

**Questionnaires (translated)**

**Confidential**

Fundamental Statistics

**2023 Survey of Research and Development**

**Questionnaire B  
(for non-profit institutions and public organizations)**

**As of June 1st, 2023**

Statistics Bureau  
Ministry of Internal Affairs and Communications

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

Location and name of the organization	Person representing the organization	(Title) (Name)
	Person responding to the questionnaire	(Section name) (Name)
[*] Enter the Corporate Number (13 digits)	Telephone	
<input type="text"/>		
Not specified <input type="radio"/>		

- Please refer to the instruction when you fill in the questionnaire.
- Even if your organization is not conducting any research activities, please answer question [1] (yes/no of R&D activities).
- Give information as of March 31st, 2023 about employees, and for the year ending on the latest settling day prior to March 31st, 2023 about financial status.

[1] Yes/no of R&D activities

301  
(Fill in the circle for the appropriate choice below)

1. Intramural R&D .....  → to [2]~[14]  
(Choose this number, if you have employees who are conducting R&D outside the organization although your organization itself is not conducting any R&D. In this case however, you need not answer questions from [7] through [9].)

2. Extramural R&D only .....  → to [13], [14]

3. Not conducting R&D .....  → End of the questionnaire

[2] Fill in the total number of persons employed (as of March 31st)

302  
  
(persons)

[3] Enter the total expenditure

303  
  
(10 thousand yen)

[4] Enter, in a way easy to understand, the main operations and R&D activities, if any, that your organization conducted in fiscal 2022

304

[5] Enter the name and location of the branches or attached research facilities.

305 Name	Location
<input style="width: 90%; height: 30px;" type="text"/>	<input style="width: 90%; height: 30px;" type="text"/>

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

306 Field of science	1 Literature	2 Economics	3 Sociology	4 Other social sciences and humanities	5 Physical sciences	6 Engineering	7 Agricultural sciences	Health sciences		10 Education	11 Others
								8 Medicine, dentistry and pharmacy	9 Others		
Conducting R&D in:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Main field (check only one):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[7] Fill in number of persons employed in R&D (as of March 31st)

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

	Head-counts*5 (persons)				Ratio of persons engaged in R&D*5 (persons)	
		Female	Dispatched workers under the Worker Dispatching Act			
			Female			
Total (308, 311~313)(315, 318~320) (322, 325~327) (329, 332~334)	307	314	321	328	—	
Researchers*1	308	315	322	329	—	
	Persons solely engaged in R&D	309	316	323	330	—
	Persons partly engaged in R&D	310	317	324	331	335
Assistant research workers*2	311	318	325	332	336	
Technicians*3	312	319	326	333	337	
Clerical and other supporting personnel*4	313	320	327	334	338	

Researchers who hold a Ph.D.	339	340
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Permanent researchers*6	341	343
Under forty years old	342	344

\*1. **Researchers:** Persons who hold a university degree (or persons who have equivalent or greater knowledge of speciality), who are engaged in research activities of their own chosen subject.

"Persons solely engaged in R&D" mean those engaged in R&D activities all of the time.

"Persons partly engaged in R&D" mean those engaged in R&D activities, but not all of the time.

\*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 work, accounting, etc., related to the research activities as defined in this Questionnaire. As for the persons engaged in the administration of such activities, those having research experiences are categorized as "researchers" (as defined in \*1), and those not having research experiences, as "clerical and other supporting personnel" (i.e., this category).

\*5. For "Head-counts", enter the number of persons engaged in R&D. For "Ratio of persons engaged in R&D", enter the figure obtained by multiplying "Head-counts" by the hourly ratio of those who engaged in R&D. Please enter the number of dispatched workers based on the Worker Dispatching Act among those engaged in research-related work.

\*6. **Permanent researchers:** Researchers who are under an indefinite term of employment contract, including those who are allowed to work until the retirement age.

[8] Enter the number of researchers who joined or left the organization

Cover the period from April 1 of last year to March 31 of this year.

"The number of researchers who joined the organization" means "researchers" as defined in question [7] (persons employed in R&D) who joined from outside the organization.

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.

Enter the number of researchers who joined from outside your organization by their previous job according to the table of "classification of organizations" provided in the instruction

"The number of researchers who left the organization" means "researchers" as defined in question [7] and who left the organization.

Include transferees.

	Total (persons)	Female (persons)
Newly hired	345	361
Natural sciences and engineering	346	362
Physical science	347	363
Engineering and technology	348	364
Agricultural science	349	365
Medical sciences	350	366
Medical science	351	367
Dentistry	352	368
Pharmacy	353	369
Joined from:	354	370
Companies	355	—
Non-profit institutions	356	—
Public organizations	357	—
Universities and colleges	358	—
Others	359	—
Number of researchers who left the organization	360	371
Newly hired researchers who hold a Ph.D.	372	374
Researchers who joined from outside and hold a Ph.D.	373	375

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

○As for the breakdown by field of specialty, write the number of "researchers" as defined in question [7] (persons employed in R&D, boxes 308 and 315) by field of specialty.

Total (377~403) (405~431)			Total (persons)	Female (persons)					
			376	404					
Social sciences and humanities	Humanities	Literature	377	405	Natural sciences and engineering (continued)	Engineering and technology (continued)	Machinery, ship engineering and aeronautics	389	417
		Others	378	406			Electricity and communications	390	418
	Social sciences	Commerce and economics	379	407			Civil engineering and architecture	391	419
		Sociology	380	408			Material	392	420
		Others	381	409			Textile technology	393	421
Natural sciences and engineering	Physical sciences Engineering and technology	Mathematics	382	410			Others	394	422
		Information science	383	411			Agricultural sciences	Agricultural and forestry	395
		Information science	384	412		Veterinary science and animal husbandry		396	424
		Physics	385	413		Fishery		397	425
		Biology	386	414		Others		398	426
		Geology	387	415	Medical sciences	Medical science and dentistry	399	427	
		Others	388	416		Pharmacy	400	428	
						Others	401	429	
Other Sciences					Psychology	402	430		
						Others (Education, etc.)	403	431	

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.

[10] 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 funds.

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.

Total (433~435, 440, 442,443)	(10 thousand yen)
Labour costs*1	433
Materials*2	434
Expenditure on tangible fixed assets*3	435
Land	436
Buildings, etc.	437
Machinery, utensils, equipment, etc.	438
Other tangible fixed assets	439
Expenditure on intangible fixed assets*4	440
Software	441
Lease fees*5	442
Other expenses*6	443
Cost related to dispatched workers	444

\*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.

[11] 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 [10] (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.

Total (446~448)	(10 thousand yen)
	445
Basic research*1	446
Applied research*2	447
Development*3	448

\*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.

[12] Enter the expenditure on R&D by selected objective.

- If your organization is conducting any R&D in the following fields, enter the respective disbursements among the "Total" in question [10] (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.

Fields	Expenditures on R&D	Overlap	Fields	Expenditures on R&D	Overlap
Field of life sciences	449	457 <input type="radio"/>	Field of nanotechnology	453	461 <input type="radio"/>
Field of information technology	450	458 <input type="radio"/>	Field of energy	454	462 <input type="radio"/>
Field of environmental science and technology	451	459 <input type="radio"/>	Field of space exploration	455	463 <input type="radio"/>
Field of materials	452	460 <input type="radio"/>	Field of oceanology	456	464 <input type="radio"/>

- If your company is conducting any R&D in the following fields, enter the respective disbursements among the "Total" in question [7] (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.

Fields	Expenditures on R&D	Overlap	Fields	Expenditures on R&D	Overlap
Field of artificial intelligence	465	468 <input type="radio"/>	Field of quantum technology	467	470 <input type="radio"/>
Field of biotechnology	466	469 <input type="radio"/>			

[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 resources.

\*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 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 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.

**NOTE:** If you have selected item 2 (extramural R&D only) in question [1] (yes/no of R&D activities), answer the following questions [13] and [14].

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

- 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 within your organization in the right columns.

		Total (472~485) (487~500)	R&D funds received (Total) (10 thousand yen)	
				Intramural expenditure of R&D funds received
			471	486
Public organizations	From government		472	487
	From local government		473	488
	From national and public universities and colleges		474	489
	From national and public research institutions and independent administrative institutions		475	490
	From public corporations and enterprises, which are based on self-supporting accounting systems		476	491
	From others		477	492
From companies ※			478	493
From private universities and colleges			479	494
From other non-profit institutions			480	495
The rest of the world	From companies		481	496
	From government agency		482	497
	From non-profit organization		483	498
	From universities and colleges		484	499
	From others		485	500

※ 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 received (Total) (10 thousand yen)	
		Intramural expenditure of R&D funds received
Collaborative research fund	501	504
Sponsored research fund	502	505
Donation	503	506

[14] 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 (508~519) (521~532)		R&D funds received (Total)	
		(10 thousand yen)	Extramural expenditure of R&D funds (self-financed)
		507	520
Public organizations	To national and public universities and colleges	508	521
	To national and public research institutions and independent administrative institutions	509	522
	To public corporations and enterprises, which are based on self-supporting accounting systems	510	523
	To others	511	524
To companies		512	525
To private universities and colleges		513	526
To other non-profit institutions		514	527
The rest of the world	To companies	515	528
	To universities and colleges	516	529
	To government agency	517	530
	To non-profit organization	518	531
	To others	519	532

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