PRESENT SITUATION AND ISSUES OF THE CONSORTIA OF ELECTRONIC JOURNALS IN JAPAN

IADLC in NAGOYA

August 25-26, 2005

Vice President of Japan Association of National University Libraries
Professor, Director of University Library
Nagoya University, Japan

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New Age & Background
Present Environment around Libraries

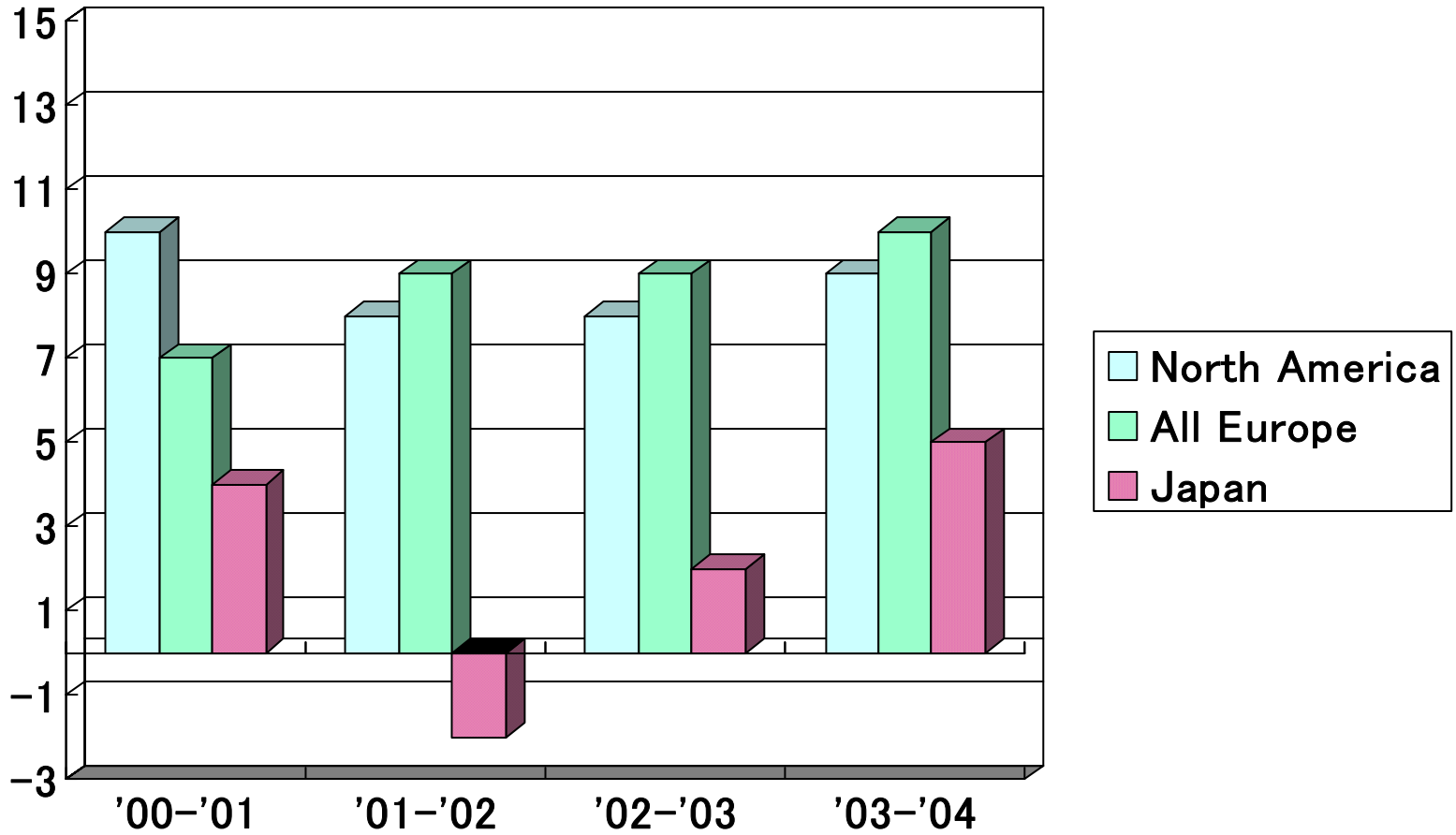
Difficulty for collecting print and digital version

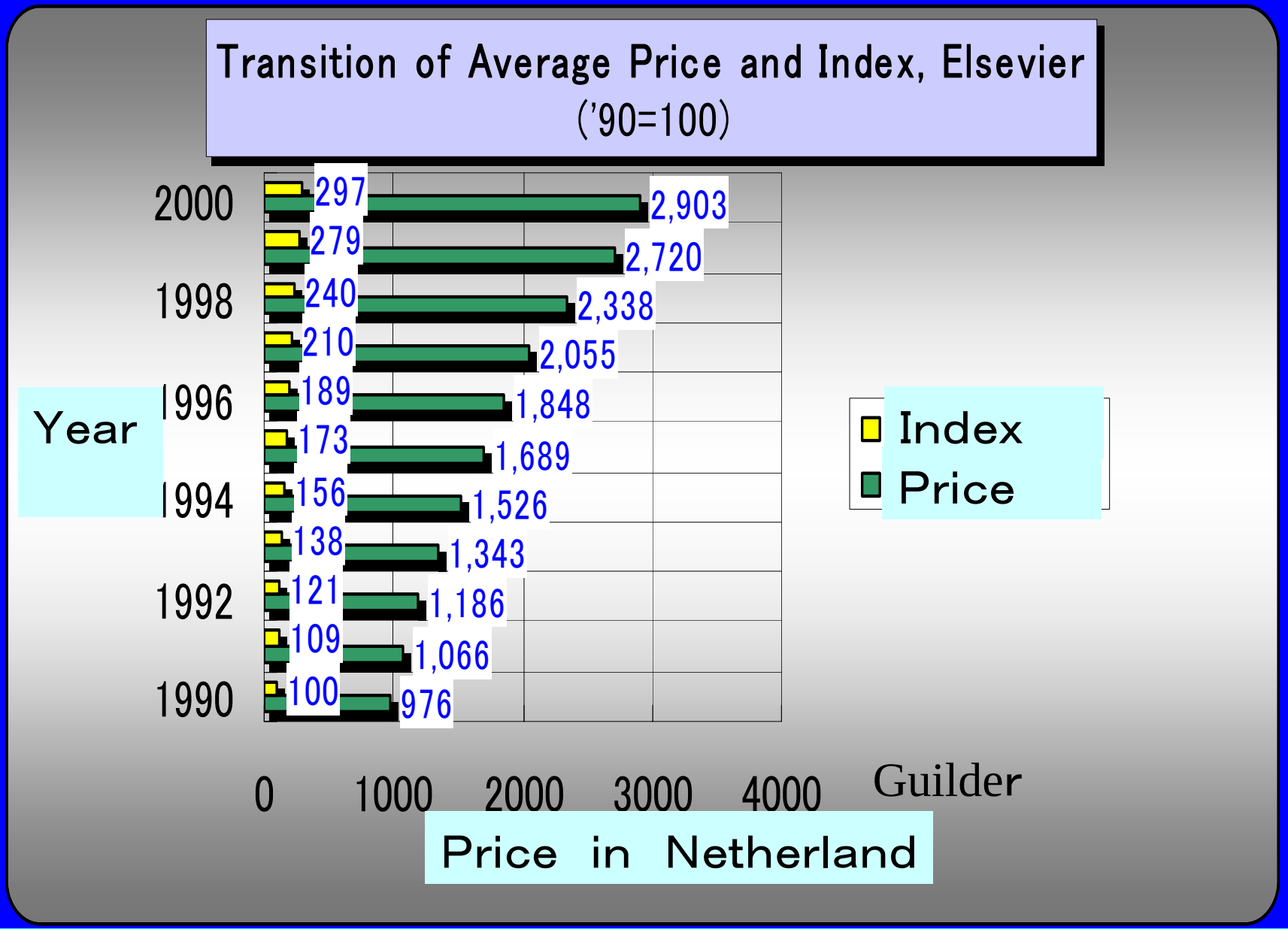
Journal crisis and electronic journal

- Journal crisis
  - Inflated number of titles, rising price
  - Declining library budget
  - Price hike→unsubscriptions→price hike (vicious spiral)
  - Factors of journal price hike

Commercial academic publishers in oligopolistic situation

Price Raising Rate

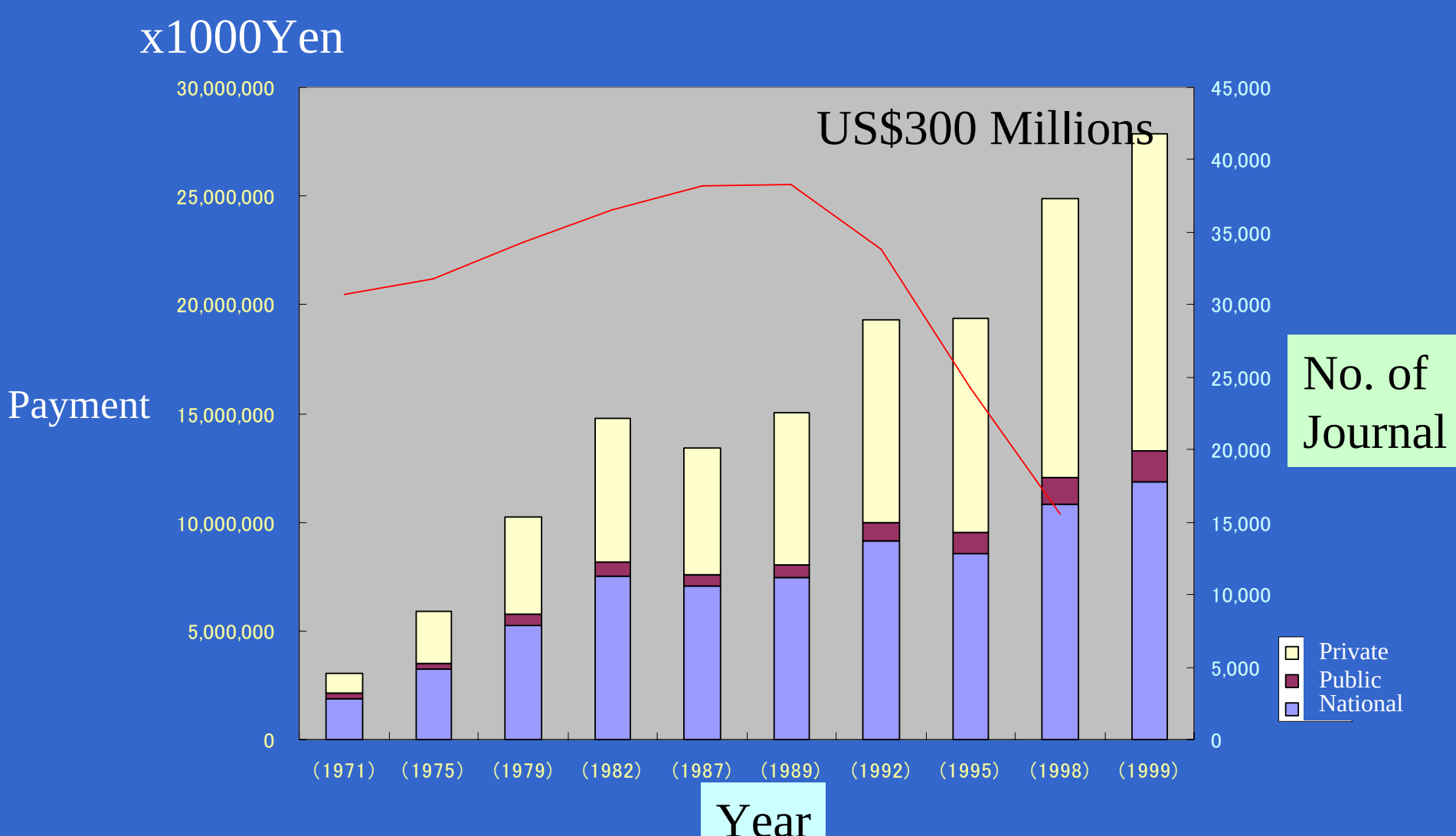




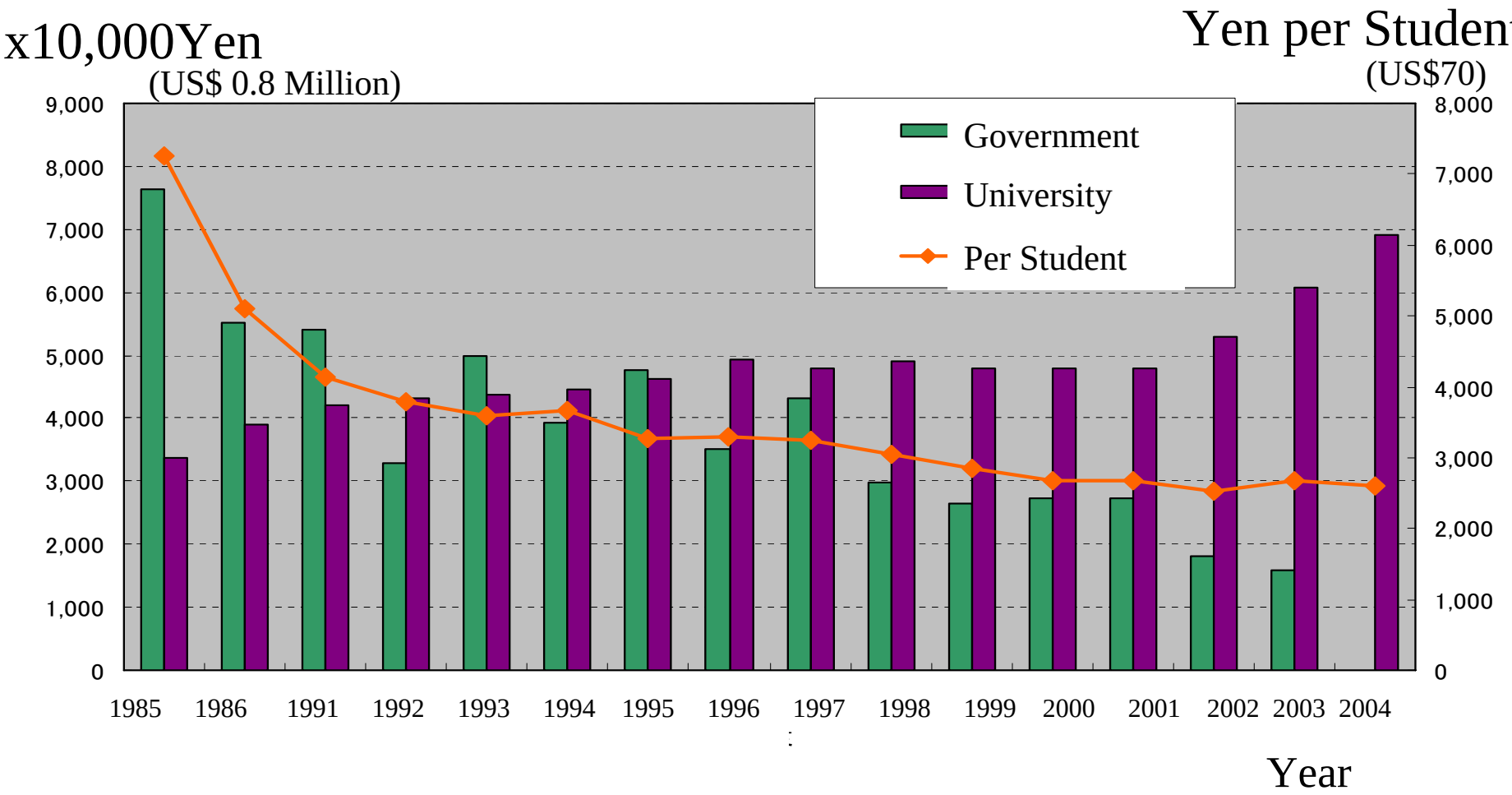
University Libraries in Japan : over US$300 millions paid to publishers

Reality of University Libraries in Japan

Purchase of foreign journals & accessions



Transition of Budget in Nagoya University Library



Student:16,500　Faculty and Staff: 3,500

One of the 7 Largest National Universities in Japan

Electronic Journal

nature

Nature Journals | Specialist Jo

quick search | volume

naturejobs
making science work

- search jobs
- career info
- spotlight
- events

gateways

- asia gateway
- german gateway
- japan gateway
- genome gateway
- physics portal
- cancer update

resources

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table of contents | arch

advance online publicati

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Nobel officials recoil from expenses offer

David Cyranoski, Tokyo

An offer by a Japanese government organization to pay for Nobel Foundation officials to visit prize-hungry Japan is ruffling feathers in Stockholm.

The Science Council of Japan says it will pay for Nobel laureates and representatives — including the director and secretary of each of the Nobel Foundation's three scientific committees — to travel to Tokyo next March for a forum celebrating 100 years of the Nobel prizes.

But one of the invited officials says the offer to cover the trip's expenses is unnecessary and inappropriate — especially at a time when Japan has set a national target of winning 30 Nobel prizes in the next 50 years.

"The invitations pose an ethical problem for me as there is such an outspoken Japanese policy to acquire Nobel prizes," says Anders Bárány, a physicist at Stockholm University and secretary of the physics committee. "The Nobel Foundation has enough money to pick up the bill."

The government's Nobel target has been attacked by some Japanese academics as inappropriate (see *Nature* **413**, 562; 2001). But others have defended it as a harmless goal that will spur researchers and help to ensure political support for science in Japan.

Role model: Ryoji Noyori won a Nobel prize this year, but Japan wants 30 more like him by 2050.

The March forum will coincide with the opening of a touring exhibition on the Nobels, for which Japan is the first stop. "In other international events, it has been customary to cover invitees' costs," says Kiyoshi Kurokawa, vice-president of the science council. "This isn't special treatment." But he adds that the council "will wait to see how the Nobel Foundation wants to handle expenses" before it actually pays them.

Not all Nobel Foundation officials are concerned by the proposed arrangement. "For travel and hotel expenses to be covered by the inviting organizers seems to be standard procedure," says Michael Sohlman, executive director of the Nobel Foundation.

Bárány says he supports the forum itself, but fears a repeat of the controversy that attached itself to the 1986 award of the medicine prize to Rita Levi-Montalcini of Italy's Institute of Cell Biology in Rome. It was later alleged in Swedish newspapers that a Nobel committee member had accepted an expenses-paid trip from a drug company that wanted Levi-Montalcini to get the prize. "Investigations showed that the Nobel committee member just failed to realize that this kind of question can come up," says Bárány, adding that this was "silly, as each committee has money for this kind of travel anyway".

But there are no clear guidelines for what committee members can or cannot accept in terms of invitations. Bárány says he wants the Nobel Foundation to address this issue quickly. But Sohlman does not think it is a problem. "We have been relying on the common sense of the members of the Nobel institutions for a hundred years now," he says, "and have reason to continue to do so." ■

Mathematicians poised for major funding boost

Erica Klarreich

Increased support for mathematics research is set to form a central plank of the 2003 budget for the US National Science Foundation (NSF) to be proposed by President George W. Bush in February.

Mathematicians hope that the increase will allow the agency to deliver larger grants. Compared with other disciplines, where the median NSF grant is $80,000 per year, mathematics' median is only about $35,000 — described as "a disgraceful number" by Philippe Tondeur, head of the NSF's mathematics division.

Back in October 2000, NSF director Rita Colwell called for the mathematics budget — $121 million in 2001 — to quadruple by 2007 (see *Nature* 407, 931; 2000). But the 2002 budget will only increase the subject's allocation by about $20 million, far short of Colwell's goal. Tondeur says that he hopes the 2003 figure will be "on a higher scale" than that for 2002. Senior officials in the agency say he will not be disappointed.

The government cannot release details of the budget in advance, but Sam Rankin, associate executive director of the American Mathematical Society (AMS), says that mathematicians are looking for a division budget of as much as $200 million.

The money would pay for new interdisciplinary projects linking mathematics to biology, computer science and geosciences, Tondeur says. It would also allow the division to expand its programme of Grants for Vertical Integration of Research and Education, launched in 1999, between senior faculty, postdoctoral researchers, graduate students and undergraduates.

US mathematicians complain that funding for their discipline has been declining since the 1970s as defence agencies, which used to fund much of their work, became less supportive of basic research. The NSF now accounts for nearly three-quarters of federal funding of mathematics. But only about 1,500 mathematicians — a small fraction of academic mathematicians — get NSF grants each year, according to Rankin.

"The backbone of mathematics is the individual investigator, and the system has not kept pace with the number of strong investigators in recent years," says David Eisenbud, director of the Mathematical Sciences Research Institute in Berkeley, California.

The new initiative should create a very different picture, Tondeur says. "It's going to be a really adventurous period for the mathematical sciences," he says. "There's a growing perception that mathematics is an

Brief History of EJ Development

- Rapid increase of EJ (’90s)
  - 1991 : 110 titles experimental stage
  - 1993 : 240
  - 1995 : 700
  - 1997 : 1, 465 practical stage
  - 1999 : 10, 332（Ulrich）
  - 2000 : 14, 757
  - 2001 : 20, 935
  - 2002 : 27, 083 oligopolistic 102 Comp.
  - 2003 : 30, 000 15, 627 Titles
  - 2004 : 39, 900

Free access to licensing agreements

➔ site license, consortium (primarily)

Association of National University Libraries, Japan (ANUL)
Electronic Journal Taskforce

September 2000

Purposes

1. **To flexibly and promptly negotiate with Elsevier for ANUL**
2. **To check EJ supplied by publishers other than Elsevier**
3. **To examine immediately-required steps against change of scholarly information distribution raised by EJ introduction**

Librarians' self-action

Setup

"Electronic Journal Task Force" (chief: Director&Prof. Itoh)

Over 100 meetings for 5 years in Tokyo
Negotiations with large 16 publishers, etc.
ca.12,000 titles with US$ 100 Millions on consortia contracts

Negotiating Methods

1) Confirmation of negotiating partner

Inviting vice-president in charge from abroad

Confirming negotiating ability of Japan branch offices, reserving the right to negotiate directly

2) Explanation of Japanese circumstances (prepared in Japanese and English)

National universities' situation, accounting regulations

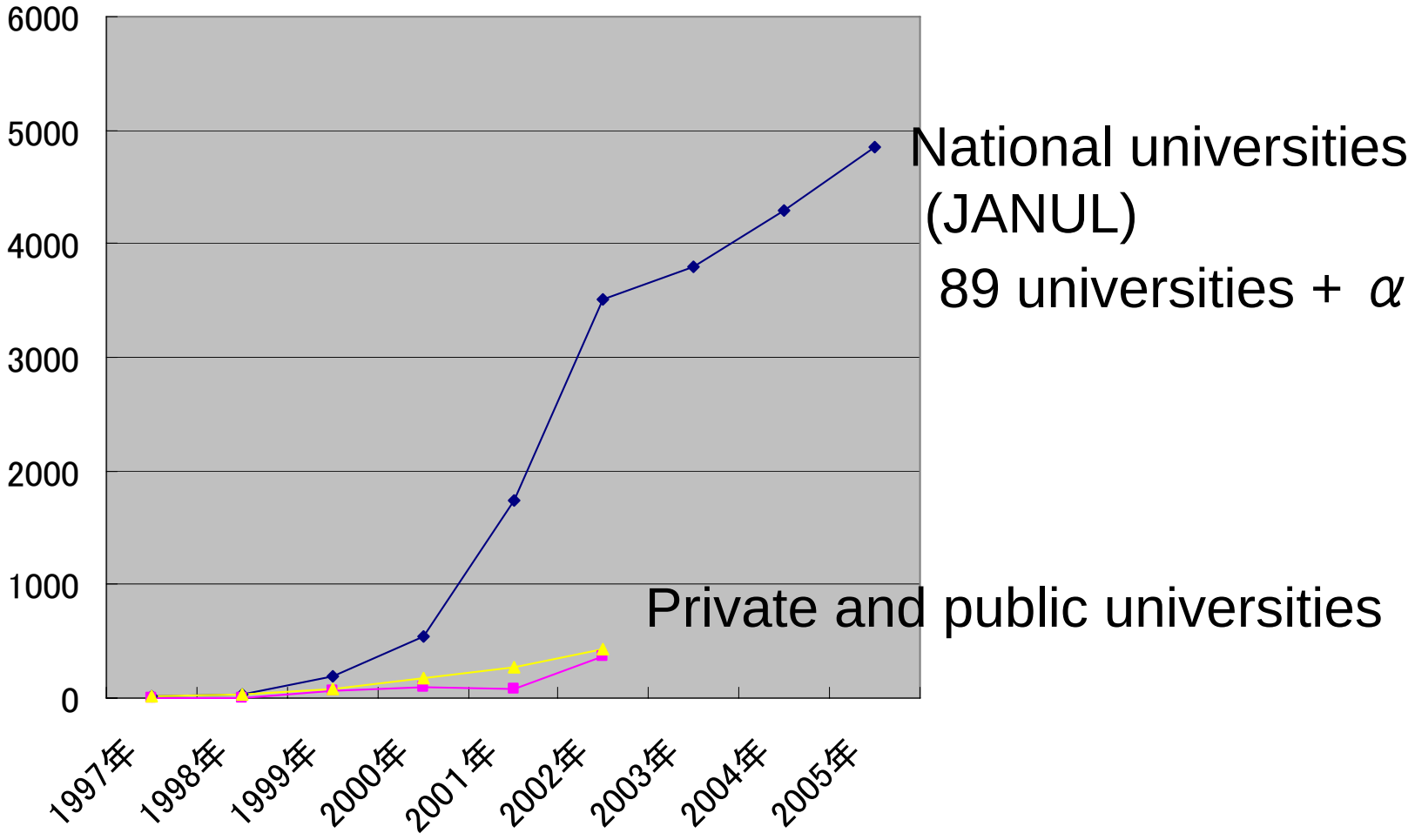
Decision-making process in libraries (for journals) etc.

3) Negotiation representing all national universities (99+ α)

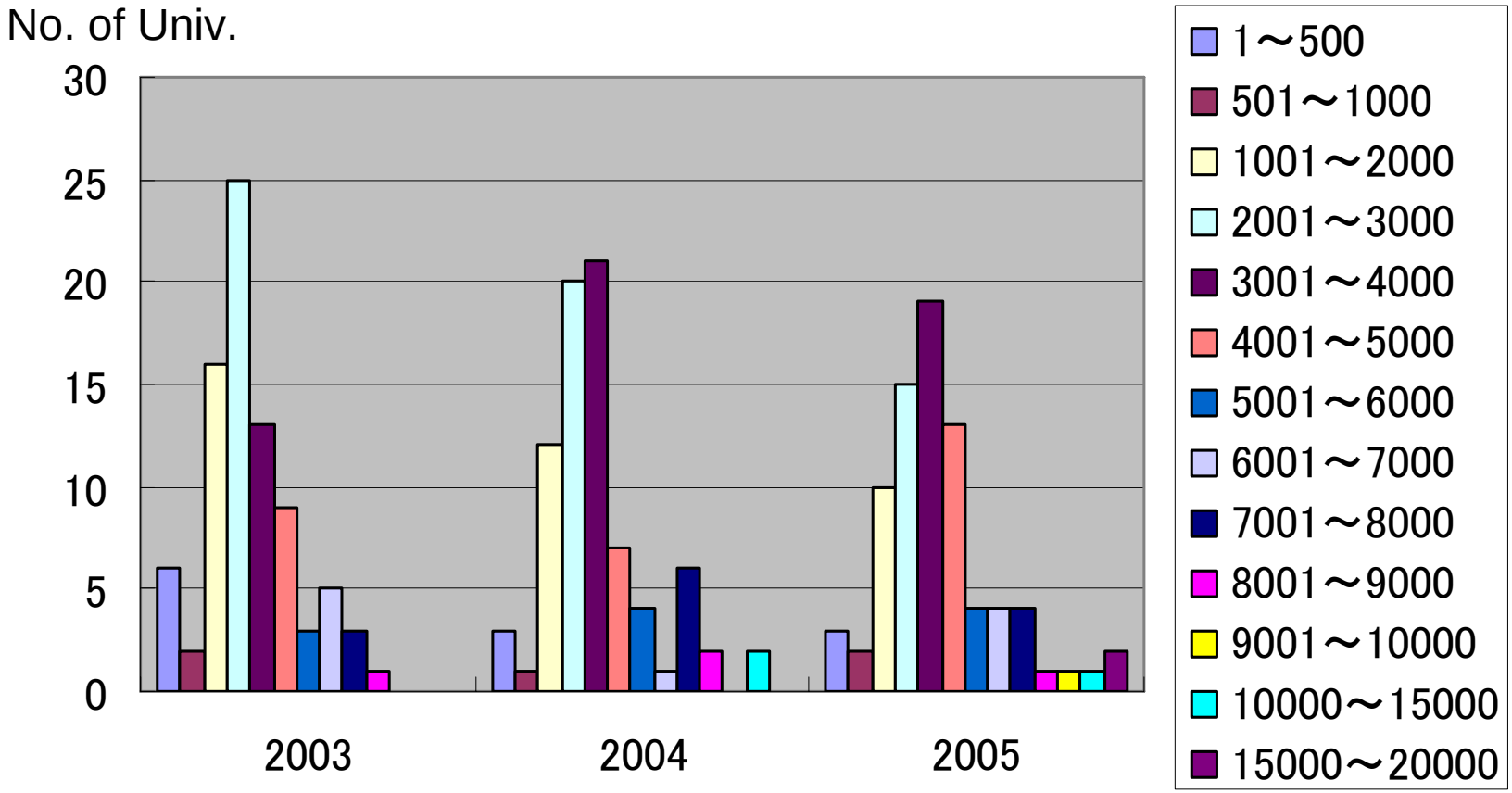
Check Points in Negotiation

- Benefits by the formation of consortia （Discount）
- Bridging digital divide in JANUL
- EJ-focused price model
- Cap on price hike
- FTE (faculty/graduate/undergraduate, all staff/fields) : Advantageous counting
- Definitions of site : Not allow Multi-sites
- Stable Supply
- Usage statistics　COUNTER compatible
- Others

Average Number of E-Journals in Universities in Japan (1997～2005)



Number of E-Journals in National Universities：2003～2005



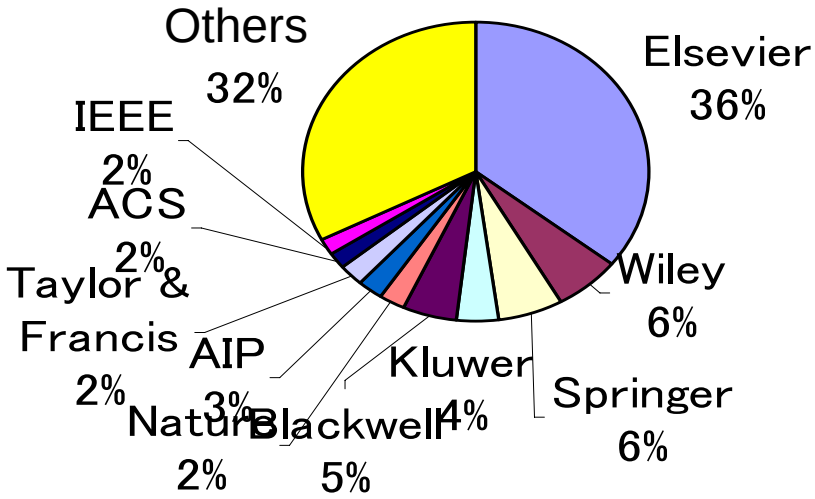
Number of Participated Institutions：2002-2005

Publisher	Collection (Approximate Title Number)	No. of Institution			
		2002	2003	2004	2005
ACM (Association for Computing Machinery)	ACM Digital Library , Online Guide to Computing Literature (270)	–	13	16	17
ACS (American Chemical Society)	(30)	–	–	27	34
APS (American Physical Society)	(8)	–	–	29	30
Blackwell	Synergy (700)	56	56	60	56
CUP (Cambridge University Press)	Cambridge Journals Online (180)	–	–	18	19
EBSCO		–	–	30	32
Elsevier					
Limited Collection		4	2	7	6
Completed Collection (Continued)		62	26	37	38
Completed Collection		–	–	8	4
Subject Collection		–	–	7	5
Freedom Collection	(1,800)	15	36	30	39
Shared Access	(970)	–	44	31	25
Life Science Collection	(390)	12	29	24	15
Web		–	2	–	–
Total of Elsevier		93	97	94	82

Publisher	Collection (Approximate Title Number)	No. of Institution			
		2002	2003	2004	2005
IEEE-CS	CSLSP-e(Journal;23, Proceedings:1,200)	–	17	20	16
	Proceedings only (1,200)	–	2	2	3
Karger	Karger Online (80)	–	7	7	7
LWW (Lippincott Williams & Wilkins)	(100)	–	–	10	11
Nature	Nature,Nature姉妹誌, EMBO	–	–	41	47
OUP (Oxford University Press)		–	–	–	10
ProQuest		–	15	17	18
RSC (Royal Society of Chemistry)		–	–	–	1
Springer	SpringerLink (440)	77	84	71	67
Kluwer	Kluwer Online (640)	–	55	56	51
UNIBio Press	(3)	–	–	13	14
Thomson Scientific	Web of Science	15	20	23	25
Wiley	InterScience (360)	61	67	65	64

Payment for Foreign Journals in National Universities

Total：(Approx. US$ 100 millions)



Example of Contract Templates

—With Elsevier Science —

95 Universities

1. **Limited Collection : Subscribing to electronic journals of a part of the subscribed print version.**
2. **Completed Collection : Subscribing to the all titles of the print version**
3. **Subject Collection : Subscribing to the titles of a specific subject**
4. **Freedom Collection : Subscribing to the all titles of Elsevier Science**
5. **Sub-consortium (Sheared Access) :**

Subscribing to the titles of a set of the print version (more than 900) of the 46 universities without additional payment

➔ Large Advantage

Proposals from EJ Taskforce

Contract Templates
Making of specific plans

Joint Projects of Taskforce

Archives and Mirror Sites Project

Survey of End-Users

Establishment of User Education Programs

National Informatics Institute

Library-initiated

Outline of the Surveys

- Objective:
  - To investigate usage and use intentions for e-journals in national universities
- Samples: Faculty and graduate students at the following universities
  - 2001: 10 universities (Hokkaido Univ., Tohoku Univ., Chiba Univ., Univ. of Tokyo, Tokyo Institute of Technology, Nagoya Univ., Kyoto Univ., Osaka Univ., Hiroshima Univ., and Kyushu Univ.)
  - 2003: 3 more universities in addition to the above (Hitotsubashi Univ., Joetsu Univ. of Education, and Shimane Univ.)
- **Sample Sizes**:
  - 2001: 2,930 mailed out; 1,003 completed (34.2%)
  - 2003: 3,750 mailed out; 1,619 completed (43.2%)
- Method:
  - The questionnaire was sent to the target faculty members and graduate students via respective university libraries. The responses were collected at the respective university libraries and sent back to the commissioned consulting agency.
- Administered by the E-Journal Task Force, the (then) Association of National University Libraries
- Consulting agency: Nikkei Research Inc.

Frequency of Use of Electronic Journals

Question: How often have you used "electronic journals" in the past 1-2 years?

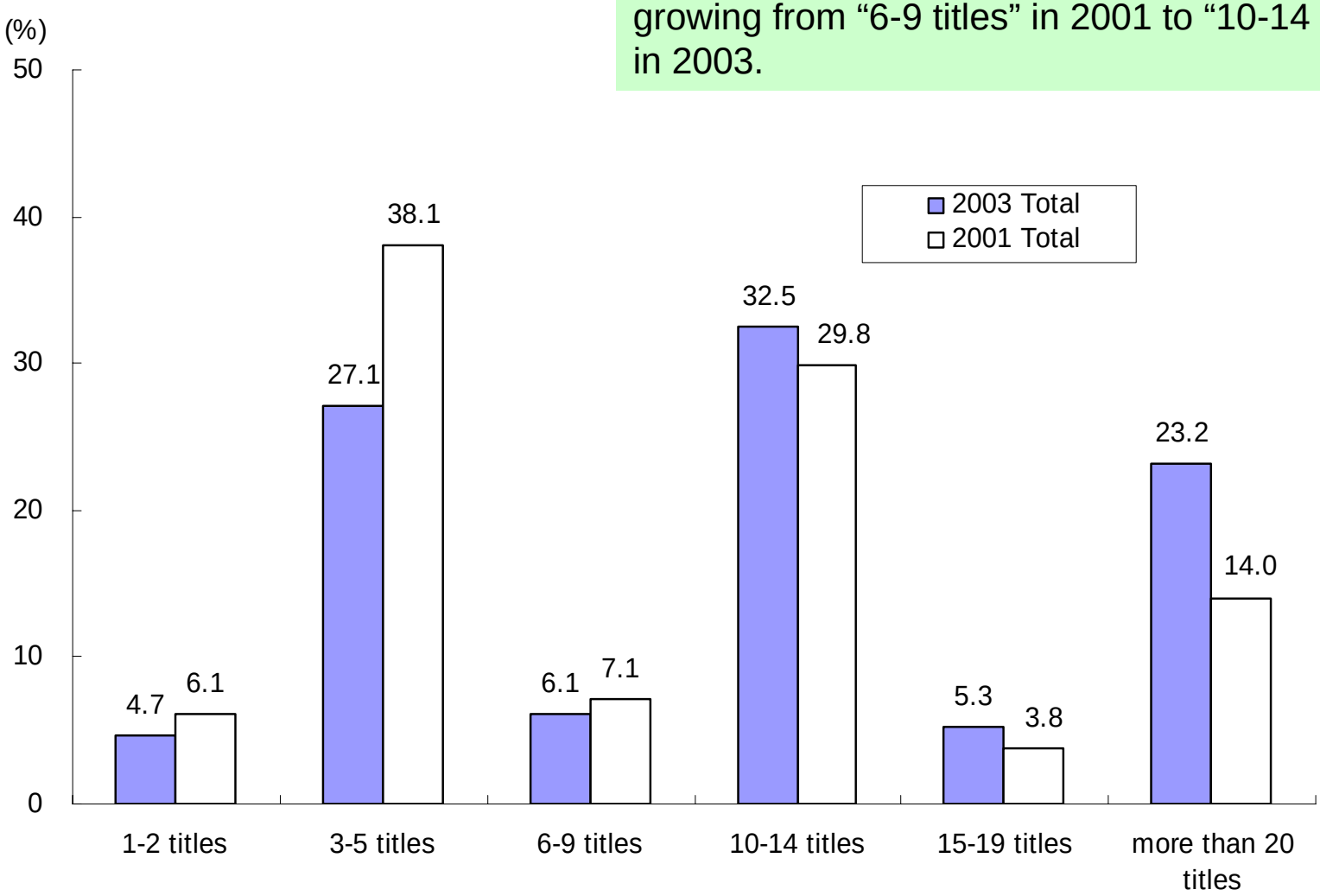
Electronic journals have become basic research infrastructure in Natural Sciences. Regular users in Human & Social Sciences have also increased but still considerably low than in Natural Sciences.

		2003	2001	change
Total	almost every day	19.5	12.6	+6.9
	< once a week	51.9	36.5	+15.4
	< once a month	73.2	55.6	+17.6
Natural Sciences	almost every day	24.3	15.7	+8.6
	< once a week	62.3	44.2	+18.1
	< once a month	84.7	66.5	+18.2
Human & Social Sciences	almost every day	3.9	1.4	+2.5
	< once a week	18.0	9.0	+9.0
	< once a month	36.0	16.5	+19.5

Number of Titles Used

Question: Approximately how many journals (number of titles) do you use?

The number of titles used on a regular basis has also increased, with the median number growing from “6-9 titles” in 2001 to “10-14 titles” in 2003.



Information Sources for Electronic Journals

Question: Where do you normally obtain information on electronic journals?

"Internet" (58.6%) scores highest, followed by "personal communication" (39.2%) and "library notices" (38.5%). Library notices" scores significantly higher for faculty than graduate students, and significantly decreased in 2 years

	2003 Total	2001 Total	2003 N.S. Faculty	2003 N.S. Graduate	2003 H&S.S. Faculty	2003 H&S.S. Graduate
Internet (e.g. web sites)	58.6 #1	53.5	61.6 #1	62.1 #1	44.2 #2	54.4 #1
Other researchers	39.2 #2	35.9	36.6	47.3 #2	36.4	36.3 #2
Library notices	38.5	50.8	41.5 #2	27.3	49.0 #1	33.5
Academic journals	26.3	27.9	33.4	21.9	15.6	11.2
Students	48.4	15.1	12.4	34.2	7.1	30.7
Specialized magazine	18.3	16.2	21.2	15.8	16.9	8.8
Research reports	7.9	7.8	9.1	8.4	5.8	1.9
Publishers	4.9	6.0	6.5	1.5	6.8	0.5

Reasons for Not Using Electronic Journals

Question: Why haven't you used electronic journals in the past 1-2 years?

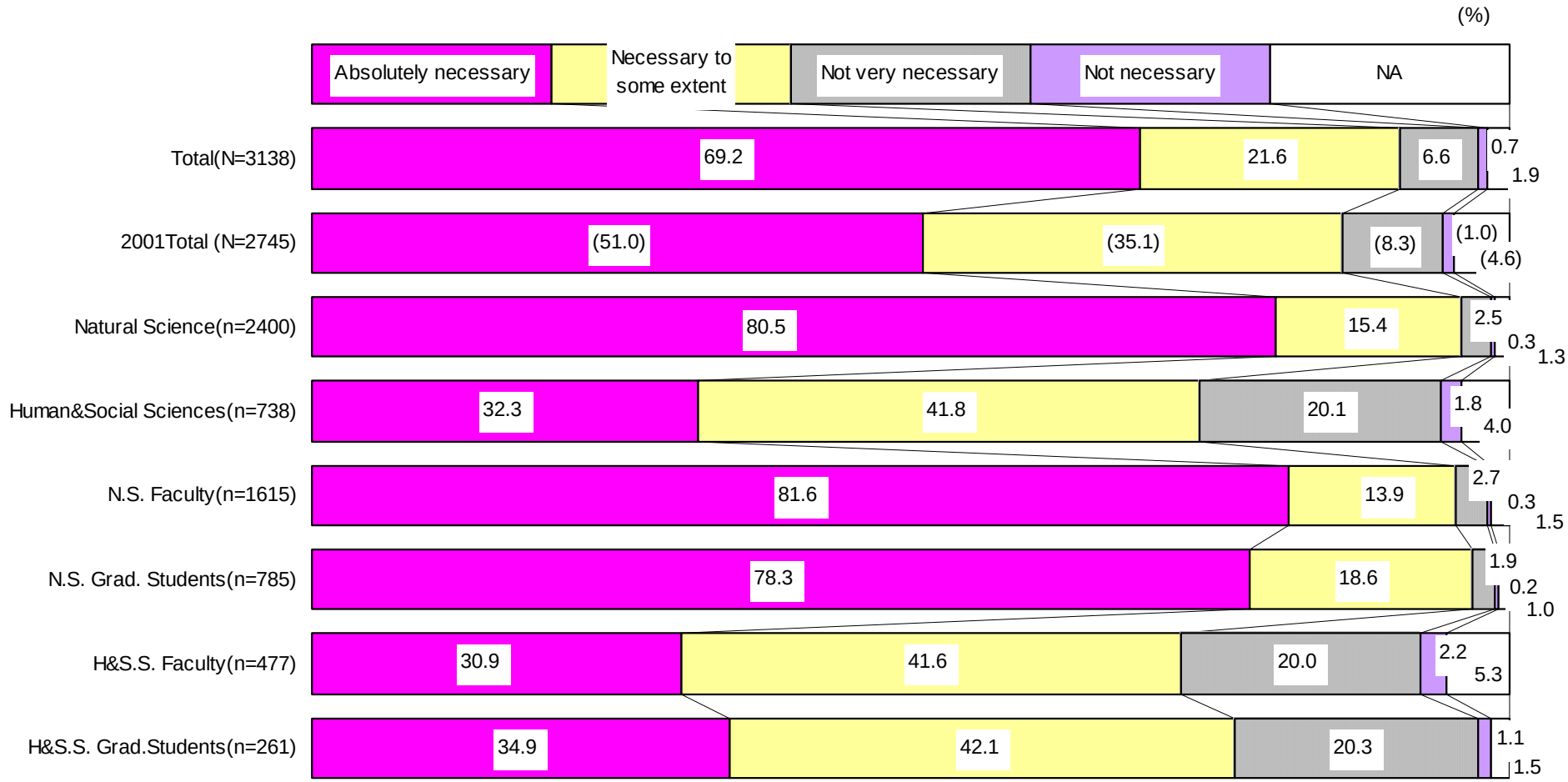
Lack of online titles seems to hinder increase in use in Human & Social Sciences.

	2003 Total	2001 Total	2003 N.S. Faculty	2003 N.S. Graduate	2003 H&S.S. Faculty	2003 H&S.S. Graduate
There are not enough titles in my field of study	36.2 #1	30.4 #1	24.1	21.4	49.2 #1	40.5 #1
Difficult to read on a PC screen	31.1 #2	29.9 #2	29.9 #2	26.8 #1	33.2	32.2
Hardcopy documents are good enough	30.4	29.2	35.6 #1	16.1	34.2 #2	24.0
There are no titles I want to use	28.4	28.5	17.2	26.8 #1	33.7	38.0 #2
I don't know how to use them	26.6	25.1	28.7	23.2	24.9	29.8
Not enough back files	12.6	12.0	16.1	14.3	10.4	9.9
Takes too long to download	8.8	14.5	10.3	1.8	11.4	5.8
Interface is difficult to use	6.4	4.7	6.9	10.7	4.7	5.8
Others	9.7	11.5	13.8	14.3	6.2	6.6

Future Needs for Electronic Journals

Question: Will electronic journals be necessary for your research in the future?

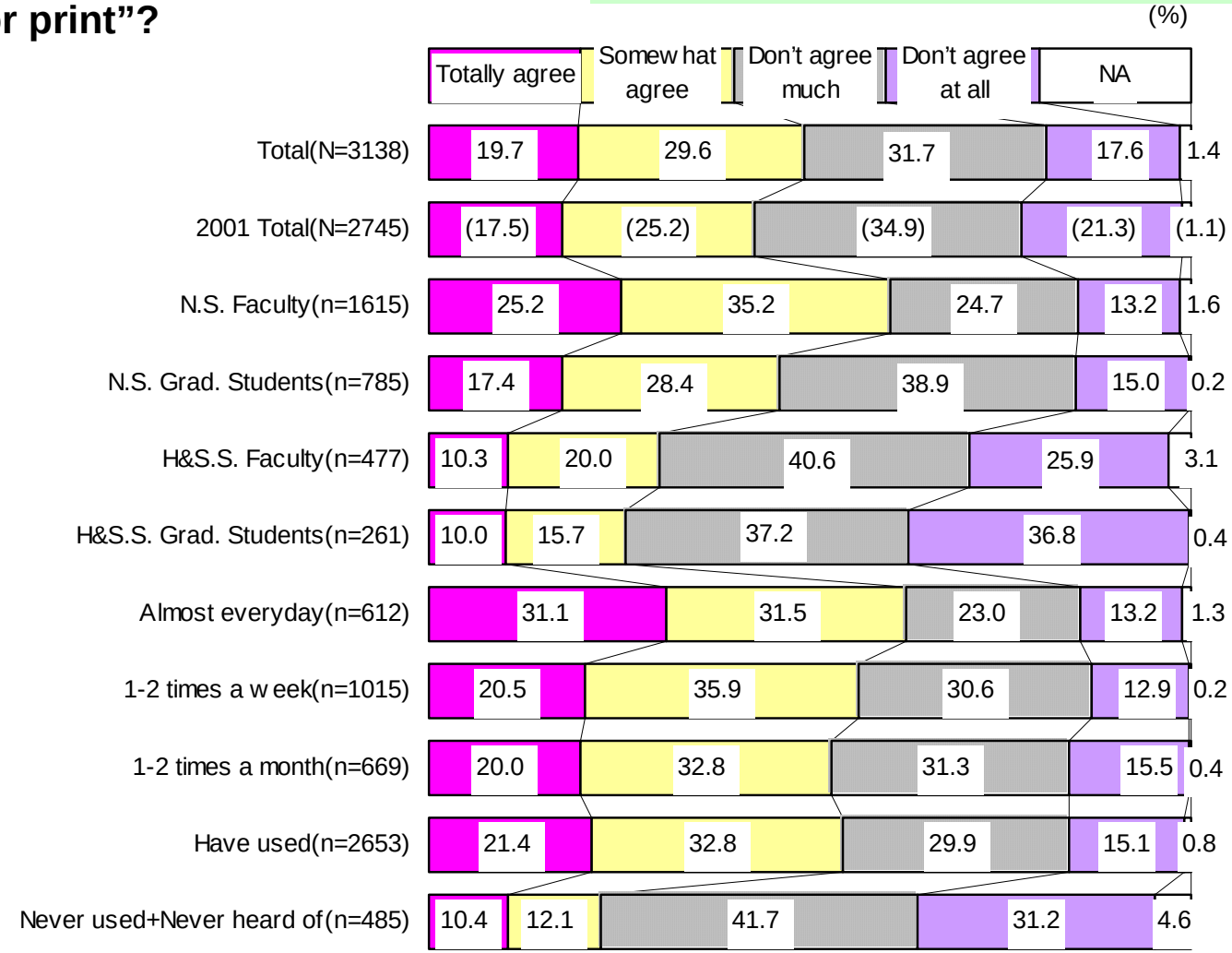
Approximately 70% perceive that electronic journals will be “absolutely necessary” for future research activities.



Needs for Print Journals (1)

Question: Do you agree with the statement “If sufficient electronic journals become available, there will be less needs for print”?

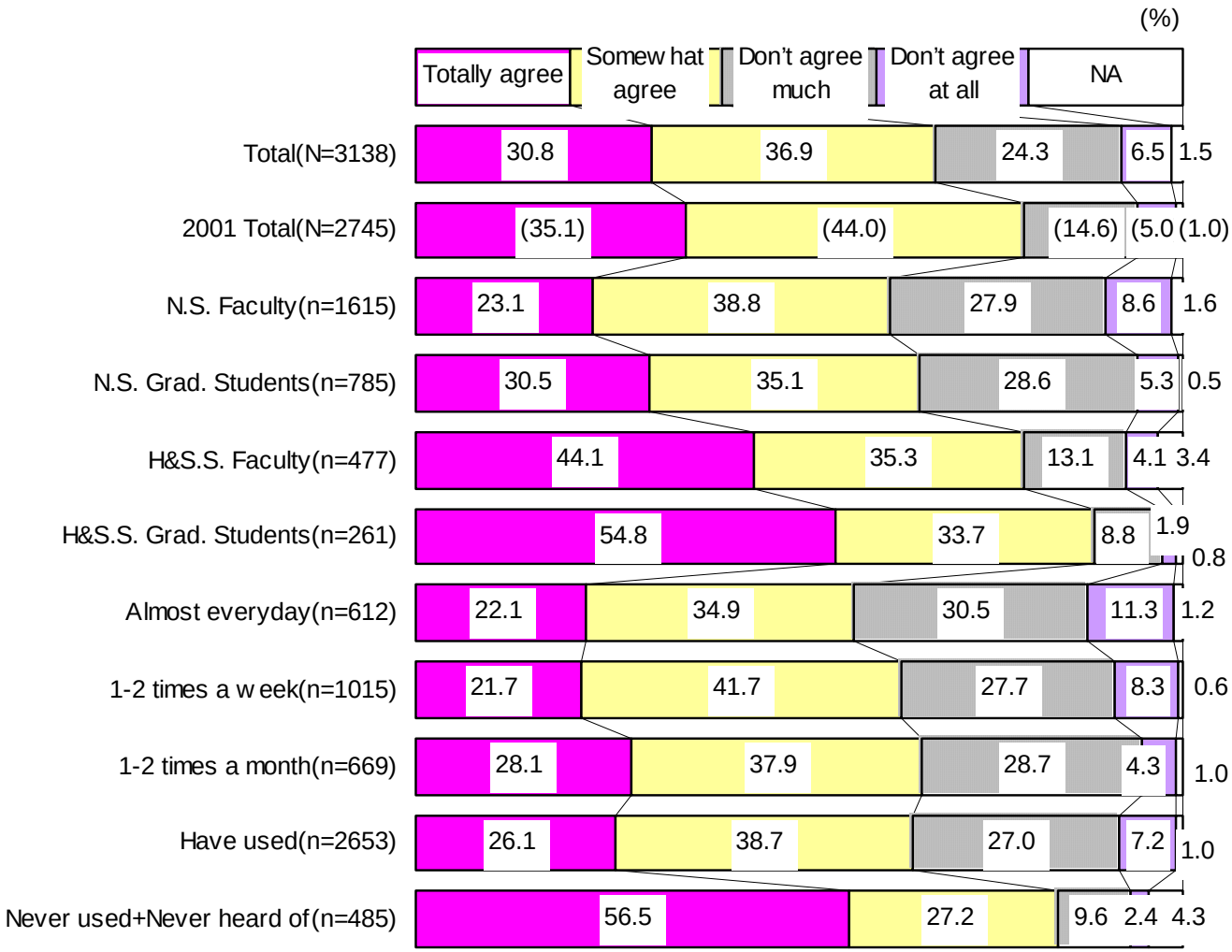
About half of the respondents still feel that print journals will be necessary along with electronic journals.



Needs for Print Journals (2)

Question: Do you agree with the statement “I prefer to use print journals even if electronic journals are available”?

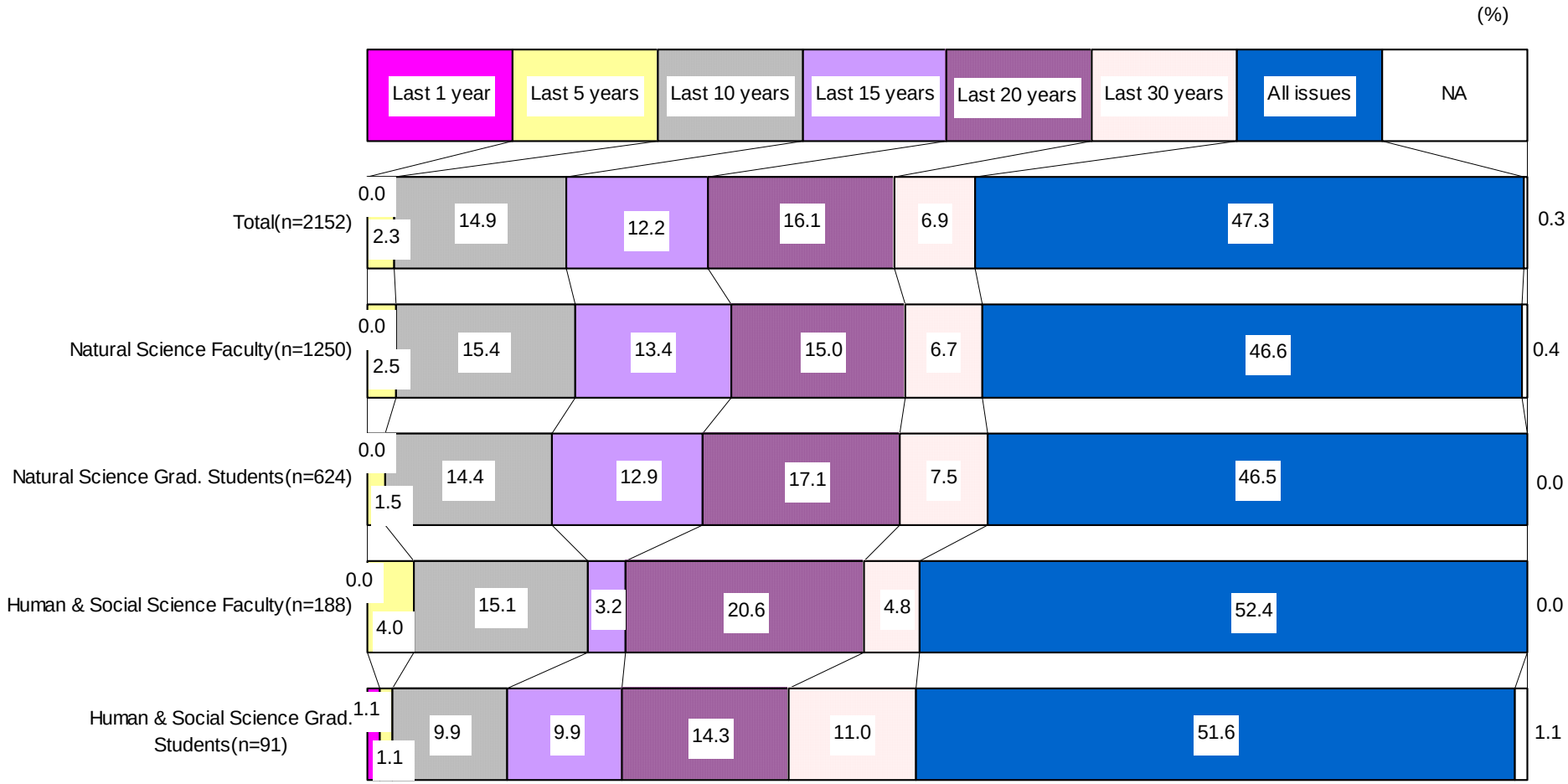
Those in Human & Social Sciences than in Natural Sciences and graduate students than faculty tend to prefer print journals.



Needs for Back Files of Electronic Journals

Question: How many years of back files of e-journals do you think would be sufficient?

47% feel that 30 years or more back files are needed.



Data Format Used

Question: When you read articles of electronic journals, in which data format do you read them most often?

93% use PDF most often. The reason is "prints out neatly" (60%), while the reason in favor of HTML is "takes little time to download".

	HTML	PDF	Postscript	Tex
Total (n=2152)	4.3	92.8	0.9	1.5
Natural Science (n=1874)	3.5	94.0	1.1	1.2
Human & Social Sciences (n=279)	10.2	85.2	0.0	3.7

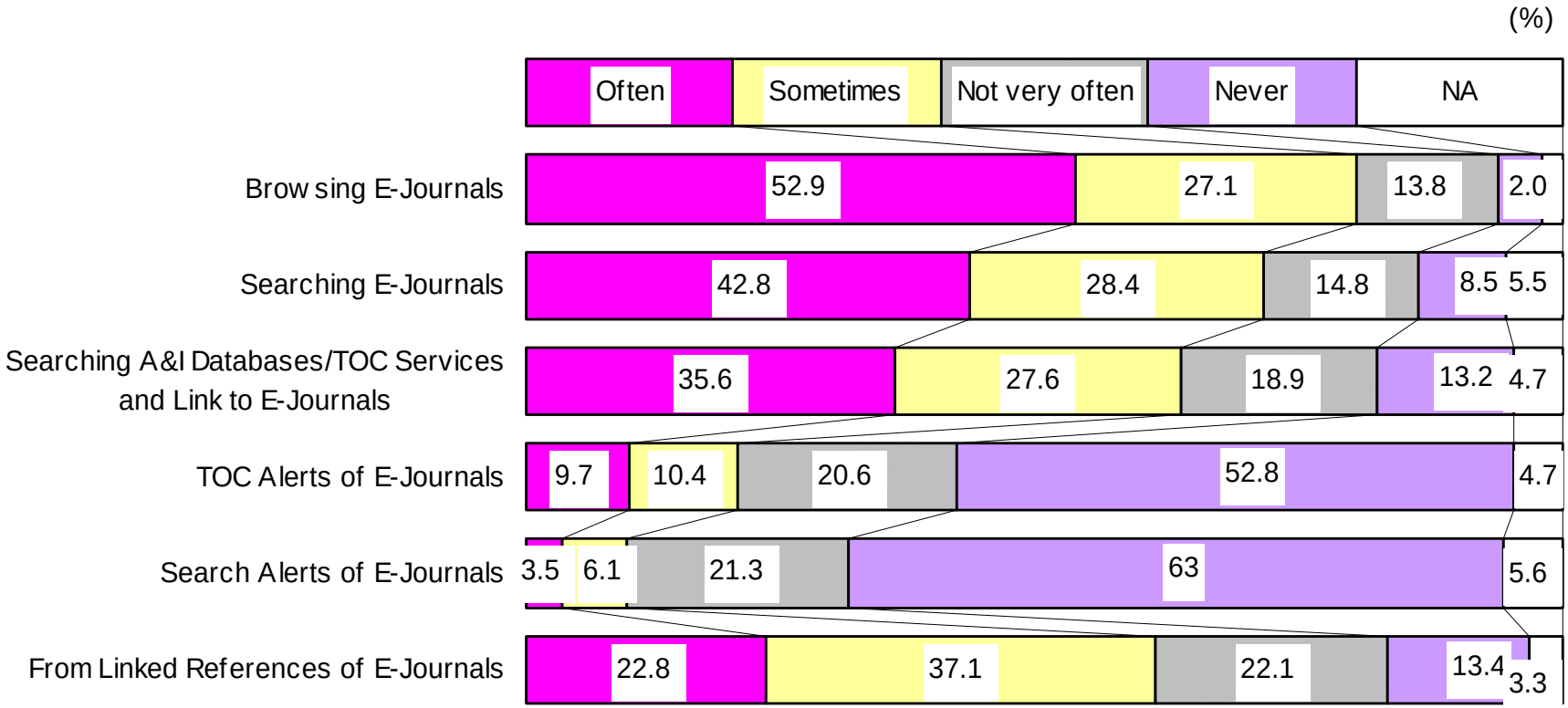
Question: What are the reasons for often reading articles in the data format you have chosen?

	Prints out neatly	Easy to read on the screen	Has convenient links	Takes little time to download	Has easy-to-use formulas and symbols	The articles I want to read happen to be in this format
Total (n=2152)	56.9	24.4	2.2	18.1	7.2	45.1
HTML (n=93)	9.5	24.0	17.2	40.7	3.1	31.7
PDF (n=1998)	59.7	24.7	1.6	17.0	6.7	45.9
Postscript (n=20)	77.4	22.6	0.0	18.9	9.5	45.3
Tex (n=33)	25.9	18.0	0.0	24.3	50.2	41.2

Paths to Articles Needed

Question: How do you find articles you need from electronic journals?

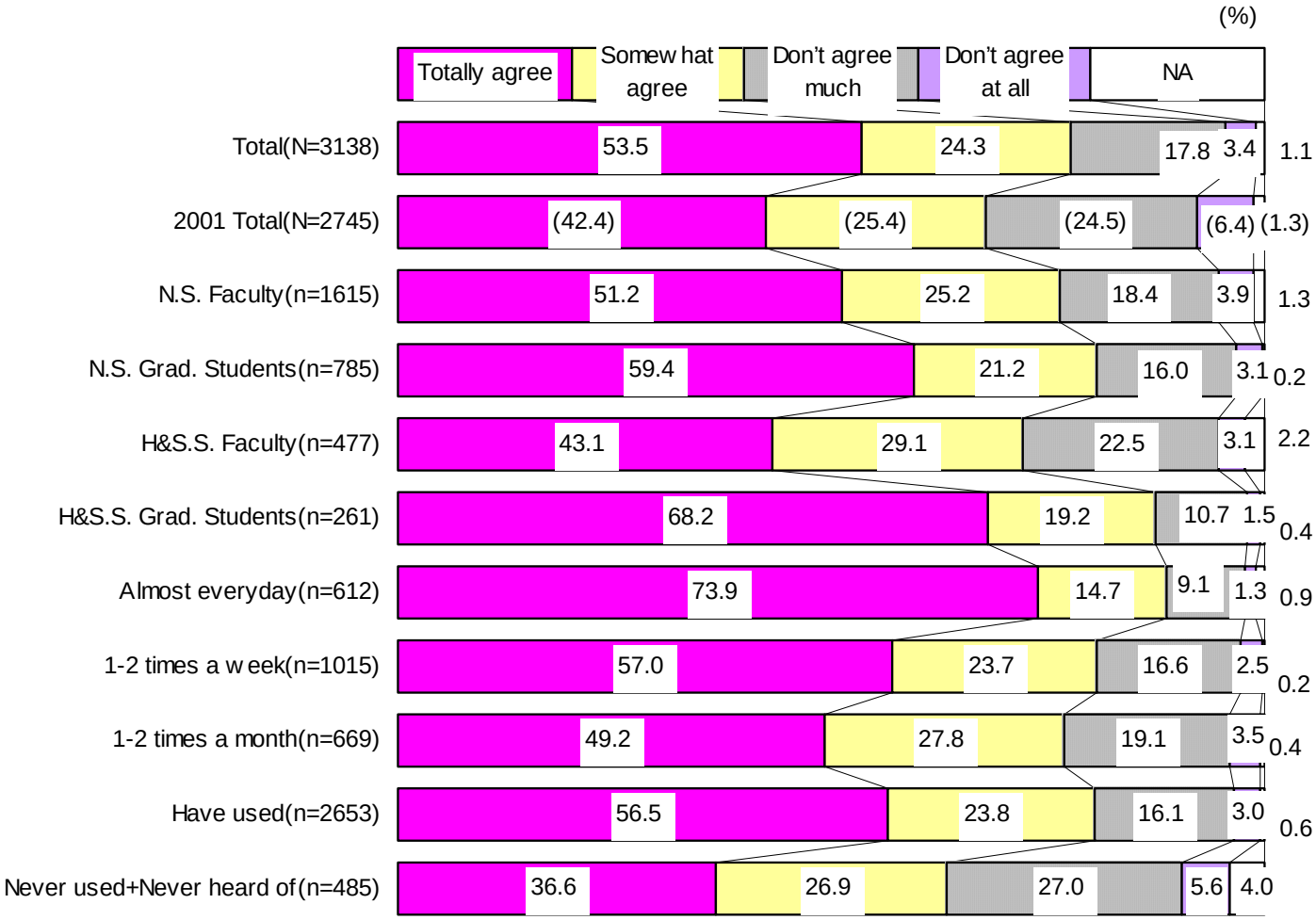
Browsing is the most popular way of finding articles but more than half of the respondents use searching too. E-mail alerts are used by only a small number of respondents.



Needs for Remote Access

Question: Do you agree with the comment "I would like to access e-journals and databases from home."

53.5% agree that they would very much like to access e-journals and databases from outside the university.



Outcomes or Achievements of Taskforce

National Level Contribution

1. Archives Sever has been established at the National Informatics Institute. Data are now being installed

2. Direct contract between university libraries and publishers

3. Government support has been obtained to subscribing to EJ
   The activities of the Taskforce has been good reputation

4. Start of the International collaboration(ICOLC, SPARC,ISCA)

Each University Level Contribution

1. Appeal for the importance of EJ ➔ supported by universities

2. Develop all-campus framework for promoting academic infrastructure

3. Reform of library staff consciousness

Future Issues of the Taskforce

1. Organization of the taskforce should be reformed
   The sustainable group should be established.
2. Negotiations with new publishers and aggregators and with large publishers to continue consortia
3. Participation of public and private universities
4. Stop of the price raising

➔ New method of the scholarly information distribution should be promoted such as Institutional Repository with Self-archiving and Open Access

University Library Crisis

Big Difficulties

Historical Turning-point
and Paradigm Shift

Various New Needs

Further Development of IT

➔ New Media and Distribution

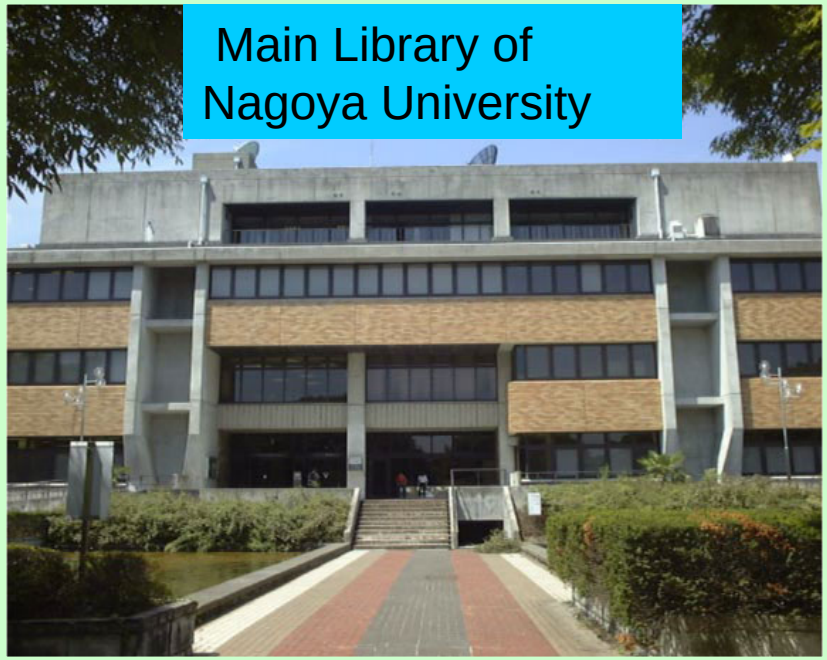
Critical Situation ➔ Chance of the Reform

Rapid decision making system in libraries

Positive activities

Libraries support academic Infrastructures

Redesign of University Library



Example of
Digitization
of Japanese
Rare Book
in Nagoya Univ.

Thank you for your kind attention !