Questionnaires (translated)

Confidential

Fundamental Statistics

This survey is conducted under the auspices of the Statistics Act. This Act ensures confidentiality, you are therefore requested to furnish valid information.

2024 Survey of Research and Development

Questionnaire C (for universities and colleges)

As of June 1st, 2024

Statistics Bureau Ministry of Internal Affairs and Communications

Location and na	Location and name of the institution P tl		(Title) (Name)
		Person responding to the questionnaire	(Section name) (Name)
[*] Enter the Corporate N	Jumber (13 digits) Not specified	Telephone	
O Please refer to the inst	truction when you fill in the ques	tionnaire.	
universities, etc. Then noted. In regard to gra	refore, please answer the question	ns for each faculty in the case of courses should be included in the	ges, and research institutes attached to f universities and colleges, except where otherwise e pertinent faculty. However, if your institution
O If you have a medical	department, answer the question	ns by also covering the attached	hospitals.
 Give information as of about financial status 		yees, and for the year ending on	the latest settling day prior to March 31st, 2024
[1] Select the type of instit	tution. (Fill in the circle for the a	ppropriate choice below.)	
501 Type of university and college	1 Faculty of university O or college 2 Junior college O	3 Technical coll O 4 Research instit O attached to ur	research institute ute 6 Others
[2] Enter the name and loc	cation of the branches or attached	d research facilities.	
502	Name		Location

[3] Mark all the fields of science that your institution is conducting R&D in. Among these, mark the main field (only one) that your institution is conducting R&D in. (Fill in the circle for the appropriate choice below.)

	03 ield of science	1 Literature	2 Law	3 Economics	4 Other social sciences and humanities	5 Physical sciences	6 Engineering	7 Agricultural sciences	8 Medicine, dentistry plan and pharmacy	9 Others	10 Home economics	11 Education	12 Others
C	Conducting R&D in:	0	0	0	0	0	0	0	0	0	0	0	0
	Main field (check only one):	0	0	0	0	0	0	0	0	0	0	0	0

^[4] Fill in the number of persons employed (as of March 31st)

O Include transferees, etc., from outside and who are engaged in R&D at the institution.

						Head-co	unts	(persons)	
								kers under the Worker atching Act	
					Female	;		Female	
	emplo	mber of persons byed in R&D 13)(515,520~523) 527)(529~531)	504		514		524	528	
			505		515				
	ars	Teachers	506		516			er researchers who are	
Researchers*1	Regulars	Students for Ph.D. degree	507		517		included in the res	searcher's regulars but I in the head counts of	
Resea		Medical staff members	508		518		Non-regulars.		
		Others	509		519				
	Non	-regulars	510		520		-		
Assis	stant r	esearch workers*2	511		521		525	529	
Tech	nician	ıs*3	512		522		526	530	
	cal an	d other supporting	513	523			527	531	
Regu	ılar re	searchers who hold	a Ph.D.*5	532		533			
Perm	anent	researchers *6		534		536			
	Under forty years old		535		537				
Doctoral students who are employed by the university*7		538	538		539				
Othe	rs wh	o are employed by	the university	540		541	I		
Num than	ber of	f employees engaged *9	l in work other	542					
				1	D 0				

- [5] Enter the number of researchers who joined or left the institution
 - OCover the period from April 1 of last year to March 31 of this year.
 - O"The number of researchers who joined the institution" means "teachers", "medical staff members" and "others" as defined in question [4] (number of employees) who joined from outside the institution.
 - Enter the number of newly hired researchers who were assigned to a department which conducts research on natural sciences and engineering according to the contents of their research.
 - OEnter the number of researchers who joined from outside your institution by their previous job according to the table of "classification of organizations" provided in the instruction
 - O"The number of researchers who left the institution" means "teachers", "medical staff members" and "others" as defined in question [4] (number of employees) who left the institution.
 - OInclude transferees.

		Total (persons)	Female (persons)	-			
ewly h	ired	543	339				
l l	tural sciences and tineering	544	560				
	Physical science	545	561	Join	ed from	552	568
	Engineering and technology	546	562	=	Companies	553	_
	Agricultural science	547	563		Non-profit institutions	554	_
	Medical sciences	548	564		Public organizations	555	-
	Medical science	549	565		Other universities and colleges	556	_
	Dentistry	550	566		Others	557	_
	Pharmacy	551	567		nber of researchers who the institution	558	569

- *1.Researchers: Persons who are "teachers", "medical staff and others" or "students for Ph.D. degree".
 - "Teachers": Professors, associate professors, assistant professors and instructors.
 - "Medical staff members": Persons other than "teachers" and "students for Ph.D. degree" and doctors who belong to the medical department
 - and engaged in medical, research or educational activities in affiliated hospital or related institution.
 - "Others" in the category of "others" in question [4]: Persons other than "teachers", "medical staff members" and "students for Ph.D. degree" who hold a university (excluding junior college) degree or its equivalent, and perform research activities in their own specific area of study.
 - "Non-regulars": Researchers who have regular work outside the institution. However, part-time personnel who only give lectures are included in "Number of employees engaged in work other than R&D".
- *2. Assistant research workers: Persons who assist researchers and who are engaged in research activities under their direction.
- *3.Technicians: Persons, other than researchers and assistant research workers, who are engaged in technical services related to research activities under the guidance and supervision of researchers and assistant research workers.
- *4.Clerical and other supporting personnel: Persons other than the above but who are engaged in clerical, accounting, etc., related to R&D. As for the persons engaged in the administration of such activities, those with research experiences are included in "researchers", while those without such experiences are included in "clerical and other supporting personnel" (i.e., this category).
- *5.Regular Researchers who hold a Ph.D: Do not include "students for Ph.D. degree".
- *6.**Permanent researchers:** Teachers and other regular researchers who are under an indefinite term of employment contract, including those who are allowed to work until the retirement age.
- *7Doctoral students who are employed by the university.: Those who have an employment relationship as a research assistant or other person performing research-related tasks.
- *8.Others who are employed by the university: Persons who have an employment relationship as a person performing research-related tasks, irrespective of their term of office.
- *9.Employees engaged in work other than R&D: These mainly mean technicians engaged in educational or medical activities, secretarial and accounting staff, and janitors. Managerial staff who are ex-researchers (careers as researchers) are included in "researchers".

[6] Fill in the number of researchers by specialty (as of March 31st)

		T-4-1	T-4-1						
		Total (571~614)	Total (persons)	Female (persons)					
		(616~659)	570	615					
		Literature	571	616		_	Material	592	637
	ties	History	572	617	-	hnolog	Textile engineering	593	638
nities	Humanities	Philosophy	573	618	-	ring and tec continued)	Aeronautics	594	639
i numa		Others	574	619	-	Engineering and technology (continued)	Polytechnics	595	640
nces an		Law and political science	575	620	-	Engir	Others	596	641
Social sciences and humanities	suces	Commerce and economics	576	621	-		Agricultural science	597	642
50	Social sciences	Sociology	577	622	(pən		Agricultural chemistry	598	643
	So	Others	578	623	(contin		Agricultural engineering	599	644
		Mathematics	579	624	neering	ences	Agricultural economics	600	645
		Information science	580	625	ıd engiı	ural sci	Dendrology	601	646
	nces	Physics	581	626	ences ar	Agricultural sciences	Forestry	602	647
	Physical sciences	Chemistry	582	627	Natural sciences and engineering (continued)	∀	Veterinary science, animal husbandry	603	648
gulla	Physi	Biology	583	628			Fishery	604	649
ivaturai sciences and engineering		Geology	584	629			Others	605	650
ses and		Others	585	630			Medical science	606	651
ıı scienc		Machinery and ship engineering	586	631	_	ences	Dentistry	607	652
Natur	mology	Electricity and communications	587	632		Medical sciences	Pharmacy	608	653
	Engineering and technology	Civil engineering and architecture	588	633		Мес	Nursing	609	654
	eering :	Applied chemistry	589	634			Others	610	655
	Engin	Applied physical science	590	635		1	Psychology	611	656
		Nuclear engineering	591	636	Other sciences		Home economics	612	657
	1	I	1	1	Other s		Education	613	658
							Arts and others	614	659

[7] Enter the total expenditure

 Enter the total expenditure at your institution (universities and colleges: for each faculty), regardless of the purpose be it for R&D, education, or others.

Universities and colleges: Expenditures related to the Headquarters and libraries not belonging to any of the faculties: Enter these by dividing them proportionately to the respective faculties.

660	
	(10 thousand yen)

As for research expenses, even if an expense is not booked as research expense, enter such expenses separately from the booked research expenses.

Incomes and expenditures in kind: include the relevant expenses as R&D expenses in market price.

[8] Enter the intramural expenditure on R&D.

Enter the R&D expenditures by the institution during the one year period, including those financed by outside sources. If it is difficult to calculate the R&D expenses by dividing them into those spent by the R&D and other divisions, enter them separately.

	(10 thousand yen)
Total (662~664, 669, 671,672)	661
Labour costs*1	662
Materials*2	663
Expenditure on tangible fixed assets*3	664
Land	665
Buildings, etc.	666
Machinery, utensils, equipment, etc.	667
Other tangible fixed assets	668
Expenditure on intangible fixed assets*4	669
Software	670
Lease fees*5	671
Other expenses*6	672
Cost related to dispatched workers	673

*1.Labour costs: The following expenses that became necessary for R&D purposes and paid to persons engaged in R&D during the one year period: the total amount of salaries, etc. (basic salaries, allowances, bonuses, etc., paid regularly or as extras), retirement allowances, social insurance premiums paid on behalf of the insured, and others. The "salaries, etc." are before subtracting the income tax, local taxes, insurance premiums, etc. That is, it is not "take-home pay".

If employees are working extramurally, also include their salaries, etc.

- *2.Material: Expenses on main raw materials, processed materials, auxiliary materials, parts and so on needed for R&D.
- *3.Expenditure on tangible fixed assets: "Tangible fixed assets" here mean all such assets required for R&D.
- Building, etc.: Buildings including ancillary structures, construction, ships, aircraft
- Machinery, utensils, equipment, etc.: Machinery, equipments and fixtures which are durable for one year or more and valued at 100,000 yen or more.
- Other tangible fixed assets: Suspense account of construction, animals and plants which are treated as fixed assets.
- *4. Expenditure on intangible fixed assets: "Intangible fixed assets" here mean all such assets required for R&D.
- **Software:** Within expenditure on intangible fixed assets, the amount paid for software which is used for one year or more and valued at 100,000 yen or more.
- *5.Lease fees: The amount paid based on lease contracts for R&D purposes, but excluding land and buildings rent, short-term leases, charters, etc.
- *6.Other expenses: Expenses for books and other publications, electricity, fuel and water, expendables and supplies, etc.
- Cost related to dispatched workers: Expenses related to persons engaged in research-related work who are dispatched by staffing agencies under the Worker Dispatching Act.

- [9] Enter the total R&D expenditures by type of R&D in the fields of physical sciences, engineering and technology, agricultural sciences, and medical sciences.
 - Of the "Total" in question [8] (intramural expenditure on R&D), categorize and enter the R&D expenditures related to the fields of natural sciences and engineering namely physical sciences, engineering and technology, agricultural sciences, and medical sciences. The expenditures should be categorized by research theme. If this is not possible, either use the categories provided in the table below, or categorize by researcher or research unit.

	(10 thousand yen)
Total (661~663)	674
Basic research*1	675
Applied research*2	676
Development*3	677

- [10] Enter the expenditure on R&D by selected objective.
- *1.Basic research: This refers to theoretical or experimental research undertaken for the formulation of hypothesis and theories, or for the acquisition of new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view.
- *2.Applied research: This refers to research undertaken in order to determine possible uses with a specific, practical objective or to explore a new form of application different from the existing one.
- *3.Development: This refers to research directed to producing new products, services, systems, equipment, materials and processes, etc. or to improving the existing ones, drawing on knowledge gained from basic and applied research and/or practical experience and producing additional knowledge.
- If your institution is conducting any R&D in the following fields, enter the respective disbursements among the "Total" in question [8] (intramural expenditure on R&D). If there is overlap among the eight fields listed below, please enter the research expenses in each field and fill in the "overlap with the other seven fields" column.

In the case previously stated, any overlap through these fields is acceptable.

(10 thousand ven)

Fields	Expenditures on R&D	Overlap	Fields	Expenditures on R&D	Overlap
Field of life sciences	678	686	Field of nanotechnology	682	690
Field of information technology	679	687	Field of energy	683	691
Field of environmental science and technology	680	688	Field of space exploration	684	692
Field of materials	681	689	Field of oceanology	685	693

If your company is conducting any R&D in the following fields, enter the respective disbursements among the "Total" in \bigcirc question [8] (intramural expenditure on R&D)

If there is overlap between the three fields listed below, please enter the research expenses in each field and fill in the "overlap with the other two fields" column.

*These are positioned within the government as fundamental technologies that should be strategically addressed.

Overlapp	Expenditures on R&D	Overlap	Fields	Expenditures on R&D	Overlap
Field of artificial intelligence	694	697	Field of quantum technology	696	699
Field of biotechnology	695	698			

[Expenditures on R&D by selected objective] *1.Field of life sciences: This refers to research on improvement and development of living by clarifying life related phenomena and

various functions of organisms, and by applying the results to a variety of disciplines including medical, agricultural, industrial, environmental protection, energy development and so on.

*2.Field of information technology (IT): In addition to R&D on hardware and software, that for the upgrading of networks and the development of high-speed computing technologies that enable high-speed processing, analysis and storage of massive quantities of

information.
*3. Field of environmental science and technology: This refers to research concerning the infection of polluted natural environments, life cycle and property, protection of natural environments from pollution and destruction, achievement of non-polluted environments,

etc.
*4. Field of materials: This means researches on 1) investigation and control of the structure, etc., of substances on the level of atoms and molecules which become the bases of IT, medical sciences, etc., and 2) development of the materials for the high value added energy and environment-related substances that can meet the needs to save energy and natural resources and recycle natural and other

*5. Field of nanotechnology: R&D for the achievement of functions utilizing nanosize material/substance characteristics.

*6. Field of energy: This refers to research relating to exploration, production, conversion, transportation, consumption, safety etc., in relation to the development and reasonable use of energy resources.

*7. Field of space exploration: This includes research on rockets and artificial satellites and also research on tracing or communication

stations.
*8. Field of oceanology: This means oceanic research and technical development relating to culture of bio-resources, development of

*8. Field of oceanology: This means oceanic research and technical development relating to culture of bio-resources, development of mineral resources, research on ocean space, utilization of seawater, etc.

*9. Field of artificial intelligence: This refers to a wide range of research related to AI science and technology, including fundamental research necessary to construct artificial intelligence, research and development of AI systemization technology and related device technology necessary for social implementation, research and development of AI implementation technology in various industries and economic activity fields, and AI-related ethics and legal systems.

*10. Field of biotechnology: This refers to research on the application of science and technology to living organisms and parts, products and models thereof in order to modify biological or non-biological materials in order to produce knowledge, goods and services.

*11. Field of quantum technology: This refers to a wide range of research related to quantum technology, including fundamental research and development for practical application and appropriation and research and research and research and research and research and research application and its application and research and

on quantum science and its applied technology, research and development for practical application and commercialization, and research and development of peripheral technologies to support this research.

[11] Enter the R&D funds received from outside.

O Enter the total of all funds on R&D received from others, whatever the type of finance such as trust money, subsidies, allocations, etc. Record intramural expenditures, that is, all funds used for the performance of R&D intramurally in the right columns.

		R&D funds received (Total)	
	Total $(701 \sim 714)$	(10 thousand yen)	Intramural expenditure of R&D funds received
	(716~729)	700	715
	From government	701	716
suc	From local government	702	717
Public organizations	From other national and public universities and colleges	703	718
ıblic org	From national and public research institutions and independent administrative institutions	704	719
Pu	From public corporations and enterprises, which are based on self-supporting accounting systems	705	720
	From others	706	721
From co	ompanies	707	722
From ot	her private universities and colleges	708	723
From no	on-profit institutions	709	724
	From companies	710	725
world	From other universities and colleges	711	726
The rest of the world	From non-profit organization	712	727
The re	From universities and colleges	713	728
	From others	714	729
	1		

^{*} If the research funds received from domestic companies include the following nominal amounts, please enter the relevant amounts.

R&D funds received from companies	R&D funds recei	ived (Total) (10 thousand yen) Intramural expenditure of R&D funds received
Collaborative research fund	730	733
Sponsored research fund	731	734
Donation	732	735

[12] Enter the R&D funds paid outside.

© Enter all funds on R&D paid outside for the performance of R&D, whatever the type of payment (trust, dues, etc.). Record those paid from own funds in the right columns.

Total		R&D funds received (Total)	
$ \begin{array}{c} (737 \sim 748) \\ (750 \sim 761) \end{array} $		(10 thousand yen)	Extramural expenditure of R&D funds (self-financed)
		736	749
Public organizations	To other national and public universities and colleges	737	750
	To national and public research institutions and independent administrative institutions	738	751
	To public corporations and enterprises, which are based on self-supporting accounting systems	739	752
	To others	740	753
To companies		741	754
To other private universities and colleges		742	755
To non-profit institutions		743	756
The rest of the world	To companies	744	757
	To other universities and colleges	745	758
	To government agency	746	759
	To non-profit organization	747	760
	To others	748	761

	(In addition to changing the location and name of the institution, description of business, etc., enter any special notes relevant to what you have filled in.)
olumn	
Remarks column	
Rei	