

**2021**

**Keio University  
Annual Report  
on Research Activities**

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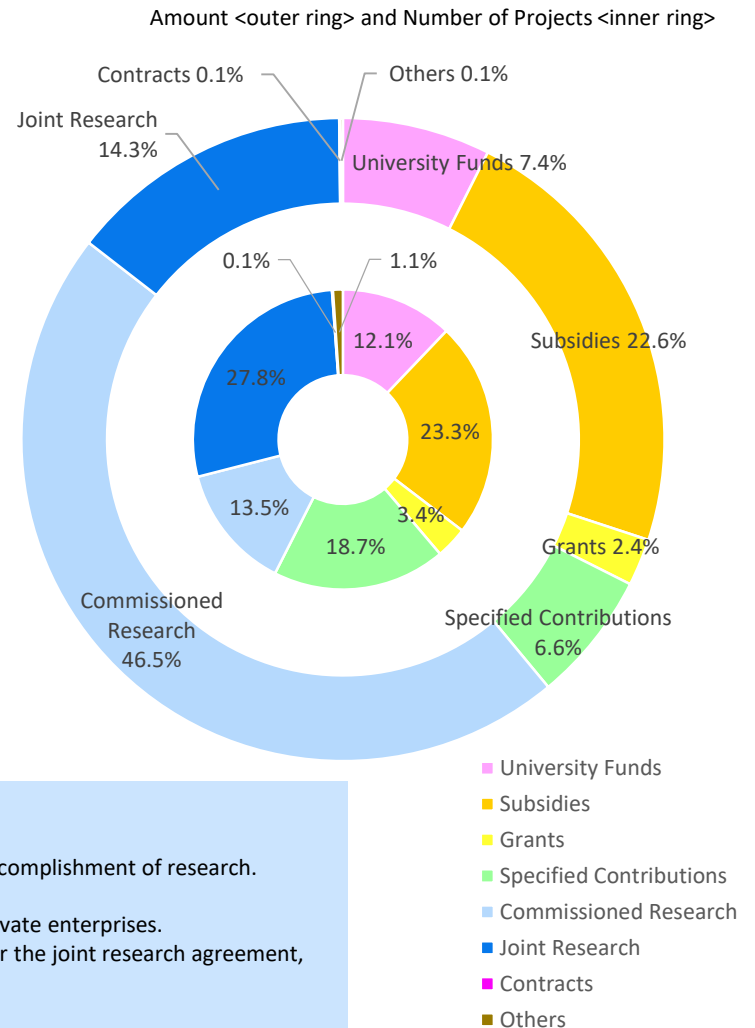
Research funds at Keio University from national and local public institutions, private businesses, and university funding totaled approximately ¥249 hundred million in FY2021. The charts below show research fund totals classified in various ways.

## Research Funds by Type

Types of Funds	In thousands of yen	
	Number of Projects	Amount
University Funds	673	1,853,915
Subsidies	1,291	5,634,966
Grants	190	590,527
Specified Contributions	1,037	1,632,669
Commissioned Research	751	11,589,559
Joint Research	1,545	3,570,030
Contracts	6	12,561
Others	59	33,360
<b>Total</b>	<b>5,552</b>	<b>24,917,587</b>

\*As of March 31, 2022

\*Discrepancies may arise in the total amount as totals are rounded to the thousand.



### Definition

**Subsidies:** Research funds provided mainly by government and public offices.

**Grants:** Research expenses provided mainly by foundations for the purpose of improvement or accomplishment of research.

**Specified Contributions:** Contributions earmarked for research activities.

**Commissioned Research:** Research commissioned by government and public offices, as well as private enterprises.

**Joint Research:** Research involving personnel exchanges and/or sharing technology/facilities under the joint research agreement, with or without payment of research funds.

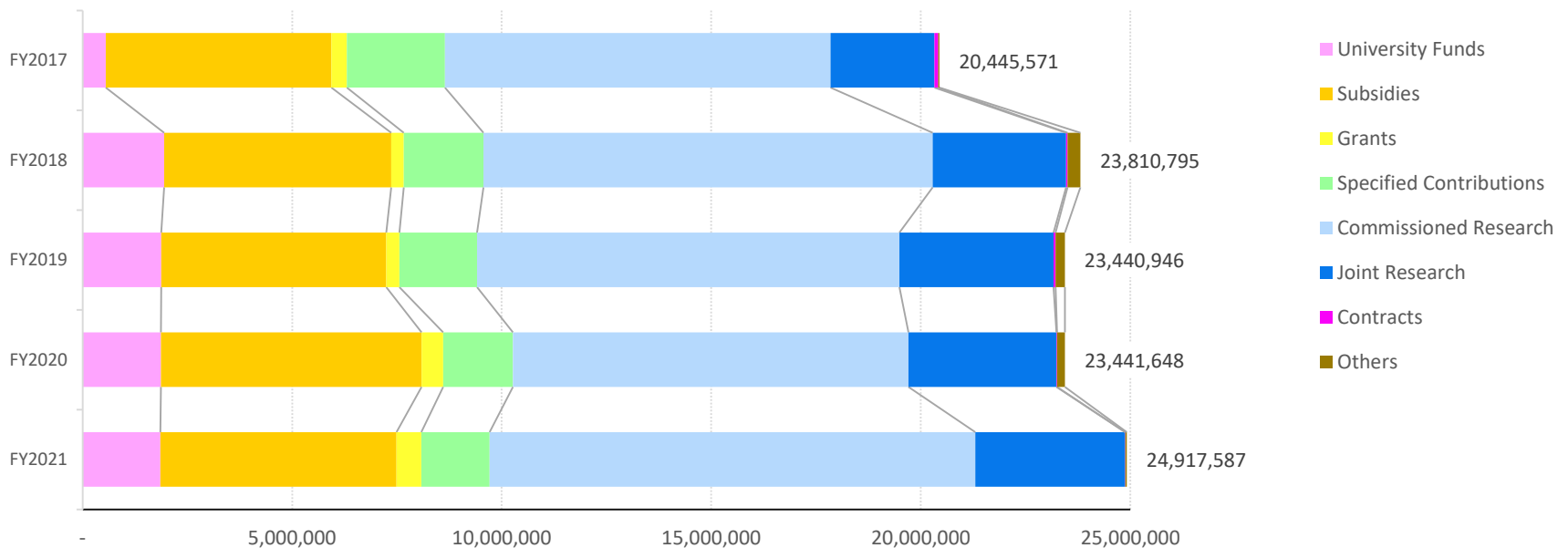
**Contracts:** Research under a contract agreement.

## Research Funds by Type FY2017-2021

### Research Funds by Type over the Past 5 Years

In thousands of yen

Type of Research Funds	FY2017	FY2018	FY2019	FY2020	FY2021
University Funds	555,417	1,942,130	1,872,464	1,869,698	1,853,915
Subsidies	5,381,046	5,424,611	5,375,974	6,215,436	5,634,966
Grants	370,133	297,581	311,603	518,482	590,527
Specified Contributions	2,338,525	1,903,497	1,851,529	1,663,903	1,632,669
Commissioned Research	9,202,567	10,713,472	10,081,073	9,439,647	11,589,559
Joint Research	2,475,402	3,188,151	3,672,466	3,530,078	3,570,030
Contracts	96,665	29,464	50,197	16,267	12,561
Others	25,816	311,889	225,640	188,137	33,360
<b>Total</b>	<b>20,445,571</b>	<b>23,810,795</b>	<b>23,440,946</b>	<b>23,441,648</b>	<b>24,917,587</b>

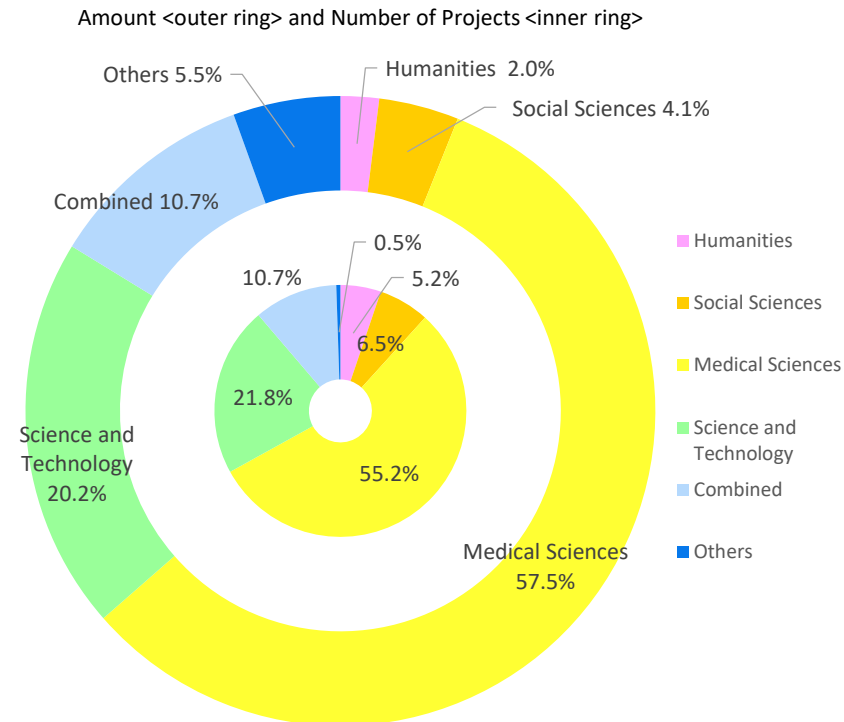


\* University funds were revalued in 2018, part of which were not counted as such in the previous years.

The data in this section are compiled with reference to classification of the field of research in other official reports such as the Survey of Research and Development by the Ministry of Internal Affairs and Communications, and various surveys on research expenses by the Japan Association of Private Universities and Colleges.

## ■ Research Funds by Field

Research Fields	In thousands of yen	
	Number of Projects	Amount
Humanities	289	492,133
Social Sciences	362	1,023,312
Medical Sciences	3,067	14,322,607
Science and Technology	1,209	5,030,853
Combined	596	2,676,847
Others	29	1,371,835
<b>Total</b>	<b>5,552</b>	<b>24,917,587</b>



- Humanities**  
History, Philosophy, Literature, Languages, and other humanities.
- Social Sciences**  
Economics, Sociology, Business and Commerce, Political Science, Law, and other social sciences.
- Medical Sciences**  
Medicine, Nursing, Pharmaceutical Science, and other health and medical sciences.
- Science and Technology**  
Applied Chemistry, Chemistry, Mechanics and Shipbuilding, Engineering, Mathematics, Electrics, Communications, Physics, and other sciences and technology.
- Combined**  
Interdisciplinary fields.
- Others**

Classifying funds by affiliation of researcher (in principle, the representative researcher)

### ■ Research Funds by Affiliation of Researchers

In thousands of yen

Affiliation of Researchers	Number of Projects	Amount
Faculty / Graduate School of Letters	164	350,160
Faculty / Graduate School of Economics	106	306,588
Faculty / Graduate School of Law	73	88,979
Faculty / Graduate School of Business and Commerce	95	206,271
Faculty / Graduate School of Medicine	2,725	12,979,827
Faculty / Graduate School of Science and Technology	1,066	3,766,084
Faculty of Policy Management	130	383,166
Faculty of Environment and Information Studies	324	2,264,371
Faculty of Nursing and Medical Care	36	58,403
Faculty of Pharmacy / Graduate School of Pharmaceutical Sciences	256	950,290
Graduate School of Human Relations	1	5,720
Graduate School of Media and Governance	174	451,969
Graduate School of Health Management	7	31,220
Graduate School of Business Administration	37	32,565
Graduate School of System Design and Management	76	358,892
Graduate School of Media Design	40	414,452
Law School	28	53,514
Others	214	2,215,116
<b>Total</b>	<b>5,552</b>	<b>24,917,587</b>

\*Discrepancies may arise in the total amount as totals are rounded to the thousand.

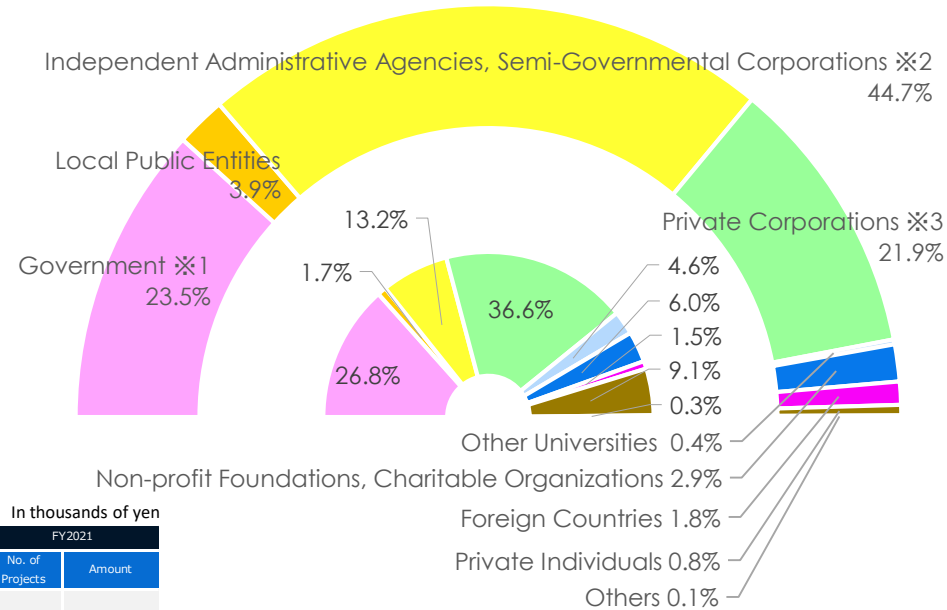
## Types of External Entities Contributing Research Funds

In thousands of yen

Type of External Entities	Number of Projects	Amount
Government *1	1,307	5,409,909
Local Public Entities	85	903,796
Independent Administrative Agencies, Semi-Governmental Corporations *2	646	10,302,335
Private Corporations *3	1,784	5,057,251
Other Universities	226	88,400
Non-profit Foundations, Charitable Organizations	295	666,810
Foreign Countries	73	417,586
Private Individuals	446	187,567
Others	17	30,018
<b>Total</b>	<b>4,879</b>	<b>23,063,672</b>

## Contribution Share by External Entity Type

Amount <outer ring> and Number of Projects <inner ring>



\*1

Government	FY2017		FY2018		FY2019		FY2020		FY2021	
Funding sources	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount
Ministry of Internal Affairs and Communications	10	218,663	9	137,951	6	75,228	9	155,467	7	154,589
Ministry of Education	1,064	4,187,407	1,152	4,173,521	1,211	3,964,900	1,282	4,531,800	1,180	4,208,803
Ministry of Health, Labor and Welfare	71	192,369	74	224,517	92	479,067	111	696,285	103	582,271
Ministry of Environment	4	33,072	3	13,097	3	71,129	8	209,857	2	94,433
Others	16	547,320	21	520,353	20	559,043	17	340,530	15	369,813
<b>Total</b>	<b>1,165</b>	<b>5,178,831</b>	<b>1,259</b>	<b>5,069,439</b>	<b>1,332</b>	<b>5,149,367</b>	<b>1,427</b>	<b>5,933,939</b>	<b>1,307</b>	<b>5,409,909</b>

\*2

Independent Administrative Agencies, Semi-Governmental Corporations	FY2017		FY2018		FY2019		FY2020		FY2021	
Funding sources	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount
NICT *a	10	148,773	12	80,888	14	61,536	23	86,793	19	99,028
JST *b	88	2,285,595	99	2,415,113	89	1,959,885	101	1,420,516	136	2,848,017
AMED *c	220	4,741,859	289	5,732,133	248	5,420,979	254	5,705,963	274	6,253,193
NEDO *d	16	239,050	22	406,503	20	424,577	22	309,866	25	384,515
Others	110	331,112	132	433,710	148	759,532	138	536,168	192	717,582
<b>Total</b>	<b>444</b>	<b>7,746,389</b>	<b>554</b>	<b>9,068,347</b>	<b>519</b>	<b>8,626,509</b>	<b>538</b>	<b>8,059,306</b>	<b>646</b>	<b>10,302,335</b>

\*3

Private Corporations	FY2017		FY2018		FY2019		FY2020		FY2021	
Funding sources	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount	No. of Projects	Amount
Specified Contributions	734	1,707,706	739	1,503,081	674	1,250,149	638	1,085,902	531	1,091,311
Commissioned Research	228	860,042	253	982,609	153	418,786	130	411,277	166	547,987
Joint Research	597	2,242,661	829	2,971,821	961	3,285,761	984	3,244,088	1,006	3,311,024
Others	104	138,090	89	387,264	141	639,384	134	496,568	81	106,929
<b>Total</b>	<b>1,663</b>	<b>4,948,499</b>	<b>1,910</b>	<b>5,844,775</b>	<b>1,929</b>	<b>5,594,080</b>	<b>1,886</b>	<b>5,237,835</b>	<b>1,784</b>	<b>5,057,251</b>

- Government \*1
- Local Public Entities
- Independent Administrative Agencies, Semi-Governmental Corporations \*2
- Private Corporations \*3
- Other Universities
- Non-profit Foundations, Charitable Organizations
- Foreign Countries
- Private Individuals

\*a National Institute of Information and Communications Technology

\*b Japan Science and Technology Agency

\*c Japan Agency for Medical Research and Development

\*d New Energy and Industrial Technology Development Organization

## ■ Types of External Entities Contributing Research Funds to Each Campus

In thousands of yen

Campuses		Government Organizations	Non-Government Public Organizations	Private Corporations	Others	Total
Mita Campus	No. of Projects	200	4	13	1	218
	Amount	939,248	4,859	60,591	100,295	1,104,993
Hiyoshi Campus	No. of Projects	148	14	76	8	246
	Amount	575,089	38,304	339,286	50,429	1,003,108
Shinanomachi Campus	No. of Projects	937	270	888	500	2,595
	Amount	9,073,272	409,834	2,889,899	266,128	12,639,133
Yagami Campus	No. of Projects	396	95	372	48	911
	Amount	2,649,659	151,416	731,112	21,405	3,553,592
Shonan Fujisawa Campus	No. of Projects	141	81	311	60	593
	Amount	1,361,208	165,913	762,519	189,928	2,479,567
Shiba-Kyoritsu Campus	No. of Projects	87	46	60	2	195
	Amount	624,572	142,323	102,562	7,559	877,016
Shin-Kawasaki Town Campus	No. of Projects	6	2	28	0	36
	Amount	115,826	4,980	79,888	0	200,695
Tsuruoka Town Campus	No. of Projects	23	16	31	1	71
	Amount	207,531	736,797	60,805	1,000	1,006,133
Tonomachi Town Campus	No. of Projects	3	5	5	1	14
	Amount	125,590	30,990	30,589	12,266	199,435
<b>Total</b>	No. of Projects	1,941	533	1,784	621	4,879
	Amount	15,671,995	1,685,416	5,057,251	649,010	23,063,672

\* Totals are compiled based on the home campuses (in principle, the affiliation of the research project leaders). The actual research, however, may take place at different campuses.

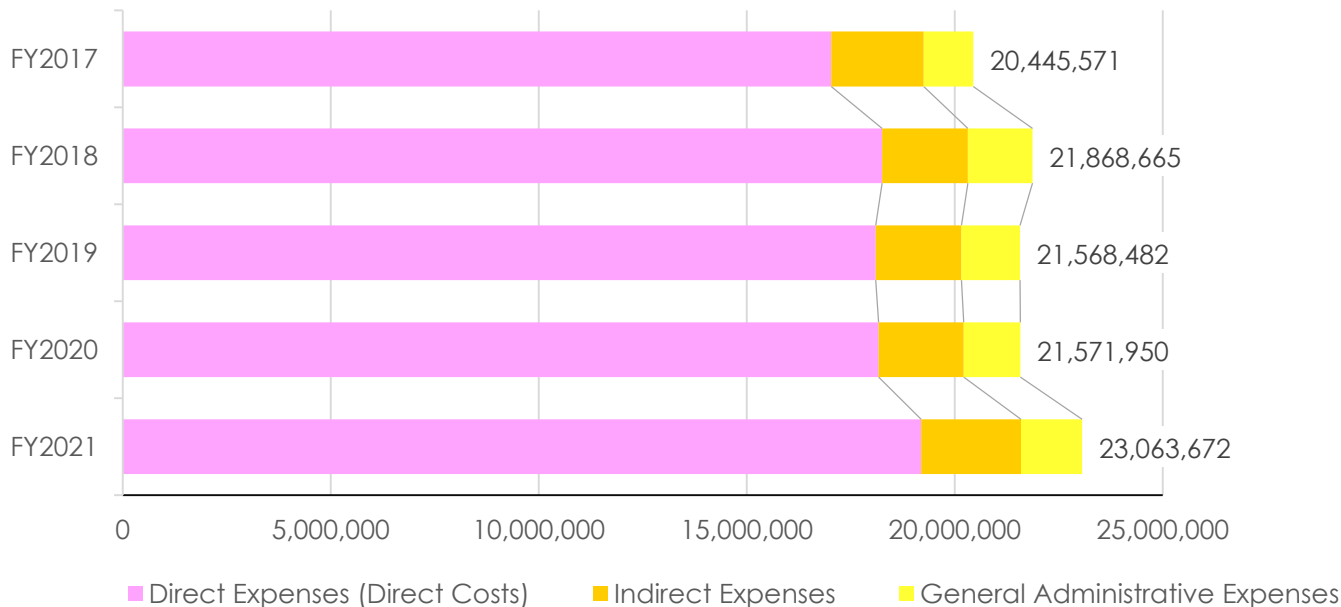
# Direct and Indirect Research Expenses FY2017-2021

## Direct and Indirect Research Expenses, and General Administrative Expenses over the Past 5 Years

In thousands of yen

Type of Research Funds	FY2017	FY2018	FY2019	FY2020	FY2021
Direct Expenses (Direct Costs)	17,028,810	18,252,533	18,099,719	18,164,535	19,187,949
Indirect Expenses	2,225,774	2,062,068	2,058,030	2,048,699	2,399,599
General Administrative Expenses	1,190,987	1,554,065	1,410,733	1,358,716	1,476,124
<b>Total</b>	<b>20,445,571</b>	<b>21,868,665</b>	<b>21,568,482</b>	<b>21,571,950</b>	<b>23,063,672</b>

\*Discrepancies may arise in the total amount as totals are rounded to the thousand.



### Definition

**Indirect Expenses:** Expenses allocated equivalent to a certain percentage of the Competitive Research Funds in addition to the direct expenses for the research to supplement administrative and operational costs of the institution to which project leaders are affiliated.

**General Administrative Expenses (Overhead Costs):** Expenses allocated to supplement administrative costs for research other than direct expenses for the research, other than Indirect Expenses.

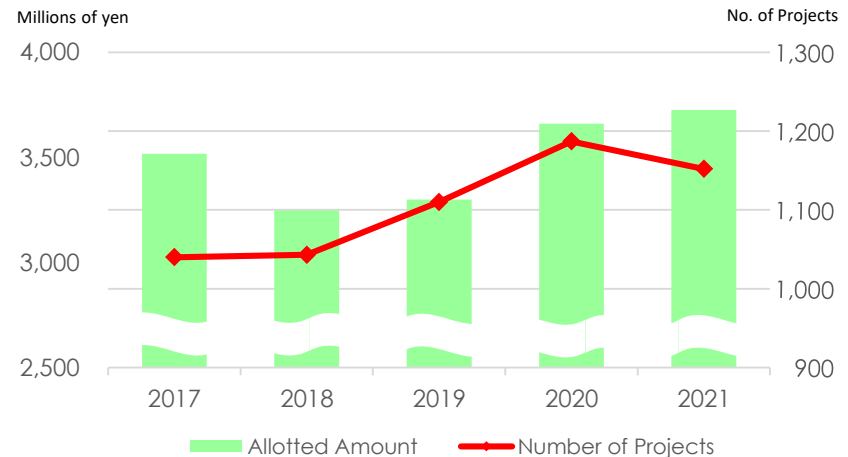


## ■ Institution by Number of Projects (FY2021)

Rank	Name of Organization	No. of Projects	In millions of yen
			Amount
1	The University of Tokyo	4,161	21,437
2	Kyoto University	3,031	14,458
3	Osaka University	2,682	10,333
4	Tohoku University	2,568	10,295
5	Kyushu University	1,996	7,268
6	Nagoya University	1,840	8,054
7	Hokkaido University	1,714	6,195
8	University of Tsukuba	1,379	4,134
9	Hiroshima University	1,249	2,901
10	Kobe University	1,163	3,275
11	Keio University	1,152	3,726
12	Waseda University	1,122	2,928
13	Okayama University	1,030	2,692
14	Kanazawa University	1,013	2,462
15	Tokyo Institute of Technology	929	4,495
16	Chiba University	926	2,143
17	RIKEN	836	4,365
18	Niigata University	785	1,623
19	Tokyo Medical and Dental University	713	1,888
20	AIST	705	2,095
∴	∴	∴	∴
Amount Awarded to all organizations			221,293

## ■ Number of Projects and Total Funding at Keio University (over the Past 5 years)

Fiscal Year	Rank	Number of Projects	In millions of yen	
			Allotted Amount	Total funds awarded to all organizations
2017	11	1,040	3,517	211,672
2018	11	1,043	3,248	211,836
2019	11	1,110	3,300	215,411
2020	10	1,187	3,660	220,370
2021	11	1,152	3,726	221,293



\*Source: MEXT website

[https://www.mext.go.jp/a\\_menu/shinkou/hojyo/1422129\\_00001.htm](https://www.mext.go.jp/a_menu/shinkou/hojyo/1422129_00001.htm)

\*Allotted amount includes direct and indirect expenses.

\*Discrepancies may arise in the total amount as totals are rounded to the million.

\*This classification by the affiliation of only the project leaders, and thereby does not necessarily show the actual status of all the project members in their own affiliations.

### ■ Number of Researchers

Campuses	Tenured/ Semi-tenured Researchers	Project Researchers (Non-tenured)	Researchers (Non-tenured)
Mita Campus	410	35	7
Hiyoshi Campus	331	20	22
Shinanomachi Campus	550	182	156
Yagami Campus	260	34	29
Shonan Fujisawa Campus	180	48	10
Shiba-Kyoritsu Campus	64	8	0
<b>Total</b>	<b>1,795</b>	<b>327</b>	<b>224</b>

### ■ Development of Future Researchers

Graduate Schools	No. of Doctorates Conferred		No. of Students Enrolled in Doctoral Courses	
	Course Doctorates	Dissertation Doctorates	Maximum Occupancy	No. of Students Enrolled
Graduate School of Letters	5	4	135	103
Graduate School of Economics	3	1	45	36
Graduate School of Law	7	2	90	55
Graduate School of Human Relations	4	1	33	44
Graduate School of Business and Commerce	4	2	60	11
Graduate School of Medicine	67	49	320	388
Graduate School of Science and Technology	66	0	450	279
Graduate School of Business Administration	0	0	24	4
Graduate School of Media and Governance	12	1	150	214
Graduate School of Health Management	9	0	30	44
Graduate School of System Design and Management	15	0	33	63
Graduate School of Media Design	7	0	30	64
Graduate School of Pharmaceutical Sciences	10	0	29	74
<b>Subtotal</b>	<b>209</b>	<b>60</b>	<b>1,429</b>	<b>1,379</b>
<b>Total</b>		<b>269</b>		

## Number of JSPS Research Fellows at Keio University

## ■ Research Fellows by Affiliation

Faculties, Graduate Schools, Research Institutions	FY2017	FY2018	FY2019	FY2020	FY2021
Faculty/Graduate School of Letters, Graduate School of Human Relations	18	18	20	24	23
Faculty/Graduate School of Economics	13	8	4	7	6
Faculty/Graduate School of Law	8	11	11	5	12
Faculty/Graduate School of Business and Commerce	4	4	3	2	1
Faculty/Graduate School of Medicine	32	30	30	27	32
Faculty/Graduate School of Science and Technology	65	56	63	57	49
Faculty of Policy Management, Faculty of Environment and Information Studies, Graduate School of Media and Governance	19	17	13	18	18
Faculty of Nursing and Medical Care, Graduate School of Health Management	0	0	0	0	0
Faculty of Pharmacy, Graduate School of Pharmaceutical Sciences	4	3	3	0	1
Graduate School of Business Administration	0	1	1	1	0
Graduate School of System Design and Management	0	0	1	1	1
Graduate School of Media Design	1	0	0	0	0
Law School	1	0	0	0	0
Affiliated Research Institutes	8	2	3	4	6
<b>Total</b>	<b>173</b>	<b>150</b>	<b>152</b>	<b>146</b>	<b>149</b>

## ■ Number of JSPS Research Fellow by Category

Category	FY2017	FY2018	FY2019	FY2020	FY2021
DC1	56	50	49	58	54
DC2	44	40	48	39	48
PD	48	41	36	32	34
SPD	1	1	1	1	-
RPD	9	3	3	4	4
CPD	-	-	1	2	1
Foreign Researchers	15	15	14	10	8
<b>Total</b>	<b>173</b>	<b>150</b>	<b>152</b>	<b>146</b>	<b>149</b>

\*The "Research Fellowship for Young Researchers" program is divided into 5 categories, DC, PD, RPD, SPD, and CPD. Graduate and doctoral students are mainly accepted, with periods of acceptance differing according to category.

<http://www.jsps.go.jp/english/e-pd/index.html>

\*The "Postdoctoral Fellowship for Foreign Researchers" program is also available for overseas young researchers for providing them an opportunity to work together under the guidance of Japanese researchers in Japanese universities, etc.

<http://www.jsps.go.jp/english/e-fellow/index.html>

## Researchers from Outside Keio

## ■ Number of Researchers Accepted — Breakdown by Job Title and Status

Job Titles, Status	Number of Researchers	Qualification
School of Medicine Researchers	496	Researchers employed by research, educational, or medical institutions other than the School of Medicine.
Research Associates of Faculty of Science and Technology	17	Researchers participating in research without a contract for commissioned research.
Researchers of KLL, Keio Leadingedge Laboratory of Science and Technology	38	Researchers participating in research under a commissioned research contract.
Distinguished Researchers, Keio Research Institute at SFC	2	A Distinguished Researcher is one who is recognized to be beneficial to the progress of research activities of the Institute and whose Faculty Sponsor is the Executive Director of the Institute. A Distinguished Researcher must have outstanding research achievements and research management results both in the home country and abroad, and be internationally and widely active.
Senior Researchers, Keio Research Institute at SFC	400	Senior Researchers are regarded as researchers who are accepted by Keio Research Institute at SFC upon recommendation by a Faculty Sponsor and then participate in research activities. A 'Senior Researcher' must possess a Master's degree or equivalent/higher degree, and also be recognized as an experienced, distinguished, and self-sustained researcher.
Researchers, Keio Research Institute at SFC	148	Researchers are regarded as researchers who are accepted by Keio Research Institute at SFC upon recommendation by a Faculty Sponsor and then participate in research activities. A Researcher must possess a Bachelor's degree or equivalent/higher degree, and be recognized as an experienced and distinguished researcher.
Research Associates, Faculty of Pharmacy	46	Researchers participating in research without a contract for commissioned research.
Guest Senior Project Researcher, Shin-Kawasaki Town Campus	3	Researchers who are accepted by Keio Frontier Research & Education Collaborative Square at Shin-Kawasaki Town Campus (K2) for the purpose of participating in research projects established in K2, who are employed outside of Keio University, and who have a career equivalent to that of a university professor.
Guest Project Researcher, Shin-Kawasaki Town Campus	5	Researchers who are accepted by Keio Frontier Research & Education Collaborative Square at Shin-Kawasaki Town Campus (K2) for the purpose of participating in research projects established in K2, and who are employed outside of Keio University.
Researchers, Center for Wellbeing Research	1	Researchers invited from domestic or foreign companies, research and educational institutions, or similar enterprises for the purpose of participating in research and educational activities at the Center for Wellbeing Research. Or researchers who are enrolled in a Ph.D. program at a graduate school.
Visiting Professors and Researchers (See Table A)	542	
Others (See Table B)	1752	
<b>Total</b>	<b>3,450</b>	

**Table A : Number of Visiting Professors and Researchers**

Job Titles, Status	Mita/Hiyoshi	Shinanomachi	Yagami	Shonan Fujisawa	Shiba-Kyoritsu	Total
Visiting Professors	32	34	30	4	0	100
Visiting Associate Professors	19	22	10	5	0	56
Visiting Assistant Professors	13	10	4	10	0	37
Visiting Instructors	4	15	21	0	1	41
Visiting Research Fellows	92	125	66	7	0	290
Visiting Junior Research Fellows	13	2	3	0	0	18
<b>Total</b>	<b>173</b>	<b>208</b>	<b>134</b>	<b>26</b>	<b>1</b>	<b>542</b>

**Table B : Others**

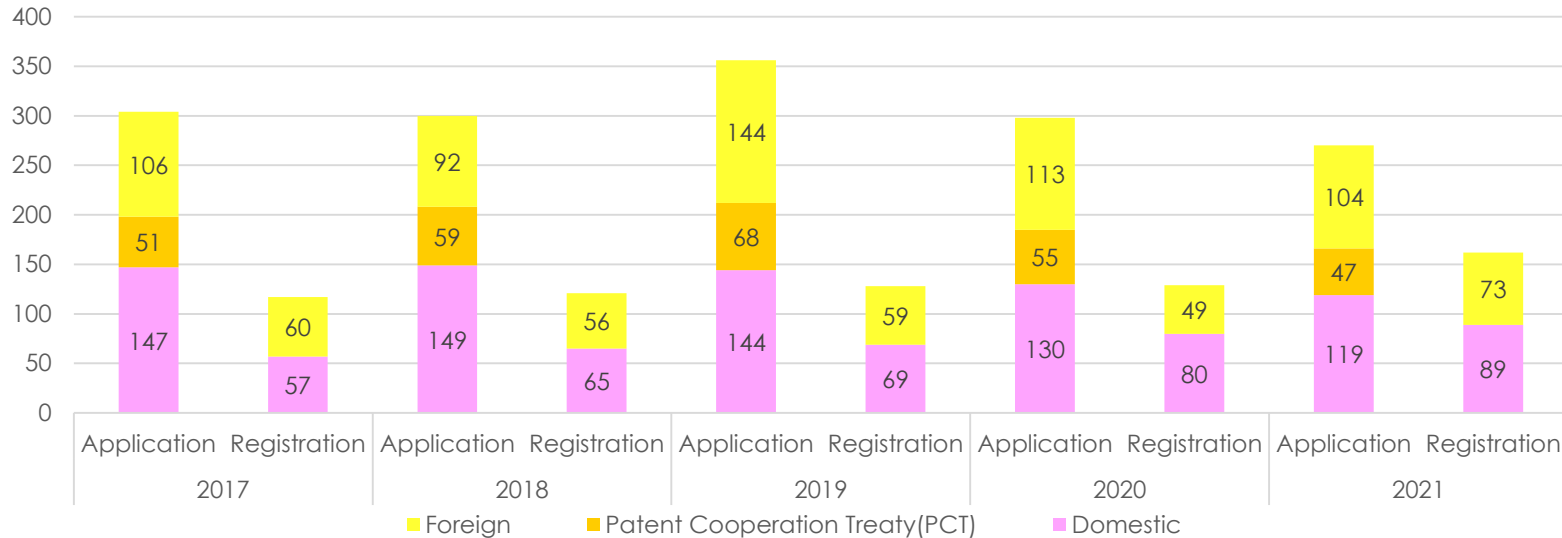
Campuses	Research Institute	* No. of Researchers at Keio University	No. of Researchers from Outside Keio	Total
<b>Mita</b>	Keio University Art Center	28	23	51
	Teacher Training Center	55	49	104
	Global Security Research Institute	308	179	487
	Institute for Economic Studies	69	84	153
	The Keio Institute of Cultural and Linguistic Studies	26	97	123
	International Center	10	17	27
	Keio Economic Observatory	45	83	128
	Institute of Oriental Classics (Shido Bunko)	10	2	12
	Center for Japanese Studies	9	45	54
	Keio Institute of East Asian Studies	22	29	51
	Fukuzawa Memorial Center for Modern Japanese Studies	23	47	70
<b>Hiyoshi</b>	Institute for Journalism, Media and Communications Studies	11	29	40
	Research Institute for Digital Media and Content (DMC)	10	0	10
	Institute of Physical Education	19	1	20
	Health Center	16	0	16
	Keio Research Center for Foreign Language Education	41	1	42
	Sports Medicine Research Center	9	37	46
	Keio Research Center for the Liberal Arts	186	0	186
<b>Total</b>	<b>Research and Education Center for Natural Sciences</b>	<b>65</b>	<b>67</b>	<b>132</b>
		<b>962</b>	<b>790</b>	<b>1,752</b>

Researchers at Keio University: the figure indicates the total number of researchers including teachers in the affiliated elementary and secondary schools of Keio, in addition to tenured and non-tenured researchers of undergraduate faculties/graduate schools or research institutes.

A researcher affiliated to more than two institutions is counted as one researcher of each.

Table B was revalued in 2020 and included the number of researchers who were not counted in the previous years.

## Number of Patent Applications and Registrations



\* It have revised the method of counting the number of patent applications in this report. The number of patent applications include national phase applications that have been transferred from PCT applications, but except applications that have been transferred to the priority country.

## Number of Income-generating Licenses and Income Amounts, Number of New Licensing Agreements

