



University of Alberta Library

Operating Budget

2001/2002



University of Alberta Library

2000/2001 Operating Budget

I. EXECUTIVE SUMMARY

The University of Alberta Library 2001/2002 Operating Budget document represents the Library's financial plan as it relates to emerging imperatives and on-going needs.

The Library's budget is primarily non-discretionary in nature. Approximately 56% of the budget is allocated to salaries and benefits and 39% to purchasing of information resources. This leaves 5% available for all other expenditures including recruitment, technology infrastructure and renewal and purchasing or licensing of information resources. The Library makes the case for additional hard funds for recruitment of staff with expertise to work in the digital environment, incremental funding of the information resources budget and, through Learning Systems, a capital request for technology replacement lifecycle funding.

Various scenarios are presented to outline how these additional funds would be allocated to the base budget, assuming increments of \$500,000, \$1,100,00 and \$1,975,000 (see Budget Scenarios). The \$500,000 in incremental funding is sufficient to cover only serials inflation. Funding of \$1,100,000 will be allocated to support the recruitment of staff to work in the digital environment (\$200,000) and incremental funding for information resources (\$900,000). The information resources funding will be allocated to maintain the current serial subscriptions, enhance monographic acquisitions and to expand electronic resources. Funding of \$1,975,000 will be allocated in the same manner as \$1,100,000 with the additional \$875,000 for the adoption of a lifecycle budgeting model for technology replacement and renewal.

Taken as a whole, the 2001/2002 budget document describes current priorities and emerging needs while clearly indicating where unfunded liabilities lie. The Library's highest priority continues to be supporting the information resource needs of faculty and students, while recognizing that human and technological resources are critical to acquiring, organizing and providing access to those information resources. The 2001/2002 budget seeks funding in support of our commitment to provide needed information resources to the university community.

II. KEY ISSUES AND CONSIDERATIONS

A. HUMAN RESOURCES: Towards 2004

“University of Alberta Library staff members take individual responsibility for providing superior service. Because of our reputation, we attract the brightest and the best. Staff members have a sense of satisfaction based on accomplishment and have a sense of challenge.” *Library Service in 2004*

- The Library’s service capabilities are directly related to the staffing complement (professional and non-academic) that the Library recruits and maintains. Analysis of staff demographics clearly shows that the University of Alberta Library must deal with a watershed of change over the next 5 to 10 years. Retirement levels for both professional and non-academic staff will peak in that period.
- Comparison with similar Canadian ARL Institutions, such as the University of British Columbia, shows that the University of Alberta staffing levels are much lower, particularly for professional positions.
- Hiring priorities must accommodate the need for new kinds of expertise. Staffing to support the requirements of the digital environment is essential.

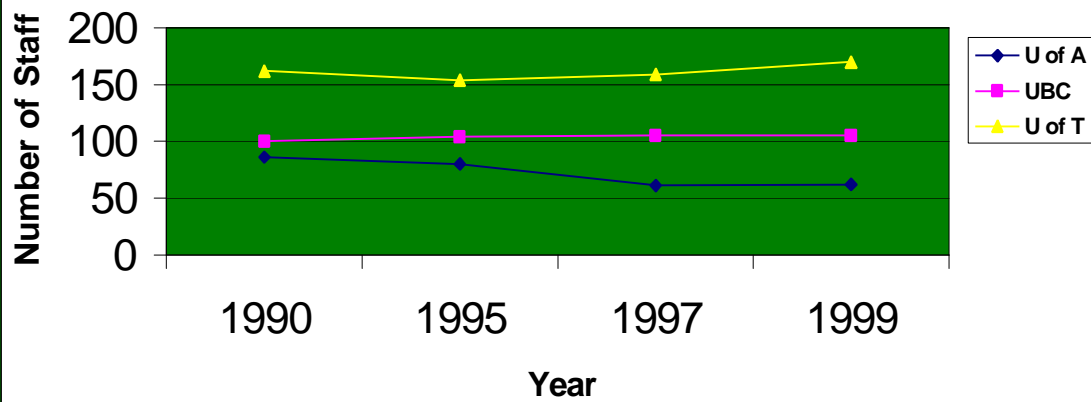
- **Demographics**

The University of Alberta Library faces the same problems as can be seen across North America with respect to workplace demographics in public sector occupations. The Library greatly expanded its workforce in the 1960s and 70s to support the growth of the academy and increase in size of student body during the ‘boom’ years of the University. 1999 Workforce Demographics for the University of Alberta as a whole show that 46% of the total staff population (academic and non-academic) is in the 45-60 year age bracket, with an entire ‘generation’ of staff eligible for retirement over the next 5 to 15 years. Further analysis of the professional staff component within the Library reveals that 51% of the professional staff falls within the 50-60 year age group, and 79% within the 45-60 year age group. It is safe to say that librarians will retire at a greater rate than the larger staff population on campus over the next 5 to 15 years, with over half of the professional staff looking toward retirement over the next 10 years. The speed and direction of this change will have a profound impact upon the Library’s planning and upon its service capabilities, including access to collections in the near future. The Library must plan to replace these skilled professionals and specific areas of focus for recruitment, such as digital staffing capability, are being identified.

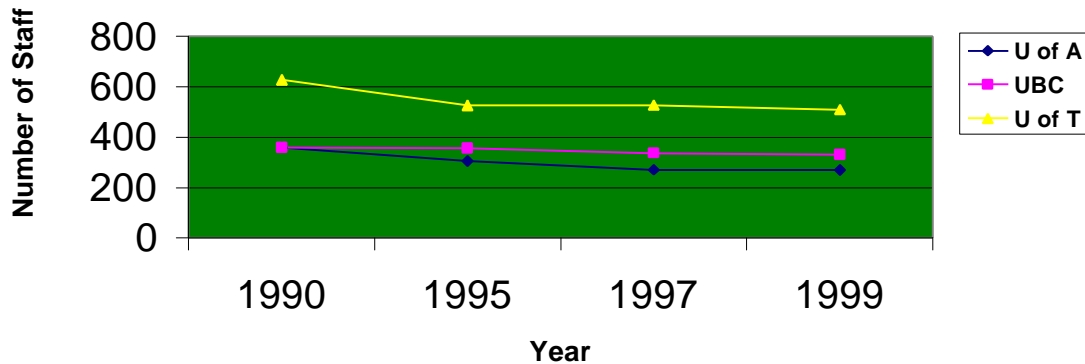
- **Comparison with Similar Canadian ARL Institutions**

Traditionally, the University of Alberta Library has compared its staffing complement to two Canadian institutions of a similar size and mix of services: the University of British Columbia and the University of Toronto. Throughout the 1990s the staffing levels of all these institutions dropped. However, the University of Alberta has never recovered its staffing rank position as these other two institutions have done. In 1990, the University of Alberta had 360 members of staff (was ranked 16th amongst ARL institutions), the University of British Columbia had 359 staff (ranked 17th) and University of Toronto had 628 staff (ranked 2nd). In 1999, the University of Alberta ranks 32nd overall for total number of professional and support staff (270 members of staff), the University of British Columbia almost maintained its position at the 18th rank (331 staff), and the University of Toronto has lost two places to be ranked as 4th (510 staff). Examination of the professional staffing component shows a similar and disturbing pattern - the other two institutions have gained back, even exceeded, the total number of professional staff that they had in 1990, the University of Alberta has continued to fall.

Professional Staff in Comparable Canadian ARL Libraries



Total Professional and Support Staff in Comparable Canadian ARL Libraries



- **Staffing in the Digital Environment**

The University Library has made a substantial commitment to digital collection research, content creation, and access services. After a number of individual initiatives based on external funding and seconded or project staffing, the Library needs to establish an ongoing digital library services group to ensure sustainability and growth in this area.

This initiative would require the following staff resources:

Intellectual Access/Metadata Librarian	\$37,500
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This position would evaluate and implement alternate methods for cataloguing and access appropriate to emerging digital content formats, undertake metadata design for new collections, monitor developments in new metadata standards

Digital Initiatives Technology Librarian	\$37,500
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Responsible for defining, developing and managing interface technologies for searching and presenting the Library's digital collections on the Web. Includes research and preparation of functional requirements and programming specifications, programming to extend/customize search/display capabilities to support special format requirements (photos, maps, video/audio streams etc.), installation and configuration of third party software (Web tool sets), assistance to extend access to these collections through external search interfaces (Alberta Heritage Digital Project, Alberta Library Interface etc.)

ITS Grade 9 for technology support	\$36,500
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Responsible for ITS technical support for digital library projects including PC hardware and network support, imaging, web interface and software support.

Relais/Document Delivery Technologies Support (Gr. 10)	\$42,000
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Project staffing (match funds for govt grant/program staffing)	\$46,500
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Funding for casual staffing and topping up grant support for students, program interns, translation assistants, graphic assistants for specific projects, technical assistance from Museums and Collections Services and Computing and Network Services for access to digital camera and drum scanner, contract outsourcing of scanning of large formats (newspapers) that are beyond University of Alberta and University of Calgary capabilities.

Total:	\$200,000
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The University of Alberta Library faces an enormous challenge over the next 5-10 years as staff retirements take place. Key skills and expertise will be lost and must be replaced. Staffing levels are already low, particularly as compared to other similar institutions. At the same time, there are burgeoning technological needs and staff with

the requisite skills base must be hired if the Library is to achieve its goals and meet the needs of its users. The Library has identified staffing for the digital environment as critical to realization of its service and collections initiatives over the next year and makes this a priority as a staffing budget request.

B. TECHNOLOGY INFRASTRUCTURE: Planning for Technology Replacement through Lifecycle Budgeting

“The University of Alberta Library is nationally recognized for leadership in the application of innovative technologies to the enhancement of library service.” *Library Service in 2004*

- Aggressive investment in information technologies is mission-critical in delivering services, maintaining staff productivity and enhancing the learning environment in support of teaching and research.
- Capital funding has not kept pace with the Library’s needs; one-time funding envelope opportunities have been fully utilized but represent a large funding liability in the near future.

After several years of constrained budgets for technology replacement, the University of Alberta Library has allocated significant funds to equipment replacement in the past two years through one-time envelope funding from the provincial government.

While improving the Library's technology base immeasurably, these dollars represent a large funding liability 3-4 years in the future. Funding envelopes are predicated on one-time expenditure to seed sustainable program transformation. Conceived to support innovation in research and teaching activity, applicability of this envelope model to technology operations spending establishes the need for a consequent framework of lifecycle budgeting.

As the University’s information infrastructure and service model evolves and becomes increasingly interdependent, weakness in any part of the system compromises the whole:

- The Library’s Web site is one of the major destinations in the University’s web presence, both as a vehicle for delivering services and for providing access from inside and beyond the campus to the university’s physical and electronic collections. It also serves as our entry point to an emerging provincial library model known as “The Alberta Library” which opens to our students and researchers the resources of over 300 libraries throughout the province.
- The Library is a focal point in the University for public computing to support new technologies for teaching and learning, hosting over 20% of student-accessible workstations on campus, as well as the campus Technology Training Centre.
- The Library’s productivity network for staff is key to the successful implementation of Peoplesoft financial and student records systems. As a major purchasing centre, and data source for student records, the Library’s integrated system maintains a complex program of daily data synchronization with campus administrative systems.

Capital budget practices are geared to the renewal of facilities and equipment with functional life spans of 10-30 years, not the renewal of mission-critical technologies with financial life spans of 2-5 years. While functional life

span is measured by whether it still works, financial life span is determined by productivity return, residual value, cost of repair and support, and costs of upgrading to support new or extended user needs.

The drivers for lifecycle planning are not simply technological but financial and organizational:

- *Financial management:* Growing asset base and accelerating technology cycles for computing infrastructure have already pushed the financial model beyond the capital budget framework.
- *Service delivery:* These technologies are mission-critical to the delivery of information services in a networked environment, where there are no "in-person" backup systems.
- *Staff productivity:* Rapid growth in scale of operations, importance to staff productivity, integration with larger university systems demands increased reliability and fault-tolerance, network-based systems monitoring and software management - specifications are driven by the most demanding application, not "average need".
- *Collaboration:* Distributed systems and growth of collaborative Web-based digital library services demands technology compatibility across institutions, consistent growth in performance capability rather than sudden leaps from trailing to leading edge.
- *Technology management:* PC technology is becoming a basic telecommunications utility which relies on standardization. Computing software has already moved in large part from a product model to one of annualized licensing for upgrades, and a growth in per-seat client licensing for server-based applications

A lifecycle model for technology replacement ensures:

- Effective budget planning, with closer connection to departmental strategic plans and service initiatives
- Effective technology planning, buffering exposure to irregularities in pricing, technology shifts
- Stabilization in technology performance to ensure reliable services, positioning for inter-institutional collaboration, and consistent staff productivity
- Effective management of IT staffing based on predictable cycles of equipment installation, ability to maintain standardized specifications, linkage of replacement cycles to expiration in warranty support, and reduction in costly reallocation of equipment ("trickle-down" model in which expensive staff resources are increasingly expended on older less valuable hardware)
- Opportunity for improved cooperation in purchasing across the institution.

The following listing represents a general asset listing for the Library, and projected annualized cost of moving to lifecycle budgeting for most components.

University of Alberta Library Technology Infrastructure - Asset Base Estimate
Asset base estimate for lifecycle budgeting

	Capital Cost	Annualized
PC's		
PC asset base of 600 machines (3 year cycle) (assume \$2K per machine)	\$ 1,200,000	\$ 400,000
600 Monitors (4 year cycle) (assume \$400 per unit)	\$ 240,000	\$ 60,000
Laptops (3 year cycle - assume 5 units @ \$3000 per unit)	\$ 15,000	\$ 5,000
File servers		
9 Novell servers incl. UPS's, racks etc. on 4 year cycle with biennial upgrades)	\$ 100,000	\$ 25,000
Application Servers		
19 NT servers (assume 4 year cycle with biennial upgrades)	\$ 110,000	\$ 27,500
5 Sun servers (assume 4 year cycle with biennial upgrades and annual disk upgrades)	\$ 200,000	\$ 50,000

1 ILS server (assume 4 year cycle with biennial upgrades)	\$ 340,000	\$ 85,000
Network Infrastructure		
100 MB switches (4 x\$2000, 1x \$4500) 5 year cycle	\$ 12,500	\$ 2,500
Shared hubs and racks for 600 connections @ \$25 per port) 5 year cycle	\$ 15,000	\$ 3,000
Backbone connections (portions of CNS optical routers/switches) 5 year cycle	\$ 20,000	\$ 4,000
Cabling infrastructure for 700 connections, patch cabling etc. 6 year cycle	\$ 105,000	\$ 17,500
Peripherals		
Network Printing (based on stock of 40 printers and assume 5 year cycle)	\$ 90,000	\$ 18,000
Other peripherals (barcode scanners, image scanners, microform scanners - 5 year cycle)	\$ 100,000	\$ 20,000
Data projectors (3 year cycle)	\$ 50,000	\$ 17,000
Software Licenses		
Software licenses (Microsoft, Netware, Oracle, A-V, Cold Fusion etc.) annual	\$ 60,000	\$ 60,000
DRA ILS software initial purchase (8 year cycle)	\$ 560,000	\$ 70,000
Application software maintenance (DRA, Relais, Qmaster) annual	\$ 70,000	\$ 70,000
Knowledge Common (4 year equipment cycle)	\$ 340,000	\$ 85,000
Total:	\$ 3,627,500.00	\$ 1,019,500.00

Infrastructure Organized by Outcome/Activity**Public computing**

Public catalogue search stations (200 stations with monitors)	\$ 480,000.00	\$ 153,333.00
Knowledge Common	\$ 340,000.00	\$ 85,000.00
Subtotal:	\$ 820,000.00	\$ 238,333.00

Information Services

100 workstations (circulation, CD ROM etc.)	\$ 240,000.00	\$ 76,667.00
19 NT servers (assume 4 year cycle with biennial upgrades)	\$ 110,000	\$ 27,500
5 Sun servers (assume 4 year cycle with biennial upgrades and annual disk upgrades)	\$ 200,000	\$ 50,000
1 ILS server (assume 4 year cycle with biennial upgrades)	\$ 340,000	\$ 85,000
DRA ILS software initial purchase (8 year cycle)	\$ 560,000	\$ 70,000
Application software maintenance (DRA, Relais, Qmaster) annual	\$ 70,000	\$ 70,000
Laptops (3 year cycle - assume 5 units @ \$3000 per unit)	\$ 15,000	\$ 5,000
Data projectors (3 year cycle)	\$ 50,000	\$ 17,000
Subtotal:	\$ 1,585,000	\$ 401,167

Productivity Support

Staff computing (300 stations)	\$ 720,000.00	\$ 230,000.00
9 Novell servers incl. UPS's, racks etc. on 4 year cycle with biennial upgrades)	\$ 100,000	\$ 25,000
Network Printing (based on stock of 40 printers and assume 5 year cycle)	\$ 90,000	\$ 18,000
Other peripherals (barcode scanners, image scanners, microform scanners - 5 year cycle)	\$ 100,000	\$ 20,000
Software licenses (Microsoft, Netware, Oracle, A-V, Cold Fusion etc.) annual	\$ 60,000	\$ 60,000
Subtotal:	\$ 1,070,000	\$ 353,000

Basic infrastructure

100 MB switches (4 x\$2000, 1x \$4500) 5 year cycle	\$ 12,500	\$ 2,500
Shared hubs and racks for 600 connections @ \$25 per port) 5 year cycle	\$ 15,000	\$ 3,000
Backbone connections (portions of CNS optical routers/switches) 5 year cycle	\$ 20,000	\$ 4,000
Cabling infrastructure for 700 connections, patch cabling etc. 6 year cycle	\$ 105,000	\$ 17,500
Subtotal:	\$ 152,500.00	\$ 27,000.00

TOTAL:	\$ 3,627,500.00	\$ 1,019,500.00
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NOTE: Excluded from this replacement cycle are standing order costs for miscellaneous repairs and parts, new machines (for new staff appointments or projects) and out-of-cycle hardware/software acquisitions and upgrades for specialized purposes.

The Library recommends the adoption of a lifecycle budgeting model for technology replacement and renewal. The projected annualized cost of moving to lifecycle budgeting has been submitted as a capital request through Learning Systems. The total capital request of \$1,853,000 put forward through Learning Systems includes both soft funding of \$978,000 and permanent funding of \$875,000 for the 2001/02 fiscal year. The Learning Systems funding request factors in an allowance in the amount of \$834,000 that represents a portion of the cost of the planned replacement/replenishment of the DRA system.

C. INFORMATION RESOURCES: Strategic Directions

“The University of Alberta Library develops and maintains a collection that meets the needs of its users. This collection represents a balance of disciplines and viewpoints in a variety of formats.” *Library Service in 2004*

- Projected costs for information resources continue to increase: the pricing practices of vendors, and inflation and exchange rates all play a role in this and make collections decisions increasingly complex.
- The National Site Licensing Project augments the electronic resources available to users but necessitates the development of strategies to ensure continuity at the end of the program.

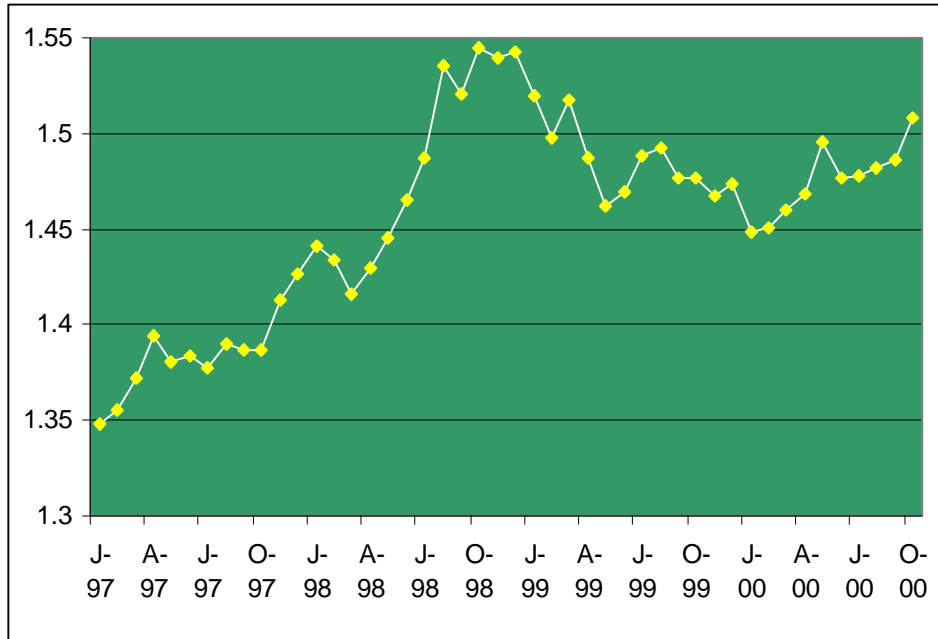
- **Foreign Currencies**

More than 70 percent of the monographs and 85 percent of the serials purchased by the Library are published outside of Canada. Thus, the projected cost of both serials and monographs incorporates an estimate of not only price inflation but of any impact of the value of various foreign currencies relative to the Canadian dollar. The large number of resources purchased from non-Canadian publishers results in significant losses in purchasing power when the Canadian dollar falls compared to other major currencies. Because 45% of our serials are published in the US, a 1 cent drop in the Canadian dollar relative to the US dollar results in a loss of approximately \$60,000 to the Library.

The Canadian dollar strengthened against the US Dollar and British Pound in the latter part of 1999 and into 2000. A similar trend was seen against the German Mark and the Dutch Guilder. Serial subscriptions are typically invoiced and paid in late October or November each year so that the value of the Canadian dollar at that time of year is most relevant. Projections made during budget preparation endeavour to anticipate the value of the Canadian dollar at invoice payment time. These projections are monitored and revised as required throughout the year.

FOREIGN CURRENCIES (continued)

American Dollar 1997-2000



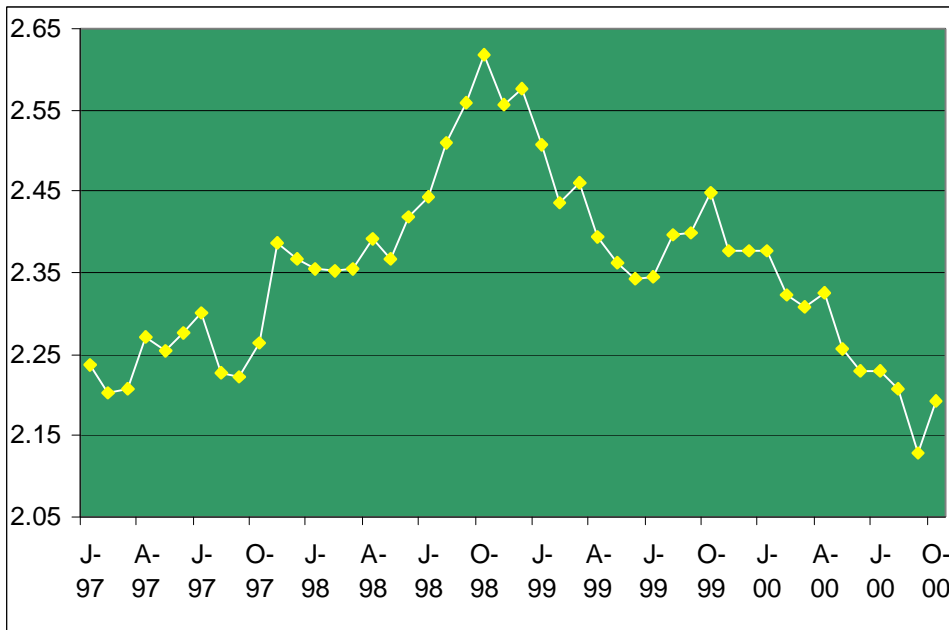
1997 Average: 1.3846
 Low: 1.3485 (Jan)
 High: 1.4267 (Dec)

1998 Average: 1.4835
 Low: 1.4163 (Mar)
 High: 1.5450 (Oct)

1999 Average: 1.4857
 Low: 1.4620 (May)
 High: 1.5192 (Jan)

2000 Average: 1.4756
 Low: 1.4489 (Jan)
 High: 1.4954 (May)

British Pound 1997-2000



1997 Average: 2.2681
 Low: 2.2029 (Feb)
 High: 2.3865 (Nov)

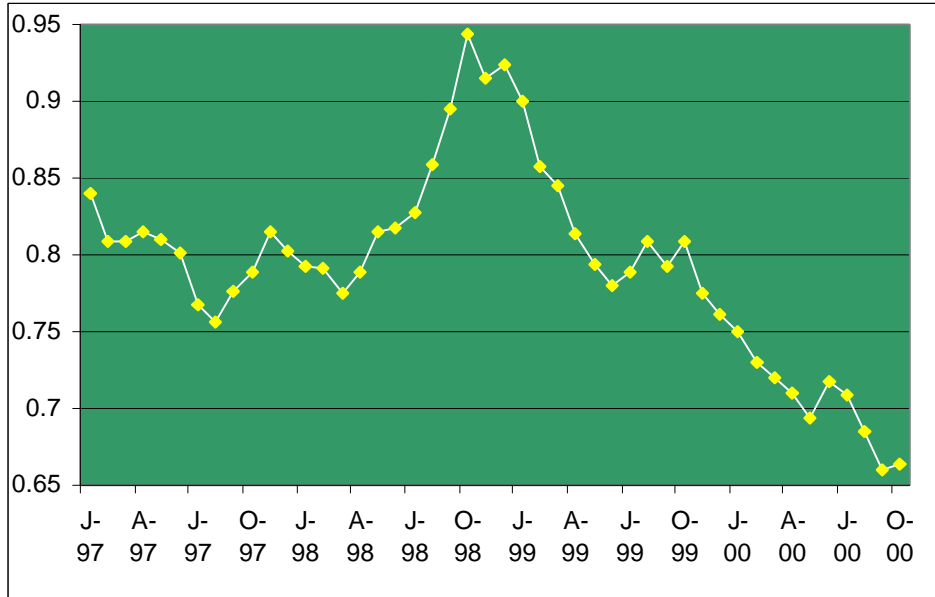
1998 Average: 2.4587
 Low: 2.3519 (Feb)
 High: 2.6189 (Oct)

1999 Average: 2.4039
 Low: 2.3433 (Jun)
 High: 2.5068 (Jan)

2000 Average: 2.2573
 Low: 2.1297 (Sept)
 High: 2.3774 (Jan)

FOREIGN CURRENCIES (continued)

German Mark 1997-2000



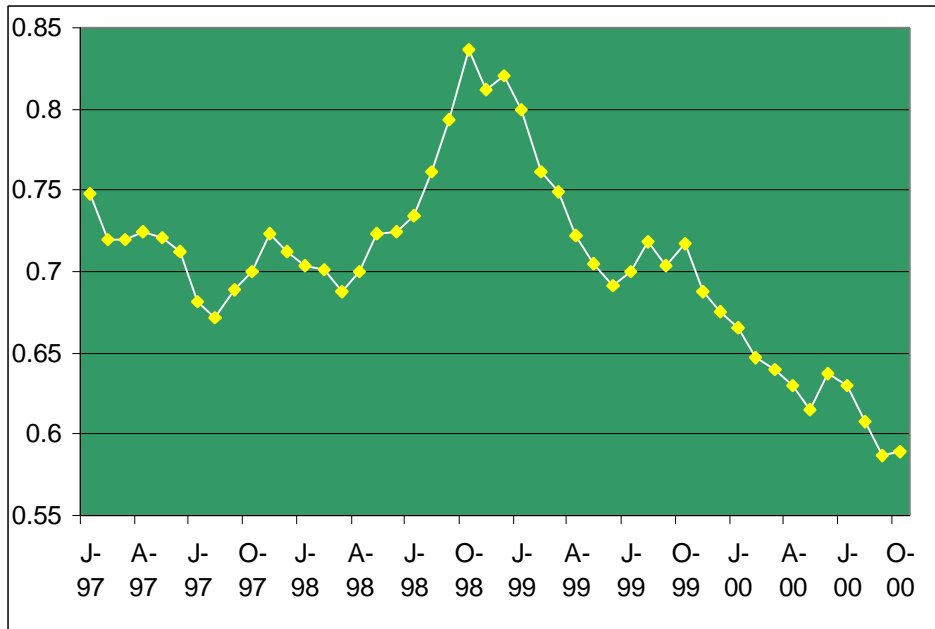
1997 Average: 0.7992
 Low: 0.7563 (Aug)
 High: 0.8398 (Jan)

1998 Average: 0.8453
 Low: 0.7751 (Mar)
 High: 0.9433 (Oct)

1999 Average: 0.8104
 Low: 0.7617 (Dec)
 High: 0.9005 (Jan)

2000 Average: 0.7039
 Low: 0.6606 (Sept)
 High: 0.7500 (Jan)

Netherlands Guilder 1997-2000



1997 Average: 0.7101
 Low: 0.6715 (Aug)
 High: 0.7478 (Jan)

1998 Average: 0.7499
 Low: 0.6878 (Mar)
 High: 0.8363 (Oct)

1999 Average: 0.7194
 Low: 0.6760 (Dec)
 High: 0.7992 (Jan)

2000 Average: 0.6248
 Low: 0.5863 (Sept)
 High: 0.6657 (Jan)

- **LOSS OF BUYING POWER – IMPACT OF INFLATION**

Based on estimates from our major book and periodical vendors and projected trends in the currency markets, the Library is predicting price increases of 2% for monographs and 8% for periodicals and other serials in 2000/2001. These projections are based on a relatively stable Canadian dollar.

A minimum of \$500,000 hard is required to maintain current serial subscriptions. \$900,000 will also enable expanded holdings of electronic resources, and continued commitment to the print collection. The Library's ranking as number one in holdings/student in Maclean's will be assured.

BUDGET SCENARIOS

	NOTE	No Increment to Base	\$500,000 Hard	\$1,100,000 Hard	\$1,975,000 Hard
SALARIES					
		14,110,388	0	200,000	200,000
INFORMATION RESOURCES					
Monographs		2,241,600	0	172,000	172,000
Serials		6,510,000	500,000	520,000	520,000
Interlibrary Loans		245,000	0	-	-
Handling & Administration		398,000	0	-	-
Innovative Electronic Resources		234,000	-	80,000	80,000
Interdisciplinary Electronic Resources		560,000	-	-	-
Bindery		194,400	-	-	-
Contingency	1	124,000	0	128,000	128,000
		10,507,000	500,000	1,100,000	1,100,000
ACCESS TO INFORMATION RESOURCES	2	1,335,000	-	0	0
GENERAL OPERATING & CAPITAL		1,783,140	0	0	875,000
		27,735,528	500,000	1,100,000	1,975,000
TOTAL					

NOTE 1 Contingency funds exist to enable the Library to respond to unplanned opportunities that might occur during the year and to buffer price inflation or foreign exchange fluctuations that were beyond what was anticipated in the budget development. As the fiscal year end approaches, unspent contingency funds are allocated to priority information resource needs, typically monographs.

NOTE 2 Access to Information Resources includes the cost of cataloging, primarily monographic material, and the provision of access to electronic materials.

OPERATING BUDGET STATEMENT
2001/2002

	BASE BUDGET 2001-2002	BASE BUDGET 2001-2002	BASE BUDGET 2001-2002	BASE BUDGET 2001-2002
	NO INCREMENT	500,000	1,100,000	1,975,000

REVENUE

TOTAL REVENUE	1,635,500	1,635,500	1,635,500	1,635,500
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EXPENDITURES

TOTAL SALARIES	14,110,388	14,110,388	14,310,388	14,310,388
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TOTAL GENERAL OPERATING & CAPITAL (Equipment, Furniture, Software etc.)	1,783,140	1,783,140	1,783,140	2,658,140
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TOTAL ACCESS TO INFORMATION RESOURCES	1,335,000	1,335,000	1,335,000	1,335,000
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TOTAL INFORMATION RESOURCES	10,507,000	11,007,000	11,407,000	11,407,000
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TOTAL EXPENDITURES	27,735,528	28,235,528	28,835,528	29,710,528
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NET BUDGET	26,100,028	26,600,028	27,200,028	28,075,028
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III. CONCLUSION

In 2001/2002, the University of Alberta Library will pursue its strategic objectives of:

- rebuilding the professional and support staff complement, particularly in staffing for the digital environment
- ensuring the Library's position within a community of digital research libraries.
- building public computing and renewing the technology infrastructure for information services and productivity support through a life cycle model for technology replacement
- purchasing more electronic resources, which will reduce the barriers that accompany print sources, recognizing that this direction will have some impact on the other areas of the operating budget (hardware, software, technical support, etc.), and
- continuing established targets for a fixed percentage of the Information Resources Budget to be spent on serials and monographs.