Separate Volume 14 2016

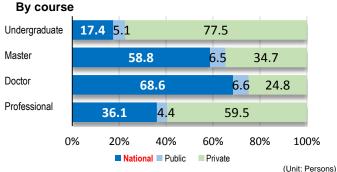
National Universities

Quarterly Report by The Japan Association of National Universities (JANU)

Current Situation of National Universities in Japan

Constituent Members

Students



				(Unit: Fersons)
	Undergraduate	Master	Doctor	Professional
Total	2,556,062	158,974	73,877	16,623
National	445,668	93,416	50,676	5,999
Public	129,618	10,372	4,876	726
Private	1,980,776	55,186	18,325	9,898
Courses Create	d hutha Caaratariat		"Cohool Doois Cum	2015"

Source: Created by the Secretariat of JANU based on "School Basic Survey 2015" issued by MEXT

Master course and doctor course students at national universities account for approx. 60% and approx. 70% of the total respectively.

By area	I I				
National	31.6		68.4		
Public	36.0		64.0	כ	
Private		75.7		24	.3
0	% 20%	40%	60%	80%	100%
	Three me	tropolitan	Other greas		

	areas	(Unit: Persons)
	Three metropolitan areas	Other areas
National	141,020	304,648
Public	46,627	82,991
Private	1,499,165	481,611

Note: The three metropolitan areas here include Saitama Prefecture, Chiba Prefecture, Tokyo, Kanagawa Prefecture, Aichi Prefecture, Kyoto, Osaka, and Hyogo Prefecture. Source: Created by the Secretariat of JANU based on "School Basic Survey 2015" issued by MEXT

National universities provide university education across the nation.

(I Init: Parsons)

Staff

			(Unit: Persons)
	National, Public & Private	Nati	onal
	Total		Female
Full-time staff total	233,260 (179,521)	78,034 (56,470)	48,786 (29,177)
Clerical staff Administration, accounting, personnel affairs, library services, educational affairs, etc.	86,146 (72,329)	27,229 (24,039)	11,462 (7,132)
Technical and professional staff Technical work, professional work, etc.	9,341 (10,308)	7,214 (7,679)	1,627 (1,216)
Medical staff Nurse- and assistant nurse- related work, etc.	128,940 (86,290)	42,577 (23,568)	35,347 (20,390)
Other staff Instructions on experiment, practice, skills, etc.	8,833 (10,594)	1,014 (1,184)	350 (439)

Note: The numbers in brackets show the figures for FY2005.

Source: Created by the Secretariat of JANU based on "School Basic Survey" (FY2005 and FY2015) issued by MEXT

Increase in medical staff

Faculty

Female Faculty Headcount & Rate

Headcount FY2004 6,560 persons (Total: 60,897) Rate
FY2004 10.8%
Uncrease

FY2015 15.9%

↓Increase

FY2015 10,258 persons

(Total: 64,684) Source: Created by the Secretariat of JANU based on "School Basic Survey" (each year version) issued by MEXT

Increase in the female headcount and rate

Young Faculty Headcount, Rate & Employment Situation

Rate of	faculty	under 35 years old	Fixed-te	rm facu	lty
FY2004	13.4%	(8,267 persons)	FY2007	52.9%	(2
↓D	ecrease		↓In	crease	

FY2013 9.8% (6,189 persons)

FY2007 52.9% (2,201 persons) ↓Increase FY2013 73.5% (3,066 persons)

Affected faculty: RU11 faculty under 35 years old Source: Created by the Secretariat of JANU based on "School Teacher Statistical Survey" (FY2013)

Source or detectury in executation of DANO based on School Feacher Statistical Survey (FV201 issued by MEXT and "University Faculty Employment Situation Survey – Research Universities (RU11) Faculty Term and Employment Funds – Flash Report" issued by the National Institute of Science and Technology Policy of MEXT

Decrease in the young faculty rate and increase in the fixed-term faculty rate

Education

Main Distinctive Faculties Newly Established after Incorporation

New faculties to promote internationalization

New faculties to promote regional revitalization

	Akita University	0004	Tottori University			Wakayama University
2014	Faculty of International Resource Sciences	2004	Faculty of Regional Sciences			Faculty of Tourism
			Yamagata University		2008	University of the Ryukyus
2015	Yamaguchi University	2005	Faculty of Education, Art			Faculty of Tourism Sciences and Industrial
	Faculty of Global Science Studies		and Science Kochi University			Management
	Chiba University	2015	Faculty of Regional			Nagasaki University
	College of Liberal Arts		Collaboration		2014	School of Global
2016	and Sciences		Utsunomiya University			Humanities and Social Sciences
2010	University of Fukui		Faculty of Regional Design			Ehime University
	School of Global and Community Studies	2016	Saga University		2016	Faculty of Collaborative Regional Innovation
		2016	Faculty of Art and Regional Design		2010	Oita University
			University of Miyazaki			Faculty of Welfare and Health Science
			Faculty of Regional Innovation		Source: Creat university's w	ed by the Secretariat of JANU based on e ebsite

New multidisciplinary faculties

ity of the Ryukyus

cretariat of JANU based on each

Promoting various, practical education in response to social needs

Educational Reform Activities

Implementing the GPA system (strict grade assessment)

No. of universities: FY2008 51 universities

Uncrease

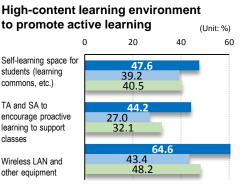
FY2013 67 universities

Providing only English-based classes for graduation

► No. of universities: FY2008 1 university Increase

FY2013 6 universities

Note: These activities are for faculties. Source: Created by the Secretariat of JANU based on "University Education Curriculum, etc. Reform Situation (outline)" (Sept. 10, 2015) issued by MEXT

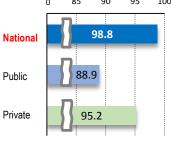


National Public Private

Source: Created by the Secretariat of JANU based on "Survey on University Curriculum to Promote Proactive Learning' (FY2013) issued by the Japan Association for Educational Development and the Benesse Educational Research and Development Institute

Universities that provide career education in their courses (Unit: %)

95 85 90 100 n



Note: Excluding graduate universities Source: Created by the Secretariat of JANU based on "University Education Curriculum, etc. Reform Situation (outline)" (Sept. 10, 2015) issued by MEXT

National universities actively provide advanced, high-quality education.

Research

No. 1 Local National University in Each Special Field that Has Been Awarded the Largest Number of Grantsin-Aid for Scientific Research Projects

University	Field	University	Field			
	Web informatics/ Service	University of Fukui	Childhood science (childhood environment science)			
	informatics	Hamamatsu University School of Medicine	Psychiatric science			
	Library and information science	None Women to University	(Former) Human life			
	/ Humanistic social informatics	Nara Women's University	Clothing life/ Dwelling life			
University of Tsukuba	Modeling and technologies for environmental conservation	Wakayama University	Tourism			
	and remediation	Okayama University	Respiratory surgery			
	Sports science		Education			
	Applied health science		Sociology of education			
	Developmental mechanisms and the body works	Hiroshima University	Education on school subjects and activities			
	Literature in English		Properties in chemical engineering process/ Transfer			
	Human geography		operation/ Unit operation Surgical dentistry			
	Economic statistics	Kagawa University	Embryonic/ Neonatal medicine			
	Special needs education	Ehime University	Environmental risk control and evaluation			
Niigata University	Periodontology	Kyushu Institute of Technology	Learning support system			
University of Toyama	Natural medicines		Parasitology (including sanitary zoology)			
Japan Advanced Institute of Science and Technology	Entertainment and game informatics	Nagasaki University	Infectious disease medicine			

Note: Local national universities here refer to national universities, other than the former seven imperial universities (Hokkaido University, Tohoku University, The University of Tokyo, Nagoya University, Kyoto University, Osaka University, and Kyushu University), and universities located in the three metropolitan areas (Saitama Prefecture, Chiba Prefecture, Tokyo, Kanagawa Prefecture, Osaka, Hyogo Prefecture, and Kyoto). Source: Created by the Secretariat of JANU based on "Grants-in-Aid for Scientific Research Allocation Results" (Sept. 16, 2015) issued by the Japan Society for the Promotion of Science (JSPS)

Using their strong points and distinctive features to promote various research projects

Nobel Laureates

Year	Name	Field	Educational Background	Affiliation at the Time of the Award
1949	Hideki Yukawa	Physics	Kyoto University	Kyoto University / Columbia Universit
1965	Sin-Itiro Tomonaga	Physics	Kyoto University	Tokyo University of Education
1968	Yasunari Kawabata	Literature	The University of Tokyo	-
1973	Leo Esaki	Physics	The University of Tokyo	IBM Thomas J. Watson Research Center
1974	Eisaku Sato	Peace	The University of Tokyo	-
1981	Kenichi Fukui	Chemistry	Kyoto University	Kyoto University
1987	Susumu Tonegawa	Physiology or Medicine	Kyoto University	Massachusetts Institute of Technolog
1994	Kenzaburo Oe	Literature	The University of Tokyo	-
2000	Hideki Shirakawa	Chemistry	Tokyo Institute of Technology	University of Tsukuba
2001	Ryoji Noyori	Chemistry	Kyoto University	Nagoya University
2002	Masatoshi Koshiba	Physics	The University of Tokyo	The University of Tokyo
2002	Koichi Tanaka	Chemistry	Tohoku University	Shimadzu Corporation
	Makoto Kobayashi	Physics	Nagoya University	High Energy Accelerator Research Organization
2008	Toshihide Maskawa	Physics	Nagoya University	Kyoto University / Kyoto Sangyo University
	Yoichiro Nambu	Physics	The University of Tokyo	Chicago University
	Osamu Shimomura	Chemistry	Nagasaki University	Boston University
2010	Akira Suzuki	Chemistry	Hokkaido University	Hokkaido University
2010	Ei-ichi Negishi	Chemistry	The University of Tokyo	Purdue University
2012	Shinya Yamanaka	Physiology or Medicine	Kobe University	Kyoto University
	Isamu Akasaki	Physics	Kyoto University	Meijo University
2014	Hiroshi Amano	Physics	Nagoya University	Nagoya University
2014	Shuji Nakamura	Physics	Tokushima University	University of California, Santa Barbara
	Takaaki Kajita	Physics	Saitama University	The University of Tokyo
2015	Satoshi Ōmura	Physiology or Medicine	University of Yamanashi	Kitasato University

national universities.

Grants-in-Aid for Scientific Research Allocation Situation (for newly adopted projects)

(Unit: 1,000 yen)

		No. of Applications	No. of Adopted Projects	Adoption Rate	Amount Subscribed	Allocation Amount (Direct Expenditure)	Allocation Amount (Indirect Expenditure)		Allocation Amount Rate
To	otal	99,475	26,382	26.5%	409,053,025	63,579,200	19,073,760	82,652,960	—
	National	49,461	14,623	29.6%	245,197,393	40,790,550	12,237,165	53,027,715	64.2%
	Public	7,487	1,896	25.3%	22,512,452	3,364,600	1,009,380	4,373,980	5.3%
	Private	30,355	6,825	22.5%	84,237,601	11,301,350	3,390,405	14,691,755	17.8%
	Other	12,172	3,038	25.0%	57,105,579	8,122,700	2,436,810	10,559,510	12.8%

Note: The FY2015 scientific research grant is for research projects (newly adopted), except "special field research" and "encouragement research". Source: Created by the Secretariat of JANU based on "Grants-in-Aid for Scientific Research Allocation Results" (Sept. 16, 2015) issued by the Japan Society for the Promotion of Science (JSPS)

Promotion of Joint Research with Local Companies, etc.

Top 30 Universities in Terms of Joint Research with Private Companies

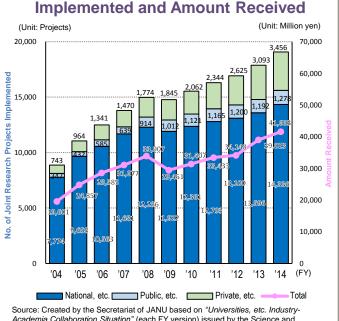
		National University		Public University		Private University	
		Three	Other	Three	Other	Three	Other
		metropolitan areas	Other	metropolitan areas	Outer	metropolitan areas	Ourier
No. of Research Projects	No. of	10	17	1	0	3	0
Research Grant Amount	Universities	11	15	1	0	3	0

Top 30 Universities in Terms of Joint Research with Small and Medium-sized Companies

	National University		Public Univers	sity	Private University	
	Three metropolitan areas	UTHER	Three metropolitan areas	Other	Three metropolitan areas	Other
No. of Universities	9	18	1	0	2	0

Note: The three metropolitan areas here include Saitama Prefecture, Chiba Prefecture, Tokyo, Kanagawa Prefecture, Aichi Prefecture, Kyoto, Osaka, and Hyogo Prefecture. Source: Created by the Secretariat of JANU based on "FY2014 Universities, etc. Industry-Academia Collaboration" (revision on Dec. 25, 2015) issued by MEXT

Industry-Academia Collaboration

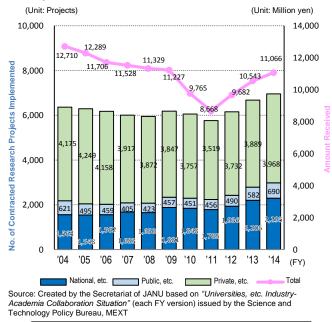


No. of Joint Research Projects

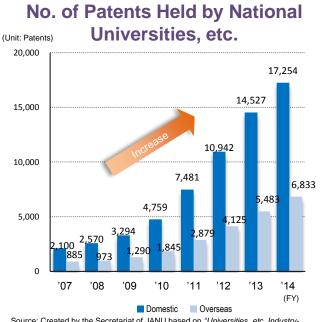
Academia Collaboration Situation" (each FY version) issued by the Science and Technology Policy Bureau, MEXT

The number of join research projects implemented and the amount received are increasing.

No. of Contracted Research Projects Implemented and Amount Received



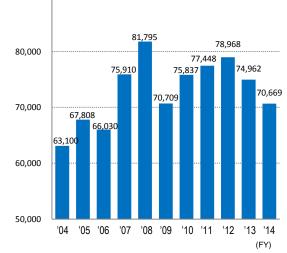
The amount received has been stagnant in recent years.



Source: Created by the Secretariat of JANU based on "Universities, etc. Industry-Academia Collaboration Situation" (each FY version) issued by the Science and Technology Policy Bureau, MEXT

The number of patents held in Japan and abroad is increasing every year.

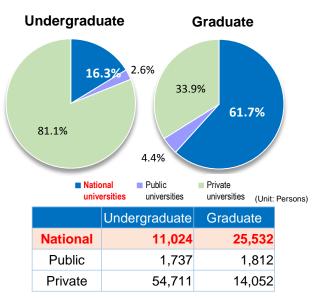
Donations Received by National Universities. etc. (Unit: Million yen) 90,000



Source: Created by the Secretariat of JANU based on "Universities, etc. Industry-Academia Collaboration Situation" (each FY version) issued by the Science and Technology Policy Bureau, MEXT

> The amount of donations received increased after incorporation, but it has been stagnant in recent years.

Internationalization



Rate of International Students

Source: Created by the Secretariat of JANU based on "FY2015 International Student Enrollment Survey Results" (Mar. 2016) issued by the Japan Student Services Organization (JASSO)

International graduate students at national universities account for approx. 60% of the total.

Rate of Japanese Students Studying Abroad



Note: The numbers of Japanese students studying abroad are for overseas study programs under agreements.

Source: Created by the Secretariat of JANU based on "International Student Survey" issued by the Japan Student Services Organization (JASSO)

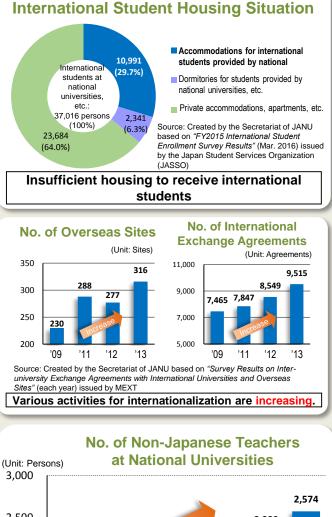
The rate of Japanese students of national universities studying abroad is increasing.

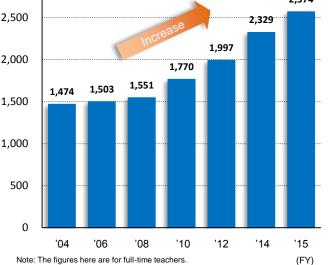
No. of Japanese Students of National Universities Studying Abroad

	1 year or more	Less than 1 year	Total
Undergraduate	506	13,626	14,132
Graduate	206	6,077	6,283
Total	712	19,703	20,415

Note: The figures above are actual numbers in FY2014. The numbers of Japanese students studying abroad here include those not under agreements.

Source: Created by the Secretariat of JANU based on "The 3rd Follow-up Survey Results on the Further Promotion of Educational Internationalization at National Universities" (Mar. 2016) issued by JANU





Source: Created by the Secretariat of JANU based on "School Basic Survey" (each year) issued by MEXT

The number of non-Japanese full-time teachers is increasing every year.

5

(Unit: Persons)

World University Rankings (1) - Overall

THE (Times Higher Education), UK

2015-2016	University	Country, etc.
1	California Institute of Technology	United States
2	University of Oxford	United Kingdom
3	Stanford University	United States
4	University of Cambridge	United Kingdom
5	Massachusetts Institute of Technology	United States
6	Harvard University	United States
7	Princeton University	United States
8	Imperial College London	United Kingdom
9	ETH Zurich – Swiss Federal Institute of Technology Zurich	Switzerland
10	University of Chicago	United States
26	National University of Singapore	Singapore
42	Peking University	China
43	The University of Tokyo	Japan
44	The University of Hong Kong	Hong Kong
47	Tsinghua University	China
82	Seoul National University	South Korea
88	Kyoto University	Japan
201-250	Tokyo Institute of Technology	Japan
201-250	Tohoku University	Japan
251-300	Osaka University	Japan

Source: Created by the Secretariat of JANU based on "Times Higher Education World University Rankings 2015-16"

Two Japanese universities ranked in the world top 100.

World University Rankings (2) – Overall

Shanghai Jiao Tong University, China

2015-2016	University	Country, etc.
1	Harvard University	United States
2	Stanford University	United States
3	Massachusetts Institute of Technology	United States
4	University of California, Berkeley	United States
5	University of Cambridge	United Kingdom
6	Princeton University	United States
7	California Institute of Technology	United States
8	Columbia University	United States
9	University of Chicago	United States
10	University of Oxford	United Kingdom
21	The University of Tokyo	Japan
26	Kyoto University	Japan
44	The University of Melbourne	Australia
77	Nagoya University	Japan
85	Osaka University	Japan
101-150	Peking University	China
101-150	Seoul National University	South Korea
101-150	Shanghai Jiao Tong University	China
101-150	Tohoku University	Japan
101-150	Tsinghua University	China

Source: Created by the Secretariat of JANU based on "Academic Ranking of World Universities 2015"

Four Japanese universities ranked in the world top 100.

World University Rankings (3) – By Subject

QS (Quacquarelli Symonds Limited), UK

Chemistry

2015-2016	University	Country, etc.
1	Massachusetts Institute of Technology	United States
2	University of California, Berkeley	United States
3	University of Cambridge	United Kingdom
7	National University of Singapore	Singapore
8	The University of Tokyo	Japan
9	California Institute of Technology	United States
14	Kyoto University	Japan
16	Peking University	China
17	Tsinghua University	China
21	Tokyo Institute of Technology	Japan
25	Osaka University	Japan
29	National Taiwan University	Taiwan
34	Tohoku University	Japan

Economics & Econometrics

2015-2016	University	Country, etc.
1	Massachusetts Institute of Technology	United States
2	Harvard University	United States
3	Stanford University	United States
18	National University of Singapore	Singapore
31	The University of Tokyo	Japan
37	The University of Hong Kong	Hong Kong

Physics & Astronomy

	3	
2015-2016	University	Country, etc.
1	Massachusetts Institute of Technology	United States
2	Harvard University	United States
3	Stanford University	United States
8	The University of Tokyo	Japan
18	National University of Singapore	Singapore
19	Kyoto University	Japan
25	Tokyo Institute of Technology	Japan
30	Peking University	China
30	Tsinghua University	China
35	Tohoku University	Japan
38	Osaka University	Japan
44	The University of Melbourne	Australia
47	National Taiwan University	Taiwan

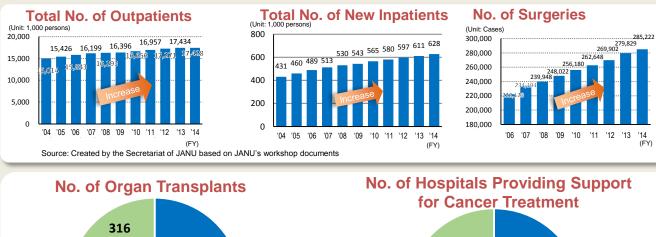
Statistics & Operational Research

2015-2016	University	Country, etc.
1	Massachusetts Institute of Technology	United States
2	Stanford University	United States
3	Harvard University	United States
8	National University of Singapore	Singapore
19	The University of Tokyo	Japan
23	The University of Hong Kong	Hong Kong

Source: Created by the Secretariat of JANU based on "QS World University Rankings by Subject 2016"

Japanese universities are leading the world not only in science subjects, including chemistry, physics, and astronomy, but also in social science subjects, including economics and management engineering.

National University Hospitals



National

Public Private

Other

(20.1%)

284

(18.1%)

Source: Created by the Secretariat of JANU based on JANU's workshop documents

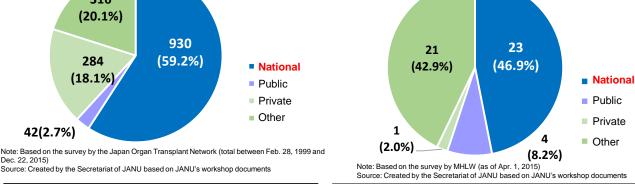
National university hospitals perform approx. 60% of total organ transplants.

42(2.7%)

Dec. 22, 2015)

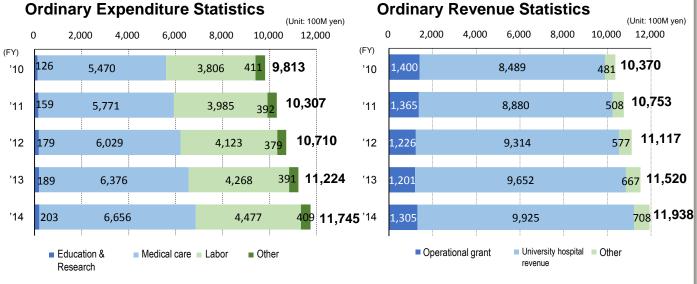
930

(59.2%)



National university hospitals specified for providing support for cancer treatment account for more than 40% of the total.

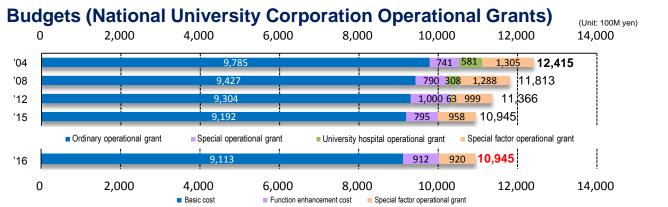
Financial Situation of National University Hospitals [except medical and dental schools]



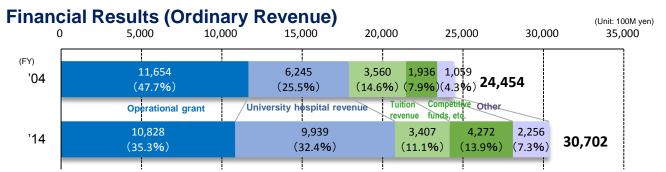
Source: Created by the Secretariat of JANU based on "FY2014 Financial Results of National University Corporations, etc." issued by MEXT

Medical care expenditure has an increasing share of total ordinary expenditure in response to increasing needs for medical care, etc. National university hospital revenue has an increasing share of total ordinary revenue.

Financial Situation

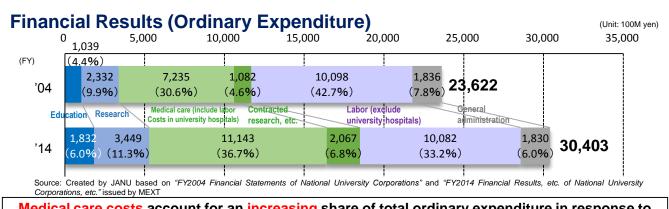


Note 1: The figures above do not include special account budgets for disaster restoration. (Special account budgets for disaster restoration: 5.7B yen for FY2012, 1.1B yen for FY2013, 700M yen for FY2014, and 400M yen for FY2015) Note 2: The university hospital operational grant is nil since FY2013. Note 3: The budget for FY2015 shows the figures after budget revision. Note 4: The budget for FY2016 beyond is for a three-term budget, which is shown here by dividing the basic operational grant into the basic cost and the function enhancement cost. Source: Created by the Secretariat of JANU based on "National University Corporation Operational Grant Plan (90 Corporations Including Inter-University Research Institute Corporations" (each FY version) issued by MEXT



Note: Competitive funds, etc. for FY2004 show the total amount of subsidies, contracted research revenue, donations, research institution revenue, and other revenues. Competitive funds etc. for FY2014 show the total amount of subsidies, contracted research revenue, donations, and research-related revenue. Source: Created by the Secretariat of JANU based on "FY2004 Financial Statements of National University Corporations" and "FY2014 Financial Results, etc. of National University Corporations. etc." issued by MEXT

Operational grant and tuition revenue have decreasing shares of total ordinary revenue. University hospital revenue from medical fees, etc. has increased (but the earning rate has decreased due to the consumption tax hike). The amount of competitive funds, etc. has also increased.



Medical care costs account for an increasing share of total ordinary expenditure in response to increasing needs for medical care at university hospitals, but labor cost has been reduced by personnel cuts and administration cost has been reduced by energy saving, etc.



The Japan Association of National Universities (JANU)

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