

Overview of International Research Exchanges (FY2014)

In conducting this survey, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) has two aims. Firstly, it hopes to grasp what is happening with respect to the research exchanges that are undertaken annually between foreign nations and Japan's universities, its colleges of technology and its incorporated administrative agencies, etc. Secondly, from the results thus obtained, MEXT hopes to derive basic materials that relate to the topic of policies for the promotion of international exchanges.

With respect to the survey concerning the situation in FY2014 which was conducted on behalf of MEXT by the Institute of Future Learning, on this occasion notification is given as to a summary of the results.

1. Survey Content

- (1) Survey Subjects: Universities (national, public, private institutions), colleges of technology, incorporated administrative agencies, etc. (n=902 institutions)
(valid responses: n=867 institutions, response rate: 96.1%)
- (2) Survey Items: Annual research exchange activities that were undertaken between the survey subjects and foreign nations in FY2014. (Defined as the period of time from the start of April, 2014 until the end of March, 2015.)

2. Summary of Survey Results

Concerning short-term accepted researchers from overseas, while throughout FY2011 their numbers were down due to the impact of events such as the Great East Japan Earthquake, etc., a trend towards recovery has been witnessed more recently. With respect to short-term dispatched researchers, since the commencement of this survey, the trend has been for their numbers to increase. Meanwhile, for both medium/long-term accepted researchers and medium/long-term dispatched researchers, the trend in recent years has been by and large for their numbers to remain at similar levels.

Concerning the numbers of research agreements concluded with overseas universities and research institutions, which is an analysis item that has been newly-added to the survey, of the 867 institutions from whom a valid response was obtained on this

occasion, some 474 indicated that they have concluded such agreements with overseas partners.

3. Survey Results

(1) Numbers of accepted researchers¹ from overseas and numbers of dispatched researchers sent overseas

1) Numbers of accepted researchers from overseas

- Concerning short-term² accepted researchers, the trend until FY2009 was for their numbers to increase. Following on from that, while through until FY2011 their figures were down due to the impact of events such as the Great East Japan Earthquake, etc., a trend towards recovery has been witnessed more recently. (FY2014: 24,588 persons)
- Concerning medium/long-term accepted researchers, since FY2000 their numbers by and large have remained at around 12,000 to 15,000 persons annually. (FY2014: 12,763 persons)

2) Numbers of dispatched researchers³ sent overseas

- Concerning short-term dispatched researchers, since the commencement of this survey, the trend has been for their numbers to increase. (FY2014: 168,563 persons)
- Concerning medium/long-term dispatched researchers, since FY2008 their numbers by and large have remained at around 4,000 to 5,000 persons annually. (FY2014: 4,591 persons)

¹ "Accepted researchers" refers both to "foreign researchers" attached to overseas institutions who have been accepted by Japanese institutions by way of invitation, etc., and also to the employment of "foreign researchers" who were previously attached to overseas institutions by institutions here in Japan. However, since FY2013, "acceptance (by way of employment or by other means)" to various domestic institutions from other institutions located in Japan has been excluded from the survey. Furthermore, while postdoctoral fellows and research fellows, etc., qualify as "accepted researchers" under the terms of the survey, students generally do not. (The exception to this is doctoral candidates with whom employment contracts are concluded, and who are assigned duties that result in the undertaking of research.)

² In this survey, "short-term" means periods of time of less than one month (30 days) in duration, while "medium/long-term" means periods of time of one month (30 days) or more in duration.

³ "Dispatched researchers" refers to the traveling overseas of "Japanese and foreign researchers" who are attached to various domestic institutions here in Japan. Under the terms of this survey, "dispatched researchers" applies to Japanese and foreign researchers who are employed by domestic institutions (either "full-time or part-time" and also either "with tenure or without tenure"). The term also applies to researchers who have applied and been recruited under "special researcher" and "related support" schemes. The dispatch of both postdoctoral fellows and research fellows, etc., also qualifies. However, the dispatching of students or exchange students does not.

(2) Researcher exchanges by type of institution

1) Numbers of accepted researchers by type of institution

- Concerning short-term accepted researchers, for national universities, etc., the trend up until FY2009 was for their numbers to increase. Following on from that, while through until FY2011 their figures were down due to the impact of events such as the Great East Japan Earthquake, etc., a trend towards recovery has been witnessed more recently. Meanwhile, with respect to the other types of institution subject to this survey, their numbers of short-term accepted researchers have by and large remained at similar levels throughout.
- Concerning medium/long-term accepted researchers, for national universities, etc., their numbers have been by and large 6,000 to 8,000 persons annually, while the corresponding figures for private universities have been by and large 3,000 to 5,000 persons. By contrast, a trend of gentle decline has been witnessed for incorporated administrative agencies, etc., while the numbers for other types of institution have by and large remained at the same levels throughout.

2) Numbers of dispatched researchers by type of institution

- Concerning short-term dispatched researchers, when viewed long-term, the trend has been for increasing numbers being sent by universities (national universities, etc., public universities, private universities). Meanwhile, with respect to the other types of institution subject to this survey, their numbers have remained generally at the same levels throughout.
- Concerning medium/long-term dispatched researchers, for national universities between FY2008 until FY2011, the trend was for more people to be dispatched. Moreover, while their numbers dipped in FY2013, in FY2014 they once again increased.

3) Universities and research institutions etc., accepting and dispatching large numbers of researchers

- As indicated in Charts Nos. 1 and 2 of the Appendix.

(3) Researcher exchanges by region

1) Numbers of accepted researchers by region

- Concerning accepted researchers from overseas, for both the short-term and medium/long-term categories, the region from which the largest number are drawn is Asia, it being followed by Europe⁴ and North America.
- Concerning short-term accepted researchers, the trend up until FY2009 was for their numbers to increase. Following on from that, while through until FY2011 their figures were down due to the impact of events such as the Great East Japan Earthquake, etc., a trend towards recovery has been witnessed more recently.
- Concerning medium/long-term accepted researchers, regarding those drawn from Asia, between FY2000 and FY2012, their numbers by and large remained at similar levels. Furthermore, while their numbers dipped in FY2013, in FY2014 they once again increased. Meanwhile, the numbers for researchers from Europe and North America have tended to remain by and large at similar levels since FY2000.

2) Numbers of dispatched researchers by region

- Concerning the destinations of dispatched researchers, the most popular in the short-term category is Asia, it being followed by Europe and North America. In the medium/long-term category, the most popular destination is Europe, it being followed in order by North America and Asia.
- Concerning short-term dispatched researchers, commencing with Asia, Europe and North America, a trend towards increasing numbers can be witnessed for all regions over the long-term.
- Concerning medium/long-term dispatched researchers, since the commencement of this survey there was a trend towards declining numbers of people bound for European and North American destinations. In bucking this trend, however, for Europe (from FY2010) and North America (from FY2011), increasing numbers were witnessed. After these increases, however, in FY2013 a decline in numbers was noted in comparison to the previous year, the results recorded by and large being similar to those of FY2010. Meanwhile, with respect to other regions, the numbers have by and large remained at the same levels throughout.

3) Countries and regions from which large numbers of researchers are accepted and to which large numbers of researchers are dispatched

- As indicated in Charts Nos. 3 and 4 of the Appendix.

⁴ The term, "Europe," includes the member countries of the New Independent States (Azerbaijan, Armenia, Ukraine, Uzbekistan, Kazakhstan, Kyrgyzstan, Georgia, Tajikistan, Turkmenistan, Belarus, Moldova and the Russian Federation).

- Concerning short-term accepted researchers, as to the top three countries of origin, they are the United States, China and South Korea, this order having been unchanged since FY2002. Concerning medium/long-term accepted researchers, since FY2002 the largest number has been drawn from China, with the United States and South Korea competing for second and third place. (In FY2014, the United States was second and South Korea third).
- Concerning short-term dispatched researchers, since FY2004 the top three destinations have been the United States, China and South Korea. Concerning medium/long-term dispatched researchers, since FY2002 the most popular destination has been the United States, while since FY2006 Germany and the United Kingdom have competed for second and third place. (In FY2014, Germany was second and the United Kingdom third).

(4) Numbers of research agreements concluded with overseas universities and research institutions (new survey item)

- Of the 867 institutions from whom a valid response was obtained on this occasion, some 474 indicated that they have concluded research agreements with overseas universities and research institutions.
- Considered by region, many institutions indicated that they have concluded research agreements with universities and research institutions located in Asia, Europe or the United States.

The detailed results of the survey are as indicated in the appendix.

Please note, the plan is to also publish the results of the survey on the MEXT website at some future date:

(http://www.mext.go.jp/a_menu/kagaku/kokusai/index.htm)

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Overview of International Research Exchanges (FY2014)

* In this survey, “short-term” means periods of time of less than one month (30 days) in duration, while “medium/long-term” means periods of time of one month (30 days) or more in duration.

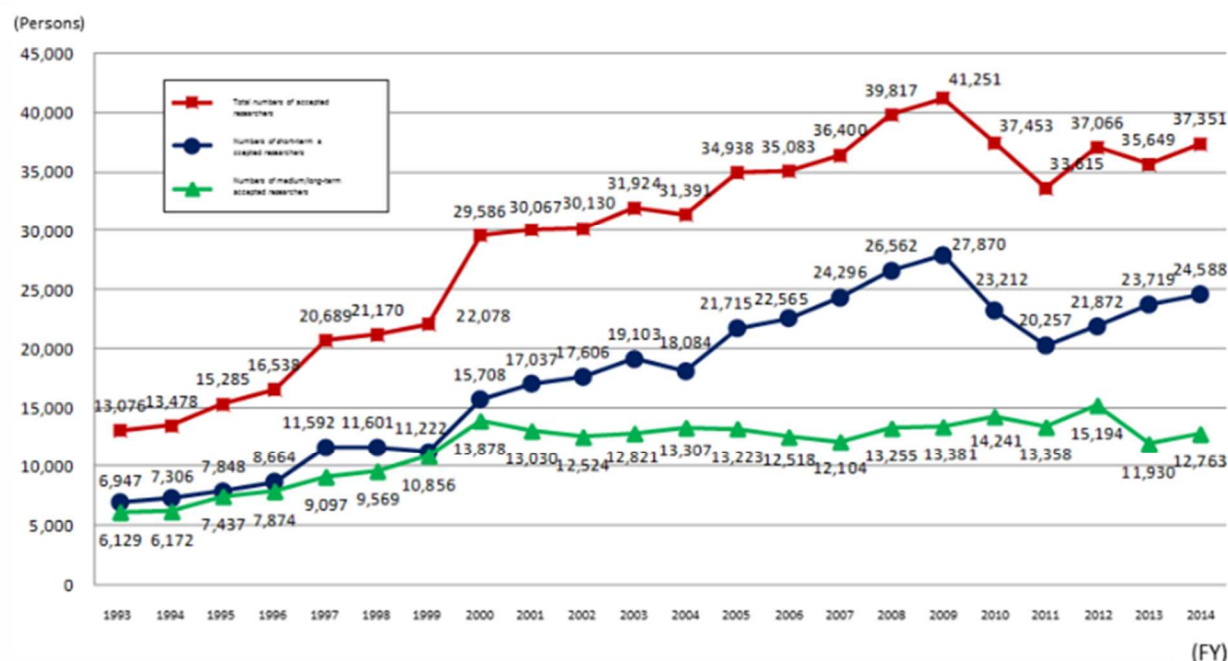
(1) Numbers of accepted researchers from overseas and numbers of dispatched researchers sent overseas

1) Numbers of accepted researchers from overseas

Numbers of accepted researchers in FY2014

- **Short-term:** The trend until FY2009 was for their numbers to increase. Following on from that, while through until FY2011 their figures were down due to the impact of events such as the Great East Japan Earthquake, etc., a trend towards recovery has been witnessed more recently.
- **Medium/Long-term:** Since FY2000 their numbers by and large have remained at around 12,000 to 15,000 persons annually.

(Graph 1) Transitions in the Numbers of Accepted Researchers from Overseas (Total Nos., Short-Term Nos., Medium/Long-Term Nos.)



* Concerning the numbers of accepted researchers, prior to the FY2009 survey, although it remained unclear as to whether or not postdoctoral fellows and research fellows, etc., qualified, from the FY2010 survey such individuals have been included.

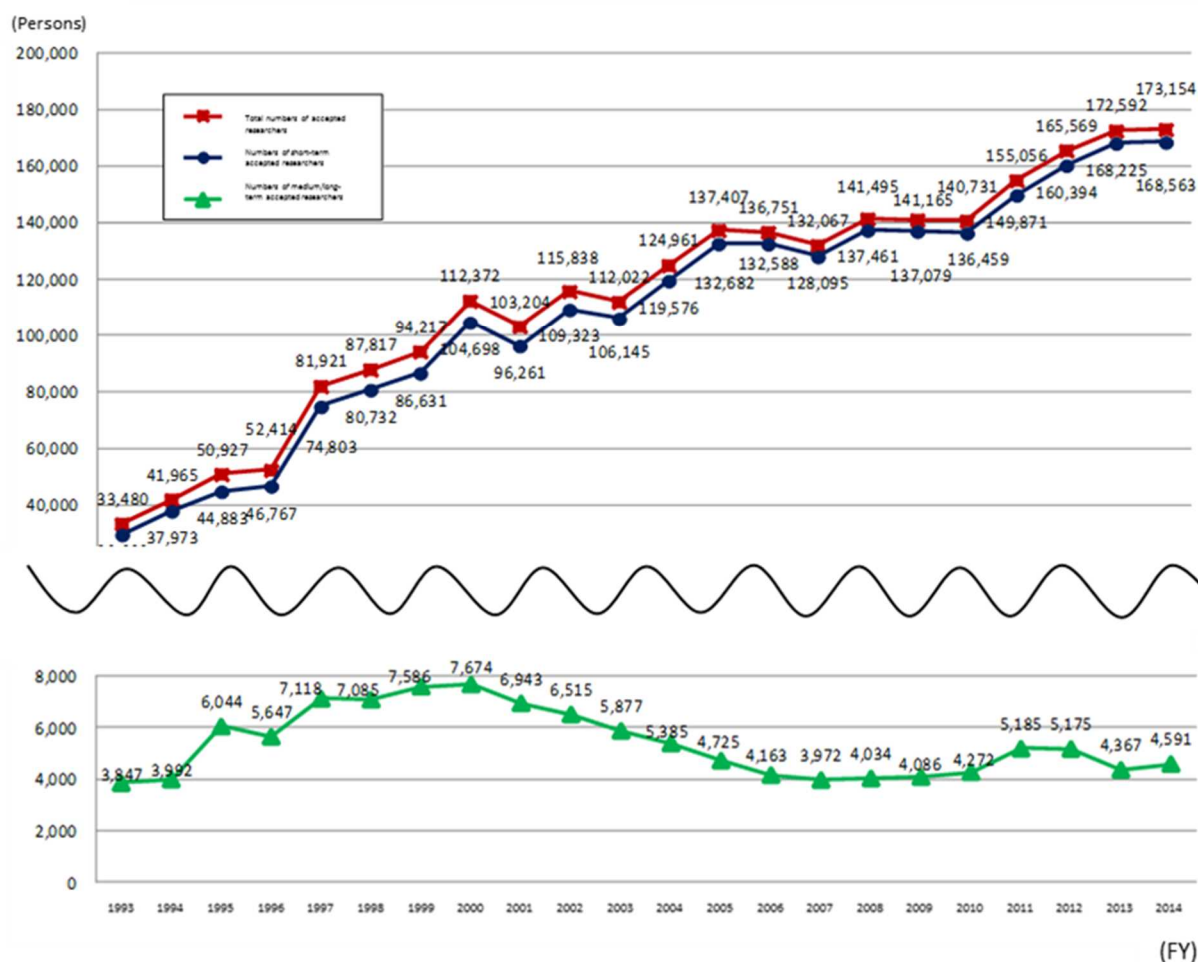
* From the FY2013 survey, the definition of an “accepted foreign researcher” was modified. (Specifically, instances whereby the same researcher was accepted by multiple institutions within the same financial year were eliminated).

2) Numbers of dispatched researchers sent overseas

Numbers of dispatched researchers in FY2014

- **Short-term:** Since the commencement of this survey, the trend has been for their numbers to increase.
- **Medium/Long-term:** While from FY2000 until FY2007 a declining trend was noted, since FY2008 their numbers by and large have remained at around 4,000 to 5,000 persons annually.

(Graph 2) Transitions in the Numbers of Dispatched Researchers sent Overseas (Total Nos., Short-Term Nos., Medium/Long-Term Nos.)



* Concerning the numbers of dispatched researchers, prior to the FY2007 survey, although it remained unclear as to whether or not postdoctoral fellows and research fellows, etc., qualified, such individuals have been included from the FY2008 survey (in the case of postdoctoral fellows only), and from the FY2010 survey (in the case of both post-doctoral and research fellows, etc.)

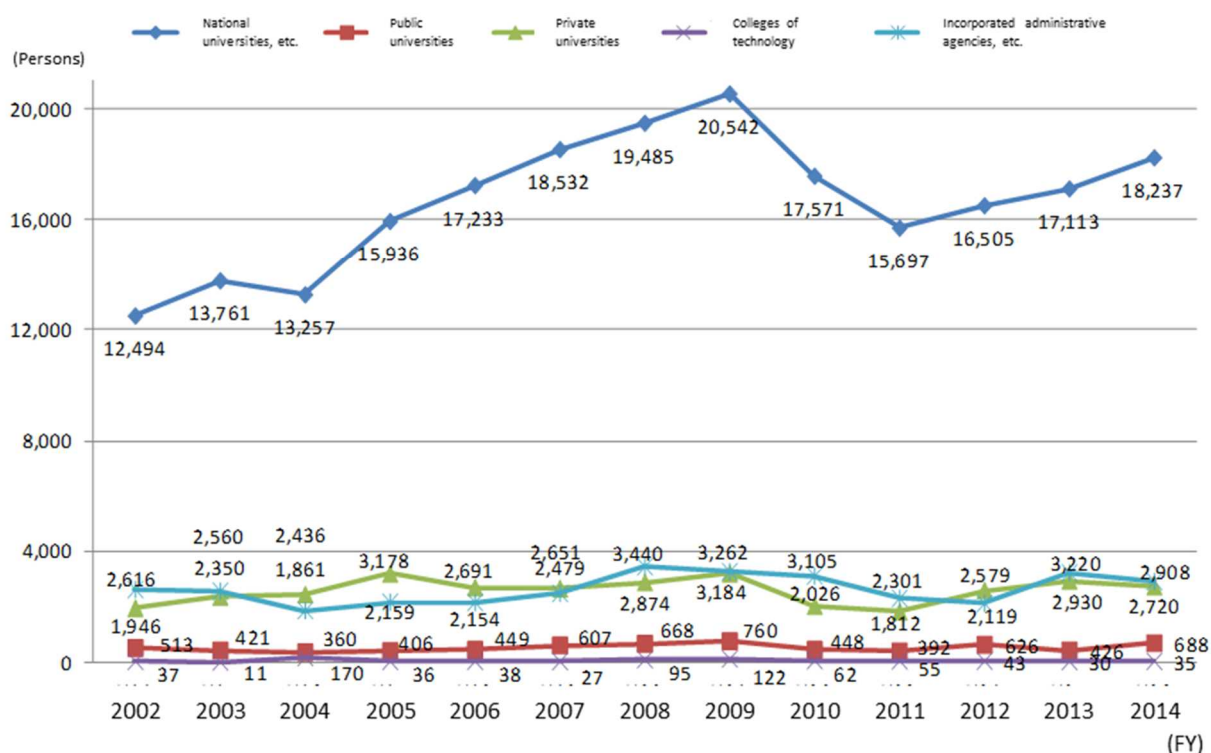
(2) Researcher exchanges by type of institution

1) Numbers of accepted researchers by type of institution

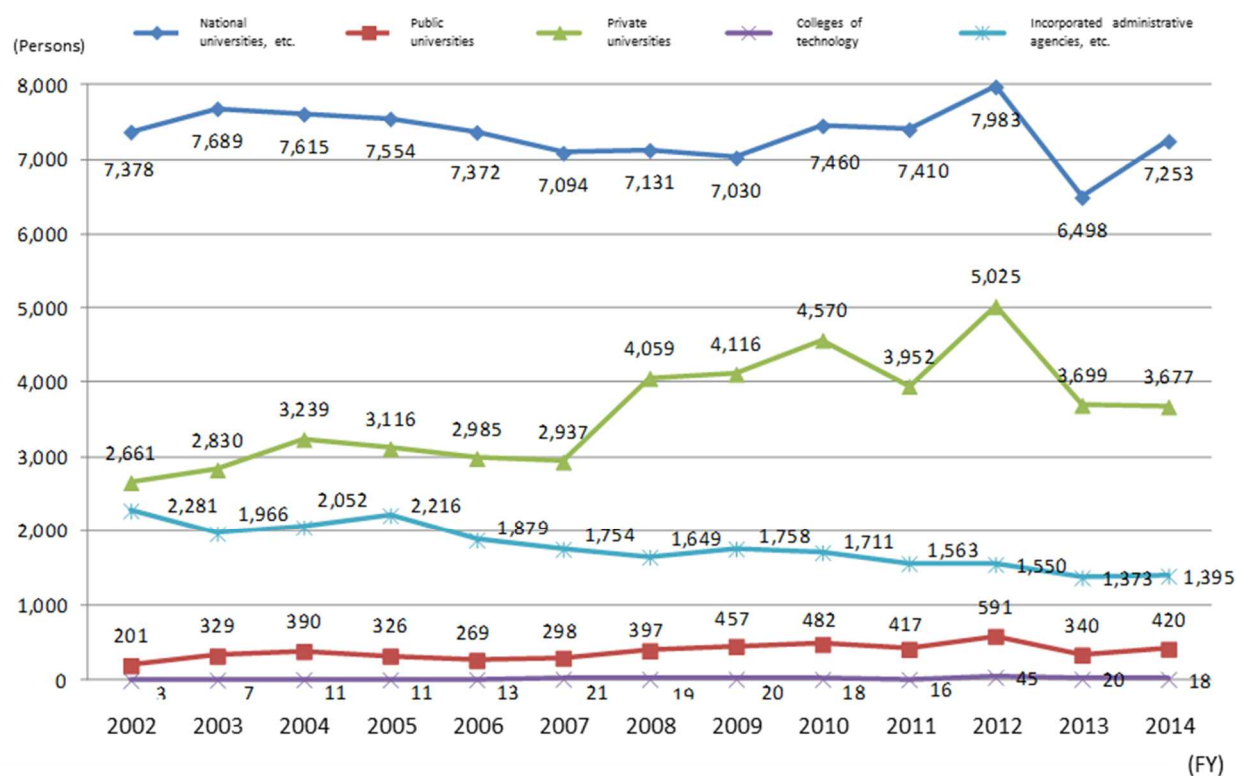
Numbers of accepted researchers by type of institution in FY2014

- **Short-term:** National universities, etc., account for around 70-80% of the total numbers of short-term accepted researchers. The trend up until FY2009 was for their numbers to increase. Following on from that, while through until FY2011 their figures were down due to the impact of events such as the Great East Japan Earthquake, etc., a trend towards recovery has been witnessed more recently. Meanwhile, with respect to the other types of institution subject to this survey, their numbers of short-term accepted researchers have by and large remained at similar levels throughout.
- **Medium/Long-term:** National universities, etc., account for around 50-60% of the total numbers of medium/long-term accepted researchers. For national universities, etc., their numbers have been by and large 6,000 to 8,000 persons annually, while the corresponding figures for private universities have been by and large 3,000 to 5,000 persons. By contrast, a trend of gentle decline has been witnessed for incorporated administrative agencies, etc., while the numbers for other types of institution have by and large remained at the same levels throughout.

(Graph 3) Transitions in the Numbers of Accepted Researchers by Type of Institution (Short-Term)



(Graph 4) Transitions in the Numbers of Accepted Researchers by Type of Institution (Medium/Long-Term)



* Concerning the numbers of accepted researchers, data for short-term dispatched researchers and medium/long-term dispatched researchers broken down by institution is only available from FY2002. For changes in the institutions subject to the survey, please refer to Item No. 4 of the Reference Materials Section which is entitled "Institutions Added to the Survey."

* Concerning the numbers of accepted researchers, prior to the FY2009 survey, although it remained unclear as to whether or not postdoctoral fellows and research fellows, etc., qualified, from the FY2010 survey such individuals have been included.

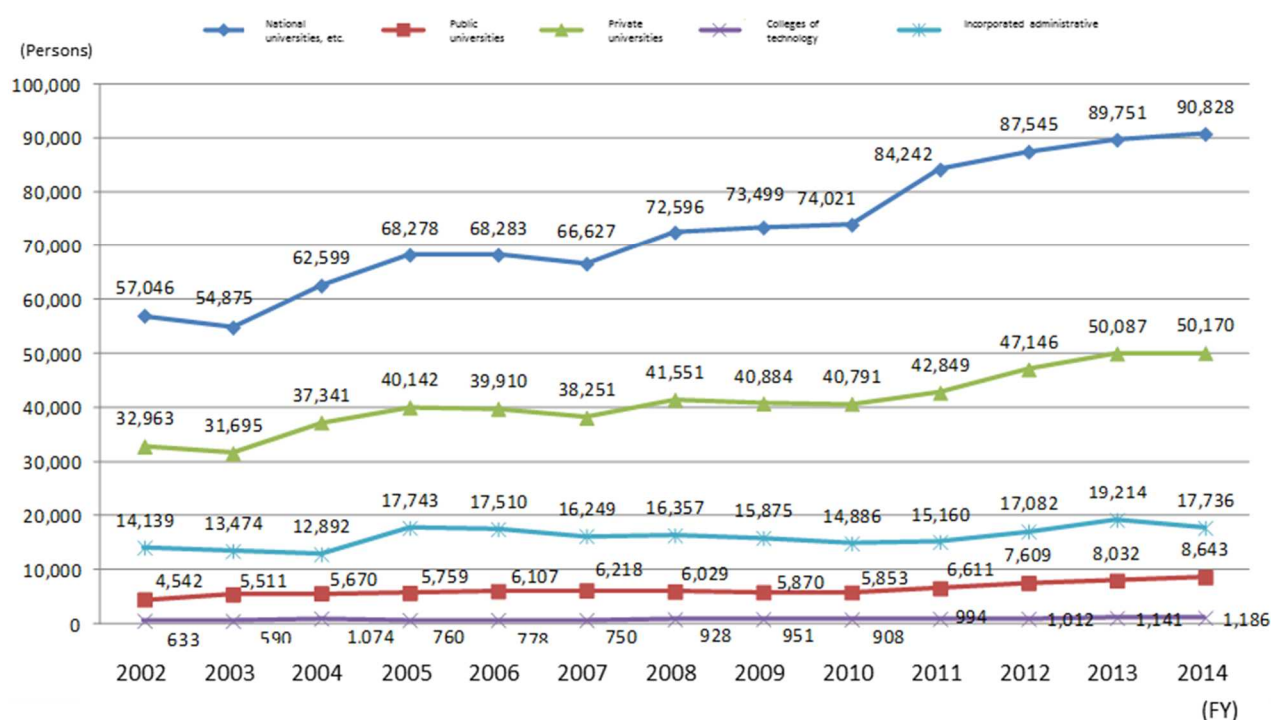
* From the FY2013 survey, the definition of an "accepted foreign researcher" was modified. (Specifically, instances whereby the same researcher was accepted by multiple institutions within the same financial year were eliminated).

2) Numbers of dispatched researchers by type of institution

Numbers of dispatched researchers by type of institution in FY2014

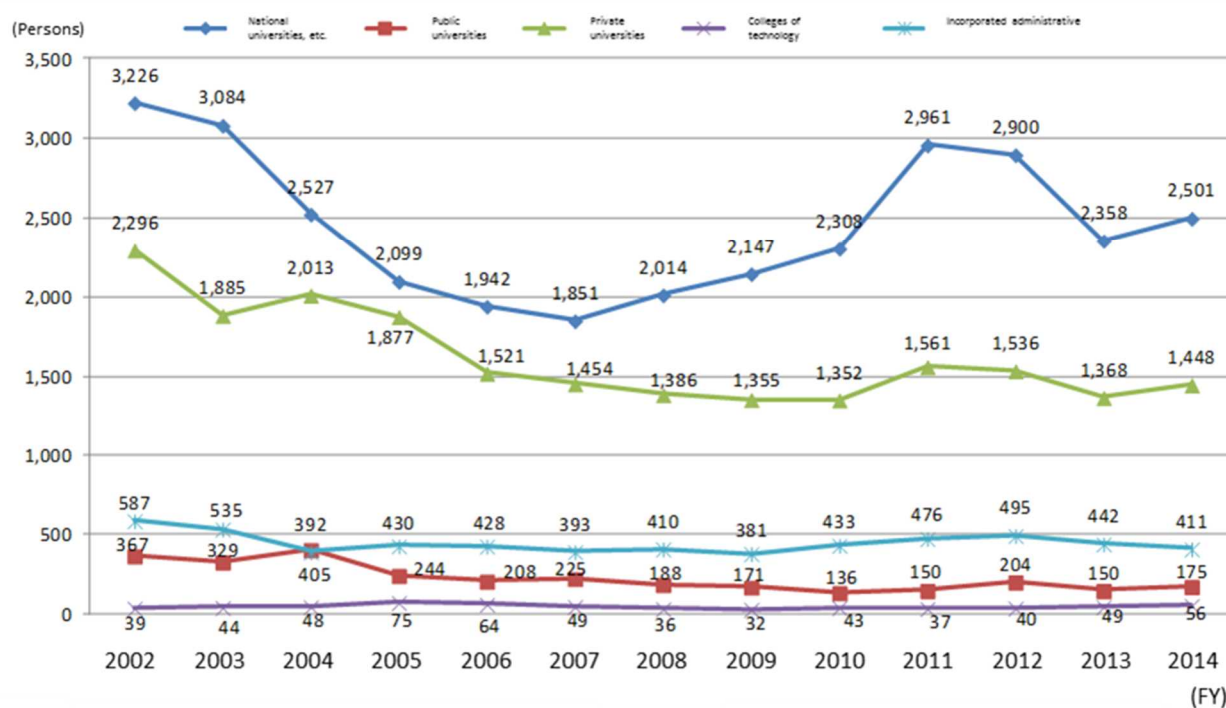
- **Short-term:** Concerning short-term dispatched researchers, when viewed long-term, the trend has been for increasing numbers being sent by universities (national universities, etc., public universities, private universities). Meanwhile, with respect to the other types of institution subject to this survey, their numbers have remained generally at the same levels throughout.
- **Medium/Long-term:** Concerning medium/long-term dispatched researchers, for national universities between FY2008 until FY2011, the trend was for more people to be dispatched. Moreover, while their numbers dipped in FY2013, in FY2014 they once again increased.

(Graph 5) Transitions in the Numbers of Dispatched Researchers by Type of Institution (Short-Term)



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(Graph 6) Transitions in the Numbers of Dispatched Researchers by Type of Institution (Medium/Long-Term)



* Concerning the numbers of dispatched researchers, data for short-term dispatched researchers and medium/long-term dispatched researchers broken down by institution is only available from FY2002. For changes in the institutions subject to the survey, please refer to Item No. 4 of the Reference Materials Section which is entitled "Institutions Added to the Survey."

* Concerning the numbers of dispatched researchers, prior to the FY2007 survey, although it remained unclear as to whether or not postdoctoral fellows and research fellows, etc., qualified, such individuals have been included from the FY2008 survey (in the case of postdoctoral fellows only), and from the FY2010 survey (in the case of both post-doctoral and research fellows, etc.)

3) Universities and research institutions etc., accepting and dispatching large numbers of researchers (FY2014)

**(Chart 1) Universities and Research Institutions, etc.,
Accepting Large Numbers of Researchers**

	Total No. (Short-Term + Medium/Long-Term)		Short-Term		Medium/Long-Term	
	Institution	Researcher Nos.	Institution	Researcher Nos.	Institution	Researcher Nos.
1	The University of Tokyo	2,896	Kyoto University	2,099	The University of Tokyo	887
2	Kyoto University	2,824	The University of Tokyo	2,009	Waseda University	819
3	Osaka University	1,940	High Energy Accelerator Research Organization	1,421	Kyoto University	725
4	Tohoku University	1,709	Osaka University	1,346	Osaka University	594
5	University of Tsukuba	1,545	Tohoku University	1,290	University of Tsukuba	478
6	High Energy Accelerator Research Organization	1,511	University of Tsukuba	1,067	Tohoku University	419
7	Institute of Physical and Chemical Research	1,054	Hokkaido University	750	Institute of Physical and Chemical Research	337
8	Tokyo Institute of Technology	983	Institute of Physical and Chemical Research	717	Nagoya University	329
9	Hokkaido University	977	Tokyo Institute of Technology	708	National Institute of Advanced Industrial Science and Technology	326
10	Nagoya University	918	Kyushu University	665	Tokyo Institute of Technology	275
11	Kyushu University	894	National Institutes of Natural Sciences	626	Keio University	254
12	Waseda University	851	Nagoya University	589	Ritsumeikan University	254
13	National Institutes of Natural Sciences	692	Okinawa Institute of Science and Technology Graduate University	439	Kobe University	250
14	Kobe University	651	National Institutes for the Humanities	422	Kyushu University	229
15	Ritsumeikan University	611	Kobe University	401	Hokkaido University	227
16	Okinawa Institute of	572	Ritsumeikan University	357	National Institute for	222

	Science and Technology Graduate University				Materials Science	
17	Hiroshima University	549	Hiroshima University	347	Hiroshima University	202
18	National Institutes for the Humanities	533	Kumamoto University	288	Japan Advanced Institute of Science and Technology	167
19	National Institute for Materials Science	465	Research Organization of Information and Systems	257	Okayama University	149
20	National Institute of Advanced Industrial Science and Technology	391	Hitotsubashi University	257	Japan Aerospace Exploration Agency Okinawa Institute of Science and Technology Graduate University	133 133
	Total No. of Accepted Researchers	37,351	No. of Accepted Researchers (Short-Term)	24,588	No. of Accepted Researchers (Medium/Long-Term)	12,763

**(Chart 2) Universities and Research Institutions, etc.,
Dispatching Large Numbers of Researchers**

	Total No. (Short-Term + Medium/Long-Term)		Short-Term		Medium/Long-Term	
	Institution	Researcher Nos.	Institution	Researcher Nos.	Institution	Researcher Nos.
1	The University of Tokyo	11,609	The University of Tokyo	11,231	The University of Tokyo	378
2	Kyoto University	8,327	Kyoto University	7,978	Kyoto University	349
3	Osaka University	7,629	Osaka University	7,387	Osaka University	242
4	Tohoku University	4,871	Tohoku University	4,767	Waseda University	177
5	Waseda University	4,789	Waseda University	4,612	Nagoya University	117
6	Nagoya University	3,867	Nagoya University	3,750	Keio University	111
7	Kyushu University	3,769	Kyushu University	3,716	Sophia University	108
8	Hokkaido University	3,430	Hokkaido University	3,335	Tohoku University	104
9	Tokyo Institute of Technology	3,109	Tokyo Institute of Technology	3,033	Kobe University	96
10	University of Tsukuba	3,033	University of Tsukuba	2,944	Hokkaido University	95
11	Institute of Physical and Chemical Research	2,830	Institute of Physical and Chemical Research	2,737	Japan International Research Center for Agricultural Sciences	94
12	National Institute of Advanced Industrial	2,645	National Institute of Advanced Industrial	2,605	Institute of Physical and Chemical Research	93

	Science and Technology		Science and Technology			
13	Keio University	2, 580	Keio University	2, 469	University of Tsukuba	89
14	Hiroshima University	2, 257	Hiroshima University	2, 231	Tokyo Institute of Technology	76
15	Kobe University	2, 157	Kobe University	2, 061	Nihon University	69
16	Nihon University	1, 807	Nihon University	1, 738	Ritsumeikan University	65
17	Chiba University	1, 642	Chiba University	1, 624	Tokyo University of Foreign Studies	55
18	Japan Atomic Energy Agency	1, 567	Japan Atomic Energy Agency	1, 556	Kyushu University	53
19	Okayama University	1, 421	Okayama University	1, 406	National Institute of Advanced Industrial Science and Technology	40
20	National Institutes of Natural Sciences	1, 330	National Institutes of Natural Sciences	1, 318	Research Organization of Information and Systems	40
	Total No. of Dispatched Researchers	173,154	No. of Dispatched Researchers (Short-Term)	168,563	No. of Dispatched Researchers (Medium/Long-Term)	4, 591

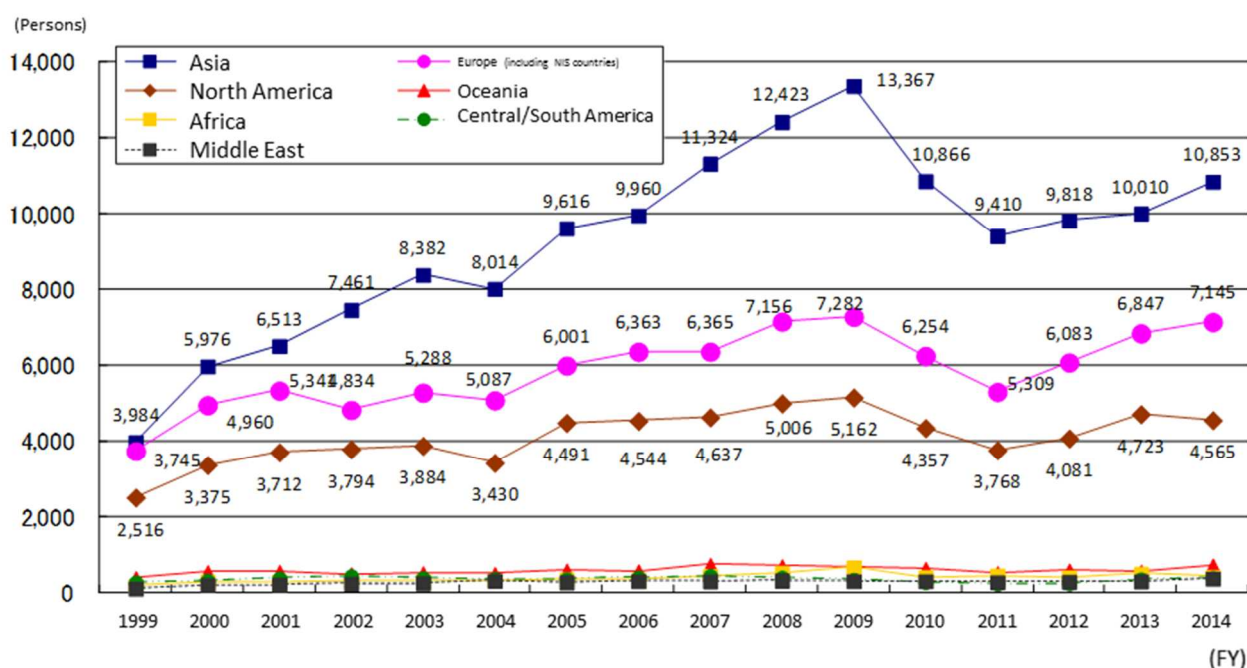
(3) Researcher exchanges by region

1) Numbers of accepted researchers by region

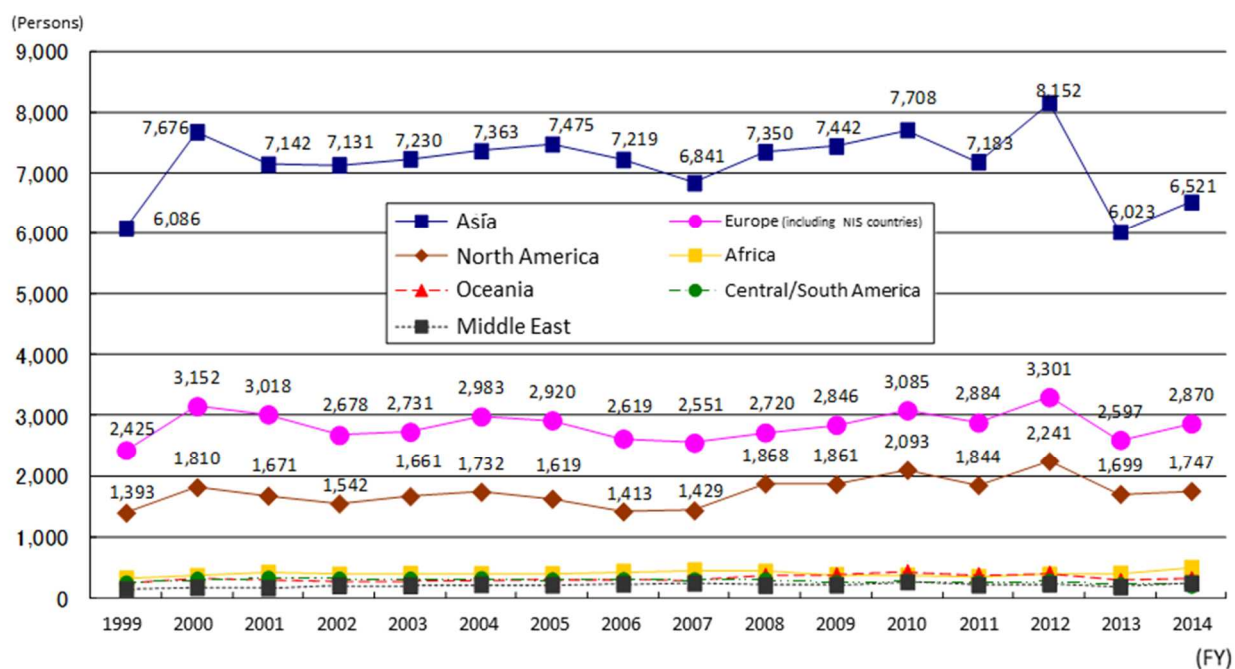
Numbers of accepted researchers by region in FY2014

- **Total Numbers:** For both the short-term and medium/long-term categories, the region from which the largest number of accepted researchers are drawn is Asia, it being followed by Europe and North America.
- **Short-Term:** For Asia, Europe and North America, the trend up until FY2009 was for numbers to increase. Following on from that, while through until FY2011 their figures were down due to the impact of events such as the Great East Japan Earthquake, etc., a trend towards recovery has been witnessed more recently.
- **Medium/Long-Term:** Regarding those drawn from Asia, between FY2000 and FY2012, their numbers by and large remained at similar levels. Furthermore, while their numbers dipped in FY2013, in FY2014 they once again increased. Meanwhile, the numbers for researchers from Europe and North America have tended to remain by and large at similar levels since FY2000.

(Graph 7) Transitions in the Numbers of Accepted Researchers by Region (Short-Term)



**(Graph 8) Transitions in the Numbers of Accepted Researchers by Region
(Medium/Long-Term)**



* Concerning the numbers of accepted researchers, prior to the FY2009 survey, although it remained unclear as to whether or not postdoctoral fellows and research fellows, etc., qualified, from the FY2010 survey such individuals have been included.

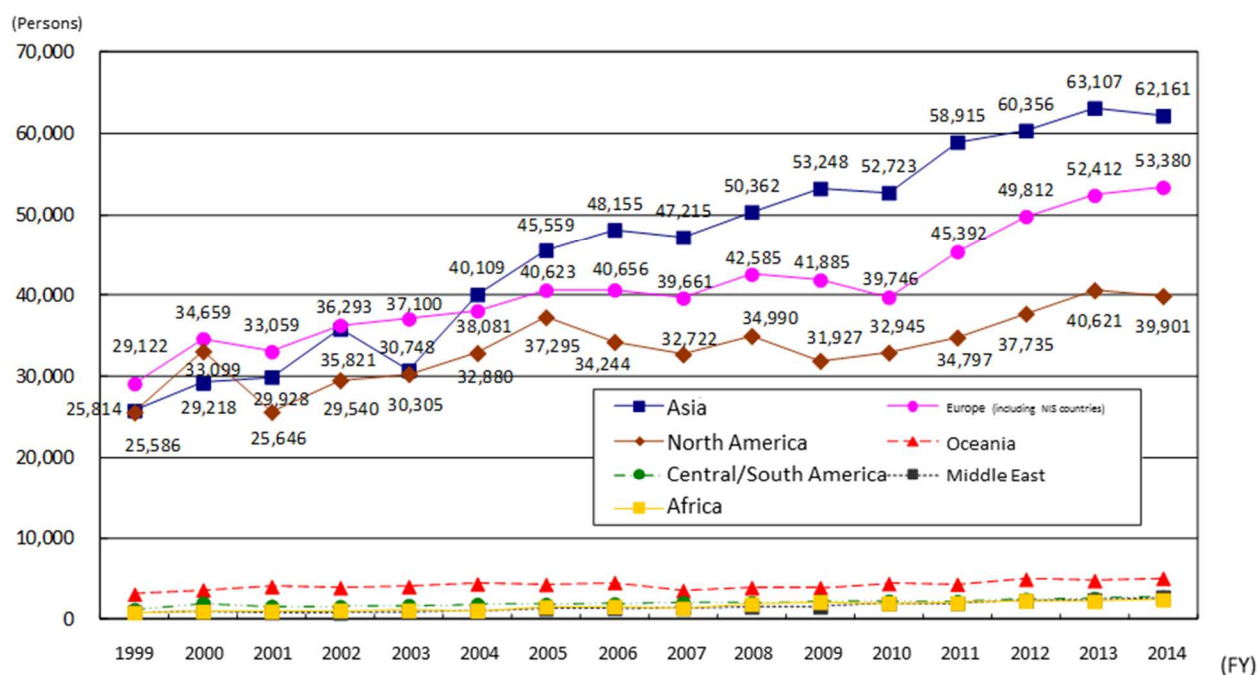
* From the FY2013 survey, the definition of an "accepted foreign researcher" was modified. (Specifically, instances whereby the same researcher was accepted by multiple institutions within the same financial year were eliminated).

2) Numbers of dispatched researchers by region

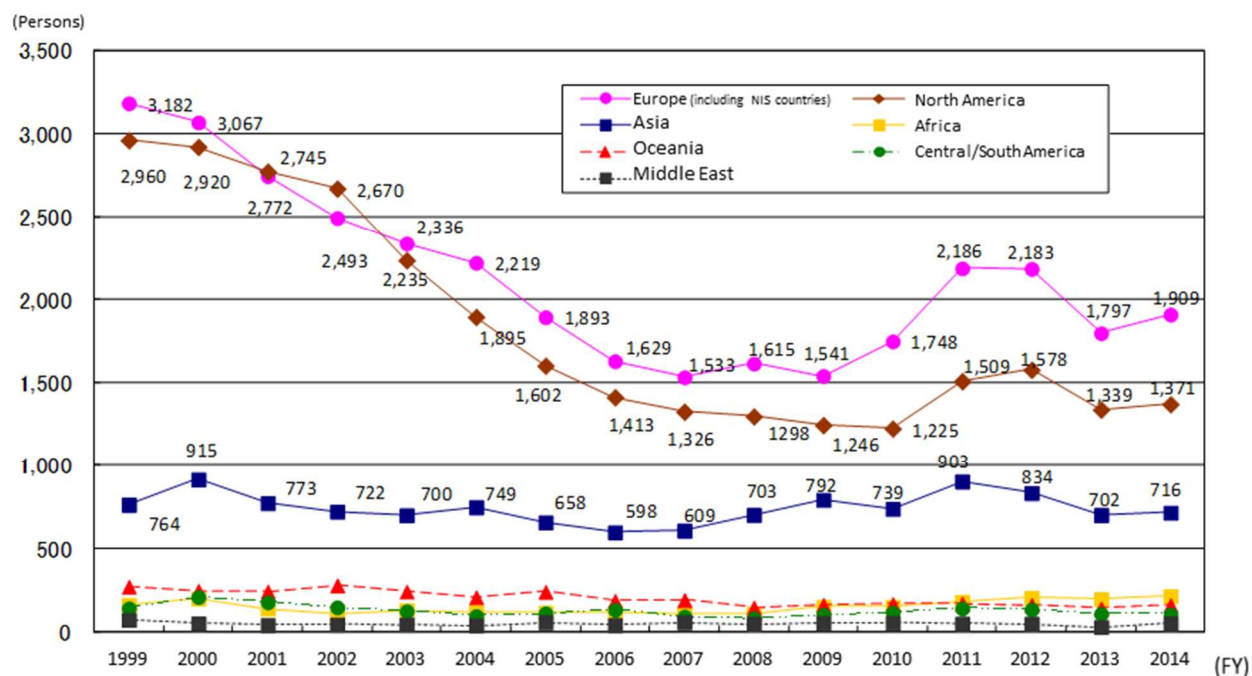
Numbers of dispatched researchers by region in FY2014

- **Total Numbers:** The most popular destination in the short-term category is Asia, it being followed by Europe and North America. Meanwhile, in the medium/long-term category, the most popular destination is Europe, it being followed by North America and Asia.
- **Short-Term:** Commencing with Asia, Europe and North America, a trend towards increasing numbers can be witnessed for all regions over the long-term.
- **Medium/Long-Term:** Since the commencement of this survey there was a trend towards declining numbers of people bound for European and North American destinations. In bucking this trend, however, for Europe (from FY2010) and North America (from FY2011), increasing numbers were witnessed. After these increases, however, in FY2013 a decline in numbers was noted in comparison to the previous year, the results recorded by and large being similar to those of FY2010. Meanwhile, with respect to other regions, the numbers have by and large remained at the same levels throughout.

(Graph 9) Transitions in the Numbers of Dispatched Researchers by Region (Short-Term)



(Graph 10) Transitions in the Numbers of Dispatched Researchers by Region (Medium/Long-Term)



* Concerning the numbers of dispatched researchers, prior to the FY2007 survey, although it remained unclear as to whether or not postdoctoral fellows and research fellows, etc., qualified, such individuals have been included from the FY2008 survey (in the case of postdoctoral fellows only), and from the FY2010 survey (in the case of both post-doctoral and research fellows, etc.)

- 3) Countries and regions from which large numbers of researchers are accepted and to which large numbers of researchers are dispatched (FY2014)

**(Chart 3) Countries and Regions from which
Large Numbers of Researchers are Accepted**

	Total No. (Short-Term + Medium/Long-Term)			Short-Term			Medium/Long-Term		
	Country (Region)	Researcher Nos.	Composition Ratio (%)	Country (Region)	Researcher Nos.	Composition Ratio (%)	Country (Region)	Researcher Nos.	Composition Ratio (%)
1	United States	5,496	14.7	United States	4,014	16.3	China	2,791	21.9
2	China	5,466	14.6	China	2,675	10.9	United States	1,482	11.6
3	South Korea	3,209	8.6	South Korea	2,100	8.5	South Korea	1,109	8.7
4	United Kingdom	1,784	4.8	Germany	1,281	5.2	United Kingdom	532	4.2
5	France	1,734	4.6	France	1,253	5.1	France	481	3.8
6	Germany	1,724	4.6	United Kingdom	1,252	5.1	India	469	3.7
7	Taiwan	1,508	4.0	Taiwan	1,207	4.9	Germany	443	3.5
8	Thailand	1,453	3.9	Thailand	1,060	4.3	Thailand	393	3.1
9	India	1,125	3.0	Indonesia	791	3.2	Taiwan	301	2.4
10	Indonesia	1,091	2.9	India	656	2.7	Indonesia	300	2.4
11	Vietnam	891	2.4	Vietnam	627	2.6	Egypt	298	2.3
12	Canada	814	2.2	Australia	576	2.3	Vietnam	264	2.1
13	Australia	809	2.2	Canada	551	2.2	Canada	263	2.1
14	Russian Federation	729	2.0	Italy	504	2.0	Russian Federation	237	1.9
15	Italy	691	1.9	Russian Federation	492	2.0	Australia	233	1.8

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16	Malaysia	455	1.2	Switzerland	370	1.5	Bangladesh	212	1.7
17	Switzerland	431	1.2	Malaysia	338	1.4	Italy	187	1.5
18	Philippines	418	1.1	Philippines	320	1.3	Spain	142	1.1
19	Egypt	373	1.0	Netherlands	245	1.0	Malaysia	117	0.9
20	Spain	350	0.9	Singapore	242	1.0	Philippines	98	0.8
	Total No. of Accepted Researchers	37,351	100	No. of Accepted Researchers (Short-Term)	24,588	100	No. of Accepted Researchers (Medium/Long-Term)	12,763	100

**(Chart 4) Countries and Regions to which
Large Numbers of Researchers are Dispatched**

	Total No. (Short-Term + Medium/Long-Term)			Short-Term			Medium/Long-Term		
	Country (Region)	Researcher Nos.	Composition Ratio (%)	Country (Region)	Researcher Nos.	Composition Ratio (%)	Country (Region)	Researcher Nos.	Composition Ratio (%)
1	United States	36,923	21.3	United States	35,702	21.2	United States	1,221	26.6
2	China	14,949	8.6	China	14,777	8.8	Germany	399	8.7
3	South Korea	12,247	7.1	South Korea	12,171	7.2	United Kingdom	370	8.1
4	France	8,662	5.0	France	8,310	4.9	France	352	7.7
5	Germany	8,628	5.0	Germany	8,229	4.9	Switzerland	219	4.8
6	Taiwan	7,570	4.4	Taiwan	7,526	4.5	China	172	3.7
7	United Kingdom	6,896	4.0	United Kingdom	6,526	3.9	Canada	145	3.2
8	Thailand	5,968	3.4	Thailand	5,898	3.5	Australia	110	2.4
9	Italy	4,509	2.6	Italy	4,426	2.6	Italy	83	1.8
10	Canada	4,326	2.5	Canada	4,181	2.5	South Korea	76	1.7
11	Australia	4,153	2.4	Australia	4,043	2.4	Thailand	70	1.5
12	Indonesia	3,834	2.2	Indonesia	3,781	2.2	Netherlands	60	1.3
13	Spain	3,723	2.2	Spain	3,675	2.2	Austria	57	1.2
14	Vietnam	3,676	2.1	Vietnam	3,633	2.2	Indonesia	53	1.2
15	Singapore	3,069	1.8	Singapore	3,039	1.8	Spain	48	1.0
16	Switzerland	3,001	1.7	Switzerland	2,782	1.7	India	45	1.0
17	Malaysia	2,722	1.6	Malaysia	2,689	1.6	Sweden	44	1.0
18	Netherlands	2,486	1.4	Netherlands	2,426	1.4	Taiwan	44	1.0
19	Austria	2,355	1.4	Austria	2,298	1.4	Vietnam	43	0.9

20	India	2, 144	1. 2	India	2, 099	1. 2	Belgium	43	0. 9
	Total No. of Dispatched Researchers	173, 15 4	100	No. of Dispatched Researchers (Short-Term)	168, 56 3	100	No. of Dispatched Researchers (Medium/Long-Term)	4, 591	100

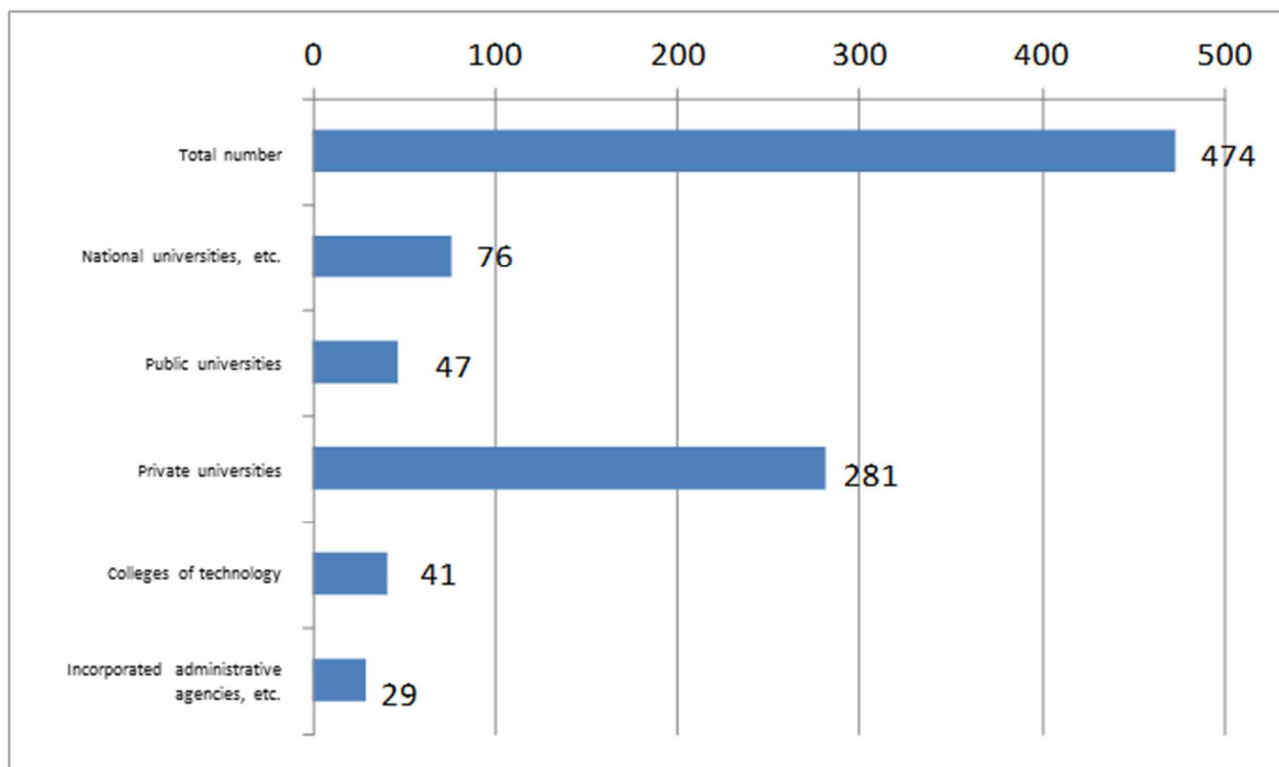
(4) Numbers of research agreements concluded with overseas universities and research institutions (new survey item)

Numbers of research agreements concluded with overseas universities and research institutions as of the end of FY2014*

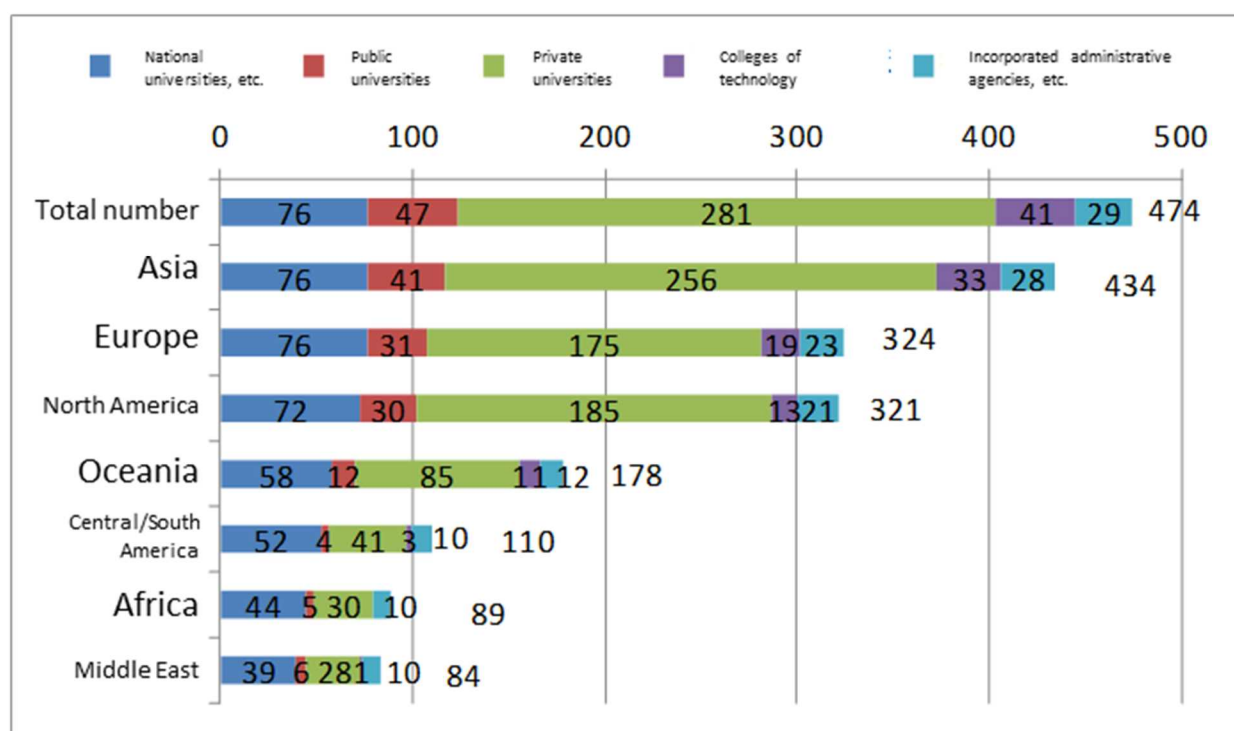
- Of the 867 institutions from whom a valid response was obtained on this occasion, some 474 indicated that they have concluded research agreements with overseas universities and research institutions.
- Considered by region, many institutions indicated that they have concluded research agreements with universities and research institutions located in Asia, Europe or the United States.

* Of those written agreements (memoranda of understanding) which make promises and lay out the duties to be undertaken by the parties thereto, such having been exchanged with overseas universities and research institutions, "research agreements" in this instance refers to those matters related to both the "dispatching, training and other exchanges undertaken by researchers" and the "undertaking of joint research." Under the terms of the survey, those agreements that qualify are ones concluded (and in effect) as of March 31st, 2015, the counterparties thereto being overseas universities, research institutions and government-related research organizations.

(Graph 11) Numbers of Universities and Research Institutions Concluding Research Agreements with Overseas Universities and Research Institutions



(Graph 12) Breakdown by Region of Research Agreements Concluded with Overseas Universities and Research Institutions



* Of the total number of responding institutions on this occasion (867 institutions), the figures shown indicate how many concluded one or more agreement with overseas universities and research institutions, etc., located in the different regions.

(Reference Materials)

1. Survey Aims

By engaging in the ongoing tracking of the research exchanges that are undertaken annually between Japan and foreign nations, etc., with respect to future policies for the promotion of international exchanges, this survey aims to contribute in terms of planning and proposals, evaluations and verifications, etc.

2. Survey Period

FY2014 Survey on International Research Exchanges: April 1st, 2014 – March 31st, 2015

3. Questionnaires & Breakdown of Survey Subjects

The survey questionnaires and the institutions from whom cooperation was sought were as follows:

- Questionnaire for Universities, etc.: Cooperation was sought from a total of 842 institutions (national university corporations (86 entities), inter-university research institute corporations (4 entities), national/public/private colleges of technology (57 entities), public universities (84 entities), private universities (611 entities))
- Questionnaire for Incorporated Administrative Agencies, etc.: Cooperation was sought from a total of 60 institutions (incorporated administrative agencies (43 entities), national research institutes (17 entities))

Combined, the above segments made for a total of 902 institutions (n=902)

Of them, valid responses were received as follows:

- Questionnaire for Universities, etc.: Valid responses were received from a total of 813 institutions (for a response rate of 96.6%)
- Questionnaire for Incorporated Administrative Agencies, etc.: Valid responses were received from a total of 54 institutions (for a response rate of 90.0%)

Combined, these results made for total valid responses being received from 867 institutions (for a response rate of 96.1%)

4. Institutions Added to the Survey

- National universities, etc., includes inter-university research institute corporations. From FY1997, national junior colleges were added to the institutions deemed survey subjects. (By FY2005, however, national junior colleges were restructured and integrated with national universities).
- Both public and private universities were added to the institutions deemed survey subjects from FY1997.
- National colleges of technology were added to the institutions deemed survey subjects from FY2000. Similarly, public and private colleges of technology were added from FY2010.
- Incorporated administrative agencies, etc., includes national research institutes. From FY2000, incorporated administrative agencies were added to the institutions deemed survey subjects. (In FY2005, however, special corporations became incorporated administrative agencies).

5. Survey Definitions

- Accepted Researchers
“Accepted researchers” refers both to “foreign researchers” attached to overseas institutions who have been accepted by Japanese institutions by way of invitation, etc., and also to the employment of “foreign researchers” who were previously attached to overseas institutions by institutions here in Japan.
- Dispatched Researchers
“Dispatched researchers” refers to the traveling overseas of “Japanese and foreign researchers” who are attached to various domestic institutions here in Japan. Under the terms of this survey, “dispatched researchers” applies to Japanese and foreign researchers who are employed by domestic institutions (either “full-time or part-time” and also either “with tenure or without tenure”). The term also applies to researchers who have applied and been recruited under “special researcher” and “related support” schemes.

- Researchers

“Researchers” refers to individuals employed as educators by various institutions in positions such as professor, associate professor, lecturer, assistant professor, post-doctoral researcher and special researcher, general researcher, senior researcher and group leader, etc. The term also applies to researchers who have concluded some form of employment agreement with various institutions.

- “Researchers” does not apply to graduate students, exchange students, administrative and technical personnel, or instructors responsible for language classes, etc., nor does it apply to educators, etc., who are responsible for just a few classes and who are not engaged in any particular research activities. However, from FY2014, the exception is doctoral candidates for whom employment contracts are concluded with the universities to which they are attached, and who are assigned duties that result in the undertaking of research.
- In previous surveys, although it remained unclear as to whether or not post-doctoral and research fellows qualified, with respect to the numbers of dispatched researchers, such individuals have been included from the FY2008 survey (in the case of postdoctoral fellows only), and from the FY2010 survey (in the case of both post-doctoral and research fellows, etc.). For accepted researchers, both post-doctoral and research fellows, etc., have been included from the FY2010 survey.
- “Short-term” means periods of time of less than one month (30 days) in duration, while “medium/long-term” means periods of time of one month (30 days) or more in duration.

6. Calculation Methods

- Whereby the period of stay undertaken by a researcher overlaps between the previous financial year and the next financial year, the total (planned) period of stay shall be considered to constitute the period of stay and it shall be counted accordingly in the results of both financial years.
- Whereby stays are undertaken in multiple countries, all those shall be counted whereby the response offered as to the purpose of the period of stay is stated as being research activities.

7. Survey Contractor

Institute for Future Engineering(IFENG)