

## **CES Forum on Human Resources Management and Training**

### **Statistical Training—From Statistical Theory to Statistical Practice—and from Statistical Practice to Theory**

#### **Statistical Training in an International Organization**

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Training is one of the key activities in building capacity in the Fund's member countries. The main objective of IMF training has been to strengthen the analytical and technical capacities of member country officials to formulate and implement macroeconomic policies. Such capacity building embraces the subsidiary objectives of supporting the Fund's work on surveillance, program design, and technical assistance. In 2007, the IMF delivered close to 63,000 person days of training for government officials at its headquarters, through a global network of seven regional training centers (RTCs), through the regional technical assistance centers (RTACs), in collaboration with other regional training organizations and national governments, and through the IMF Institute's (INS) distance learning program. The Statistics Department (STA) of the IMF alone delivered about 23 percent of total IMF training.

#### **The IMF's Statistics Department**

STA comprises slightly over 140 staff (before the prospective departures in the present IMF downsizing exercise), making it one of the largest departments in the Fund; total Fund employment is around 2,700. In addition to support staff, STA includes over 80 "economists" and around 35 research staff. Of the economists, around 25 are "fungible" in the sense that they have worked elsewhere in the Fund and/or have been recruited through the Fund-wide recruitment process, while almost 60 staff are nonfungible in the sense that they have worked for at least seven years in STA and/or have been recruited through the department-specific recruitment process. Fungible economists tend to have an educational background in economics while the nonfungible economists have formal training in statistics and experience in statistical compilation and dissemination.

STA's responsibilities focus on macroeconomic statistics. Other international agencies cover business economic statistics and sociodemographic statistics, which also provide important source data for macroeconomic statistics. A key function of STA consists of disseminating through its various publications statistics supplied by member countries. This is a key function in assisting the provision of data for member countries, and for the IMF as a whole,

so that the institution can carry out its mandate.<sup>1</sup> Other key responsibilities of STA entail developing, and helping to implement, statistical standards in cooperation with member countries and other statistical agencies, and assisting the development and dissemination of data quality standards, as well as the Special Data Dissemination Standard (SDDS) and the General Data Dissemination System (GDDS).

The output mix of STA is quite diverse. It includes the “data ROSC”—the Report on the Observance of Standards and Codes on macroeconomic data (for GDDS countries the World Bank has been conducting an analogous data ROSC on sociodemographic data) using the Fund-developed Data Quality Assessment Framework (DQAF). The department also provides around 40 person years of technical assistance to member countries, both on methodological issues and issues concerning the provision of data for surveillance. In addition, STA works in conjunction with other agencies to prepare and disseminate various statistical manuals. There are also a number of specific statistical initiatives undertaken by STA, including at the moment a large project developing financial soundness indicators and a coordinated direct investment survey. A complementary part of these activities is training (undertaken in part jointly with other IMF departments and agencies) to ensure that staff and member country officials are conversant or updated in internationally accepted statistical practices in order to carry out their duties effectively.

### **Training: who and how**

IMF/STA training therefore comprises three facets: training of the department’s own staff; training staff in other departments in the IMF; and training statisticians and to some extent policymakers in member countries. Training does not include generating the source data, since the Fund is not directly involved in such activity; for our internal purposes there are staff in the various topical areas who have such training and experience from their earlier work at national statistical agencies, central banks, or ministries of finance.

Much of the training received by STA staff is the same as that afforded to staff elsewhere in the Fund, with courses/seminars on management, effective speaking and writing, computer skills, economic theory, and so on. STA staff also attend training courses in economics provided through the INS. Pretty much all of it is internal, arranged through the IMF’s Human Resources Department, although there is a small budget for staff to participate in outside courses that they have identified. Given the international nature of the institution, there are courses on cultural sensitivities; language training is also widespread, and may be critical for the department, given the wide range of countries in which the department works. There is some central guidance, and some courses are mandatory for staff proceeding up a managerial ladder, but largely participation is on the basis of requests by the staff members

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<sup>1</sup> The mandate of the IMF includes economic surveillance over member countries.

themselves, guided by their supervisors. There are three internal training working groups to address specific training needs for economists, research staff, and assistants.

As regards training of STA staff on statistics, some training is “on the job” in the sense that new staff may travel with more experienced staff, and learn from the more experienced staff while carrying out their own tasks on the mission. Such an approach is particularly suitable given the sources of recruitment of staff: many staff already have experience in statistical production and the extra training that they need covers largely how they interact with the clients—perhaps having to learn in cultural environments different from those they have experienced before.

Beyond this on-the-job training, formal staff training comes in part from courses designed specifically for staff statisticians (such as recently a seminar on the new balance of payments manual), and in part from participation in courses run for the wider membership. The latter is divided between that provided by the INS and that arranged by STA itself. Both INS courses and STA’s own offerings may be at IMF headquarters in Washington, or across the world, frequently in the IMF’s regional training centers (RTCs).<sup>2</sup> Most courses are in English, but there is training also in Spanish and French and, to a lesser extent, Chinese, Portuguese, and Russian. Delivery, as far as courses on statistics is concerned, is in either case largely by STA, either by current staff or by contractuels, who in some cases are retirees from the department. For many STA staff, providing training, either for INS or STA courses, is an integral—and much savored—part of their job.<sup>3</sup>

The “flagship” statistics courses, designed for member countries, are run by the INS, and generally consist of a series of lectures, discussions, practical exercises, and case studies. The Institute produces glossy brochures which are circulated widely among participants from member countries; no doubt all the countries represented at the forum are regular recipients of these brochures and participants in INS courses. A disadvantage of the INS courses is that they necessarily have long lead times, since the brochure covers a full year and has to be circulated some months before the start of that year, meaning that one has to pre-commit staff to present the courses, participants to attend the courses, and a menu of subjects that will be offered. The ability of STA to offer its own training program therefore serves as a useful complement, with the seminars sometimes arranged at much shorter notice and often covering more specific topics, such as financial soundness indicators or specific subjects

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<sup>2</sup> The INS works closely with seven IMF-associated RTCs, in Austria, Brazil, China, India, Singapore, Tunisia, and the United Arab Emirates. Separately, the IMF has set up six Regional Technical Assistance Centers (RTACs), in Barbados, Fiji, Lebanon, Mali, Gabon, and Tanzania, which offer training as part of technical assistance.

<sup>3</sup> In 2007 STA also conducted a training course for some of the experts delivering technical assistance for the department.

within the area of external statistics. STA also offers a range of “outreach” events, in which statisticians in recipient member countries are brought up to date on particular current key issues. These outreach seminars are also sometimes organized at the request of regional institutions involved in capacity building and provide expertise in specialized areas of statistics.

Training in statistical methodologies of non-STA staff, in particular those in the IMF’s area departments, is also seen as important. Some is provided as part of overall training for new IMF staff. More comes from courses specifically designed for area department staff, either covering particular methodologies or—more frequently—particular topics such as financial soundness indicators or debt statistics that area department economists may need for their own work on surveillance. While this training is generally well received, recipients are generally at a relatively junior level. There are few channels to provide such training to senior staff outside the department or indeed to obtain their buy-in that such training is important.

### **The present challenges**

One particular challenge is how to maintain, and enhance, training—both for insiders and outsiders—at a time when the institution is downsizing and refocusing more broadly. As an institution comes under pressure there is particular reluctance to cut final outputs; that means there is a risk that intermediate outputs—investments for the future—such as a training program may be disproportionately hit. The IMF is set to lose around 500 staff, with across-the-board budget cuts. Also, remaining staff are finding increasing work pressures, which may make managers reluctant to release them for any extended period for training. Nevertheless, there is a strong argument that, as a human-capital-reliant institution, the Fund needs to increase, not reduce, its training—both for itself and for its member countries.

In any case, the ongoing budget pressures are forcing careful prioritization. One response is that external training is increasingly conducted on a regional basis, through the IMF’s RTCs; the RTC mainly for countries in the European region is in Vienna, which has been run very successfully for over a decade in a collaborative venture with the Austrian government. There are also increasing pressures to cut administrative costs, for instance by shortening courses, and to levy or increase charges on participants.

The subject matter of the courses may also change under these pressures. This may well lead to a reduction in the number of courses on mature subjects, such as manuals that have been around for a number of years, even though such courses have been regularly offered for a long period; while some member countries have come to rely on them to train succeeding generations of statisticians the Fund may be in a position now only to “train the trainers,” leaving member countries themselves to diffuse the training, so the Fund can move on to topics that are more cutting-edge where the need for training may be more urgent. The Fund

also seeks to reduce overlap with other providers, and to refocus to delivering only on subjects that are clearly within its “core functions.” Efforts are being made to join forces with other organizations in providing training to participants in targeted regions and create synergies to build capacity in member countries in the statistical area.

As regards training of outsiders, greater emphasis is to be placed on the need for countries to better assimilate and retain training. In particular, country officials who receive training often stay only for a limited time in the job, with insufficient effort to spread the skills learned among relevant colleagues and successors. As a result, a persistent training need remains in certain institutions, despite having had a relatively large number of officials attend STA courses. In view of the tighter resource constraints, STA may need to place certain conditionality going forward. In particular, assurances may be needed for officials to remain in their jobs for a minimum period (perhaps two years), while committing to train colleagues upon return from STA training. Also, STA may need to set a maximum numbers of slots allocated to institutions for specific methodological training over a given period, perhaps five years. For its part, STA courses may need to include a component (including suitable materials) to prepare course participants to train colleagues upon return to their countries.

Efforts are also ongoing within the IMF and other international organizations to develop and share e-training programs. E-training takes advantage of substantial improvements in information technology to reduce costs while extending the reach of the courses. Already CD and website access is provided for training material, and trainees can receive and submit country case studies online.

The attached tables show the distribution by European country of recipients of IMF training in statistics in recent years, as well as STA outreach and training courses by topics. These are updates of tables 5-7 of the paper on “The role of international organizations in statistics training for member country officials” that was prepared for the March 2006 Seminar on human resources and training of the Conference of European Statisticians. That paper contains also the findings of a survey carried out by Fund staff of selected international organizations on issues in statistical training of member country officials; it has been circulated separately as background for this conference.

**Table 1. STA Outreach Training Offered Outside INS Program in Europe  
(2006–08)**

Outreach/Training	Dates	Location and/or Sponsor
I. Balance of Payments and External Sector Statistics		
Coordinated Portfolio Investment Survey (CPIS) Workshop	FY2006	Isle of Man
Balance of Payments Statistics (BOP)	FY2006	Slovenia
Remittances Statistics	FY2007	Slovenia
Coordinated Direct Investment Survey (CDIS)	FY2008	Slovenia
BOP Course (ECB)	FY 2007	Portugal
Balance of Payments and International Investment Position Manual, sixth edition (BPM6) Outreach	FY2009	Germany
II. Monetary and Financial Statistics and Financial Soundness Statistics		
Monetary and Financial Statistics (MFS) Course for Russia, the Baltics, and Other FSU Countries	FY 2008	Central Bank of Russia
MFS Course for Portuguese-Speaking African Countries, Brazil, Portugal, and East Timor	FY2008	Bank of Portugal
III. National Accounts Statistics		
Quarterly National Accounts Course for Commonwealth of Independent States (CIS)	FY2006	Russia
Training Course on Quarterly National Accounts Statistics—Center of Excellence in Finance	FY2006	Slovenia
IV. Data Dissemination		
IMF Data Standards	FY 2007	Germany

**Table 2. Participants From EUR in STA Courses Through the IMF Institute Training Program, CY00-08<sup>1,2</sup>**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Total	76	78	84	104	105	114	108	67	49	785
Albania	5	6	3	3	3	3	4	2	3	32
Aruba	-	-	-	-	2	-	-	-	-	2
Austria	1	-	-	-	1	-	2	-	-	4
Belarus	3	3	5	4	6	5	5	5	5	41
Belgium	-	1	1	-	-	-	3	-	-	5
BIS	-	-	-	-	-	1	-	-	-	1
Bosnia and Herzegovina	3	3	3	4	5	1	3	2	3	27
Bulgaria	4	3	4	2	7	7	4	3	1	35
Croatia	4	6	3	5	5	8	1	1	2	35
Cyprus	1	-	1	-	-	-	2	-	-	4
Czech Republic	1	6	4	6	3	4	3	3	1	31
Denmark	-	-	-	-	1	-	2	-	-	3
ECB	2	-	1	2	-	1	-	2	-	8
Estonia	4	4	3	5	2	4	1	3	2	28
Finland	1	1	1	-	-	-	2	2	1	8
France	-	-	-	-	1	-	2	-	-	3
Germany	1	-	-	1	2	-	1	-	-	5
Greece	-	1	-	-	-	-	-	-	-	1
Hungary	3	2	4	4	1	1	4	1	-	20
Iceland	-	-	-	-	-	4	1	1	-	6
Ireland	-	-	-	-	-	-	2	-	-	2
Israel	2	1	1	-	2	1	4	1	1	13
Italy	-	1	-	1	1	1	-	1	-	5
Kosovo	-	-	-	3	5	1	2	-	2	13
Latvia	4	4	4	6	4	5	3	2	1	33
Lithuania	3	5	4	4	3	5	3	3	1	31
Luxembourg	-	-	-	-	-	1	1	-	-	2
Macedonia, FYR of	4	3	3	5	4	4	5	5	2	35
Malta	1	-	2	1	-	2	1	1	-	8
Moldova	3	3	4	3	6	3	4	4	5	35
Montenegro	-	-	-	-	-	-	-	1	3	4
Netherlands	1	-	-	-	-	1	1	-	-	3
Netherlands Antilles	-	-	-	-	-	1	2	-	-	3
Norway	2	-	-	1	2	1	1	-	-	7
Poland	2	3	3	6	2	6	3	2	-	27
Portugal	-	1	-	-	1	-	-	1	-	3
Republic of Serbia	-	-	-	-	-	-	-	2	4	6
Romania	3	3	3	5	4	5	4	3	2	32
Russian Federation	7	6	7	9	6	8	4	3	4	54
San Marino	-	-	1	-	-	-	-	-	-	1

Serbia and Montenegro (Yugoslavia)	1	1	3	5	9	3	5	-	-	27
Slovak Republic	4	3	4	6	3	5	4	3	-	32
Slovenia	3	1	2	5	2	2	1	1	-	17
Spain	-	-	-	-	-	1	2	-	-	3
Sweden	-	-	1	-	1	1	-	-	-	3
Switzerland	-	-	1	-	-	1	2	-	-	4
Turkey	2	2	3	2	2	10	8	6	2	37
Ukraine	1	5	5	6	7	7	4	3	4	42
United Kingdom	-	-	-	-	2	-	2	-	-	4

Source: PATS System, IMF Institute (INSAV)

<sup>1</sup> Data from CY2008 is preliminary. Final data will be available in February 2009.

<sup>2</sup> Participants from EUR in STA courses through the IMF Institute program attended training in the following locations during the reported period: Joint Regional Training Center for Latin America in Brasilia (BT), IMF Institute, Washington D.C. (HQ), Joint Vienna Institute (JV) and IMF-Singapore Regional Training Institute (ST).

**Table 3. STA Courses Through the IMF Institute Training Program, FY03-08<sup>1,2</sup>**

Fiscal Year	Total # of courses	Course Title
FY2003	18	New Fiscal Data Framework Monetary and Financial Statistics Balance of Payments Statistics Government Finance Statistics Chinese Official Monetary and Financial Statistics National Accounts Statistics Monetary and Financial Statistics Balance of Payments Statistics Government Finance Statistics Financial Soundness Indicators External Debt Statistics Government Finance Statistics Monetary and Financial Statistics Monetary and Financial Statistics Balance of Payments Statistics The Construction and Analysis of Price Indices Balance of Payments Statistics Quarterly National Accounts
FY 2004	20	External Debt Statistics Financial Soundness Indicators Monetary and Financial Statistics Government Finance Statistics Monetary and Financial Statistics Government Finance Statistics Balance of Payments Statistics Monetary and Financial Statistics The Environment and Its Implications for the Fund Balance of Payments Statistics Financial Soundness Indicators Quarterly National Accounts Statistics Balance of Payments Statistics Monetary and Financial Statistics Monetary and Financial Statistics Government Finance Statistics Financial Soundness Indicators External Debt Statistics Price Statistics Monetary and Financial Statistics
FY2005	22	Quarterly National Accounts Statistics Balance of Payments Statistics Monetary and Financial Statistics Government Finance Statistics Quarterly National Accounts

Use of Macroeconomic Statistics for Policy Analysis and Decision Making

Monetary and Financial Statistics

National Accounts Statistics

Government Finance Statistics

Government Finance Statistics

Monetary and Financial Statistics: Compilation and Reporting

Monetary and Financial Statistics

Government Finance Statistics

External Debt Statistics

Monetary and Financial Statistics

Data Template on International Reserves and Foreign Currency Liquidity

Monetary and Financial Statistics: Compilation and Reporting Issues

National Accounts Statistics

Balance of Payments Statistics

Balance of Payments Statistics and International Investment Position

Financial Soundness Indicators

Monetary and Financial Statistics: Compilation and Reporting

FY2006

29

Monetary and Financial Statistics

External Debt Statistics

Financial Soundness Indicators

Monetary and Financial Statistics

External Debt Statistics

Price Statistics

Monetary and Financial Statistics

Balance of Payments Statistics

Government Finance Statistics

External Debt Statistics

External Debt

GFS Manual 2001

Workshop on Compiling Financial Soundness Indicators

Using the Balance Sheet Approach in Surveillance: Framework, Data Sources and Data Availability

Using the Balance Sheet Approach in Surveillance: Framework, Data Sources and Data Availability

External Debt Statistics

Monetary and Financial Statistics: Compilation and Reporting Issues

Monetary and Financial Statistics

Coordinated Compilation Exercise for Financial Soundness Indicators

Monetary and Financial Statistics

External Debt Statistics

Government Finance Statistics

		<ul style="list-style-type: none"> <li>Monetary and Financial Statistics</li> <li>External Debt Statistics</li> <li>Government Finance Statistics</li> <li>Data Template on International Reserves and Foreign Currency Liquidity</li> <li>Balance of Payments Statistics</li> <li>Monetary and Financial Statistics</li> <li>Financial Soundness Indicators</li> </ul>
FY2007	24	<ul style="list-style-type: none"> <li>Financial Soundness Indicators</li> <li>Monetary and Financial Statistics</li> <li>Government Finance Statistics</li> <li>Balance of Payments Statistics</li> <li>Banking Statistics on Cross-Border Flows: Compilation and Monitoring</li> <li>National Accounts Statistics</li> <li>Balance of Payments Statistics</li> <li>Monetary and Financial Statistics</li> <li>Government Finance Statistics</li> <li>Monetary and Financial Statistics</li> <li>International Reserves</li> <li>The Public Debt Template - A Framework for Analyzing Public Debt Statistics</li> <li>Statistical Methodology for Treating HIPC/MDRI Debt-related Transactions in the Balance of Payments</li> <li>Compiling Financial Soundness Indicators</li> <li>International Trade-in-Services Statistics</li> <li>Balance of Payments Statistics</li> <li>Government Finance Statistics</li> <li>National Accounts Statistics</li> <li>Government Finance Statistics</li> <li>Balance of Payments Statistics</li> <li>Financial Soundness Indicators</li> <li>Price Statistics</li> <li>Data Template on International Reserves and Foreign Currency Liquidity</li> <li>Financial Soundness Indicators</li> </ul>
FY2008	26	<ul style="list-style-type: none"> <li>Financial Soundness Indicators</li> <li>Monetary and Financial Statistics</li> <li>Balance of Payments Statistics</li> <li>Price Statistics</li> <li>Monetary and Financial Statistics</li> <li>Balance of Payments Statistics</li> <li>Monetary and Financial Statistics</li> <li>Balance of Payments Statistics</li> <li>External Debt Statistics</li> <li>Government Finance Statistics</li> <li>Monetary and Financial Statistics: Standardized Report Forms and Balance Sheet Approach</li> </ul>

Introduction to the New Balance of Payments and  
International Investment Position Manual (BPM6)  
Implementing the GFSM 2001-The Experience of the Pilot  
Studies  
Remittances in the Balance of Payments Framework  
(BPM6)  
Monetary and Financial Statistics  
External Debt Statistics  
Monetary and Financial Statistics  
External Debt Statistics  
Monetary and Financial Statistics  
Balance of Payments Statistics  
Monetary and Financial Statistics  
Government Finance Statistics  
Financial Soundness Indicators  
Balance of Payments and International Investment Position  
Manual (BPM6)  
Government Finance Statistics  
Quarterly National Accounts

Total

139

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Source: PATS System, IMF Institute  
(INSAV)

<sup>1</sup> All IT INS-STA courses were taught through the Internal Economics Training Program for IMF staff, all other courses were for external participants.

<sup>2</sup> Abbreviations refer to the following training programs: Joint Regional Training Center for Latin America in Brasilia (BT), Joint China-IMF Training Program (CT), IMF Institute, Washington D.C. (HQ), Internal Economics Training Program (IT), Joint IMF-India Training Program (IP), Joint Africa Institute (JA), Joint Vienna Institute (JV), IMF-AMF Regional Training Program (RT), and IMF-Singapore Regional Training Institute (ST).

**Table 4. Participation by IMF Staff in Internal Economics Training Events, FY2003-2006**

	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	Total
Total	3385	3448	4247	4679	4058	4237	24054
Courses	739	785	987	1,107	1,089	949	5656
Seminars	2588	2416	2631	2,741	2,550	3,087	16013
Financial Programming and Policy Workshop	0	25	97	94	73	57	346
High-Level Luncheons	0	27	69	55	13	32	196
Joint INS-Fiscal Department (FAD)	0	0	0	38	0	0	38
Joint INS-Monetary and Capital Markets Department (previously MFD)	0	0	113	404	194	0	711
Joint INS-Policy Development and Review (PDR)	58	87	316	77	35	0	573
Joint INS-Research Department (RES)	0	0	34	0	0	0	34
Joint INS-STA	0	32	0	163	104	112	411
Joint INS-Western Hemisphere Department (WHD)	0	76	0	0	0	0	76

Source: IMF Institute, PATS System