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"YOU MUST SWEAR [...] THAT CARE FOR THE WELL-BEING AND HEALTH OF WOMEN IN LABOR AND THEIR INFANTS SHALL BE THE ONLY OBJECTIVE OF YOUR WORK." MIDWIVES IN THE GALICIAN AUTONOMY — STATISTICAL AND GEOGRAPHICAL ANALYSIS BY COUNTIES

Abstract: The study analyses the number of midwives in the counties of Eastern and Western Galicia in census years 1869, 1880, 1890, 1900 and 1910, and the ratios per cadastral commune, 10,000 square kilometers, 10,000 civilians and 10,000 women in a county. The analysis was based on Austrian and Galician statistical reports. The results of the study confirmed that Eastern Galicia outnumbered Western Galicia in terms of midwives. However, it was in Western Galicia where the rate of growth was higher, and the effects of the 1910 collapse more moderate. This could have been due to an amendment to the 1897 midwifery regulations. The position of individual counties changed, depending on the year and the specific measure. In Eastern Galicia, Lisko county ranked the worst and Horodenka, Śniatyń, Tarnopol, Trembowla, and Brzozów counties ranked the best. In Western Galicia, Limanowa county ranked the worst, while Brzesko, Kraków, Łańcut, Wadowice, Przeworsk, and Podgórze counties ranked the best. There is a strong positive correlation between the rank and natural conditions (water, soil, climate), type of crops, agricultural development and processing, transport system (road and rail), population, and stimulating function of large urban centers. Favorable conditions were correlated with higher values in measures of the number of midwives.

Keywords: healthcare, midwives, Galicia, autonomy, counties, statistics.

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INTRODUCTION

As observed by Eleonora Matuszewska, "regardless of the civilization – be it ancient or modern – these two roles have always been the roles of women and women only: giving birth and helping in childbirth, i.e. performing the duties of a birth assistant or midwife [...]" [Matuszewska E. 2012: 10]. As a result, it was easier for women to participate in the 19th-century labor market which, by adapting to economic and social changes, gradually allowed women to work professionally.

Providing care to new mothers and newborns was in line with the ideas of the 18th-century enlightened absolutism that defined a country's prosperity through population growth stimulated by proper, centralized healthcare from the cradle to the grave, available to members of each and every social stratum [Wereszycki H. 1972: 150-5].2 Having occupied the Polish lands, Empress Maria Theresa decided to send five Vienna-educated physicians to Lviv: two doctors of medicine and three obstetric surgeons. Their job was to establish the Collegium Medicum and organize proper medical service there. One of these physicians, Jedrzej Krupiński, prepared an assessment of the medical and sanitary conditions in Galicia. In the opinion of Władysław Szumowski, a dramatic picture emerges from that assessment: very few professional physicians and severely underqualified barber surgeons and "old women". "There was not even one midwife with any expertise in all of Galicia, where two million people lived" [Szumowski W. 1907: 60]. Under the sanitary regulations of 1773, all medical qualifications were inspected and any persons without a medical license confirming their professional qualifications were banned from performing medical services and encouraged to take up studies at the newly established medical school [Stawiak-Ososińska M. 2019: 96].

Upon gaining autonomy, Galicia delegated part of its authority to local governments. The basic legal acts pertaining to healthcare were the National Act of 30 April 1870 (as amended) and the National Act of 2 February 1891 (as amended). Among other things, the Act imposed an obligation on county authorities to organize maternity care, including free care for poor women [Rejman S. 2010: 405-35]. The activity of midwives

¹ Quote in the article title: Jordan H. [1885: 471].

² There is a growing body of literature on the history of medicine and midwifery: Cekański A., Cekanska J. [2002], *Zawód położnej*... [2004], Waszyński E. [2012], Barszczewski W. [2016], Stawiak-Ososińska M. [2019].

was strictly regulated. On September 10, 1897, the new professional regulations for midwives came into force, replacing the regulations of June 4, 1881. The new provisions defined compulsory equipment for midwives, including medical supplies and literature (a midwifery textbook, a copy of the official midwifery regulations, a childbirth log), formalities necessary to take up professional work, ethical requirements (giving assistance in childbirth as the primary duty before others, professional secrecy), rules for preparation and management of childbirth (with an emphasis on hygiene), caring for new mothers and newborns, public duties of midwives (baptism of newborns, situations in which a physician should be called upon, perinatal procedures to be performed by the midwife herself, obligation to notify the authorities of the suspicion or fact of self-induced miscarriage or feticide, penalties for abortions or switching babies at birth), rules for keeping a childbirth log and register [Matuszewska E. 2012: 58-60]. The regulations embodied the modern approach of the state to the health of its citizens. Piotr Franaszek underlines that in the 19th and 20th century, "public healthcare has become an inseparable element of social policy in all modern states" [Franaszek P. 2002: 9].3

Midwives were educated in midwifery schools. However, their number was insufficient. According to Małgorzata Stawiak-Ossosińska, in the 19th century, there were periods when only five such institutions operated on the lands of the former Republic of Poland [Stawiak-Ososińska M. 2019: 21]. The first midwifery school was established in Lviv in 1773, followed by midwifery courses organized at the Jagiellonian University in 1780 [Matuszewska E. 2012: 56-60, Stawiak-Ososińska M. 2016: 35-54, Rybak J. 1981]. These educational institutions established the admission and graduation requirements, curricula and textbooks, as well as legal regulations governing the work of midwives. On the labor market, midwives had to compete with "old women" who, without formal education, were delivering babies solely on the basis of their experience and knowledge passed on to them by their predecessors. Professional physicians were not favorable towards midwives and believed that they contributed to the transmission of postpartum infections. That allegation was justified at a time when the causes of these infections were unknown, but later on, midwives were obliged to comply with strict sanitary standards [Matuszewska E. 2012: 30-1, 51]. Since midwives were paid from the commune or county budget,

³ Piotr Franaszek has written extensively on the subject of healthcare, publishing statistical data and a monograph Franaszek P. [2001], Franaszek P. [2002].

their services could gradually reach the poorest women, who could not afford to pay for them from their own pocket. Private midwives also existed at the time [Matuszewska E. 2012: 85-91].

It was stressed, however, that their number was still insufficient and the availability of maternity care in cities, towns, and villages differed significantly from that in the largest cities of Galicia – Lviv and Kraków. Piotr Franaszek also pointed out that at the end of the 19th century, one-third of all midwives worked in Western Galicia, and two-thirds – in Eastern Galicia. The greater number of midwives in Eastern Galicia resulted not only from the fact that more people lived there, but also from lower availability of doctors, forcing women to depend primarily on midwives [Franaszek P. 2002: 147]. The research objective here was to analyze changes in the number of midwives and its territorial differentiation between Eastern and Western Galicia and particular counties, with the assumption that in this respect, Eastern Galicia was in a significantly more favorable position than Western Galicia.

Number of midwives in Galicia

The number of midwives in Galicia was reported annually in *Szematyzmy Królestwa Galicyi i Lodomeryi z Wielkiem Księstwem Krakówskiem* [the Administrative yearbooks of the Kingdom of Galicia and Lodomeria with the Grand Duchy of Kraków]. The present analysis included specific census years for all individual Galician counties, as presented in the yearbooks, except for cities functioning on the basis of their own statutes, i.e. Lviv and Kraków, where the number of midwives was incomparably higher. For the years 1869, 1880, and 1890, the overall number of midwives (identified by name) was presented under the heading "In the counties", and then broken down by county in alphabetical order. In 1900 and 1910, the term "In the counties" was replaced by "District and municipal midwives", in compliance with a new law on the organization of pub-

⁴ The list of counties in each of the censuses included Lviv and Kraków, i.e. cities with own statutes, but they were not taken into account in the present analysis, as the number of midwives available in these two administrative areas significantly differed from the number of midwives available in other counties. In 1869, 49 counties were recorded in Eastern Galicia, including Bircza county, incorporated into Dobromil county in 1876. After this change, the administrative yearbooks of 1880 and 1890 included 48 counties. In 1900, Peczeniżyn county was added, and Staremiasto county changed its name to Stary Sambor. In 1910, Zborów county appeared on the list, and the total number of counties increased to 50. For Western Galicia, the administrative yearbooks of 1869, 1880 and 1890 mentioned 26 counties, while in 1900 and 1910 it was 29 counties, as three new counties were added in the meantime: Podgórze, Przeworsk, and Strzyżów.

lic healthcare system in Galicia, enacted by the Sejm in 1891, whereunder each commune governed by their own statute or by the municipal law of 13 March 1889 (i.e. larger and more affluent communes) had to retain a commune physician at their own expense. The remaining communes were combined with other communes from the same county and landed gentry areas into "sanitary districts" under the jurisdiction of the district physician [Franaszek P. 2002: 15-20].

Table 1: Number of midwives in Galician counties in the years 1869, 1880, 1890, 1900, and 1910

	Number of midwives in:									
	1869	1880	1890	1900	1910					
Eastern Galicia*	390	535	610	332	618					
Western Galicia**	129	190	231	239	383					
Total	519	725	841	571	1001					

*excluding Lviv, **excluding Kraków

Source: Galizisches Provinzial-Handbuch [1869: 477-84]; Szematyzm Królestwa ... [1880: 459-69, 1890: 521-33, 1900: 637-43, 1910: 842-52].

Absolute numbers indicate a higher number of midwives in Eastern Galicia and its increase over the studied period: in Eastern Galicia from 390 in 1869 to 618 in 1910; in Western Galicia from 129 to 383; and in the whole country from 519 to 1001. However, the growth was almost twice as rapid in Western Galicia. Taking the 1869 numbers as a reference point (100%), the numbers for 1910 constituted 192% of that reference for the whole of Galicia, 158% for Eastern Galicia, and 296% for Western Galicia.

There is a clear decrease in the number of midwives in Eastern Galicia in 1900 compared to 1890 (from 610 to 332 midwives). In Western Galicia, this decline was much more moderate and could better be described as a cessation of growth than as a decline (231 midwives in 1890 vs. 239 in 1900). This can be explained by a change in the legal regulations concerning the employment of midwives. In 1897, the new "Professional regulations for midwives" came into force, replacing the regulations of 1881. A one-year transitional period was set, during which midwives were to prepare for work in compliance with the new regulations. The requirements were strict and pertained not only to professional skills and medical equipment necessary for work, but also imposed the obligation to know the legal regulations and keep records of their practice (a log and a list of childbirths). These regulations were accompanied by provisions allowing

for severe punishment of women who provided paid childbirth assistance in locations where qualified midwives were available or could easily be reached [Matuszewska E. 2012: 57-60].

NUMBER OF MIDWIVES PER CADASTRAL COMMUNE IN A COUNTY

One of the basic administrative divisions in Galicia was a cadastral commune. The cadaster is an detailed, usually official, description of the property, its size, soil fertility and income, serving as a basis for calculating the due tax. The first attempt to introduce a modern land cadaster, based on land measurements and determination of income from land, was made by Austria in 1718 after the annexation of Lombardy by the Austrian Empire. In the Polish lands, under Austrian rule after the first partition of Poland, the Austrian government began to reassess the land tax based on tax returns as early as in 1772. However, they correctly assumed that, for fear of the imposition of high taxes, such tax returns deviated from reality. In 1785, Emperor Joseph II ordered a tax reform throughout the country, i.e. registering and measuring all land used (farms, meadows, forests) and calculating the taxes due on the basis of land fertility. As a result, the first Galician cadaster (so called "Josephinian cadaster") was established. On this basis, a thorough tax reform and an urbarial reform were carried out in 1789, but soon were revoked after the death of Joseph II in 1790. However, the State Treasury still needed to regulate tax issues, so preparations began for the introduction of a new, permanent cadaster, based on detailed measurements. Since the project was costly, its implementation had to be postponed. In return, between 1819 and 1820, a temporary land cadaster based on the Josephinian cadaster was introduced, taking into account the changes that had taken place in the meantime and the necessary corrections. The result was the so-called Franciscan cadaster which was used for a much longer period than originally assumed. Measurement works for the purpose of preparing the permanent land cadaster in Galicia were conducted from 1819 to 1858 (with interruptions). According to Janina Stoksik, the conventional date for the establishment of the land cadaster in Galicia is 1848. As a result, the territory of Galicia was precisely delineated for the first time, on a map based on triangulation [Grzybowski K. 1982: 406-9, Mika M. 2010: 75-85, Stoksik J. 1975: 165-87, 338; Wolski J. 2000: 199-212].

During the period of Galician autonomy, there was not even a single midwife per cadastral commune within each county. The exception was Przemyśl county, where in 1869 there were 2.5 midwives per commune. However, this ratio does not reflect an exceptionally high number of midwives, but rather a small number of cadastral communes within the county. In that year, only two communes were recorded in the administrative yearbook, while in 1880, there were as many as 68, which significantly changed the result to 0.06 midwives per commune. The conducted statistical grouping shows clear and systematic changes in the number of counties representing different ranges (classes) of data values that are used to describe the availability of midwives in Galicia. In Eastern Galicia during the period of autonomy, in the studied years, there was at least one midwife in each county, which resulted in minimum values greater than zero. A clear shift of the statistical mode, i.e. the value that appears most often in a set of data values, to higher classes, is also visible. In 1869, the first two classes, with ratios of 0.00-0.05 (13 counties) and 0.06-0.10 (12 counties), were the most numerous. In 1880, the most numerous classes were the second (0.06-0.10) with 11 counties, the third (0.11-0.15) with 11 counties, and the fifth (0.21-0.30) with 12 counties. In 1890, the most numerous classes were the fourth (0.16–0.20) and the fifth (0.21–0.30), both with 13 counties. In 1900, there was a break in the upward trend. Once again, the first three classes were the most numerous, covering in total more counties than the analogous classes in 1869 (0.00-0.05 - 17 counties; 0.06-0.10 - 14 counties; 0.11-0.15 - 11 counties). The ratio increased again in 1910, with the second (0.06-0.10; 14 counties) and fourth classes (0.16-0.20; 12 counties) being the most numerous. In that year, higher classes are also represented, usually by two to three counties.

The counties with the lowest ratio of midwives per cadastral commune in the whole studied period were the following: Lisko county (which had not qualified for the second class until 1910, and even then barely made it), Sanok county (qualifying for higher classes in the years 1890 and 1900, only to fall back to the first class in 1910), and Rudki county (qualifying for the first class in all census years under study except for 1910). In 1910, the first class also included Przemyśl county (with slightly better results in 1869, 1880, and 1890; in the first class since 1900), Rawa county (also in the first class in 1900, earlier with slightly better ratios, and a maximum ratio of 0.18 in 1890), the newly established Zborów and Borszczów counties (also qualifying for the first class in 1900, down from higher classes). A good example of advancement in the ranking is Kałusz county, which

Number of	Eastern Galicia						Western Galicia				
midwives per cadastral commune	1869	1880	1890	1900	1910	1869	1880	1890	1900	1910	
0.00-0.05	13	5	3	17	5	16	10	9	14	5	
0.06-0.10	12	11	8	14	14	6	8	10	4	8	
0.11-0.15	9	11	9	11	5	3	7	2	3	5	
0.16-0.20	7	5	13	2	12	0	0	2	4	2	
0.21-0.30	3	12	13	2	5	1	1	3	3	4	
0.31-0.40	3	3	2	2	3	0	0	0	1	3	
0.41-0.50	0	1	0	1	2	0	0	0	0	1	
0.51-0.60	0	0	0	0	2	0	0	0	0	1	
0.61-0.70	0	0	0	0	2	0	0	0	0	0	
> 0.71	1	0	0	0	0	0	0	0	0	0	
Total	48*	48	48	49	50	26	26	26	29	29	

Table 2: Number of midwives per cadastral commune in Galician counties in the years 1869, 1880, 1890, 1900, and 1910

Source: *Galizisches Provinzial-Handbuch* [1869: 12-80, 477-84]; *Szematyzm Królestva...* [1880: 11-39, 459-69, 1890: 11-40, 521-33, 1900: 12-54, 637-43, 1910: 14-63, 842-52 [and other years]; own estimates.

in 1869 and 1880 qualified for the first class, in 1890 – the second class, and in the following years advanced to even higher classes with ratios of 0.23 (1900) and 0.20 (1910).

The counties with the best ratios were the following: Śniatyń (throughout the whole studied period), Horodenka (which entered the group of counties with the highest ratio in 1890), Kołomyja (which remained among the top counties although its position began to weaken in 1900). The counties of Tarnopol, Trembowla, and Brzozów also recorded high ratios (with the exception of 1869).

In Western Galicia, it was assumed that there was not a single midwife in the counties of Gorlice, Grybów, and Ropczyce in 1869, and in Limanowa county in 1880. This assumption was based on the fact that not a single midwife's name was recorded in that year, and sometimes also in subsequent years, and only one name was recorded in previous or subsequent years, which suggests a vacancy in the position caused e.g. by death or dismissal of the only midwife employed in the county. Therefore, unlike in Eastern Galicia, there were cases where the number of midwives per ca-

^{*} no data for Dobromil county in 1869, ** It has been assumed that in 1869, there was not a single midwife in the counties of Gorlice, Grybów. and Ropczyce, and in 1880 – in Limanowa county, as shown by previous and subsequent census years. This remark also applies to subsequent Tables.

dastral commune equaled zero. However, the maximum values were similar: in Western Galicia it was 0.64, in Wadowice county in 1910, and in Eastern Galicia, 0.63 in Śniatyń county and 0.67 in Horodenka county that same year.

The gradual increase of the ratio in Western Galicia, with a break in the upward trend in 1900, was similar to that observed in Eastern Galicia, although more moderate. In 1869, more than half of the counties (16 out of 26) qualified for the first class and six – for the second class. In the subsequent years, there was a shift: in 1880, the first class included 10 counties, the second class – 8, and the third class – 7, whereas in 1890, the number of counties in these classes equaled, respectively, 9, 10, and 2. In 1900, the first class was again the most numerous (14 counties). In 1910, the first three classes were represented more evenly (5, 8, and 5 counties, respectively); the next three classes were represented by several counties each; and in the case of the last two classes, the number increased from zero to one.

The group of counties with the lowest ratios in the whole period under study includes Limanowa (qualifying for the first class from 1869 to 1910), Mielec (likewise, except for the year 1880, when it qualified for the second class), Nowy Sącz (which advanced from the first to the second class in 1880 and 1890, and then again was downgraded to the first class). A downgrade was also observed in Rzeszów county, which in 1869 and 1890 qualified for the second class, in 1880 – the third, and in 1900 and 1910 – the first. In 1910, in addition to the above-mentioned counties, the first class also included the county of Żywiec, which was quite surprising, taking into account its results from previous years, especially 1890, when it qualified for the fifth class with the maximum ratio of 0.21.

The highest ratio among the counties of Western Galicia was recorded in Biała county, ranking first in the years 1869, 1880, and 1890, and remaining at the forefront in 1900 and 1910. The county of Wadowice ranked high throughout the years, reaching the top position in 1910, with the ratio of 0.64 midwives per cadastral commune. The following counties also saw great results: Łańcut and Tarnobrzeg (except for 1869, when they qualified for the first class), Nisko (except for 1880, when it qualified for the first class), Myślenice, Kraków (from 1890), and Brzesko (from 1900).

NUMBER OF MIDWIVES PER 10 SQUARE KILOMETERS OF COUNTY AREA

Cadastral communes differed in size. Calculating the number of midwives per unit of area in a given county (in this case per 10 square kilometers, due to low values per square kilometer) allows one to standardize the basis for comparison. In the administrative yearbooks of 1869, the area of counties was recorded in square miles. In subsequent years, it was recorded in myriameters, even though the metric system had been in force since 1876, introduced by the Act of 1871, which replaced the Lower Austrian (Viennese) system of measurement in force since 1857. One myriameter was equal to 1.737727 square miles, whereas one square mile was equal to 7377 morgens and 432 fathoms. One Lower Austrian morgen was equal to 1600 square fathoms and 5755.4 square meters [Ihnatowicz I., Biernat A. 2003: 35, 46; Pietrzycki E. 1873: 17, 24]. One square meter equals 0.000001 square kilometers. The Galician Statistical Yearbook, later published under the title "Galician Statistical Textbook", included data on the area of counties for each census year in square kilometers, and served as a source for the purpose of this article.⁵ Upon adding up the obtained data on the area of counties in 1910, the results were as follows: Eastern Galicia covered the area of 54,038 square kilometers, while Western Galicia, with the total area of 22,788 square kilometers (excluding Lviv and Kraków), was less than half as large.

The number of midwives per 10 square kilometers in a county barely came close to 1, and only in a few counties in Western Galicia. The maximum ratios equaled 0.78 in Wadowice county in 1910, and 0.72 in Kraków county in 1900. Excluding three other counties in Western Galicia (Kraków, Podgórze, Przeworsk), where in 1910 the ratio fluctuated between 0.5 and 0.6, the vast majority of the remaining counties did not even come close to 0.5 throughout the studied years. The classes with lower ratios are much more numerous in comparison with the analysis of the number of midwives per cadastral commune, especially in Eastern Galicia.

In 1869, most counties in this region qualified for the first (0.00-0.05; 22 counties) and second classes (0.06-0.10; 14 counties). In subsequent years, the statistical mode gradually shifted, from the first to the second class in 1880 (0.06-0.10; 16 counties), and then to the third class (0.11-0.15; 15 counties)

 $^{^{5}}$ For the years 1869 and 1890, the county area was calculated by dividing the number of civilian residents there by the civilian population density.

Number of midwives		East	ern Ga	licia		Western Galicia					
per 10 square kilometers	1869	1880	1890	1900	1910	1869	1880	1890	1900	1910	
0.00-0.05	22	11	7	26	13	16	8	10	12	6	
0.06-0.10	14	16	14	15	12	6	12	8	6	7	
0.11-0.15	7	11	15	5	15	2	1	3	5	2	
0.16-0.20	3	8	9	1	1	1	3	1	1	4	
0.21-0.30	2	1	3	1	4	1	2	3	3	5	
0.31-0.40	0	1	0	1	3	0	0	1	1	1	
0.41-0.50	0	0	0	0	2	0	0	0	0	0	
0.51-0.60	0	0	0	0	0	0	0	0	0	3	
0.61-0.70	0	0	0	0	0	0	0	0	0	0	
> 0.71	0	0	0	0	0	0	0	0	1	1	
Number of counties (excluding Lviv and Kraków)	48*	48	48	49	50	26	26	26	29	29	

Table 3: Number of midwives per 10 square kilometers in Galician counties in the years 1869, 1880, 1890, 1900, and 1910

Source: Galizisches Provinzial-Handbuch [1869: 12-80, 477-84; Szematyzm Królestwa... [1880: 11-39, 459-69; 1890: 11-40, 521-33; 1900: 12-54, 637-43; 1910: 14-63, 842-52, and other years]; Bevölkerung und Viehstand, I Heft (1871): 238-243; Rocznik Statystyki Galicyi Rok II 1887 i 1888 [1889: 4-6, 9-14]; Rocznik Statystyki Galicyi Rok IV 1893-1893 [1893: 12-23]; Podręcznik Statystyki Galicyi Tom VII część pierwsza [1903: 5-7]; Podręcznik Statystyki Galicyi Tom XI część pierwsza [1913: 5-6, 9-10]; own estimates.

counties) in 1890. In 1900, the first and second class (with 26 and 15 counties, respectively) were again the most numerous, whereas in 1910, the first three classes (with 13, 12, and 15 counties, respectively) were more or less equally represented.

In the group of counties with the lowest ratios, it is difficult to distinguish specific examples, because there were so many. Lisko and Turka counties qualified for the first class throughout the whole period under study. Similarly, Rawa and Cieszanów counties remained in the first class throughout the years, with the exception of 1890. This class also included the counties of Borszczów (in 1900 and 1910, earlier qualifying for classes with higher ratios) and Zborów (in 1910). The county of Przemyśl recorded a significant downgrade. In 1869 and 1880, it qualified for the third class, in 1890 for the fourth, and in 1900 and 1910, for the first class again, coming in last (with the ratio of 0.01) *ex aequo* with Rawa county.

^{*} no data for Dobromil county in 1869

The group of counties with a consistently high ratio included Śniatyń, Tarnopol, Trembowla, Kołomyja, Horodenka, and Brzozów (with the exception of 1869, when these counties belonged to the first class). The highest ratio was recorded in 1910 in Brzozów county (0.45) and Śniatyń county (0.43).

In Western Galicia, the process of advancement from lower to higher classes came to a halt earlier than in Eastern Galicia – already in 1890. In 1869, the first (with 16 counties) and second classes (with 6 counties) were the most numerous. In 1880, the second class (with 18 counties) and the first class (with 8 counties) were the most numerous. In 1890 and 1900, the first class was again the most numerous (with 10 and 12 counties, respectively). In 1910, the second class (with 7 counties) was slightly more numerous than the first (with 6 counties). It was also in that year when the classes with higher ratios were more numerous than in previous years or gained their first representatives among the counties of Western Galicia.

The counties that qualified for the first class in all the studied years were Gorlice, Limanowa, and Nowy Targ. In the years 1869, 1880, and 1890, the counties of Nowy Sącz and Rzeszów qualified for the second class, falling to the first class in 1900 and 1910. Żywiec county frequently shifted from one class to another. In 1869, it belonged to the first class, in 1880 – to the second, in 1890 – to the third, in 1900 – back to the second, and in 1910 – again to the first class.

The highest ratios in the studied period were recorded in the following counties: Wadowice and Wieliczka; Brzesko and Kraków (except for 1869, when they belonged to the first class); and, ever since their establishment, the counties of Podgórze and Przeworsk (in 1900 and 1910). In the counties of Western Galicia, some individual ratios were significantly higher than in Eastern Galicia (the maximum value of 0.78 in Western Galicia compared to the maximum value of 0.45 in Eastern Galicia), but such differences were observed only for maximum values. For most top Galician counties in a given year, the ratio fluctuated around 0.3.

NUMBER OF MIDWIVES PER 10,000 CIVILIANS IN A COUNTY

The number of midwives per administrative unit or area unit is purely formal – it is worth noting, though, that midwifery was part of healthcare, and that any state aspiring to modernity tried to provide to all of its

Number of		East	ern Ga	licia		Western Galicia				
midwives per 10,000 civilians	1869	1880	1890	1900	1910	1869	1880	1890	1900	1910
0.00-0.49	7	4	3	21	5	12	6	5	11	4
0.50-0.99	18	12	5	17	21	11	12	11	9	8
1.00-1.49	12	10	16	6	10	1	5	5	2	6
1.50-1.99	6	14	18	3	4	0	2	2	3	1
2.00-2.49	2	7	6	1	2	2	1	2	2	5
2.50-2.99	2	1	0	1	5	0	0	1	1	2
3.00-3.49	1	0	0	0	1	0	0	0	0	0
3.50-3.99	0	0	0	0	2	0	0	0	0	1
4.00 and more	0	0	0	0	0	0	0	0	1	2
Number of counties (excluding Lviv and Kraków)	48*	48	48	49	50	26	26	26	29	29

Table 4: Number of midwives per 10,000 civilians in Galician counties in the years 1869, 1880, 1890, 1900, and 1910

*no data for Dobromil county in 1869. Source: as in Table 3, own estimates.

citizens. Therefore, the number of midwives per 10,000 civilians in a county (i.e. with the military population excluded) also had to be analyzed. The population data was obtained from censuses. The ratios thus calculated are higher than those discussed above, therefore different classes were formed as a result of statistical grouping. The minimum ratio (except for four cases in which there was no midwife in a county in a given year) fluctuated around 0.1 midwife per 10,000 civilians (the lowest value being 0.06 in Przemyśl county in 1910). The maximum ratio fluctuated around 3 midwives per 10,000 civilians (in Eastern Galicia, the highest value was 3.81 in Brzozów county in 1910; in Western Galicia, there were three results in excess of 4, namely, 5.45 in Wadowice and 4.21 Przeworsk in 1910, and 4.16 in Kraków in 1900).

The distribution of values in Eastern Galicia is similar to that already discussed above in relation to the previous ratios, but seems to indicate a more pronounced upward trend. In 1869, the second class (0.50–0.99 midwives per 10,000 civilians – 18 counties) and the third (1.00–1.49 – 12 counties) were the most numerous. Some of the higher classes were also represented to some degree. In 1880, the most numerous classes were the second (12 counties), the third (10 counties), and the fourth (1.50–

1.99 – 14 counties). The fifth class (2.00–2.49) included 7 counties. In 1890, there was a shift by one class, with the third (1.00–1.49 – 16 counties) and fourth classes (1.50–1.99 – 18 counties) being the most numerous. The fifth class (2.00–2.49) included 6 counties. The break in the upward trend took place in 1900, when the classes with the lowest ratios – the first (0.00–0.49 – 21 counties) and the second (0.50–0.99 – 17 counties) were the most numerous. These numbers also represent the lowest results in the whole studied period. The year 1910 saw an improvement of the situation, with most of the counties in the second (21) and third (10) class. The higher classes were also more numerously represented than before, for example two counties entered the class of 3.50–3.99 for the first time.

In Western Galicia, the ratios and the upward trend seem to be slightly smaller and less significant than in Eastern Galicia. In 1869, most counties belonged to the first (0.00–0.49 – 12 counties) and second classes (0.50–0.99 – 11 counties). In 1880, the second class was the most numerous (11 counties), followed by the first class with 6 counties and the third class (1.00–1.49) with 5 counties. A similar distribution was observed for 1890: the second class was represented by 11 counties, the first and third class had 5 counties each, and the higher classes were slightly more numerous. The break in the trend became evident in 1900, with the first class represented by 11 counties and the second class by 9 counties. The subsequent classes were as numerous as in 1890, and one county even qualified for the first time to the top class (ratio of 4.00 and more). In 1910, a shift by one class was observed – the second class was the most numerous (8 counties). The subsequent classes, including those with the highest ratios (the last class – 2 counties; the second to last – 1 county), were also represented.

The variability of the ratios for individual counties was high. Only Lisko county consistently qualified for the first class, and did not advance to the second class until 1910. The first class also included the counties of Borszczów (in 1900 and 1910) and Zborów (in 1910). The ratio decreased in Rawa, Przemyśl, and Buczacz counties. In 1900 and 1910, they qualified for the first class, with the lowest ratio recorded in Przemyśl county. In previous years, these counties qualified for higher classes, including Buczacz county, which in 1890 qualified for the fifth class. Horodenka county advanced significantly, from the first class in 1869 to the eighth class in 1910, when it achieved the highest ratio among all the counties. The Kałusz county advanced from the first class in 1869 to the third class in 1910. The Podhajce, Cieszanów, and Staremiasto/Stary Sambor counties advanced from the first to the second class.

The counties with the highest ratios were Śniatyń, Tarnopol, and Trembowla. Brzozów and Rohatyn counties joined the group of counties with the ratio above 3.0, having advanced from the second class. Another county that systematically advanced through the ranks to the very top was Horodenka, which in 1869 belonged to the first class.

In Western Galicia, the lowest values in all the years under study were recorded in Limanowa county. In 1910, Żywiec, Rzeszów, and Nowy Sącz counties also fell to the first class, even by as much as three classes, as in the case of Żywiec county, which qualified for the fourth class (1.50–1.99) in 1890. A slight decline from the second to the first class in 1900 and 1910 was recorded by the counties of Grybów and Pilzno. The counties of Jasło and Krosno improved their ratings and advanced from the first class in 1869 to the second (Jasło) or the third (Krosno). The counties of Brzesko, Łańcut, and Kraków saw a significant improvement of the ratio, advancing from the first class in 1869 to the top in 1910, with ratios of 2.49, 2.78, and 3.63, respectively.

Wadowice was also one of the counties with the highest ratios in the years under study, together with Przeworsk and Podgórze counties. The ratio increased in the counties of Nisko, Tarnów, and Wieliczka, which in 1869 all qualified for the second class. Myślenice county, which qualified for the first class in 1869, in 1910 ranked seventh with the ratio of 2.47.

NUMBER OF MIDWIVES PER 10,000 WOMEN IN A COUNTY

Calculating the number of midwives per 10,000 women better reflects the nature of their work and the availability of their services, at least in theory. In Eastern Galicia, the results obtained by applying this method of calculation were the best of all the measures discussed in this article. In 1869, 1880, and 1890, the first class (0.00–0.99 midwives per 10,000 women) was small and decreasing. In 1869, the most numerous classes were the second (1.00–1.99 – 17 counties) and the third (2.00–2.99 – 13 counties). In 1880, the most numerous classes were the second (13 counties), the third (11 counties), and the fourth (3.00–3.99 – 13 counties). In 1890, the statistical mode was found in the fourth class (19 counties), with the third class also numerously represented (16 counties). In 1900, the ratio decreased and most counties fell to the first (20 counties) and second classes (18 counties). In 1910, the situation was much better, with the second class being the most

Number of midwives per 10,000 women		East	ern Ga	licia	Western Galicia					
	1869	1880	1890	1900	1910	1869	1880	1890	1900	1910
0,00-0,99	7	4	3	20	5	12	7	5	13	4
1,00-1,99	17	13	5	18	22	11	11	11	7	9
2,00-2,99	13	11	16	6	10	1	5	6	3	5
3,00-3,99	6	13	19	3	4	1	2	2	2	1
4,00-4,99	3	6	5	1	2	1	1	1	2	5
5,00-5,99	1	1	0	1	5	0	0	1	1	2
6,00-6,99	1	0	0	0	1	0	0	0	0	0
7.00 and more	0	0	0	0	1	0	0	0	1	3
Number of counties (excluding Lviv and Kraków)	48*	48	48	49	50	26	26	26	29	29

Table 5: Number of midwives per 10,000 women in Galician counties in the years 1869, 1880, 1890, 1900, and 1910

Source: as in Table 3, also Osterreichische Statistik... [1882: 166-87], own estimates.

numerous (22 counties), followed by the third (10 counties). The remaining classes were also filled, including the top class, with ratios of 7.00 and higher, represented by the county of Brzozów.

In 1869, Western Galicia had lower ratios than Eastern Galicia, with the vast majority of the counties in the first (12 counties) and the second (11 counties) class. In 1880 and 1890, the number of counties in the first class decreased slightly to the advantage of the third class, while the second class remained the most numerous (11 counties). Due to the slow increase of the ratio, the break in the upward trend in 1900 was not that significant – the first class consisted of 13 counties, the second – 7, and the remaining classes comprised several counties each. In 1910, the second class was the most numerous, represented by 9 counties, while the subsequent classes (except for the second to last) saw an improvement. Three counties qualified for the last class.

In 1910, in Eastern Galicia, there were only five counties in the first class. All of them, except for the newly established Zborów county, had previously had higher ratios, especially in 1890: Przemyśl (fourth class), Rawa (third class), Borszczów (fourth class), Zborów (new county), and Buczacz (fifth class). From among the counties that qualified for the first

^{*} no data for Dobromil county in 1869

class in 1869, the county of Lisko advanced slightly (to the second class in 1910). In 1910, after some fluctuations, Podhajce, Staremiasto/Stary Sambor and Cieszanów counties also qualified for this class. Kałusz county qualified for the third class. The highest increase in the ratio was recorded in Horodenka county, which in 1869 and 1880 belonged to the first class and in 1910 to the second-to-last class with a ratio of 6.96, ranking second among all of the counties.

The highest ratios in Eastern Galicia were recorded in counties that remained in the lead throughout the studied period, although in most cases, they still advanced in comparison to 1869: Śniatyń (from the fourth class); Trembowla, Doliniany, and Żółkiew (from the third class). Brzozów county advanced the most, from the second class in 1869, to the very top with the maximum ratio of 7.20 in 1910. In contrast, Tarnopol county, with the ratio of 6.65 in 1869, recorded a decrease to 5.29 in 1910.

In Western Galicia in 1910, the first class included four counties: Limanowa, Żywiec, Rzeszów, and Nowy Sącz. Limanowa county remained in the first class throughout the studied years. Żywiec county qualified for the first class in 1869 and in 1910. Rzeszów and Nowy Sącz counties recorded slight decreases compared to previous years. Among the remaining counties that qualified for the first class in 1869, a slight advancement was recorded for Gorlice, Grybów, Pilzno, and Nowy Targ counties (to the second class), as well as Ropczyce and Krosno counties (to the third class). The following counties saw a significant advancement in the ranking: Kraków (top class with the ratio of 7.29 in 1910), Łańcut (sixth class with the ratio of 5.38 in 1910), Brzesko and Tarnobrzeg (both in the fifth class).

In addition to the above-mentioned counties, the highest ratios in Western Galicia in 1910 were also recorded in Wadowice (10.51) and Przeworsk (8.27). In previous years, both counties had also been among the top ones, and still further improved their position in the ranking in 1910. Nisko county advanced significantly, from the second class in 1869 to the sixth in 1910. The following counties recorded a decrease: Biała (from the fifth class in 1869 to the second in 1910) and Dąbrowa (from the fourth in 1869 to the third in 1910).

CONCLUSIONS

The analysis of the absolute number of midwives indicates that in all the studied years, there were indeed more midwives in Eastern than in Western Galicia, despite a significant decline in their number in 1900, which could have resulted from a change in legal regulations governing the work of midwives. In Western Galicia, the number of midwives increased steadily and the rate of growth was significant. The number of midwives per cadastral commune, per 10,000 square kilometers, per 10,000 civilians and per 10,000 women also shows that the situation was steadily, although slowly, improving, and that the break in the upward trend of 1900 was more severe in Eastern Galicia. In general, the counties of Eastern Galicia performed better as a whole but, with the exception of the number of midwives per cadastral commune, individual counties in Western Galicia achieved higher ratios.

The position of individual counties in the ranking changed, depending on the year and the specific measure. However, in Eastern Galicia, Lisko county, inhabited among others by Vlachs and Lemkos, ranked the worst due to its weak economic position and unfavorable natural conditions: "[...] half of the area is covered by forest and grazing land in mountain areas, the rest is mainly rye and oat fields and meadows" [Słownik geograficzny..., vol. V: 314]. The following counties had the highest ratios: Horodenka, Śniatyń, Tarnopol, Trembowla, and Brzozów, which had more favorable natural conditions. The following was written about Horodenka county: "[...] located in Pokuttya, it has very fertile soil and warm climate, perfect for tobacco and corn plantations" [Słownik geograficzny..., vol. III: 134]. Extensive agricultural production served as a basis for the development of the processing industry and agricultural trade and export. Trade was facilitated by a well-developed road network. There was, however, no railway, and the nearest station was in Śniatyń. Śniatyń county, also a part of Pokuttya, had a well-developed road and railway network. Corn, wheat, tobacco, hemp, sugar beets, rye, oats, and potatoes were cultivated on fertile steppe soils. Cattle and sheep farming also constituted an important part of the local economy. Most residents of the counties of Tarnopol and Trembowla also supported themselves from agriculture and the processing industry. A railway line ran through both counties. The county of Brzozów also had good soils and fertile forests, while the city itself was the object of special care and attention of the bishops of Przemyśl [Słownik *geograficzny...*, vol. X: 932-3; vol. XII: 192-4, 468-70; vol. I: 424-5].

In Western Galicia, Limanowa county ranked the worst. It was described as "[...] a hilly and mountainous region of average fertility" [Słownik geograficzny..., vol. V: 232], with mostly rye soils. Highly populated counties with fertile soils and strong urban centers, which stimulated the development of agricultural production for the needs of cities (e.g. vegetable cultivation) and offered the possibility of earning additional income, such as the county of Kraków, ranked the best. The residents of Kraków county were described as savvy and prudent in taking advantage of opportunities to gain additional income [Słownik geograficzny..., vol. IV: 600-1]. Brzesko county enjoyed a reputation as one of the "[...] most populous, richest, and most culturally advanced counties of Galicia" [Słownik geograficzny..., vol. I: 408]. Łańcut county was also densely populated. Its northern part, a remnant of the former Sandomierz Forest, was economically neglected, but the transport network, both road and railway, was well-developed [Słownik geograficzny..., vol. V, p. 582-3]. In that regard, it was similar to Wadowice county, which "[...] in terms of transportation, was one of the best in Western Galicia" [Słownik geograficzny..., vol. XII: 586]. Other geographical conditions of Wadowice county were not particularly favorable, due to the constant threat of flooding by the Skawa river combined with rather infertile soils. From among the new counties, Podgórze owed its high rank to its location in the vicinity of Kraków, among other factors, while Przeworsk benefited from a railway line and sugar factory established in 1895 [Słownik geograficzny..., vol. VIII: 380; vol. IX: 183].

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