L. CHENGRUI

APPENDIX IV

List of main Universities and Institutes that have Departments or Disciplines of Statistics in China

The Chinese People's University
Beijing University
Nankai University
Fudan University
Xiamen University
Jinan University
The China Science and Technology University
Tianjin Institute of Finance and Economics
Xian Statistics Institute
Shanxi Institute of Finance and Economics
Liaoning University of Finance and Economics
Shanghai University of Finance and Economics
Jiangxi Institute of Finance and Economics
Zhongnan University of Finance and Economics
Hunan Institute of Finance and Economics
Sichuan Institute of Finance and Economics
Shaanxi Institute of Finance and Economics
Hebei Geological College
Northwestern Teachers' College
Zhejiang Polytechnical School of Metallurgy and Economics

CHAPTER 11

The Teaching of Statistics in Vietnam

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11.1 BRIEF DESCRIPTION OF THE SRV EDUCATIONAL SYSTEM

The Socialist Republic of Vietnam has an area of 329,566 sq. km. According to the national census of 1 October 1979, Vietnam's population stood at 52,741,000. At present, the total population (1985 estimate) is 57,372,000.

Since 1945, education in Vietnam has made significant steps forward and has gone through many reforms. The last educational reform beginning in 1981 aimed at modernizing the general education program and setting up a national system of schools: the basic (primary) general education schools (8 year) and the secondary general schools (4 years). In the 1981–1982 school-year, the whole country had 313,000 general education classes of all levels with an enrolment of 14 million pupils.

So far, Vietnam has 95 institutions of higher education with 18,720 lecturers and professors and 278 secondary vocational schools with 11,000 teachers.

For a long time, Vietnamese has been the medium of teaching. Many textbooks in Vietnamese have been published.

11.2 EDUCATIONAL AND TRAINING PROGRAMS

In Vietnam, statisticians are trained mainly in the universities and colleges. Currently, many institutions of higher education such as University of Hanoi, University of Ho Chi Minh City, Can tho University, Hanoi Polytechnic, Economics and Planning College, Forestry College, Medical College of Hanoi, Water Conservancy College, etc, offer courses in statistics. Programs vary from one institution to another. Here, we only mention the educational programs of some typical institutions.

The University of Hanoi (established 1956) comprises faculties of mathematics, physics, chemistry, biology, etc.

Presently, in the faculty of mathematics, the basic course in probability and statistics is given in 2 modules:

* Institute of Mathematics.
** Hanoi Polytechnic.
*** University of Hanoi.

Theory of Probability (75h)
- Definition of the probability of a random event, of a probability space
- Distribution laws of random variables
- Characteristic values of random variables such as expectation, dispersion, moments, etc
- Characteristic function and its applications
- Laws of large numbers and strong laws of large numbers
- Central limit theorems.

Theory of Mathematical Statistics (90h)
- Sampling Theory
- Statistical models and statistical decision problems
- Theory of point and interval estimation
- Selected chapters of the theory of testing statistical hypotheses, and the basis of dispersion analysis
- Theory of linear and nonlinear correlation and regression
- Practical methods of data analysis.

Every year, there are 2–3 diploma students in statistics.

Usually, these graduates become lecturers or researchers in statistics and probability. But sometimes they enter the Government services as junior statisticians.

The Hanoi Polytechnic (established 1956) comprises many faculties. The main aim of the faculty of mathematics is to train mathematical engineers or applied mathematicians. This faculty offers the following courses in statistics and probability:

- Probability (90h)
- Statistics (60h)
- Random Processes (45h)
- Time Series and Forecasting (45h)
- Random Models (45h): queues, inventories, ..

Every year, about three or four students make their diploma on statistics. These graduates find jobs in research institutes, in colleges, in local or central offices.

In Hanoi polytechnic, a 50-hour probability and statistics course is given also to students of other faculties.

The Economics and Planning College has faculties of industrial economics, agriculture, transport, commerce, foreign relations, statistics, planning, etc.

In many faculties, there are courses in mathematical analysis, statistics and probability (50h–70h), linear programming, etc.

The graduates may enter the various central or local offices such as the State Statistical Bureau, the Ministry of Finance, the Ministry of Labour, etc.

Advanced courses. The Department of probability and statistics (Institute of Mathematics) has organised 2-week or 3-week courses in Statistical Quality Control, Econometrics, Experiment Design, Statistical packages.

Many foreign professors visited the Institute of Mathematics and trained our senior statisticians, lecturers, researchers with the following advanced courses: Statistical Inference of point processes, Robust Procedures, Data Analysis, Time Series Analysis, Sequential Decision, etc.

There are also many courses in medical statistics (National Institute of Hygiene and Epidemiology), in sampling techniques (State Statistical Bureau), and in biometrics (Can tho University).

The 1983 Nha trang summer school on statistics and the 1984 Quang ba Winter school on filtering theory has been organised.

11.3 CONCLUDING REMARKS

Vietnam has not yet a statistical training centre but some training activities are carried out. Our lecturers need contacts and links with specialists in the developed countries to exchange information and professional experience.