03

THE HISTORY
OF STATISTICS
MODERN TIMES

William Petty dealt with political arithmetic.

The historical roots of modern statistics can be divided into four areas. They are:

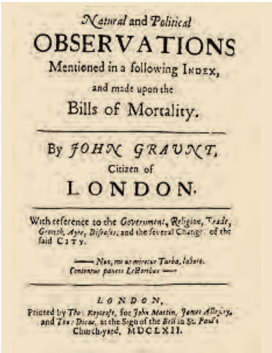
- Official (state, administrative and ecclesiastical) statistics,
- Political arithmetic,
- University statistics/ political science,
- Probability theory.

At first, these four areas were rather unrelated and developed more or less independently. Later, however they began to influence each other. However, political arithmetic played the most important role in the emergence of modern statistics. Behind the penetration of numbers and mathematics into statistics was the effort to calculate a probability rate. This effort goes back to the first half of the 15th century and it was related to a gambling game called dice. How probable is that you get two sixes when throwing dice?

MODERN TIMES STATISTICS IS BORN

The word *"státistico"* was first used in the 16th century in what is today Italy. It meant a summary of the knowledge of state affairs. At the same time, however, it marked people who were outstanding experts of important state affairs. During the 17th and 18th centuries, the term *"statistics"* spread outside the Italian peninsula; in Germany for instance, it was used as a term for political science. Both terms, *"statistics"* and *"political science"*, at universities stood for a cycle of lectures containing a description of *"state peculiarities"*, including population, territory, state administration, trade, finance, etc. University statistics consisted mainly of oral descriptions, and any application of numbers was initially quite rare. John Graunt (1620–1674) and William Petty (1623–1687) from England were the first who started to investigate social phenomena using numerical records. England at that time was more economically developed that other European countries. They discovered that more boys are born than girls and that more people die in cities than are born. They also examined the regularity of the incomes of people according to their occupation. Their approach was called *"political arithmetic"* since they used mathematics to examine phenomena that could be influenced and directed politically. Graunt and Petty had many followers in various countries.

In his work called "Natural and Political Observations Made upon the Bills of Mortality", published in 1662, John Graunt used the records of dead inhabitants of London. Such records were also made in the following years as demonstrated by a summary report of 1665 when London was decimated by plague. Records state that 63 596 Londoners succumbed to plague.



Natural and Political
OBSERVATIONS
Mentioned in a following INDEX,
and made upon the
Bills of Mortality.

By JOHN GRAUNT,
Citizen of
LONDON.

With reference to the Government, Religion, Trade, Growth, Ayre, Diseases, and the several Changes of the said CITY.

LONDON,
Printed by Tho: Roycroft, for John Martin, James Allestry, and Tho: Dicas, at the Sign of the Bell in St. Paul's Church-yard, MDCLXII.

The Diseases and Casualties this year.

Abortive and Stilborne	617	Executed	21	Palsie	30
Aged	1545	Flox and Small Pox	655	Plague	68596
Ague and Feaver	5257	Found dead in streets, fields, &c.	20	Planner	6
Appoplex and Suddenly	116	French Pox	86	Plurisie	15
Bedrid	10	Frighted	23	Poysoned	1
Blasted	5	Gout and Sciatica	27	Quinsie	35
Bleeding	16	Grief	46	Rickets	557
Bloody Flux, Scowring & Flux	185	Griping in the Guts	1288	Rising of the Lights	397
Burnt and Scalded	8	Hanged & made away themselves	7	Rupture	34
Calenture	3	Headmouldshot & Mouldfallen	14	Scurvy	105
Cancer, Gangrene and Fistula	56	Jaundies	110	Shingles and Swine pox	2
Canker, and Thrush	111	Impostume	227	Sores, Ulcers, broken and bruised	
Childbed	625	Kild by severall accidents	46	Limbs	82
Chrisomes and Infants	1258	Kings Evill	86	Spleen	14
Cold and Cough	68	Leprosie	2	Spotted Feaver and Purples	1929
Collick and Winde	134	Lethargy	14	Stopping of the stomack	332
Consumption and Tissick	4808	Livergrown	20	Stone and Strangury	98
Convulsion and Mother	2036	Meagrom and Headach	12	Surfet	1251
Distracted	5	Measles	7	Teeth and Worms	2614
Dropsie and Timpany	1478	Murthered and Shot	9	Vomiting	51

John Graunt: Natural and Political Observations Made upon the Bills of Mortality.

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The physicians' (official doctors') task was to attend to those who could not afford to pay for such service – the poor and prostitutes. In addition, they performed the various acts of a medical examiner. They examined bodies, took part in capital punishment, presided at court, and last but not least, provided various reports – among other things – on the condition of the population. According to the writs of Viennese authorities from the beginning of the 19th century, regional physicians were to provide regular reports on the condition of healthcare staff and institutions, diseases (namely infectious) in the past period, vaccinations and so on. The reports were also to include summary information on meteorological observations and demographic conditions in the respective regions. One of the physicians was F. A. Stelzig, who published perhaps the first mortality tables in the Czech lands.

IN THE BATTLE AGAINST EPIDEMICS

There were, however, other reasons for statistical investigations than just tax collection. For instance, in 1583, during the reign of Rudolph II, a plague epidemic burst outin the Czech lands that killed twenty thousand men. As a consequence of this epidemic, an investigation into the "health of the population" was launched that was to map out the source and development of malignant diseasesand to help facilitate the adoption of timely counter-measures. The Czech Diet quite promptly responded to this event – in 1585, it appealed to the crown to appoint four physicians and stipulate their salaries, who as "… *royal physicians would look after the origins of general diseases, prevent them from spreading and inform the public about them"*.

It was a fundamental request demonstrating the necessity of data collection and adoption of coordinated anti-epidemic measures in the 16th century. We have two concrete names of such physicians from 1610 – Borbonius of Kolínec and Sibyllen of Cheb. In times of increased danger, special physicians were appointed in larger towns who as *"magistri sanitatis looked after the observance of general rules in case of an epidemic outburst"*. Because similar institutions were later introduced in other countries of the monarchy, we may assume they proved to be effective.

➔ *A physician attending to patients infected with plague.*

↓ *Statistical records contributed to the improvement of the health condition of the entire population.*

1651 A LIST OF VASSALS BY RELIGION

The immediate impulse for creating a List of Vassals by Religion was a decree from the Czech governors from 16 November 1650 issued on 4 February 1651. This decree ordered the nobility to provide a listing of people based on their allegiance to the Catholic denomination and to send the lists within six weeks to the governor's office in Prague through regional governors. An incentive to provide the List of Vassals by Religion was also submitted by the Archdiocese of Prague.

Each list starts with the nobility, i.e. the owner of an estate, whether it was his permanent domicile or his administrator's, including all servants and officers. Next was a list of all inhabitants of the estate classified by towns, townlets and villages. Similarly, all burghers of royal and liege towns, and free men were registered. The clergy and the military were exempt from this obligation.

Prewritten sections served to register the person's name, social status (a vassal or a free man), occupation, age and information pertaining to his or her denomination. For non-Catholics, a little note was made whether or not there was any chance for their conversion to the Catholic Church.

A basic component of the list was a family record of the relationship of its members towards the estate owner. Domestic servants and farm hands were recorded together with their families. Finally, there was a note on the condition of churches, parochial buildings and building funds.

About two-thirds of the estates and towns submitted their lists by the summer of 1651. Four months later, the governor's office issued another decree according to which there was no further need to draw up a detailed list of all persons. It however, ordered the nobility to provide lists of non-Catholics. For this reason, the List of Vassals by Religion was not completed for all Bohemia and it was not started at all in Moravia and Silesia.

All data in the list must be approached critically. Specifically, the data pertaining to age are unreliable since a person's age was most assuredly rounded off. Children, too, may not have been systematically captured by the list. In some estates, all children were registered, whereas in other estates, only children above the age of 1 year, 9 years or 10 years were registered, or from the age that they began to participate in the Sacrament of Penance. The list could thus not provide an answer to the question of how many people lived in Bohemia at that time.

An original record of the List of Vassals by Religion of 1651.

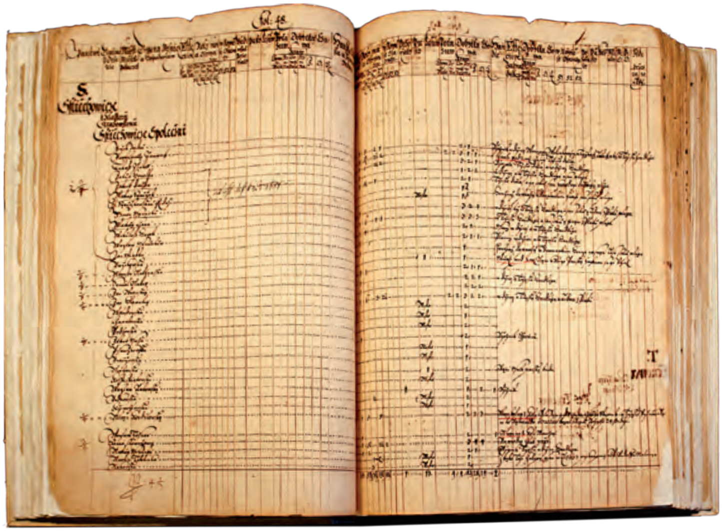
The Tax Roll did not include any information on royal and liege towns or their inhabitants.

The cadastral survey of the Stable Land Registry was the first attempt to map the territory of the Austrian state based on exact geodetic foundations?
The mapping effort took 12 years in Bohemia (1826–1830, 1837–1843). 8 967 cadastral municipalities with a total area of 51 963 km² were located on 9 321 064 plots. In Moravia and Silesia, it took 11 years (1824–1830, 1833–1836). 3 724 cadastral municipalities with a total area of 27 375 km² were located on 6 038 454 plots.

1654 THE TAX ROLL

The first complete listing of tax duties in the territory of Bohemia was the Tax Roll. It contained a list of persons liable to pay taxes as well as data about every single homestead. Thus, it applied only to rural plots and homesteads. It originally recorded the following information: an estate or a homestead, its owner, municipality, the landowner's name and surname, the size of the field, sowing periods (spring/autumn), ownership of a team (horses/oxen) and whether the respective person kept cows, heifers, sheep, goats or swine. Among other things, it reported on the quality of the soil, forest size and species of trees, ownership of a mill, cartage and so on. One could also find details about if and when the homestead had been on fire, to what tax group the landowner belonged (a peasant, a small farmer or a gardener) or what type of trade he engaged in.

In Moravia, the Tax Roll was replaced by the *"Lánové rejstříky"* (listings of plots), which were created with a short delay in 1656–1658. They were, however, immediately reviewed after a decade. The data included in the Tax Roll were also gradually particularized, but the first re-visitation was completed only almost 100 years later when the Land-Registry of Empress Maria Theresa came into effect in 1748. It was followed by the Re-Visitation Registry in 1757. The third Czech land registry, by Emperor Joseph II, was finalized in 1785–1789. The Stable Land Registry created in the first half of the 19th century became the basis of the subsequent cadastral map of the Czech Republic.



An original record in the Tax Roll of 1654.

18th CENTURY LISTINGS

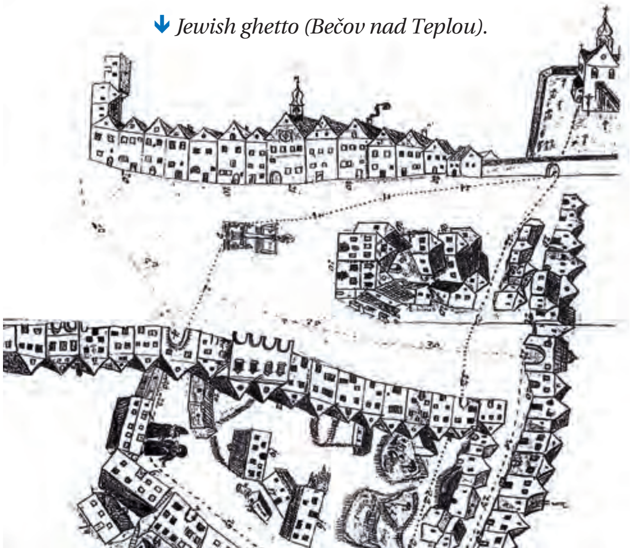
1702 A LISTING OF SALT CONSUMERS

At the turn of the 18th century, the Viennese government decided to stop salt smuggling from abroad to Bohemia and demanded that only salt extracted from the Austrian Alps be used in Bohemia. Therefore, it requested a listing of persons (salt consumers) from of all estates who would be forced to buy this salt. The listing also allocated a salt surcharge to regions and estates. Unfortunately, only the resulting sums of the listings were preserved, not the data on individuals. Moreover, many estate owners sabotaged the questionnaire and declared fewer persons. Yet this "salt listing" may be considered the first whole-land population census. According to this listing, there were 1 094 674 persons older than ten years living in the territory of Bohemia.

1702 A LISTING OF JEWISH HOUSES

In 1727, a whole-land listing of Jewish houses and their inhabitants was drawn up. A part of this listing was a unique set of plans of towns and townlets that was marked with Jewish houses and ghettos.

↓ *Jewish ghetto (Bečov nad Teplou).*



↑ *Transporting salt through the Bohemian Forest.*

1753 DECREE ON ANNUAL POPULATION CENSUS

A significant milestone in the history of statistical findings in our territory was 13 October 1753, when Maria Theresa's decree on an annual population census was issued. The need for improving population records was directly related to the extensive reform activity that required objective data about the population. The then national economists considered the effort to manage people without having sufficient data about them pointless and unwise. It is only through regular censuses that we are able to obtain a complete picture of the changing trends in the population of the Czech lands. Otherwise, we have to settle for estimates.

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The first nationwide population census occurred in Iceland in 1703. The next country where a national population census was conducted was Sweden in 1749.


Fólks Registur í Borgar hrepp Anno 1703.

↑ *A record of the population census in Iceland in 1703.*

↑ *Josef Anton von Riegger partook in emergence of an organized statistical service.*

1787 THE BEGINNING OF STATISTICS IN THE CZECH LANDS

The first outstanding statistician in the Czech lands was Josef Anton von Riegger (1742–1795).

In 1787, he started to publish *"Materialien zur alten und neuen Statistik von Böhmen"*. It took seven years (until 1794) to publish twelve voluminous books in Prague and Leipzig. The introductory volume contains a detailed proposal of statistics in Bohemia segmenting it into three basic parts: natural characteristics (countries, population), political conditions and moral conditions. Besides various numerical data the book contains interpretations and text descriptions, copies of cadastral maps and some statistical data of various fields of economic activity (mining, trade and crafts, the flax industry, laundries, manufacturing, the corn harvest, the number of fruit trees, beer, wine and spirits production, salt imports, the price of corn and various other foodstuffs). In addition there were statistical data on poorhouses, spitals, foundations, the number of students at grammar schools or universities, information on various taxes and pensions as well as property confiscations after the battle of White Mountain, and many other materials that no longer had any statistical nature.

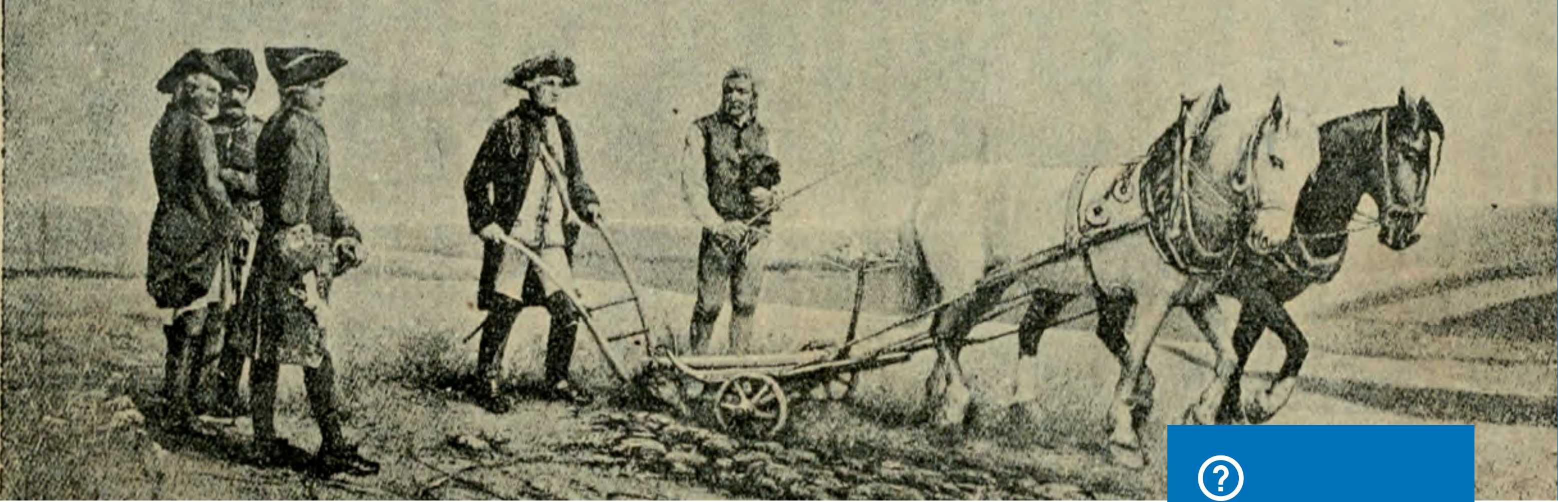
Contributions in Riegger's volumes were not signed, however it is obvious that Riegger himself was mostly their author. In the year of his death, Riegger published an unfinished attempt for a systematic statistical description of Bohemia in the spirit of contemporary university statistics – *"Skizze einer statistischen Landeskunde Böhmens"*. In this work he further improved the application of the elementary of political arithmetic, namely in the chapter dedicated to population.

↓ *The work entitled Materialien also included statistical data on property confiscation after the battle of White Mountain.*

1788 STATISTICAL FORMS

On 30 September 1788, Bohemian gubernium publishes forms for population and agricultural tables as well as a form for listing large-scale industrial plants. Those forms, probably instigated by Josef Anton von Riegger, represent the beginning of a new era in statistical findings.

Statistical documents published in the 18th century were in the form of text commentaries and simple tables. Graphical representation was not used until later.



Joseph II ploughing a field in Slavíkovice.

1788 ESTABLISHMENT OF THE IMPERIAL AND ROYAL PATRIOTIC-ECONOMIC COMPANY FOR THE KINGDOM OF BOHEMIA

The Agricultural Company founded in 1769 would nine years later be transformed into the Imperial and Royal Patriotic-Economic Company for the Kingdom of Bohemia. In 1797, the Company's secretary, František Fuss, otherwise a clerk at the vice-chamberlain office in Prague, published a large work entitled *"Skizze einer ökonomisch-statistischen Landeskunde des Königreichs Böhmen"*. This work was the first systematic document concerning agricultural statistics in Bohemia. It contains 11 charts providing region-based data pertaining to agricultural production, soil, population, results of plant production as well as the condition of various cattle. It also includes textual descriptions of the main findings with a mutual comparison of various regions.

In 1828–1847, the Imperial and Royal Patriotic-Economic Company published reports called *"Neue Schriften der kais. königl. patriotisch-ökonomischen Gesellschaft im Königreiche Böhmen"* that mentioned meteorological charts as well as frequent tables of crop yields. Another systematic work on agricultural statistics in Bohemia was *"Statistik der landwirtschaftlichen Industrie Böhmens"* by the then statistics professor and gubernium councillor Georg Norbert Schnabel. It was a valuable source that influenced many later works. In addition, Schnabel also authored tables entitled *"Tafeln zur Statistik von Böhmen"* that – among other things – dealt with topography, population and industry.

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The age of enlightenment during the reign of Joseph II called for many various administrative and economic-statistical reports that usually were in table form. Statistical findings were mostly carried out on grounds of requirements mandated by the monarchy's central offices. In most cases they were reports on the division of larger homesteads, the transfers of rural plots to the ownership of serfs, on the market prices of corn, beekeeping, the growing of clover and sugar beets, on road conditions, new teachers, the condition of common schools, justice, emigration and immigration, increases or decreases of tolerated non-Catholics etc.

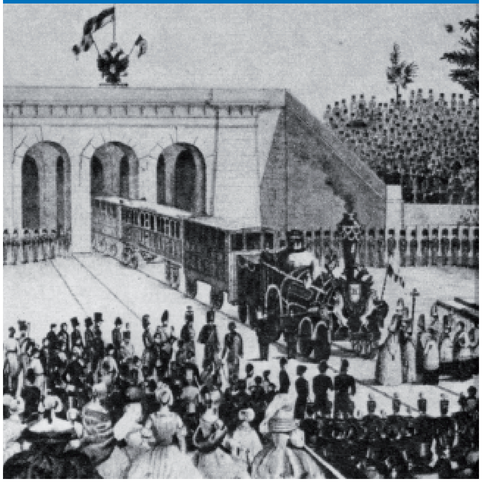
1856 THE BEGINNING OF ORGANIZED STATISTICS

In addition to provincial statistics, municipal statistics also existed. As of 1870, the royal capital city of Prague also had its own statistical office that placed it among such cities as Bremen, Berlin, Vienna, Rome and New York, which had opened their statistical offices in the 1860s. Later, Pilsen added a statistical office (1890), followed by Brno (1896) and Olomouc (1900). The offices processed mostly the results of population censuses, and regularly published results of the administrative and economic activities of municipalities. They also published statistical yearbooks with data concerning local censuses, as well as social, judicial and trade statistics.

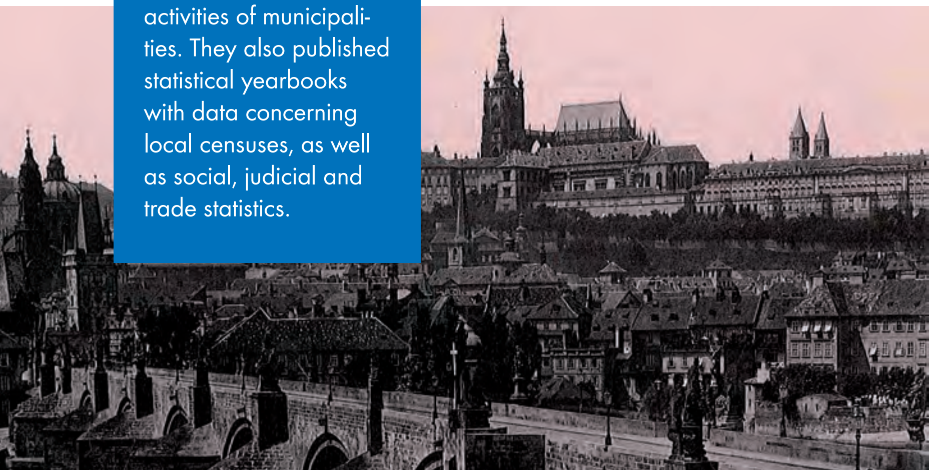
The last day of November 1856 is considered the beginning of state-organized statistics in the Czech lands. On that day was the first meeting of the Central Committee for Statistics of Husbandry and Forestry of Bohemia. This committee was a special newly-formed body of the Imperial and Royal Patriotic-Economic Company. The very first chair of the committee was Count Albert Nostitz, who was followed by Prince Karel Schwarzenberg. The Statistical Office, led by Eberhard Antonín Jonák, was an executive body of the Central Committee. It produced a draft of the organization and overall authority of the Office. In addition to the statistical data on the condition of agriculture, the Office was to monitor the general situation of the inhabitants and their division by nationality.

The Statistical Office commenced its work by the beginning of 1858, and besides its chair and secretary, it also had an auxiliary clerk. In order to perform local surveys, a network of stewards was formed. In each of the 207 political districts, initially one and later two delegates were appointed to work with their sub-delegates assigned to smaller areas.

The entire 19th century was an era of rapid industrial development, which at the same time placed far greater demands on the extent and quality of statistical surveys and the processing of statistical data. One may say that this was the time when the true modern nature of statistics based largely on the identification of economic indicators was born.



Statistics in the 19th century managed to capture the rapid development of industry and transport.



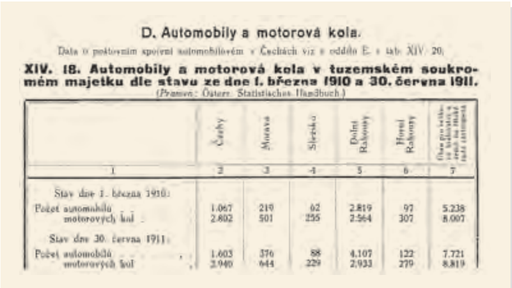
The Statistical Office of the Royal capital city of Prague was established only a few years after the statistical office in New York.

1897 ESTABLISHMENT OF THE PROVINCIAL STATISTICAL OFFICE

On 6 March 1897, the Provincial Statistical Office of the Kingdom of Bohemia was established. It was the first true statistical office in the territory of the current Czech Republic. The survey authority of the Provincial Statistical Office applied only to Bohemia. The Office consisted of two bodies: the Statistical Commission, which was a consultative and decision-making body, and the Statistical Office, which served as the executive body. President of the Statistical Office, Karel Kořistka, was appointed the head of the Provincial Statistical Office. He was followed by Dobroslav Krejčí.

In 1909 and 1913, the Statistical Office published *"Statistické příručky království Českého" (Statistical Handbooks of the Kingdom of Bohemia)* that offered data covering several years, including a comparison with data obtained from Moravia, Silesia and the entire monarchy. Obtaining quality data was not always easy since reporting was voluntary and the duty to report was not stipulated by law.

In 1898, the Provincial Statistical Office for Silesia was founded. The most important outcome of its activity was ten volumes of *"Statistická příručka Slezské samosprávy" (The Statistical Handbook of Autonomous Territory of Silesia),* and two publications reporting on the population censuses held in 1910 and 1921. A year later, the Provincial Statistical Office of the Margraviate of Moravia was established. In 1902, it published *"Zprávy Statistického zemského úřadu Markrabství moravského" (Reports of the Provincial Statistical Office of the Margraviate of Moravia)* that dealt with all credit institutes in the country.



D. Automobily a motorová kola.

Data o poštovním spojení automobilovém v Čechách viz v oddílu E. v tab. XIV. 20.

XIV. 18. Automobily a motorová kola v tuzemském soukromém majetku dle stavu ze dne 1. března 1910 a 30. června 1911.

(Pramen: Österr. Statistisches Handbuch.)

	Čechy	Morava	Slezsko	Dolní Rakousy	Horní Rakousy	[illegible]
1	2	3	4	5	6	7
Stav dne 1. března 1910:						
Počet automobilů	1.067	219	62	2.819	97	5.238
motorových kol	2.802	501	255	2.564	307	8.007
Stav dne 30. června 1911:						
Počet automobilů	1.603	376	88	4.107	122	7.721
motorových kol	2.940	644	229	2.933	279	8.819

By the end of 1914, a law was adopted that first defined the duty to provide information to the statistical office. This duty to report, however, applied only to municipalities and district road committees in the territory of Moravia.

In 1909, the first *"Statistická příručka království Českého" (Statistical Handbook of the Kingdom of Bohemia)* was published. The next one followed in 1913. The Provincial Statistical Office used it to inform the public about the most relevant statistical data on Bohemia. The data contained were often published in a time axis so that one could follow their development. For the purposes of comparison, the authors used similar data from Moravia, Silesia and the entire monarchy.

In 1910, private businessmen in Czech lands owned 1 348 automobiles. One year and three months later, this number swelled to 2 065 automobiles. During the same period, the number of motorcycles increased from 3 558 to 3 813. As of 30 June 2013, there were 4 755 644 personal vehicles registered in the Czech Republic with an average age of 14.06 years.

In "Československá statistika v prvním desetiletí republiky" (Czechoslovak Statistics in the First Decade of the Republic) of 1928, the function of state statistics was characterized by the following text: "The purpose of a statistical service is to provide a picture of the condition and development of situations within the state with the final objective of achieving economic prosperity, virtuousness, fitness and health of all inhabitants. Such efforts, however, cannot be governed by coincidence or traditionalism and mere instinct, but consciously according to a plan, precisely and constantly, i.e. scientifically. This, however, assumes knowledge of all circumstances and conditions within the state. It is the task of the statistical service to find out such facts, capture what is so typical about them, and what relationships and mutual causalities govern their development."

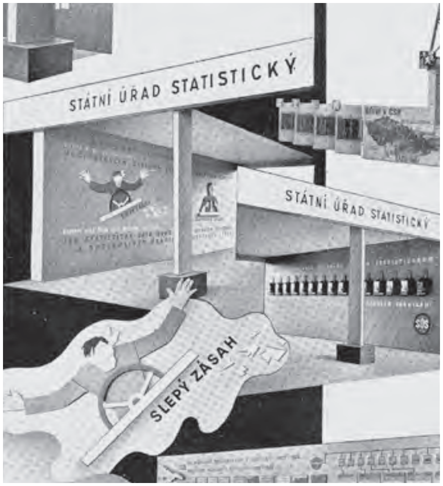
1919 ESTABLISHMENT OF THE STATE OFFICE OF STATISTICS

On 28 January 1919, i.e. three months after the formation of an independent Czechoslovakia, the Revolutionary National Assembly passed Act No. 49 on the organization of a statistical service. The principles of this law corresponded with the principles that form the basis of the current state statistical service of the Czech Republic. In 1919, the State Office of Statistics (SOS) was established as the new body authorized to conduct national statistical surveys. Act No. 49/1919 Sb. introduced a general duty to report, and stipulated sanctions for failure to meet this obligation. It also set duties of other offices towards the SOS, prohibited the arbitrariness of statistical surveys and secured the confidentiality of individual data. All those who – pursuant to hitherto valid regulations – were obligated to provide statistical data to various offices were now obligated to provide them to the statistical office.

The growth and development of the SOS during the first years of its existence was not easy. It was necessary to build up a new organizational structure, recruit experts, find suitable facilities and equipment, and last but not least, begin active statistical activity. In the first year of its existence, the SOS managed to process statistical material for the Czechoslovak peace delegation. In some fields, they were able to pick up the threads of previous findings and elsewhere it was necessary to develop modern statistics basically from scratch (for instance, in industry, foreign trade, price statistics, etc.). The overall organization of the SOS was essentially completed by 1921.

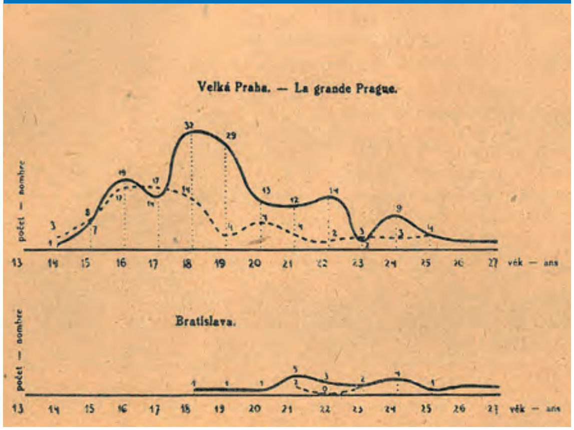
The existing head of the Provincial Statistical Institute, Dobroslav Krejčí, became the first President of the SOS. He, however, resigned at the beginning of 1920, and František Weyr was appointed to this post. He led the office until 1929 when the post was taken over by Jan Auerhan.

↓ The State Office of Statistics was established three months after the formation of the independent Czechoslovak Republic.



↑ Examples of statistical expositions at economic exhibitions in Prague in 1934–1936.

Clerks in charge of document administration were also required and expected to publish their own works in the field of statistics or related disciplines. A portion of the statistical office was also dedicated to scientific and theoretical activities.



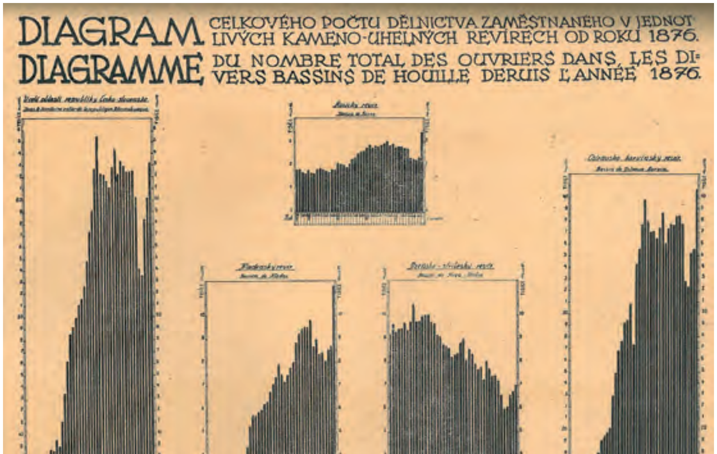
Statistics during the First Czechoslovak Republic offered detailed data on the number, age and origin of prostitutes.

Most frequently, women began to prostitute themselves at the age of 16.

Particular thematic statistics at the SOS developed as independent units. It was quite understandable that the Office excelled in such areas where statisticians could apply their previous experience. Demographic statistics, including population censuses, was the most common area. Previous experience also proved useful in the statistics of public finance and agricultural statistics. Among economic statistics were templates for foreign trade statistics and price statistics. The system of statistical findings was quickly supplemented, but the statistics of industry and domestic trade lagged behind.

The publication system of the SOS was based on the principle of the wide publicity of discovered data. The basic mechanism was *"Statistická příručka republiky Československé" (The Statistical Handbook of the Czechoslovak Republic).* The first one was published in 1920, and others followed in 1925, 1928 and 1932. In 1934, statistical handbooks were replaced by regular *"Statistická ročenka republiky Československé" (Statistical Yearbook of the Czechoslovak Republic).* The last one contained data for 1937. The work entitled *"Československá statistika" (Czechoslovak Statistics)* included aggregate results of listings and annual results of surveys. *"Zprávy Státního úřadu statistického" (Reports of the State Office of Statistics)* regularly informed people about newly discovered data. They were initially polythematic, however, they were later divided into 12 thematic series.

At the beginning of the 1920s, there were no Czech textbooks on statistical methods. Beginning in 1920, the State Office of Statics issued *"Československý statistický věstník" (The Czechoslovak Statistical Journal)* where it – among other things – published voluminous essays by mathematicians Václav Láska and Josef Mráz. In 1926, the statistical office financed
a Czech translation and edition of the famous G. U. Yule textbook entitled *"Introduction to the Theory of Statistics"*. This work significantly contributed to the creation of Czech statistical terminology. The author of the first textbook of statistics written in Czech and called *"Základy teorie statistické metody" (Basics of the Theory of Statistical Methods)* was Stanislav Kohn. The textbook was published in 1929 by the SOS.



All pictures and illustrations had to be drawn by hand at that time.

1939–1945 THE CENTRAL STATISTICAL OFFICE

During the Protectorate, the State Office of Statistics continued its activities under the name of the Central Statistical Office. The SOS President, Jan Auerhan, retired on 1 April 1939, yet he kept on working in the Office. On 6 June 1942, he was arrested by the Gestapo, and executed three days later. Many other employees of the Office were also persecuted. Some of them were executed, others died in Nazi prisons or concentration camps. The Office was led by its Vice-President, Antonín Boháč, who was forced to retire in 1941, and the Office passed under German management.

Statistical activities in Bohemia and Moravia were reduced during the Second World War, and corresponded with the war conditions as well as the situation in our territory. A state-controlled economy was introduced. Economic and market unions appeared, as did many other bodies that needed statistical data in order to manage their businesses. However, the statistical office could not always provide such information and thus the businesses were flooded with various statistical questionnaires. Willingness to provide requested data diminished even towards the actual statistical office.

↑ *Price statistics was disrupted during the Protectorate.*

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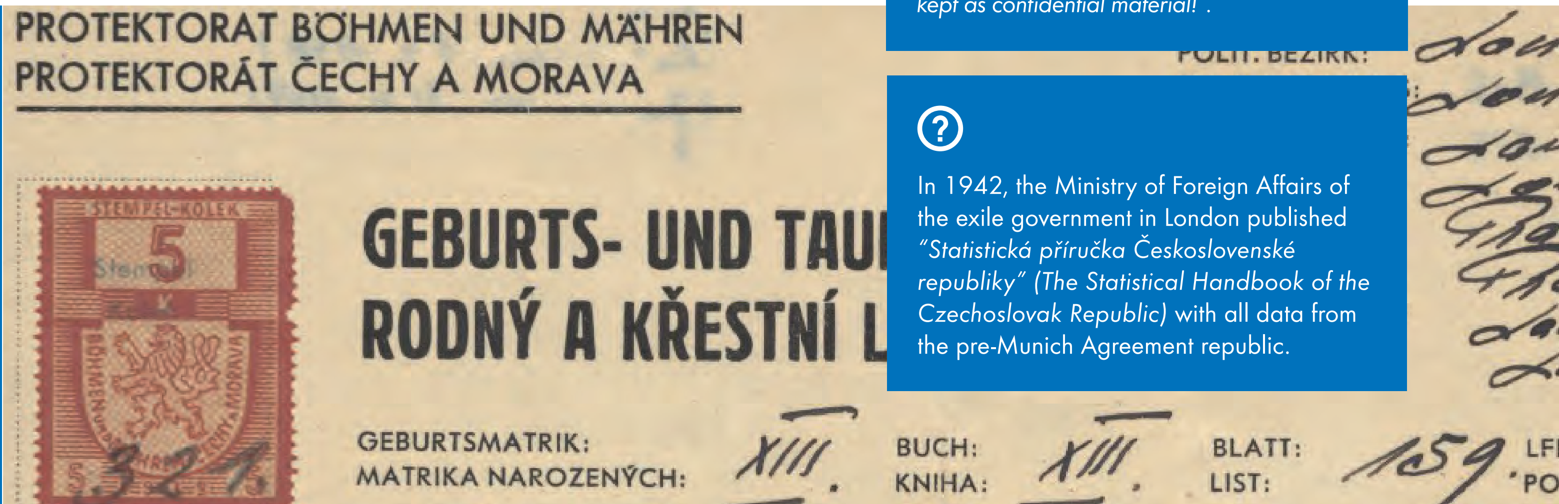
The publishing capacity of the statistical data during the Protectorate was greatly reduced. In 1941–1944, four volumes of *"Statistická ročenka protektorátu Čechy a Morava" (The Statistical Yearbook of the Protectorate of Bohemia and Moravia)* were published, but by its second volume, the title page included the following triple warning *"Confidential! For official use only! Publishing and distribution forbidden!"* And the back side of the title page included an addendum: *"This book must be kept as confidential material!"*.

↓ *Records of demographic events, however, were maintained.*



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In 1942, the Ministry of Foreign Affairs of the exile government in London published *"Statistická příručka Československé republiky" (The Statistical Handbook of the Czechoslovak Republic)* with all data from the pre-Munich Agreement republic.

One of the statisticians' tasks in the post-war era was to compile a list of war damage.

1945–1948 STATISTICS DURING THE PERIOD OF POST-WAR RECONSTRUCTION

At the beginning of *1948, a statistical* handbook was published that informed the public about the basic results of statistical findings carried out in 1946–1947. The first post-war statistical yearbook was published by the end of 1948. Other yearbooks did not come out on a yearly basis until 1957.

Immediately upon the end of the Second World War, the State Office of Statistics was re-opened with state-wide authority. Its objective was to reintroduce the high pre-war level of Czechoslovak statistics. The statistical service's organization in the Czech lands and in Slovakia, however, was not unified. Methods and procedures of collecting data for other branches of statistics varied in both parts of the republic. There were few data on a state-wide level and their reliability was low. At the very beginning, only foreign trade statistics existed at the state level.

The post-war era of statistics was characterized by intensive activity leading both to the reconstruction of pre-war circles of regular statistical surveys and the creation of new ones. Wide-ranging statistical activities were conducted including the population census in Slovakia on 4 October 1946. A similar population census in the Czech lands was carried out on 22 May 1947. Results of those censuses proved that the Second World War meant a huge change to the national structure, namely as a consequence of the post-war resettlement of German inhabitants. As early as September 1945, the statistical office compiled a list of war damage. Results of such listings were published in *"Statistická ročenka ČSR 1948" (The Statistical Yearbook of the Czechoslovak Republic)*. Methodical materials and analytical and survey files of various thematic areas were published in *"Statistický zpravodaj" (The Statistical Journal)*.

The number and structure of inhabitants changed significantly after the Second World War.

Section 26 of Act No. 21/1971 Sb., ensured the protection of personal data. “The data of statistical findings regarding individuals may not be published, disclosed to other persons or used for any other than statistical purposes with the individual’s consent.”

1948–1989 PLAN CONTROL

Statistics during this period was heavily influenced by the era of centrally planned economics as well as by the social and (mainly) political climate of that era. The publication system of state statistics was virtually cancelled at the beginning of the 1950s, and the public obtained information mainly on the level of plan performance. Nevertheless, much of the data in absolute values were purposefully suppressed.

A new form of statistical findings in the late 1940s and early 1950s was record keeping. All data of business and companies (reporting units) were simply withdrawn from their regular records. Heading towards a centralized model of control over the national economy paradoxically necessitated a transition to an utterly decentralized system of submitting and processing statistical data.

In 1952, a gradual summation was introduced. Lower units filled out the statements and submitted them to their supervising bodies, who used the submitted form to create a single summary statement. This statement was sent to their organizational supervisory bodies, which again used the statements to draw up a single summary report for all its subordinate units, until the final summary report reached a ministry or some other administrative body. Only then were the data provided to the statistical office, which by this time had no individual data available with which it could process information from various points of view.

In the second half of the 1950s, the requirements on statistics changed. The system of gradual summation was abandoned and replaced again by the central collection and processing of statistical data.

Statistics informed the public mainly about plan performance.

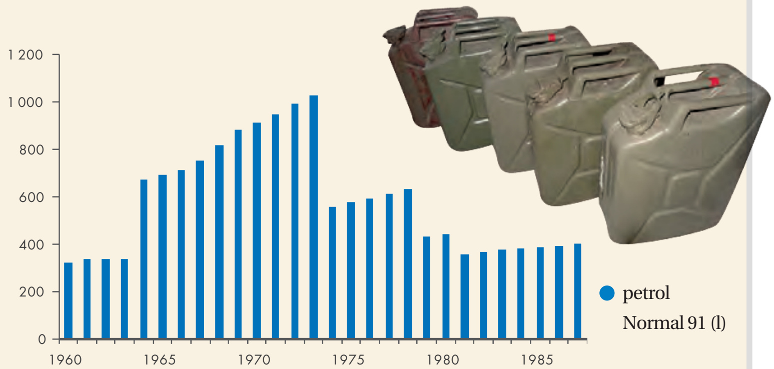
In 1985, the statistical office published *“Historická statistická ročenka” (A Historical Statistical Yearbook)*. Only a few statistical offices, f. e. the USA, France, Canada and the USSR, were then able to draw up and publish such a yearbook.

In 1972, the FSO published *"Jednotný číselník obcí v ČSSR (geografickou klasifikaci obcí)" (A Unified Code System of Municipalities in the Czechoslovak Socialist Republic – a geographical classification of municipalities)* containing all settlements within the Czechoslovak Socialist Republic and their numerical marking.

By the middle of 1961, a significant organizational change occurred in the sphere of statistics. The State Office of Statistics was fused with the then Ministry of State Control, and renamed the Central Office of State Control and Statistics (COSCS). Soon it was obvious that it was a merger of two institutions that had little in common. Statisticians kept losing the trust of reporting units, which in their fulfilment of their duty to report, simultaneously feared state intervention. Through a legal provision of 12 January 1967, control and statistics were again divided, and the State Statistical Office (SSO) was established.

As of 1 January 1969, the unitary Czechoslovak Socialist Republic became a federation. This was also reflected in the arrangement of the central bodies of state statistics. The Federal Statistical Office (FSO), the Czech Statistical Office (CZSO) and the Slovak Statistical Office were established. The major task of the FSO was to secure unity in the system of statistical information throughout the entire state, the unity of methods and unity in the system of statistical surveys. The task of the republican offices was to actually perform statistical activity, i.e. the collection and processing of information, and to provide necessary information to the FSO and all other relevant regulating bodies on the republican level. The organization of the federal and republican statistical offices remained the same until the dissolution of the federation on 31 December 1992.

How many litres of Normal 91 (unleaded 91 octane petrol) was it possible to buy on an average salary at that time?



The statistical office had its seat in Prague-Karlín from 1948–2002.

1990–1993

THE TRANSFORMATION STAGE

The social changes in 1989 restored the prerequisites for developing an objective, impartial and apolitical state statistical service. The statistical office had to respond to the new requirements and claims related to the transition to a democratic society and to a market-based economy. Examples of such a change were the liberalization of price levels and dissolution of the trade system of the Comecon, as well as of the Council itself. Another great turn was represented by the change in ownership structures related to privatization and greater orientation on markets in Western Europe and countries with a market economy.

The boundary demarcation commission effectuated 18 changes to the original administrative boundaries between the Czech and Slovak Republics.
In total, 452.02 hectares were exchanged. Through these changes, the length of the boundary decreased from 285 km to 252 km. All changes were mutually compensated by land and thus the total area of the Czech Republic did not change.

The efforts of statisticians also focused on building up trust in statistical data. They taught the public to use and apply statistical data in their decision-making processes, and last but not least, they desperately needed to obtain respondents willing to cooperate with the Office. Statisticians themselves had to learn a lot with regard to an open economy and expansion of foreign contacts. To this end, it was necessary to start using standardized procedures that were common in other countries with a market economy. The state statistical service responded to the newly-emerging phenomena by new indicators and surveys. In 1992, a new act on the state statistical service was adopted. This act defined bodies that became parts of the service, and stipulated their mission and duties. A portion of the act also dealt with the protection of personal data.

At the beginning of 1993, the Czechoslovak Federative Republic broke apart into two independent states. The Czech Statistical Office (CZSO) took over all competencies of the national statistical office from the former Federal Statistical Office (FSO).

2 290.2 km

length of the boundaries of the Czech Republic

"Official statistics represents an essential element in the information system of a democratic society because it provides data on the economic, demographic and social situation and environment to the government, national economy bodies and the general public. Official statistical bodies, therefore, are obligated to draw up and publish impartial statistics that meet all the requirements on its practical application, and thus fulfil its obligation towards the citizens who are entitled to receive public information." (The Fundamental Principles of Official Statistics per the United Nations Economic Commission for Europe as adopted at its 47th session in Geneva on 15 April 1992.)

PRESIDENTS OF THE STATISTICAL OFFICE

DOBROSLAV KREJČÍ
SOS
1919–1920

FRANTIŠEK WEYR
SOS
1920–1929

JAN AUERHAN
SOS
1929–1939

FRANTIŠEK FAJFR
SOS
1945–1961

PAVOL MAJLING
COSCS
1961–1966

JAN KAZIMOUR
SSO (FSO)
1967–1981

VLADIMÍR MIČKA
FSO
1981–1990

IVAN ŠUJAN
FSO
1990–1992

JIŘÍ ANTOŠ
CZSO
1969–1987

LADISLAV ŘÍHA
CZSO
1987–1990

EDUARD SOUČEK
CZSO
1990–1993

EDVARD OUTRATA
CZSO
1993–1999

MARIE BOHATÁ
CZSO
1999–2003

JAN FISCHER
CZSO
2003–2010

IVA RITSCHELOVÁ
CZSO
2010–present

SOS – The State Office of Statistics
COSCS – The Central Office of State Control and Statistics
SSO – The State Statistical Office
FSO – The Federal Statistical Office
CZSO – The Czech Statistical Office