	...	...
9	Slovak Republic	15	18	25	24	25	25	25	26
10	Slovenia	...	...	...	...	...	...	...	...
11	Austria	...	...	...	...	...	...	...	...
12	Belgium	670	512	531	542	983	891	896	896
13	Denmark	...	...	...	...	...	...	...	...
15	Ireland	...	...	...	...	...	...	...	...
16	Finland	2,738	2,462	2,071	2,334	2,639	2,684	4,088	4,301
17	France	4,942	5,303	6,358	6,516	7,224	7,532	7,538	7,538
18	Greece	...	...	...	...	...	...	...	...
19	Iceland	...	...	...	...	...	...	...	...
20	Italy	1,574	1,594	1,454	1,543	1,333	1,958	1,726	1,944
21	Liechtenstein	...	...	...	...	...	...	...	...
22	Luxembourg	...	...	...	...	...	...	...	...
23	Netherlands	...	...	...	...	...	...	...	...
24	Norway	724	763	801	870	964	1,039	1,728	1,605
25	Portugal	42	54	44	282	238	312	549	321
26	Spain	...	...	...	...	...	...	...	...
27	Sweden	3,766	4,253	3,785	4,355	4,484	4,938	5,773	5,027
28	Switzerland	...	...	...	...	...	...	...	...
29	UK	3,211	3,454	4,044	6,229	6,600	7,487	10,591	13,338
31	Germany	...	...	...	...	...	...	...	...

Table 6.19 Other Income = [Line 35] (€ 000s)

Tertiary		1991	1992	1993	1994	1995	1996	1997	1998
<i>1-31</i>	All States	64,233	66,944	76,612	91,138	94,977	111,583	212,936	237,129
1	Bulgaria	69	105	209	788	264	419	190	190
2	Czech Republic	...	...	...	...	...	...	...	...
3	Estonia	0	1	1	3	45	132	108	280
4	Hungary	...	...	...	...	...	...	...	...
5	Latvia	...	...	...	...	...	...	...	...
6	Lithuania	0	13	32	48	51	170	212	387
7	Poland	886	328	454	858	1,324	1,632	2,864	2,864
8	Romania	...	...	...	...	...	...	...	...
9	Slovak Republic	...	...	...	...	...	...	...	...
10	Slovenia	...	...	...	...	...	...	...	...
11	Austria	...	...	...	...	...	...	...	...
12	Belgium	436	1,034	919	1,135	532	865	629	629
13	Denmark	1,480	1,487	2,516	2,100	2,402	2,465	2,696	3,894
15	Ireland	...	...	...	...	...	...	...	...
16	Finland	4,108	3,693	3,107	2,907	3,338	3,930	4,170	4,781
17	France	2,842	3,064	4,450	8,184	5,507	8,676	7,826	7,826
18	Greece	...	...	...	...	...	...	...	...
19	Iceland	...	...	...	...	...	...	...	...
20	Italy	3,541	3,588	3,273	3,472	3,199	3,829	4,046	4,130
21	Liechtenstein	...	...	...	...	...	...	...	...
22	Luxembourg	...	...	...	...	...	...	...	...
23	Netherlands	...	...	...	...	...	...	...	...
24	Norway	...	...	...	...	...	...	...	...
25	Portugal	...	...	...	...	...	...	...	708
26	Spain	...	...	...	...	...	...	...	...
27	Sweden	372	1,676	1,054	1,401	2,017	1,625	2,405	8,248
28	Switzerland	...	...	...	...	...	...	...	...
29	UK	16,055	16,280	18,976	21,869	24,029	27,415	73,858	80,905
31	Germany	...	...	...	...	...	...	...	...

There are also large increases reported among ten responses in the **Other Income** table - most notably from Poland, France, Sweden and the UK. Specific funding of development programmes such as those sponsored by the Soros Foundation may be the explanation in Eastern Europe.