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# SEMINAR ON HUMAN RESOURCES AND TRAINING **SESSION I**

An outline of statistical training activities at the Statistical Research and Training Institute in Japan<sup>1</sup>

> Submitted by the Statistical Research and Training Institute Ministry of Internal Affairs and Communications of Japan

#### I. INTRODUCTION

- The statistical system of the Japanese government is decentralized in that, while the 1. Statistics Bureau conducts fundamental censuses and surveys, other ministries produce statistics for their own administrative and policy purposes. In this statistical system, the Statistical Research and Training Institute (SRTI) is the only government statistical training institute in Japan and also plays a key role as a special statistical training institute.
- The predecessor of the SRTI was founded in 1921 as the Statistics Staff Training Institute 2. with the purpose of training statistical staff. In those days, training courses were available only to personnel belonging to statistics sections of national and local governments. In 1971, the Institute

<sup>&</sup>lt;sup>1</sup> This paper has been contributed by Shozo Inami. The views expressed are those of the author and do not necessarily reflect the policies of the SRTI.

opened its courses to all personnel of national and local governments and public corporations and as of FY2005, the number of statistical trainees has reached 20,000.

3. The SRTI has a close relationship, in terms of personnel and financial affairs, with the Statistics Bureau, which is responsible for producing fundamental statistics on the state of the nation by carrying out major censuses and sample surveys, such as the Population Census, Establishment and Enterprise Census and Family Income and Expenditure Survey.

#### II. RESPONSIBILITIES

4. The SRTI aims to promote the development and dissemination of statistical knowledge and to contribute to the development of statistical systems in Japan. The SRTI is part of the Ministry of Internal Affairs and Communications (MIC) and has four main functions: i) statistics research, ii) statistical training, iii) compilation and publication of statistical compendia and iv) statistical library services.

#### III. STATISTICAL TRAINING PROGRAM

- 5. The SRTI provides various statistical training courses exclusively for the personnel of national and local governments and public corporations with the aim of imparting statistical knowledge and skills such as those required for compilation of statistics, statistical analysis and use of statistical data. All persons who wish to attend the course must be recommended by the organization employing them. All training courses are free of charge with the exception of textbook costs.
- 6. The SRTI plans to conduct 17 statistical training courses in FY2006. These are categorized into four types as follows: i) a general course, ii) comprehensive courses, iii) specialized courses and iv) an international statistics course.

#### A. General course

- 7. This course provides comprehensive and basic statistical knowledge and extensive applied skills. Course participants may expect to acquire statistical knowledge and theory, and analytic methods for policy planning and evaluation as well as to develop the wide-ranging practical capabilities needed in various administrative fields.
- 8. Basic subjects are categorized into the following five areas: i) basic knowledge and skills: the role of statistics and its importance, basic mathematics, hands-on training in Excel, statistical graphs and presentation methods, ii) statistics: descriptive statistics, inferential statistics and multivariate analysis, iii) statistical surveys: planning and designing surveys, including designing questionnaires and statistical tables, and sampling surveys, iv) population and labor statistics: population analysis, labor and employment analysis and regional analysis and v) economics statistics: basic economic analysis theory, price and consumption analysis, production-distributive analysis, national accounts and regional national accounts and input-output tables analysis.

Duration: 3 months Enrollments limited to: 36

- B. Comprehensive courses
- 9. These courses are designed to give trainees specific statistical knowledge/skills on their administrative and policy plans. The following are the titles of each course: i) planning and designing surveys (duration: 2 weeks), ii) population estimates and projections, iii) economic prediction, iv) introduction to statistics using table tabulation software(Excel), v) statistical analysis using table tabulation software (Excel), vi) national accounts and regional national accounts, and vii) ripple effect analysis by input-output tables.

Duration: 1 week Enrollments limited to: 36

- C. Specialized courses
- 10. These courses are classified into two types: i) course on particular subjects and ii) on statistics in general, and are shorter than other courses. Lectures on particular subjects are on: i) statistics, ii) population and labor statistics, iii) economic statistics and iv) statistical methods for administrative evaluations. The other type of course consists of two options for personnel inexperienced and experienced in statistical work and both courses provide trainees with the necessary statistical knowledge/skills for their duties.

Duration: 3 - 4 days Enrollments limited to: 36 - 70

- D. International statistics course
- 11. This course was newly created in 2005 to develop better international communications skills in statistics. Trainees may expect to acquire the basic special statistical knowledge used in international organizations and foreign statistics agencies, and presentation skills. Major subjects are: introduction to statistics, population statistics, labor statistics, economic statistics, national accounts and presentation skills. English is partly used, but lessons are basically in Japanese.

Duration: 6 days Enrollments limited to: 10

- E. E-learning (Basic course on statistical surveys)
- 12. This course gives a basic understanding of statistics to personnel new to statistical work, through the Internet. The course includes an introduction to statistics, statistical surveys and use of statistical data.

Duration: 3 weeks, plus 2 days schooling Enrollments limited to: 50

13. The e-learning system has advantages for both the SRTI and trainees as follows:
i) makes it easier to study anytime, anyplace, ii) allows trainees to acquire a good understanding through further comments and answers to short tests embedded in the lesson, iii) allows trainees to work easily to their own learning schedule and iv) allows the SRTI to easily analyze the progress of each trainee. However, the course does have disadvantages as well, such as a lack of communication between the SRTI and trainees, and a limit to the amount of information

provided.

14. Development of the e-learning system commenced in 2002 to meet the needs of local governments. The system and the training textbooks were completed in 2003. The course was run twice a year provisionally with a two-day session in 2004. Since 2005 the course has been offered every month with the exception of March and August.

# F. Timetable

15. From Monday through Friday, lessons are conducted according to the following time schedule. Each period is 70 minutes. Between the periods there are 10- 15 minute breaks, plus a 70-minute lunch break.

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1st period 09:30 – 10:40
2nd period 10:50 – 12:00
3rd period 13:10 – 14:20
4th period 14:35 – 15:45
5th period 16:00 – 17:10
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# G. Teaching staff

16. Lessons are mainly given by professors or assistant professors of universities or other experts. Staff of the STRI and the Statistics Bureau with broad experience and knowledge in the field of training are also working as instructors.

# H. Assessment

- 17. Evaluation of the basic course is according to the rule stipulated by the SRTI and the score for each subject and attendance of the class are considered as important assessment points. Trainees in other courses are mainly assessed by coursework. Certification of each course will be given to all trainees after their assessments.
- I. Recent number of trainees
- 18. The number of trainees by institution and course are as follows:

# By institution

-	National gov	ernment	Local governments	s Public corporations
2005	386	351	34	
2004	210	360	70	
2003	196	355	89	

<u>By course</u>								
General course		Comprehensive course		Specialized course				
2005	22	252	24	6				
2004	15	299	25	3				
2003	20	338	29	0				

E-learning (basic course on statistical surveys) trainees numbered 73 in 2004 and 243 in 2005. Eight people attended the international statistics course in the first year, 2005.

#### J. Facilities

19. The SRTI is a four-story building located in the center of Tokyo on the Statistics Bureau site. For the courses, there are two class rooms for ordinary courses and one special room for the international statistics course. PCs are installed in each room. For multipurpose use, there is one lecture hall. A comfortable lounge and reading room are also available for trainees. Accommodation without meal service is also operated by the SRTI for local government attendees.

#### IV. CONCLUSION

- 20. Recently the ongoing stagnation of the Japanese economy has impacted on the number of participants. Financial and human resource constraints have limited the ability of national and local governments to dispatch trainees to the SRTI. Extra attention must therefore be paid to user needs and requests to improve the current statistical training program.
- 21. To improve the curriculum, the SRTI has regular contact with the statistics divisions of national and local authorities in order to identify their needs in various ways, such as sending a draft annual statistical training schedule for their comments; regularly visiting the statistics divisions of local governments to obtain information on the schedule and other requests, and canvassing their needs at the regular meetings held by the Statistics Bureau in April every year.
- 22. As a whole, modulating and shortening the training courses have been growing concerns. Therefore, the SRTI has been considering modular courses on specific subjects to allow trainees to attend courses more easily. For instance, the former courses on statistical analysis using table tabulation software (Excel) for beginners and those for intermediate users have been changed to an introduction to statistics using table tabulation software and statistical analysis using tabulation software, and their duration set at one week each. Users are able to choose both courses successively or to take a more advanced course on another occasion.
- 23. On the other hand, information technology (IT) has developed recently and been utilized in numerous scenarios, not only at governmental but also private institutions. The SRTI has developed an e-learning system since 2003 and further improvement has been required to meet user needs. Improvement of the system is still required in terms of new courses, applying the system to other training courses and follow-up of trainees studying solely by this system.

- 24. This self-study method has some limitations, however. Careful consideration would be required before applying this system to other current statistical training courses. As a follow-up program, the SRTI plans to conduct a new e-learning introduction to statistical analysis in the latter part of FY2006.
- 25. The following are the major issues in statistical training at present:
  - (a) organizing the training curriculum to meet user needs;
  - (b) maintaining a suitable number of trainees in each course; and
  - (c) expanding e-learning to other courses and improving their contents.

#### V. BRIEF HISTORY AND ORGANIZATION

- 26. As mentioned above, the former SRTI was established in 1921 as the Statistics Staff Training Institute within the Census Office (Kokusei-in) with the purpose of training government statistics staff and became a permanent body attached to the Statistics Bureau of the Prime Minister's Agency in 1948. The Institute was renamed the Statistical Training Institute of the Statistics Bureau in 1971. In the 1984 administrative reforms, the Institute became a subsidiary body of the Statistics Center of the Management and Coordination Agency.
- 27. In 2001 the Ministry of Internal Affairs and Communications (MIC) was newly established following administrative reforms and the Institute also reorganized its roles by integrating its research and publishing functions as well as the statistical library services and was renamed again, becoming the present Statistical Research and Training Institute (SRTI). In April 2003, the SRTI was designated an independent educational institution of the MIC.
- 28. The Statistical Research and Training Institute is composed of the following divisions and the total number of officials in the Institute is 71 as of April 2006:
  - (a) Administrative Division;
  - (b) Planning Division;
  - (c) Research Office;
  - (d) Statistical Data Center; and
  - (e) Statistical Library.

The Planning Division is in charge of planning and operating statistical training programs and has a staff of nine.

# VI. OTHER STATISTICAL ACTIVITIES

# A. Statistics research

29. The Research Office leads the following activities: i) research on advanced use of statistics, ii) acquiring a clear understanding of trends in research on statistical technology and iii) research for planning new statistical training courses. Several joint research projects are currently underway in collaboration with guest professors and research fellows using micro-data. These research results are published as "Research Paper Series" and their summaries are available through our Website:

URL: http://www.stat.go.jp/training/2kenkyu/research.htm

In addition, the Research Office staff not only conduct research activities on their specific themes in statistics but also work as instructors for statistical training.

- B. Compilation and publication of statistical compendia
- 30. The Statistical Data Center compiles statistical compendia covering economic and social statistics and other statistics to meet a wide variety of statistical needs. The major statistical compendia include the Japan Statistical Yearbook (in Japanese and English), Statistical Handbook of Japan (in English), Japan in Figures (in English), and Historical Statistics of Japan (in Japanese and English). Data are also available through the Website.

URL: http://stat.go.jp/training/3henshu/3.htm and http://www.stat.go.jp/english/data/index.htm

- C. Statistical library services
- 31. The Statistical Library, established in 1881, is a special statistical library designed to hold an extensive collection of statistical publications and materials published by various Japanese statistical organizations and overseas organizations. The collection comprises over 26,000 volumes and includes valuable statistical materials compiled in the early years of the Meiji period, which extended from 1868 to 1912. The overseas collection contains statistical yearbooks and reports from around 120 countries and international organizations. The library is open to the public and also provides advice upon request to promote the wider use of statistical data. Visitors are able to access the database of the library collection and retrieve the books they want with ease. Inquiries can also be made by telephone or by e-mail through the Website.

URL: http://www.stat.go.jp/training/toshokan/statlibrary/

32. There are also two facilities outside the SRTI: the Statistical Museum and Statistical Plaza, designed to disseminate and promote the importance of statistics to the public.

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