

*Czesław Domański**

JAN PIEKALKIEWICZ – A STATISTICIAN OF THE SECOND POLISH REPUBLIC

Jan Piekalkiewicz was born on 19 September 1892 in Kursk, as a child of Seweryn, an architect and engineer, and Zofia from Siewiértów. He graduated in 1914 from the Economic Department of the Technical University in St.



Petersburg. From 1915 to 1918 he was in Russia, where he was conducting his statistical research. In 1917 Piekalkiewicz led the agricultural census in Uzbekistan. The same year he created and directed the Department of Statistics in St. Petersburg, formerly known as Petrograd.

Jan Piekalkiewicz came back to Poland in 1919, joined the Polish Army, and he was fighting in the Polish-Soviet War (1919-1920). In 1921 Piekalkiewicz cooperated with the Polish Plebiscite Commission in Bytom. From 1923 to 1924 he was working as the assistant professor in the Jan Kazimierz University of Lvov (from 1939 known as Ivan Franko National University of Lvov). He obtained his doctorate at the University of Poznań in 1924. In the years 1925-1939 he was working as a statistics professor at the School of Political Studies in Warsaw.

Jan Piekalkiewicz started his work for the National Bank of Poland in 1924 when the economic office was established, he cooperated with the NBP as its advisor. Between 1925 and 1928 he served the same function for the National Agricultural Bank and the National Economy Bank. In 1926 he became the vice-president of the newly formed Yarn and Textile Factory „Chodaków”.

Piekalkiewicz was also working for the Central Statistical Office, and was one of the organizers of 1921 Polish census. From 1923 to 1924 he was working as a professor at the University of Lvov. From 1924 to 1939 he was lecturing in

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the Main Political School in Warsaw. He was a member of the Polish Statistical Society, and in 1927 he became a member of the International Statistical Institute. Piekalkiewicz also cooperated with the Statistical Commission of the League of Nations. He was considered as the leading Polish expert in the area of economic statistics.

In 1928 Piekalkiewicz became the member of the League of Nations Statistical Commission for the harmonization of transport statistics. Since 1927 he was a member of the International Statistical Institute, and in 1933 he became a Financial Statistics officer there. During this time, he was also introduced as a member of the Econometric Society of the United States of America and an honorary member of the Mexican Geographical and Statistical Society. He also belonged to the Polish Society of Economists and Statisticians, which was established in 1920. Piekalkiewicz was one of the leading and most prominent Polish statisticians in the interwar period, and one of the greatest experts in the area of economic statistics. His extensive journalistic activity should be pointed out, too. Piekalkiewicz cooperated with several magazines and scientific publishers, including the following ones: "Economists", "Quarterly Statistics", "The Farmer-Economist", "Journal of Law and Economics", "Społem". He also worked in many editorial committees, for example "Employment Statistics" (from 1927), "Statistics Yearbook of Polish Cities" (1928-1930), "Polish Foreign Trade", "Quarterly Statistics" (1929-1931) or the publication "The Republic of Poland. The Statistical Atlas" (1930).

Piekalkiewicz was the author, co-author or editor of over 60 studies and scientific works, including the following papers:

- „Atlas Statystyczny Polski” (Polish Statistical Atlas), written with Ignacy Weinfeld and Edward Szturm de Szterm, Warsaw 1925;
- „Statystyka” (Statistics) – Edition Warsaw 1925, Edition Lvov 1927;
- „O programie gospodarczym Polski” (On the Polish Economic Program) written with B. Balutkiewicz, Warsaw 1926;
- „Staszic jako statystyk” (Staszic as a Statistician) – Lvov 1926;
- „Statystyka spółek akcyjnych” (Statistics of Joint-Stock Companies) – 1928;
- „Wydatki i dochody związków publiczno-prawnych” (The Expenditure and Income of Public and Private Relationships) – Warsaw 1929;
- „Les travaux preliminaires sur les statistiques des finances publiques” La Haye 1933;
- „Statystyka miejska w Polsce” (Municipal Statistics in Poland) – 1930;
- „Sprawozdanie z badań składu ludności robotniczej w Polsce metodą reprezentacyjną” (The Report on the Representative Research of the Working Population Structure in Poland) – 1934.

Publications of Professor Piekalkiewicz covered many areas of statistics and only a few of them are presented in this paper, mainly those which demonstrate his extraordinary activity in the hypothesis testing, especially in reporting different problems of economic life. In his article „Bilans płatniczy Polski w 1923 roku” (The balance of payments in Poland for 1923), published in *Kwartalnik Statystyczny* (Quarterly Statistics, 1925, Vol II, p. 290-345), he discussed in great detail the development of the BoP system and presented the exact importance of countries international exchange. These international economic exchange problems were presented during the official sessions of the International Statistical Institute.

During the 10th session of the International Statistical Institute (London, 1905) besides the speech of de Foville, Gruber presented his calculations for Austria covering the period from 1892 to 1901. Gruber knew his calculations were incomplete and he treated them not as the full balance of payments, but only as the most important positions of this balance, he also noticed those calculations are necessary to all further works. During this session, the International Statistical Institute created a special international commission for the study on BoP and on collecting its components. Professor Gruber was entrusted to present on the following session the report summarizing the results of the commission's work. He presented it in 1907, in Copenhagen. His speech entitled *Ueber die Grundlegung zu einer internationalen Zahlungsbilanz*, which contained the balance of payments questionnaire, was published in the 17th Volume of *Bulletin de l'Institut International de Statistique*. In 1919 during the ISI meeting in The Hague, Bodio presented a full report on Italian Balance of Payments prepared by Bonal do Stringher.

After the World War I, because of fundamental changes in international economic relations, including strong fluctuations in the exchange rates, the balance of payments problem became even a more important issue. The League of Nations paid special attention to this problem and issued a *Memorandum sur les Balances des Payements et sur les Balances du Commerce Exterieur 1910-1923* in Geneva, 1924. The balance of payments data was published for the following 13 countries: the United States of America (official calculations and calculations made by the Economic Research Commission at Harvard University), England (official calculations), Australia (official calculations), British India (official calculations), the Union of South Africa (the official calculations), Italy (Prof. Morata's calculations), the Netherlands (private calculations), Switzerland (partial calculations), Norway (partial calculations), Sweden (official calculations), Finland (office calculations) and Argentina (M. C. A. Tornquist's calculations). To collect the data required for the balance of payments calculations for 1923, in August 1924 The League of Nations sent to all the countries mentioned above a special questionnaire and added some

general remarks, which were aimed to standardize both the data results and data collecting methods. This scheme was adapted to the Piekalkiewicz scheme prepared for Poland in April 1924 and the adjustment, the results were presented to the League of Nations. After this publication, Poland confirmed its presence in the international statistics. In the article "Municipal Statistics in Poland" in Quarterly Statistics („Statystyka miejska”, Kwartalnik Statystyczny, 1927, Volume IV, p. 1-120) Piekalkiewicz made evaluation of Municipal Statistical Offices in Poland. His opinion is well worth mentioning in the discussions about statistics and accounting. He stated that for the rational cooperation between statistics and accounting, it is helpful to clarify the subject of the interest for each area, contact and divergent points, relationships within the enterprises.

The concept of statistics was changing over the time. According to Achenwall (the middle of the 18th century) Statistics was the science about political systems of states and their characteristics. Schlotzer (the beginning of the 19th century) believed that the subject of Statistics was understood as society that took the state form. Quetelet (the middle of the 19th century) believed that the subject of Statistics was a human being placed in a society considered from the physical, moral and mental points of view. Moreover, the main task of Statistics was understood as a study on the causes of natural and perturbation phenomena, which were in this conception, dependent on the human will and mind.

G. Mayer (at the turn of the 19th and 20th century) proposed two terms:

1. Statistical method or Statistics in a formal sense is a numerical observation of social and some other phenomena.
2. Science of Statistics or Statistics – in a material sense – explains phenomena and social life conditions, which manifest themselves in the social masses.

These recalled explanations are based on a massive numerical observation, expressed in numbers and measures.

Currently, the following approach to the statistical theory prevails: Statistics as a science on special methods for complex phenomena research.

According to Piekalkiewicz, theory of Statistics examines and establishes methods for systematic observation and registration of complex phenomena, which are influenced by many factors. Moreover, it develops numerical methods for the collected data elaboration and analysis. Therefore, the theory of Statistics constitutes the third part of Logic preceded by the deduction and induction methods.

“The statistical method is primarily used to recognize large populations, which otherwise would remain unknown. By limiting the interest to the most important characteristics of population units, each unit is registered and then all are grouped according to the size (measurability) of the features, for example the

population of Poland by age or feature types, population by occupation. This way we are able to recognize properties which characterize the survey population. In the industrial enterprises, for example, we can recognize the work efficiency by dividing employees into groups according to their personal performance. In the work "Statistics in the Enterprise" (1938) – „Statystyka w przedsiębiorstwie” the author decided to normalize the process of establishing statistical offices in all companies and the arguments given by Piekalkiewicz were considered to be fully justified. "In every single enterprise, there should be an independent statistical office and this statistical department should become a separate organizational unit responsible directly to the main director. Counting them into the other organizational group of units is not desired, because there must be a direct contact between the main management and this office, moreover statistical offices are like control authorities, therefore no subordination of these offices to any other district of the company is recommended.

The basic condition for statistical office activity is the timeliness and validity of its work. Statistical Offices should provide all necessary tutorial for the management when it defines the current policy. The distant periods (with historical character) cannot be taken into account. These materials and data must be up-to-date. Therefore, the Statistical Office cannot present only monthly reports, but has to report decade or weekly data and for some specific features even daily data should be provided.

The second basic condition for each statistical office activity is defined as presenting the results of their work in the easy-to-grasp and easy to modeling form. The company managers and/or directors do not have time for verification and analyses of these reports expressed in numbers, hence various charts and cartograms can be easily understood by them.

For the statistical survey we should have knowledge, not only about the statistical methods, but also on the study phenomena, which represent the subject of the research, for example social, natural and technical phenomena. The understanding of statistics only in the meaning of the research method, emphasizes that statisticians also need special knowledge on the areas where the statistical methods are to be applied.

A statistician in the company cannot be a specialist in all aspects of the business, therefore a close collaboration between the statistician and the technical management is required, for example: productivity of workers, materials, machinery, quality control, production. Also, the cooperation with sales offices is crucial, in case of market, prices, or research. Obviously, effective co-operation is also needed between statisticians and purchasing officers, financial directors, accountants etc.

In the final analysis or summary, a special attention should be paid to the transparency of the results. The management board members usually have no

time to read and understand the data, hence their access to full information depends on the clarity and transparency of the report.

The general statistical methods should be adapted to the needs of the enterprise statistics, as must be adapted to the various dedicated departments of general statistics.

Local statistical offices in Poland were established in most of major cities long time ago. For the purpose of this area revival, in 1921 GUS (National Statistical Institute) convened The Congress of Municipal Statisticians. GUS invited representatives of all Municipalities with more than 20000 inhabitants. All Congress papers were prepared by the GUS collaborators and all were related to the organization and responsibilities of the offices in the context of municipal statistics, census, migration statistics, labor and price statistics, financial statistics, etc. Altogether 14 representatives of Polish cities participated in this Congress.

The representatives' reports showed that Municipal Statistical Office in Lvov was established in 1869 and reorganized in 1889. In 1921 the office had 1 scientific position and 4 supporting ones. The office was publishing monthly magazine "Lvov in Numbers" („Lwów w cyfrach”) and "Statistical News about City of Lvov" („Wiadomości Statystyczne o mieście Lwowie”).

The Cracow Municipal Statistical Office was created in 1882. Its founder was Józef Kleczyński (1841-1900). He was a professor of Statistics and Administrative Law at the Jagiellonian University and he was working for the National Statistical Office in Lvov from 1875 to 1880. J. Kleczyński published in „Polish Review” his article entitled „International Statistical Institute”, which was one of the earliest publications dedicated to this institution. In 1891 he became the second Polish citizen who was appointed to be a member of ISI. Kleczyński, who had a significant influence on the development of Polish Statistics published the following two important papers: „On Calculating Population Number Between Censuses” (1879) and „Municipal Statistical Offices”. The Cracow Office had 2 scientific employees and 7 supporting ones.

In 1864 an organizational unit of the Warsaw Municipal Council named the Statistical Section was established. Till 1876 its primary objective was to prepare materials for annual publication entitled: „Obzor goroda Warszawy”. Since 1877, when the Section expanded the range of its statistical activities, it started to act as an independent statistical office unit of the city of Warsaw. Since its foundation the Statistical Section was led for over 30 years by an economist and a statistician, professor Witold Załęski. In 1921, this department was divided into the following three sections: editorial, demographic and economic statistics. The office kept 5 research employees and 15 supporting ones. The office was publishing Statistical Monthly and Yearly Books for Warsaw.

In Poznan city, the Municipal Statistical Office was established in 1906, had 6 employees all together, including 1 scientific and 10 supporting ones. The office was publishing "Statistical News of Poznan city".

In Lodz, Statistical Office was organized in 1917. The Office had 1 employee who was responsible for the scientific work and 10 supporting ones. The office was working on Statistical Monthly and Yearly books.

Also, Municipal Statistical Office departments were formed in Wloclawek, Sosnowiec, Bialystok, Lublin and there were 3 statistical organizational units in Plock, Kalisz and Dabrowa Gornicza.

In the work presented during the Congress about the work of the organization and the area of Municipal statistics, Zweig proposed to create statistical offices in all cities with populations over 50,000. Also, he suggested to establish some special statistical units in all cities with populations above 20,000. After a long discussion the Congress statisticians formally accepted the proposal and appealed to the Board of cities, that the Board should try to influence all cities and should call all councils to realize Zweig's postulates. At the same time, when the Main Statistical Council meeting took place, exactly two years after the first Congress, on the 29th and 30th May 1923, the second Congress of Municipal Statisticians began. Altogether, over 60 representatives of different Polish cities were invited to participate in this event. However, only a small number of towns sent their delegates, including Lvov, Grodno, Warsaw, Lodz, Cracow, Kalisz, Lublin, Bialystok, Poznan, Katowice.

The delegates' reports showed that the development of the municipal statistics encountered many financial difficulties. Almost all delegates in their speeches raised the problem of the lack of funds and emphasized extremely low wages of statistical officers. Cities of Grodno, Kalisz, Lublin, Katowice, Świetochłowice and the Wielkie Hajduki had no own statistical publications. Moreover, generally the number of statistical publications in all cities, was very low. The number of employees of the statistical offices was not impressive, either; there were 31 workers in Warsaw, 8 to 11 in Poznan, 9 in Lodz, 7 in Lvov, 3 in Lublin, 1 in Kalisz, 2 in Bialystok, 4 in Grodno and 6 in Katowice.

To characterize accurately activities of all statistical offices, National Statistical Institute sent out in March 1925 a questionnaire to all cities with population over 20,000 (on the basis of the last census information). Almost all city magistrates carefully populated the questionnaire, which gave a good background material to the further work. Cities of Zyrardow, Piotrkow, Pabianice, Zawiercie, Pinsk, Kowel, Grudziadz and Rzeszow did not complete the survey and for that reason they were all omitted in the further comments. However, it did not seriously affect the final results as the statistical activities in these cities (except for Piotrkow) were not very important. (see Tables below).

The main research interests of Piekalkiewicz allowed him to present the economic situation at different levels of the public administration in Poland, including cities with population less than 20,000 and rural communities. The detailed results of his work were presented in the following articles: "Statistics Quarterly" (Kwartalniku Statystycznym), "Expenses and revenues of cities with 20,000 inhabitants" (Wydatki i dochody miast liczących 20000 mieszkańców, Volume V (1928), p. 951-1120), and "Expenditure and income of rural communes" (Wydatki i dochody gmin wiejskich) Vol V .4, (1928), p. 1317-1550).

J. Piekalkiewicz was also a political activist, especially during the World War II period. Ideologically and politically he was associated with the Peasant Movement, which was a social initiative involved mainly in the agricultural policy problems.

The organization of statistics in cities						
Province	Total	Number of cities				
		With		Statistics conducted by		No reply
		Statistical Offices	special statistical unit	One of City department	Only occasionally	
Total . . .	49	9	10	10	12	8
Central . . .	24	4	5	7	4	4
Warszawskie . . .	4	1	1	1	—	1
Łódzkie . . .	7	1	1	3	1	2
Kieleckie . . .	7	1	1	3	1	1
Lubelskie . . .	3	1	—	1	1	—
Białostockie . . .	3	—	2	—	1	—
East . . .	6	1	3	—	—	2
Wileńskie . . .	1	—	1	—	—	—
Nowogródzkie . . .	—	—	—	—	—	—
Poleskie . . .	2	—	1	—	—	1
Wołyńskie . . .	3	1	1	—	—	1
West . . .	6	2	2	1	—	1
Poznańskie . . .	4	2	1	1	—	—
Pomorskie . . .	2	—	1	—	—	1
Silesian . . .	2	—	—	—	2	—
South . . .	11	2	—	2	6	1
Krakowskie . . .	3	1	—	1	1	—
Lwowskie . . .	4	1	—	—	2	1
Stanisławowskie . . .	3	—	—	1	2	—
Tarnopolskie . . .	1	—	—	—	1	—

LIST OF CITIES	
Name	Population
<i>I. Have the statistical office</i>	
Warszawa	936 046
Łódź	452 079
Sosnowiec	86 492
Lublin	94 422
Łuck	21 157
Bydgoszcz	87 848
Poznań	169 793
Kraków	181 700
Lwów	219 388
<i>II. Have the special statistical unit</i>	
Włocławek	40 286
Kalisz	44 601
Częstochowa	80 474
Białystok	76 793
Grodno	34 653
Wilno	128 954
Brześć n/Bugiem	29 460
Równe	30 482
Gniezno	25 885
Toruń	39 335
<i>III. Don't have the special statistical unit but statistics is run by one of City department</i>	
Płock	27 750
Tomaszów Mazowiecki	28 287
Zgierz	21 129
Kielce	41 346
Będzin	28 293
Dąbrowa Górnicza	41 243
Siedlce	30 536
Inowrocław	24 695
Nowy Sącz	26 341
Stanisławów	28 204
<i>IV. Statistics is run only occasionally</i>	
Radomsko	20 285
Radom	61 599
Chełm	23 219
Łomża	22 014
Tarnów	35 725
Przemyśl ^a	47 958
Drohobycz	26 736
Strvi	27 358
Kołomyja	41 097
Tarnopol	30 891
Królewska Huta	74 811
Katowice	45 422

Also, Piekalkiewicz was a member of the Polish People's Party "Piast" (PSL "Piast", from 1926) and People's Party (Stronnictwo Ludowe, from 1931). From 1938 to 1939 he was a member of the Main Council of the People's Party. Following the German invasion of Poland, in 1940 he became a member of the underground arm of the People's Party, the People's Party "Roch" (later known as Stronnictwo Ludowe "Roch"). In December 1940 he became the Deputy to the Polish Underground State's Government Delegate and on the 2nd August 1942 (or the 17th September – sources vary and provide two dates) he replaced Cyryl Ratajski on the Delegate position. As the Delegate, he confirmed the creation of the Council to Aid Jews Żegota and extension of full aid to the Polish political prisoners. He also ordered the full documentation of the Nazi crimes against ethnic Poles and the Jews, he informed the Western Allies about the

Holocaust. Moreover, Piekalkiewicz supported the studies on the creation of the post-war Polish-German border on “Lusatian Neisse” and “Oder”. In his speeches to the nation, published in “Biuletyn Informacyjny”, he called on everyone to join in the civil struggles and warned collaborators that they would face the death penalty for betraying the Polish nation. He also wanted to establish strong cooperation between the Polish Underground State, loyal to the Polish government-in-exile in London, and the communist Polish Workers Party (PPR). As the Delegate, he was succeeded by Jan Stanisław Jankowski.

„Stoją przed nami wielkie trudności. Polska ma wielu moich przeciwników. Zwyciężył ich przez utrzymanie dotychczasowej naszej jednolitości”
WŁ. ŚIKORSKI (1.VII. br. w Iraku)

BIWLETYN INFORMACYJNY

Rok V Warszawa, dnia 15 lipca 1943 r. Nr. 28 (183)

ZARZĄDZENIE

Tragiczna śmierć Premiera Rządu Polskiego i Naczelnego Wodza Generała Śikorskiego okryła całą Polskę i Wojsko Polskie żałobą.
W tej tragicznej chwili, jaką Naród Polski przeżywa w tej wojnie, uczucia całego Kraju biegają na obczyznę i łączą się z Prezydentem Rzeczypospolitej, Rządem Polskim i Wojskiem w żałobie i hołdzie dla Wielkiego Polaka i Wodza Naczelnego w walce o Niepodległość i Całość Państwa Polskiego.
Dla zadokumentowania tej postawy Kraju ogłoszono na eme do dnia 1 sierpnia b.r.

OGÓLNA NARODOWA ŻALOBĘ

podczas której należy powstrzymać się od wszelkich zabaw, koncertów i rozrywk publicznych.
Żałobę tę rozumnie należy jako wyraz powagi i szacunku dla dotychczasowej przegranej straty, jaką Naród nasz winien w skupieniu wewnętrznym przeżywać, przygotowując się zarazem do dalszej walki z wrogiem, aż do zwycięstwa.

Warszawa, dn. 7 lipca 1943 r. Polsmonarch Rządu
na Kraj

KOMENDANT SIŁ ZBROJNYCH W KRAJU
Nr. 155, dn. 8.VII.1943 r.

Żołnierze Sił Zbrojnych w Kraju

Naczelnny Wódz gen. Władysław Śikorski poległ dnia 4.VII. b.r. w wypadku samolotowym, powracając z inspekcji Armii Polskiej na Bliskim Wschodzie.
Siergi nasze na obczyźnie i w Kraju okryła ciężka żałoba po stracie Wielkiego Polaka, męża stanu i wodza, który prowadził Naród z pełną wiary w ostateczne zwycięstwo.
Okruciny nas los doświadcza, ale żołnierze polski nie ugnę się pod ścierzą okupca. Zgodnie z wolą poległego Naczelnego Wodza Siły Zbrojne w Kraju trwać będą nieugięte w walce z okupantem, serwą siergi i nieopoda swe wyniki. Kraju i ufnie oczekując będziemy dalszych rozkazów Prezydenta i Rządu Rzeczypospolitej.
W jednolitej i karności nasza siła.

8.VII. (—) B ó r

He was arrested by the Germans on the 19th February 1943, was tortured and murdered on the 19th June 1943.

He was posthumously awarded with the Gold Cross of Merit. Also, in 1995 he was posthumously awarded with the Order of the White Eagle by Lech Wałęsa, the then President of Poland.

REFERENCES

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