

60th Anniversary of Statistics at the University of Economics in Prague

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INTRODUCTION

Celebrations of the 60th anniversary of the birth of University of Economics in Prague (VŠE) this autumn is a good opportunity to mention the beginning of activities of statisticians at this university. The article² deals with the establishment of Statistical Department in historic relations and its development and activities in the first 15 years. We prepare other contributions extending the assessment of activities of statisticians at the University of Economics in the following decades and dealing with the latest work results of Statistical Departments at the University of Economics.

1 STATISTICAL STUDIES PRIOR TO THE ESTABLISHMENT OF THE UNIVERSITY OF ECONOMICS

Predecessor of statistical study branch at the University of Economics was a 4-semester statistical and insurance study developed at the University of Special Sciences (VŠSN) of the Technical University (ČVUT). **The teaching of probability theory and mathematical statistics (including insurance technique and also a number of economic subjects)** has been extended and gradually modernized in this branch of study, and especially since the 30th. An outstanding representative of this branch was since 1929 PhDr. Jaroslav Janko (1893–1965),³ developing also application of statistics in demography and socio-economic statistics.

The efforts to transform the above mentioned two year course (introduced as early as in the study year 1904/05) into full-time four-year university study of statistical and insurance engineering started as early as in the 30th, was, in 1946,⁴ crowned with success thanks to prof. Janko. Similarly, as in previous two year study, the students graduated in addition to difficult mathematical and statistical subjects also in practically aimed lessons and seminars. In the latter half of the study students could specialize in application of statistics in a) business practice, b) insurance and financial institutions, c) public administration. The first students successfully graduated in the spring 1947. Among the graduates were also the future representatives of statistics at the University of Economic: prof. Korda, prof. Cyhelský, prof. Likeš, prof. Walter, prof. Novák, doc. Hátle and others.⁵

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³ J. Janko completed his habilitation in 1929 in the branch of insurance mathematics and mathematical statistics and two year later he was appointed as associate professor and in 1936 professor. For the whole time of existence of the inter-war Czechoslovak Statistical Society (1929–1939) Janko acted as a secretary.

⁴ Act No. 122 Sb., of 16 May 1946 regulating the statistical and insurance study.

⁵ After restructuring of this branch, some had to finish their studies elsewhere – see below.

At the Faculty of Natural Sciences of the Charles University (as early as from 1921) the cycles of lessons on insurance mathematics and statistics took place simultaneously. Emil Schönbaum (1882–1967) was in 20th–40th a representative of this branch. The above mentioned act was also this courses changed into a four year study, contrary to the University of Special Sciences (VŠSN) aimed more on theory and application in natural sciences. Some special lessons took place for both students of technology and university students (elsewhere in Czechoslovakia it was impossible then to reach qualification in statistics).

Historic predecessor of the University of Economic was the University of Business (VŠO) existing in 1919–1953 within the ČVUT. Statistics has been read here since the 30th by JUDr. Ing. Leopold Šauer (1901–1983).⁶ He published a number of remarkable works mostly aimed at the economic statistics using modern statistical methods.

In our country future national economists and financial specialists were traditionally taught at faculties of law (first three rectors of the University of Economics graduated there). At the Charles University statistics in addition to constitutional law was lectured by prof. Cyril Horáček jr. (1896–1990), who, however, did not contributed much to the development of the Czech statistics. The University of Political and Social Sciences (VŠPS),⁷ established in 1945 was from many aspects rather special and started teaching in the summer semester in 1946. Statistics and demography was lectured here by doc. Antonín Boháč (1882–1950) and prof. Jaromír Korčák (1895–1989).

Conditions for activities of universities in Czechoslovakia began to change dramatically with the start up of the communist regime in February 1948. Universities which did not enjoy confidence from totalitarian regime despite frequent reforms and drastic cleansings were deprived of their hundred year autonomy and were subject to command control.⁸ Simultaneously, longer than a decade of permanent changes in university organization began. Often a trial-and-error method⁹ was applied since neither resounding worship of Soviet samples usually did lead to a definite solution not mentioning disagreements between the communist bodies and officials. However, there existed a general agreement concerning the need to liquidate the University of Business which earlier “served the interests of bourgeoisie and trained devoted servants – helpers of exploiters”.¹⁰

In 1949 an opinion dominated saying that the education of elite communist cadres for economic management, public administration, diplomacy and for teaching of Marxism-Leninism should be concentrated in a new university, directly controlled in terms of ideology by cultural and propagational department of the Central Committee of the Communist Party of Czechoslovakia. This gave the birth in the school year 1949/50 to the University of Political and Economic Sciences (Vysoká škola politických a hospodářských věd – VŠPHV) along with Faculty of Economics, Faculty of Politics and Diplomacy and Faculty of Social Sciences.¹¹

University of Business (gradually reformed and in 1948 renamed to University of Economic Sciences, in 1951 then to the Faculty of Economic Sciences of the Czech Technical University) was (by the act mentioned in note 12, sec. 3) gradually liquidated (i. e. from the study year 1949/50 new students were not accepted) and definitively was closed down on 31 July 1953. Similarly, also the University

⁶ He habilitated in 1936, as an associate professor he was appointed in 1946, in 1947 professor.

⁷ It was composed of Political, Journalistic and Social Faculty.

⁸ Especially by Act No 58 Sb., dated 18 May 1950 regulating universities.

⁹ Under sec. 3 of Act mentioned in previous note a mere government decree was sufficient to control, cancel, divide or merge a university and faculty.

¹⁰ Compare Závodský, 1999, p. 54.

¹¹ Act No. 227 Sb., of 4 November 1949 regulating the establishment of the University of Political and Economic Sciences in Prague.

of Political and Social Sciences ceases to exist. Faculties of law which before 1948 enjoyed among the representatives of the Communist Party of Czechoslovakia the reputation of a stronghold of reaction, upon the short-cut of the period of study and their reform ceased to be centres of national economic science, Faculty of Law in Brno was in 1950 closed down completely.

As soon as two years after the birth of the University of Political and Economic Sciences (VŠPHV) criticism of this concept of economic studies was gaining strength. Bureaucracy in the management of national economy required thousands of “economists with Marxist education”,¹² while as late as in 1953 the first three hundred of graduates were supposed to leave the Faculty of Economics. In addition, only two year study of economic subjects (following previous joint basic subjects) did not provide the students with proper education, not mentioning necessary specialization.

Final decision was adopted in summer 1952. Uncommon concept of the University of Political and Economic Sciences (VŠPHV) was marked as a consequence of “saboteur” policy of Rudolf Slánský and his subversive centre. The then proposal of the State Committee for Universities (body of the Ministry of Education) concerning the establishment of an independent University of Economics with substantial extension of the Faculty of Economics of the VŠPHV¹³ was adopted. In addition, economic and engineering faculties were established at technical universities¹⁴ and faculty of economics and management at agricultural universities.

By the government decree dated 19 August 1952¹⁵ it was decided (this time well in advance) on establishment of University of Economics (VŠE, as of 1 September 1953) with 5 faculties: General-Economics Faculty, Faculty of Production and Economics, Faculty of Internal Trade,¹⁶ Faculty of Finance and Credit and Faculty of Statistics.¹⁷ For the whole study year 1952/53 new employees joined the Faculty of Economics of the University of Political and Economic Sciences (mostly young graduates of universities), new departments were founded, for separate future faculties new “representatives” were appointed, new political committees were constituted, and other similar things.

Let us go back to topical issues of fostering statistics at the Czech universities. Opinions concerning the concept of statistics and its place in the system of sciences has been different basically from the very beginning in world and Czech literature. Most often it referred to a dispute whether or not statistics is to be understood as methodological (universal) science, i.e. science of methods based on the theory of probability and applicable in various social and natural sciences¹⁸ or subject-matter science (material) in which the subject of research is an individual, society, economics and other similar things. Both these concepts co-existed long-term and outside the Soviet Union as its satellites and nobody felt the need to develop generally binding definition of statistics – discipline which during the whole XXth century went through a stormy process.

¹² The need was so urgent that at the turn of the 40th and 50th thousands of specialists were forced to leave due to political reasons their posts in economic sphere and state administration.

¹³ The entire VŠPHV was closed down, the remaining faculties were in a different way incorporated into Charles University.

¹⁴ Faculty of economics and engineering at the Czech Technical University acted in 1952–1960, and at the Technical University in Ostrava since 1953.

¹⁵ Government decree No. 40 Sb., of 19 August 1952 regulating other changes in organization of Universities, sec. 7.

¹⁶ As of 1 September 1953 included was the foreign trade branch, newly renamed as the Faculty of Internal and Foreign Trade, since 1 September 1959 the Faculty of Trade.

¹⁷ Gottwald’s thesis on basic law of the development in democratic countries which means to get closer and closer to the soviet model was then interpreted in the field of education as a need to establish narrowly specialized universities and faculties under the model of soviet institutions.

¹⁸ This concept is known e.g. from an important (first) Czech text-book of modern statistical methods written by Kohn, S. *Základy teorie statistické metody* (Basics of theory of statistical methods), 1929.

In the Soviet Union as early as since the 40th a discussion on the substance of statistics,¹⁹ took place as well as on its relation to mathematics, theory of probability and other similar things. The outcome was a binding resolution adopted in the spring 1954 saying that statistics (=social economic statistics) “is an independent social science investigating quantitative side of mass social phenomena in close relationship with their qualitative side.... Theoretical basis of statistics is historical materialism and Marxist-Leninist political economy”.²⁰ This was the source of claiming that statistics is a science of classes and parties and that the fight against bourgeois statistics is inevitable. Theory of probability and mathematical statistics were separated from statistics and as part of mathematics were included into natural sciences. Restricted use of these disciplines in statistics was admitted (and vice versa: statistical methods were used in natural sciences).

Opinions of soviet statisticians has become binding for us soon after 1948. The study of statistical and insurance engineering at the University of Special Sciences (VŠSN) showed in 1949 radical changes. First, by exclusion of insurance mathematics²¹ and “bourgeois pseudo-sciences” (econometrics, biometrics, psychometrics) it was transformed to statistical engineering²² and then divided into study of mathematical statistics whose representative was prof. Janko, and study of economic statistics headed by prof. Egermayer.²³ As of 1 September 1952 the Faculty of Special Sciences (change of the name into “faculty” took place a year earlier) was closed down.²⁴ Prof. Janko with his mathematical statistics was transferred to a new Faculty of Mathematics and Physics of the Charles University.²⁵ Students who in the study year 1951/52 finished the 2nd or 3rd years of economic statistics, left along with prof. Egermayer, for a new established Faculty of Economics and Engineering (FEI) of the Czech Technical University where they were enabled to finish their study under a special programme.²⁶ Students who in 1952 finished the 1st year of economic statistics, were transferred to the Faculty of Economics of the University of Political and Economic Sciences (VŠPHV).

Faculty of Economics like the whole University of Political and Economic Sciences (VŠPHV) was constituted gradually (in the study year 1949/50 there were only students of the first year). As “revolutionary” school it did not comply with academic established practice – it accepted mostly applicants without secondary education but properly screened and also teachers became, apart of some exceptions, fresh graduates of universities with required class origin. As a first Czech University the VŠPHV (in 1952) introduced also the distance study.

Teaching of statistics for different specializations at the University of Political and Economic Sciences (VŠPHV) was first provided by the Department of Finance and Credit where in 1951 the statistical division was established (the only member was Augustin Hlaváček), lectures were mostly by visiting teachers.²⁷ On the basis of university text-books and syllabus the initial level of teaching can be characterized as poor. Texts

¹⁹ There were no doubts about the importance of statistics in the system of sciences since under V. I. Lenin statistics were “one of the most powerful tools of social recognition”.

²⁰ Quoted from Egermayer, 1957, pp. 57–58.

²¹ Insurance mathematics showed as useless in the conditions of planned economy when there existed the only (state) insurance agency, insurance premium was generally rather overstated and the obtained surplus represented a constant income of the state budget.

²² Compare Herbst, Hlaváček, 1952.

²³ Prof. František Egermayer (1913–1989) habilitates at the Czech Technical University in 1946, the following year he was appointed a associate professor and director of the Institute of mathematical and applied statistics at the University of Special Sciences.

²⁴ Cited Government decree No. 40/1952 Sb., section 3.

²⁵ Here, the branch was linked with the study transferred here from the Faculty of Natural Sciences (see above) At the Faculty of Mathematics and Physics the “mathematical formalisms” were tolerated.

²⁶ After completion of studies (1954) statistical branch at Faculty of Economics and Engineering (FEI) again ceased to exist.

²⁷ Compare Cyhelský, 1992, pp. 4–5.

contained especially hastily translated texts of Soviet authors explaining merits of Lenin²⁸ and Stalin. The top of the theory of statistics was the Leninist method of classification (“grupirovka“), means²⁹ and simpler indexes.³⁰

An independent Statistical Department was established on 1 August 1952 managed externally by Ing. František Herbst.³¹ Besides both above mentioned also Ing. Lubomír Cyhelský³² joined the department. Since autumn 1952 the Faculty of Economics had 110 students of the first and second year of full-time study of statistics, from November also 13 distant student, and the establishment of the University of Economics had been under preparation. It was necessary to extend the Department of Statistics. Gradually the following teachers were accepted: Ing. Bohumil Řežníček, Ing. Benedikt Korda,³³ Ing. Eduard Link³⁴ and Ing. Jaromír Walter.³⁵ The teaching at the department was continuously contributed to by external teachers, e.g. by prof. Egermayer and especially RTDr. Ing. Jaroslav Hájek, who published here his first teaching study *Teorie výběrových šetření* (Theory of sample surveys, 1955).³⁶

2 AT THE FACULTY OF STATISTICS OF THE UNIVERSITY OF ECONOMICS

In the summer semester 1952/53 the Faculty of Economics was intensively preparing for the birth of the University of Economics. As a sample for the Faculty of Statistics was chosen the Moscow Institute of Economics and Statistics (MESI),³⁷ yet it was accepted that the conditions for Prague Faculty of Statistics are rather different. The Faculty was composed of two departments – Department of Statistics headed by doc. Link³⁸ and Department of Mathematics headed by doc. Ferdinand Veselý (1903–1958). As of 1 July 1953 doc. Link was charged by the Ministry of Universities to perform also the post of vice-rector of the University of Economics³⁹ and doc. Veselý by the post of dean of the Faculty of Statistics. In September Ing. Walters was appointed vice-dean.

At the beginning of the study year 1953/54 the department of statistics was extended by Ing. Ilja Novák,⁴⁰ Ing. Vladimír Roubíček,⁴¹ Ing. Jan Zelinka,⁴² Ing. Jan Vraný, and altogether the department employed the total of 10 statisticians (after the leave of Ing. Řežníček there were 9 persons) and their average age was, by the end

²⁸ Vastly cited polemic articles of Lenin on statistical issues in tsarist Russia (using measurement units) only little contributed to the understanding of statistical methods applicable in new conditions of the planned economy in Czechoslovakia.

²⁹ A curiosity of that time was the inclusion of “progressive mean“ among the average values. This referred to a mean calculated from values higher than the mean (arithmetic).

³⁰ Of similar character were two-volume university texts (101 + 47 pages) by F. Egermayer for the University of Political and Economic Sciences called *Základy statistiky* (Basics of statistics) published in 1951.

³¹ F. Herbst (1909–1977) was then the vice-chairman of the State Statistical Office.

³² L. Cyhelský (*1929) had just finished studies of economic statistics at the University of Special Sciences, but, at the same time, he acted over a year in the sphere of national economic balances of the State Statistical Office.

³³ B. Korda (1914–2010) graduated in 1951 from statistical engineering at the University of Special Sciences and came to the faculty from the Ministry of Fuel and Energetics.

³⁴ The eldest member of the department E. Link (1907–1970) so far worked as a statistician at the Ministry of Internal Trade and externally he taught economic statistics at the University of Politics and Social Science.

³⁵ J. Walter (1923–2001) graduated from statistical-insurance engineering (1945–1949), and, at the same time, he had worked since 1947 as an assistant to prof. Egermayer.

³⁶ RTDr. (or Dr. techn.) was doctor’s degree of technical science, introduced in our country in 1901. Jaroslav Hájek (1926–1974) has become famous as the most distinguished Czech mathematical statistician.

³⁷ MESI was established in 1932 as obviously the first university in the world specialized in statistics – Moscow Institute of National Economy Records (MINCHU), named MESI from 1945.

³⁸ E. Link, B. Korda and F. Veselý were appointed “deputy readers“ – i.e. without habilitation. Candidature and habilitation in the future were expected.

³⁹ So far doc. Link had performed the post of pedagogical vice-dean of the Faculty of Economics.

⁴⁰ I. Novák (1927–2009) finished in 1951 statistical studies at the University of Special Sciences. He worked at the department of statistics a record time of 55 years.

⁴¹ V. Roubíček (1930–2005) joined the department as fresh graduate from statistical study at the University of Special Sciences/FEI.

⁴² J. Zelinka (1930–1994) also joined the department after graduation from statistical studies at the University of Special Sciences/FEI.

of 1953, 29.2 years (average age of a teacher at the University of Economics was then 30 years). The Faculty employed the total of 16 teachers of which none was professor nor habilitated docent.⁴³

For students of full-time and distance study only one branch of study existed at the faculty – statistics. Taken into account were later specializations: statistics of industry, statistics of trade, statistics of agriculture and mechanization of records (also the statistics of transport) but it showed purposeful taking into account only a few tens of students in a year. The Department of Statistics ensured the teaching of the theory of statistics and economic statistics for other faculties of the University of Economics – partly also with the help of external teachers (especially of branch statistics).

The programme of study was first composed by the model of MESI and soviet textbooks. In the following years students were provided with study texts prepared by members of the department. Their quality has been improving gradually, introduction chapters of quotations of communist classics became rare. A great emphasis was placed on elementary methods of descriptive statistics but gradually the explanation of regression analysis (so far it was called mathematical formalism) and sample surveys. This can be showed at the development of study texts *Soubor statí z teorie statistiky* (Set of papers from the theory of statistics),⁴⁴ through *Statistické metody* (Statistical methods),⁴⁵ up to the by a minister approved university textbook *Obecné metody statistiky. Učebnice* (General statistical methods. Textbook)⁴⁶ from 1959, which contains only explanation of rather extended choice of statistical methods and completely leaves out Marxists introduction or framework of a lecture. In introduction the methodological concept of statistics was defended as one of possible and reasonable⁴⁷ which a few years earlier would be qualified as outrageous heresy.⁴⁸

In the teaching of economic statistics first the soviet models were completely taken over, teaching was limited often to the description of the contents of lists of surveyed indicators without explanation of total aiming and mutual interrelations. In the next years the explanation gradually took place on more general level. As an example can serve mainly works of B. Korda, main representative of economic statistics at the department in the 50th out of which we can mention at least the monograph *Ekonomické indexy* (Economic indexes, Prague: ČSAV Publishers, edition Rozpravy ČSAV, 1954, p. 116) and more concise work *Měření produktivity práce* (Measurement of labour productivity, Prague: State Statistical Office, printed by SEVT, edition *Otázky statistiky*, 1957, p. 92). A wide team of authors of the members of department headed by B. Korda published in 1960 also the first book *Učebnice ekonomické statistiky* (Textbook of economic statistics, Prague: SNPL/SVTL, 1960, p. 434).

Let us return now to personal cast of the statistical department in the study year 1954/55. The main representative at the department were the following: doc. Korda who made his habilitation at the faculty and in the summer semester he took over the management of the department after doc. Link, Ing. Walter, in the next year mainly Ing. Cyhelský. A. Hlaváček⁴⁹ left the department and

⁴³ Dean Veselý did not even have a doctor's degree. For comparison – at the Department of Statistics of FEI there worked two professors.

⁴⁴ Written by the team of 5 authors from the Department of Statistics, Prague: SPN, 1954, p. 320.

⁴⁵ Authors of majority of texts were the following Novák, I., Korda, B., Walter, J., Prague: SPN, 1956, p. 382.

⁴⁶ A decisive share in the text belonged to I. Novák (edition included) and B. Korda, participation of other authors (mainly J. Walter) was substantially smaller. Prague: SNPL, 1959, p. 376.

⁴⁷ "Live-span of the concept of statistics as a methodical science cannot be denied, it is attested by the scope of works designed in the spirit of this concept." (quoted work, p. 11) "Enforcement of the concept of statistics exclusively as the subject-matter social science had then a consequence that mathematics was completely driven away and that the statistical methods were made flatter and this led in final consequences to a certain statistical primitivism." (quoted work, p. 12)

⁴⁸ Let us remind that, on the contrary, e.g. in the Soviet Union or GDR the text-books of basics of statistics usually contained up to the 80th wide explanation of Marxism Leninism as the basis for statistics.

⁴⁹ Work of A. Hlaváček (*1921, graduate of the University of Political and Social Science) was criticized at the department, Hlaváček then started to perform practical statistical tasks.

newly was accepted Ing. Jara Kaňoková⁵⁰ and Ing. Josef Kašpar.⁵¹ In the study year 1955/56 the department was strengthened by Ing. Václav Čermák⁵² and Ing. Luděk Rychetník.⁵³ Doc. Korda was appointed the dean of the faculty.

At that time the original ideas on fast development of the Faculty of Statistics following the soviet MESI model appeared to be unfeasible. Due to a little concern of central bodies (including State Statistical Office) for new graduates the higher directive number for enrolment in the branch exceeding 15 applicants were not reached and further activity of the faculty with two departments (with the total number of 19 internal teachers) and 159 students (this made approximately 8.3% of full-time students of the University of Economics and special forms of study was enabled only to individuals) the management assessed the University of Economics as non-economic and prosed that the faculty be closed down.⁵⁴ Provisional administration de iure of still existing Faculty of Statistics was from the study year 1956/57 committed to the Faculty of Economics where the Statistical Department was practically transferred along with its study branch. After years of complains and deferments the government decree of August 1959 decided to merge the existing Faculty of Finance and Credit, Faculty of Statistics and General-Economics Faculty into Faculty of Political Economy⁵⁵ which in 1968 was named Faculty of National Economy.

3 REVIEW OF FURTHER DEVELOPMENT

Liquidation of the Faculty of Statistics was only one of series of radical changes in organization of statistical studies at the University of Economics. Department of Statistics provided from the establishment of the University of Economics also the education with important use of computer technology. At the beginning of the study year 1959/60 from the Department of Statistics and independent Department of Computer and Organizational Technology, predecessor of today information centres, was separated and headed by doc. Link. Next year the study of application of computer technology was raised up to a independent branch named mechanization of national economy record while statistics became for one year only s specialization within this branch.

At the beginning of the study year 1959/60 another new department – of scientific programming dealing with econometrics and operational research⁵⁶ was separated. Also doc. Korda was transferred there as its manager followed by Ing. Zelinka and Ing. Rychetník. From the study year 1961/62 a new branch of economic and mathematical calculations was established and the students there specialized during their study in statistics or in mathematical methods in economy.⁵⁷ The number of students in the branch in the 60th was about 50 in a class, only smaller part of them was specialized, as a rule, in statistics.

⁵⁰ J. Kaňoková (1932–2006) graduated from statistical studies at the University of Special Sciences/FEI.

⁵¹ J. Kašpar (1928–1968) finished his studies at the University of Economic Sciences in Bratislava (predecessor of local University of Economics) in 1953.

⁵² V. Čermák (*1932) belonged to the first 33 graduates of the Faculty of Statistics who were on 2 March 1956 awarded an academic degree in Carolinum. I am sorry that the graduate economist Čermák with academic award and his other colleagues are referred to in this study for simplicity sake as engineers despite the fact that they were awarded this degree (backward) as late as in 1966. (Act No. 19 Sb., dated 16 March 1966 on Universities, sec. 57).

⁵³ L. Rychetník (*1933) was also a fresh graduate of statistics at the University of Economics.

⁵⁴ Compare Minutes No. 34 of the meeting of collegium of the rector held on 14 June 1955. Registry of the University of Economics.

⁵⁵ Government decree No. 58 Sb., dated 12 August 1959 on changes in organization of Universities, sec. 12. Merge took place in compliance with the general trend to repeatedly close down or merge many universities and faculties born at the beginning of the 50th.

⁵⁶ Since the econometrics was remembered by the approving comrades the rejected bourgeois pseudoscience, the department could obtain today name Department of Econometrics at more liberal atmosphere as late as in 1966.

⁵⁷ Statistics was excluded from the field of mechanization of national economic records.

After the leave of doc. Korda the department was headed in 1959–1961 by doc. Walter⁵⁸ and when doc. Walter followed doc Korda to his department, doc. Kašpar, a remarkable representative of economic statistics at the University of Economics in the 60th⁵⁹ became the head of the department. He became famous mainly by monograph *Typologie ekonomických veličin* (Typology of economic magnitudes),⁶⁰ in 1965–1966 he was vice-dean for scientific activity and then he left for New York where he worked in the statistical office of the OON. Due to his serious illness he was forced to return soon and in 1968 he died.

Since 1962 the development of the Department of Statistics had been connected for the whole 28 years with the name of its head – L. Cyhelský. In 1961 he habilitated, in 1969 he was awarded the professor degree and the degree of doctor of science (Dr.Sc.) was awarded to him in 1981. In 1966–1970 he took the post of vice-dean for scientific activity and on the distance study. He is an authors or co-author (often with J. Kaňoková and I. Novák) of major part of text-book of basics of statistic and descriptive statistics which were published thanks to the department (during fifty years they totalled – including study-books- about 50) as well as tens of specialized or popularizing articles. In 1979 he was elected member of the International Statistical Institute (ISI). At the University of Economics he read lessons for long 50 years (until 2002) and so far he co-operates with the department.

The scope of the article does not enable to describe systematically six decades of extensive activities of statisticians at the University of Economics. Let us summarize further development only in brief and let us end in 1968 when the University of Economics under the dramatic circumstances commemorated on 1st September the 15th anniversary of its establishment. In 1960–1964 many new members of staff was admitted to the department with experience from previous work: Ing. Jaroslav Jílek (1931–2007), Ing. Jiří Likeš (1929–1994), Ing. Jaroslav Hátle (1928–1987), Ing. Josef Kozák (1931–2005), Ing. Eduard Souček (*1935) and Ing. Jiřina Moravová (*1932). Out of young assistants who in these years joined the department let us mention Ing. Petr Hebák (*1940), Ing. Jana Kahounová (*1941), Ing. Jan Seger (*1938), Ing. Milan Matějka (*1938) and Ing. Jiří Hustopecký (*1940).

The growth of the department continues in the next years, until 1969 the department was joined gradually by the following persons: Ing. Jiří Kejkula (1943–1982), Ing. Pavel Berka (*1938), Ing. Jiří Žváček (*1943), Ing. Prokop Závodský (*1944) and graduate mathematician Felix Koschin (1946–2009).

From the half of 60th the department provided the students with all basic training in all basic statistical subjects – from descriptive statistics over the theory of probability and mathematic statistics, sample surveys, regression and correlation analysis, time-series analysis and prognostic methods, etc. to economic statistics, some branch statistics and demography. For majority of these subjects the students have at their disposal study texts and other were published continuously. Since the end of the 60th more often computer technology was used in teaching and in scientific activity of the department.

In international context J. Likeš is considered the most important statistician from the University of Economics since he is an author of a number of scientific texts published in prestigious foreign periodicals – from the area of mathematic statistics, theory of probability, design of experiments and their assessment and other similar things.⁶¹ At the University of Economics jointly with J. Hátle they

⁵⁸ In his scientific and pedagogical work he dealt with mainly applications of mathematic statistics in the area of economic phenomena and processes especially through sample surveys and statistics of consumption.

⁵⁹ In 1961 he was awarded an academic degree of associate professor (docent) on the basis of his habilitation work in previous year. In 1964 he became a member of the Czech delegation in standing committee of CMEA for statistics, etc.

⁶⁰ Prague: Research Institute of Statistics and Accountancy, 1968. English version was published in 1969.

⁶¹ In the database Web of Knowledge J. Likeš k has as of 1 March 2013 the total of 56 quotations (without quotations of his own works), most frequently (27times) the text Prediction of s-the ordered observation for the two-parameter exponential distribution (*Technometrics*, Vol. 16, 1974, pp. 241–244) is quoted.

provided for lessons of theory of probability and mathematical statistics and wrote, among other things, *Základy počtu pravděpodobnosti a matematické statistiky* (Basics of probability number and mathematical statistics, 1972, 2nd edition 1974). Let us also mention his (Likeš) *Navrhování průmyslových experimentů* (Design of industrial experiments, 1968) and *Základní statistické tabulky* (Basic statistical tables along with J. Laga, 1978, published in Moscow in Russian translation).

V. Čermák,⁶² author of numerous works of this field, devoted his time to the problems of sample surveys following J. Walter. Of his numerous works in this field let us mention an extensive monograph *Výběrové statistické zjišťování* (Sample surveys, Prague: SNTL/ALFA, 1980). Great attention had always been devoted at the Department of Statistics to the time series analysis and problems related to their prognostic application. The most remarkable specialist with international prestige was J. Kozák (at the beginning he developed especially the theory of sample surveys with applications in agriculture), author of numerous scientific works and study texts dealing with these issues – some in co-operation with J. Seger.

After the death of doc. Kašpar the main representative of economic statistics at the department became J. Jílek. As a co-author he contributed during the time to four basic text-books of economic statistics and published over two hundred of scientific and technical articles. Main attention was devoted to problems of production measurement, mainly system inclusion of interdisciplinary balances (habilitation in 1968).

Demographic statistics since the 50th at the department of statistics was developed by V. Roubíček. After his habilitation (in 1967) he managed to establish in the spring 1968 an independent laboratory of demography. This little but active work-place had during the following two decades changed six times its status and classification out of long-term employees, let us mention F. Koschin.

Out of many other activities of the department let us mention at least long-term co-operation with statistical office,⁶³ which was contributed to by majority of staff of the department, membership in editorial councils of technical periodicals – *Statistika* (prof. Cyhelský, doc. Jílek, doc. Novák, from statisticians from VŠE originated also a remarkable part of articles), *Demografie* (doc. Roubíček), collections *Statistická revue* etc. Prof. Cyhelský was a member of the State Statistical Council since its establishment in 1967.⁶⁴

Readers of *Statistika* journal taking interest in activity of statisticians at the University of Economics will find what they search for in some of next editions. Topical information about contemporary three statistical departments at the Economic University is available at these web-sites.⁶⁵

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⁶² His other life-long specialization was the application of statistical methods in agriculture.

⁶³ Intentionally I do not mention precise name – statistical office during these 15 years was renamed 4 times.

⁶⁴ Later he was a member of the Czech and Federal Statistical Council.

⁶⁵ <<http://kstp.vse.cz>>, <<http://kest.vse.cz>>, <<http://kdem.vse.cz>>. At the Faculty of Management of the University of Economics in Jindřichův Hradec the teaching of statistics is provided by the Department of exact methods: <<http://www.fm.vse.cz/o-fakulte/katedry/katedra-exaktnich-metod>>.

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