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University reform in Japan – towards the Knowledge Society



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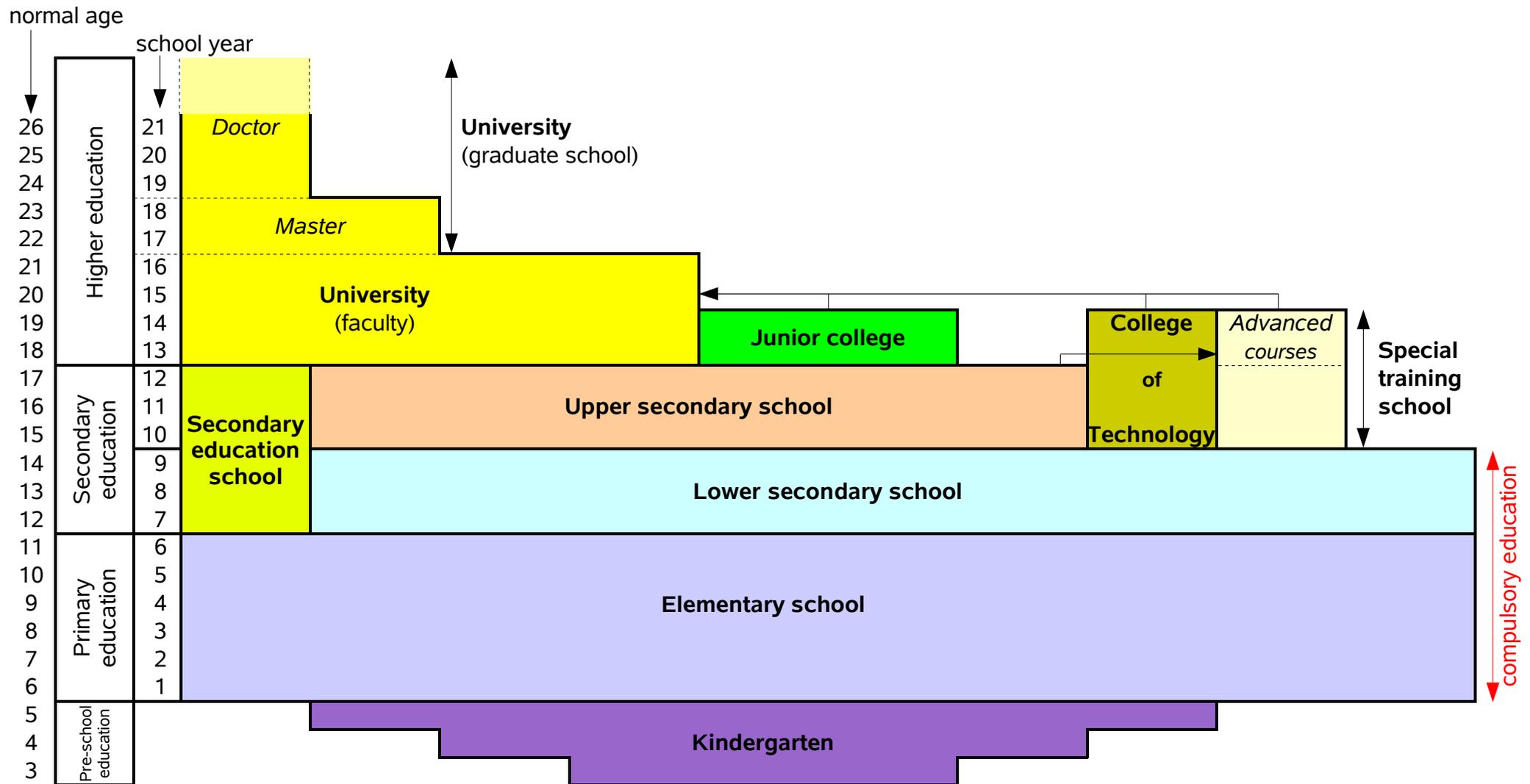
I Japanese education system

1. School education

- Pre-school education
 - kindergarten
- Elementary education (compulsory)
 - elementary school
- Secondary school (lower level : compulsory)
 - lower-secondary school
 - upper-secondary school
 - secondary education school

- Higher education
 - university
 - junior college
- Upper secondary + higher education
 - college of technology
 - special training schools

Organisation of the present school system



Number of schools, students and teachers as of 1st May 2004

	<i>Number of schools</i> (private)	<i>Number of students</i> (private)	<i>Number of teachers*</i> (private)
Kindergarten	14,061 (8,363)	1,753,396 (1,390,001)	109,853 (83,789)
Elementary school	23,420 (187)	7,200,929 (69,300)	414,887 (3,480)
Lower secondary school	11,102 (709)	3,663,512 (236,006)	249,801 (12,840)
Upper secondary school	5,429 (1,329)	3,719,048 (569,454)	255,629 (60,107)
Secondary education school	18 (9)	6,051 (3,355)	470 (247)
Special education schools (for handicapped children)	999 (12)	98,796 (815)	62,255 (259)

* full-time only

	<i>Number of schools</i> (private)	<i>Number of students</i> (private)	<i>Number of teachers*</i> (private)
College of technology	63 (3)	58,681 (2,296)	4,474 (158)
Junior college	508 (451)	233,749 (214,264)	12,740 (11,082)
University	709 (542)	2,809,323 (2,062,065)	158,756 (86,683)
Special training school	3,443 (3,228)	791,540 (761,735)	40,675 (37,902)

* full-time only

Cost of education

- Free compulsory education
 - very few private institutions
- Upper secondary education
 - cheap public education
 - expensive private education
- Higher education
 - 3/4 students enrolled in private institutions
 - expensive (public institutions as well to less degree)

Curriculum of primary and secondary education

- Curriculum determined by the Government
- Textbooks edited based on the national curriculum, then authorised by the Government

2. Higher education

- Imperial universities
 - University of Tokyo (later Imperial University, then Tokyo Imperial University) in 1887
 - Other imperial universities in major cities
 - Based on the German model
- Other types of institutions of higher learning (public and private)

- Integration of the German model and the Japanese system
 - faculties of engineering and agriculture, generally classed in a polytechnic system in Europe
- cf. In the 1990s in the world
 - integration of polytechnics into university system (UK, Australia, etc.)

After the war (as of 1949)

- 70 national universities without difference in legal status among them
- 17 local public universities
- 81 private universities
- Junior colleges (regarded as provisional)

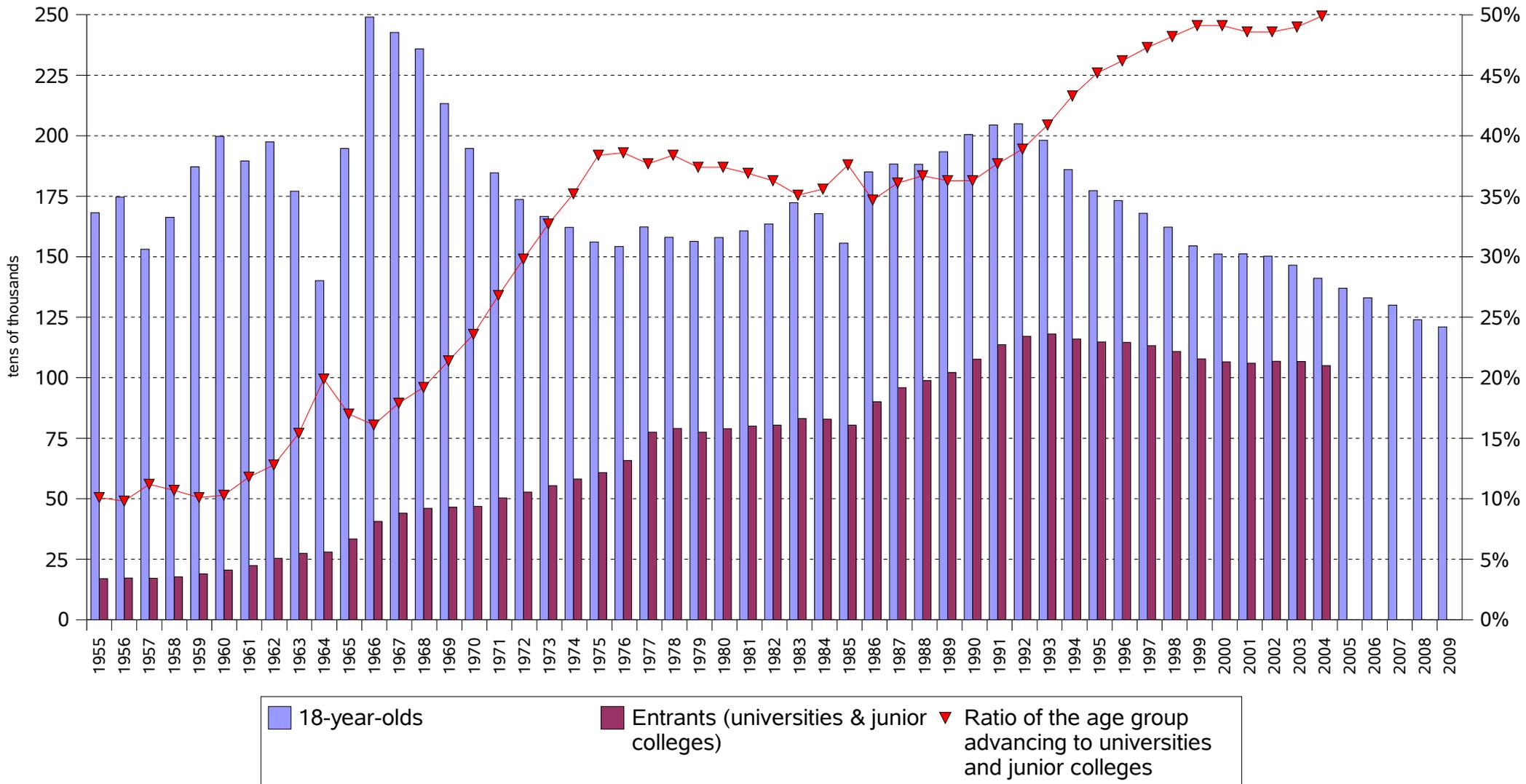
University education after war

- Introduction of the American model
- Two layers of undergraduate education
 - general education
 - two-year specialised education
- School of liberal arts

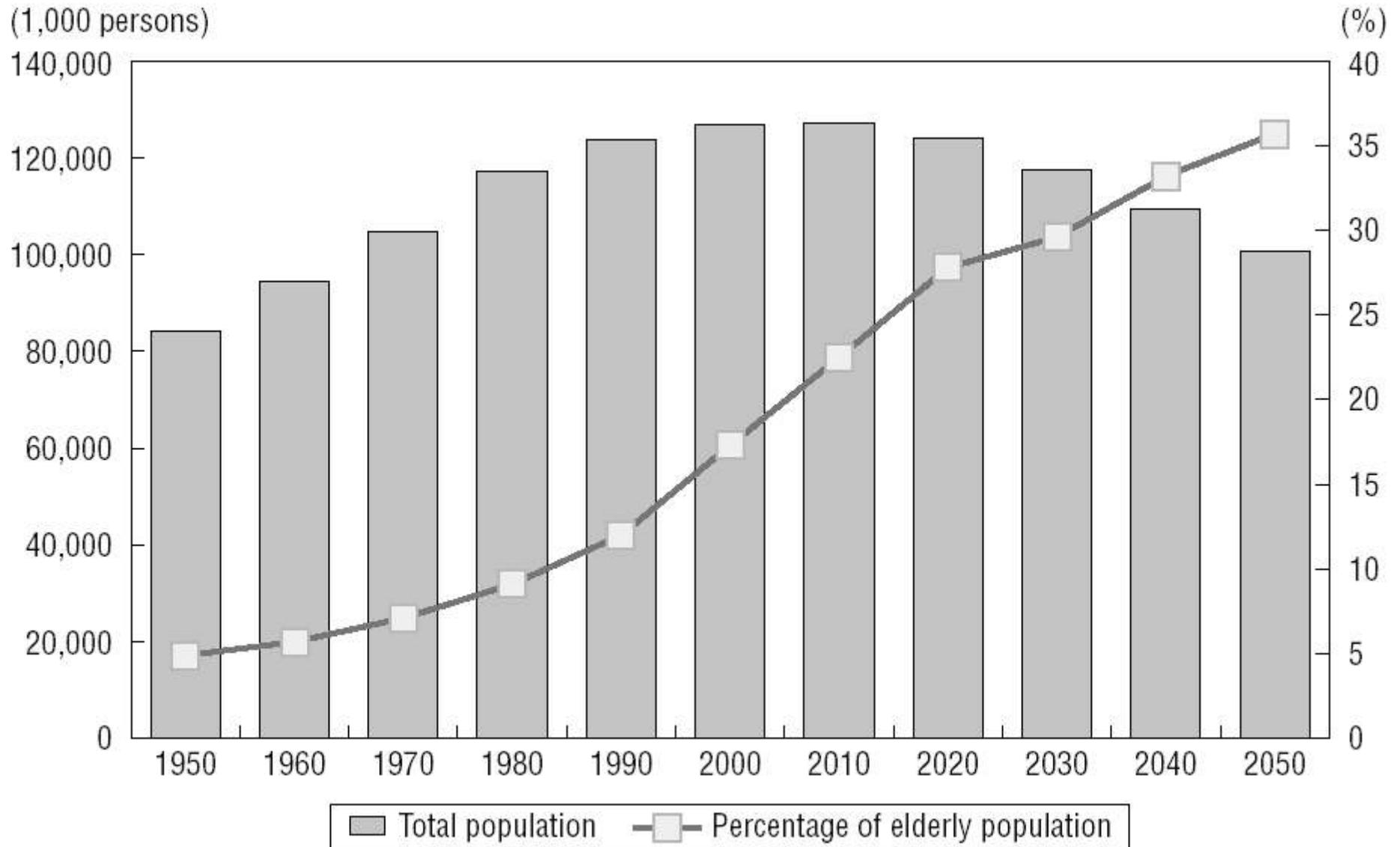
1998 Report *A Vision for the University of the 21st Century and Future Reform Measures : Distinctive Universities in a Competitive Environment*

- Improve the quality of education and research with the purpose of nurturing the ability to investigate issues;
- Secure university **autonomy** by making the educational and research system structure more flexible;
- Establish university administration and management with **responsible decision-making** and implementation; and
- **Individualise universities** and continuously improve their education and research by establishing multiple **evaluation** systems.

Trends in 18-year-old population and access to higher education



Total population and percentage of elderly population (over 65)



II Advent of the knowledge society

What is a knowledge society?

- Knowledge : primary resource for economic activities
- Highly professionalised and structured knowledge
- Structural economic and social change, including education

Who are major actors?

- Structural change brought by information and communication technology
- Professionals
- Lifelong learning
 - continual renewing of knowledge

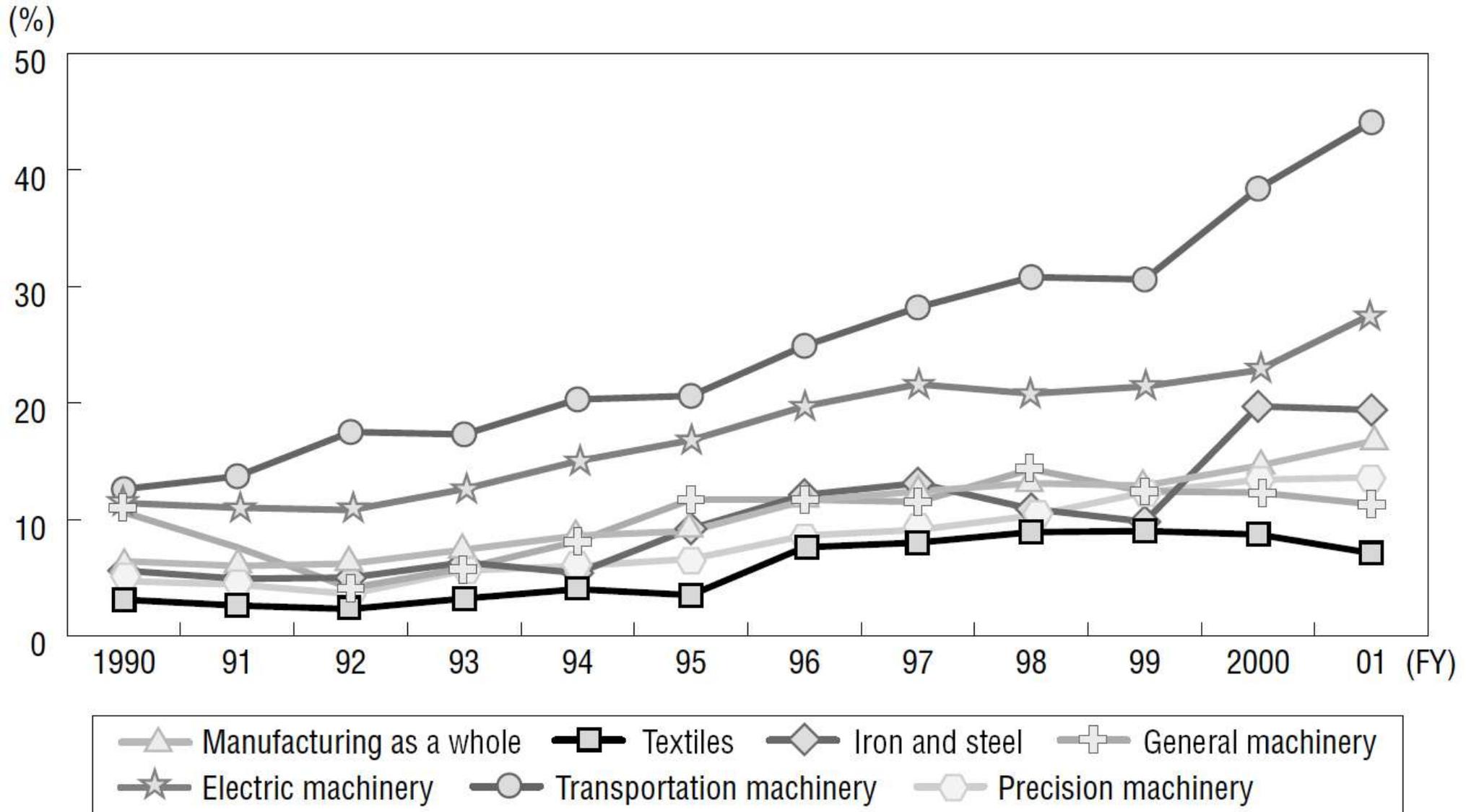
Era of the "knowledge society"

- Entering the era of the "knowledge society" in the 1990s (OECD)
- "Life-long learning for all" at an OECD education ministers' meeting in 1996

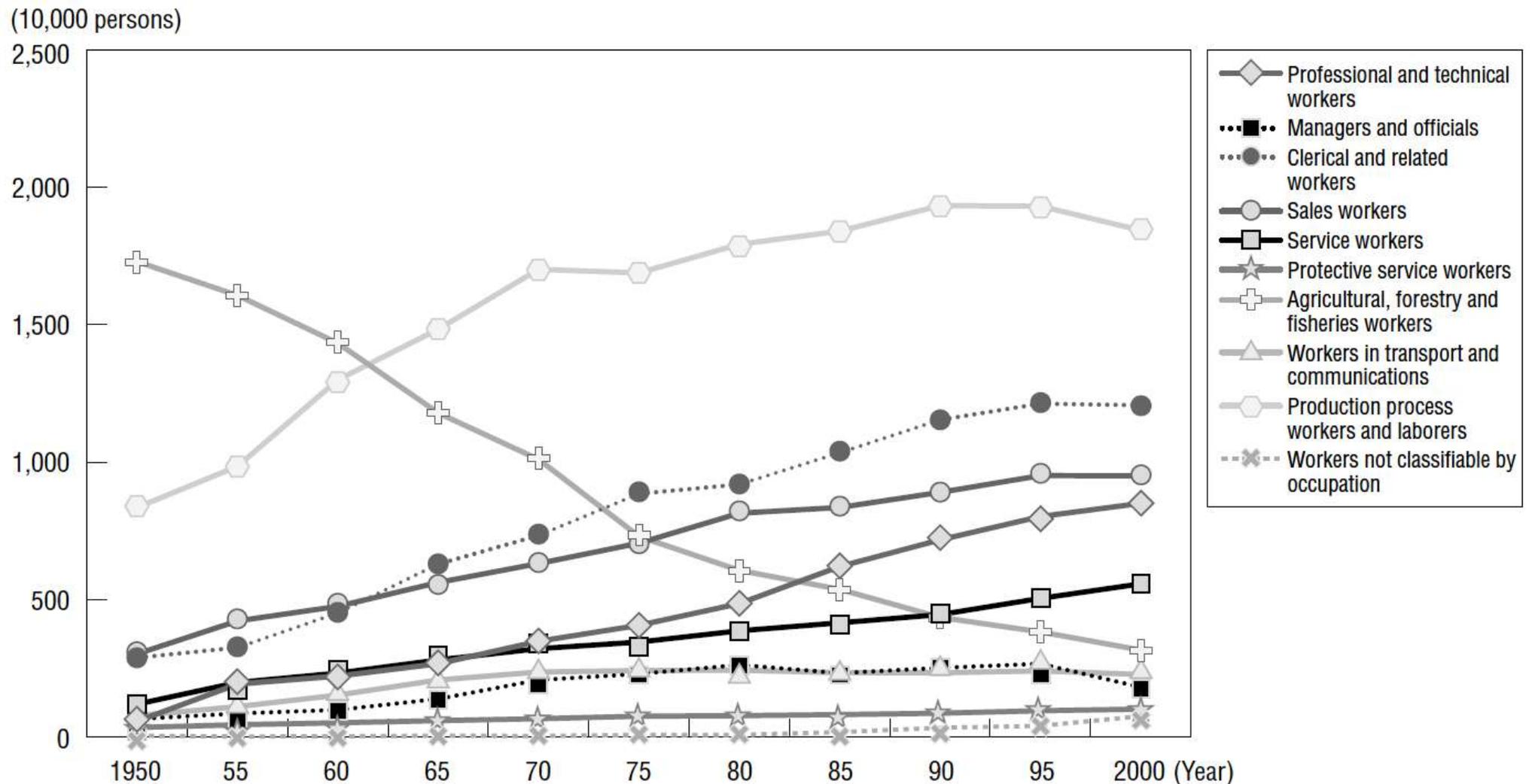
cf. OECD : Organisation for Economic Co-operation and
Development

- Changes in the demand for human resources
- New vocational courses

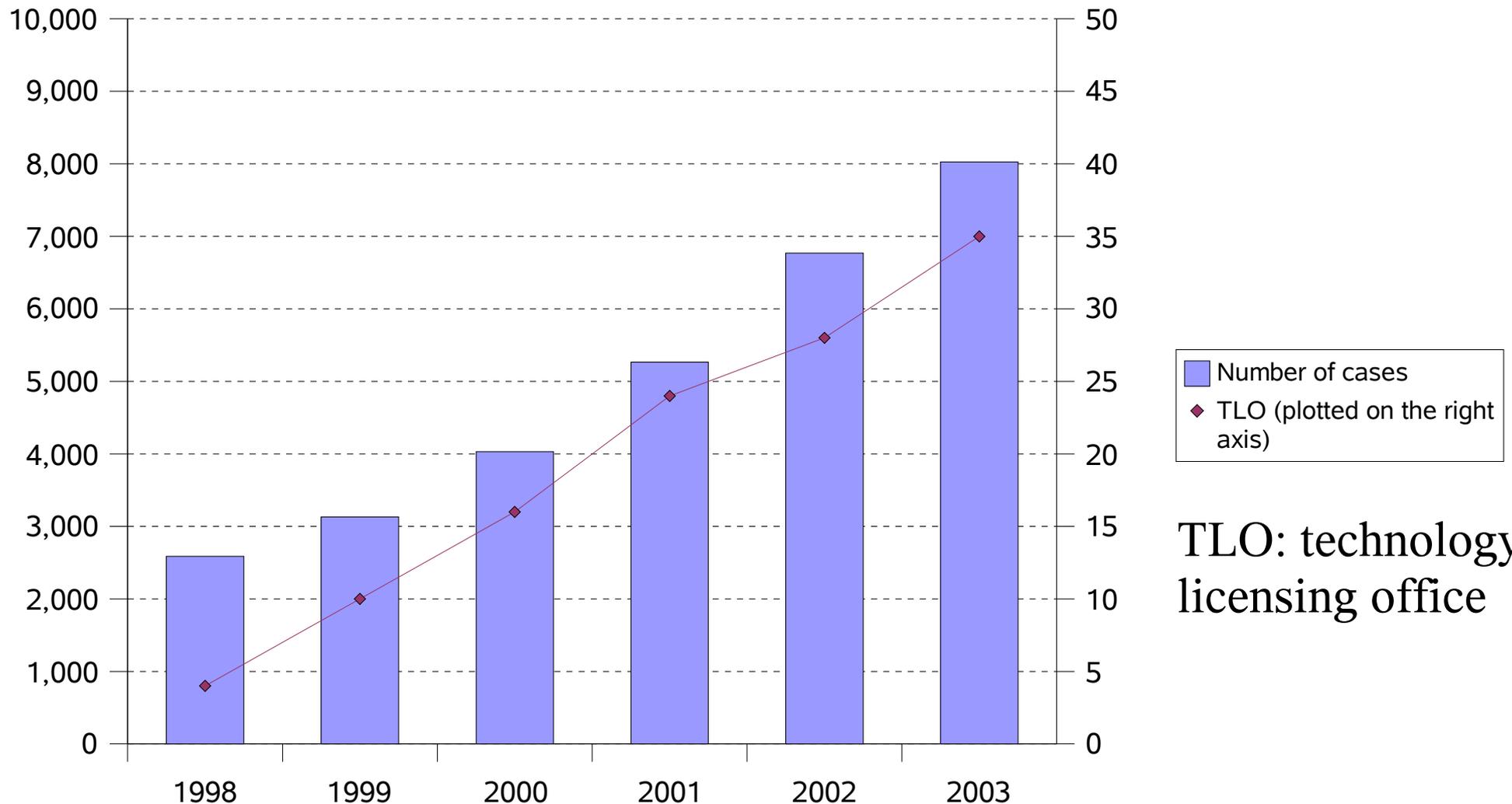
Japan's foreign production ratio by industry



Number of employees by occupational classification



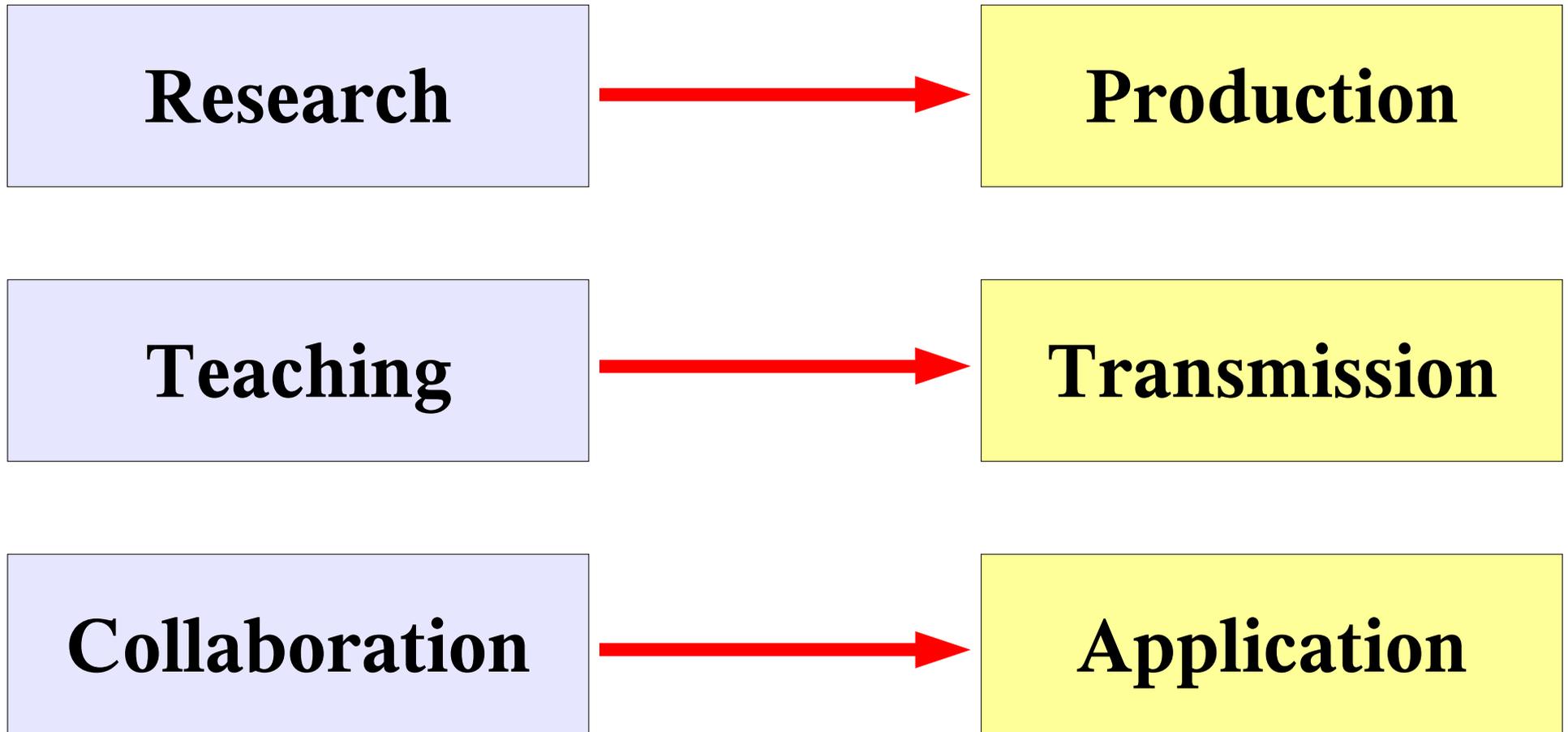
Number of cases of co-operative research implemented between national universities and the industry / Number of the TLO recognised by the Government



TLO: technology licensing office

- Knowledge = key to development
- Increase in the role of universities
 - production of knowledge
 - transmission of knowledge
 - application of knowledge

Basic functions of universities



Lifelong learning at the centre of education

- Lifelong learning as an important element in the the knowledge society
- Reorganisation of the educational system (National Council on Educational Reform)
 - from a system centred on schools
 - to a system based on lifelong learning
- Increasing demands by adults for higher education

Deregulation in primary and secondary school education

- Shift of the centre of education
 - from a system centred on acquiring knowledge
 - to a system centred on developing multiple abilities
- Elective class (options)
- General learning class
- Development of teachers

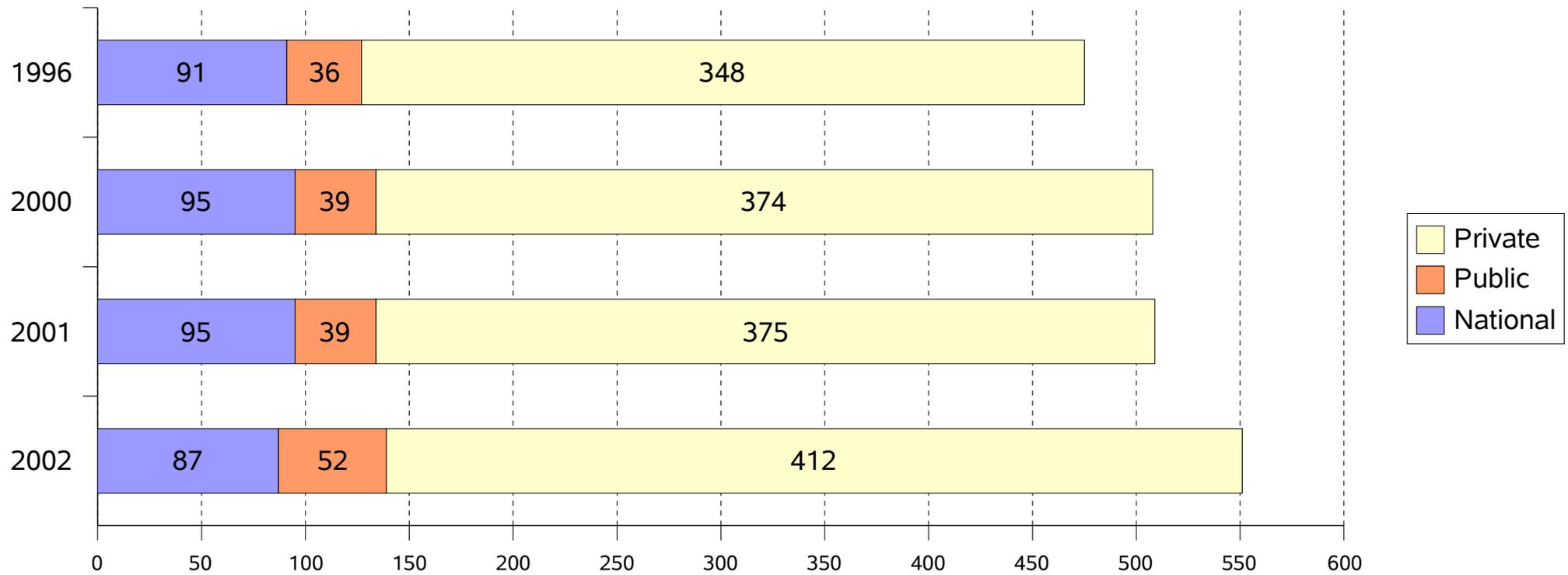
III Reform in university education

1. Curriculum reform in universities

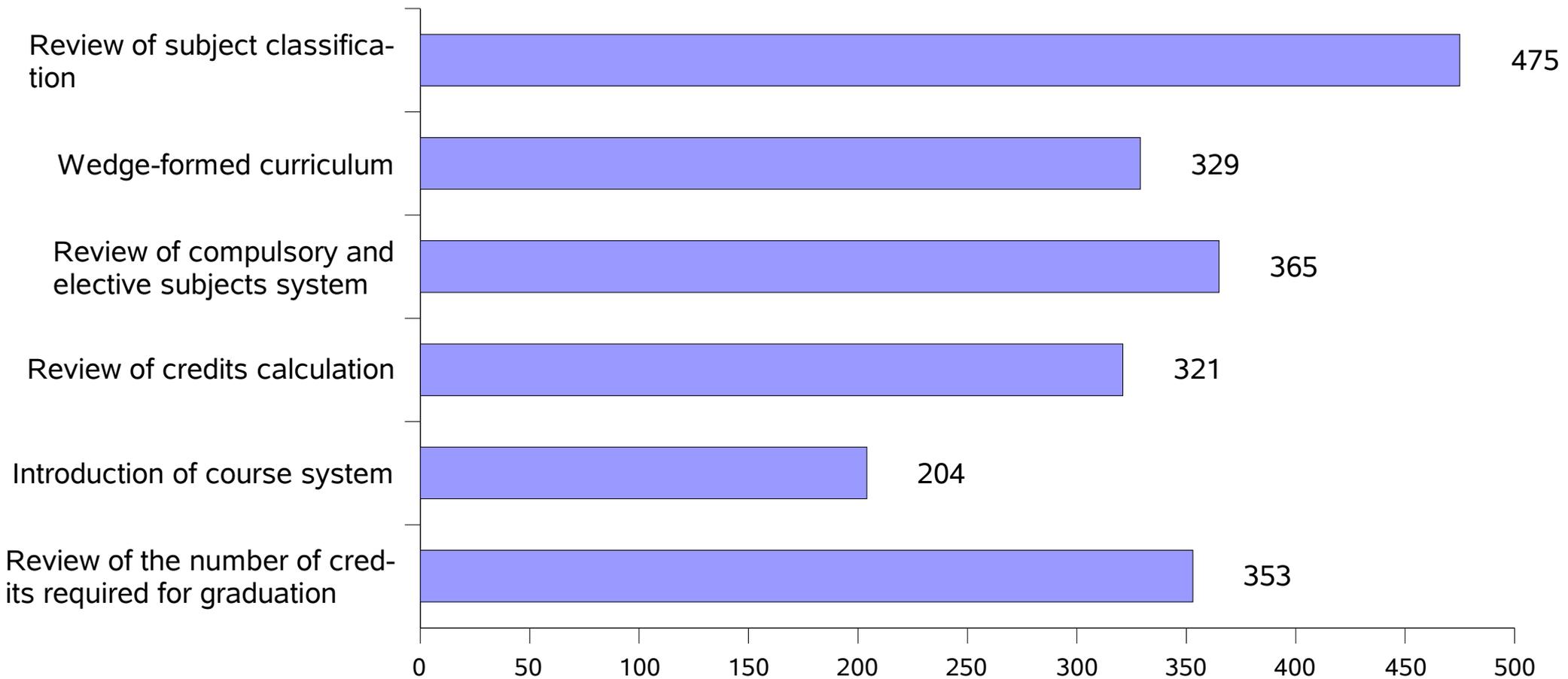
- Towards the universal phase (M. Trow)
 - Over 50% in 1987 (non-university sector included)
- Establishment of the University Council in 1987

- Abolition of subject areas
 - to structure curricula reflecting their own educational ideals and objectives
 - no definition of subject areas, such as general education and specialised education
 - no requirement on obtaining a certain number of credits in each subject area (acquisition of a minimum total number of credits only)

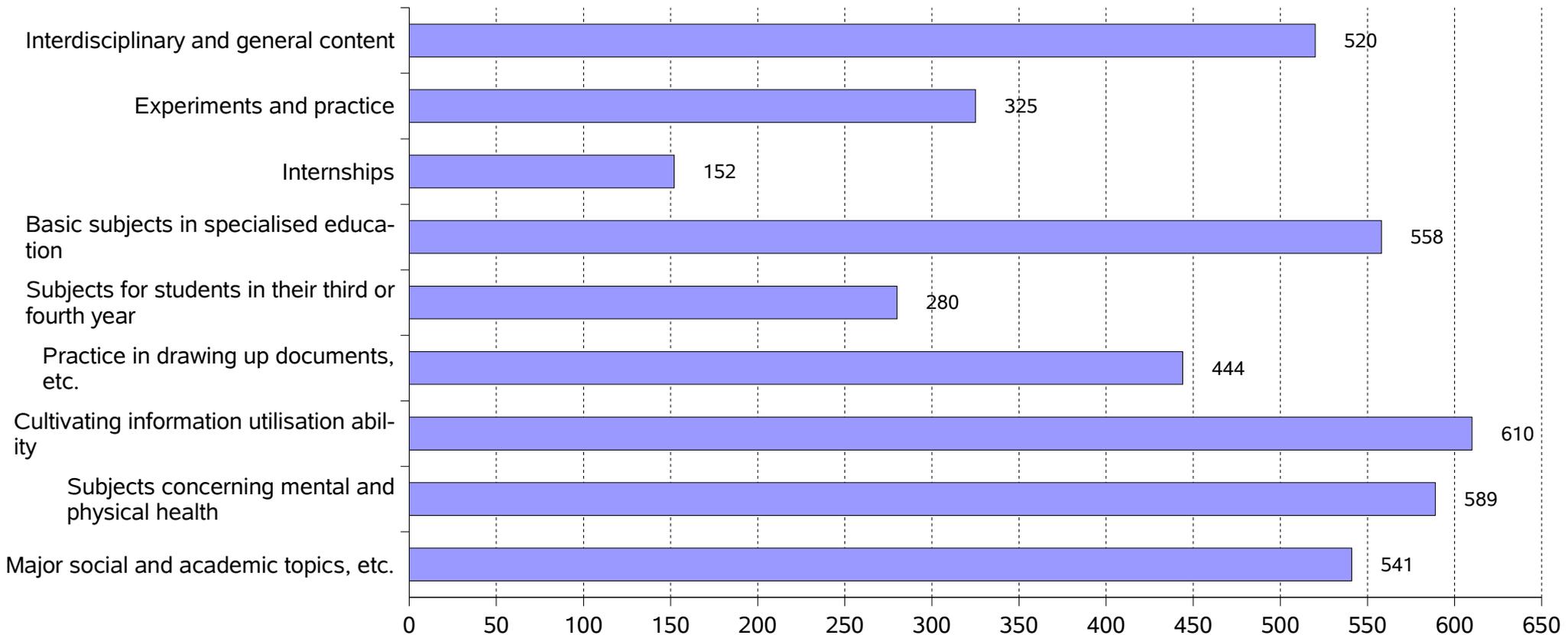
Number of universities that implemented curriculum reform



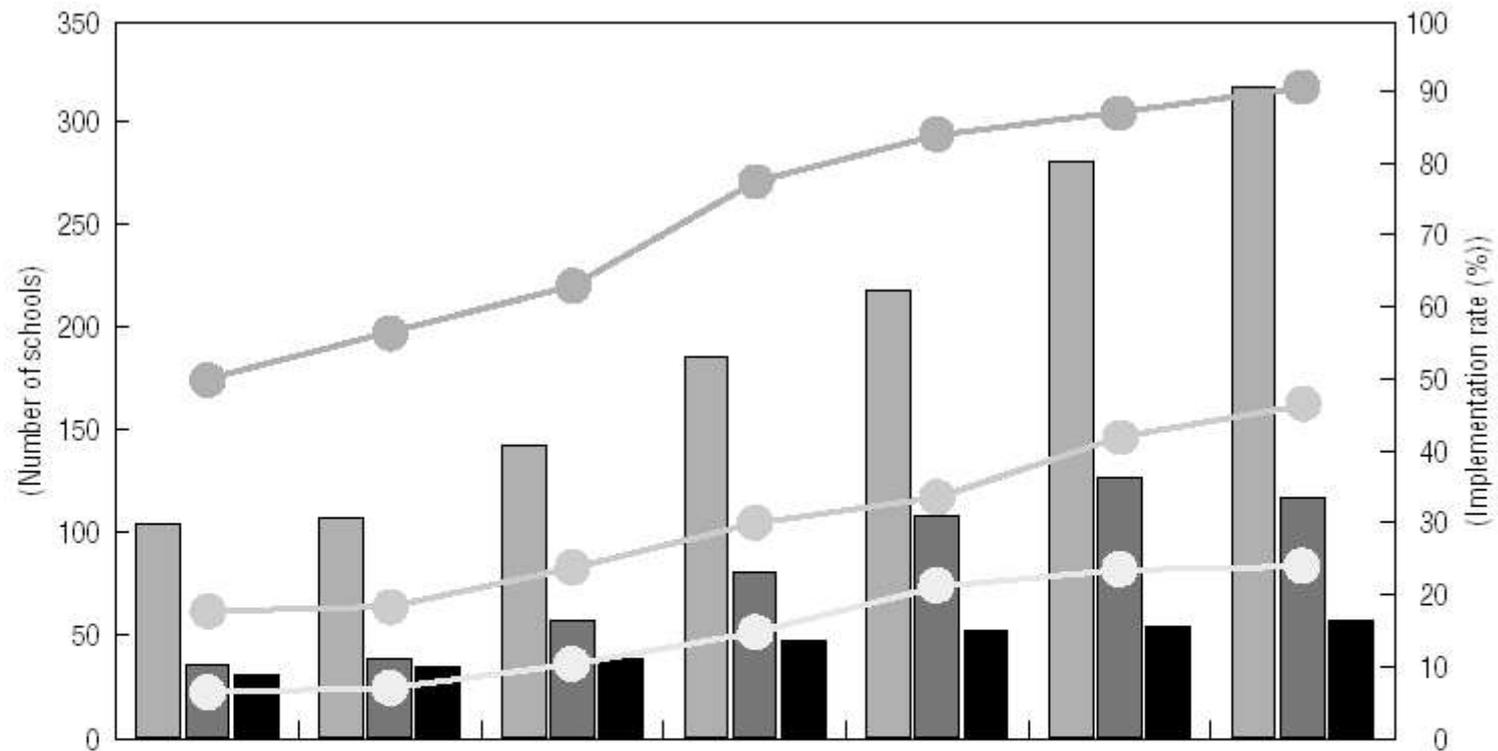
Implementation of curriculum reform in universities (2001)



Established subjects concerning general education (2002)



Implementation of internship



	1996	1997	1998	1999	2000	2001	2002
Universities	104	107	143	186	218	281	317
Junior colleges	36	39	57	81	108	127	117
Colleges of technology	31	35	39	48	52	54	57
University implementation rate	17.7%	18.3%	23.7%	29.9%	33.5%	41.9%	46.3%
Junior college implementation rate	6.4%	7.0%	10.3%	14.7%	21.1%	23.4%	23.9%
College of technology implementation rate	50.0%	56.5%	62.9%	77.4%	83.9%	87.1%	90.5%

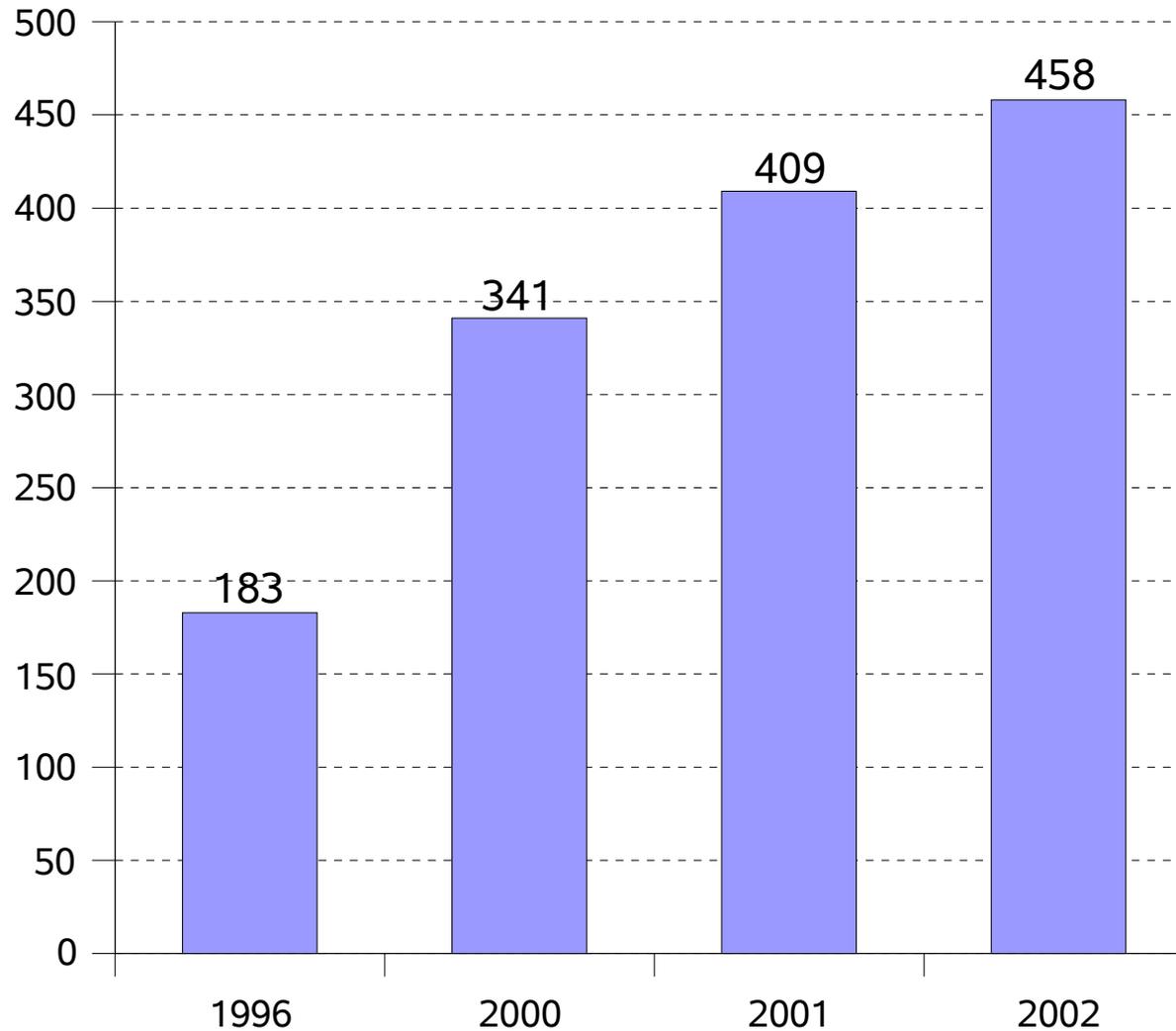
Others

- Entrepreneurial development classes
- Volunteer activities
- Remedial classes
- Double majors
- Joint degree programmes

2. Faculty development (FD)

- Development of teaching abilities
- Improvement of teaching methods

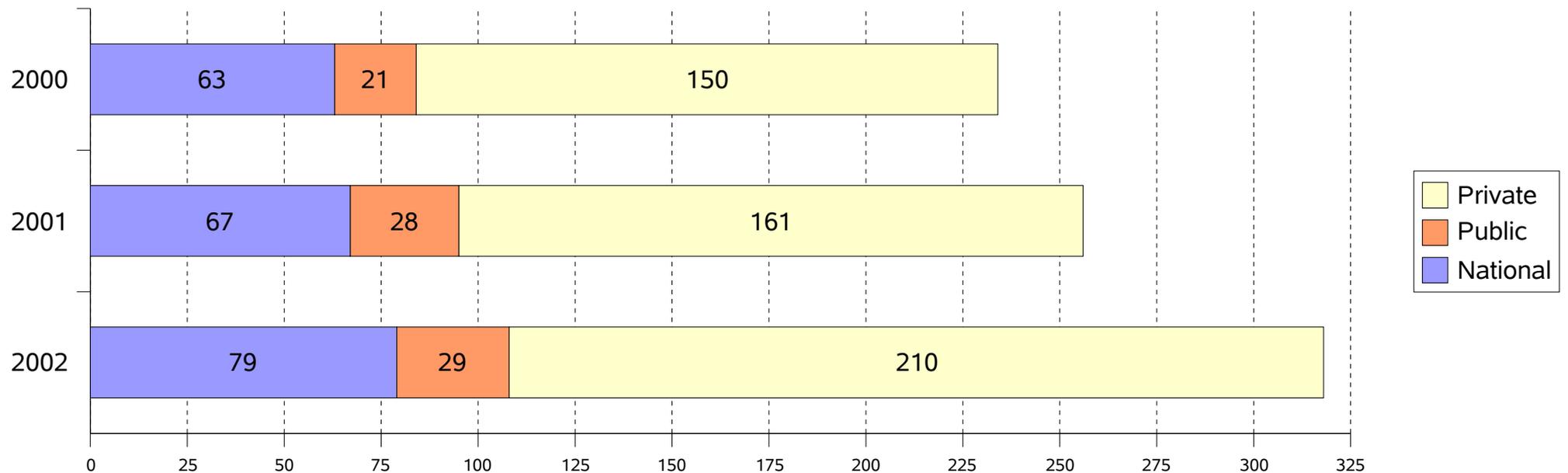
Number of universities that have implemented faculty development



3. Measures compatible with internationalisation and informatisation

- Improvement of foreign language education
 - class division according to goals
 - class division according to students' level
 - employment of native speakers
 - utilisation of qualification tests

Number of universities that open classes taught in foreign language

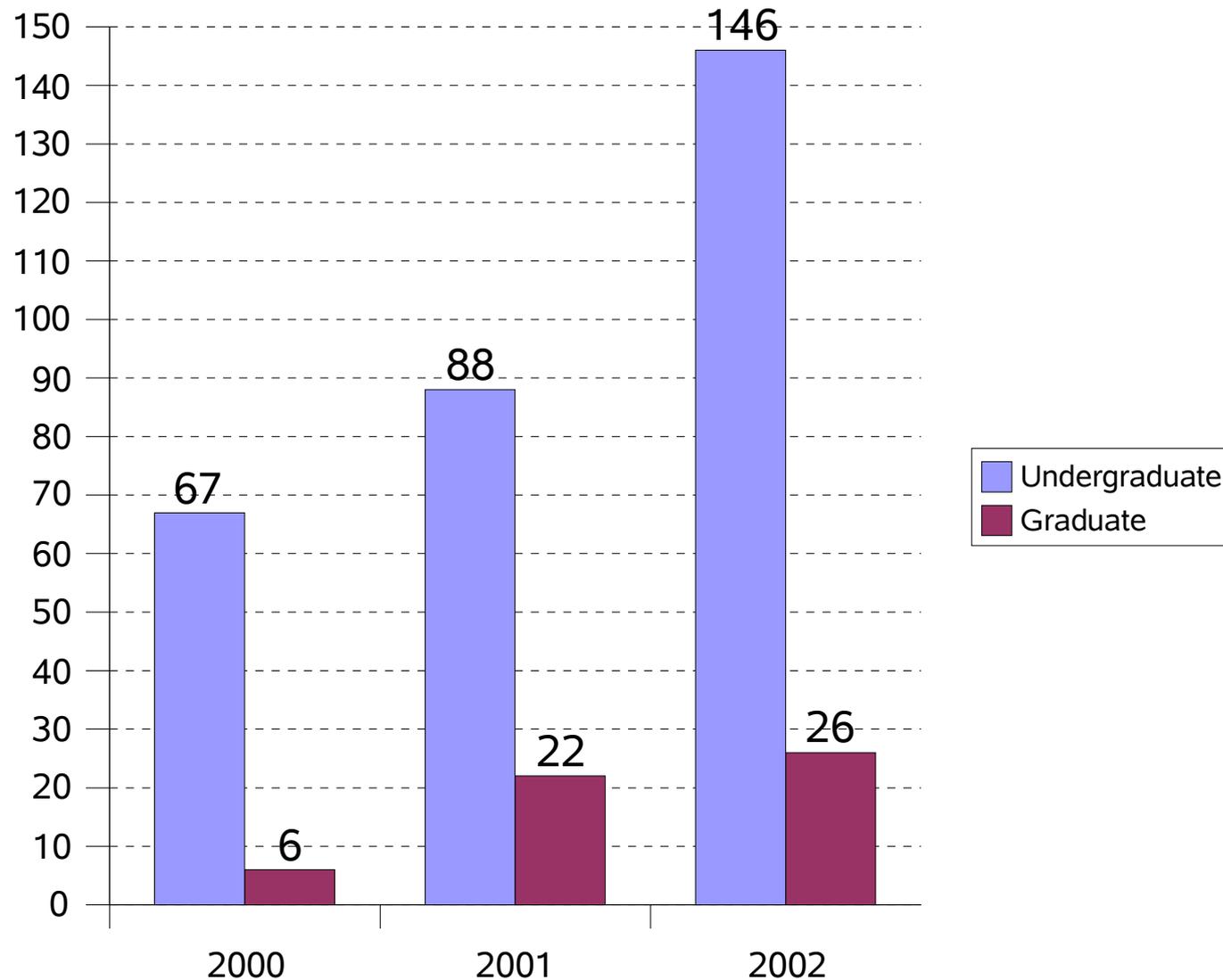


- Vis-à-vis informatisation
 - compulsory informatics class
 - rooms reserved for informatics
 - multimedia learning/teaching materials
 - establishment of multimedia centres

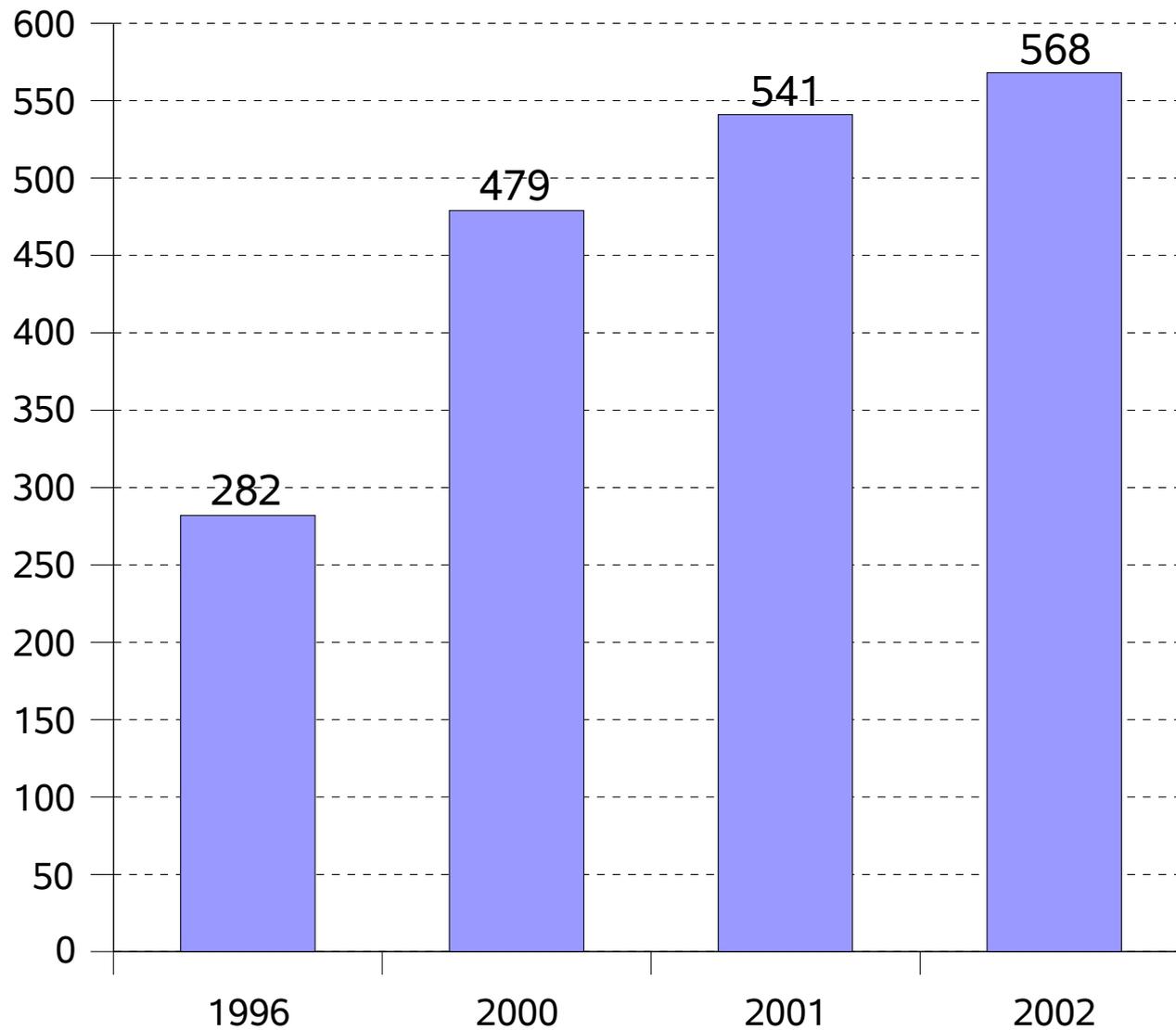
4. Other measures to improve education

- GPA (grade point average) system
- Semester system
- Syllabus
- Evaluation of classes by students
- Teaching assistant
- Support for career development

Number of universities that have introduced the GPA system



Number of universities that have adopted the semester system



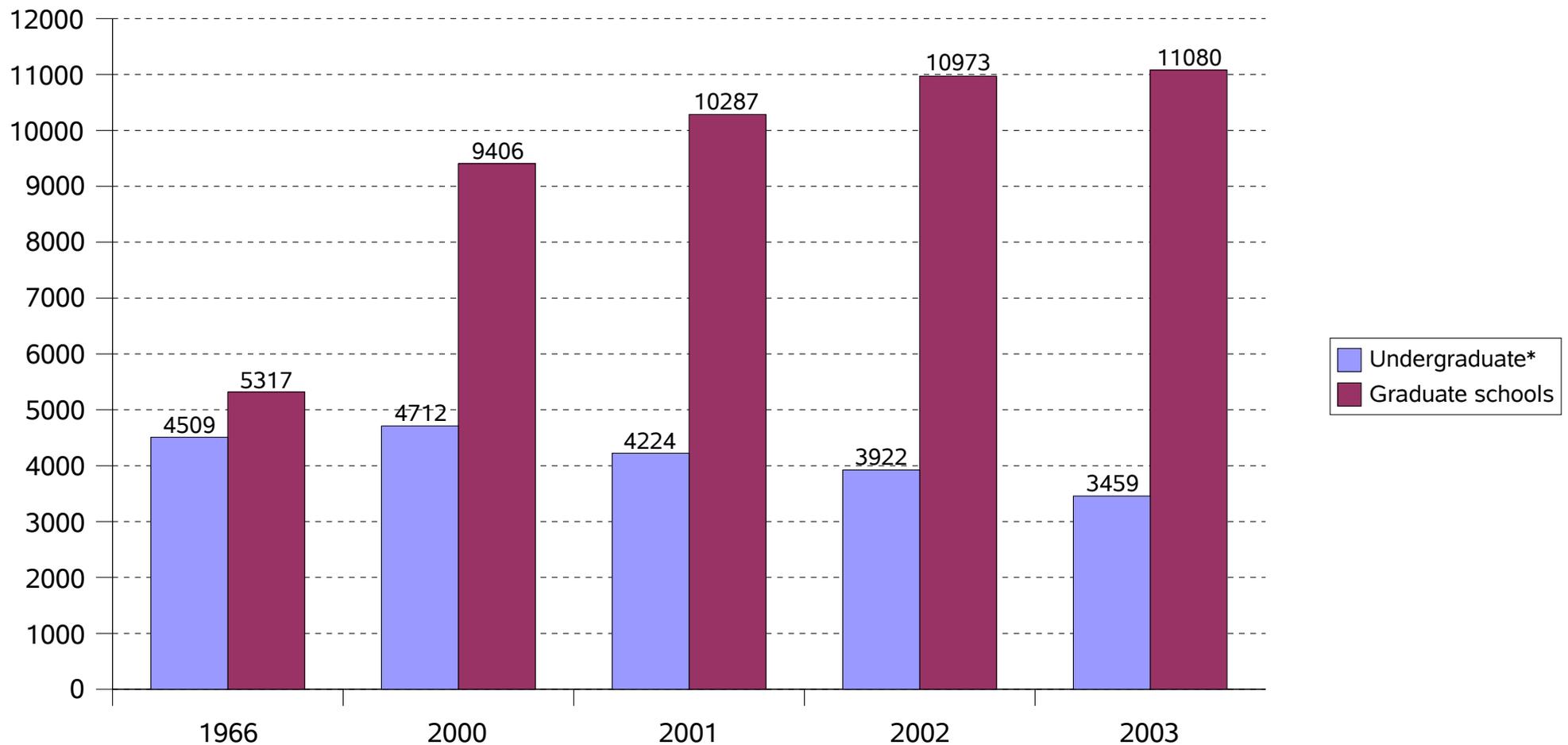
5. Measures taken for adults

- Demand of adults for advanced and sophisticated techniques and abilities
- Lifelong learning
- Re-education of adults to secure high quality human resources
- Increasing expectations as to the roles played by higher education institutions, particularly universities

Measures to facilitate the access to universities for adults

- Evening, day/evening programmes
- Special selection of working adults
- Correspondence with undergraduate and graduate schools
- Special student system
- Professional schools at graduate level
- One year master's degree programme, prolonged study courses
- Satellite classrooms

Number of adult students in universities

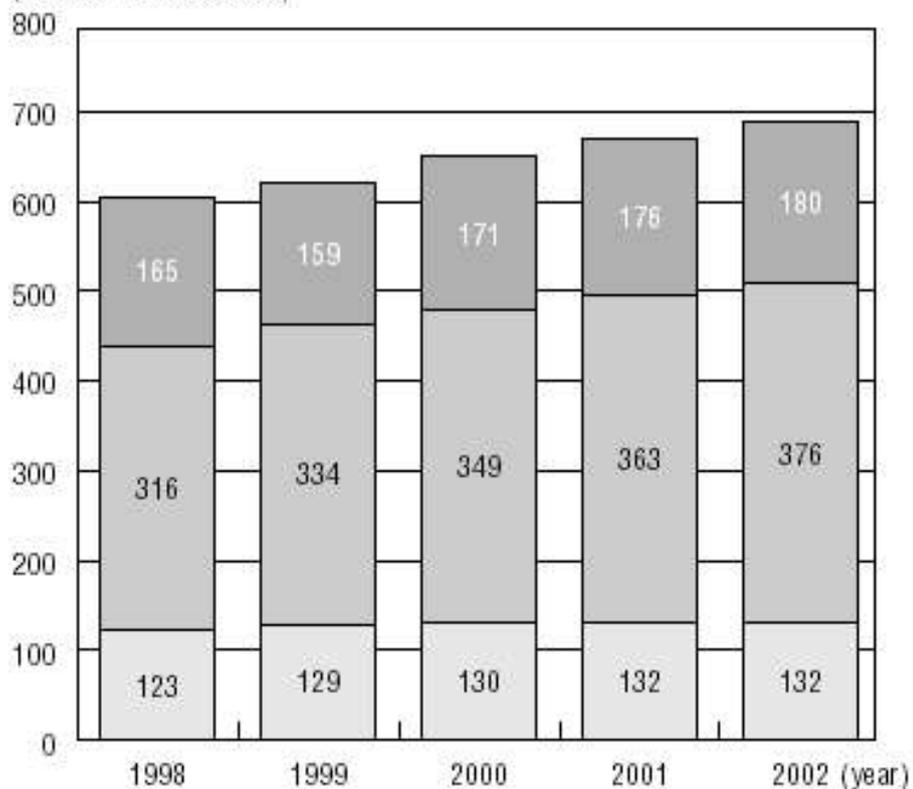


5. Expansion of graduate schools

- Enhancement of graduate education
- Approximately 80% of universities have graduate schools.
- Teachers' moving to graduate schools

Trends in the Number of Universities to Have Established a Graduate School

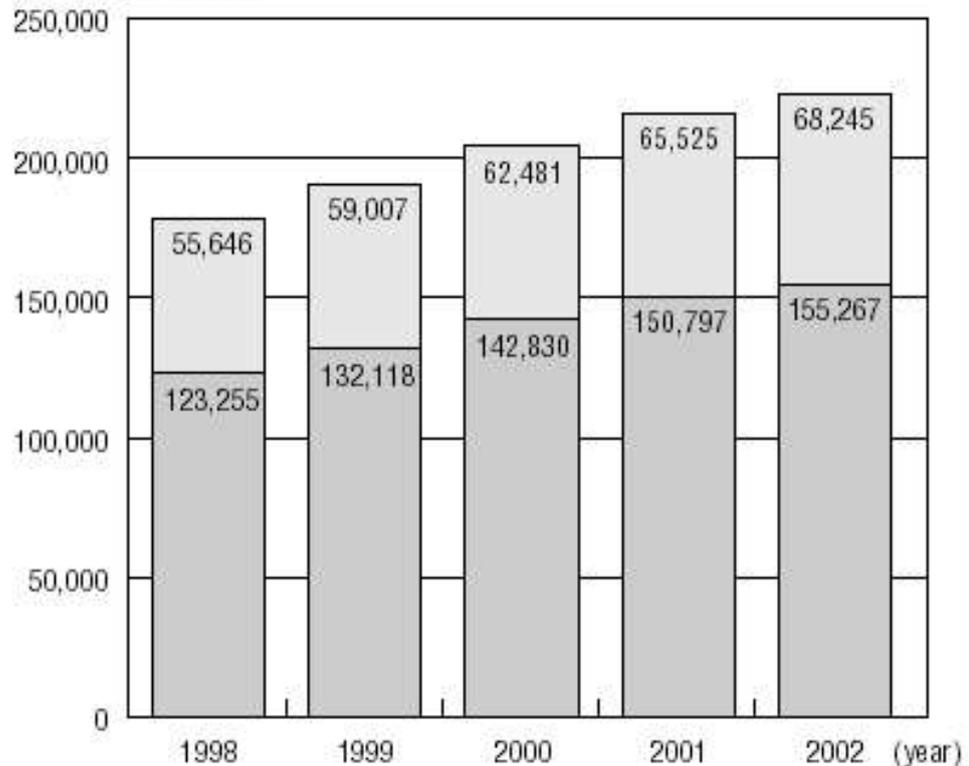
(Number of universities)



- Universities in which a master's course has been established
- Universities in which a doctorate course has been established
- Universities in which no graduate school has been established

Trends in the Number of Graduate School Students

(Number of students)

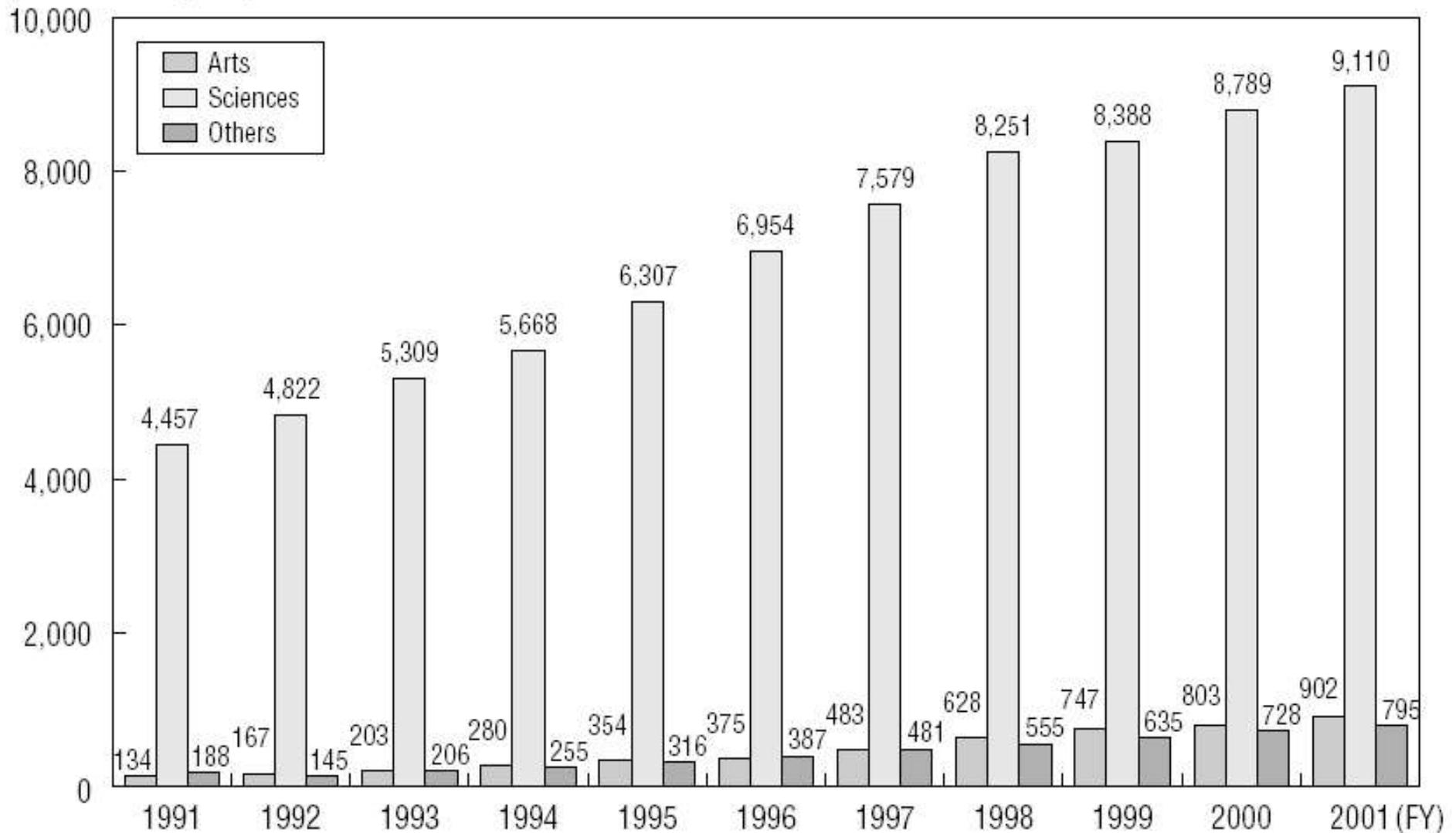


- Master's courses
- Doctorate courses

- Professional schools
 - law schools
 - business schools etc.
- One-year master's courses
- Non-traditional doctorate courses

Number of doctorate degrees conferred

(Number of degrees)



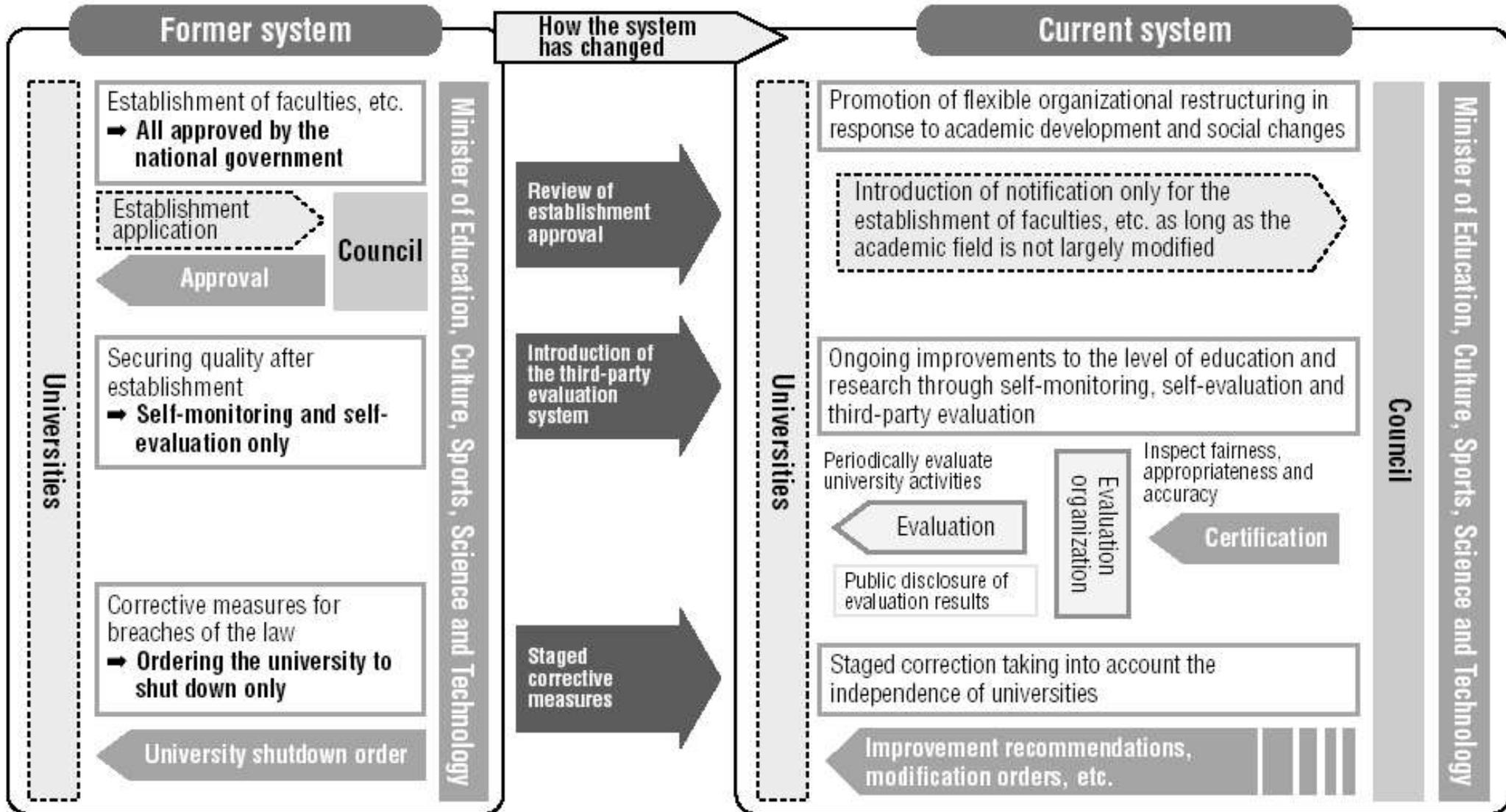
6. Quality assurance

- Deregulation in university education
- Ex-ante regulations to ex-post-facto checks
- Central Council for Education “Building a New System to Secure the Quality of Universities” (2002)
 - Increase in flexibility for the approval system for establishing new departments
 - Third-party evaluation of the state of education and research activities

2002 revision of the School Education Law

- More flexibility for a reorganisation of faculties and departments
- Introduction of a continual third-party accreditation system

MEXT's QA system

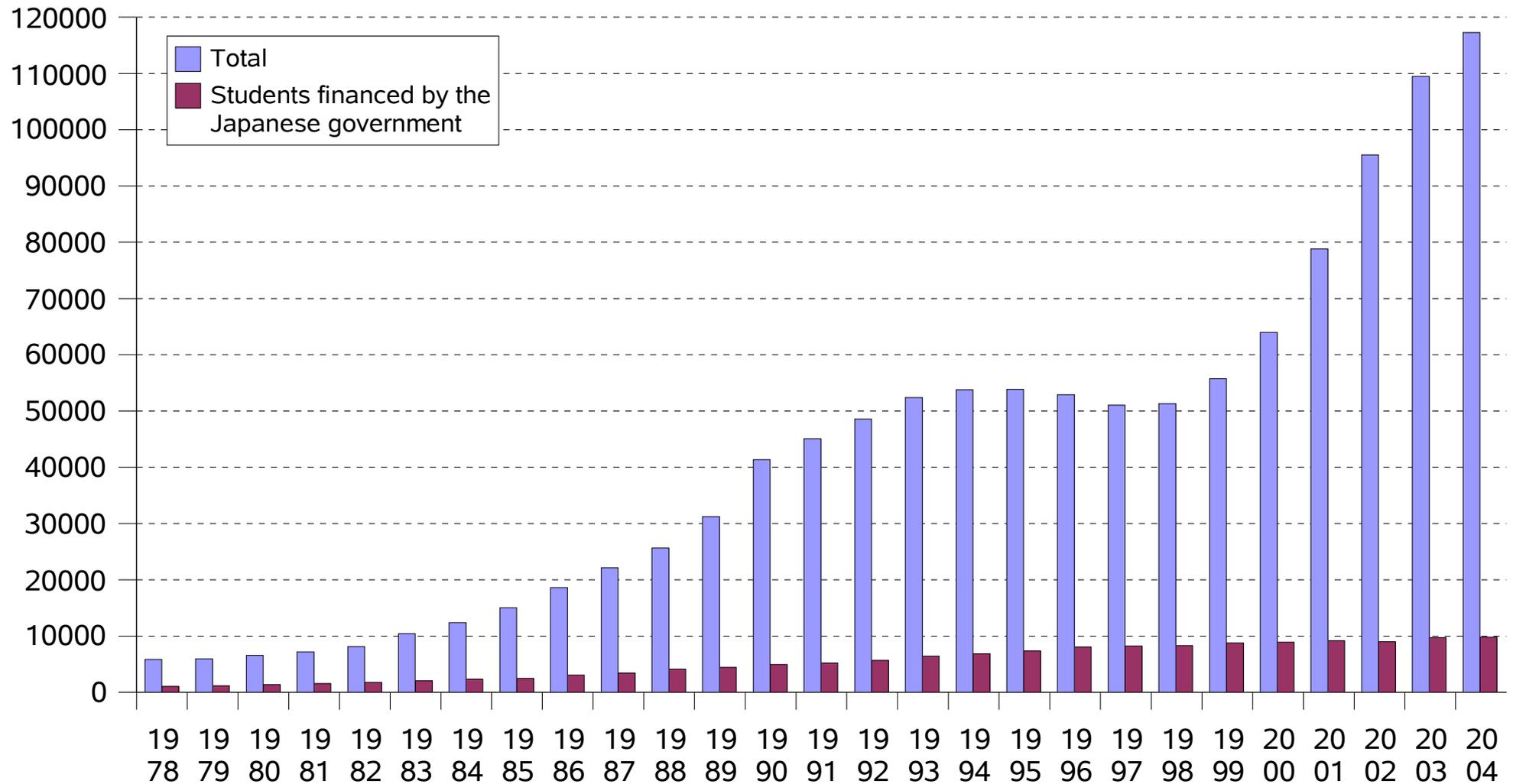


For your information

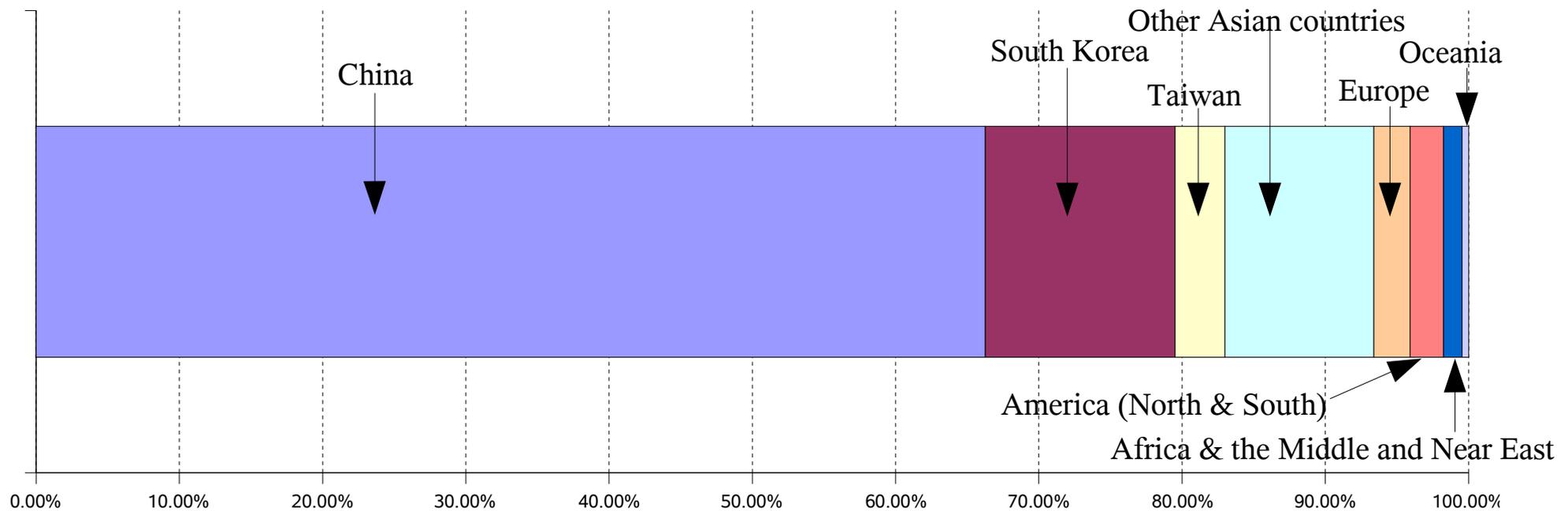
1. Internationalisation of higher education

- Nakasone Plan in 1987
 - More than 100,000 international students in Japan before 21st century

Number of international students in Japanese higher education institutions



Breakdown of the international students by their region of origin (2004)



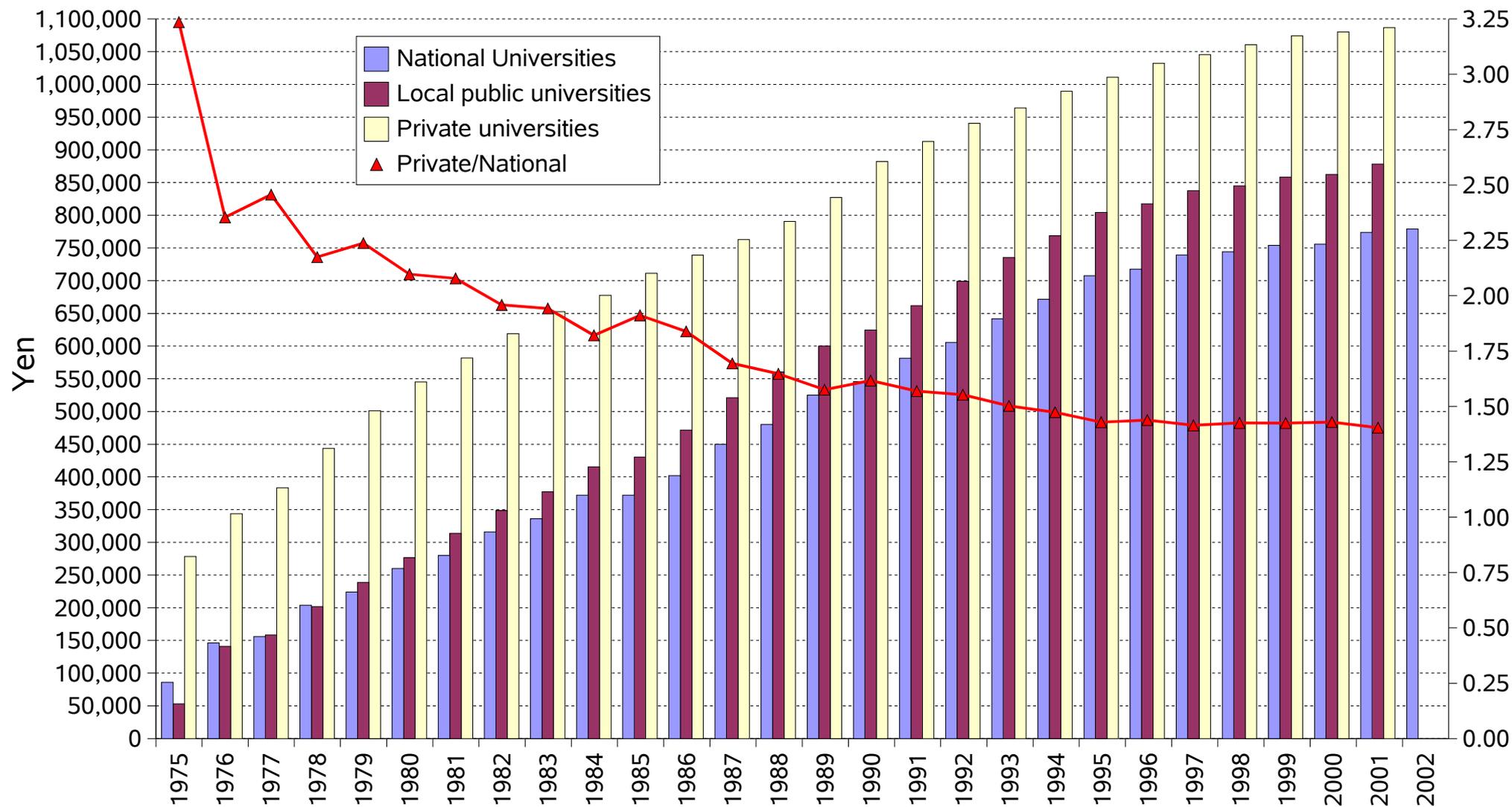
- Revision of the legislation concerning the foreign universities in Japan
 - entitlement for graduates to apply for Japanese universities' graduate schools
 - credit transfer

2. University financing – increasing competition between public and private sectors

a. The spiral of tuition fees

- Governmental funds to HE institutions in the FY2003
 - 97 national institutions and others : 1,525,606 million yen
 - 989 private universities and junior colleges : 321,750 million yen

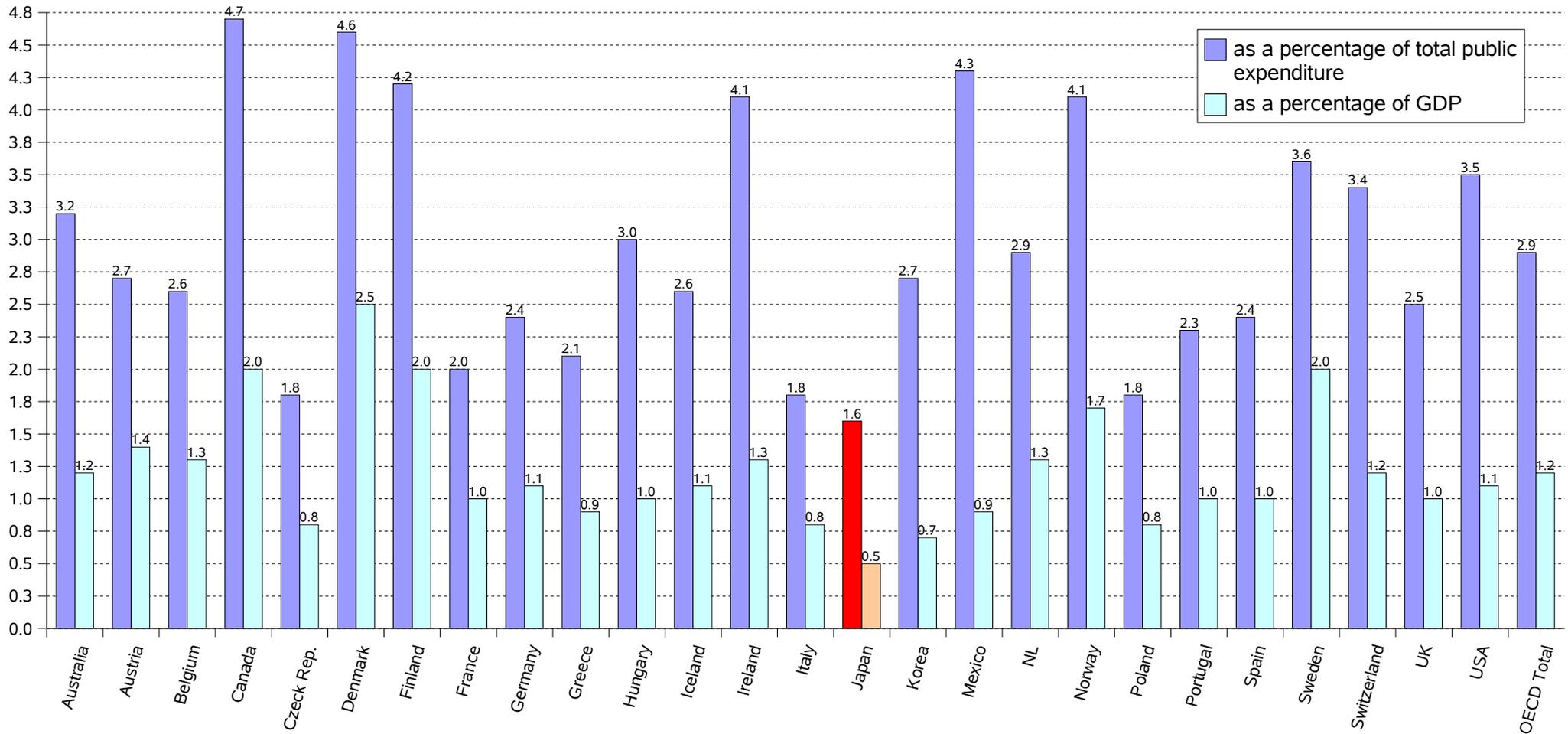
The first year tuition fees (entrance fees included) by sector and the ratio of tuition fees of private universities to those of national universities



b. Poor public expenditure on higher education

- Pressure towards the reduction of public expenditure on HE
 - decrease in subsidies to private universities
 - increase in tuition fees of national universities

Public expenditure on higher education (2000) in OECD countries

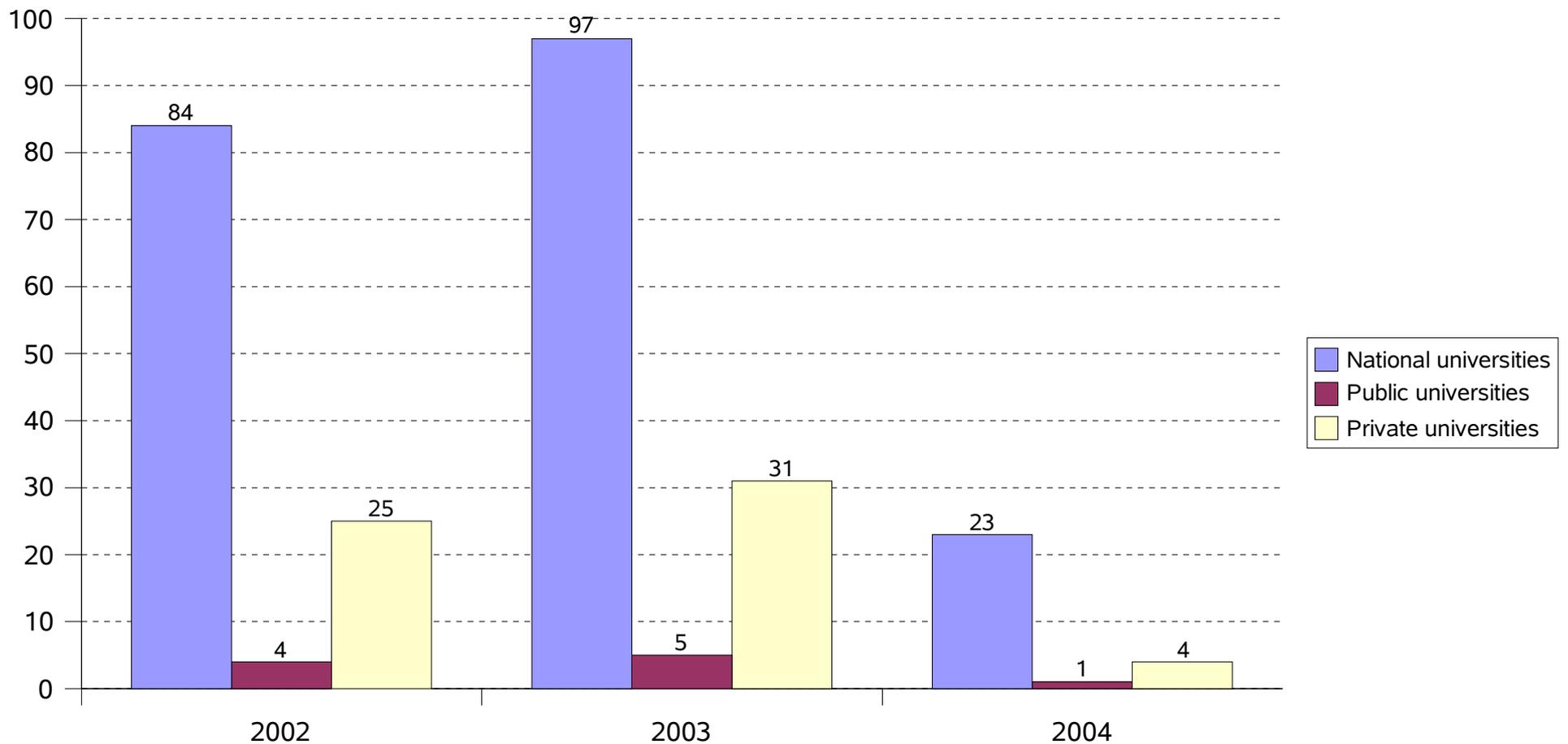


Increase in competitive funds open to public and private institutions

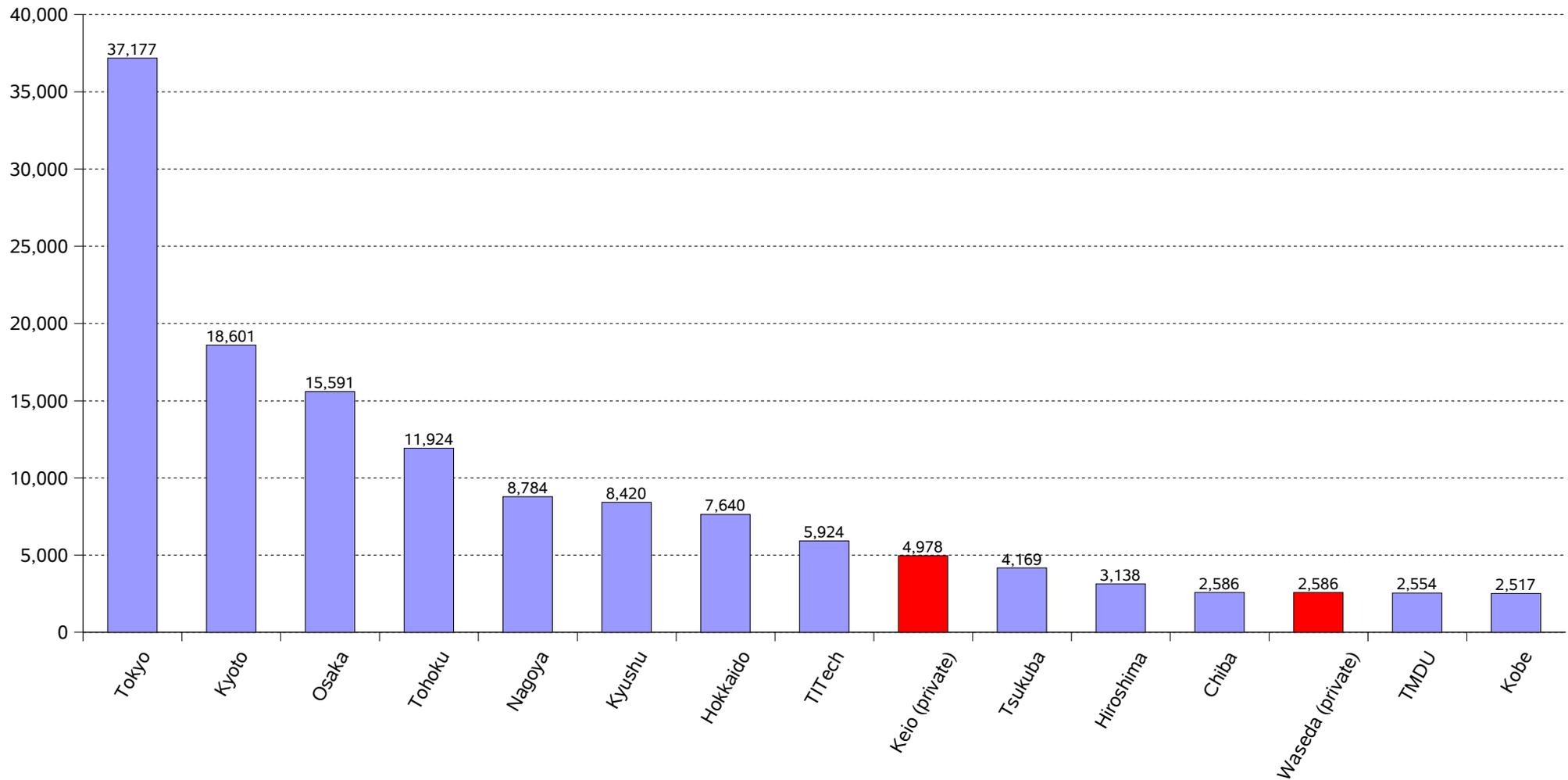
- Competitive funds open indifferently to public and private institutions
 - The 21st Century COE Programme

cf. COE : centre of excellence

Number of COE projects adopted by the MEXT, by sector

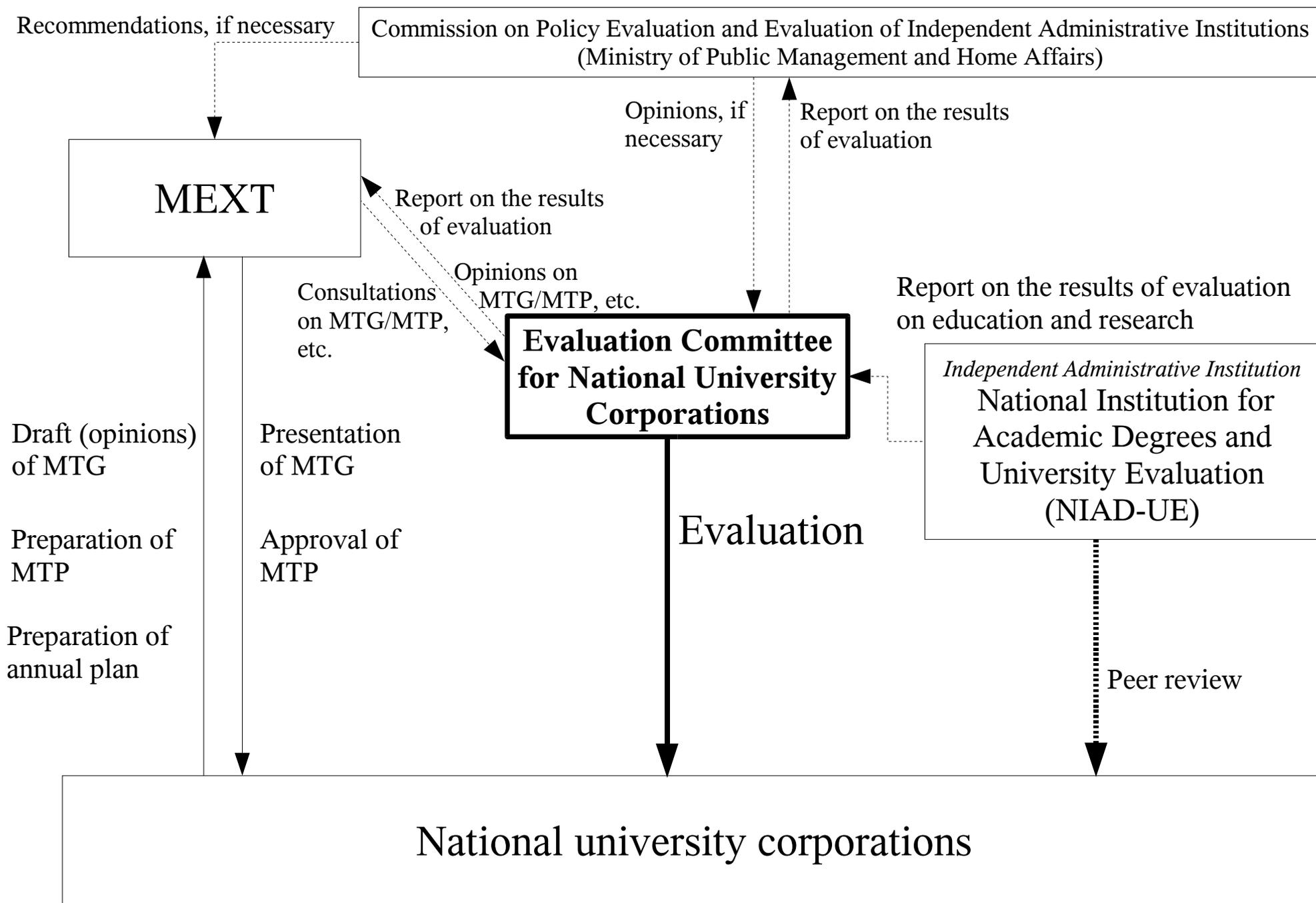


Top 15 universities ranked by the amount of competitive research funds awarded by the Government (million yen)



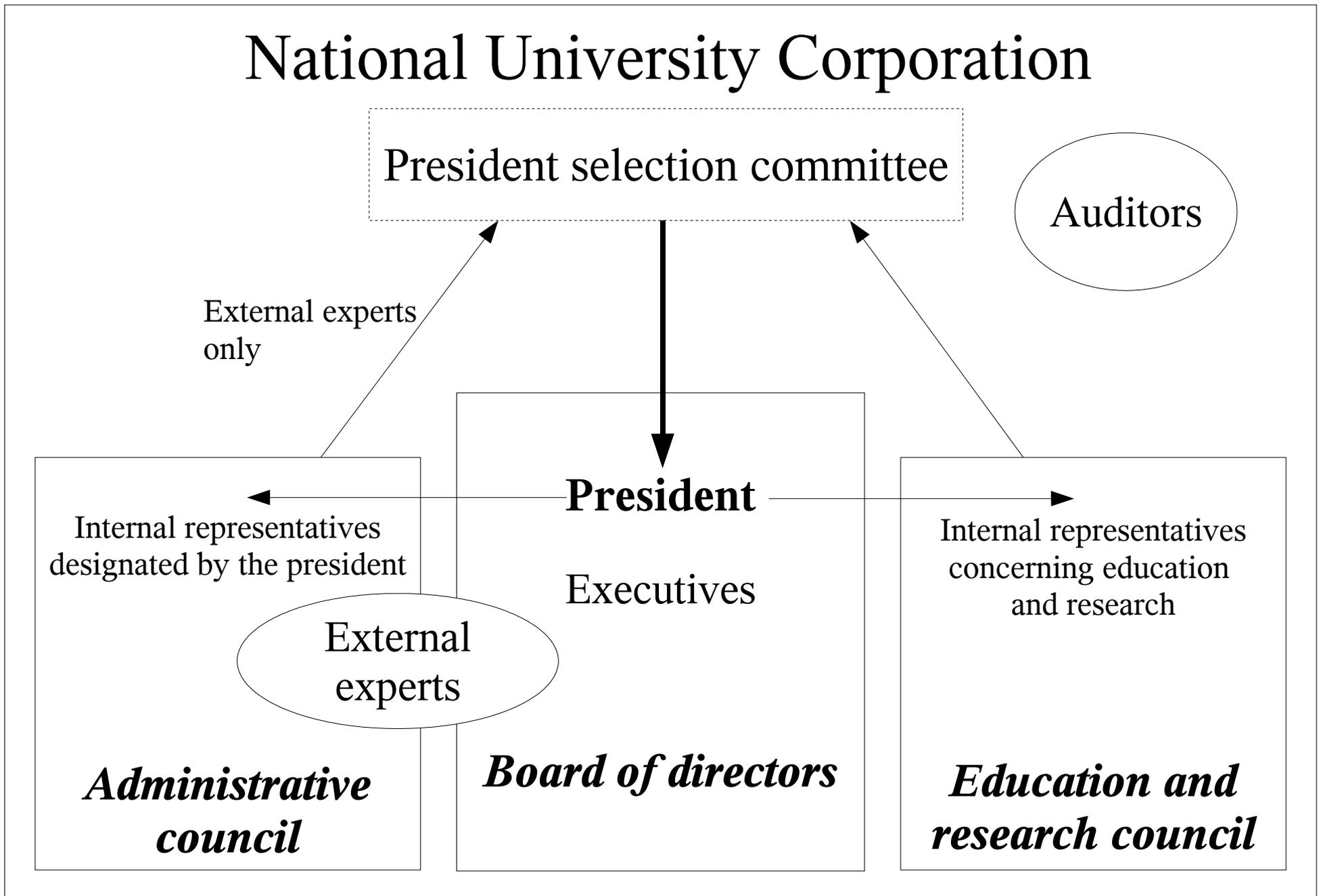
3. Incorporation of national universities in 2004

- Change in the status of the governmental institutions
- Legal personality and more autonomy
- Non-public servant status for staff
- Participation of external people in university administration



MTG: medium-term goals MTP: medium-term plan

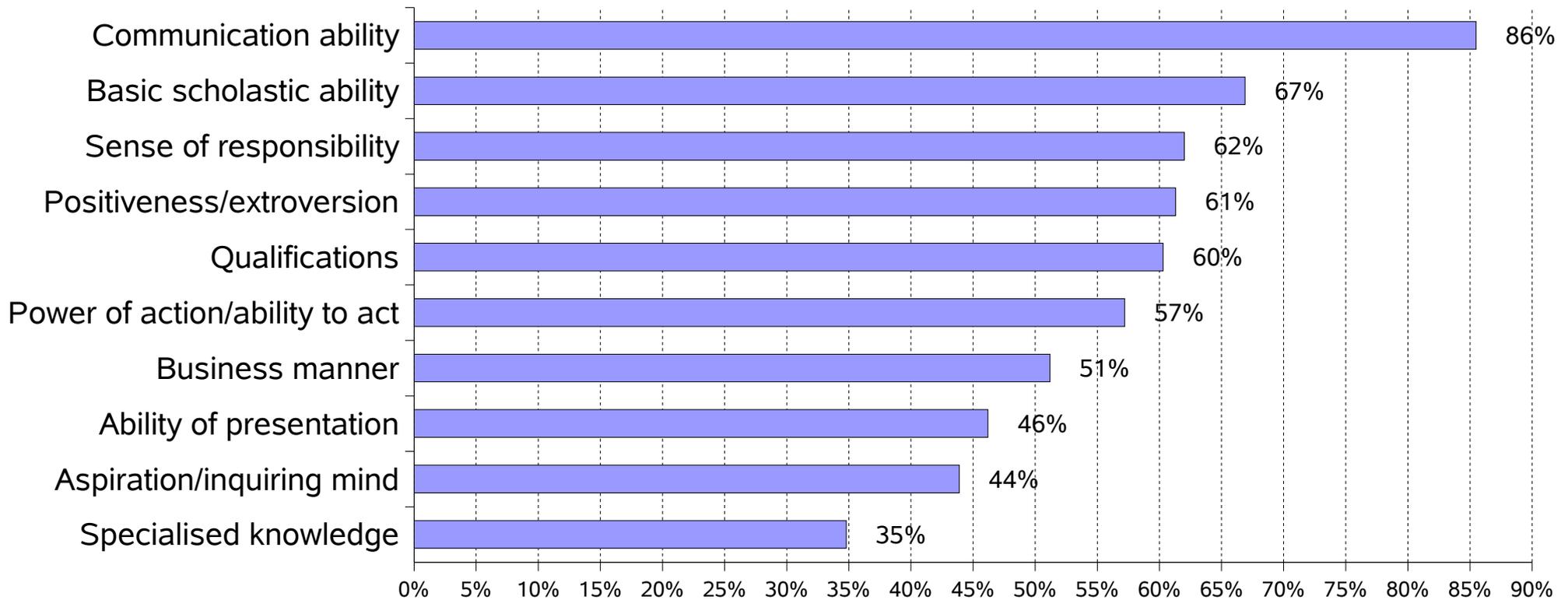
National University Corporation



4. Labour market for students

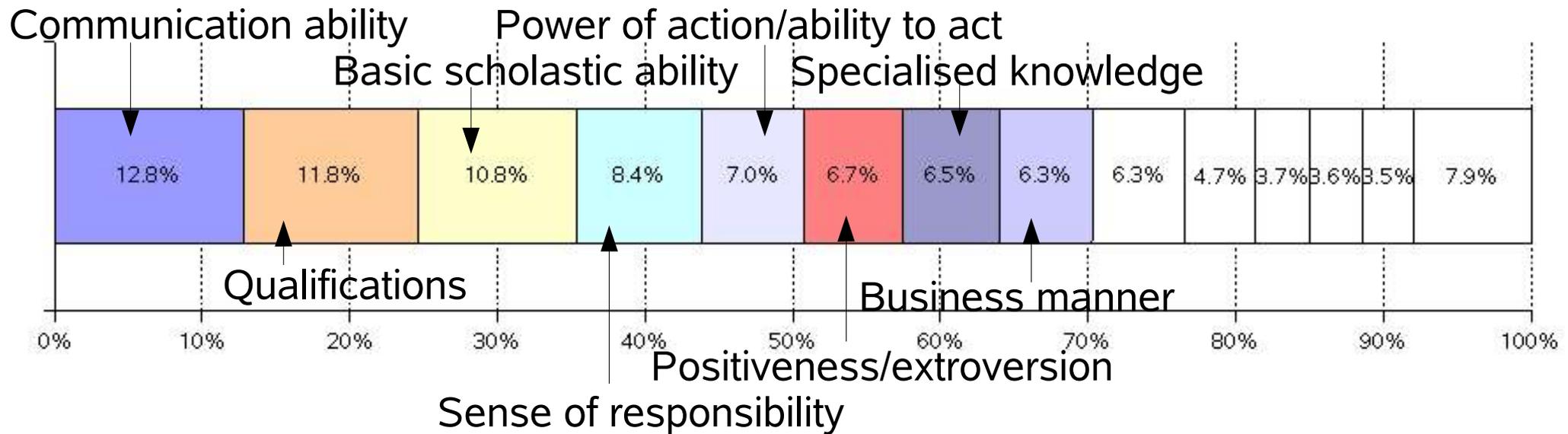
- Difficult situation for students
- Early recruitment activities

Factors regarded as most important by employers for recruitment



Source : Ministry of Health and Labour (2004)

Factors contributing to employment as percentage



Remaining factors (from left to right)

Ability of presentation	6.3%
Aspiration/inquiring mind	4.7%
Problem-finding ability	3.7%
Professionalism/attitude toward work	3.6%
Flexibility/adaptability to environment	3.5%
Other factors	7.9%

Closing remarks

- 21st century : knowledge society
 - Professionalisation
 - Lifelong learning
- Increase in demand for university education

- Improvement of teaching methods (including FD)
- Development of graduate schools
- Quality assurance system
- Career development programme (CDP)