THE TRAINING OF RESEARCHERS AND TECHNICIANS IN THE STATISTICAL SCIENCES IN SPAIN

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The specialists in Statistics and Operational Research in Spain until now have been recruited among the bachelors in Mathematics, Economy, Engineering, etc., since there was not a curriculum of Statistics. As a consequence, in the last years it has been created the curriculum of graduate in statistics in various Spanish universities, with various directions according to each university. Thus, in some of them is linked to Computer Science, in others to Economy, and in others to Engineering. Therefore, professional statisticians will soon appear in Spain. Due to the recent creation of this curriculum, is not known the effect in the occupational market of this set of professionals.

The studies of the Diplomatura of Statistics (3 years), are directed to form professional of middle level, with possibilities to solve statistics problems in small companies. However, there was a need for top-level specialists, to carry out top-level research, to solve Operational Research problems in large companies or in Public Administrations. It was needed a most complete conception of the methods and current techniques of the Statistics for their application in different activity fields where this discipline has a fundamental impact. In order to solve the lack of professionals, since 1996-97 it has been introduced in some Spanish universities, such as Granada, the curriculum of Bachelor in Statistical Sciences and Techniques, with a duration of two years.

This new curriculum continues the Diplomatura, but it is opened to other curricula, as Economy, Mathematics and Engineering. The difference between Mathematicians and the Statisticians that have followed these new studies is the professional aspect. The theoretical formation is only a part of the training, and not the most important. The aim is on statistics application in different fields, and the computational preparation is followed through different disciplines, practising with different statistical packages. There are two classes of courses: obligatory and optional. The first cover the basic knowledge of statistics, probability and operational research (stochastic processes, multivariate analysis, inference, programming), and the second cover the fields of applications (education, demography, engineering, social sciences, biostatistics, economic). The methodology is based on the fact that any theoretical result

must support applications, and the computer is a necessary tool at any time. The first promotion of these students will enter the occupational market the summer of 1998.

The third cycle (doctorate) will begin the course 1998-99, so that the students that complete the second cycle could enter the third cycle studies, and is oriented to the training of researchers and top-level specialists. During this period, the students take contact with research and with statistical projects.