ESF International Workshop
‘DEVELOPING RESEARCH CAREERS IN AND BEYOND EUROPE’

ISSUES IN CAREER TRACKING ACTIVITY

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SciREX: Data/Information Infrastructure

SciREX aims to prepare a system and foundation for the realization of "evidence-based policy formation": proposal of policies effective in addressing different challenges, based on multifaceted analyses and assessments of social and economic impacts from STI. SciREX is composed of the following four parts.

Operated by NISTEP

- Fundamental Research and Human Resource Development
- Research Funding
- Mission-Oriented Research
- Data / Information Infrastructure

Data on knowledge production in public research
Data on innovation in industries
Panel Data on consciousness survey on STI experts
Database of doctoral graduates
Database of intangible assets and productivities
Database of budget allocations and key policies

http://scirex.mext.go.jp/ (FY2011- )
Initial database design for tracking careers of doctoral graduates (to be redesigned)

NISTEP and Universities
- Arrangements for issuing IDs to doctoral students
- Share information

NISTEP
- Provide individual information to universities with informed consent from respondents

Notification of IDs via universities
- Agree to the privacy policy and enter basic information
- Enter information on first destination at graduation

Periodic requests for updating information (+ occasional surveys)
- Enter employment and contact information online

Doctoral Students
Graduation
Career Path after graduation
Project Schedule

FY2011
- Conceptual planning of tracking doctoral graduates
- Investigate tracking surveys in foreign countries (e.g. SDR, L-DLHE, GENERATION, CDH, etc.)

FY2012
- Start developing the database system
- International Symposium on Tracking Careers of Doctoral Graduates

FY2013
- Launch a trial database system for tracking doctoral graduates for feasibility study with several participating universities

Reexamining Plan
In relation to the recommendations described in “Developing Research Careers In and Beyond Europe”

- Career tracking helps to identify structural problems.
  - How to use the results for policy implementation? (Basic statistics + α)

- Setting up career tracking studies: choosing the right dimension, resources and outsourcing.
  - How to ensure the resources if long-term initiatives?

- Methodological awareness
  - Who collects and maintains privacy information? (Risk management)

Key words “Innovation” and “Globalization”?
International Mobility of Japanese Graduates
Locations of Japanese graduates immediately after completing doctoral courses
(for all doctorates completed during FY 2002–2006)

As for the locations immediately after completing doctoral courses, 73 percent of Japanese graduates remained in Japan, while just 2 percent moved overseas. North America and Europe were the main overseas destinations.

In Japan: 44,149 (73%)
Outside Japan: 1216 (2%)
Unknown/NA: 15,170 (25%)

USA: 737 (1.2%)
Germany: 83 (0.1%)
UK: 47 (0.1%)
Canada: 44 (0.1%)
France: 40 (0.1%)
China: 39 (0.1%)
South Korea: 27 (0.0%)
Thailand: 7 (0.0%)
Russia: 4 (0.0%)
Other: 188 (0.3%)
Locations and occupations of Japanese graduates immediately after completing doctoral courses (for all doctorates completed during FY 2002–2006)

Most Japanese graduates moving overseas obtained positions as postdocs.
Of Japanese who completed doctoral courses and immediately became postdocs in the USA, the percentage who returned to Japan increased with each year after completion. In particular, more than half of those who completed their doctoral courses five years ago have returned to Japan.
International Mobility Asian Graduates
Locations of international graduates immediately after completing doctoral courses (for all doctorates completed during FY 2002–2006)

Of international students who completed doctoral programs, 30 percent remained in Japan immediately after completion, while at least 31 percent moved overseas.

- In Japan: 3,831 (30%)
- Outside Japan: 3,913 (31%)
- Unknown/NA: 4,889 (39%)

Top locations outside Japan:
- China: 1,090 (8.6%)
- South Korea: 525 (4.2%)
- Indonesia: 325 (2.6%)
- Thailand: 284 (2.2%)
- USA: 281 (2.2%)
- Bangladesh: 199 (1.6%)
- Vietnam: 145 (1.1%)
- Canada: 29 (0.2%)
- India: 29 (0.2%)
- Brazil: 24 (0.2%)
- Russia: 23 (0.2%)
- UK: 19 (0.2%)
- Germany: 15 (0.1%)
- France: 9 (0.1%)
- Other: 916 (7.3%)
Mobility of Asian graduates immediately after completion -

- At least 1/3 of graduates who came from China and South Korea remained in Japan.
- Many of those who came from Southeast Asia returned to their home countries.
In relation to recommendations
“Developing Research Careers In and Beyond Europe”

- Career tracking helps to identify structural problems
  ➡️ How to use the results for policy implementation?
    (Basic statistics + α)

- Setting up career tracking studies: choosing the right dimension, resources and outsourcing
  ➡️ How to ensure the resources if long-term initiatives?

- Methodological awareness
  ➡️ Who collects and maintains privacy information?
Further improvements

• Incentives for better participation and cooperation

• Potential linkage between career tracking data/system and other database/services

• Application of the results for policy formation
Thank you

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